



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION II  
SAM NUNN ATLANTA FEDERAL CENTER  
61 FORSYTH STREET, SW, SUITE 23T85  
ATLANTA, GEORGIA 30303-8931

September 2, 2008

Mr. Benjamin C. Waldrep  
Vice President  
Carolina Power and Light Company  
Brunswick Steam Electric Plant  
P. O. Box 10429  
Southport, NC 28461

**SUBJECT: MID-CYCLE PERFORMANCE REVIEW AND INSPECTION PLAN -  
BRUNSWICK STEAM ELECTRIC PLANT UNIT 1 AND UNIT 2**

Dear Mr. Waldrep:

On August 13, 2008, the NRC staff completed its performance review of the Brunswick Steam Electric Plant for the first half of the calendar year 2008 assessment cycle. Our technical staff reviewed performance indicators (PIs) for the most recent quarter and inspection results over the previous twelve months. The purpose of this letter is to inform you of our assessment of your safety performance during this period and our plans for future inspections at your facility.

This performance review and the enclosed inspection plan do not include security information. A separate letter designated and marked as "Official Use Only-Security Related Information" will include the Physical Protection/Security cornerstone performance review and a resultant inspection plan.

Plant performance for the most recent quarter at Brunswick Unit 1 and 2 was within the Licensee Response column of the NRC's Action Matrix, based on all inspection findings being classified as having very low safety significance (Green) and all PIs indicating performance at a level requiring no additional NRC oversight (Green). Therefore, we plan to conduct reactor oversight process (ROP) baseline inspections at your facility. We also plan on conducting several non-ROP inspections involving initial operator licensing examinations, Independent Spent Fuel Storage Installation (ISFSI), B.5.b Phase 2 and 3 (TI-171), and Emergency Response Organization Drill/Exercise Performance Indicator (TI-175). In addition, TI 2515/173, "Review of the Implementation of the Industry Ground Water Protection Voluntary Initiative", will be performed at your facility prior to August 30, 2010. In the near term, we will contact you to assess your readiness for this inspection and then finalize our schedule accordingly.

The enclosed inspection plan details the inspections, less those related to physical protection, scheduled through December 31, 2009. The inspection plan is provided to allow for the resolution of any scheduling conflicts and personnel availability issues well in advance of inspector arrival onsite. Routine resident inspections are not listed due to their ongoing and continuous nature. The inspections in the last nine months of the inspection plan are tentative and may be revised at the end-of-cycle review.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

If circumstances arise which cause us to change the inspection plan, we will contact you to discuss the change as soon as possible. Please contact me at (404) 562-4603 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

*/RA/*

Randall A. Musser, Chief  
Reactor Projects Branch 4  
Division of Reactor Projects

Docket Nos.: 50-325 and 50-324  
License Nos.: DPR-71 and DPR-62

Enclosure: Brunswick Inspection/Activity Plan

cc w/encl:  
Brian C. McCabe  
Manager  
Nuclear Regulatory Affairs  
Progress Energy  
Electronic Mail Distribution

Director, Site Operations  
Brunswick Steam Electric Plant  
Carolina Power & Light Company  
P.O. Box 10429  
Southport, NC 28461-0429

R. J. Duncan, II  
Vice President  
Nuclear Operations  
Carolina Power & Light Company  
Electronic Mail Distribution

Benjamin C. Waldrep  
Vice President  
Brunswick Steam Electric Plant  
Carolina Power & Light Company  
Electronic Mail Distribution

Paul Fulford  
Manager  
Performance Evaluation and Regulatory  
Affairs PEB5  
Carolina Power & Light Company  
Electronic Mail Distribution

Edward L. Wills, Jr.  
Plant General Manager  
Brunswick Steam Electric Plant  
Carolina Power and Light Company  
Electronic Mail Distribution

Donald L. Griffith  
Manager  
Brunswick Steam Electric Plant  
Progress Energy Carolinas, Inc.  
Electronic Mail Distribution

Randy C. Ivey  
Manager  
Support Services Brunswick Steam Electric  
Plant  
Progress Energy Carolinas, Inc.  
Electronic Mail Distribution

Garry D. Miller  
Manager  
License Renewal  
Progress Energy  
Electronic Mail Distribution

Gene Atkinson  
Supervisor  
Licensing/Regulatory Programs  
Brunswick Steam Electric Plant  
Electronic Mail Distribution

