



CP&L

A Progress Energy Company

10 CFR 50.55a

JUN 28 2004

SERIAL: BSEP 04-0081

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

SUBJECT: Brunswick Steam Electric Plant, Unit No. 1
Docket No. 50-325/License No. DPR-71
Inservice Inspection Program for the Third 10-Year Interval - Refueling
Outage 14 Owner's Activity Report

Ladies and Gentlemen:

Carolina Power & Light Company, now doing business as Progress Energy Carolinas, Inc., submits the enclosed American Society of Mechanical Engineers (ASME), Section XI, Form OAR-1 Owner's Activity Reports for the Brunswick Steam Electric Plant (BSEP), Unit No. 1. The enclosed Form OAR-1 Owner's Activity Reports cover inspection activities being credited for the second inspection period of the third 10-year inservice inspection interval. The second period of the third 10-year interval began May 11, 2001, and ends May 10, 2005.

On August 7, 2003, a revision to 10 CFR 50.55a went into effect which incorporates, by reference, NRC Regulatory Guide 1.147, Revision 13, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1." This revision of Regulatory Guide 1.147 indicates that ASME Code Case N-532-1, "Alternative Requirements to Repair and Replacement Documentation Requirements and Inservice Summary Report Preparation and Submission as Required by IWA-4000 and IWA-6000, Section XI, Division 1," can be used provided the OAR-1 forms are submitted to the NRC within 90 days of the completion of the refueling outage. ASME Code Case N-532-1 requires an Owner's Activity Report Form OAR-1 to be prepared and certified upon completion of each refueling outage.

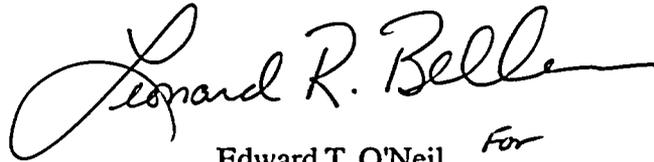
As specified by the ASME Code Case and Regulatory Guide 1.147, the Form OAR-1 Owner's Activity Report for BSEP, Unit 1 Refueling Outage 14 (i.e., B115R1) is provided in Enclosure 1. Enclosure 2 provides a copy of the Form OAR-1 Owner's Activity Report for the containment inspections performed in accordance with the ASME Code, Section XI, Subsections IWE and IWL, during Unit 1 Refueling Outage 14. BSEP Unit 1 Refueling Outage 14 ended on March 31, 2004.

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Please refer any questions regarding this submittal to Mr. Leonard R. Beller, Supervisor -
Licensing/Regulatory Programs, at (910) 457-2073.

Sincerely,

A handwritten signature in black ink that reads "Leonard R. Beller". The signature is fluid and cursive, with a long horizontal stroke at the end.

Edward T. O'Neil *For*
Manager - Support Services
Brunswick Steam Electric Plant

WRM/wrm

Enclosures:

1. Owner's Activity Report - OAR-1 Report for B115R1 Refueling Outage, Revision 0
2. Owner's Activity Report - OAR-1 Report for B115R1 Refueling Outage
Containment Inspections

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cc (with enclosures):

U. S. Nuclear Regulatory Commission, Region II
ATTN: Dr. William D. Travers, Regional Administrator
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW, Suite 23T85
Atlanta, GA 30303-8931

U. S. Nuclear Regulatory Commission
ATTN: Mr. Eugene M. DiPaolo, NRC Senior Resident Inspector
8470 River Road
Southport, NC 28461-8869

U. S. Nuclear Regulatory Commission **(Electronic Copy Only)**
ATTN: Ms. Brenda L. Mozafari (Mail Stop OWFN 8G9)
11555 Rockville Pike
Rockville, MD 20852-2738

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

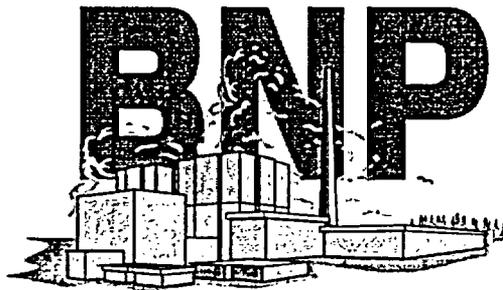
Mr. Jack Given, Bureau Chief
North Carolina Department of Labor
Boiler Safety Bureau
1101 Mail Service Center
Raleigh, NC 27699-1101

