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Serial: BSEP 18-0032

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  
Additional Testing Information Relating to the Request for License Amendment  
Regarding Core Flow Operating Range Expansion

References: 1. Letter from William R. Gideon (Duke Energy) to the U.S. Nuclear Regulatory Commission Document Control Desk, *Request for License Amendment Regarding Core Flow Operating Range Expansion*, dated September 6, 2016, ADAMS Accession Number ML16257A410

2. Framatome Methodology EMF-2158(P)(A) Revision 0, *Siemens Power Corporation Methodology for Boiling Water Reactors: Evaluation and Validation of CASMO-4/MICROBURN-B2*, October 1999.

Ladies and Gentlemen:

By letter dated September 6, 2016 (i.e., Reference 1), 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 would expand the core power-flow operating range (i.e., Maximum Extended Load Line Limit Analysis Plus (MELLLA+)).

On February 21, 2018, the NRC conducted an audit at BSEP regarding the implementation of the MELLLA+ operating domain and associated updates to operational and emergency procedures. At this audit, the NRC staff requested information on BSEP's testing plan with respect to collection of Traversing Incore Probe (TIP) data within the MELLLA+ region. The following actions were discussed at the audit.

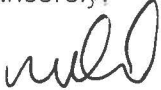
BSEP will take a TIP map on each unit near 100% power and 85% core flow, and near 77.6% power and 55% core flow. These points are chosen to bound the two corners of the MELLLA+ region. Evaluation of these TIP maps will provide additional confirmation that the measured power distribution uncertainties remain consistent with the NRC-approved uncertainties in Reference 2 and applied to BSEP in Framatome core reload licensing analyses. If the results of the TIP maps are not satisfactory, then the adverse condition will be entered into the BSEP Corrective Action Program and investigated to determine the appropriate corrective actions.

No new regulatory commitments are contained in this letter.

Please refer any questions regarding this submittal to Mr. Lee Grzeck, Manager - Regulatory Affairs, at (910) 832-2487.

I declare, under penalty of perjury, that the foregoing is true and correct. Executed on March 14, 2018.

Sincerely,



William R. Gideon

SBY/sby

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