Tennessee Valley Authority, Post Office Box 2000, Spring City, Tennessee 37381-2000

WBL-19-008

January 24, 2019

10 CFR 50.55a

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Watts Bar Nuclear Plant, Unit 1
Facility Operating License No. NPF-90
NRC Docket No. 50-390

Subject: **American Society of Mechanical Engineers, Section XI, Third 10-Year Inspection Interval, Inservice Inspection Owner's Activity Report For Cycle 15 Operation**

The Tennessee Valley Authority is submitting the Watts Bar Nuclear Plant, Unit 1, American Society of Mechanical Engineers (ASME), Section XI, Owner's Activity Report for Unit 1 Cycle 15 operation as required by Article IWA-6000, Section XI, Division 1. The report is contained in the enclosure to this letter and is in accordance with the requirements of ASME Code Case N-532-5, "Repair/Replacement Activity Documentation Requirements and Inservice Inspection Summary Report Preparation and Submission."

The report is an overview of the results from inservice examinations that were performed on components within the ASME Section XI boundary, up to and including the Unit 1 Cycle 15 refueling outage, during the first period of the third inspection interval. The applicable provisions of the ASME Code require that this report be submitted 90 days from the end of the applicable outage, i.e., by January 25, 2019.

There are no new regulatory commitments associated with this submittal. If you have questions regarding this letter, please contact Kim Hulvey at (423) 365-7720.

Respectfully,

Paul Simmons
Site Vice President
Watts Bar Nuclear Plant

Enclosure:

American Society of Mechanical Engineers, Section XI, Third 10-Year Inservice Inspection Interval, Inservice Inspection Owner's Activity Report for Cycle 15 Operation (Form OAR-1)

cc (Enclosure):

NRC Regional Administrator - Region II
NRC Senior Resident Inspector
NRR Project Manager

ENCLOSURE

TENNESSEE VALLEY AUTHORITY

WATTS BAR NUCLEAR PLANT, UNIT 1

AMERICAN SOCIETY OF MECHANICAL ENGINEERS, SECTION XI, THIRD 10-YEAR INSPECTION INTERVAL, INSERVICE INSPECTION OWNER'S ACTIVITY REPORT FOR CYCLE 15 OPERATION

FORM OAR-1 OWNER'S ACTIVITY REPORT

Report Number: U1R15

Plant: Watts Bar Nuclear Plant, P.O. Box 2000, Spring City, TN 37381-2000

Unit No. 1 (if applicable) Commercial Service Date: May 27, 1996 Refueling Outage No.: U1R15

Current Inspection Interval: 3rd (1^{st}, 2^{nd}, 3^{rd}, 4^{th}, other)

Current Inspection Period: 1st (1^{st}, 2^{nd}, 3^{rd})

Edition and Addenda of Section XI applicable to the Inspection Plans: ISI/SPT - 2007 Edition, 2008 Addenda; IWE - 2013 Edition

Date / Revision of Inspection Plans: ISI - January 17, 2019 / 1-TRI-0-10.3, Revision 003; IWE - September 07, 2018 / 0-TI-100.012, Revision 000; SPT - April 29, 2017 / 0-TI-100.009 R002

Edition and Addenda of Section XI applicable to repair/replacement activities, if different than the inspection plans: 2007 Edition, 2008 Addenda

Code Cases used: N-513-3, N-532-5, N-586-1, N-716-1, N-722-1, N-729-4, N-770-2

CERTIFICATE OF CONFORMANCE

I certify that (a) the statements made in this report are correct; (b) the examinations and tests, meet the Inspection Plan as required by the ASME Code, Section XI; and (c) the repair/replacement activities and evaluations supporting the completion of U1R15 (refueling outage number) conform to the requirements of Section XI

Signed: Shane Norton
Shane Norton, Repair Replacement and Inservice Inspection Program Owner