BSEP 04-0081
Enclosure 1

Owner's Activity Report - OAR-1 Report
for B115R1 Refueling Outage, Revision 0

PROGRESS ENERGY BRUNSWICK STEAM ELECTRIC PLANT

UNIT 1



OWNER'S ACTIVITY REPORT

OAR-1 REPORT FOR B115R1 REFUELING OUTAGE

REVISION 0

Prepared By: L. D. D. Healey Date 5-24-04
NDE / Snubber & Support Program Manager

Reviewed By: Ray W. Cook Date 5/25/04
Repair/Replacement Program Manager

Reviewed By: Schmitt Bluch Date 6/10/04
Independent Review

Reviewed By: Raymond N. Acomb Date 6/10/04
Authorized Nuclear Inservice Inspector

Revision Summary

- Initial issue

INTRODUCTION

This report represents a summary of the Inservice Inspection (ISI) activities performed at the Progress Energy's Brunswick Steam Electric Plant (BSEP) Unit 1 during the Spring 2004 refueling outage.

The examinations and testing performed during this timeframe were for credit during the second inspection period of the Third Inspection Interval.

Examinations and testing were performed to satisfy the requirements of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Inspection Program B, 1989 Edition with no addenda.

In accordance with requirements of Code Case N-532-1, which has been approved for use at the Brunswick Station, enclosed is the Owners Activity Report (OAR-1 Report).

FORM OAR-1 OWNER'S ACTIVITY REPORT

Report number 1-04-B115R1

Owner Progress Energy Corporation, PO Box 1551, Raleigh, North Carolina
 (Name and Address of Owner)

Plant Brunswick Steam Electric Plant, PO Box 10429, Southport, North Carolina
 (Name and Address of Plant)

Unit No. 1 Commercial Service Date 3/17/77 Refueling outage no. B115R1
 (if applicable)

Current inspection interval 3rd
 (1st, 2nd, 3rd, 4th, other)

Current inspection period 2nd
 (1st, 2nd, 3rd)

Edition and Addenda of Section XI applicable to the inspection plan 1989 Edition with no addenda

Date and revision of inspection plan February 19, 2004 ISI Program Plan revision 10

Edition and Addenda of Section XI applicable to repairs and replacements, if different than the inspection plan NA

CERTIFICATE OF CONFORMANCE

I certify that the statements made in this Owner's Activity Report are correct and that the examinations, tests, repairs, replacements, evaluations and corrective measures represented by this report conform to the requirements of Section XI.

Certificate of Authorization No. NA Expiration Date NA
 (if applicable)

Signed LQQ Wheatley NDE Program Manager Date 5-24-04
 Owner or Owner's Designee, Title

CERTIFICATE OF INSERVICE INSPECTION

I, the under signed, 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 Hartford Steam Boiler of Connecticut have inspected the items described in the Owner's Activity Report during the period 4/2/02 to 6/10/04 and state that to the best of my knowledge and belief, the Owner has performed all of the 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 warrantee, expressed or implied, concerning the tests, repairs, replacements, evaluations and corrective measures described this report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for an personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Ryszard N. Adam Commissions NC-1433, A.N.I.B.C.
 Inspector's Signature National Board, State, Province and Endorsements

Date 6-10-04

TABLE 1

ABSTRACT OF EXAMINATIONS AND TESTS

Examination Category	Total Examinations Required for the Interval	Total Examinations Credited for This Period	Total Examinations Credited (%) for the Period	Total Examinations Credited (%) to Date for the Interval	Remarks
B-A	26	0	0	35	See note 2
B-D	70	25	36	64	See note 2
B-E	46	0	0	0	See note 2
B-F	NA	NA	NA	NA	See note 3
B-G-1	320	0	0	0	See note 2
B-G-2	NA	4	NA	NA	See note 2,5
B-J	NA	NA	NA	NA	See note 3
B-L-2	NA	NA	NA	NA	See note 4
B-M-2	NA	3	NA	NA	See note 4
B-N-1	3	0	0	33	
B-N-2	32	0	0	0	See note 2
B-O	8	0	0	0	See note 2
C-A	3	0	0	33	
C-B	2	0	0	100	See note 6
C-C	18	0	0	22	
C-D	9	0	0	22	See note 7
C-F-2	45	0	0	31	
D-B	49	0	0	18	
F-A	79	9	12	38	
R-A	49	23	47	47	See note 3

