



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

March 1, 2017

William R. Gideon  
Site Vice President  
Brunswick Steam Electric Plant  
8470 River Rd. SE (M/C BNP001)  
Southport, NC 28461

**SUBJECT: ANNUAL ASSESSMENT LETTER FOR BRUNSWICK STEAM ELECTRIC  
PLANT, UNITS 1 AND 2 – NRC INSPECTION REPORT 05000325/2016006  
AND 05000324/2016006**

Dear Mr. Gideon:

The NRC has completed its end-of-cycle performance assessment of the Brunswick Steam Electric Plant, Units 1 and 2, reviewing performance indicators (PIs), inspection results, and enforcement actions from January 1, 2016 through December 31, 2016. This letter informs you of the NRC's assessment of your facility during this period and its plans for future inspections at your facility. The NRC concluded that overall performance at your facility preserved public health and safety.

The NRC determined the performance at the Brunswick Steam Electric Plant, Units 1 and 2, during the most recent quarter was within the Licensee Response Column, the highest performance category of the NRC's Reactor Oversight Process (ROP) Action Matrix, because all inspection findings had very low safety significance (i.e., Green), and all PIs were within the expected range (i.e., Green). Therefore, the NRC plans to conduct ROP baseline inspections at your facility.

The enclosed inspection plan lists the inspections scheduled through December 31, 2018. The NRC provides the inspection plan to allow for the resolution of any scheduling conflicts and personnel availability issues. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the last twelve months of the inspection plan are tentative and may be revised. The NRC will contact you as soon as possible to discuss changes to the inspection plan should circumstances warrant any changes. This inspection plan does not include the plan for security-related inspections, which will be sent via separate, non-publicly available correspondence.

W. Gideon

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Additionally, Temporary Instruction 2515/192, Inspection of the Licensee's Interim Compensatory Measures Associated with an Open Phase Condition (OPC) Design Vulnerability in Electric Power Systems, will be conducted before March 31, 2017.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390 of the NRC's "Rules of Practice," a copy of this letter will be 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).

Please contact me at 404-997-4609 with any questions you have regarding this letter.

Sincerely,

*/RA/*

Steven D. Rose, Chief  
Reactor Projects Branch 4  
Division of Reactor Projects

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

Enclosure:  
Brunswick Inspection/Activity Plan  
03/01/2017 – 12/31/2018

cc Distribution via Listserv

SUBJECT: ANNUAL ASSESSMENT LETTER FOR BRUNSWICK STEAM ELECTRIC PLANT,  
UNITS 1 AND 2 – NRC INSPECTION REPORT 05000325/2016006 AND  
05000324/2016006 March 1, 2017

