



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION II  
245 PEACHTREE CENTER AVENUE NE, SUITE 1200  
ATLANTA, GEORGIA 30303-1257

September 1, 2010

Carolina Power and Light Company  
ATTN: Mr. Michael J. Annacone  
Vice President  
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. Annacone:

On August 11, 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 July 1, 2009, through June 30, 2010. 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.

Plant performance for the most recent quarter at Brunswick Units 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. In addition to ROP baseline inspection activities, we also plan on conducting several infrequently performed inspections, which include Temporary Instruction (TI) 2515/177, Managing Gads Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray System; Independent Spent Fuel Storage Installation (ISFSI); TI 2515/179, Verification of Licensee Responses to NRC Requirements for Inventories for Materials Tracked in NSTS; and initial operator licensing examinations.

The enclosed inspection plan details the inspections, less those related to security, scheduled through December 31, 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 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).

As you may know, the NRC is currently evaluating the scope and frequency of all the baseline inspection procedures. If the results of the evaluation, or any other circumstances, cause us to change the inspection plan, we will contact you to discuss the change as soon as possible. Please contact me at 404-997-4603 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, 50-324 and 72-06  
License Nos.: DPR-71 and DPR-62

Enclosure: Brunswick Inspection/Activity Plan (09/01/2010 – 12/31/2011)

cc w/encl: (See page 3)

cc w/encl:

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cc w/encl. (see next page)

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4

cc w/encl. (continued)

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**Brunswick**  
**Inspection / Activity Plan**  
**09/01/2010 - 12/31/2011**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			<b>SIT - BRUNSWICK SPECIAL INSPECTION - EP</b>		<b>2</b>
1,2	06/09/2010	09/17/2010	IP 93812	Special Inspection	
			<b>PSB1EP - EMERGENCY PREPAREDNESS EXERCISE</b>		<b>4</b>
1,2	08/30/2010	09/03/2010	IP 7111401	Exercise Evaluation	
1,2	08/30/2010	09/03/2010	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1,2	08/30/2010	09/03/2010	IP 71151	Performance Indicator Verification	
			<b>ISFSI - ISFSI WELDING DEMO &amp; DRY RUN</b>		<b>5</b>
1,2	09/20/2010	09/24/2010	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
			<b>CDBI - COMPONENT DESIGN BASIS INSPECTION</b>		<b>6</b>
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	
			<b>ISFSI - ISFSI FIRST CAMPAIGN</b>		<b>3</b>
1,2	10/04/2010	10/08/2010	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
			<b>OL EXAM - INITIAL EXAM PREP</b>		<b>5</b>
1	11/15/2010	11/19/2010	V23342	BRUNSWICK/DECEMBER 2010 EXAM AT POWER FACILITIES	
			<b>TI-177 - TI-177 GAS ACCUMULATION</b>		<b>3</b>
1	11/29/2010	12/03/2010	IP 2515/177	Managing Gas Accumulation In Emergency Core Cooling, Decay Heat Removal & Containment Spray System	
			<b>OL RQ - REQUAL INSPECTION</b>		<b>4</b>
1,2	11/29/2010	12/03/2010	IP 7111111B	Licensed Operator Requalification Program	
			<b>OL EXAM - INITIAL EXAM WEEK 1</b>		<b>4</b>
1	12/06/2010	12/10/2010	V23342	BRUNSWICK/DECEMBER 2010 EXAM AT POWER FACILITIES	
			<b>OL EXAM - INITIAL EXAM WEEK 2</b>		<b>4</b>
1	12/13/2010	12/17/2010	V23342	BRUNSWICK/DECEMBER 2010 EXAM AT POWER FACILITIES	
			<b>PSB1-RP - RP OCCUPATIONAL WEEK 1</b>		<b>3</b>
1,2	03/07/2011	03/11/2011	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1,2	03/07/2011	03/11/2011	IP 71124.02	Occupational ALARA Planning and Controls	
1,2	03/07/2011	03/11/2011	IP 71124.04	Occupational Dose Assessment	
1,2	03/07/2011	03/11/2011	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
1,2	03/07/2011	03/11/2011	IP 71151	Performance Indicator Verification	
			<b>PSB1-TI - TI-179 NSTS VERIFICATION</b>		<b>2</b>
1,2	03/07/2011	03/11/2011	IP 2515/179	Verification of Licensee Responses to NRC Requirement for Inventories of Materials Tracked in NSTS	
1,2	03/21/2011	03/25/2011	IP 2515/179	Verification of Licensee Responses to NRC Requirement for Inventories of Materials Tracked in NSTS	

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

Enclosure

**Brunswick**  
**Inspection / Activity Plan**  
**09/01/2010 - 12/31/2011**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			<b>EB3ISI - UNIT 2 INSERVICE INSPECTION</b>		<b>1</b>
2	03/14/2011	03/18/2011	IP 7111108G	Inservice Inspection Activities - BWR	
			<b>PSB1-RP - RP OCCUPATIONAL WEEK 2</b>		<b>2</b>
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	
			<b>PI&amp;R - PROBLEM IDENTIFICATION AND RESOLUTION</b>		<b>8</b>
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	
			<b>PSB1EP - EMERGENCY PREPAREDNESS INSPECTION</b>		<b>1</b>
1,2	06/27/2011	07/01/2011	IP 7111402	Alert and Notification System Testing	
1,2	06/27/2011	07/01/2011	IP 7111403	Emergency Preparedness Organization Staffing and Augmentation System	
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	Performance Indicator Verification	
			<b>MODS - MODS/50.59 INSPECTION</b>		<b>5</b>
1,2	07/18/2011	07/22/2011	IP 7111117T	Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications	
1,2	08/01/2011	08/05/2011	IP 7111117T	Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications	
			<b>TFPI - TRIENNIAL FIRE PROTECTION INSPECTION</b>		<b>7</b>
1,2	10/31/2011	11/04/2011	IP 7111105T	Fire Protection [Triennial]	
1,2	11/14/2011	11/18/2011	IP 7111105T	Fire Protection [Triennial]	

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