

UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

April 12, 2019

Mr. Joseph W. Shea
Vice President, Nuclear Regulatory Affairs
and Support Services
Tennessee Valley Authority
1101 Market Street, LP 3R-C
Chattanooga, TN 37402-2801

SUBJECT:

WATTS BAR NUCLEAR PLANT, UNIT 1 – RELIEF REQUEST 1-ISI-21 FROM THE REQUIREMENTS OF THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS BOILER AND PRESSURE VESSEL CODE

(EPID L-2018-LLR-0090)

Dear Mr. Shea:

By letter dated May 25, 2018, Tennessee Valley Authority (the licensee) submitted Relief Request (RR) 1-ISI-21 to the U.S. Nuclear Regulatory Commission (NRC) for relief from certain American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code requirements for the second 10-year inservice inspection (ISI) interval at Watts Bar Nuclear Plant (Watts Bar), Unit 1.

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(g)(5)(iii), the licensee requested relief on the basis that achieving the ASME Code required examination coverage for the subject welds in RR 1-ISI-21 is impractical.

The NRC staff has reviewed the subject request and concludes, as set forth in the enclosed safety evaluation, that the licensee has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(g)(5)(iii). Therefore, pursuant to 10 CFR 50.55a(g)(6)(i), the NRC grants approval for the use of RR 1-ISI-21 for the second 10-year ISI interval at Watts Bar Unit 1, which ended on May 26, 2017.

All other ASME Code Section XI requirements for which relief was not specifically requested and approved remain applicable, including third-party review by the Authorized Nuclear Inservice Inspector.

If you have any questions, please contact the Project Manager, Robert Schaaf, at 301-415-6020 or by email to Robert.Schaaf@nrc.gov.

Sincerely,

Undine Shoop, Chief

Plant Licensing Branch II-2

Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-390

Enclosure:

Safety Evaluation

cc: Listserv



UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION FOR RELIEF REQUEST 1-ISI-21 LIMITED EXAMINATION COVERAGE

ASME CODE, SECTION XI, EXAMINATION CATEGORIES B-D, C-A, C-B, AND R-A

SECOND 10-YEAR INSERVICE INSPECTION INTERVAL

TENNESSEE VALLEY AUTHORITY
WATTS BAR NUCLEAR PLANT, UNIT 1
DOCKET NO. 50-390

1.0 <u>INTRODUCTION</u>

By letter dated May 25, 2018 (Agencywide Documents Access and Management System Accession No. ML18155A335), Tennessee Valley Authority (TVA or the licensee), submitted Relief Request (RR) 1-ISI-21 to the U.S. Nuclear Regulatory Commission (NRC) for the second 10-year inservice inspection (ISI) interval of Watts Bar Nuclear Plant (WBN), Unit 1. In RR 1-ISI-21, the licensee requested relief from the examination coverage requirements of Section XI, "Rules for Inservice Inspection [ISI] of Nuclear Power Plant Components," of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), applicable to certain ASME Code Class 1 and 2 component welds.

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.55a(g)(5)(iii), the licensee requested relief on the basis that achieving the ASME Code required examination coverage for the subject welds in RR 1-ISI-21 is impractical.

2.0 REGULATORY EVALUATION

The regulations in 10 CFR 50.55a(g)(4) require that, throughout the service life of a boiling or pressurized water-cooled nuclear power facility, components classified as ASME Code Class 1, 2, and 3 components meet the requirements, except the design and access provisions and preservice examination requirements, set forth in Section XI of the ASME Code incorporated by reference in 10 CFR 50.55a(a)(1)(ii) 12 months prior to the start of the 120-month inspection interval, subject to the conditions listed in 10 CFR 50.55a(b)(2).

When conformance to these requirements is determined to be impractical, relief may be requested by the licensee pursuant to 10 CFR 50.55a(g)(5)(iii). Additionally, pursuant to 10 CFR 50.55a(g)(5)(iii), the licensee must notify the NRC and submit, as specified in 10 CFR 50.4, information to support the determination. Requests for relief made in accordance with 10 CFR 50.55a(g)(5)(iii), must be submitted no later than 12 months after the expiration of the initial or subsequent 10-year inspection interval.

