August 10, 2004

Mr. Karl W. Singer
Chief Nuclear Officer and
Executive Vice president
Tennessee Valley Authority
6A Lookout Place
1101 Market Street
Chattanooga, Tennessee 37402-2801

SUBJECT: SAFETY EVALUATION FOR SEQUOYAH NUCLEAR PLANT UNITS 1 AND 2, AND WATTS BAR NUCLEAR PLANT, UNIT 1 - REQUEST FOR RELIEF PDI-3, QUALIFICATION REQUIREMENTS FOR DISSIMILAR METAL PIPING WELDS (TAC NOS. MC1079, MC1080 AND MC1081)

Dear Mr. Singer:

By letter dated October 15, 2003, Tennessee Valley Authority (licensee) submitted a relief request for the Sequoyah Nuclear Plant, Units 1 and 2, and Watts Bar Nuclear Plant, Unit 1. The submittal requested relief from selected requirements of the American Society of Mechanical Engineers Code, Section XI, “Rules for Inservice Inspection of Nuclear Power Plant Components,” 1995 Edition with 1996 Addenda, Appendix VIII, Supplement 10, “Qualification Requirements for Dissimilar Metal Piping Welds,” for each unit.

Based on our review of your submittal, we have concluded that the alternatives proposed in Relief Request PDI-3 provide an acceptable level of quality and safety, and, therefore, it is authorized pursuant to 10 CFR 50.55a(a)(3)(i).

Sincerely,

/RA/

Michael L. Marshall, Jr., Acting Chief, Section 2
Project Directorate ll
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-327, 50-328 and 50-390

Enclosure: Safety Evaluation

cc w/encl: See next page

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

REQUEST FOR RELIEF PDI-3

TENNESSEE VALLEY AUTHORITY

SEQUOYAH NUCLEAR PLANT, UNIT NOS. 1 AND 2

AND

WATTS BAR NUCLEAR PLANT, UNIT 1

DOCKET NOS. 50-327, 50-328 AND 50-390

1.0 INTRODUCTION

The inservice inspection of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (Code) Class 1, Class 2, and Class 3 components is to be performed in accordance with Section XI of the ASME Code and applicable edition and addenda as required by Title 10 of the *Code of Federal Regulation* (10 CFR) Section 50.55a(g), except where specific written relief has been granted by the Commission pursuant to 10 CFR 50.55a(g)(6)(i). As stated, in part, in 10 CFR 50.55a(a)(3), alternatives to the requirements of paragraph (g) may be used, when authorized by the U.S. Nuclear Regulatory Commission (NRC), if the licensee demonstrates that: (i) the proposed alternatives would provide an acceptable level of quality and safety, or (ii) compliance with the specified requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

The Electric Power Research Institute (EPRI), implemented Performance Demonstration Initiative (PDI) Program; an alternative program to implement same or better degree of quality comparable to the requirements of ASME Boiler and Pressure Vessel Code Section XI, Division1, 1995 Edition with 1996 Addenda (1995A1996) “Rules for ISI of Nuclear Power Plant Components,” Appendix VIII, Supplement 10, henceforth referred to as ASME Code, Supplement 10.

This licence amendment requests relief from selected requirements of the ASME Code, Supplement 10.

2.0 REGULATORY EVALUATION

Pursuant to 10 CFR 50.55a(g)(4), ASME Code Class 1, 2, and 3 components (including supports) shall meet the requirements, except the design and access provisions and the preservice examination requirements, set forth in the ASME Code, Section XI, "Rules for

ENCLOSURE

Inservice Inspection (ISI) of Nuclear Power Plant Components," to the extent practical within the limitations of design, geometry, and materials of construction of the components. The regulations require that inservice examination of components and system pressure tests conducted during the first 10-year interval and subsequent intervals comply with the requirements in the latest edition and addenda of Section XI of the ASME Code incorporated by reference in 10 CFR 50.55a(b) 12 months prior to the start of the 120-month interval, subject to the limitations and modifications listed therein. The second 10-year ISI intervals for Sequoyah Nuclear Plant (SQN), Unit Nos. 1 and 2, both end on May 31, 2006. The ISI Code of record for SQN, Units 1 and 2, second 10-year interval is the 1989 Edition with no Addenda. The first 10-year ISI interval for Watts Bar Nuclear Plant (WBN), Unit No. 1, ends on December 31, 2006. The ISI Code of record for WBN Unit 1's first 10-year interval is the 1989 Edition with no Addenda. The components (including supports) may meet the requirements set forth in subsequent editions and addenda of the ASME Code incorporated by reference in 10 CFR 50.55a(b) subject to the limitations and modifications listed therein and subject to Commission approval.