James Ross  
Nuclear Energy Institute  
Electronic Mail Distribution

John H. O'Neill, Jr.  
Shaw, Pittman, Potts & Trowbridge  
2300 N. Street, NW  
Washington, DC 20037-1128

Beverly O. Hall  
Chief, Radiation Protection Section  
Department of Environmental Health  
N.C. Department of Environmental  
Commerce & Natural Resources  
Electronic Mail Distribution

Peggy Force  
Assistant Attorney General  
State of North Carolina  
P.O. Box 629  
Raleigh, NC 27602

Chairman  
North Carolina Utilities Commission  
Electronic Mail Distribution

CP&L

4

Robert P. Gruber  
Executive Director  
Public Staff - NCUC  
4326 Mail Service Center  
Raleigh, NC 27699-4326

Public Service Commission  
State of South Carolina  
P.O. Box 11649  
Columbia, SC 29211

David R. Sandifer  
Brunswick County Board of Commissioners  
P.O. Box 249  
Bolivia, NC 28422

Warren Lee  
Emergency Management Director  
New Hanover County Department of  
Emergency Management  
230 Government Center Drive  
Suite 115  
Wilmington, NC 28403

**Brunswick**  
**Inspection / Activity Plan**  
**09/01/2008 - 12/31/2009**

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	<b>TI-171 - B.5.B PHASE 2&amp;3</b>		<b>3</b>			
1,2	IP 2515/171	Verification of Site Specific Implementation Of B.5.b Phase 2 & 3 Mitigating Strategies		09/15/2008	09/19/2008	Generic Safety Inspectio
	<b>OL EXAM - INITIAL EXAM PREP</b>		<b>3</b>			
1	V23291	BRUNSWICK/DECEMBER 2008 EXAM AT POWER FACILITIES		10/06/2008	10/10/2008	Not Applicable
	<b>EB2-TFP - TRIENNIAL FIRE PROTECTION</b>		<b>8</b>			
1,2	IP 7111105P	Fire Protection-NFPA 805 Transition Period [Triennial]		11/03/2008	11/07/2008	Baseline Inspections
1,2	IP 7111105P	Fire Protection-NFPA 805 Transition Period [Triennial]		11/17/2008	11/21/2008	Baseline Inspections
	<b>ISFSI - ISFSI PAD FORM &amp; REBAR &amp; CONCRETE</b>		<b>2</b>			
1,2	IP 60853	On-Site Fabrication Of Components And Construction On An ISFSI		11/03/2008	11/07/2008	Other Routine
	<b>OL EXAM - INITIAL EXAM</b>		<b>3</b>			
1	V23291	BRUNSWICK/DECEMBER 2008 EXAM AT POWER FACILITIES		11/03/2008	11/07/2008	Not Applicable
	<b>OL RQ - REQUAL INSPECTION</b>		<b>3</b>			
1,2	IP 7111111B	Licensed Operator Requalification Program		11/17/2008	11/21/2008	Baseline Inspections
	<b>PSB1-EP - EMERGENCY PREPAREDNESS EXERCISE</b>		<b>3</b>			
1,2	IP 2515/175	Emergency Response Organization, Drill/Exercise Performance Indicator, Program Review		11/17/2008	11/21/2008	Baseline Inspections
1,2	IP 7111401	Exercise Evaluation		11/17/2008	11/21/2008	EP Baseline Inspection
1,2	IP 7111404	Emergency Action Level and Emergency Plan Changes		11/17/2008	11/21/2008	EP Baseline Inspection
1,2	IP 71151-EP01	Drill/Exercise Performance		11/17/2008	11/21/2008	Baseline Inspections
1,2	IP 71151-EP02	ERO Drill Participation		11/17/2008	11/21/2008	Baseline Inspections
1,2	IP 71151-EP03	Alert & Notification System		11/17/2008	11/21/2008	Baseline Inspections
	<b>PSB1-RP - RP OCCUPATIONAL PRE INSPECTION VISIT</b>		<b>1</b>			
1,2	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants		02/02/2009	02/04/2009	Other Routine
1,2	IP 7112101	Access Control to Radiologically Significant Areas		02/02/2009	02/04/2009	Baseline Inspections
	<b>EB3ISI - UNIT 2 INSERVICE INSPECTION</b>		<b>1</b>			
2	IP 7111108G	Inservice Inspection Activities - BWR		03/09/2009	03/13/2009	Baseline Inspections
	<b>PSB1-RP - RP OCCUPATIONAL BASELINE WEEK1</b>		<b>3</b>			
1,2	IP 7112101	Access Control to Radiologically Significant Areas		03/09/2009	03/13/2009	Baseline Inspections
1,2	IP 7112102-7112102R	ALARA - Required		03/09/2009	03/13/2009	Baseline Inspections
1,2	IP 7112202	Radioactive Material Processing and Transportation		03/09/2009	03/13/2009	Baseline Inspections
1,2	IP 71151-OR01	Occupational Exposure Control Effectiveness		03/09/2009	03/13/2009	Baseline Inspections
1,2	IP 71151-PR01	RETS/ODCM Radiological Effluent		03/09/2009	03/13/2009	Baseline Inspections
	<b>PSB1-RP - RADIATION PROTECTION OCCUPATIONAL WK2</b>		<b>2</b>			
1,2	IP 7112101	Access Control to Radiologically Significant Areas		03/23/2009	03/27/2009	Baseline Inspections
1,2	IP 7112102	ALARA Planning and Controls		03/23/2009	03/27/2009	Baseline Inspections
1,2	IP 7112202	Radioactive Material Processing and Transportation		03/23/2009	03/27/2009	Baseline Inspections

