



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

September 1, 2015

Mr. Joseph W. Shea  
Vice President, Nuclear Licensing  
Tennessee Valley Authority  
1101 Market Street, LP 3D-C  
Chattanooga, TN 37402-2801

**SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR THE WATTS BAR NUCLEAR PLANT  
UNIT 1, NRC INSPECTION REPORT 005000390/2015005**

Dear Mr. Shea:

On August 13, 2015, the NRC completed its mid-cycle performance review of Watts Bar Nuclear Plant Unit 1. 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.

The NRC determined that overall, Watts Bar Nuclear Plant Unit 1 operated in a manner that preserved public health and safety and met all cornerstone objectives. The NRC determined the performance at Watts Bar Nuclear Plant Unit 1 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.

In addition to the routine ROP baseline inspections at your facility, we also plan on conducting infrequently performed inspections which include: Inspection Procedure (IP) 43004, "Inspection of Commercial-Grade Dedication Programs," and an initial operator license examination.

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 404-997-4415 with any questions you have regarding this letter.

Sincerely,

**/RA/**

Alan Blamey, Chief  
Reactor Projects Branch 6  
Division of Reactor Projects

Docket Nos.: 50-390  
License Nos. NPF-90

Enclosure: Watts Bar Inspection/Activity Plan  
(07/01/2015 – 06/30/2017)

cc distribution via ListServ

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 404-997-4415 with any questions you have regarding this letter.

Sincerely,

**/RA/**

Alan Blamey, Chief  
Reactor Projects Branch 6  
Division of Reactor Projects

Docket Nos.: 50-390  
License Nos. NPF-90

Enclosure: Watts Bar Inspection/Activity Plan  
(07/01/2015 – 06/30/2017)

cc distribution via ListServ

☒ PUBLICLY AVAILABLE      NON-PUBLICLY AVAILABLE      SENSITIVE      ☒ NON-SENSITIVE  
ADAMS: ☒ Yes      ACCESSION NUMBER: \_\_\_\_\_      ☒ SUNSI REVIEW COMPLETE

OFFICE	RII:DRP	RII:DRP	RII:DRP			
SIGNATURE	BDB3	CRK1	AJB3			
NAME	BBISHOP	CKONTZ	ABLAMEY			
DATE	8/25/2015	8/25/2015	8/31/2015			
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\2015\MID-CYCLE\INPUT\RPB6\MID-CYCLE LETTER-FINAL\WB 2015 MID-  
CYCLE LETTER FINAL.DOCX

Letter to Joseph Shea from Alan Blamey dated September 1, 2015

SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR THE WATTS BAR NUCLEAR  
PLANT UNIT 1, NRC INSPECTION REPORT 005000390/2015005

DISTRIBUTION:

D. Gamberoni, RII

L. Gibson, RII

OE Mail

RIDSNNRRDIRS

PUBLIC

A. Adams, NRR

RidsNrrPMWattsBar Resource

ROP Assessment

ROP Reports

Institute of Nuclear Power Operations (INPO)

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

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
Start	End				
			<b>ISFSI - ISFSI PAD CONCRETE PLACEMENT</b>		<b>1</b>
1	09/21/2015	09/25/2015	IP 60853	On-Site Fabrication Of Components And Construction On An ISFSI	
			<b>RP - RP OCCUPATIONAL BASELINE WEEK 1</b>		<b>2</b>
1	10/05/2015	10/09/2015	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	10/05/2015	10/09/2015	IP 71124.02	Occupational ALARA Planning and Controls	
1	10/05/2015	10/09/2015	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1	10/05/2015	10/09/2015	IP 71124.04	Occupational Dose Assessment	
1	10/05/2015	10/09/2015	IP 71124.05	Radiation Monitoring Instrumentation	
1	10/05/2015	10/09/2015	IP 71151	Performance Indicator Verification	
			<b>ISI - UNIT 1 IN-SERVICE INSPECTION</b>		<b>1</b>
1	10/12/2015	10/16/2015	IP 7111108P	Inservice Inspection Activities - PWR	
			<b>RP - RP OCCUPATIONAL BASELINE WEEK 2</b>		<b>3</b>
1	10/19/2015	10/23/2015	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	10/19/2015	10/23/2015	IP 71124.02	Occupational ALARA Planning and Controls	
1	10/19/2015	10/23/2015	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1	10/19/2015	10/23/2015	IP 71124.04	Occupational Dose Assessment	
1	10/19/2015	10/23/2015	IP 71124.05	Radiation Monitoring Instrumentation	
1	10/19/2015	10/23/2015	IP 71151	Performance Indicator Verification	
			<b>EP - EP EXERCISE</b>		<b>8</b>
1	11/16/2015	11/20/2015	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1	11/16/2015	11/20/2015	IP 7111407	Exercise Evaluation - Hostile Action (HA) Event	
1	11/16/2015	11/20/2015	IP 71151	Performance Indicator Verification	
			<b>CDBI - COMPONENT DESIGN BASES INSPECTION</b>		<b>7</b>
1	02/01/2016	02/05/2016	IP 7111121	Component Design Bases Inspection	
1	02/29/2016	03/04/2016	IP 7111121	Component Design Bases Inspection	
1	03/14/2016	03/18/2016	IP 7111121	Component Design Bases Inspection	
1	03/28/2016	04/01/2016	IP 7111121	Component Design Bases Inspection	
			<b>OL EXAM - INITIAL LICENSE EXAM PREP</b>		<b>3</b>
1	06/20/2016	06/24/2016	V23475	WATTS BAR JULY 2016 INITIAL EXAM AT POWER FACILITIES	
			<b>OL EXAM - INITIAL LICENSE EXAM</b>		<b>3</b>
1	07/18/2016	07/22/2016	V23475	WATTS BAR JULY 2016 INITIAL EXAM AT POWER FACILITIES	
			<b>MODS - PLANT MODIFICATIONS INSPECTION</b>		<b>3</b>
1	07/25/2016	07/29/2016	IP 7111117T	Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications	

