



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

March 3, 2010

Carolina Power and Light Company
Mr. Michael J. Annacone
Vice President
Brunswick Steam Electric Plant
P. O. Box 10429
Southport, NC 28461

**SUBJECT: ANNUAL ASSESSMENT LETTER - BRUNSWICK STEAM ELECTRIC PLANT
UNIT 1 AND UNIT 2 (NRC INSPECTION REPORT 05000325/2010001 AND
05000324/2010001)**

Dear Mr. Annacone:

On February 10, 2010, the NRC staff completed its performance review of the Brunswick Steam Electric Plant. Our technical staff reviewed performance indicators (PIs) for the most recent quarter and inspection results for the period from January 1 through December 31, 2009. 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 Security cornerstone performance review and a resultant inspection plan.

Overall, Brunswick Units 1 and 2 operated in a manner that preserved public health and safety and fully met all cornerstone objectives. Plant performance for the most recent quarter, as well as the previous two quarters of the assessment cycle, was within the Regulatory Response Column of the NRC's Action Matrix, based on a white inspection finding involving the alternate safe shutdown function related to the emergency diesel generators. Therefore, in addition to conducting reactor oversight process (ROP) baseline inspections at your facility, we plan to conduct a supplemental inspection in accordance with Inspection Procedure 95001, "Inspection for One or Two White Inputs in a Strategic Performance Area," beginning on March 15, 2010. We also plan on conducting several infrequently performed inspections, which include: initial operator licensing examinations, TI 2515/177, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray System," and Independent Spent Fuel Storage Installation (ISFSI) pre-operational testing.

Additionally, the NRC recognized that you had a cross-cutting theme in the area of human performance based on more than three inspection findings in this area during the assessment period. However, the NRC did not determine that a substantive cross-cutting issue exists because of the actions that you have taken thus far. We reviewed your improvement initiatives

and corrective actions and have noted some progress in addressing the issue. We will continue to assess your performance in this area through the implementation of the baseline inspections.

The enclosed inspection plan details the inspections, less those related to physical protection scheduled through June 30, 2011. 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 listed in the last nine months of the inspection plan are tentative and may be revised at the mid-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 Randy Musser at (404) 562-4603 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

/RA/

Leonard D. Wert, Jr., Director
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: (See page 3)

cc w/encl:

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

Director Site Operations
Brunswick Steam Electric Plant
Electronic Mail Distribution

Edward L. Wills, Jr.
Plant General Manager
Brunswick Steam Electric Plant
Progress Energy Carolinas, Inc.
Electronic Mail Distribution

Christos Kamilaris, Director
Fleet Support Services
Carolina Power & Light Company
Electronic Mail Distribution

Joseph W. Donahue, Vice President
Nuclear Oversight
Carolina Power and Light Company
Electronic Mail Distribution

Brian C. McCabe
Manager, Nuclear Regulatory Affairs
Progress Energy Carolinas, Inc.
Electronic Mail Distribution

Phyllis N. Mentel,
Manager, Support Services
Brunswick Steam Electric Plant
Progress Energy Carolinas, Inc.
Electronic Mail Distribution

Michael S. Williams, Manager, Training
Brunswick Steam Electric Plant
Progress Energy Carolinas, Inc.
Electronic Mail Distribution

(Vacant)
Manager, License Renewal
Progress Energy
Electronic Mail Distribution

Annette H. Pope
Supervisor, Licensing/Regulatory Programs
Brunswick Steam Electric Plant
Progress Energy Carolinas, Inc.
Electronic Mail Distribution

Senior Resident Inspector
U.S. Nuclear Regulatory Commission
Brunswick Steam Electric Plant
U.S. NRC
8470 River Road, SE
Southport, NC 28461

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

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

Chairman
North Carolina Utilities Commission
Electronic Mail Distribution

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

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

James Ross
Nuclear Energy Institute
Electronic Mail Distribution

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

cc w/encl. (continued next page)

cc w/encl. (continued)
W. Lee Cox, III
Section Chief
Radiation Protection Section
N.C. Department of Environmental
Commerce & Natural Resources
Electronic Mail Distribution

