July 13, 2004

Mr. Gregg R. Overbeck
Senior Vice President, Nuclear
Arizona Public Service Company
P. O. Box 52034
Phoenix, AZ 85072-2034

SUBJECT: PALO VERDE NUCLEAR GENERATING STATION, UNITS 1, 2, AND 3 - RELIEF REQUEST NO. 26: RELIEF FROM ASME SECTION XI, APPENDIX VIII, SUPPLEMENT 10 (TAC NOS. MC2566, MC2567 AND MC2568)

Dear Mr. Overbeck:

By letter dated April 5, 2004, Arizona Public Service Company submitted Relief Request No. 26, requesting relief from requirements in the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (the ASME Code) for the Palo Verde Nuclear Generating Station, Units 1, 2, and 3. This request proposed alternatives to selected ASME Code, Section XI requirements related to the ultrasonic examination of dissimilar metal welds. The request was submitted pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.55a(a)(3)(i) as a proposed alternative to the requirements of ASME Code, Section XI, Appendix VIII, Supplement 10.

Based on the enclosed safety evaluation, the NRC staff concludes that the proposed alternatives provide an acceptable level of quality and safety. Therefore, pursuant to 10 CFR 50.55a(a)(3)(i), the NRC staff authorizes the proposed alternatives at the Palo Verde Nuclear Generating Station, Units 1, 2, and 3 for the second 10-year inservice inspection interval. All other requirements of the ASME Code, Section III and XI for which relief has not been specifically requested and approved remain applicable, including third party review by the Authorized Nuclear Inservice Inspector.

Sincerely,

/RA/

Stephen Dembek, Chief, Section 2
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. STN 50-528, STN 50-529,
and STN 50-530

Enclosure: Safety Evaluation

cc w/encl: See next page

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

INSERVICE INSPECTION PROGRAM RELIEF REQUEST NO. 26

ARIZONA PUBLIC SERVICE COMPANY, ET AL.

PALO VERDE NUCLEAR GENERATING STATION, UNITS 1, 2, AND 3

DOCKET NOS. STN 50-528, STN 50-529, AND STN 50-530

1.0 INTRODUCTION

The inservice inspection (ISI) of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (Code) Class 1, 2, and 3 components is to be performed in accordance with Section XI of the ASME Code and applicable edition and addenda as required by 10 CFR 50.55a(g), except where specific relief has been granted by the Commission pursuant to 10 CFR 50.55a(g)(6)(i). Section 50.55a(a)(3) of Title 10 of the *Code of Federal Regulations* (10 CFR) states in part that alternatives to the requirements of paragraph (g) may be used, when authorized by the 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.

Pursuant to 10 CFR 50.55a(g)(4), ASME Code Class 1, 2, and 3 components (including supports) will meet the requirements, except the design and access provisions and the preservice examination requirements, set forth in the ASME Code, Section XI, “Rules for Inservice Inspection 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 ISI code of record for Palo Verde Nuclear Generating Station, Units 1, 2, and 3 (Palo Verde) second 10-year ISI interval is the 1992 Edition, 1992 Addenda of Section XI of the ASME Code.

In a final rulemaking on September 22, 1999 (64 FR 51370), the NRC imposed a requirement for expedited implementation of Appendix VIII to Section XI of the ASME Code. That appendix contains several supplements, which licensees were to implement on a phased basis over a 3-year period, with Supplement 10 scheduled to be implemented by November 22, 2002. The NRC concluded that the expedited implementation of Appendix VIII was "... necessary to bring the facilities described into compliance with General Design Criterion 14, Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Appendix A, or similar provisions in the licensing basis

for these facilities, and Criterion II, 'Quality Assurance Program,' and Criterion XVI, 'Corrective Actions,' of Appendix B to 10 CFR Part 50" (64 FR 51394).

