



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

September 23, 2019

Mr. William R. Gideon
Site Vice President
Brunswick Steam Electric Plant
Duke Energy Progress, LLC
8470 River Rd., SE (M/C BNP001)
Southport, NC 28461

SUBJECT: BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2 – ISSUANCE OF
AMENDMENT NOS. 293 AND 321 TO ADOPT TSTF-439, REVISION 2,
“ELIMINATE SECOND COMPLETION TIMES LIMITING TIME FROM
DISCOVERY OF FAILURE TO MEET AN LCO” (EPID L-2018-LLA-0220)

Dear Mr. Gideon:

The U.S. Nuclear Regulatory Commission (the Commission) has issued the enclosed Amendment Nos. 293 and 321 to Renewed Facility Operating License Nos. DPR-71 and DPR-62 for Brunswick Steam Electric Plant, Units 1 and 2, respectively. These amendments are in response to your license amendment request dated August 14, 2018, as supplemented by letters dated February 8, 2019, and May 16, 2019.

The amendments adopt Technical Specifications Task Force (TSTF) Traveler TSTF-439, Revision 2, “Eliminate Second Completion Times Limiting Time from Discovery of Failure to Meet an LCO [Limiting Condition for Operation].” The change deletes second completion times from the affected required actions contained in the Technical Specifications, removes the example contained in Technical Specification Section 1.3, and adds a discussion about alternating between conditions.

A copy of the related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission’s biweekly *Federal Register* Notice.

Sincerely,

A handwritten signature in cursive script, reading "Dennis J. Galvin".

Dennis J. Galvin, Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-325 and 50-324

Enclosures:

1. Amendment No. 293 to DPR-71
2. Amendment No. 321 to DPR-62
3. Safety Evaluation

cc: Listserv



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

DUKE ENERGY PROGRESS, LLC

DOCKET NO. 50-325

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 293
Renewed License No. DPR-71

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment filed by Duke Energy Progress, LLC (the licensee), dated August 14, 2018, as supplemented by letters dated February 8, 2019, and May 16, 2019, 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 Renewed Facility Operating License No. DPR-71 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 293, are hereby incorporated in the license. Duke Energy Progress, LLC 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 120 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Undine Shoop, Chief
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Renewed Facility
Operating License and
Technical Specifications

Date of Issuance: September 23, 2019

ATTACHMENT TO LICENSE AMENDMENT NO. 293

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 1

RENEWED FACILITY OPERATING LICENSE NO. DPR-71

DOCKET NO. 50-325

Replace page 6 of Renewed Facility Operating License No. DPR-71 with the attached revised page 6.

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.

<u>Remove Page</u>	<u>Insert Page</u>
1.3-3	1.3-3
1.3-6	1.3-6
1.3-7	1.3-7
3.7-5	3.7-5
3.7-6	3.7-6
3.8-2	3.8-2
3.8-3	3.8-3
3.8-5	3.8-5
3.8-7	3.8-7
3.8-8	3.8-8
3.8-9	3.8-9
3.8-34	3.8-34
3.8-35	3.8-35
3.8-36	3.8-36

(c) Transition License Conditions

1. Before achieving full compliance with 10 CFR 50.48(c), as specified by 2. below, risk-informed changes to the licensee's fire protection program may not be made without prior NRC review and approval unless the change has been demonstrated to have no more than a minimal risk impact, as described in 2. above.
2. The licensee shall implement the modifications to its facility, as described in Table S-1, "Plant Modifications Committed," of Duke letter BSEP 14-0122, dated November 20, 2014, to complete the transition to full compliance with 10 CFR 50.48(c) by the startup of the second refueling outage for each unit after issuance of the safety evaluation. The licensee shall maintain appropriate compensatory measures in place until completion of these modifications.
3. The licensee shall complete all implementation items, except item 9, listed in LAR Attachment S, Table S-2, "Implementation Items," of Duke letter BSEP 14-0122, dated November 20, 2014, within 180 days after NRC approval unless the 180th day falls within an outage window; then, in that case, completion of the implementation items, except item 9, shall occur no later than 60 days after startup from that particular outage. The licensee shall complete implementation of LAR Attachment S, Table S-2, Item 9, within 180 days after the startup of the second refueling outage for each unit after issuance of the safety evaluation.

- C. This renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; and is subject to all applicable provisions hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 2923 megawatts thermal.

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 293, are hereby incorporated in the license. Duke Energy Progress, LLC shall operate the facility in accordance with the Technical Specifications.

For Surveillance Requirements (SRs) that are new in Amendment 203 to Renewed Facility Operating License DPR-71, the first performance is due at the end of the first surveillance interval that begins at implementation of Amendment 203. For SRs that existed prior to Amendment 203, including SRs with modified acceptance criteria and SRs whose frequency of

1.3 Completion Times

DESCRIPTION (continued)

The above Completion Time extension does not apply to those Specifications that have exceptions that allow completely separate re-entry into the Condition (for each division, subsystem, component or variable expressed in the Condition) and separate tracking of Completion Times based on this re-entry. These exceptions are stated in individual Specifications.

The above Completion Time extension does not apply to a Completion Time with a modified "time zero." This modified "time zero" may be expressed as a repetitive time (i.e., "once per 8 hours," where the Completion Time is referenced from a previous completion of the Required Action versus the time of Condition entry) or as a time modified by the phrase "from discovery . . ."

EXAMPLES

The following examples illustrate the use of Completion Times with different types of Conditions and changing Conditions.

EXAMPLE 1.3-1

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. Required Action and associated Completion Time not met.	B.1 Be in MODE 3.	12 hours
	<u>AND</u> B.2 Be in MODE 4.	36 hours

Condition B has two Required Actions. Each Required Action has its own separate Completion Time. Each Completion Time is referenced to the time that Condition B is entered.