This report does not include INPO and OUTAGE activities.  
This report shows only on-site and announced inspection procedures.

**Brunswick**  
**Inspection / Activity Plan**  
**09/01/2008 - 12/31/2009**

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates		Inspection Type
				Start	End	
	<b>PSB1-RP - RADIATION PROTECTION OCCUPATIONAL WK2</b>		<b>2</b>			
1,2	IP 71151-OR01	Occupational Exposure Control Effectiveness		03/23/2009	03/27/2009	Baseline Inspections
1,2	IP 71151-PR01	RETS/ODCM Radiological Effluent		03/23/2009	03/27/2009	Baseline Inspections
	<b>PI&amp;R - PROBLEM IDENTIFICATION AND RESOLUTION</b>		<b>5</b>			
1,2	IP 71152B	Identification and Resolution of Problems		04/20/2009	04/24/2009	Baseline Inspections
1,2	IP 71152B	Identification and Resolution of Problems		05/04/2009	05/08/2009	Baseline Inspections
	<b>EB3-HS - HEAT SINK</b>		<b>1</b>			
1,2	IP 7111107B	Heat Sink Performance		07/06/2009	07/10/2009	Baseline Inspections
	<b>OL EXAM - INITIAL EXAM PREP</b>		<b>3</b>			
1	V23322	BRUNSWICK/NOVEMBER 2009 EXAM AT POWER FACILITIES		10/26/2009	10/30/2009	Not Applicable
	<b>OL EXAM - INITIAL EXAM - WEEK 1</b>		<b>3</b>			
1	V23322	BRUNSWICK/NOVEMBER 2009 EXAM AT POWER FACILITIES		11/16/2009	11/20/2009	Not Applicable
	<b>PSB1EP - EMERGENCY PREPAREDNESS INSPECTION</b>		<b>1</b>			
1,2	IP 7111402	Alert and Notification System Testing		11/16/2009	11/20/2009	EP Baseline Inspection
1,2	IP 7111403	Emergency Response Organization Augmentation Testing		11/16/2009	11/20/2009	EP Baseline Inspection
1,2	IP 7111404	Emergency Action Level and Emergency Plan Changes		11/16/2009	11/20/2009	EP Baseline Inspection
1,2	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies		11/16/2009	11/20/2009	EP Baseline Inspection
1,2	IP 71151-EP01	Drill/Exercise Performance		11/16/2009	11/20/2009	Baseline Inspections
1,2	IP 71151-EP02	ERO Drill Participation		11/16/2009	11/20/2009	Baseline Inspections
1,2	IP 71151-EP03	Alert & Notification System		11/16/2009	11/20/2009	Baseline Inspections
	<b>OL EXAM - INITIAL EXAM - WEEK 2</b>		<b>3</b>			
1	V23322	BRUNSWICK/NOVEMBER 2009 EXAM AT POWER FACILITIES		11/30/2009	12/04/2009	Not Applicable

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