Prior to November 22, 2002, the requirements for conducting dissimilar metal weld qualifications and examinations using ultrasonic (UT) techniques were stipulated in Appendix III to Section XI of the ASME Code. Since that date, however, these requirements are stipulated in Appendix VIII to Section XI of the ASME Code. A significant difference between these appendices is that Appendix III consists of prescriptive-based criteria, while Appendix VIII consists of performance-based criteria. This is important because the performance-based criteria substantially improve the ability of an examiner to detect and characterize flaws during UT examination of components and, thereby, provide for more reliable examination results.

By letter dated April 5, 2004, Arizona Public Service Company (APS or the licensee) submitted Relief Request No. 26, requesting relief from requirements in the ASME Code related to the UT examination of dissimilar metal welds for Palo Verde. The relief request would authorize the use of a proposed alternative program to the dissimilar metal welds ultrasonic examination requirements of the ASME Code, Section XI, Appendix VIII, Supplement 10, for the remaining portion of the second ISI interval.

2.0 TECHNICAL EVALUATION FOR RELIEF REQUEST 26

2.1 ASME Code System/Component(s) for which Relief is Requested

The requested relief from the Supplement 10 requirements applies to pressure-retaining piping welds subject to examination using procedures, personnel, and equipment qualified to ASME Code, Section XI, Appendix VIII, Supplement 10 criteria.

2.2 Code Requirements for which Relief is Requested

The licensee requested relief from the requirements of ASME Code, Section XI, Appendix VIII, Supplement 10 (1995 Edition with 1996 Addenda), the implementation of which is required in accordance with 10 CFR 50.55a(g)(6)(ii)(C).

2.3 Licensee's Proposed Alternatives to the Code

The licensee proposed alternatives to the following Supplement 10 requirements:

Item 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.

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

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

Item 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.

Item 5 - Paragraphs 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 percent and 30 percent of the nominal pipe wall thickness. Paragraph 1.4(b) distribution table requires 20 percent of the flaws to have depths between 10 percent and 30 percent.

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

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

Item 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.

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

Item 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.

Item 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.

2.4 Licensee's Proposed Alternatives and Bases for Relief

Pursuant to the alternative provisions in 10 CFR 50.55a(a)(3)(i), the licensee proposed the following alternatives for the remaining portion of the second ISI interval. The proposed alternatives will be implemented through the Electric Power Research Institute (EPRI) - Performance Demonstration Initiative Program (PDI). In addition, this section includes the licensee's bases for the proposed alternatives.

<u>Item 1 - Paragraph 1.1(b) Proposed Alternative</u>

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 one-half 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 percent 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 in Appendix VIII to Section XI of the ASME Code.

Item 2 - Paragraph 1.1(d) Proposed Alternative

At least 60 percent of the flaws shall be cracks, the remainder shall be alternative flaws. Specimens with intergranular stress corrosion cracking (IGSCC) 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 in. (.05 mm). 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.

Technical Basis - 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 percent 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.

Item 3 - Paragraph 1.1(d)(1) Proposed Alternative

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

Technical Basis - Under the current ASME Code, as few as 25 percent of the flaws are contained in austenitic weld or buttering material. Recent experience has indicated that flaws contained within the weld are the likely scenario. 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 current ASME Code.

Item 4 - Paragraph 1.2(b) Proposed 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 - New 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. This reduces 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 VIll-S10-1.

Item 5 - Paragraphs 1.2(c)(1) and 1.3(c) Proposed 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 percent of the flaws shall be in the range of 10 to 60 percent of wall thickness provides an overall distribution tolerance. 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.

Item 6 - Paragraph 2.0, First Sentence Proposed 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 current Code requires that the inside surface be concealed from the candidate. This makes qualifications conducted from the inside of the pipe 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.

Items 7 and 8 - 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 current ASME Code 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.

Items 9 and 10 - Paragraphs 2.3(a) and 2.3(b) Proposed Alternative

... regions of each specimen containing a flaw to be sized may be identified to the candidate.

Technical Basis - The current ASME Code 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.