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**Brunswick**  
**Inspection / Activity Plan**  
**03/01/2017 - 12/31/2018**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			<b>TI 192 - TI-192</b>		<b>2</b>
1, 2	01/01/2017	03/31/2017	IP 2515/192	Inspection of the Licensee's Interim Compensatory Measures Associated with the Open Phase Condition	
			<b>RP - RAD HAZARDS</b>		<b>3</b>
1, 2	03/20/2017	03/24/2017	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	03/20/2017	03/24/2017	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	03/20/2017	03/24/2017	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	03/20/2017	03/24/2017	IP 71124.04	Occupational Dose Assessment	
			<b>ISI - UNIT 2 IN-SERVICE INSPECTION</b>		<b>1</b>
2	03/27/2017	03/31/2017	IP 7111108G	Inservice Inspection Activities - BWR	
			<b>PI&amp;R - PROBLEM IDENTIFICATION AND RESOLUTION</b>		<b>3</b>
1, 2	05/08/2017	05/12/2017	IP 71152B	Problem Identification and Resolution	
1, 2	05/22/2017	05/26/2017	IP 71152B	Problem Identification and Resolution	
			<b>OL EXAM - INITIAL LICENSE EXAM PREP</b>		<b>3</b>
1	06/26/2017	06/30/2017	V23496	BRUNSWICK/JULY 2017 INITIAL EXAM AT POWER FACILITIES	
			<b>OL EXAM - INITIAL LICENSE EXAM</b>		<b>3</b>
1	07/24/2017	08/04/2017	V23496	BRUNSWICK/JULY 2017 INITIAL EXAM AT POWER FACILITIES	
			<b>RP - RP OCCUPATIONAL INSPECTION</b>		<b>2</b>
1, 2	08/14/2017	08/18/2017	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	08/14/2017	08/18/2017	IP 71124.05	Radiation Monitoring Instrumentation	
1, 2	08/14/2017	08/18/2017	IP 71151	Performance Indicator Verification	
			<b>EP - EP PROGRAM INSPECTION</b>		<b>3</b>
1, 2	08/21/2017	08/25/2017	IP 7111402	Alert and Notification System Testing	
1, 2	08/21/2017	08/25/2017	IP 7111403	Emergency Preparedness Organization Staffing and Augmentation System	
1, 2	08/21/2017	08/25/2017	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1, 2	08/21/2017	08/25/2017	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
1, 2	08/21/2017	08/25/2017	IP 71151	Performance Indicator Verification	
			<b>MODS - PLANT MODIFICATIONS INSPECTION</b>		<b>2</b>
1, 2	10/16/2017	10/20/2017	IP 7111117T	Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications	
			<b>RP - RAD HAZARDS AND TRANSPORTATION</b>		<b>2</b>
1, 2	03/05/2018	03/09/2018	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	03/05/2018	03/09/2018	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
			<b>ISI - UNIT 1 IN-SERVICE INSPECTION</b>		<b>1</b>
1	03/12/2018	03/16/2018	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**  
**03/01/2017 - 12/31/2018**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			<b>EQI - DESIGN BASES ASSURANCE INSPECTION (PROGR</b>		<b>3</b>
1, 2	04/02/2018	04/06/2018	IP 7111121N	Component Design Bases Inspection (Programs)	
1, 2	04/23/2018	04/27/2018	IP 7111121N	Component Design Bases Inspection (Programs)	
1, 2	05/07/2018	05/11/2018	IP 7111121N	Component Design Bases Inspection (Programs)	
			<b>RP - RP PUBLIC INSPECTION</b>		<b>2</b>
1, 2	06/04/2018	06/08/2018	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
1, 2	06/04/2018	06/08/2018	IP 71124.07	Radiological Environmental Monitoring Program	
1, 2	06/04/2018	06/08/2018	IP 71151-OR01	Occupational Exposure Control Effectiveness	
1, 2	06/04/2018	06/08/2018	IP 71151-PR01	RETS/ODCM Radiological Effluent Occurrences	
			<b>HS - TRIENNIAL HEAT SINK PERFORMANCE</b>		<b>1</b>
1, 2	07/09/2018	07/13/2018	IP 7111107T	Heat Sink Performance	
			<b>EP - EP EXERCISE</b>		<b>8</b>
1, 2	07/30/2018	08/03/2018	IP 7111401	Exercise Evaluation	
1, 2	07/30/2018	08/03/2018	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1, 2	07/30/2018	08/03/2018	IP 71151-EP01	Drill/Exercise Performance	
1, 2	07/30/2018	08/03/2018	IP 71151-EP02	ERO Readiness	
1, 2	07/30/2018	08/03/2018	IP 71151-EP03	Alert & Notification System Reliability	
			<b>OL EXAM - INITIAL LICENSE EXAM PREP</b>		<b>3</b>
1	10/29/2018	11/02/2018	V23519	BRUNSWICK / NOVEMBER 2018 INITIAL EXAM AT POWER FACILITIES	
			<b>OL EXAM - INITIAL LICENSE EXAM</b>		<b>3</b>
1	11/26/2018	12/07/2018	V23519	BRUNSWICK / NOVEMBER 2018 INITIAL EXAM AT POWER FACILITIES	

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