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

Enclosure

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

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
Start	End				
<b>MODS - PLANT MODIFICATIONS INSPECTION</b>					
1	08/08/2016	08/12/2016	IP 711117T	Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications	3
<b>RP - RP PUBLIC RAD SAFETY BASELINE</b>					
1	08/01/2016	08/05/2016	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	4
1	08/01/2016	08/05/2016	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
1	08/01/2016	08/05/2016	IP 71124.07	Radiological Environmental Monitoring Program	
1	08/01/2016	08/05/2016	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
1	08/01/2016	08/05/2016	IP 71151	Performance Indicator Verification	
<b>PI&amp;R - PROBLEM IDENTIFICATION AND RESOLUTION</b>					
1	10/31/2016	11/04/2016	IP 71152B	Problem Identification and Resolution	4
1	11/14/2016	11/18/2016	IP 71152B	Problem Identification and Resolution	
<b>EP - EP PROGRAM INSPECTION</b>					
1	11/14/2016	11/18/2016	IP 7111402	Alert and Notification System Testing	4
1	11/14/2016	11/18/2016	IP 7111403	Emergency Preparedness Organization Staffing and Augmentation System	
1	11/14/2016	11/18/2016	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1	11/14/2016	11/18/2016	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
1	11/14/2016	11/18/2016	IP 71151	Performance Indicator Verification	
<b>ISI - UNIT 1 IN-SERVICE INSPECTION &amp; RVH EXAM</b>					
1	03/27/2017	03/31/2017	IP 7111108P	Inservice Inspection Activities - PWR	2
<b>RP - RP OCCUPATIONAL INSPECTION WEEK 1</b>					
1	03/27/2017	03/31/2017	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	2
1	03/27/2017	03/31/2017	IP 71124.02	Occupational ALARA Planning and Controls	
1	03/27/2017	03/31/2017	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1	03/27/2017	03/31/2017	IP 71124.04	Occupational Dose Assessment	
1	03/27/2017	03/31/2017	IP 71124.05	Radiation Monitoring Instrumentation	
1	03/27/2017	03/31/2017	IP 71151	Performance Indicator Verification	
<b>SGISI - UNIT 1 SG IN-SERVICE INSPECTION</b>					
1	04/03/2017	04/07/2017	IP 7111108P	Inservice Inspection Activities - PWR	1
<b>RP - RP OCCUPATIONAL INSPECTION WEEK 2</b>					
1	04/10/2017	04/14/2017	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	3
1	04/10/2017	04/14/2017	IP 71124.02	Occupational ALARA Planning and Controls	
1	04/10/2017	04/14/2017	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1	04/10/2017	04/14/2017	IP 71124.04	Occupational Dose Assessment	

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

Enclosure

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

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
RP - RP OCCUPATIONAL INSPECTION WEEK 2					3
1	04/10/2017	04/14/2017	IP 71124.05	Radiation Monitoring Instrumentation	
1	04/10/2017	04/14/2017	IP 71151	Performance Indicator Verification	

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

Enclosure