TABLE 1 NOTES

The following notes correspond to the numbers referenced in Table 1 of the OAR-1 Report:

1. Examination categories B-B, B-H, B-K-1, B-N-3, B-L-1, B-M-1, C-F-1, C-G, D-A, D-C do not apply to the Brunswick Station or are not required for the Third Inspection Interval.
2. Some or all examinations in this category may be deferred until the end of the inspection interval.
3. Examination category B-F and B-J have been subsumed by Category R-A to reflect approval of a Class 1 Risk Informed ISI Program. This was implemented after commencement of the Inspection Interval and the total number of examinations for the interval reflect relief request RR-27.
4. The examinations under this examination category are event related. They are only required if a subject pump or valve is disassembled during a maintenance activity.
5. Item number B7.80 of this category includes a requirement to examine CRD bolting if a CRD is disassembled. In accordance with relief request RR-04 which implemented Code Case N-547, there is no longer a requirement to examine this bolting
6. This category has only 2 items and is covered by Relief Request RR-21.
7. Only 9 HPCI studs are accessible for examination. The remaining bolts are exempted from examination per relief request RR-2.

TABLE 3

ABSTRACT OF REPAIRS, REPLACEMENTS, OR CORRECTIVE

MEASURES REQUIRED FOR CONTINUED SERVICE

Code Class	Repair, Replacement, or Corrective Measure	Item Description	Description of Work	Flaw or Relevant Condition Found During Scheduled Section XI Examination or Test (Yes or No)	Date Completed	Repair/ Replacement Plan Number
3	Repair	Service Water Piping on line 1- SW-103-24-157	Repair of thru wall leak	No	3/31/2004	525425-01

BSEP 04-0081
Enclosure 2

Owner's Activity Report - OAR-1 Report for
B115R1 Refueling Outage Containment Inspections

ATTACHMENT 1
Page 1 of 2
Code Case N-532 Form OAR-1, Owner's Activity Report

FORM OAR-1 OWNER'S ACTIVITY REPORT

Report Number CIP-B115R1

Owner Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc., PO Box 1551, Raleigh, North Carolina
(Name and Address of Owner)

Plant Brunswick Steam Electric Plant, PO Box 10429, Southport, North Carolina
(Name and Address of Plant)

Unit No. 1 Commercial Service Date March 1977 Refueling Outage No. B115R1
(if applicable)

Current Inspection Interval First Containment Inspection Interval (Subsection IWE & IWL Only)
(1st, 2nd, 3rd, 4th, other)

Current Inspection Period 2nd Inspection Period
(1st, 2nd, 3rd)

Edition and Addenda of Section XI Applicable to the Inspection Plan 1992 Edition w/ 1992 Addenda

Date and Revision of Inspection Plan 0BNP-TR-002 (R6-3/01/03, R5-2/25/02 and R4-12/27/00)

Edition and Addenda of Section XI Applicable to Repairs and Replacements, if different than the Inspection Plan N/A

CERTIFICATE OF CONFORMANCE

I certify that the statements made in this Owner's Activity Report are correct and that the examinations, tests, repairs, replacements, evaluations, and corrective measures represented by this report conform to the requirements of Section XI.

Certificate of Authorization No. N/A Expiration Date N/A
(if applicable)

Signed *J. Mc Intyre* Equipment Performance Supervisor Date 6-23-04
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 Hartford Steam Boiler Inspection and Insurance Company of Hartford, Connecticut have inspected the items described in this Owner's Activity Report, during the period 4/16/02 to 4/10/04, and state that to the best of my knowledge and belief, the Owner has performed all of the 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 examinations, tests, repairs, replacements, evaluations and corrective measures 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.