(continued)

1.3 Completion Times

EXAMPLES
(continued)

EXAMPLE 1.3-3

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One Function X subsystem inoperable.	A.1 Restore Function X subsystem to OPERABLE status.	7 days
B. One Function Y subsystem inoperable.	B.1 Restore Function Y subsystem to OPERABLE status.	72 hours
C. One Function X subsystem inoperable. <u>AND</u> One Function Y subsystem inoperable.	C.1 Restore Function X subsystem to OPERABLE status. <u>OR</u> C.2 Restore Function Y subsystem to OPERABLE status.	12 hours 12 hours

(continued)

1.3 Completion Times

EXAMPLES

EXAMPLE 1.3-3 (continued)

When one Function X subsystem and one Function Y subsystem are inoperable, Condition A and Condition B are concurrently applicable. The Completion Times for Condition A and Condition B are tracked separately for each subsystem, starting from the time each subsystem was declared inoperable and the Condition was entered. A separate Completion Time is established for Condition C and tracked from the time the second subsystem was declared inoperable (i.e., the time the situation described in Condition C was discovered).

If Required Action C.2 is completed within the specified Completion Time, Conditions B and C are exited. If the Completion Time for Required Action A.1 has not expired, operation may continue in accordance with Condition A. The remaining Completion Time in Condition A is measured from the time the affected subsystem was declared inoperable (i.e., initial entry into Condition A).

It is possible to alternate between Conditions A, B, and C in such a manner that operation could continue indefinitely without ever restoring systems to meet the LCO. However, doing so would be inconsistent with the basis of the Completion Times. Therefore, there shall be administrative controls to limit the maximum time allowed for any combination of Conditions that result in a single contiguous occurrence of failing to meet the LCO. These administrative controls shall ensure that the Completion Times for those Conditions are not inappropriately extended.

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. One required NSW pump inoperable for reasons other than Condition A.	<p>B.1 -----NOTE----- Enter applicable Conditions and Required Actions of LCO 3.8.1 for DGs made inoperable by NSW. -----</p> <p>Restore required NSW pump to OPERABLE status.</p>	7 days
C. One required conventional service water (CSW) pump inoperable.	<p>C.1 Verify the one OPERABLE CSW pump and one OPERABLE Unit 1 NSW pump are powered from separate 4.16 kV emergency buses.</p> <p><u>AND</u></p> <p>C.2 Restore required CSW pump to OPERABLE status.</p>	<p>Immediately</p> <p>7 days</p>

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action C.1 and associated Completion Time not met.	D.1 Restore required CSW pump to OPERABLE status.	72 hours
E. Two required CSW pumps inoperable.	<p>E.1 -----NOTE----- Enter applicable Conditions and Required Actions of LCO 3.7.1, "Residual Heat Removal Service Water (RHRSW) System," for RHRSW subsystems made inoperable by CSW.</p> <p>Restore one required CSW pump to OPERABLE status.</p>	72 hours
F. One required NSW pump inoperable.	F.1 Restore required NSW pump to OPERABLE status.	72 hours
<u>AND</u> One required CSW pump inoperable.	<p><u>OR</u></p> <p>F.2 Restore required CSW pump to OPERABLE status.</p>	72 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>B. -----NOTES-----</p> <p>1. Only applicable when Unit 2 is in MODE 4 or 5.</p> <p>2. Condition B shall not be entered in conjunction with Condition A.</p> <p>-----</p> <p>Two Unit 2 offsite circuits inoperable due to one Unit 2 balance of plant circuit path to the downstream 4.16 kV emergency bus inoperable for planned maintenance.</p> <p><u>AND</u></p> <p>DG associated with the affected downstream 4.16 kV emergency bus inoperable for planned maintenance.</p>	<p>B.1 Declare required feature(s) with no power available inoperable when the redundant required feature(s) are inoperable.</p> <p><u>AND</u></p> <p>B.2 Perform SR 3.8.1.1 for OPERABLE offsite circuit(s).</p> <p><u>AND</u></p> <p>B.3 Restore both Unit 2 offsite circuits and DG to OPERABLE status.</p>	<p>Immediately from discovery of Condition B concurrent with inoperability of redundant required feature(s)</p> <p>2 hours</p> <p><u>AND</u></p> <p>Once per 12 hours thereafter</p> <p>7 days</p>

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. One offsite circuit inoperable for reasons other than Condition A or B.	C.1 Perform SR 3.8.1.1 for OPERABLE offsite circuit(s).	2 hours
	<u>AND</u>	<u>AND</u>
	C.2 Declare required feature(s) with no offsite power available inoperable when the redundant required feature(s) are inoperable.	Once per 12 hours thereafter
	<u>AND</u>	
	C.3 Restore offsite circuit to OPERABLE status.	24 hours from discovery of no offsite power to one 4.16 kV emergency bus concurrent with inoperability of redundant required feature(s)
		72 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION		COMPLETION TIME
D. (continued)	D.5	Restore DG to OPERABLE status.	7 days from discovery of unavailability of SUPP-DG <u>AND</u> 24 hours from discovery of Condition D entry \geq 6 days concurrent with unavailability of SUPP-DG <u>AND</u> 14 days
	E.1	Declare required feature(s) inoperable when the redundant required feature(s) are inoperable.	12 hours from discovery of Condition E concurrent with inoperability of redundant required feature(s)
E. Two or more offsite circuits inoperable for reasons other than Condition B.	<u>AND</u>		
	E.2	Restore all but one offsite circuit to OPERABLE status.	24 hours

(continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.1.1	Verify correct breaker alignment and indicated power availability for each offsite circuit.	In accordance with the Surveillance Frequency Control Program
SR 3.8.1.2	<p>-----NOTES-----</p> <ol style="list-style-type: none"> 1. All DG starts may be preceded by an engine prelube period. 2. A modified DG start involving idling and gradual acceleration to synchronous speed may be used for this SR. When modified start procedures are not used, the time, voltage, and frequency tolerances of SR 3.8.1.7 must be met. 3. A single test at the specified Frequency will satisfy this Surveillance for both units. <p>-----</p> <p>Verify each DG starts from standby conditions and achieves steady state voltage ≥ 3750 V and ≤ 4300 V and frequency ≥ 58.8 Hz and ≤ 61.2 Hz.</p>	In accordance with the Surveillance Frequency Control Program

