DUKE ENERGY®

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January 13, 2016

Serial: BSEP 16-0001

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

Subject: Brunswick Steam Electric Plant, Unit No. 1
Renewed Facility Operating License No. DPR-71
Docket No. 50-325
Status of Confirmatory Evaluation for Unit 1, Cycle 21
(NRC TAC Nos. MF5851 and MF5852)

References:

1. Letter from Christopher Gratton (NRC) to Michael J. Annacone (CP&L), *Brunswick Steam Electric Plant, Units 1 and 2 – Issuance of Amendments Regarding Addition of Analytical Methodology Topical Reports to Technical Specification 5.6.5 and Revision to Minimum Critical Power Ratio Safety Limit (TAC Nos. ME8135 and ME8136)*, dated March 1, 2013, ADAMS Accession Number ML13037A551

2. Letter from William R. Gideon (Duke Energy) to U.S. Nuclear Regulatory Commission, *Request for License Amendments - Adoption of Topical Report ANP-10298P-A, Revision 1*, dated February 19, 2015, ADAMS Accession Number ML15075A021

Ladies and Gentlemen:

The purpose of this letter is to inform the U.S. Nuclear Regulatory Commission (NRC) that a confirmatory evaluation, which is submitted to the NRC in accordance with a condition in the renewed facility operating license, will not be provided for Operating Cycle 21 for the Brunswick Steam Electric Plant (BSEP), Unit No. 1.

On March 1, 2013 (i.e., Reference 1), the NRC issued Amendment Nos. 262 and 290 to the Renewed Facility Operating Licenses for BSEP, Units 1 and 2, respectively. These amendments included the following update to a license condition in Appendix B, "Additional Conditions."

> Safety Limit Minimum Critical Power Ratio (SLMCPR), setpoint, and core operating limit values determined using the ANP-10298PA, ACE/ATRIUM 10XM Critical Power Correlation (i.e., TS 5.6.5.b.21), shall be evaluated to verify the values determined using the NRC-approved method remain applicable and the core operating limits include margin sufficient to bound the effects of the K-factor calculation issue described in AREVA Operability Assessment CR 2011-2274, Revision 1. SLMCPR shall be evaluated with methods described in AREVA Document ANP-3086(P), Revision 0, *Brunswick Unit 1 and Unit 2 SLMCPR Operability Assessment Critical Power Correlation for*

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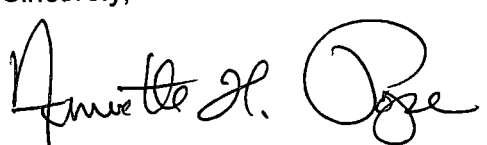
> *ATRIUM 10XM Fuel – Improved K-factor Model.* Setpoint and core operating limit values shall be evaluated with methods described in AREVA Operability Assessment CR 2011-2274, Revision 1. The results of the evaluation shall be documented and submitted to the NRC, for review, at least 60 days prior to startup of each operating cycle.

The above license condition specifies that when SLMCPR, setpoint, and core operating limit values are determined using the methodology specified in TS 5.6.5.b.21 (i.e., Revision 0 of the ANP-10298PA, *ACE/ATRIUM 10XM Critical Power Correlation*), confirmatory evaluation should be performed and submitted to the NRC at least 60 days prior to startup from each refueling outage. For the upcoming BSEP Unit 1 Cycle 21, the SLMCPR, setpoint, and core operating limit values are not being determined using Revision 0 of ANP-10298PA. Instead, core operating limits for the next Unit 1 operating cycle are being determined using Revision 1 of ANP-10298P-A. Determination of core operating limits using Revision 1 of ANP-10298P-A for the next Unit 1 operating cycle is being done based on the expectation that NRC will approve Duke Energy Progress, Inc.'s, February 19, 2015, license amendment request (LAR) to replace ANP-10298PA, Revision 0, with ANP-10298P-A, Revision 1, in Technical Specification (TS) 5.5.6.b for BSEP, Units 1 and 2. Since Revision 0 of ANP-10298PA is not being used to determine core operating limits, an evaluation of the K-factor issue is not required by the existing condition in Appendix B of the facility operating license.

This document contains no regulatory commitments.

Please refer any questions regarding this submittal to Mr. Lee Grzeck, Manager – Regulatory Affairs, at (910) 457-2487.

Sincerely,



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