



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II**

245 PEACHTREE CENTER AVENUE NE, SUITE 1200  
ATLANTA, GEORGIA 30303-1257

September 1, 2015

Benjamin C. Waldrep  
Site Vice President  
Duke Energy Progress, Inc.  
Shearon Harris Nuclear Power Plant  
5413 Shearon Harris Rd  
New Hill, NC 27562-0165

**SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR SHEARON HARRIS NUCLEAR  
POWER PLANT – NRC INSPECTION REPORT 05000400/2015005**

Dear Mr. Waldrep:

On August 12, 2015, the Nuclear Regulatory Commission (NRC) completed its mid-cycle performance review of Shearon Harris Nuclear Power Plant. The NRC reviewed the most recent quarterly performance indicators (PIs) in addition to inspection results and enforcement actions from July 1, 2014, through June 30, 2015. This letter informs you of the NRC's assessment of your facility during this period and its plans for future inspections at your facility. This performance review and enclosed inspection plan do not include security information.

The NRC determined that overall, Shearon Harris Nuclear Power Plant operated in a manner that preserved public health and safety and met all cornerstone objectives. The NRC determined the performance at Shearon Harris Nuclear Power Plant, 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, 2017. 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.

We also plan on conducting the following infrequently performed inspection: Operator Licensing Initial Exams. Additionally, the triennial commitment management program audit is scheduled for October 2015.

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." This Order 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." This Order 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. The audit was completed for the Shearon Harris Nuclear Power Plant, and the information gathered will aid staff in development of the ultimate Safety Evaluation for the site. After the NRC staff receives the Final Compliance letter for the site, the Final Safety Evaluation will be issued. Then, the NRC staff will confirm through inspections the full implementation of the orders mentioned above performing TI 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 accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390 of the NRC's "Agency Rules of Practice and Procedure," 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 Website at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Please contact George Hopper 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.: 50-400  
License Nos.: NPF-63

Enclosure:  
Harris Inspection/Activity Plan  
(09/01/2015 – 06/30/2017)

cc: Distribution via ListServ

B. Waldrep

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." This Order 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." This Order 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. The audit was completed for the Shearon Harris Nuclear Power Plant, and the information gathered will aid staff in development of the ultimate Safety Evaluation for the site. After the NRC staff receives the Final Compliance letter for the site, the Final Safety Evaluation will be issued. Then, the NRC staff will confirm through inspections the full implementation of the orders mentioned above performing TI 191, "Inspection of the Implementation of Mitigation Strategies and Spent Fuel Pool Instrumentation Orders and Emergency Preparedness Communication/Staffing/Multi-Unit Dose Assessment Plans."

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PUBLICLY AVAILABLE     NON-PUBLICLY AVAILABLE     SENSITIVE     NON-SENSITIVE  
ADAMS:  Yes    ACCESSION NUMBER: ML15244B075     SUNSI REVIEW COMPLETE     FORM 665 ATTACHED

OFFICE	RII:DRP	RII:DRP	RII:DRP			
SIGNATURE	DXW4	JSD	GTH			
NAME	DJackson	JDodson	GHopper			
DATE	8/28/2015	8/21/2015	8/31/2015			
E-MAIL COPY?	YES    NO	YES    NO	YES    NO			

OFFICIAL RECORD COPY DOCUMENT NAME: S:\DRP\PERIODIC ASSESSMENTS & REPORTS\EOC & MID-CYCLE\2015\MID-CYCLE\ADMIN WORKING FOLDER\LETTERS\HARRIS MID-CYCLE LTR 2015.DOCX

B. Waldrep

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Letter to Benjamin C. Waldrep from George T. Hopper dated September 1, 2015.

SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR SHEARON HARRIS NUCLEAR  
POWER PLANT – NRC INSPECTION REPORT 05000400/2015005

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D. Gamberoni, RII

L. Gibson, RII

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RidsNrrPMShearonHarris Resource

ROP Assessments

ROP Reports

Institute of Nuclear Power Operations (INPO)