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.1.3	<p>-----NOTES-----</p> <ol style="list-style-type: none"> 1. DG loadings may include gradual loading. 2. Momentary transients outside the load range do not invalidate this test. 3. This Surveillance shall be conducted on only one DG at a time. 4. This SR shall be preceded by and immediately follow, without shutdown, a successful performance of SR 3.8.1.2 or SR 3.8.1.7. 5. A single test at the specified Frequency will satisfy this Surveillance for both units. <p>-----</p> <p>Verify each DG is synchronized and loaded and operates for ≥ 60 minutes at a load ≥ 2800 kW and ≤ 3500 kW.</p>	In accordance with the Surveillance Frequency Control Program
SR 3.8.1.4	Verify each engine mounted tank contains ≥ 150 gal of fuel oil.	In accordance with the Surveillance Frequency Control Program
SR 3.8.1.5	Check for and remove accumulated water from each engine mounted tank.	In accordance with the Surveillance Frequency Control Program

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.1.6	Verify the fuel oil transfer system operates to transfer fuel oil from the day fuel oil storage tank to the engine mounted tank.	In accordance with the Surveillance Frequency Control Program
SR 3.8.1.7	<p>-----NOTES-----</p> <ol style="list-style-type: none"> 1. All DG starts may be preceded by an engine prelube period. 2. A single test at the specified Frequency will satisfy this Surveillance for both units. <p>-----</p> <p>Verify each DG starts from standby condition and achieves, in ≤ 10 seconds, voltage ≥ 3750 V and frequency ≥ 58.8 Hz, and after steady state conditions are reached, maintains voltage ≥ 3750 V and ≤ 4300 V and frequency ≥ 58.8 Hz and ≤ 61.2 Hz.</p>	In accordance with the Surveillance Frequency Control Program

(continued)

3.8 ELECTRICAL POWER SYSTEMS

3.8.7 Distribution Systems—Operating

LCO 3.8.7 Division I and Division II AC and DC electrical power distribution
 subsystems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One AC electrical power distribution subsystem inoperable for planned maintenance due to either inoperable load group E3 bus(es) or inoperable load group E4 bus(es).	A.1 Restore affected load group bus(es) to OPERABLE status.	7 days
B. One or more AC electrical power distribution subsystems inoperable for reasons other than Condition A.	B.1 Restore AC electrical power distribution subsystems to OPERABLE status.	8 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. One or more DC electrical power distribution subsystems inoperable due to loss of normal DC source.	C.1 Declare required feature(s), supported by the inoperable DC electrical power distribution subsystem, inoperable.	Immediately
	<u>AND</u>	
	C.2 Initiate action to transfer DC electrical power distribution subsystem to its alternate DC source.	Immediately
	<u>AND</u>	
	C.3 Declare required feature(s) supported by the inoperable DC electrical power distribution subsystem OPERABLE.	Upon completion of transfer of the required feature's DC electrical power distribution subsystem to its OPERABLE alternate DC source
	<u>AND</u>	
	C.4 Restore DC electrical power distribution subsystem to OPERABLE status.	7 days

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. One or more DC electrical power distribution subsystems inoperable for reasons other than Condition C.	D.1 Restore DC electrical power distribution subsystems to OPERABLE status.	7 days
E. Required Action and associated Completion Time of Condition A, B, C, or D not met.	E.1 -----NOTE----- LCO 3.0.4.a is not applicable when entering MODE 3. ----- Be in MODE 3.	12 hours
F. Two or more electrical power distribution subsystems inoperable that result in a loss of function.	F.1 Enter LCO 3.0.3.	Immediately



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WASHINGTON, D.C. 20555-0001

DUKE ENERGY PROGRESS, LLC

DOCKET NO. 50-324

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 321
Renewed License No. DPR-62

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment filed by Duke Energy Progress, LLC (the licensee), dated August 14, 2018, as supplemented by letters dated February 8, and May 16, 2019, 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.

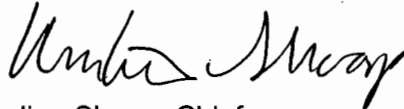
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. DPR-62 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 321, are hereby incorporated in the license. Duke Energy Progress, LLC 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 120 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Undine Shoop, Chief
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Renewed Facility
Operating License and
Technical Specifications

Date of Issuance: September 23, 2019

ATTACHMENT TO LICENSE AMENDMENT NO. 321

BRUNSWICK STEAM ELECTRIC PLANT, UNIT 2

RENEWED FACILITY OPERATING LICENSE NO. DPR-62

DOCKET NO. 50-324

Replace page 6 of Renewed Facility Operating License No. DPR-62 with the attached revised page 6.

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.

<u>Remove Page</u>	<u>Insert Page</u>
1.3-3	1.3-3
1.3-6	1.3-6
1.3-7	1.3-7
3.7-5	3.7-5
3.7-6	3.7-6
3.8-2	3.8-2
3.8-3	3.8-3
3.8-5	3.8-5
3.8-7	3.8-7
3.8-8	3.8-8
3.8-9	3.8-9
3.8-34	3.8-34
3.8-35	3.8-35
3.8-36	3.8-36

(c) Transition License Conditions

1. Before achieving full compliance with 10 CFR 50.48(c), as specified by 2. below, risk-informed changes to the licensee's fire protection program may not be made without prior NRC review and approval unless the change has been demonstrated to have no more than a minimal risk impact, as described in 2. above.
2. The licensee shall implement the modifications to its facility, as described in Table S-1, "Plant Modifications Committed," of Duke letter BSEP 14-0122, dated November 20, 2014, to complete the transition to full compliance with 10 CFR 50.48(c) by the startup of the second refueling outage for each unit after issuance of the safety evaluation. The licensee shall maintain appropriate compensatory measures in place until completion of these modifications.
3. The licensee shall complete all implementation items, except Item 9, listed in LAR Attachment S, Table S-2, "Implementation Items," of Duke letter BSEP 14-0122, dated November 20, 2014, within 180 days after NRC approval unless the 180th day falls within an outage window; then, in that case, completion of the implementation items, except item 9, shall occur no later than 60 days after startup from that particular outage. The licensee shall complete implementation of LAR Attachment S, Table S-2, Item 9, within 180 days after the startup of the second refueling outage for each unit after issuance of the safety evaluation.