Pursuant to 10 CFR 50.55a(g)(6)(i), the Commission will evaluate determinations of impracticality under 10 CFR 50.55a(g)(5). After its evaluation, the Commission may grant relief and may impose such alternative requirements as it determines are authorized by law, will not endanger life or property or the common defense and security, and are otherwise in the public interest giving due consideration to the burden upon the licensee that could result if the requirements were imposed on the facility.

Based on the above and subject to the following technical evaluation, the NRC staff (or the staff) finds that regulatory authority exists for the licensee to request the relief and the staff to authorize it.

3.0 TECHNICAL EVALUATION

The NRC staff evaluated the information in the licensee's submittal for the welds in RR 1-ISI-21 and documented its findings in the following subsections, organized by examination category.

3.1 <u>Examination Category B-D, Full Penetration Welded Nozzles in Vessels – Inspection Program B, Item No. B3.110, Pressurizer Nozzle-to-Vessel Welds</u>

3.1.1 Components Affected

Details of the pressurizer welds under Examination Category B-D are shown in Table 1 of this safety evaluation (SE), obtained from Table 1 "WBN Unit 1 Welds with Limited Examinations," of the attachment to the enclosure of the submittal.

Table 1. Examination Category B-D Limited Volumetric Examination Coverage

Item No.	Weld Identification	Weld Material; Component Description	Examination Limitation	Percent Coverage Achieved
B3.110	WP-10	Ferritic steel; Surge nozzle- to-vessel weld Geometric nozzle design and head side of weld due to heater penetration nozzles		53.0
B3.110	WP-11	Ferritic steel; Spray nozzle- to-vessel weld Geometric nozzle design configuration		73.7
B3.110	WP-12	Ferritic steel; Relief nozzle- to-vessel weld Geometric nozzle design configuration		56.4
B3.110	WP-13	Ferritic steel; Safety nozzle- to-vessel weld Geometric nozzle design configuration		56.4
B3.110	WP-14	P-14 Ferritic steel; Safety nozzle- to-vessel weld Geometric nozzle design configuration		56.4
B3.110	WP-15	Ferritic steel; Safety nozzle- to-vessel weld Geometric nozzle design configuration		56.4

3.1.2 Applicable ASME Code Edition and Addenda

The ASME Code of record at WBN, Unit 1 for the second 10-year ISI interval is the 2001 Edition through the 2003 Addenda of ASME Code, Section XI.

3.1.3 ASME Code Requirement

The ASME Code examination requirement is volumetric examination of essentially 100 percent of the applicable nozzle-to-vessel weld volume defined in Figures IWB-2500-7(a) through IWB-2500-7(d), "Nozzle in Shell or Head" of ASME Code, Section XI. When 100 percent of the required volume cannot be examined due to interferences, obstructions, or geometrical configuration, ASME Code Case (CC) N-460, "Alternative Examination Coverage for Class 1 and Class 2 Welds," allows reduction of the examination volume to 90 percent of the required volume. CC N-460 has been approved for use without conditions by the NRC in Regulatory Guide (RG) 1.147, Revision 18, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1," which is incorporated by reference in 10 CFR 50.55a(a)(3)(ii).

3.1.4 Reason for Relief Request

The licensee achieved the coverages shown in Table 1 of this SE for the subject welds and could not achieve the ASME Code required examination coverage because of the examination limitation listed for each weld. For the six welds in Table 1, the licensee achieved 53.0 to 73.7 percent of the required examination volume and did not detect any recordable indications. The licensee stated that due to these limitations, complying with the ASME Code required examination coverage is impractical and is thus requesting relief pursuant to 10 CFR 50.55a(g)(5)(iii).

3.1.5 Basis for Relief Request

The licensee stated that the required examination coverage can only be accomplished by modifying and/or disassembling components associated with the weld beyond their current design, which therefore presents a burden of compliance. In lieu of the ASME Code required examination coverage, the licensee examined the welds to the maximum extent practical, achieving the coverages in Table 1 by ultrasonic testing (UT) examination in accordance with I-2120, "Other Vessels" of Appendix I "Ultrasonic Examinations" to Section XI of the ASME Code.

3.1.6 Duration of Relief Request

The licensee submitted RR 1-ISI-21 for the second 10-year ISI interval at WBN, Unit 1, which began on May 27, 2007, and ended on May 26, 2017.