**Harris**  
**Inspection / Activity Plan**  
**09/01/2015 - 06/30/2017**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			<b>ASM EP - 2015 EP ASM &amp; RES BASELINE</b>		<b>3</b>
1	01/01/2015	12/31/2015	IP 7111406	Drill Evaluation	
			<b>PI&amp;R - PROBLEM IDENTIFICATION AND RESOLUTION</b>		<b>5</b>
1	09/14/2015	09/18/2015	IP 71152B	Problem Identification and Resolution	
1	09/28/2015	10/02/2015	IP 71152B	Problem Identification and Resolution	
			<b>EP - EP EXERCISE</b>		<b>8</b>
1	10/26/2015	10/30/2015	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1	10/26/2015	10/30/2015	IP 7111407	Exercise Evaluation - Hostile Action (HA) Event	
1	10/26/2015	10/30/2015	IP 71151	Performance Indicator Verification	
			<b>MODS - PLANT MODIFICATIONS INSPECTION</b>		<b>4</b>
1	11/16/2015	11/20/2015	IP 7111117T	Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications	
1	12/07/2015	12/11/2015	IP 7111117T	Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications	
			<b>ASM EP - 2016 EP ASM &amp; RES BASELINE</b>		<b>3</b>
1	01/01/2016	12/31/2016	IP 7111406	Drill Evaluation	
			<b>EP - EP PROGRAM INSPECTION</b>		<b>2</b>
1	05/23/2016	05/27/2016	IP 7111401	Exercise Evaluation	
1	05/23/2016	05/27/2016	IP 7111402	Alert and Notification System Testing	
1	05/23/2016	05/27/2016	IP 7111403	Emergency Preparedness Organization Staffing and Augmentation System	
1	05/23/2016	05/27/2016	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1	05/23/2016	05/27/2016	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
1	05/23/2016	05/27/2016	IP 71151	Performance Indicator Verification	
			<b>HS - TRIENNIAL HEAT SINK PERFORMANCE</b>		<b>1</b>
1	06/13/2016	06/17/2016	IP 7111107T	Heat Sink Performance	
			<b>OL EXAM - INITIAL LICENSE EXAM PREP</b>		<b>3</b>
1	06/13/2016	06/17/2016	V23474	HARRIS JULY 2016 INITIAL EXAM AT POWER FACILITIES	
			<b>OL EXAM - INITIAL LICENSE EXAM</b>		<b>3</b>
1	07/11/2016	07/22/2016	V23474	HARRIS JULY 2016 INITIAL EXAM AT POWER FACILITIES	
			<b>ISI - UNIT 1 IN-SERVICE INSPECTION &amp; RVH EXAM</b>		<b>2</b>
1	10/17/2016	10/21/2016	IP 7111108P	Inservice Inspection Activities - PWR	
			<b>RP - RP OCCUPATIONAL INSPECTION WEEK 1</b>		<b>3</b>
1	10/17/2016	10/21/2016	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	10/17/2016	10/21/2016	IP 71124.02	Occupational ALARA Planning and Controls	
1	10/17/2016	10/21/2016	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	

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

Enclosure

**Harris**  
**Inspection / Activity Plan**  
**09/01/2015 - 06/30/2017**

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	Start	End			
<b>RP - RP OCCUPATIONAL INSPECTION WEEK 1</b>					<b>3</b>
1	10/17/2016	10/21/2016	IP 71124.04	Occupational Dose Assessment	
1	10/17/2016	10/21/2016	IP 71124.05	Radiation Monitoring Instrumentation	
1	10/17/2016	10/21/2016	IP 71151	Performance Indicator Verification	
<b>RP - RP OCCUPATIONAL INSPECTION WEEK 2</b>					<b>2</b>
1	10/31/2016	11/04/2016	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	10/31/2016	11/04/2016	IP 71124.02	Occupational ALARA Planning and Controls	
1	10/31/2016	11/04/2016	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1	10/31/2016	11/04/2016	IP 71124.04	Occupational Dose Assessment	
1	10/31/2016	11/04/2016	IP 71124.05	Radiation Monitoring Instrumentation	
1	10/31/2016	11/04/2016	IP 71151	Performance Indicator Verification	
<b>CDBI - COMPONENT DESIGN BASIS INSPECTION</b>					<b>7</b>
1	01/30/2017	02/03/2017	IP 7111121	Component Design Bases Inspection	
1	02/27/2017	03/03/2017	IP 7111121	Component Design Bases Inspection	
1	03/13/2017	03/17/2017	IP 7111121	Component Design Bases Inspection	
1	03/27/2017	03/31/2017	IP 7111121	Component Design Bases Inspection	
<b>EP - EP EXERCISE</b>					<b>6</b>
1	04/24/2017	04/28/2017	IP 7111401	Exercise Evaluation	
1	04/24/2017	04/28/2017	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1	04/24/2017	04/28/2017	IP 7111408	Exercise Evaluation – Scenario Review	
1	04/24/2017	04/28/2017	IP 71151	Performance Indicator Verification	

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Enclosure