C. This renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 2923 megawatts (thermal).

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 321, are hereby incorporated in the license. Duke Energy Progress, LLC shall operate the facility in accordance with the Technical Specifications.

For Surveillance Requirements (SRs) that are new in Amendment 233 to Renewed Facility Operating License DPR-62, the first performance is due at the end of the first surveillance interval that begins at implementation of Amendment 233. For SRs that existed prior to Amendment 233,

1.3 Completion Times

DESCRIPTION (continued)

The above Completion Time extension does not apply to those Specifications that have exceptions that allow completely separate re-entry into the Condition (for each division, subsystem, component or variable expressed in the Condition) and separate tracking of Completion Times based on this re-entry. These exceptions are stated in individual Specifications.

The above Completion Time extension does not apply to a Completion Time with a modified "time zero." This modified "time zero" may be expressed as a repetitive time (i.e., "once per 8 hours," where the Completion Time is referenced from a previous completion of the Required Action versus the time of Condition entry) or as a time modified by the phrase "from discovery . . ."

EXAMPLES

The following examples illustrate the use of Completion Times with different types of Conditions and changing Conditions.

EXAMPLE 1.3-1

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. Required Action and associated Completion Time not met.	B.1 Be in MODE 3.	12 hours
	<u>AND</u> B.2 Be in MODE 4.	36 hours

Condition B has two Required Actions. Each Required Action has its own separate Completion Time. Each Completion Time is referenced to the time that Condition B is entered.

(continued)

1.3 Completion Times

EXAMPLES
(continued)

EXAMPLE 1.3-3

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. One Function X subsystem inoperable.	A.1	Restore Function X subsystem to OPERABLE status.	7 days
B. One Function Y subsystem inoperable.	B.1	Restore Function Y subsystem to OPERABLE status.	72 hours
C. One Function X subsystem inoperable. <u>AND</u> One Function Y subsystem inoperable.	C.1 <u>OR</u> C.2	Restore Function X subsystem to OPERABLE status. Restore Function Y subsystem to OPERABLE status.	12 hours 12 hours

(continued)

1.3 Completion Times

EXAMPLES

EXAMPLE 1.3-3 (continued)

When one Function X subsystem and one Function Y subsystem are inoperable, Condition A and Condition B are concurrently applicable. The Completion Times for Condition A and Condition B are tracked separately for each subsystem, starting from the time each subsystem was declared inoperable and the Condition was entered. A separate Completion Time is established for Condition C and tracked from the time the second subsystem was declared inoperable (i.e., the time the situation described in Condition C was discovered).

If Required Action C.2 is completed within the specified Completion Time, Conditions B and C are exited. If the Completion Time for Required Action A.1 has not expired, operation may continue in accordance with Condition A. The remaining Completion Time in Condition A is measured from the time the affected subsystem was declared inoperable (i.e., initial entry into Condition A).

It is possible to alternate between Conditions A, B, and C in such a manner that operation could continue indefinitely without ever restoring systems to meet the LCO. However, doing so would be inconsistent with the basis of the Completion Times. Therefore, there shall be administrative controls to limit the maximum time allowed for any combination of Conditions that result in a single contiguous occurrence of failing to meet the LCO. These administrative controls shall ensure that the Completion Times for those Conditions are not inappropriately extended.

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. One required NSW pump inoperable for reasons other than Condition A.	<p>B.1 -----NOTE----- Enter applicable Conditions and Required Actions of LCO 3.8.1 for DGs made inoperable by NSW. -----</p> <p>Restore required NSW pump to OPERABLE status.</p>	7 days
C. One required conventional service water (CSW) pump inoperable.	<p>C.1 Verify the one OPERABLE CSW pump and one OPERABLE Unit 2 NSW pump are powered from separate 4.16 kV emergency buses.</p> <p><u>AND</u></p> <p>C.2 Restore required CSW pump to OPERABLE status.</p>	<p>Immediately</p> <p>7 days</p>

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action C.1 and associated Completion Time not met.	D.1 Restore required CSW pump to OPERABLE status.	72 hours
E. Two required CSW pumps inoperable.	E.1 -----NOTE----- Enter applicable Conditions and Required Actions of LCO 3.7.1, "Residual Heat Removal Service Water (RHRSW) System," for RHRSW subsystems made inoperable by CSW. ----- Restore one required CSW pump to OPERABLE status.	72 hours
F. One required NSW pump inoperable. <u>AND</u> One required CSW pump inoperable.	F.1 Restore required NSW pump to OPERABLE status. <u>OR</u> F.2 Restore required CSW pump to OPERABLE status.	72 hours 72 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>B. -----NOTES-----</p> <p>1. Only applicable when Unit 1 is in MODE 4 or 5.</p> <p>2. Condition B shall not be entered in conjunction with Condition A.</p> <p>-----</p> <p>Two Unit 1 offsite circuits inoperable due to one Unit 1 balance of plant circuit path to the downstream 4.16 kV emergency bus inoperable for planned maintenance.</p> <p><u>AND</u></p> <p>DG associated with the affected downstream 4.16 kV emergency bus inoperable for planned maintenance.</p>	<p>B.1 Declare required feature(s) with no power available inoperable when the redundant required feature(s) are inoperable.</p> <p><u>AND</u></p> <p>B.2 Perform SR 3.8.1.1 for OPERABLE offsite circuit(s).</p> <p><u>AND</u></p> <p>B.3 Restore both Unit 1 offsite circuits and DG to OPERABLE status.</p>	<p>Immediately from discovery of Condition B concurrent with inoperability of redundant required feature(s)</p> <p>2 hours</p> <p><u>AND</u></p> <p>Once per 12 hours thereafter</p> <p>7 days</p>