3.1.7 NRC Staff Evaluation

For the pressurizer nozzle-to-vessel welds in Table 1 of this SE, the licensee achieved less than 90 percent of the required volumetric examination coverage due to geometric limitations that would entail modification of the associated components if the required coverage were to be obtained. The staff finds the stated limitations to be an acceptable basis for impracticality of conforming to the requirements and finds the modification necessary to achieve the required coverage constitutes a burden upon the licensee.

The licensee examined the pressurizer nozzle-to-vessel welds in Table 1 of this SE to the maximum extent practical using UT examination in accordance with Appendix I to Section XI of the ASME Code, and achieved the coverages shown in the table. The licensee used 45-degree and 60-degree shear wave scanners, parallel and transverse to the weld, from both sides of the weld. The NRC staff reviewed some of the examination coverage sheets and verified the licensee's achieved coverages. The staff finds the licensee's achieved coverages acceptable. The examined volumes included weld and base materials in the inner region where degradation is expected to show should it occur.

Based on the above discussion, the NRC staff determined that obtaining the ASME Code required examination volume coverage for the subject pressurizer nozzle-to-vessel welds is impractical because of the stated limitations and that the modifications necessary to obtain the required coverage would impose a burden upon the licensee. The staff also determined that the volumetric UT examination performed to the maximum extent practical provides reasonable assurance of the structural integrity of the welds because: (1) the licensee identified no recordable indications; and (2) evidence of significant service-induced degradation in the welds, if it were to occur, would likely be detected in the volumetric examination coverages obtained by the licensee (Table 1), because the examined weld volume includes the most susceptible regions, is the same material as the unexamined volume, is under the same loading conditions, and is exposed to the same reactor coolant environment.

3.2 <u>Examination Category C-A, Pressure Retaining Welds in Pressure Vessels, Item No.</u> C1.20. Head Circumferential Welds

3.2.1 Components Affected

Details of the welds under Examination Category C-A are shown in Table 2 of this SE, obtained from Table 1 of the attachment to the enclosure of the submittal.

Item No.	Weld Identification	Weld Material; Component Description	Examination Limitation	Percent Coverage Achieved
C1.20	BIT-2	Stainless steel; Boron injection tank lower shell-to-	Cast SS shell-to- head design. No scan on cast side.	45.2

head weld

Table 2. Examination Category C-A Limited Volumetric Examination Coverage

Item No.	Weld Identification	Weld Material; Component Description	Examination Limitation	Percent Coverage Achieved
C1.20	BIT-3	Stainless steel; Boron injection tank upper shell- to-head weld	Cast SS shell-to- head design. No scan on cast side.	48.2
C1.20	CVCS- SWIFLTR-62- 96	Stainless steel; Filter housing head-to-shell weld	Geometric housing design configuration	50.4

3.2.2 Applicable ASME Code Edition and Addenda

The ASME Code of record at WBN, Unit 1 for the second 10-year ISI interval is the 2001 Edition through the 2003 Addenda of ASME Code, Section XI.

3.2.3 ASME Code Requirement

The examination requirement is volumetric examination of essentially 100 percent of the applicable volume defined in Figure IWC-2500-1 "Vessel Circumferential Welds" of ASME Code, Section XI. When 100 percent of the required volume or area cannot be examined due to interferences, obstructions, or geometrical configuration, CC N-460 allows reduction of the examination volume to 90 percent of the required volume.

3.2.4 Reason for Relief Request

The licensee achieved the coverages shown in Table 2 of this SE for the subject welds and could not achieve the ASME Code required examination coverage because of the examination limitation listed for each weld. For the three welds in Table 2, the licensee achieved 45.2 to 50.4 percent of the required examination volume and did not detect any recordable indications. The licensee stated that due to these limitations, complying with the ASME Code required examination coverage is impractical and is thus requesting relief pursuant to 10 CFR 50.55a(g)(5)(iii).

3.2.5 Basis for Relief Request

The licensee stated that the required examination coverage can only be accomplished by modifying and/or disassembling components associated with the weld beyond their current design, which therefore presents a burden of compliance. In lieu of the ASME Code required examination coverage, the licensee examined the welds to the maximum extent practical, achieving the percent coverages in Table 2 by UT examination in accordance with Article 4 of

Section V of the ASME Code (for thicknesses greater than 2 inches) and Appendix III (for thicknesses not greater than 2 inches) to Section XI of the ASME Code.