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
03/01/2010 - 06/30/2011

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			EB3ISI - UNIT 1 INSERVICE INSPECTION		1
1	03/01/2010	03/05/2010	IP 7111108G	Inservice Inspection Activities - BWR	
			PSB1-RP - RP HAZARD ASSMT AND EXP CONTROLS		1
1,2	03/01/2010	03/05/2010	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1,2	03/01/2010	03/05/2010	IP 71124.04	Occupational Dose Assessment	
			DRS/EB2 - 95001 SUPPLEMENTAL INSPECTION		1
1,2	03/15/2010	03/19/2010	IP 95001	Supplemental Inspection For One Or Two White Inputs In A Strategic Performance Area	
			OL EXAM - INITIAL EXAM PREP		8
1	03/15/2010	03/19/2010	V23322	BRUNSWICK/APRIL 2010 EXAM AT POWER FACILITIES	
			OL EXAM - INITIAL EXAM - WEEK 1		8
1	04/05/2010	04/09/2010	V23322	BRUNSWICK/APRIL 2010 EXAM AT POWER FACILITIES	
			OL EXAM - INITIAL EXAM - WEEK 2		7
1	04/12/2010	04/23/2010	V23322	BRUNSWICK/APRIL 2010 EXAM AT POWER FACILITIES	
			PSB1EP - EMERGENCY PREPAREDNESS EXERCISE		3
1,2	06/21/2010	06/25/2010	IP 7111401	Exercise Evaluation	
1,2	06/21/2010	06/25/2010	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1,2	06/21/2010	06/25/2010	IP 71151	Performance Indicator Verification	
			INSP. - COMPONENT DESIGN BASIS INSP. (TRIENIAL)		6
1,2	09/20/2010	09/24/2010	IP 7111121	Component Design Bases Inspection	
1,2	10/04/2010	10/08/2010	IP 7111121	Component Design Bases Inspection	
1,2	10/18/2010	10/22/2010	IP 7111121	Component Design Bases Inspection	
1,2	11/01/2010	11/05/2010	IP 7111121	Component Design Bases Inspection	
			OL RQ - REQUAL INSPECTION		2
1,2	10/18/2010	10/22/2010	IP 7111111B	Licensed Operator Requalification Program	
			OL EXAM - INITIAL EXAM PREP		4
1	11/15/2010	11/19/2010	V23342	BRUNSWICK/DECEMBER 2010 EXAM AT POWER FACILITIES	
			TI-177 - TI-177 GAS ACCUMULATION		3
1	11/29/2010	12/03/2010	IP 2515/177	Managing Gas Accumulation In Emergency Core Cooling, Decay Heat Removal & Containment Spray System	
			OL EXAM - INITIAL EXAM WEEK 1		3
1	12/06/2010	12/10/2010	V23342	BRUNSWICK/DECEMBER 2010 EXAM AT POWER FACILITIES	
			OL EXAM - INITIAL EXAM WEEK 2		3
1	12/13/2010	12/17/2010	V23342	BRUNSWICK/DECEMBER 2010 EXAM AT POWER FACILITIES	
			EB3ISI - UNIT 2 INSERVICE INSPECTION		1
2	03/21/2011	03/25/2011	IP 7111108G	Inservice Inspection Activities - BWR	

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

Enclosure

Brunswick
Inspection / Activity Plan
03/01/2010 - 06/30/2011

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
PSB1-RP - RP OCCUPATIONAL WEEK 1					3
1,2	03/21/2011	03/25/2011	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1,2	03/21/2011	03/25/2011	IP 71124.02	Occupational ALARA Planning and Controls	
1,2	03/21/2011	03/25/2011	IP 71124.04	Occupational Dose Assessment	
1,2	03/21/2011	03/25/2011	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
1,2	03/21/2011	03/25/2011	IP 71151	Performance Indicator Verification	
PSB1-RP - RP OCCUPATIONAL WEEK 2					2
1,2	04/04/2011	04/08/2011	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1,2	04/04/2011	04/08/2011	IP 71124.02	Occupational ALARA Planning and Controls	
1,2	04/04/2011	04/08/2011	IP 71124.04	Occupational Dose Assessment	
1,2	04/04/2011	04/08/2011	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
1,2	04/04/2011	04/08/2011	IP 71151	Performance Indicator Verification	
PI&R - PROBLEM IDENTIFICATION AND RESOLUTION					4
1,2	05/09/2011	05/13/2011	IP 71152B	Identification and Resolution of Problems	
1,2	05/23/2011	05/27/2011	IP 71152B	Identification and Resolution of Problems	
PSB1EP - EMERGENCY PREPAREDNESS INSPECTION					1
1,2	06/27/2011	07/01/2011	IP 7111402	Radiological Environmental Monitoring Program	
1,2	06/27/2011	07/01/2011	IP 7111403	Emergency Response Organization Augmentation Testing	
1,2	06/27/2011	07/01/2011	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1,2	06/27/2011	07/01/2011	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
1,2	06/27/2011	07/01/2011	IP 71151-EP01	Drill/Exercise Performance	
1,2	06/27/2011	07/01/2011	IP 71151-EP02	ERO Drill Participation	
1,2	06/27/2011	07/01/2011	IP 71151-EP03	Alert & Notification System	

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

Enclosure

07200006 - CAROLINA POWER

Inspection / Activity Plan

03/01/2010 - 06/30/2011

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			ISFSI	- BRUNSWICK ISFSI PRE-OPERATIONAL TESTING	1
1	01/01/2010	03/31/2010	IP 60854	Preoperational Testing Of An ISFSI	
			ISFSI	- BRUNSWICK CRANE INSPECTION	2
1	04/12/2010	04/16/2010	IP 60854	Preoperational Testing Of An ISFSI	
			ISFSI	- BRUNSWICK WELDING DEMO & DRY RUN	2
1	09/13/2010	09/17/2010	IP 60854	Preoperational Testing Of An ISFSI	
			ISFSI	- BRUNSWICK INITIAL LOADING CAMPAIGN	5
1	10/04/2010	10/08/2010	IP 60855	Operation Of An ISFSI	

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

Enclosure