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION		COMPLETION TIME
C. One offsite circuit inoperable for reasons other than Condition A or B.	C.1	Perform SR 3.8.1.1 for OPERABLE offsite circuit(s).	2 hours <u>AND</u> Once per 12 hours thereafter
	<u>AND</u>		
	C.2	Declare required feature(s) with no offsite power available inoperable when the redundant required feature(s) are inoperable.	24 hours from discovery of no offsite power to one 4.16 kV emergency bus concurrent with inoperability of redundant required feature(s)
	<u>AND</u>		
	C.3	Restore offsite circuit to OPERABLE status.	72 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. (continued)	D.5 Restore DG to OPERABLE status.	7 days from discovery of unavailability of SUPP-DG <u>AND</u> 24 hours from discovery of Condition D entry \geq 6 days concurrent with unavailability of SUPP-DG <u>AND</u> 14 days
	E. Two or more offsite circuits inoperable for reasons other than Condition B.	
	E.1 Declare required feature(s) inoperable when the redundant required feature(s) are inoperable.	12 hours from discovery of Condition E concurrent with inoperability of redundant required feature(s)
	<u>AND</u>	
	E.2 Restore all but one offsite circuit to OPERABLE status.	24 hours

(continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.1.1	Verify correct breaker alignment and indicated power availability for each offsite circuit.	In accordance with the Surveillance Frequency Control Program
SR 3.8.1.2	<p>-----NOTES-----</p> <ol style="list-style-type: none"> 1. All DG starts may be preceded by an engine prelube period. 2. A modified DG start involving idling and gradual acceleration to synchronous speed may be used for this SR. When modified start procedures are not used, the time, voltage, and frequency tolerances of SR 3.8.1.7 must be met. 3. A single test at the specified Frequency will satisfy this Surveillance for both units. <p>-----</p> <p>Verify each DG starts from standby conditions and achieves steady state voltage ≥ 3750 V and ≤ 4300 V and frequency ≥ 58.8 Hz and ≤ 61.2 Hz.</p>	In accordance with the Surveillance Frequency Control Program

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.3</p> <p style="text-align: center;">-----NOTES-----</p> <ol style="list-style-type: none"> 1. DG loadings may include gradual loading. 2. Momentary transients outside the load range do not invalidate this test. 3. This Surveillance shall be conducted on only one DG at a time. 4. This SR shall be preceded by and immediately follow, without shutdown, a successful performance of SR 3.8.1.2 or SR 3.8.1.7. 5. A single test at the specified Frequency will satisfy this Surveillance for both units. <p>-----</p> <p>Verify each DG is synchronized and loaded and operates for ≥ 60 minutes at a load ≥ 2800 kW and ≤ 3500 kW.</p>	<p>In accordance with the Surveillance Frequency Control Program</p>
<p>SR 3.8.1.4</p> <p>Verify each engine mounted tank contains ≥ 150 gal of fuel oil.</p>	<p>In accordance with the Surveillance Frequency Control Program</p>
<p>SR 3.8.1.5</p> <p>Check for and remove accumulated water from each engine mounted tank.</p>	<p>In accordance with the Surveillance Frequency Control Program</p>

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.1.6	Verify the fuel oil transfer system operates to transfer fuel oil from the day fuel oil storage tank to the engine mounted tank.	In accordance with the Surveillance Frequency Control Program
SR 3.8.1.7	<p>-----NOTES-----</p> <ol style="list-style-type: none"> 1. All DG starts may be preceded by an engine prelube period. 2. A single test at the specified Frequency will satisfy this Surveillance for both units. <p>-----</p> <p>Verify each DG starts from standby condition and achieves, in ≤ 10 seconds, voltage ≥ 3750 V and frequency ≥ 58.8 Hz, and after steady state conditions are reached, maintains voltage ≥ 3750 V and ≤ 4300 V and frequency ≥ 58.8 Hz and ≤ 61.2 Hz.</p>	In accordance with the Surveillance Frequency Control Program

(continued)

3.8 ELECTRICAL POWER SYSTEMS

3.8.7 Distribution Systems—Operating

LCO 3.8.7 Division I and Division II AC and DC electrical power distribution subsystems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One AC electrical power distribution subsystem inoperable for planned maintenance due to either inoperable load group E1 bus(es) or inoperable load group E2 bus(es).	A.1 Restore affected load group bus(es) to OPERABLE status.	7 days
B. One or more AC electrical power distribution subsystems inoperable for reasons other than Condition A.	B.1 Restore AC electrical power distribution subsystems to OPERABLE status.	8 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. One or more DC electrical power distribution subsystems inoperable due to loss of normal DC source.	C.1 Declare required feature(s), supported by the inoperable DC electrical power distribution subsystem, inoperable.	Immediately
	<u>AND</u>	
	C.2 Initiate action to transfer DC electrical power distribution subsystem to its alternate DC source.	Immediately
	<u>AND</u>	
	C.3 Declare required feature(s) supported by the inoperable DC electrical power distribution subsystem OPERABLE.	Upon completion of transfer of the required feature's DC electrical power distribution subsystem to its OPERABLE alternate DC source
	<u>AND</u>	
	C.4 Restore DC electrical power distribution subsystem to OPERABLE status.	7 days

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. One or more DC electrical power distribution subsystems inoperable for reasons other than Condition C.	D.1 Restore DC electrical power distribution subsystems to OPERABLE status.	7 days
E. Required Action and associated Completion Time of Condition A, B, C, or D not met.	E.1 -----NOTE----- LCO 3.0.4.a is not applicable when entering MODE 3. ----- Be in MODE 3.	12 hours
F. Two or more electrical power distribution subsystems inoperable that result in a loss of function.	F.1 Enter LCO 3.0.3.	Immediately



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 293 AND 321

TO RENEWED FACILITY OPERATING LICENSE NOS. DPR-71 AND DPR-62

DUKE ENERGY PROGRESS, LLC

BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2

DOCKET NOS. 50-325 AND 50-324

1.0 INTRODUCTION

By application dated August 14, 2018 (Reference 1), as supplemented by letters dated February 8, 2019 (Reference 2), and May 16, 2019 (Reference 3), Duke Energy Progress, LLC (Duke Energy or the licensee) requested changes to the Technical Specifications (TSs) for Brunswick Steam Electric Plant (Brunswick or BSEP), Units 1 and 2.