3.2.6 Duration of Relief Request

The licensee submitted RR 1-ISI-21 for the second 10-year ISI interval at WBN, Unit 1, which began on May 27, 2007, and ended on May 26, 2017.

3.2.7 NRC Staff Evaluation

For the head-to-shell welds in Table 2 of this SE, the licensee achieved less than 90 percent of the required volumetric examination coverage due to material and geometric limitations that would entail modification and disassembly of the associated components if the required coverage were to be obtained. The staff finds the stated limitations to be an acceptable basis for impracticality of conforming to the requirements and finds the modification necessary to achieve the required coverage constitutes a burden upon the licensee.

The licensee examined the welds in Table 2 of this SE to the maximum extent practical using UT examination in accordance with Article 4 of Section V or Appendix III to Section XI of the ASME Code, and achieved the coverages shown in the table. The licensee used 45-degree, 60-degree, and 70-degree shear wave scanners, parallel and transverse to the weld, from the head side of the weld for the BIT-2 and BIT-3 welds and from both sides of the weld for the CVCS-SWIFLTR-62-96 weld. The licensee also used a 60-degree refracted longitudinal wave scanner but did not credit the coverage from this scanner. The staff reviewed some of the examination coverage sheets and verified the licensee's achieved coverages. The staff finds the licensee's achieved coverages acceptable. The examined volumes included weld and base materials in the inner region where degradation is expected to show should it occur.

Based on the above discussion, the staff determined that obtaining the ASME Code required examination volume coverage for the subject head-to-shell welds is impractical because of the stated limitations and that the modification necessary to obtain the required coverage would impose a burden upon the licensee. The staff also determined that the volumetric UT examination performed to the maximum extent practical provides reasonable assurance of the structural integrity of the welds because: (1) the licensee identified no recordable indications; and (2) evidence of significant service-induced degradation in the welds, if it were to occur, would likely be detected in the volumetric examination coverages obtained by the licensee (Table 2), because the examined weld volume includes the most susceptible regions, is the same material as the unexamined volume, is under the same loading conditions, and is exposed to the same environment.

3.3 <u>Examination Category C-B, Pressure Retaining Nozzle Welds in Vessels, Item No. C2.21, Nozzle-to-Shell Weld</u>

3.3.1 Components Affected

Details of the one weld under Examination Category C-B are shown in Table 3 of this SE, obtained from Table 1 of the attachment to the enclosure of the submittal.

Table 3. Examination Category C-B Limited Volumetric Examination Coverage

Item No.	Weld Identification	Weld Material; Component Description	Examination Limitation	Percent Coverage Achieved
C2.21	BIT-1	Stainless steel; Boron Injection Tank inlet nozzle- to-shell weld	Geometric nozzle design configuration	68.8

3.3.2 Applicable ASME Code Edition and Addenda

The ASME Code of record at WBN, Unit 1 for the second 10-year ISI interval is the 2001 Edition through the 2003 Addenda of ASME Code, Section XI.

3.3.3 ASME Code Requirement

The examination requirement is volumetric examination of essentially 100 percent of the applicable volume defined in Figures IWC-2500-4(a), (b), or (d) "Nozzle-to-Vessel Welds" of the ASME Code, Section XI. Additionally, a surface examination of 100 percent of the applicable surface defined in Figures IWC-2500-4(a), (b), or (d) of the ASME Code, Section XI is required. When 100 percent of the required volume or area cannot be examined due to interferences, obstructions, or geometrical configuration, CC N-460 allows reduction of the examination volume or area to 90 percent of the required volume or area.

3.3.4 Reason for Relief Request

The licensee achieved the volumetric coverage shown in Table 3 of this SE for the subject weld and could not achieve the ASME Code required volumetric coverage because of the examination limitation shown. The licensee achieved 100 percent of the required surface examination. For the weld in Table 3, the licensee achieved 68.8 percent of the required examination volume and did not detect any recordable indications. The licensee stated that due to the limitation, complying with the ASME Code required examination coverage is impractical and is thus requesting relief pursuant to 10 CFR 50.55a(g)(5)(iii).

3.3.5 Basis for Relief Request

The licensee stated that the required examination coverage can only be accomplished by modifying and/or disassembling components associated with the weld beyond their current design, which therefore presents a burden of compliance. In lieu of the ASME Code required

examination coverage, the licensee examined the weld to the maximum extent practical, achieving the percent coverages in Table 3 by UT examination in accordance with Appendix III to Section XI of the ASME Code.