Raymond N. Acemb Commissions NB-9557-ANIBC; NC-1433
Inspector's Signature National Board, State, Province and Endorsements
Date 6-23-04

This form (E00127) may be obtained for the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300

ATTACHMENT 2
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Code Case N-532 Tables 1, 2, and 3

Note: This Owner's Activity Report is only applicable to the Containment Inspection Program (Subsection IWE & IWL) and does not address Class 1, 2, and 3 components.

TABLE 1
ABSTRACT OF EXAMINATIONS AND TESTS

Examination Category	Total Examinations Required For The Interval	Total Examinations Credited For This Period	Total Examinations Credited (%) For This Period	Total Examinations Credited (%) To Date For The Interval	Remarks
E-A	642 (214/Period)	214	100%	66%	Performed examinations on E-A components except those components which were insulated or submerged. Original number of 261/period conservatively included examination of exterior and interior surfaces. Total number of examinations for interval reduced to 214. Percentage change for exams performed reflects the reduced value
E-B	N/A	N/A	N/A	N/A	This Category is not being implemented as allowed by 10 CFR 50.55a(b)(2)(ix)(C).
E-C	48 (16/Period)	16	100%	66%	
E-D	3 (1/Period)	1	100%	66%	
E-F	N/A	N/A	N/A	N/A	This Category is not being implemented as allowed by 10 CFR 50.55a(b)(2)(ix)(C).
E-G	27 (9/Period)	9	100%	66%	
E-P	N/A	N/A	N/A	N/A	
L-A	N/A	18	100%	N/A	
L-B	N/A	N/A	N/A	N/A	The Unit 1 containment does not have a post-tensioning system.

TABLE 2
ITEMS WITH FLAWS OR RELEVANT CONDITIONS THAT REQUIRE EVALUATION FOR CONTINUED SERVICE

Examination Category	Item Number	Item Description	Flaw Characterization (IWA-3000)	Flaw or Relevant Condition Found During Scheduled Section XI Examination or Test (Yes or No)
E-A	1-X-2	General Corrosion on Liner Exterior	IWE-3122.4	Yes
E-A	1-X-5H	General Corrosion on Liner Exterior	IWE-3122.4	Yes

TABLE 3
ABSTRACT OF REPAIRS, REPLACEMENTS, OR CORRECTIVE MEASURES REQUIRED FOR CONTINUED SERVICE

Code Class	Repair, Replacement, or Corrective Measure	Item Description	Description of Work	Flaw or Relevant Condition Found During Scheduled Section XI Examination or Test (Yes or No)	Date Completed	Repair/ Replacement Plan Number
E-A	1-X-2	General Corrosion on Penetration Sleeve Interior and Exterior Surfaces	Restored design wall thickness by welding on interior surface.	Yes	3/30/04	532406-01
E-A	1-X-5H	General Corrosion on Vent Header Penetration Sleeve Exterior	Restored design wall thickness by welding on interior surface.	Yes	3/30/04	534725-01

In accordance with 10CFR50.55a (b)(2)(ix)(A), the inaccessible areas of the containment liner which displayed evidence of degradation are addressed below.

- (1) Blistering was identified during general visual examinations in 1-X-2. The blisters were removed and pitting beneath the coating was excavated to sound metal. Pit depth measurements and ultrasonic measurements were taken to assess remaining liner thickness. The ultrasonic measurements indicated that the liner

ATTACHMENT 2

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Code Case N-532 Tables 1, 2, and 3

thickness in the area of the pitting was below the expected wall thickness for the liner when compared with the design drawings. Further measurements identified that there was wastage on the exterior surface of the Drywell Personnel Airlock penetration (Component 1-X-2). The wastage was attributed to surface corrosion as a result of a material defect occurring during construction. Additionally, one of the Torus Vent Headers (component 1-X-5H) was identified as exhibiting similar blistering. This component was also examined ultrasonically and found to have wastage in a limited area (4" X 8"). Both components share similar design features. A sample expansion of the other containment components was conducted and it was determined that the exterior surface degradation was limited to 1-X-2 and 1-X-5H.

- (2) The degraded areas were evaluated by Engineering Change (EC) 55991. A sample of the corrosion products indicated that the corrosion process had been arrested.
- (3) Areas below design were repaired by weld overlay to a dimension supporting continued operation through the next cycle. These areas will be monitored through augmented examinations. The items will be tracked as category E-C.