The amendments would revise the Brunswick, Units 1 and 2, TSs to adopt Technical Specifications Task Force (TSTF) Traveler TSTF-439, Revision 2, "Eliminate Second Completion Times Limiting Time from Discovery of Failure to Meet an LCO [Limiting Condition for Operation]," dated June 20, 2005 (Reference 4). The U.S. Nuclear Regulatory Commission (NRC or the Commission) approved the traveler on January 11, 2006 (Reference 5). Specifically, the amendments would delete second completion times (CTs) from the affected required actions contained in the TSs, remove the example contained in TS Section 1.3, and add a discussion about alternating between TS conditions.

The supplements dated February 8, 2019, and May 16, 2019, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the NRC staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on October 9, 2018 (83 FR 50695).

2.0 REGULATORY EVALUATION

2.1 System Description

2.1.1 Completion Times

The CT is the amount of time allowed for completing a required action. It is referenced to the time of discovery of a situation (e.g., inoperable equipment or variable not within limits) that requires entering an action condition unless otherwise specified, provided the unit is in a mode or specified condition stated in the applicability of the LCO. Required actions must be completed prior to the expiration of the specified CT. An action condition remains in effect, and

the required actions apply until the condition no longer exists or the unit is not within the LCO applicability.

The description section of the licensee's TS 1.3, "Completion Times," states, in part, that:

Once a Condition has been entered, subsequent divisions, subsystems, components, or variables expressed in the Condition, discovered to be inoperable or not within limits, will not result in separate entry into the Condition unless specifically stated. The Required Actions of the Condition continue to apply to each additional failure, with Completion Times based on initial entry into the Condition, unless otherwise specified.

Additional secondary CTs, such as limits on the period of time from discovery of the failure to meet the LCOs discussed above, were specified to prevent repeated entry and exit from alternating TS required actions.

2.1.2 Service Water System

The Service Water (SW) System provides water for cooling of equipment in the Reactor Building, Turbine Building, Diesel Generator Building, and for cooling and lubrication of equipment in the Circulating Water System. Each unit's SW system is subdivided into two major headers, the Nuclear Service Water (NSW) header and the Conventional Service Water (CSW) header. The NSW header normally provides cooling water for equipment in the Reactor Building and Diesel Generator Building. The CSW header normally supplies cooling water for equipment in the Turbine Building and balance-of-plant equipment in other areas. TS 3.7.2, "Service Water (SW) System and Ultimate Heat Sink (UHS)," requires the SW System and UHS to be operable to provide the minimum heat removal capability for the systems to which they provide cooling.

2.1.3 Alternating Current Sources - Operating

The unit Class 1E alternating current (AC) electrical power distribution system AC sources consist of the offsite power sources (preferred and alternate power sources) and the onsite standby power sources diesel generators 1, 2, 3, and 4. The design of the AC electrical power system provides independence and redundancy to ensure an available source of power to the engineered safety feature (ESF) systems. TS 3.8.1, "AC Sources – Operating," requires two Unit 1 and two Unit 2 qualified circuits between the offsite transmission network and the onsite Class 1E distribution system and four separate and independent DGs (1, 2, 3, and 4) to ensure the availability of the required power to shut down the reactor and maintain it in a safe shutdown condition after an anticipated operational occurrence (AOO) or a postulated design-basis accident (DBA).

2.1.4 Distribution Systems-Operating

The onsite Class 1E AC and direct current (DC) electrical power distribution systems are divided into redundant and independent AC and DC electrical power distribution subsystems. The Class 1E AC electrical distribution system is divided into four load groups. Each load group consists of a primary emergency bus, its downstream secondary emergency bus, 120 Volts AC vital bus, and transformers and interconnecting cables. TS 3.8.7, "Distribution Systems – Operating," requires the availability of AC and DC electrical power for the systems required to shut down the reactor and maintain it in a safe condition after an AOO or a postulated DBA.

2.2 Proposed TSs Changes

The licensee proposed to delete the following statement from Example 1.3 (TS page 1.3-3):

Example 1.3-3 illustrates one use of this type of Completion Time. The 10 day Completion Time specified for Condition A and B in Example 1.3-3 may not be extended.

The licensee proposed to revise TS Example 1.3-3 to eliminate the second CT for Required Actions A.1 and B.1 and to replace the discussion regarding the second completion time with the following:

It is possible to alternate between Conditions A, B, and C in such a manner that operation could continue indefinitely without ever restoring systems to meet the LCO. However, doing so would be inconsistent with the basis of the Completion Times. Therefore, there shall be administrative controls to limit the maximum time allowed for any combination of Conditions that result in a single contiguous occurrence of failing to meet the LCO. These administrative controls shall ensure that the Completion Times for those Conditions are not inappropriately extended.

The licensee also proposed to delete the second CTs associated with the following TS LCOs required actions:

- TS 3.7.2, "Service Water (SW) System and Ultimate Heat Sink (UHS)," Required Actions B.1, C.2, and E1
- TS 3.8.1, "AC Sources – Operating," Required Actions B.3, C.3, and D.5
- TS 3.8.7, "Distribution Systems – Operating," Required Actions A.1, B.1, C.4, and D.1

In addition, the licensee proposed to remove the following notes in LCO 3.8.1 surveillance requirements (SRs) since the notes are obsolete:

SR 3.8.1.2 Note 4, which states:

Until DG 4 is returned to OPERABLE status, not to exceed 0745 EST on December 13, 2017, performance of SR 3.8.1.2 for EDGs 1, 2, and 3 may be suspended. Past due surveillances will be completed within 7 days of restoration of EDG 4 operability or December 20, 2017, whichever occurs first.

SR 3.8.1.3 Note 6, which states:

Until DG 4 is returned to OPERABLE status, not to exceed 0745 EST on December 13, 2017, performance of SR 3.8.1.3 for EDGs 1, 2, and 3 may be suspended. Past due surveillances will be completed within 7 days of restoration of EDG 4 operability or December 20, 2017, whichever occurs first.