As stated in 10 CFR 50.55a(g)(6)(ii)(C), all nuclear power plants were required to comply by November 22, 2002, with ASME Code, Supplement 10. The ASME Code, Supplement 10 "Qualification Requirements for Dissimilar Metal Piping Welds," contains the qualification requirements for procedures, equipment, and personnel involved with examining dissimilar metal (DSM) welds using nondestructive testing methods.

The inability to meet the 10 CFR 50.55a(g)(6)(ii)(C) has not impacted the safety of SQN and WBN because the program is intended for use during outages when DSM weld examinations are to be performed. For SQN Units 1 and 2, and WBN Unit 1, there have been no DSM welds examined since November 22, 2002. However, DSM welds are scheduled for examination during the SQN Unit 1 and 2 Cycle 13 refueling outages (RFO) [fall 2004 and spring 2005, respectively] and during the WBN Unit 1, Cycle 6 RFO (spring 2005).

By letter dated October 15, 2003, Tennessee Valley Authority (licensee) submitted a relief request for the SQN Units 1 and 2, and WBN Unit 1. The submittal requested relief from selected requirements of the ASME Code, Supplement 10.

2.1 Components for which Relief is Requested

DSM piping welds that are subject to examination using procedures, personnel, and equipment qualified to the ASME Code, Supplement 10, "Qualification Requirements for Dissimilar Metal Piping Welds."

The licensee proposed alternatives to the following ASME Code Supplement 10 requirements:

1. Paragraph 1.1(b) states, in part: "Pipe diameters within a range of 0.9 to 1.5 times a nominal diameter shall be considered equivalent."

2. Paragraph 1.1(d) states: "All flaws in the specimen set shall be cracks."

3. Paragraph 1.1(d)(1) states: "At least 50% of the cracks shall be in austenitic material. At least 50% of the cracks in austenitic material shall be contained wholly in weld or buttering material. At least 10% of the cracks shall be in ferritic material. The remainder of the cracks may be in either austenitic or ferritic material."

4. Paragraph 1.2(b) states, in part: "The number of unflawed grading units shall be at least twice the number of flawed grading units."

5. Paragraph 1.2(c)(1) and 1.3(c) state, in part: "At least 1/3 of the flaws, rounded to the next higher whole number, shall have depths between 10% and 30% of the nominal pipe wall thickness. Paragraph 1.4(b) distribution table requires 20% of the flaws to have depths between 10% and 30%."

6. Paragraph 2.0, first sentence states: "The specimen inside surface and identification shall be concealed from the candidate."

7. Paragraph 2.2(b) states, in part: "The regions containing a flaw to be sized shall be identified to the candidate."

8. Paragraph 2.2(c) states, in part: "For a separate length sizing test, the regions of each specimen containing a flaw to be sized shall be identified to the candidate."

9. Paragraph 2.3(a) states: "For the depth sizing test, 80% of the flaws shall be sized at a specific location on the surface of the specimen identified to the candidate."

10. Paragraph 2.3(b) states: "For the remaining flaws, the regions of each specimen containing a flaw to be sized shall be identified to the candidate. The candidate shall determine the maximum depth of the flaw in each region."

11. Table VIII-S2-1 provides the false call criteria when the number of unflawed grading units is at least twice the number of flawed grading units.

2.2 Licensee's Proposed Alternative and Basis

Pursuant to 10 CFR 50.55a(a)(3)(i), the licensee proposed the following for the SQN Units 1 and 2, second 10-year ISI intervals and WBN Unit 1 first 10-year ISI interval. The proposed alternative would be PDI program.

Paragraph 1.1(b) proposed alternative:

The specimen set shall include the minimum and maximum pipe diameters and thicknesses for which the examination procedure is applicable. Pipe diameters within a range of ½ inch (13 mm) of the nominal diameter shall be considered equivalent. Pipe diameters larger than 24 inches (610 mm) shall be considered to be flat. When a range of thicknesses is to be examined, a thickness tolerance of +25% is acceptable.