Item 11 - Table VIII-S2-1 Acceptance Criteria Proposed Alternative

In addition to deleting/changing selected acceptance criteria, as noted below, the licensee also proposes to change the title of the table, identifying it as new Table VIII-S 10-1:

Table VIII-S~~2~~10-1
PERFORMANCE DEMONSTRATION DETECTION TEST
ACCEPTANCE CRITERIA

Detection Test Acceptance Criteria		False Call Test Acceptance Criteria	
No. of Flawed Grading Units	Minimum Detection Criteria	No. of Unflawed Grading Criteria	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 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 ASME Code activities, Pacific Northwest National Laboratory (PNNL) has reviewed the statistical significance of these revisions and offered the revised Table VIII-S10-1.

2.5 Staff Evaluation

The licensee proposed to use the program developed by PDI. This program is based on forthcoming changes to the ASME Code and has been approved by the ASME non-destructive examination (NDE) subcommittee. The staff's evaluation of the PDI program is discussed below.

Item 1 - Paragraph 1.1(b)

The ASME Code 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-required tolerance to a range of diameters, the tolerance rapidly expands on the high side. Based on the current requirements, a 5 inch outer diameter 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. Additionally, with the current ASME Code requirements, a 16 inch nominal diameter pipe would be equivalent to a range of 14.4 inch to 24 inch diameter pipe. The proposed PDI guidelines would significantly reduce the equivalent range to between 15.5 inch and 16.5 inch diameter pipe. The difference between the ASME Code and the proposed PDI program for diameters less than 5 inches is not significant because of a shorter metal path and beam spread associated with smaller diameter piping.

The staff reviewed the licensee's technical basis for the proposed alternative and agrees with the licensee's assessment that the alternative provides tolerances more in line with industry practice. Based on the discussion as presented above, the staff finds the proposed alternative will provide more conservative tolerance results for a range of piping diameters in comparison to the current ASME Code requirements. The staff also finds that the differences in tolerance results for smaller diameter piping are not significant. Therefore, the staff finds the proposed alternative acceptable.

Item 2 - Paragraph 1.1(d)

The ASME Code 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, EPRI developed a process for fabricating flaws that produce ultrasonic acoustic responses similar to the responses associated with actual cracks. EPRI presented its process at public meetings held June 12 through 14, 2001, and January 31 through February 2, 2002, at EPRI's NDE Center located in Charlotte, North Carolina.

The staff attended the meetings and, based on engineering judgment, determined that the process parameters used for manufacturing fabricated flaws demonstrated the ability to produce acoustic responses similar to those associated with actual cracks. In addition, the staff reviewed the licensee's technical basis and agrees with the licensee's assessment. Therefore,

the staff concludes that the proposed alternative adequately demonstrates that ASME Code requirements are met.

Item 3 - Paragraph 1.1(d)(1)

The ASME Code requires that at least 50 percent of the flaws be contained in austenitic material, and that at least 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. Industry experience shows that flaws identified during ISI of dissimilar metal 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 material or austenitic base material. Flaws in austenitic base material that are free of spurious reflectors and telltale indicators are difficult to create.

The staff finds the proposed alternative (that at least 80 percent of the flaws be contained in the weld metal or buttering material) provides a testing scenario reflective of industry experience, and minimizes difficulties associated with telltale reflectors common to placing flaws in austenitic base material. The staff finds the proposed alternative provides a more rigorous inspection than that required by the ASME Code. Therefore, the staff finds the alternative acceptable.

Item 4 - Paragraph 1.2(b)

The ASME Code requires that detection sets meet the requirements of Table VIII-S2-1, which specify the minimum number of flaws in a test set to be 5 with 100 percent detection. The ASME Code also requires the number of unflawed grading units to be two times the number of flawed grading units. The proposed alternative would follow the detection criteria of the table beginning with a minimum number of flaws in a test set being 10, and reducing the number of false calls to one and a half times the number of flawed grading units.

The staff reviewed the licensee's technical basis and finds that the proposed alternative satisfies the pass/fail objective established in ASME Code, Section XI, Appendix VIII for performance demonstration acceptance criteria. Therefore, the staff finds the alternative acceptable.

