



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

September 2, 2014

Mr. George Hamrick
Vice President
Duke Energy Progress, Inc.
Brunswick Steam Electric Plant
P.O. Box 10429
Southport, NC 28461

**SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR BRUNSWICK STEAM ELECTRIC
PLANT, UNITS 1 AND 2 – NRC INSPECTION REPORT 05000325/2014006 AND
05000324/2014006**

Dear Mr. Hamrick:

On August 13, 2014, the Nuclear Regulatory Commission (NRC) completed its mid-cycle performance review of 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, 2013, through June 30, 2014. 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, 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.

As a result of the Safety Culture Common Language Initiative, the terminology and coding of cross-cutting aspects were revised. All cross-cutting aspects identified during inspections conducted in calendar year 2014 reflect this revision to Inspection Manual Chapter (IMC) 0310. Cross-cutting aspects identified in 2013 using the 2013 terminology were converted to the latest revision in accordance with the cross-reference in IMC 0310 during the mid-cycle assessment review and evaluated for cross-cutting themes and potential substantive cross-cutting issues in accordance with IMC 0305.

The enclosed inspection plan lists the inspections scheduled through December 31, 2015. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the last nine months 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.

We also plan on conducting the following infrequently performed inspections and temporary instructions: License Renewal Phase 2; Operator Licensing Exams; and TI 2515/190, Near Term Task Force Recommendation 2.1, Flooding.

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," which requires licensees to develop, implement, and maintain guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities following a beyond-design-basis external event. Additionally, the Commission issued Order EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation," which requires licensees to have a reliable means of remotely monitoring wide-range Spent Fuel Pool levels to support effective prioritization of event mitigation and recovery actions in the event of a beyond-design-basis external event. The NRC is conducting audits of licensee efforts towards compliance with these Orders. This audit includes an onsite component in order for the NRC to evaluate licensee plans for complying with the Orders, as described in site-specific submittals, and to receive and review information relative to associated open items. This onsite activity will occur in the months prior to a declaration of compliance for the first unit at each site, and will aid staff in development of an ultimate Safety Evaluation for the site. The date for the onsite component at your site is scheduled for December 1, 2014. A site-specific audit plan for the visit will be provided in advance to allow sufficient time for preparations.

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 Agencywide Document Access and Management 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 may 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
(09/01/2014 – 12/31/2015)

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ADAMS: ☒ Yes ACCESSION NUMBER: _____ ☒ SUNSI REVIEW COMPLETE ☒ FORM 665 ATTACHED

OFFICE	DRP: RII	DRP: RII	DRP: RII			
SIGNATURE	DXW /RA/	JSD /RA/	GTH /RA/			
NAME	DJackson	JDodson	GHopper			
DATE	8/20/2014	8/27/2014	8/27/2014			
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY DOCUMENT NAME: S:\DRP\PERIODIC ASSESSMENTS & REPORTS\EOC & MID-CYCLE\2014\MID-CYCLE\ADMIN WORKING FOLDER\LETTERS\BRUNSWICK MID-CYCLE LTR 2014.DOCX

Letter to George Hamrick from George T. Hopper dated September 2, 2014.

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PLANT, UNITS 1 AND 2 – NRC INSPECTION REPORT 05000325/2014006 AND
05000324/2014006

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Institute of Nuclear Power Operations (INPO)

Brunswick
Inspection / Activity Plan
09/01/2014 - 12/31/2015

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
Start	End				
			TFPI - TRIENNIAL FIRE PROTECTION INSP		8
1, 2	09/08/2014	09/12/2014	IP 7111105T	Fire Protection [Triennial]	
1, 2	09/22/2014	09/26/2014	IP 7111105T	Fire Protection [Triennial]	
			OL EXAM - INITIAL LICENSE EXAM PREP		3
1	09/08/2014	09/12/2014	V23436	BRUNSWICK/OCTOBER 2014 INITIAL EXAM AT POWER FACILITIES	
			OL EXAM - INITIAL LICENSE EXAM WEEK 1		3
1	10/06/2014	10/10/2014	V23436	BRUNSWICK/OCTOBER 2014 INITIAL EXAM AT POWER FACILITIES	
			OL EXAM - INITIAL LICENSE EXAM WEEK 2		3
1	10/13/2014	10/17/2014	V23436	BRUNSWICK/OCTOBER 2014 INITIAL EXAM AT POWER FACILITIES	
			MODS - PLANT MODIFICATIONS INSPECTION		3
1, 2	10/27/2014	10/31/2014	IP 7111117T	Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications	
1, 2	11/17/2014	11/21/2014	IP 7111117T	Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications	
			ISI - UNIT 2 IN-SERVICE INSPECTION		1
2	02/23/2015	02/27/2015	IP 7111108G	Inservice Inspection Activities - BWR	
			RP - RP OCCUPATIONAL BASELINE WEEK 1		3
1, 2	03/02/2015	03/06/2015	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	03/02/2015	03/06/2015	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	03/02/2015	03/06/2015	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	03/02/2015	03/06/2015	IP 71124.04	Occupational Dose Assessment	
1, 2	03/02/2015	03/06/2015	IP 71124.05	Radiation Monitoring Instrumentation	
1, 2	03/02/2015	03/06/2015	IP 71151	Performance Indicator Verification	
			RP - RP OCCUPATIONAL BASELINE WEEK 2		2
1, 2	03/16/2015	03/20/2015	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1, 2	03/16/2015	03/20/2015	IP 71124.02	Occupational ALARA Planning and Controls	
1, 2	03/16/2015	03/20/2015	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1, 2	03/16/2015	03/20/2015	IP 71124.04	Occupational Dose Assessment	
1, 2	03/16/2015	03/20/2015	IP 71124.05	Radiation Monitoring Instrumentation	
1, 2	03/16/2015	03/20/2015	IP 71151	Performance Indicator Verification	
			PI&R - PROBLEM IDENTIFICATION AND RESOLUTION		4
1, 2	05/04/2015	05/08/2015	IP 71152B	Problem Identification and Resolution	
1, 2	05/18/2015	05/22/2015	IP 71152B	Problem Identification and Resolution	
			HS - TRIENNIAL HEAT SINK PERFORMANCE		1
1, 2	07/20/2015	07/24/2015	IP 7111107T	Heat Sink Performance	

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

Enclosure

Brunswick
Inspection / Activity Plan
09/01/2014 - 12/31/2015

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
Start	End				
EP - EP PROGRAM INSPECTION					
1, 2	08/17/2015	08/21/2015	IP 7111402	Alert and Notification System Testing	2
1, 2	08/17/2015	08/21/2015	IP 7111403	Emergency Preparedness Organization Staffing and Augmentation System	
1, 2	08/17/2015	08/21/2015	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1, 2	08/17/2015	08/21/2015	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
1, 2	08/17/2015	08/21/2015	IP 71151	Performance Indicator Verification	

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Enclosure