SR 3.8.1.6 note, which states:

Until DG 4 is returned to OPERABLE status, not to exceed 0745 EST on December 13, 2017, performance of SR 3.8.1.6 for EDGs 1, 2, and 3 may be suspended. Past due surveillances will be completed within 7 days of restoration of EDG 4 operability or December 20, 2017, whichever occurs first.

2.3 Regulatory Requirements and Guidance

The NRC's regulatory requirements related to the content of the TSs are contained in Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.36, "Technical specifications," and require, in part, that a summary statement of the bases for such specifications shall be included by applicants for a license authorizing operation of a production or utilization facility. Specifically, the requirements for TS content in 10 CFR 50.36(c) include the following categories related to facility operation: (1) safety limits, limiting safety systems settings, and control settings; (2) LCOs; (3) SRs; (4) design features; and (5) administrative controls.

The regulation in 10 CR 50.36(c)(2), "Limiting conditions for operation," states:

Limiting conditions for operation are the lowest functional capability or performance levels of equipment required for safe operation of the facility. When a limiting condition for operation of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the technical specifications until the condition can be met.

The regulation in 10 CFR 50.36(c)(3), "Surveillance requirements," states that:

Surveillance requirements are requirements related to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions for operation will be met.

The regulation in 10 CFR 50.65, "Requirements for monitoring the effectiveness of maintenance at nuclear power plants" (the maintenance rule), provides performance-based requirements to ensure that nuclear power plant structures, systems, and components (SSCs) will be maintained so that they will perform their intended function when required.

In NUREG-1433, "Standard Technical Specifications — General Electric Plants (BWR/4)," the guidance states, in part, that a second CT was included in the Standard Technical Specifications for certain required actions to establish a limit on the maximum time allowed for any combination of conditions that would result in a single continuous failure to meet the LCO. The intent of the second CT was to preclude entry into and out of the actions for an indefinite period of time without meeting the LCO. The second CT provides a limit on the amount of time the LCO would not be met for various combinations of conditions. As explained above, TSTF-439, Revision 2, deletes these second CTs from the affected Standard Technical Specification required actions.

3.0 TECHNICAL EVALUATION

Second CTs (such as limits on the period of time from discovery of the failure to meet the LCO) were specified for the specified TSs to prevent repeated entry into and exit from alternating TS required actions. Administrative controls will replace second CTs, as described in the license amendment request (LAR). In addition, two programs provide a strong disincentive to licensees continuing operation with alternating required actions as described above. These programs are the maintenance rule program and the NRC's reactor oversight process (ROP).

The LAR states, in part, the following regarding the maintenance rule:

Under 10 CFR 50.65(a)(4), the risk impact of all inoperable risk-significant equipment is assessed and managed when performing preventative or corrective maintenance. The risk assessments are conducted using the procedures and guidance endorsed by Regulatory Guide 1.160, "Monitoring the Effectiveness of Maintenance at Nuclear Power Plants." (i.e., Reference 6.4) Regulatory Guide 1.160 endorses the Revision 4A of NUMARC 93-01, "Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," (i.e., Reference 6.5). These documents address general guidance for conduct of the risk assessment, quantitative and qualitative guidelines for establishing risk management actions, and example risk management actions. These include actions to:

- plan and conduct other activities in a manner that controls overall risk,
- increased risk awareness by shift and management personnel,
- reduce the duration of the condition,
- minimize the magnitude of risk increases through the establishment of backup success paths or compensatory measures,
- and determination that the proposed maintenance is acceptable.

This comprehensive program provides much greater assurance of safe plant operation than the second Completion Times in the TS.

The LAR states, in part, the following regarding the ROP:

Nuclear Energy Institute (NEI) 99-02, "Regulatory Assessment Performance Indicator Guideline," describes the tracking and reporting of performance indicators to support the NRC's Reactor Oversight Process (ROP), (i.e., Reference 6.6). The NEI document is endorsed by Regulatory Issue Summary (RIS) 2001-11, "Voluntary Submission of Performance Indicator Data," (i.e., Reference 6.7). NEI 99-02, Section 2.2, describes the Mitigating Systems Cornerstone. NEI 99-02 specifically addresses Emergency AC Sources, which encompasses the AC Sources and Distribution System LCOs, and the Cooling Water Systems, which encompasses the BSEP NSW and CSW System LCOs. Extended unavailability of these systems due to multiple entries into the ACTIONS would affect the NRC's evaluation of the licensee's performance under the ROP.

The LAR states, in part, the following regarding administrative controls:

In addition to these programs, a requirement is added to Section 1.3 of the TS to require licensees to have administrative controls to limit the maximum time allowed for any combination of Conditions that result in a single contiguous occurrence of failing to meet the LCO. These administrative controls should consider plant risk and shall limit the maximum contiguous time of failing to meet the LCO. This TS requirement, when considered with the regulatory processes discussed above, provide an equivalent or superior level of plant safety without the unnecessary complication of the TS by second Completion Times on some Specifications.

Prior to the promulgation of 10 CFR 50.65, TSs were the primary requirements governing operations, including what equipment must normally be in service, how long equipment can be out of service, compensatory actions, and surveillance testing to demonstrate equipment readiness. The goal of TSs is to provide adequate assurance of the availability and reliability of equipment needed to prevent, and if necessary mitigate, accidents and transients. The maintenance rule supports this same goal by requiring a comprehensive process for performance and condition monitoring activities. As required by 10 CFR 50.65, the licensee assesses and manages the inoperable equipment; however, the rule also considers all inoperable risk-significant equipment. Under the TSs, the CT for one system within an LCO is not generally affected by inoperable equipment in another LCO. However, the second CT influenced the CT for one system based on the condition of another system, but only if the two systems were required by the same LCO. Plant-specific maintenance rule programs implement risk-based configuration management programs that augment the deterministic CTs in the TSs. The performance and condition monitoring activities required by 10 CFR 50.65 identify poor maintenance practices that would result from multiple entries into the actions of the TSs, which would contribute to unacceptable unavailability of these SSCs.

