



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

August 31, 2016

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 WATTS BAR NUCLEAR PLANT UNIT
1, NRC INSPECTION REPORT 05000390/2016005

Dear Mr. Shea:

On August 10, 2016, the NRC completed its mid-cycle performance review of Watts Bar Nuclear Plant (WBN) Unit 1. 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, Watts Bar Unit 1 operated in a manner that preserved public health and safety and met all cornerstone objectives. The NRC determined the performance at the 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 NRC also identified a cross-cutting theme in the Safety Conscious Work Environment (SCWE) cross-cutting area. Specifically, on March 23, 2016, the NRC issued a Chilling Effect Letter for Watts Bar and the NRC identified one inspection findings in the assessment period with a cross-cutting aspect of S.1 SCWE Policy. The NRC will follow-up on the SCWE theme using baseline inspection sample because this is the first assessment cycle in which the cross-cutting theme was identified.

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 last nine months of the inspection plan are tentative and may be revised at the mid-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 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 Operator Licensing Examinations. The NRC will continue to evaluate the effectiveness of TVA's oversight and management of operations during Unit 2 startup and transition to dual unit operation. This will include inspections and reviews addressing the organizational and operational challenges associated with the integration of both Watts Bar units.

The NRC staff completed Temporary Instruction 2515/191, "Inspection of the Implementation of Mitigation Strategies and Spent Fuel Pool Instrumentation Orders and Emergency Preparedness Communication/Staffing/Multi-Unit Dose Assessment Plans" at Watts Bar on January, 16 2016 to confirm full implementation of orders 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 results of the inspection can be found in inspection report 05000390/2015609 and 05000391/2015616.

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 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 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 No.: 50-390
License No.: NPF-90

Enclosure: Watts Bar Inspection/Activity Plan
(09/01/2016 – 06/30/2018)

cc: Distribution via ListServ

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☒ PUBLICLY AVAILABLE ☐ NON-PUBLICLY AVAILABLE

☐ SENSITIVE ☒ NON-SENSITIVE

ADAMS: ☒ Yes ACCESSION NUMBER: ML16244A703

☒ SUNSI REVIEW COMPLETE ☒ FORM 665 ATTACHED

OFFICE	RII:DRP	RII:DRP					
SIGNATURE	CRK1	AJB3					
NAME	C. Kontz	A. Blamey					
DATE	8/5/2016	8/31/2016	8/ /2016	8/ /2016	8/ /2016	8/ /2016	8/ /2016
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY DOCUMENT NAME: S:\DRP NEW\RPB7\PERIODIC ASSESSMENTS & REPORTS\IEOC & MID-CYCLE\2016\ADMIN WORKING FOLDER\LETTERS\WATTS BAR 2016 MID CYCLE LETTER.DOCX

Watts Bar
Inspection / Activity Plan
09/01/2016 - 06/30/2018

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
Start	End				
ISFSI - ISFSI DRY RUN AND INITIAL LOADING					
					2
1	08/29/2016	09/02/2016	IP 60854.1	Preoperational Testing of Independent Spent Fuel Storage Facility Installation at Operating Plants	
1	09/12/2016	09/16/2016	IP 60854.1	Preoperational Testing of Independent Spent Fuel Storage Facility Installation at Operating Plants	
1	09/19/2016	09/24/2016	IP 60854.1	Preoperational Testing of Independent Spent Fuel Storage Facility Installation at Operating Plants	
PI&R - PROBLEM IDENTIFICATION AND RESOLUTION					
					5
1, 2	09/12/2016	09/15/2016	IP 71152B	Problem Identification and Resolution	
1, 2	10/31/2016	11/04/2016	IP 71152B	Problem Identification and Resolution	
EP - EP PROGRAM INSPECTION					
					5
1	11/14/2016	11/18/2016	IP 7111402	Alert and Notification System Testing	
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	
OL RQ - REQUAL INSP					
					2
1	11/28/2016	12/02/2016	IP 7111111B	Licensed Operator Requalification Program	
ISI - UNIT 1 IN-SERVICE INSPECTION & RVH EXAM					
					2
1	03/27/2017	03/31/2017	IP 7111108P	Inservice Inspection Activities - PWR	
RP - RP OCCUPATIONAL INSPECTION WEEK 1					
					2
1	03/27/2017	03/31/2017	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
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	
SGISI - UNIT 1 SG IN-SERVICE INSPECTION					
					1
1	04/03/2017	04/07/2017	IP 7111108P	Inservice Inspection Activities - PWR	
RP - RP OCCUPATIONAL INSPECTION WEEK 2					
					3
1	04/17/2017	04/21/2017	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	04/17/2017	04/21/2017	IP 71124.02	Occupational ALARA Planning and Controls	
1	04/17/2017	04/21/2017	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1	04/17/2017	04/21/2017	IP 71124.04	Occupational Dose Assessment	
1	04/17/2017	04/21/2017	IP 71124.05	Radiation Monitoring Instrumentation	
1	04/17/2017	04/21/2017	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

Watts Bar
Inspection / Activity Plan
09/01/2016 - 06/30/2018

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
Start	End				
TFPI - TRIENNIEL FIRE PROTECTION INSPECTION					
1	09/18/2017	09/22/2017	IP 7111105T	Fire Protection [Triennial]	5
1	10/02/2017	10/06/2017	IP 7111105T	Fire Protection [Triennial]	
ISI - UNIT 2 IN-SERVICE INSPECTION					
2	10/23/2017	10/27/2017	IP 7111108P	Inservice Inspection Activities - PWR	1
SGISI - UNIT 2 SG IN-SERVICE INSPECTION					
2	10/30/2017	11/03/2017	IP 7111108P	Inservice Inspection Activities - PWR	1
EP - EP EXERCISE					
1	11/13/2017	11/17/2017	IP 7111401	Exercise Evaluation	3
1	11/13/2017	11/17/2017	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1	11/13/2017	11/17/2017	IP 7111408	Exercise Evaluation – Scenario Review	
1	11/13/2017	11/17/2017	IP 71151	Performance Indicator Verification	
MODS - PLANT MODIFICATIONS INSPECTION					
1, 2	04/16/2018	04/20/2018	IP 7111117T	Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications	3
1, 2	04/30/2018	05/04/2018	IP 7111117T	Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications	
HS - TRIENNIAL HEAT SINK PERFORMANCE					
1, 2	06/04/2018	06/04/2018	IP 7111107T	Heat Sink Performance	1