



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

August 31, 2016

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

**SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR BRUNSWICK STEAM ELECTRIC  
PLANT, UNITS 1 AND 2 – NRC INSPECTION REPORT 05000325/2016005  
AND 05000324/2016005**

Dear Mr. Gideon:

On August 10, 2016, the Nuclear Regulatory Commission (NRC) completed its mid-cycle performance review of the Brunswick Steam Electric Plant, Units 1 and 2. The NRC reviewed the most recent quarterly performance indicators (PIs) in addition to inspection results and enforcement actions from July 1, 2015, through June 30, 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 determined that overall, the Brunswick Steam Electric Plant, Units 1 and 2 operated in a manner that preserved public health and safety and met all cornerstone objectives. The NRC determined the performance at Brunswick Steam Electric Plant, Units 1 and 2 during the most recent quarter was within the Licensee Response Column of the NRC's Reactor Oversight Process (ROP) Action Matrix because all inspection findings had very low (i.e., green) safety significance, and all PIs indicated that your performance was within the nominal, 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 June 30, 2018. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the second half of the inspection plan are tentative and may be revised at the end-of-cycle performance review. The NRC provides the inspection plan to allow for the resolution of any scheduling conflicts and personnel availability issues. 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 security related inspections, which will be sent via separate, non-publicly available correspondence.

In response to the accident at Fukushima, the Commission issued Order EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," and Order EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation." The NRC conducted audits of licensee efforts towards compliance with these Orders, and the information gathered will aid staff in development of the ultimate Safety Evaluation for the site. The NRC staff has received the Final Compliance letter for the site. Once the Safety Evaluation is issued, the NRC staff will confirm through inspections the full implementation of the orders mentioned above by performing Temporary Instruction 191, "Inspection of the Implementation of Mitigation Strategies and Spent Fuel Pool Instrumentation Orders and Emergency Preparedness Communication/Staffing/Multi-Unit Dose Assessment Plans."

In Staff Requirements Memorandum – SECY 16-0009, "Recommendations Resulting from the Integrated Prioritization and Re-Baselining of Agency Activities," the Commission approved the NRC staff recommendation to discontinue the formal mid-cycle assessment process beginning in calendar year 2017. This will be the final mid-cycle assessment letter. The staff will continue to conduct quarterly assessment meetings and communicate changes in the assessment of licensee performance in accordance with the guidance in Inspection Manual Chapter 0305, "Operating Reactor Assessment Program."

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 404-997-4645 with any questions you have regarding this letter.

Sincerely,

*/RA/*

George T. Hopper, 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  
(09/01/2016 – 06/30/2018)

cc Distribution via ListServ

In response to the accident at Fukushima, the Commission issued Order EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," and Order EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation." The NRC conducted audits of licensee efforts towards compliance with these Orders, and the information gathered will aid staff in development of the ultimate Safety Evaluation for the site. The NRC staff has received the Final Compliance letter for the site. Once the Safety Evaluation is issued, the NRC staff will confirm through inspections the full implementation of the orders mentioned above by performing Temporary Instruction 191, "Inspection of the Implementation of Mitigation Strategies and Spent Fuel Pool Instrumentation Orders and Emergency Preparedness Communication/Staffing/Multi-Unit Dose Assessment Plans."

In Staff Requirements Memorandum – SECY 16-0009, "Recommendations Resulting from the Integrated Prioritization and Re-Baselining of Agency Activities," the Commission approved the NRC staff recommendation to discontinue the formal mid-cycle assessment process beginning in calendar year 2017. This will be the final mid-cycle assessment letter. The staff will continue to conduct quarterly assessment meetings and communicate changes in the assessment of licensee performance in accordance with the guidance in Inspection Manual Chapter 0305, "Operating Reactor Assessment Program."

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 404-997-4645 with any questions you have regarding this letter.

Sincerely,

*/RA/*

George T. Hopper, 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  
(09/01/2016 – 06/30/2018)

cc Distribution via ListServ

PUBLICLY AVAILABLE       NON-PUBLICLY AVAILABLE       SENSITIVE       NON-SENSITIVE  
ADAMS:  Yes      ACCESSION NUMBER: ML16244A073       SUNSI REVIEW COMPLETE       FORM 665 ATTACHED

OFFICE	RII:DRP	RII:DRP	RII:DRP			
SIGNATURE	DXW4	JSD	GTH			
NAME	DJackson	JDodson	GHopper			
DATE	8/24/2016	8/25/2016	8/29/2016			
E-MAIL COPY?	YES NO	YES NO	YES NO			

