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January 23, 2018

Serial: BSEP 18-0013 10 CFR 50.90

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

Subject: Brunswick Steam Electric Plant, Unit Nos. 1 and 2
Renewed Facility Operating License Nos. DPR-71 and DPR-62
Docket Nos. 50-325 and 50-324
Supplement to Application to Revise Technical Specifications to Adopt TSTF-542, *Reactor Pressure Vessel Water Inventory Control*

Reference:

Letter from William R. Gideon (Duke Energy) to the U.S. Nuclear Regulatory Commission Document Control Desk, *Application to Revise Technical Specifications to Adopt TSTF-542, Reactor Pressure Vessel Water Inventory Control,* dated June 29, 2017, ADAMS Accession Number ML17180A538

Ladies and Gentlemen:

By letter dated June 29, 2017 (i.e., Reference), Duke Energy Progress, LLC (Duke Energy), submitted a license amendment request (LAR) for the Brunswick Steam Electric Plant (BSEP), Unit Nos. 1 and 2. The proposed amendment requested to adopt Technical Specifications Task Force (TSTF) Traveler TSTF-542, *Reactor Pressure Vessel Water Inventory Control*, Revision 2. The purpose of this submittal is to provide updated Technical Specifications (TS) pages which resolve an issue identified in TSTF-542, Revision 2. This supplement also revises the implementation schedule for the amendment.

The following describes the issue that was recently identified in TSTF-542, Revision 2.

> Prior to TSTF-542, NUREG-1433 TS 3.3.5.1 Table 3.3.5.1-1 Function 1.c (Core Spray Reactor Steam Dome Pressure - Low) and Function 2.c (LPCI Reactor Steam Dome Pressure - Low (Injection Permissive)) both had Note (a) for Modes 4 and 5 in the "Applicable Modes or Other Specified Conditions" column. Note (a) said, "When associated ECCS subsystem(s) are required to be Operable per LCO 3.5.2, "ECCS - Shutdown." In TSTF 542, Functions 1.c and 2.c were transferred to Table 3.3.5.2-1 as Functions 1.a and 2.a. However, Note (a) was not transferred with the functions (although the last paragraph of the applicable Bases indicates that it had been). Without the Note, Functions 1.a and 2.a are required to be Operable for all low pressure ECCS subsystems regardless of whether the subsystem is credited to meet TS 3.5.2.

The same issue was introduced in the BSEP TSTF-542 LAR (i.e., Reference). To resolve the issue, the following note is added to Functions 1.a and 2.a of the proposed Table 3.3.5.3-1, RPV Water Inventory Control Instrumentation, for BSEP Units 1 and 2.

(a) Associated with an ECCS subsystem required to be OPERABLE by LCO 3.5.2, "Reactor Pressure Vessel Water Inventory Control."

The existing Table 3.3.5.3-1 Note (a), contained in the BSEP TSTF-542 LAR, is re-designated as Note (b). These changes are consistent with the resolution recommended by the Boiling Water Reactor Owners' Group. Enclosures 1 and 2 provide revised typed TS pages for BSEP Units 1 and 2.

Duke Energy has reviewed the No Significant Hazards Consideration Determination, published in the *Federal Register* on September 12, 2017 (i.e., 82 FR 175, page 42846), and has concluded that the determination is not impacted by this supplement. Likewise, this supplement does not impact the Environmental Evaluation provided in the BSEP TSTF-542 LAR.

In order to allow sufficient time for implementation of the proposed amendments, once approved, Duke Energy requests that the NRC authorize implementation of the TSTF-542 amendments prior to the 2019 Unit 2 refueling outage, currently scheduled to begin in March 2019. This implementation period supersedes the originally requested 180-day implementation period.

This document contains no new regulatory commitments.

I declare, under penalty of perjury, that the foregoing is true and correct. Executed on January 23, 2018.

Sincerely,

William R. Gideon

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Enclosures:

1. Revised (Typed) Technical Specification Page - Unit 1
2. Revised (Typed) Technical Specification Page - Unit 2

cc (with Enclosures):

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Revised (Typed) Technical Specification Page
Unit 1

Table 3.3.5.3-1 (page 1 of 1)
RPV Water Inventory Control Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER FUNCTION	CONDITIONS REFERENCED FROM REQUIRED ACTION A.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1. Core Spray System					
a. Reactor Steam Dome Pressure—Low	4, 5	4(a)	C	SR 3.3.5.3.1 SR 3.3.5.3.2	≤ 425 psig
2. Low Pressure Coolant Injection (LPCI) System					
a. Reactor Steam Dome Pressure—Low	4, 5	4(a)	C	SR 3.3.5.3.1 SR 3.3.5.3.2	≤ 425 psig
3. RHR System Isolation					
a. Reactor Vessel Water Level—Low Level 1	(b)	2 in one trip system	B	SR 3.3.5.3.1 SR 3.3.5.3.2	≥ 153 inches
4. Reactor Water Cleanup (RWCU) System Isolation					
a. Reactor Vessel Water Level—Low Level 2	(b)	2 in one trip system	B	SR 3.3.5.3.1 SR 3.3.5.3.2	≥ 101 inches

(a) Associated with an ECCS subsystem required to be OPERABLE by LCO 3.5.2, "Reactor Pressure Vessel Water Inventory Control."
(b) When automatic isolation of the associated penetration flow path(s) is credited in calculating DRAIN TIME.

Revised (Typed) Technical Specification Page
Unit 2

Table 3.3.5.3-1 (page 1 of 1)
RPV Water Inventory Control Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER FUNCTION	CONDITIONS REFERENCED FROM REQUIRED ACTION A.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1. Core Spray System					
a. Reactor Steam Dome Pressure—Low	4, 5	4(a)	C	SR 3.3.5.3.1 SR 3.3.5.3.2	≤ 425 psig
2. Low Pressure Coolant Injection (LPCI) System					
a. Reactor Steam Dome Pressure—Low	4, 5	4(a)	C	SR 3.3.5.3.1 SR 3.3.5.3.2	≤ 425 psig
3. RHR System Isolation					
a. Reactor Vessel Water Level—Low Level 1	(b)	2 in one trip system	B	SR 3.3.5.3.1 SR 3.3.5.3.2	≥ 153 inches
4. Reactor Water Cleanup (RWCU) System Isolation					
a. Reactor Vessel Water Level—Low Level 2	(b)	2 in one trip system	B	SR 3.3.5.3.1 SR 3.3.5.3.2	≥ 101 inches

(a) Associated with an ECCS subsystem required to be OPERABLE by LCO 3.5.2, "Reactor Pressure Vessel Water Inventory Control."
(b) When automatic isolation of the associated penetration flow path(s) is credited in calculating DRAIN TIME.