



Brunswick Nuclear Plant
8470 River Rd SE
Southport, NC 28461

June 28, 2023
Serial: RA-23-0045

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

Subject: Brunswick Steam Electric Plant, Unit No. 2
Renewed Facility Operating License No. DPR-62
Docket No. 50-324
Inservice Inspection Program Owner's Activity Report for Unit 2 Refueling
Outage 26

Ladies and Gentlemen:

Duke Energy Progress, LLC (Duke Energy), is enclosing an American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, Form OAR-1 Owner's Activity Report, for the Brunswick Steam Electric Plant (BSEP), Unit No. 2. The report covers inspection activities performed during Brunswick Unit 2 Refueling Outage 26 (i.e., B2R26) for the second inspection period of the fifth inservice inspection interval.

No regulatory commitments are contained in this letter. Please refer any questions regarding this submittal to Mr. Stephen Yodersmith, Brunswick Regulatory Affairs, at (910) 832-2568.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mark R. DeWire', with a long horizontal line extending to the right.

Mark R. DeWire
Manager – Nuclear Support Services
Brunswick Steam Electric Plant

Enclosure: Form OAR-1 Owner's Activity Report

cc (with Enclosure):

Ms. Laura Dudes, Regional Administrator, Region II
Mr. Luke Haeg, NRC Project Manager
Mr. Gale Smith, NRC Senior Resident Inspector

Mr. Donald Kinney, North Carolina Department of Labor, Boiler Safety Bureau Chief
Mr. Paul Arnett, ANII, Bureau Veritas Inspection and Insurance Company

Form OAR-1 Owner's Activity Report

FORM OAR-1 OWNER'S ACTIVITY REPORT

Report Number B2R26 OAR-1 Form

Plant Brunswick Steam Electric Plant (BSEP)

Unit No. 2 Commercial service date November 1975 Refueling Outage No. B2R26
(if applicable)

Current inspection interval Fifth Interval – Inservice Inspection and Pressure Test Plan
Third Interval – Containment (IWE/IWL) Inspection Plan
(1st, 2nd, 3rd, 4th, other)

Current inspection period Second Period / First Refueling Outage
(1st, 2nd, 3rd)

Edition and Addenda of Section XI applicable to the inspection plans 2007 Edition with 2008 Addenda; 2017 Edition is applicable for IWA-4340, IWA-4540(b), IWA-5120, IWA-5213, IWA-5241, IWA-5242, and IWA-5250 in accordance with three RIS Letters; Ref. ML21029A335, ML21113A013 and ML20300A206.

Date and revision of inspection plans BNP-PM5-002, Revision 3, Revision Date: December 5, 2022
BNP-PM5-003, Revision 3, Revision Date: December 5, 2022

Edition and Addenda of Section XI applicable to repair/replacement activities, if different than the inspection plans: 2017 Edition is applicable for IWA-4340, IWA-4540(b), IWA-5120, IWA-5213, IWA-5241, IWA-5242 and IWA-5250 in accordance with three RIS letters; Ref. ML21029A335, ML21113A013 and ML20300A206

Code Cases used for inspection and evaluation: N-432-1, N-513-3, N-516-5, N-526, N-532-5, N-552-1, N-561-2, N-516-3, N-562-2, N-586-1, N-597-2, N-600, N-606-1, N-613-2, N-639, N-648-1, N-648-2, N-661-2, N-702, N-705, N-711-1, N-716-1, N-730-1, N-733, N-735, N-747, N-765, N-771, N-786-1, N-789, N-789-3, N-795, N-831-1, N-845, N-858, and N-864
(if applicable, include cases modified by Case N-532 and later revisions)

CERTIFICATE OF CONFORMANCE

I certify that (a) the statements made in this report are correct; (b) the examinations and tests meet the Inspection Plan as required by the ASME Code, Section XI; and (c) the repair/replacement activities and evaluations supporting the completion of B2R26 conform to the requirements of Section XI.
(refueling outage number)

Signed *Stephen J Mayo* Date 6/12/2023
Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of North Carolina and employed by Bureau Veritas Inspection and Insurance Company of Lynn, PA have inspected the items described in this Owner's Activity Report, and state that, to the best of my knowledge and belief, the Owner has performed all activities represented by this report in accordance with the requirements of Section XI. By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair/replacement activities and evaluation described in this report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Paul P Arnett Commissions NB 13399 B, I, N, NS, NSI, R, NC
Inspector's Signature National Board, State, Province, and Endorsements

Date 6/26/2023

TABLE 1 ITEMS WITH FLAWS OR RELEVANT CONDITIONS THAT REQUIRED EVALUATION FOR CONTINUED SERVICE		
Examination Category and Item Number	Item Description	Evaluation Description
E-A / E1.12	2-SC-ML-B9-BWL SC Torus Liner Submerged Surface	Visual (VT-3) examination identified one (1) spot corrosive "pit" indication with measured depth exceeded 37 mils (10% nominal wall thickness). The corrosive "pit" measured depth was 58.3 mils. Evaluation determined that the required 0.025" minimum uniform thickness was not exceeded and found the discovered condition acceptable for continued service without code repair. Liner protective coating was restored to arrest future corrosive degradation (NCR 02461741).
F-A / F1.10C	2-B32-HA8 Constant Load Spring Support	During examination, the discovered as-found conditions were 1) Loose / back off jam nut on hanger rod to clevis hanger attached 2) Hanger Rod with thread damage approximately 2 inches above clevis hanger; and 3) Constant load spring travel stop device installed on one side but not engaged to restrict spring movement. Evaluation determined as-found conditions was acceptable for continued service. Action created to return support to designed condition (NCR 02460421 / WO 20585872).
F-A / F1.10B	2-B21-PS3566 Pipe Restraint	During examination, discovered four (4) support steel nuts exhibited lack of thread engagement by approximately 2 threads below flush. Evaluation determined as-found conditions was acceptable for continued service without corrective measures. (NCR 02460374).
F-A / F1.20C	2-E11-46VH5 Spring Hanger	During examination, the discovered as-found conditions were 1) Upper pipe clamp bolting: Bolting free spins inside clamp (nut tight to bolt) and 2) Lower Pipe Clamp Bolting: Nut engagement found two threads below flush. Evaluation determined as-found conditions was acceptable for continued service. Action taken to return support to designed condition (NCR 02460170 / WO 20502489)

TABLE 2 ABSTRACT OF REPAIR/REPLACEMENT ACTIVITIES REQUIRED FOR CONTINUED SERVICE				
Code Class	Item Description	Description of Work	Date Completed	Repair / Replacement Plan Number
1	2-E11-F050A Isolation Valve	Performed weld repair of damage to valve interval surface cause by steam leak (leak repaired) at the body-to-bonnet bolted connection.	2/20/2023	20517989-36
3	2-VA-2B-FCU-RB ECCS Room Cooler	Weld Repair on internal surfaces and divider plates of closure head on RHR HX / HPCI Pump Room Cooler Unit	2/25/2023	20535698-20