The NRC staff finds the proposed changes to TS 1.3 acceptable because administrative control requirements added in Example 1.3-3 of the TSs would limit the maximum time allowed for any combination of conditions that results in a single contiguous occurrence of failing to meet the LCO and would ensure that CTs are not inappropriately extended. In addition, the licensee's maintenance rule program requires the licensee to monitor the performance or conditions of SSCs in a manner sufficient to provide reasonable assurance that SSCs can fulfill their specified safety functions, and thus, prevent indefinite operation without restoration of the systems.

The LAR identified variations from TSTF-439 associated with numbering differences and site-specific features for each of the requested second CTs to be deleted. In its supplement dated May 16, 2019, the licensee stated that each second CT was to prevent the repeated entry and exit from alternating TS required actions, and thus, TSTF-439 and the justification for removing the second CT were applicable to the Brunswick second CTs. Based on the information in the supplement, the NRC staff agrees that the variations do not affect the applicability of TSTF-439, and thus, the NRC staff finds the variations acceptable.

The LAR-proposed change deletes the second CT associated with the following TS LCO Required Actions: TS 3.7.2, B.1, C.2 and E.1; TS 3.8.1, B.3, C.3, and D.5; and TS 3.8.7, A.1, B.1 C.4, and D.1. These additional secondary CTs were specified for these instances to prevent repeated entry and exit from alternating TS-required actions. Administrative controls will replace second CTs as described in the LAR.

The NRC staff finds the proposed deletion of the second CTs listed above acceptable because multiple, continuous entries into TS conditions, without meeting the LCO, would be adequately controlled by the licensee's administrative controls and configuration risk management programs, which were implemented to meet the requirements of the maintenance rule to assess and manage risk, and would be controlled by the use and application convention discussed in Section 1.3 of the TSs. In addition, the NRC staff finds that the ROP, coupled with the maintenance rule, provide adequate assurance against inappropriate use of combinations of TS conditions that result in a single contiguous occurrence of failing to meet the LCO. Accordingly, the NRC staff finds the proposed TS changes acceptable.

The NRC staff also finds the proposed administrative revision to TS 3.8.1, which would remove two notes, acceptable because these notes are obsolete. The notes were added as part of an emergency LAR dated November 22, 2017 (Reference 7), approved on November 26, 2017 (Reference 8), and not applicable after December 13, 2017 (Amendment Nos. 282 and 310 for Units 1 and 2, respectively).

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the North Carolina State official was notified of the proposed issuance of the amendments on August 19, 2019. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendments change requirements with respect to the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20, and change SRs. 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, published in the *Federal Register* on October 9, 2018 (83 FR 50695), and there has been no public comment on such finding. 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.

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) there is reasonable assurance that 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.

7.0 REFERENCES

1. Gideon, William R., Duke Energy Progress, LLC, letter to U.S. Nuclear Regulatory Commission, "Brunswick Steam Electric Plant, Unit Nos. 1 and 2, Application to Revise Technical Specifications to Adopt TSTF-439, "Eliminate Second Completion Times Limiting

Time from Discovery of Failure to Meet an LCO", dated August 14, 2018 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18227A535).

2. Gideon, William R., Duke Energy Progress, LLC, letter to U.S. Nuclear Regulatory Commission, "Brunswick Steam Electric Plant, Unit Nos. 1 and 2, Response to Request for Additional Information - Application to Revise Technical Specifications to Adopt TSTF-439, 'Eliminate Second Completion Times Limiting Time from Discovery of Failure to Meet an LCO,'" dated February 8, 2019 (ADAMS Accession No. ML19042A015).
3. Gideon, William R., Duke Energy Progress, LLC, letter to U.S. Nuclear Regulatory Commission, "Brunswick Steam Electric Plant, Unit Nos. 1 and 2, Supplement to Response to Request for Additional Information - Application to Revise Technical Specifications to Adopt TSTF-439, 'Eliminate Second Completion Times Limiting Time from Discovery of Failure to Meet an LCO,'" dated May 16, 2019 (ADAMS Accession No. ML19136A381).
4. Technical Specifications Task Force (TSTF), Industry/TSTF Standard TS Change Traveler TSTF-439, Revision 2, "Eliminate Second Completion Times Limiting Time from Discovery of Failure to Meet an LCO," dated June 20, 2005 (ADAMS Accession No. ML051860296).
5. Boyce, Thomas H., U.S. Nuclear Regulatory Commission, letter to Technical Specifications Task Force, "Status of TSTF-439, 'Eliminate Second Completion Times Limiting Time from Discovery of Failure to Meet an LCO,'" dated January 11, 2006 (ADAMS Accession No. ML060120272).
6. U.S. Nuclear Regulatory Commission, NUREG-1433, Revision 4, Volume 1, "Standard Technical Specifications - General Electric BWR/4 Plants: Specifications," dated April 2012 (ADAMS Accession No. ML12104A192).
7. Gideon, William R., Duke Energy Progress, LLC, letter to U.S. Nuclear Regulatory Commission, "Brunswick Steam Electric Plant, Unit Nos. 1 and 2, Request for Emergency License Amendment - Technical Specification 3.8.1, AC Sources – Operating, One-Time Extension of Emergency Diesel Generator Completion Times and Suspension of Surveillance Requirements," dated November 22, 2017 (ADAMS Package Accession No. ML17326B619).
8. Hon, Andrew, U.S. Nuclear Regulatory Commission, letter to Gideon, William R., Duke Energy Progress, LLC, "Brunswick Steam Electric Plant, Units 1 and 2 – Issuance of Amendments for Technical Specification 3.8.1, 'AC Sources – Operating,' One-Time Extension of Emergency Diesel Generator Completion Times and Suspension of Surveillance Requirements (Emergency Situation) (EPID L-2017-LLA-0392)," dated November 26, 2017 (ADAMS Accession No. ML17328B072).

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Date: September 23, 2019

SUBJECT: BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2 – ISSUANCE OF AMENDMENT NOS. 293 AND 321 TO ADOPT TSTF-439, REVISION 2, “ELIMINATE SECOND COMPLETION TIMES LIMITING TIME FROM DISCOVERY OF FAILURE TO MEET AN LCO” (EPID L-2018-LLA-0220) DATED SEPTEMBER 23, 2019

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DATE	8/22/2019	8/22/2019	9/13/2019
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