Technical Basis - The change in the minimum pipe diameter tolerance from 0.9 times the diameter to the nominal diameter minus 0.5 inch provides tolerances more in line with industry practice. Though the alternative is less stringent for small pipe diameters, they typically have a thinner wall thickness than larger diameter piping. A thinner wall thickness results in shorter sound path distances that reduce the detrimental effects of the curvature. This change maintains consistency between Supplement 10 and the recent revision to Supplement 2.

Paragraph 1.1(d) proposed alternative:

At least 60% of the flaws shall be cracks, the remainder shall be alternative flaws. Specimens with intergranular stress corrosion cracking shall be used when available. Alternative flaws, if used, shall provide crack-like reflective characteristics and shall be limited to the case where implantation of cracks produces spurious reflectors that are uncharacteristic of actual flaws. Alternative flaw mechanisms shall have a tip width of less than or equal to 0.002 inch (0.05 mm).

Technical Basis - As illustrated below, implanting a crack requires excavation of the base material on at least one side of the flaw. While this may be satisfactory for ferritic materials, it does not produce a useable axial flaw in austenitic materials because the sound beam, which normally passes only through base material, must now travel through weld material on at least one side, producing an unrealistic flaw response. In addition, it is important to preserve the dendritic structure present in field welds that would otherwise be destroyed by the implantation process. To resolve these issues, the proposed alternative allows the use of up to 40% fabricated flaws as an alternative flaw mechanism under controlled conditions. The fabricated flaws are isostatically compressed which produces ultrasonic reflective characteristics similar to tight cracks.

Note: To avoid confusion the proposed alternative modifies instances of the term ‘cracks’ or ‘cracking’ to the term ‘flaws’ because of the use of alternative flaw mechanisms.

Paragraph 1.1(d)(1) alternative:

At least 80% of the flaws shall be contained wholly in weld or buttering material. At least one and a maximum of 10% of the flaws shall be in ferritic base material. At least one and a maximum of 10% of the flaws shall be in austenitic base material.

Technical Basis - Under the ASME Code, Supplement 10 as few as 25% of the flaws are contained in austenitic weld or buttering material. The metallurgical structure of austenitic weld material is ultrasonically more challenging than either ferritic or austenitic base material. The proposed alternative is, therefore, more challenging than the ASME Code, Supplement 10

Paragraph 1.2(b) alternative:

Detection sets shall be selected from Table VIII-S10-1. The number of unflawed grading units shall be at least one and a half times the number of flawed grading units.

Technical Basis -Table VIII-S10-1 provides a statistically based ratio between the number of unflawed grading units and the number of flawed grading units. The proposed alternative reduces the ratio to 1.5 times to reduce the number of test samples to a more reasonable number from the human factors perspective. However, the statistical basis used for screening personnel and procedures is still maintained at the same level with competent personnel being successful and less skilled personnel being unsuccessful. The acceptance criteria for the statistical basis are in Table VIII-S10-1.

Paragraphs 1.2(c)(1) and 1.3(c) alternative:

The proposed alternative to the flaw distribution requirements of Paragraphs 1.2(c)(1) (detection) and 1.3(c) (length) is to use the Paragraph 1.4(b) (depth) distribution table (see below) for all qualifications.

Flaw Depth (% Wall Thickness)	**Minimum Number of Flaws**
10-30%	20%
31-60%	20%
61-100%	20%

In addition, the proposed alternative includes the following: "At least 75% of the flaws shall be in the range of 10 to 60% of wall thickness."

Technical Basis - The proposed alternative uses the depth sizing distribution for both detection and depth sizing because it provides for a better distribution of flaw sizes within the test set. This distribution allows candidates to perform detection, length, and depth sizing demonstrations simultaneously utilizing the same test set. The requirement that at least 75% of the flaws shall be in the range of 10 to 60% of wall thickness provides an overall distribution tolerance yet the distribution uncertainty decreases the possibilities for testmanship that would be inherent to a uniform distribution. It must be noted that it is possible to achieve the same distribution utilizing the present requirements, but it is preferable to make the criteria consistent.

Paragraph 2.0, first sentence alternative:

> For qualifications from the outside surface, the specimen inside surface and identification shall be concealed from the candidate. When qualifications are performed from the inside surface, the flaw location and specimen identification shall be obscured to maintain a 'blind test.'
>
> Technical Basis - The ASME Code, Supplement 10 requires that the inside surface be concealed from the candidate. This makes qualifications conducted from the inside of the pipe [e.g., pressurized water reactor (PWR) nozzle to safe end welds] impractical. The proposed alternative differentiates between inside diameter (ID) and outside diameter (OD) scanning surfaces, requires that they be conducted separately, and requires that flaws be concealed from the candidate. This is consistent with the recent revision to Supplement 2.

