



AUG 06 2013

Serial: BSEP 13-0089

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

Subject: Brunswick Steam Electric Plant, Unit No. 2  
Docket No. 50-324  
Inservice Inspection Program Owner's Activity Report for Unit 2 Refueling  
Outage 20

Ladies and Gentlemen:

Duke Energy Progress, Inc., formerly known as Carolina Power & Light Company (CP&L), 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 BSEP Unit 2 Refueling Outage 20 (i.e., designated as B221R1) for the second inspection period. The report has been prepared and is being submitted in accordance with ASME Code Case N-532-4.

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,

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

A047  
NRR

WRM/wrm

Enclosure: Form OAR-1 Owner's Activity Report for B221R1

cc (with enclosure):

U. S. Nuclear Regulatory Commission, Region II  
ATTN: Mr. Victor M. McCree, Regional Administrator  
245 Peachtree Center Ave, NE, Suite 1200  
Atlanta, GA 30303-1257

U. S. Nuclear Regulatory Commission  
ATTN: Mr. Christopher Gratton (Mail Stop OWFN 8G9A)  
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. Jack M. Given, Jr., 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  
for B221R1

Form OAR-1 OWNER'S ACTIVITY REPORT

Report Number: B221R1

Plant: Brunswick Steam Electric Plant

Unit No.: 2 Commercial Service Date: November 1975 Refueling Outage No.: B221R1

Current Inspection Interval: Fourth

Current Inspection Period: Second 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 2 5/21/2013

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

Code Cases used: N-532-4, N-460, and N-663

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 B221R1 conform to the requirements of Section XI. (Refueling Outage Number)

Signed: John Becker Engineering Program Supervisor Date: 7/30/13  
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 H&B GLOBAL STANDARDS of HARTFORD 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.

[Signature] Commissions NB 13399 NC 1559 A, N, I  
Inspector's Signature National Board, State, Province, and Endorsements

Date: 31 Jul 2013

**FORM OAR-1 OWNER'S ACTIVITY REPORT**

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

<b>Examination Category and Item Number</b>	<b>Item Description</b>	<b>Evaluation Description</b>
Category B-A, Item B1.30	Shell to Flange Weld 2B11-RPV-F	Evaluated per ASME IWB-3600 in outage B220R1 and re-inspected this outage. Indication most likely fabrication induced. Acceptable as-is through the end of plant licensed life.

**TABLE 2  
ABSTRACT OF REPAIR/REPLACEMENT ACTIVITIES REQUIRED FOR CONTINUED SERVICE**

<b>Code Class</b>	<b>Item Description</b>	<b>Description of Work</b>	<b>Date Completed</b>	<b>Repair/Replacement Plan Number</b>
1	2-B21-F022B	Perform guide pad modification	4/7/13	1490275-01
1	2-B32-F030	Replace valve leaks by seat	4/16/13	1823432-01
1	2-B11-CRD(26-27)	Replace drive and bolting	4/12/13	1930420-13
1	2-B32-F029	Replace valve leaks by seat	4/4/13	1930420-01