3.3.6 Duration of Relief Request

The licensee submitted RR 1-ISI-21 for the second 10-year ISI interval at WBN, Unit 1, which began on May 27, 2007, and ended on May 26, 2017.

3.3.7 NRC Staff Evaluation

For the BIT-1 weld in Table 3 of this SE, the licensee achieved less than 90 percent of the required volumetric examination coverage due to a geometric limitation that would entail modification of the associated component if the required coverage were to be obtained. The staff finds the stated limitation to be an acceptable basis for impracticality of conforming to the requirements and finds the modification necessary to achieve the required coverage constitutes a burden upon the licensee.

The licensee examined the BIT-1 weld to the maximum extent practical using UT examination in accordance with Appendix III to Section XI of the ASME Code, and achieved the coverage shown in the table. The licensee used a 45-degree wave scanner, parallel and transverse to the weld, and because of the geometric limitation, from the shell side of the weld only. The licensee also used a 60-degree refracted longitudinal wave scanner but did not credit the coverage from this scanner. The staff reviewed and verified the licensee's achieved coverage, and the staff finds it acceptable. The examined volume included weld and base materials in the inner region where degradation is expected to show should it occur.

Based on the above discussion, the staff determined that obtaining the ASME Code required examination volume coverage for the BIT-1 weld is impractical because of the stated limitation and that the modification necessary to obtain the required coverage would impose a burden upon the licensee. The staff also determined that the volumetric UT examination performed to the maximum extent practical provides reasonable assurance of the structural integrity of the weld because: (1) the licensee identified no recordable indications; and (2) evidence of significant service-induced degradation in the welds, if it were to occur, would likely be detected in the volumetric examination coverage obtained by the licensee (Table 3), because the examined weld volume includes the most susceptible region, is the same material as the unexamined volume, is under the same loading conditions, and is exposed to the same environment.

3.4 <u>Examination Category R-A, Risk-Informed Inservice Inspection Program Welds, Item Nos. R1.11 and R1.20</u>

3.4.1 Components Affected

Details of the welds under Examination Category R-A are shown in Table 4 of this SE (see next page), obtained from Table 1 of the attachment to the enclosure of the submittal.

3.4.2 Applicable ASME Code Edition and Addenda

The ASME Code of record at WBN, Unit 1 for the second 10-year ISI interval is the 2001 Edition through the 2003 Addenda of ASME Code, Section XI.

3.4.3 ASME Code Requirement

The examination requirement for the R-A category welds is volumetric examination of essentially 100 percent of the applicable volume defined in Figure IWB-2500-8(c), "Similar and Dissimilar Metal Welds in Components, Nozzles, and Piping," of ASME Code, Section XI, except that the length of the examination volume shall be increased to include one-half of an inch beyond each side of the metal thickness transition or counterbore.

3.4.4 Reason for Relief Request

The licensee achieved the volumetric coverage shown in Table 4 of this SE for the subject welds and could not achieve the ASME Code required examination coverage because of the examination limitations shown. For the five welds in Table 4, the licensee achieved 46.5 to 89.6 percent of the required examination volume and did not detect any recordable indications. The licensee stated that due to physical limitations, complying with the ASME Code required examination coverage is impractical and is thus requesting relief pursuant to 10 CFR 50.55a(g)(5)(iii).

3.4.5 Basis for Relief Request

The licensee indicated that the required examination coverage can only be accomplished by modifying and/or disassembling components associated with the reduced examination coverage beyond their current configuration, which therefore presents a burden of compliance. In lieu of the ASME Code required examination coverage, the licensee examined these welds to the maximum extent practical, achieving the coverages in Table 4. The volumetric examinations were performed in accordance with Section XI, Mandatory Appendix I, I-2220, which

implements the Appendix VIII, Performance Demonstration Program for ultrasonic examinations.