Date: 1/23/19

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Tennessee and employed by The Hartford Steam Boiler Inspection and Insurance Company of Hartford, Connecticut have inspected the items described in this Owner's Activity Report, and state that to the best of my knowledge and belief, the Owner has performed all activities represented by this report in accordance with the requirements of Section XI

By signing this certificate neither the Inspector nor his employer makes any warranty expressed or implied concerning the repair/ replacement activities and evaluation described in this report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection

Inspector's Signature

Commissions: NB 14057INR, TN 4132
National Board, State, Province, and Endorsements

Date: 1-23-19

TABLE 1

ITEMS WITH FLAWS OR RELEVANT CONDITIONS THAT REQUIRED EVALUATION FOR CONTINUED SERVICE

Examination Category and Item Number	Item Description	Evaluation Description
D-B / D2.10	10" High Pressure Fire Protection Piping	CR 1437950 A through wall leak in a 10" diameter Class 3 pipe was evaluated in accordance with ASME Code Case N-513-3. The leak rate was minimal and would have no effect on the safety function of the system. This condition is within the bounding condition for a flooding impact. therefore flooding is not a concern. Civil Analysis showed that structural integrity was maintained and there was no concern for a line break at the leak location.
D-B / D2.10	10" High Pressure Fire Protection Piping	CR 1333681 A through wall leak in a 10" diameter Class 3 pipe was evaluated in accordance with ASME Code Case N-513-3. The leak rate was minimal and would have no effect on the safety function of the system. This condition is within the bounding condition for a flooding impact. therefore flooding is not a concern. Civil Analysis showed that structural integrity was maintained and there was no concern for a line break at the leak location.
F-A / F1.10D	Safety Injection System Rigid Hanger	CR 1453871 A rigid support was observed to be loose in the field. Civil Engineering evaluated the support drawings and concluded the support was not designed to provide support in the direction that it moved. Due to the flat base plate of the support being attached to a curved surface, there exists a small gap between the base plate and the wall on both sides. This small gap allows the support to move in the axial direction. Per design output, this support is not designed to resist movement in the axial direction.

TABLE 2

ABSTRACT OF REPAIRS, REPLACEMENTS, OR CORRECTIVE MEASURES REQUIRED FOR CONTINUED SERVICE

Code Class	Item Description	Description of Work	Date Completed	Repair/Replacement Plan Number
3	Containment Lower Compartment Cooler	Replaced leaking coil with new coil.	10/22/2018	118646714
3	10" High Pressure Fire Protection Piping	Repaired through wall leak.	02/05/2018	119003457
3	Containment Lower Compartment Cooler	Installed blank off plates on (3) coils to stop leaks.	11/06/2018	119954518
3	10" High Pressure Fire Protection Piping	Repaired through wall leak.	11/28/2018	119798618
MC	Equipment Hatch Bolting	Replaced missing washer.	10/05/2018	119049319
2	Loop 2 Steam Generator Upper Lateral Support Splice Plate	Tightened Loose Bolting.	10/12/2018	119921087
3	Containment Lower Compartment Cooler	Installed blank off plates on (1) coils to stop leaks.	1/08/2019	119877091

REPORTING REQUIRED BY 10 CFR 50.55a(b)(2)(ix)
ASME Section XI, Subsection IWE
Steel Containment Vessel Inspection Program

10 CFR 50.55a(b)(2)(ix) requires the reporting of inaccessible areas and additional examinations identified during the performance of ASME Section XI, Subsection IWE Steel Containment Vessel Inspection Program when conditions exist in accessible areas that could indicate the presence of or result in degradation to such inaccessible areas.

The accessible portion of the interior and exterior surface of the containment vessel, including (7) bolted connections that were disassembled, were inspected in accordance with IWE Containment Vessel Inspection Program during this cycle. There were no conditions observed that would indicate the presence of or result in degradation to inaccessible areas of the containment vessel during performance of those examinations.