Paragraphs 2.2(b) and 2.2(c) proposed alternative:

> '. . . containing a flaw to be sized may be identified to the candidate.'
>
> Technical Basis - The ASME Code, Supplement 10 requires that the regions of each specimen containing a flaw to be length sized shall be identified to the candidate. The candidate shall determine the length of the flaw in each region (Note, that length and depth sizing use the term 'regions' while detection uses the term 'grading units' - the two terms define different concepts and are not intended to be equal or interchangeable). To ensure security of the samples, the proposed alternative modifies the first 'shall' to a 'may' to allow the test administrator the option of not identifying specifically where a flaw is located. This is consistent with the recent revision to Supplement 2.

Paragraphs 2.3(a) and 2.3(b) alternative:

> '. . . regions of each specimen containing a flaw to be sized may be identified to the candidate.'
>
> Technical Basis - The ASME Code, Supplement 10, requires that a large number of flaws be sized at a specific location. The proposed alternative changes the 'shall' to a 'may' which modifies this from a specific area to a more generalized region to ensure security of samples. This is consistent with the recent revision to Supplement 2. It also incorporates terminology from length sizing for additional clarity.

Paragraph 3.1 alternative:

The proposed alternative modifies the acceptance criteria articulated in Table VIII-S2-1 and replaces it with Table VIII-S10-1.

TABLE VIII-S10-1
PERFORMANCE DEMONSTRATION DETECTION TEST
ACCEPTANCE CRITERIA

Detection Test Acceptance Criteria		False Call Test Acceptance Criteria	
No. of Unflawed Grading Units	Minimum Detection Criteria	No. of Unflawed Grading Units	Maximum Number of False Calls
~~5~~	~~5~~	~~10~~	~~0~~
~~6~~	~~6~~	~~12~~	~~1~~
~~7~~	~~6~~	~~14~~	~~1~~
~~8~~	~~7~~	~~16~~	~~2~~
~~9~~	~~7~~	~~18~~	~~2~~
10	8	~~20~~ 15	~~3~~ 2
11	9	~~22~~ 17	~~3~~ 3
12	9	~~24~~ 18	~~3~~ 3
13	10	~~26~~ 20	~~4~~ 3
14	10	~~28~~ 21	~~5~~ 3
15	11	~~30~~ 23	~~5~~ 3
16	12	~~32~~ 24	~~6~~ 4
17	12	~~34~~ 26	~~6~~ 4
18	13	~~36~~ 27	~~7~~ 4
19	13	~~38~~ 29	~~7~~ 4
20	14	~~40~~ 30	~~8~~ 5

Technical Basis - The proposed alternative is identified as a new Table VIII-S10-1. It was modified to reflect the reduced number of unflawed grading units and allowable false calls. As a part of ongoing Code activities, Pacific Northwest National Laboratory has reviewed the statistical significance of these revisions and offered the revised Table VIII-S10-1.

3.0 TECHNICAL EVALUATION

3.1 Justification for Relief

Since 2001, PDI has been developing a program to implement ASME Code, Supplement 10. During the development process, certain aspects of ASME Code, Supplement 10 were identified as difficult or impossible to implement. To overcome the implementation difficulties, PDI researched, tested, and demonstrated the effectiveness of an alternative to selected paragraphs of the Code. PDI representatives presented the alternative before the appropriate ASME committees that formalize the alternative in Code Case N-695, which was approved on May 21, 2003. The NRC staff representatives on these committees participated in the consensus process and joined with the industry in approving Code Case N-695.

3.2 NRC Staff Analyses

The NRC staff evaluated the technical merit of the alternative proposed by the licensee that would provide an acceptable level of quality and safety to what the ASME Code, Supplement 10 requires. Discussed below are differences between ASME Code, Supplement 10 requirements from which the licensee has requested relief and NRC staff analyses of proposed alternative.