W. Gideon

3

Letter to William R. Gideon from George T. Hopper dated August 31, 2016

SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR BRUNSWICK STEAM ELECTRIC  
PLANT, UNITS 1 AND 2 – NRC INSPECTION REPORT 05000325/2016005 AND  
05000324/2016005

**DISTRIBUTION:**

D. Gamberoni, RII

L. Gibson, RII

OE Mail

RIDSNRRDIRS

PUBLIC

RidsNrrPMBrunswick Resource

ROAssessment Resource

ROPreports Resource

Institute of Nuclear Power Operations (INPO)

**Brunswick**  
**Inspection / Activity Plan**  
**09/01/2016 - 06/30/2018**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			<b>OL RQ - REQUAL INSP</b>		<b>2</b>
1, 2	10/17/2016	10/21/2016	IP 7111111B	Licensed Operator Requalification Program	
			<b>CDBI - COMPONENT DESIGN BASES INSPECTION</b>		<b>7</b>
1, 2	10/17/2016	10/21/2016	IP 7111121	Component Design Bases Inspection	
1, 2	11/14/2016	11/18/2016	IP 7111121	Component Design Bases Inspection	
1, 2	11/28/2016	12/02/2016	IP 7111121	Component Design Bases Inspection	
1, 2	12/12/2016	12/16/2016	IP 7111121	Component Design Bases Inspection	
			<b>OL EXAM - INITIAL LICENSE EXAM PREP</b>		<b>3</b>
1	10/31/2016	11/04/2016	V23486	BRUNSWICK/NOVEMBER 2016 INITIAL EXAM AT POWER FACILITIES	
			<b>OL EXAM - INITIAL LICENSE EXAM</b>		<b>3</b>
1	11/28/2016	12/09/2016	V23486	BRUNSWICK/NOVEMBER 2016 INITIAL EXAM AT POWER FACILITIES	
			<b>TFPI - TRIENNIEL FIRE PROTECTION INSPECTION</b>		<b>4</b>
1, 2	01/30/2017	02/03/2017	IP 7111105X	Fire Protection - NFPA 805 (Triennial)	
1, 2	02/13/2017	02/17/2017	IP 7111105X	Fire Protection - NFPA 805 (Triennial)	
			<b>RP - RAD HAZARDS</b>		<b>2</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	
			<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>5</b>
1, 2	05/08/2017	05/12/2017	IP 71152B	Problem Identification and Resolution	
1, 2	05/22/2017	05/26/2017	IP 71152	Problem Identification and Resolution	
			<b>OL EXAM - INITIAL LICENSE EXAM PREP</b>		<b>3</b>
1	06/19/2017	06/23/2017	V23496	BRUNSWICK/JULY 2017 INITIAL EXAM AT POWER FACILITIES	
			<b>EP - EP PROGRAM INSPECTION</b>		<b>3</b>
1, 2	07/10/2017	07/14/2017	IP 7111402	Alert and Notification System Testing	
1, 2	07/10/2017	07/14/2017	IP 7111403	Emergency Preparedness Organization Staffing and Augmentation System	
1, 2	07/10/2017	07/14/2017	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1, 2	07/10/2017	07/14/2017	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
1, 2	07/10/2017	07/14/2017	IP 71151	Performance Indicator Verification	
			<b>OL EXAM - INITIAL LICENSE EXAM</b>		<b>3</b>
1	07/17/2017	07/28/2017	V23496	BRUNSWICK/JULY 2017 INITIAL EXAM AT POWER FACILITIES	

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

Enclosure

**Brunswick**  
**Inspection / Activity Plan**  
**09/01/2016 - 06/30/2018**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
<b>RP - RP OCCUPATIONAL INSPECTION</b>					<b>3</b>
1, 2	08/07/2017	08/11/2017	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	08/07/2017	08/11/2017	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	08/07/2017	08/11/2017	IP 71124.04	Occupational Dose Assessment	
1, 2	08/07/2017	08/11/2017	IP 71124.05	Radiation Monitoring Instrumentation	
1, 2	08/07/2017	08/11/2017	IP 71151	Performance Indicator Verification	
<b>MODS - PLANT MODIFICATIONS INSPECTION</b>					<b>3</b>
1, 2	10/16/2017	10/20/2017	IP 7111117T	Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications	
1, 2	10/30/2017	11/03/2017	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	
<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-PR01	RETS/ODCM Radiological Effluent Occurrences	

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

Enclosure