



Brunswick Nuclear Plant  
P.O. Box 10429  
Southport, NC 28461

April 13, 2016

Serial: BSEP 16-0025

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  
Notification of Deviation from BWRVIP-41 Guidelines

Reference: 1. BWRVIP-41, Revision 3, *BWR Jet Pump Assembly Inspection and Flaw Evaluation Guidelines*, EPRI Technical Report 10210000, September 2010.  
2. BWRVIP-94NP, Revision 2, *Program Implementation Guide*, EPRI Technical Report 1024452, September 2011.

Ladies and Gentlemen:

The purpose of this letter is to notify the Nuclear Regulatory Commission (NRC) of a deviation from the Boiling Water Reactor Vessel and Internals Project (BWRVIP) guideline for the inspection of the jet pump assemblies at the Brunswick Steam Electric Plant (BSEP), Unit No. 1. Duke Energy Progress, Inc. (Duke Energy), is a member of the BWRVIP and has committed to implementing applicable BWRVIP products and to notify the NRC if an applicable BWRVIP product was not implemented. This notification is due within 45 days of the utility executive's concurrence with the Deviation Disposition.

A Deviation Disposition for the re-inspection and scope expansion of jet pump diffuser adapter-to-core shroud support plate welds was signed by the Brunswick Site Vice President on March 23, 2016. The deviation is from a BWRVIP-41 (i.e., Reference 1) guideline which is designated as "needed" by the BWRVIP. The guidance requires that scope expansion of jet pump diffuser adapter-to-core shroud support plate welds to all remaining locations (i.e., welds of the same nomenclature on other jet pumps) be performed during the same refueling outage if flaws are found during the inspection or re-inspection of a specific location.

During the Brunswick Unit 1 refueling outage in 2016 (i.e., B121R1), Duke Energy inspected the diffuser adapter-to-core shroud support plate welds (i.e., weld AD-2) for four jet pumps. Three relevant indications were identified in the heat affected zone below the jet pump 18 diffuser adapter-to-core shroud support plate weld (i.e., weld AD-2). The jet pump 18 AD-2 adapter weld will be re-inspected during the Unit 1 refueling outage in 2018 (i.e., B122R1). Expansion of the inspection scope to the remaining AD-2 adapter welds was rescheduled to the 2018 Unit 1 refueling outage (i.e., B122R1). Previous outage inspection videos and documentation from 2006 through 2014 of the jet pump AD-2 welds and heat-affected zones were reviewed by certified Level 3 inspectors. This review did not identify any similar type flaws. The Deviation

ADD  
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Disposition submitted to the BWRVIP concluded that there are no significant structural or leakage impacts associated with the jet pump 18 AD-2 adapter weld indications.

This letter is being submitted for information only, in accordance with Reference 2.

No regulatory commitments are included in this letter.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Annette H. Pope". The signature is fluid and cursive, with the first name "Annette" being more prominent than the last name "Pope".

Annette H. Pope  
Director – Organizational Effectiveness  
Brunswick Steam Electric Plant

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cc:

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