



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

May 18, 2016

Serial: BSEP 16-0037

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
Inservice Inspection Program Owner's Activity Report for Unit 1 Refueling
Outage 21

Ladies and Gentlemen:

Duke Energy Progress, Inc., 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. 1. The report covers inspection activities performed during Brunswick Unit 1 Refueling Outage 21 (i.e., designated as B121R1) for the third inspection period of the fourth inservice inspection interval.

No regulatory commitments are contained in this letter. Please refer any questions regarding this submittal to Mr. Lee Grzeck, Manager – Regulatory Affairs, at (910) 457-2487.

Sincerely,

A handwritten signature in black ink, appearing to read 'Annette H. Pope'.

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

A047
NRR

WRM/wrm

Enclosure: Form OAR-1 Owner's Activity Report

cc (with enclosure):

U.S. Nuclear Regulatory Commission, Region II
ATTN: Ms. Catherine Haney, Regional Administrator
245 Peachtree Center Ave, NE, Suite 1200
Atlanta, GA 30303-1257

U.S. Nuclear Regulatory Commission
ATTN: Mr. Andrew Hon (Mail Stop OWFN 8G9A) **(Electronic Copy Only)**
11555 Rockville Pike
Rockville, MD 20852-2738

U.S. Nuclear Regulatory Commission
ATTN: Ms. Michelle P. Catts, NRC Senior Resident Inspector
8470 River Road
Southport, NC 28461-8869

Chair - North Carolina Utilities Commission
P.O. Box 29510
Raleigh, NC 27626-0510

Mr. Cliff Dautrich, Bureau Chief
North Carolina Department of Labor
Boiler Safety Bureau
1101 Mail Service Center
Raleigh, NC 27699-1101

Form OAR-1 OWNER'S ACTIVITY REPORT

Report Number: B121R1

Plant: Brunswick Steam Electric Plant

Unit No.: 1 Commercial Service Date: March 1977 Refueling Outage No.: B121R1

Current Inspection Interval: Fourth

Current Inspection Period: Third Period of the Fourth Interval

Edition and Addenda of Section XI applicable to the inspection plans: 2001 Edition with 2003 Addenda

Date and Revision of Inspection Plans: Fourth Interval Revision 4 12/18/2014

Edition and Addenda of Section XI applicable to Repair/Replacement activities, if different than the Inspection Plans: None

Code Cases used: N-460, N-513-3, N-532-4, N-613-1, N-648-1, N-663, and N-695

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 B121R1 conform to the requirements of Section XI. (Refueling Outage Number)

Signed: John Baker

Owner or Owner's Designee, Title

Date: 5/10/16

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 The HSB Inspection and Insurance Company of Connecticut 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.

David M. Reynolds
Inspector's Signature

Commissions NB #9150 A, N, I, B, NS, C Nc #1276
National Board, State, Province, and Endorsements

Date: 5-10-2016

FORM OAR-1 OWNER'S ACTIVITY REPORT

TABLE 1
ITEMS WITH FLAWS OR RELEVANT CONDITIONS THAT REQUIRED EVALUATION FOR CONTINUED SERVICE

Examination Category and Item Number	Item Description	Evaluation Description
Category D-B / Item D2.10	Service Water System Piping Spool 1-SW-103-30-157	Evaluation 402978 - through wall leak in 30" 1-SW-103-30-157 Service Water line per requirements of Code Case N-513-3. NCR 2002959 was originated on 2/19/2016. The piping was replaced during B121R1 outage under W/O 12274010-08.

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	1-E51-F008	Rebuild Valve Due To LLRT Failure	3/12/2016	20062193-01
1	1-B21-1CH1	Adjust Support Setting to Meet Original Design	3/21/2016	13472405-05
1	1-B21-F028C	Replace Valve Stem/Disc Assembly	3/22/2016	13506849-01
1	1-B21-F022B	Replace Valve Stem/Disc Assembly	3/12/2016	13506852-01
1	1-B21-F022A	Replace Valve Stem/Disc Assembly	3/18/2016	13506858-01
1	1-B21-F028A	Replace Valve Stem/Disc Assembly	3/22/2016	13506860-01
2	1-B21-11-10-304	Replace Bolting on T-Quencher Support	3/20/2016	13368383-01
2	1-B21-20-10-304	Replace Bolting on T-Quencher Support	3/20/2016	13368448-01
2	1-B21-26-10-304	Replace Bolting on T-Quencher Support	3/22/2016	13368632-01
3	1-SW-103-30-157	Replace Section of Piping Due to Through wall Leak	3/17/2016	12274010-08
3	1-SW-1B-CONV-PMP-STR	Weld Repair Strainer Leak and Replace Necessary Pressure Retaining Part	10/09/2014	13442338-04
3	1-SW-1B-CONV-PMP-STR	Weld Repair Strainer Leak and Replace Necessary Pressure Retaining Part	5/11/2015	13519970-01
3	1-VA-1B-FCU-RB	Install Tube Sheet Plug by Welding	3/13/2016	13527361-13
3	1-SW-1B-CONV-PMP-STR	Weld Repair Strainer Leak and Replace Necessary Pressure Retaining Part	7/14/2015	13543292-01
3	1-SW-V18	Replace valve Due To Leak By Pass valve	3/22/2016	13369647-01
3	1-SW-1A-CONV-PMP-STR	Restore Strainer Shell To Original Wall Thickness	11/6/2014	13426295-01
3	1-VA-1B-FCU-RB	Repair Wasted Areas on Channel Head By Welding	3/13/2016	13527361-12