Item 5 - Paragraph 1.2(c)(1), Paragraph 1.3(c)

The ASME Code requires for detection and length sizing that at least 1/3 of the flaws be located between 10-30 percent through-wall thickness and 1/3 located greater than 30 percent through-wall thickness. The remaining 40 percent would be located randomly throughout the pipe 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. The remaining 40 percent would be located randomly throughout the wall thickness. With the exception of the 10-30 percent increment, the proposed alternative is a subset of the ASME Code requirements. The 10-30 percent increment would be in the subset if it contained at least 30 percent of the flaws.

The staff reviewed the licensee's technical basis for the proposed alternative. The staff finds the change simplifies the assembly of test sets for detection and sizing qualifications and, based on industry experience, is more indicative of actual conditions in the field. In addition, the staff finds the proposed alternative does not significantly deviate from, or reduce the level of, detection and length sizing from that required in the ASME Code. Therefore, the staff finds the alternative acceptable.

Item 6 - Paragraph 2.0

The current Code requires that the inside surface be concealed from the candidate. This makes qualifications conducted from the inside of the pipe impractical. The proposed alternative differentiates between ID and OD scanning surfaces, requires that they be conducted separately, and requires that flaws be concealed from the candidate. The staff concludes that the intent behind the concealment of the ID is to assure that tests conducted from the outside are blind examinations that do not provide location information to the examiner. The staff concludes that the licensee's alternative to conceal the OD surface from the candidate for examinations performed from the ID meets the same intent to perform a "blind" examination. Therefore, the staff finds the alternative acceptable.

Items 7 and 8 - Paragraphs 2.2(b) and 2.2(c)

The ASME Code requires that the region of flaws added to the test set for length sizing be identified to the candidate. The proposed alternative would make identifying the location of additional flaws an option.

The staff finds that the proposed alternative will provide an additional element of difficulty to the testing process since the candidate would be expected to demonstrate the skill of detecting and sizing flaws over a larger area in comparison to a specific region. The staff finds the alternative, if utilized, would require the demonstration of a higher level of skill than that currently required by the ASME Code and is, therefore, acceptable.

Item 9 - Paragraph 2.3(a)

The ASME Code requires that 80 percent of the flaws be sized in a specific location that is identified to the candidate. The proposed alternative 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 difficult.

The staff finds that the proposed alternative will provide an additional element of difficulty to the testing process since the candidate would be expected to demonstrate the skill of detecting and sizing flaws in an unknown location. The staff finds the alternative, if utilized, would require the demonstration of a higher level of skill than that currently required by the ASME Code and is, therefore, acceptable.

Item 10 - Paragraph 2.3(b)

The ASME Code requires that the region of flaws added to the test set for depth sizing shall be identified to the candidate. The proposed alternative would make identifying the region of flaws an option.

The staff finds that the proposed alternative will provide an additional element of difficulty to the testing process since the candidate would be expected to demonstrate the skill of finding and sizing flaws in an area larger than a specific location. The staff finds the alternative, if utilized, would require the demonstration of a higher level of skill than that currently required by the ASME Code and is, therefore, acceptable.

Item 11 - Table VIII-S2-1 Acceptance Criteria

The ASME Code requirements, discussed in Paragraph 1.2(b) above, are based on statistical parameters for screening personnel. The proposed alternative increases the minimum number of flawed grading units and reduces the number of unflawed grading units while maintaining the same statistical parameters as the ASME Code.

The staff finds that the proposed alternative provides the same pass/fail screening criteria used to develop the test size tables in Appendix VIII are also used to create the PDI alternative Supplement 10, Table VIII-S10-1. Therefore, the staff determined that the alternative does not significantly impact the false call criteria established in the table and, therefore, is acceptable.

3.0 CONCLUSION

The 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 alternatives for the remaining portion of the second ISI interval for Palo Verde.

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

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Date: July 13, 2004

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