3.2.1 Paragraph 1.1(b) of ASME Code, Supplement 10 and staff analyses of proposed alternative.

The ASME Code, Supplement 10 requirement of “0.9 to 1.5 times the nominal diameter are equivalent” was established for a single nominal diameter. When applying the ASME Code, Supplement 10, required tolerance to a range of diameters, the tolerance rapidly expands on the high side. Under the ASME Code, Supplement 10 requirements, a 5-inch OD pipe would be equivalent to a range of 4.5-inch to 7.5-inch diameter pipe. Under the proposed PDI guidelines, the equivalent range would be reduced to 4.5-inch to 5.5-inch diameter pipe. With ASME Code, Supplement 10 requirements, a 16-inch nominal diameter pipe would be equivalent to a range of 14.4-inch to 24-inch diameter pipe. The proposed alternative would significantly reduce the equivalent range to between 15.5-inch and 16.5-inch diameter pipe. The difference between ASME Code, Supplement 10 and the proposed PDI program for diameters less than 5 inches is not significant because of shorter metal path and beam spread associated with smaller diameter piping.

The NRC staff considers the proposed alternative to be more conservative overall than ASME Code, Supplement 10 requirements. The NRC staff finds that the proposed alternative will provide an acceptable level of quality and safety and, therefore, is acceptable.

3.2.2 ASME Code, Supplement 10 requirements of Paragraph 1.1(d) and staff analyses of proposed alternative

The ASME Code, Supplement 10 requires all flaws to be cracks. Manufacturing test specimens containing cracks free of spurious reflections and telltale indicators is extremely difficult in austenitic material. To overcome these difficulties, PDI developed a process for fabricating

flaws that produce ultrasonic testing (UT) acoustic responses similar to the responses associated with real cracks. PDI presented its process for discussion at public meetings held June 12 through 14, 2001, and January 31 through February 2, 2002, at the EPRI Nondestructive Examination Center, Charlotte, NC. The NRC staff attended these meetings and determined that the process parameters used for manufacturing fabricated flaws resulted in acceptable acoustic responses. The PDI program is being conducted at EPRI, which is assisting the industry in developing qualification requirements for procedures, personnel and equipment calibration for examining DSM welds.

The NRC staff finds that the proposed alternative will provide an acceptable level of quality and safety and, therefore, is acceptable.

3.2.3 ASME Code, Supplement 10 requirements of Paragraph 1.1(d)(1) and staff analyses of proposed alternative.

The ASME Code, Supplement 10 requires that at least 50 percent of the flaws be contained in austenitic material and 50 percent of the flaws in the austenitic material shall be contained fully in weld or buttering material. This means that at least 25 percent of the total flaws must be located in the weld or buttering material. Field experience shows that flaws identified during ISI of DSM welds are more likely to be located in the weld or buttering material. The grain structure of austenitic weld and buttering material represents a much more stringent ultrasonic scenario than that of a ferritic or austenitic base material. Flaws made in austenitic base material are difficult to create free of spurious reflectors and telltale indicators. The proposed alternative of 80 percent of the flaws in the weld metal or buttering material provides a challenging testing scenario reflective of field experience and minimizes testmanship associated with telltale reflectors common to placing flaws in austenitic base material.

The NRC staff considers the proposed alternative to be more conservative overall than ASME Code, Supplement 10 requirements. The staff finds that the proposed alternative will provide an acceptable level of quality and safety and, therefore, is acceptable.

3.2.4 ASME Code, Supplement 10 requirements of Paragraph 1.2(b), Paragraph 3.1 (Table VIII-S10-1) and staff analyses of proposed alternative.

The ASME Code, Supplement 10 requires that detection sets meet the requirements of Table VIII-S2-1 which specifies the minimum number of flaws in a test set to be five with 100 percent detection. The ASME Code, Supplement 10 also requires the number of unflawed grading units to be two times the number of flawed grading units. The proposed alternative, as shown in the licensee's submittal as Table VIII-S10-1, would follow the detection criteria of the table beginning with a minimum number of flaws in a test set starting at 10, and reducing the number of unflawed grading units to one and a half times the number of flawed grading units, while maintaining the same statistical design basis as the ASME Code, Supplement 10. The proposed alternative paragraphs satisfy the pass/fail objective established for the Appendix VIII performance demonstration acceptance criteria.

The NRC staff finds that the proposed alternative will provide an acceptable level of quality and safety and, therefore, is acceptable.