Table 4. Examination Category R-A Limited Volumetric Examination Coverage

Item No.	Weld Identification	Weld Material; Component Description	Examination Limitation	Percent Coverage Achieved
R1.11	1-003D-D012-13	Ferritic steel; Valve to Pipe weld ASME Class 2 4" NPS SCH X-HVY Main Feedwater System	Valve-to-Pipe design. No scan on valve side	46.5
R1.11	1-003D-D012-14	Ferritic steel; Pipe to Valve weld ASME Class 2 4" NPS SCH X-HVY Main Feedwater System Pipe-to-V design. scan on v		46.5
R1.11	CVCF-D036-14	Stainless steel; Pipe-to-Tee weld ASME Class 1 2" NPS SCH 160 Pipe to Tee 3"x3"x2" Chemical Volume Control System	Pipe-to-Tee design configuration limitation	58.3
R1.20	SIF-D092-15	Stainless steel; Elbow to Tee weld ASME Class1 6" NPS SCH 160 Elbow to Tee 14"x14"x6" Safety Injection System	Elbow-to-Tee design configuration limitation	75.0
R1.20	SIF-D084-04	Stainless steel; Elbow to Pipe weld ASME Class 2 4" NPS SCH 160 Safety Injection System	Elbow-to-Pipe design configuration limitation	89.6

3.4.6 Duration of Relief Request

The licensee submitted RR 1-ISI-21 for the second 10-year ISI interval at WBN, Unit 1, which began on May 27, 2007, and ended on May 26, 2017.

3.4.7 NRC Staff Evaluation

For the Examination Category R-A welds listed in Table 4 of this SE, the licensee achieved less than the required volumetric examination coverage due to geometric, material, and physical limitations that would entail modification of the associated components if the required coverage were to be obtained. The staff finds the stated limitations to be an acceptable basis for impracticality of conforming to the requirements and finds the modification necessary to achieve the required coverage constitutes a burden upon the licensee.

The licensee examined the subject welds to the maximum extent practical using UT examination in accordance with Mandatory Appendix I, Subsubarticle I-2220 to Section XI of the ASME Code. These examinations implemented the Appendix VIII, Performance Demonstration Program to achieve the UT examination coverage shown in the Table 4. The licensee used a 45-degree and 70-degree shear wave scanner, parallel and transverse to the weld, and because of the noted limitations, was not able to achieve the required examination volumes for the subject welds. The staff reviewed the examination coverage and verified the licensee's achieved coverage. The staff finds the licensee's achieved coverages acceptable, given the noted limitations. The examined volumes included weld and base metal in the inner region where degradation is expected to show, should it occur.

Based on the above discussion, the staff determined that obtaining the ASME Code required examination volume coverage for the welds listed in Table 4 is impractical because of the stated limitations and that the modifications necessary to obtain the required coverage would impose a burden upon the licensee. The staff also determined that the volumetric UT examination performed to the maximum extent practical provides reasonable assurance of the structural integrity of the weld because: (1) the licensee identified no recordable indications; and (2) evidence of significant service-induced degradation in the welds, if it were to occur, would likely have been detected by the volumetric examination coverage obtained by the licensee (Table 4), because the examined weld volume includes the most susceptible regions, is the same material as the unexamined volume, is under the same loading conditions, and is exposed to the same environment.

4.0 CONCLUSION

As set forth above, the staff concludes that it is impractical for the licensee to comply with the requirements of the ASME Code, Section XI, for the examinations of the components noted in RR 1-ISI-21 for WBN Unit 1. The staff concludes that the licensee has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(g)(5)(iii). Accordingly, the staff has determined that the granting of relief pursuant to 10 CFR 50.55a(g)(6)(i) is authorized by law and will not endanger life or property or common defense and security, and is otherwise in the public interest, giving due consideration to the burden upon the licensee that could result if the requirements were imposed on the facility. Therefore, the NRC grants the use of RR 1-ISI-21, for the WBN, Unit 1 for the second10-year ISI interval, which began on May 27, 2007, and ended on May 26, 2017.

All other ASME Code, Section XI requirements for which relief was not specifically requested and approved in this relief request remain applicable, including third-party review by the Authorized Nuclear Inservice Inspector.

Principal Contributors: David Dijamco

Roger Kalikian

Date: April 12, 2019

SUBJECT: WATTS BAR NUCLEAR PLANT, UNIT 1 - RELIEF REQUEST 1-ISI-21

FROM THE REQUIREMENTS OF THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS BOILER AND PRESSURE VESSEL CODE

(EPID L-2018-LLR-0090) DATE APRIL 12, 2019

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