3.2.5 ASME Code, Supplement 10 requirements of Paragraph 1.2(c)(1), Paragraph 1.3(c) and staff analyses of proposed alternative

For detection and length sizing, ASME Code, Supplement 10 requires at least one third of the flaws be located between 10 and 30 percent through the wall thickness and one third located greater than 30 percent through the wall thickness. The remaining flaws would be located randomly throughout the wall thickness. The proposed alternative sets the distribution criteria for detection and length sizing to be the same as the depth sizing distribution, which stipulates that at least 20 percent of the flaws be located in each of the increments of 10-30 percent, 31-60 percent and 61-100 percent. At least 75 percent of the flaws shall be in the range of 10 to 60 percent of the wall thickness with the remaining flaws located randomly throughout the pipe thickness. With the exception of the 10-30 percent increment, the proposed alternative is a subset of the ASME Code, Supplement 10 requirements. The 10-30 percent increment would be in the subset if it contained at least 30 percent of the flaws. The change simplifies assembling test sets for detection and sizing qualifications and is more indicative of conditions in the field.

The NRC staff finds that the proposed alternative will provide an acceptable level of quality and safety and, therefore, is acceptable.

3.2.6 ASME Code, Supplement 10 requirements of Paragraph 2.0 and staff analyses of proposed alternative.

The ASME Code, Supplement 10 requires the specimen inside surface be concealed from the candidate. This requirement is applicable for test specimens used for qualification performed from the outside surface. With the expansion of Supplement 10 to include qualifications performed from the inside surface, the inside surface must be accessible while maintaining the specimen integrity. The proposed alternative requires that flaws and specimen identifications be obscured from candidates, thus maintaining blind test conditions. The NRC staff considers this to be consistent with the intent of ASME Code, Supplement 10 requirements.

The NRC staff finds that the proposed alternative will provide an acceptable level of quality and safety and, therefore, is acceptable.

3.2.7 ASME Code, Supplement 10 requirements of Paragraph 2.2(b) and 2.2(c) and staff analyses of proposed alternative.

The ASME Code, Supplement 10 requires that the location of flaws added to the test set for length sizing shall be identified to the candidate. The proposed alternative is to make identifying the location of additional flaws an option. This option provides an additional element of difficulty to the testing process because the candidate would be expected to demonstrate the skill of detecting and sizing flaws over an area larger than a specific location.

The NRC staff considers the proposed alternative to be more conservative than ASME Code, Supplement 10 requirements. The staff finds that the proposed alternative will provide an acceptable level of quality and safety and, therefore, is acceptable.

3.2.8 ASME Code, Supplement 10 requirements of Paragraph 2.3(a) and 2.3(b) and staff analyses of proposed alternative

In paragraph 2.3(a), the ASME Code, Supplement 10 requires that 80 percent of the flaws be sized in a specific location that is identified to the candidate. The proposed alternative allows identification of the specific location to be an option. This permits detection and depth sizing to be conducted separately or concurrently. In order to maintain a blind test, the location of flaws cannot be shared with the candidate. For depth sizing that is conducted separately, allowing the test administrator the option of not identifying flaw locations makes the testing process more challenging.

The NRC staff considers the proposed alternative to be more conservative than ASME Code, Supplement 10 requirements. The staff finds that the proposed alternative will provide an acceptable level of quality and safety and, therefore, is acceptable.

ASME Code, Supplement 10 of paragraph 2.3(b), requires that the location of flaws added to the test set for depth sizing shall be identified to the candidate. The proposed alternative is to make identifying the location of additional flaws an option. This option provides an additional element of difficulty to the testing process because the candidate would be expected to demonstrate the skill of finding and sizing flaws in an area larger than a specific location.

The NRC staff considers the proposed alternative to be more conservative than ASME Code, Supplement 10 requirements. The NRC staff finds that the proposed alternative will provide an acceptable level of quality and safety and, therefore, is acceptable.

4.0 CONCLUSION

The NRC staff has reviewed the licensee's submittal and determined that, in accordance with 10 CFR 50.55a(a)(3)(i), the proposed alternative program will provide an acceptable level of quality and safety. Therefore, pursuant to 10 CFR 50.55a(a)(3)(i), the staff authorizes the proposed alternative, request for relief PDI-3, described in the licensee's letter dated October 15, 2003, for SQN, Units 1 and 2, for their second 10-year ISI intervals and WBN, Unit 1, for its first 10-year ISI interval. 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 Contributor: Jay Collins

Date: August 10, 2004

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