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SUBJECT: Forwards request for relief from ASME,Section XI & applicable addenda,related to visual exam performed subsequent to repair or replacement of component or alteration of item.

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10CFR50.55a(g)(5)(iii)

102-04269-WEI/AKK/TNW
April 13, 1999

U.S. Nuclear Regulatory Commission
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Dear Sirs:

Reference: APS Letter No. 102-04095-WEI/AKK/MLG, dated March 17, 1998, from W. E. Ide, APS, to NRC, "Inservice Inspection Programs for Second 10 Year Interval."

Subject: Palo Verde Nuclear Generating Station (PVNGS)
Units 1, 2 and 3
Docket Nos. STN 50-528/529/530
Second Inservice Inspection (ISI) Interval - (Relief Request No. 10)

Pursuant to 10 CFR 50.55a (g)(5)(iii), enclosed please find a request for relief from American Society of Mechanical Engineers (ASME), Section XI, and applicable addenda, related to the visual examinations performed subsequent to a repair or a replacement of a component or the alteration of an item. Relief is requested to limit visual examinations to the repaired or replaced component(s), or to the altered item(s).

Arizona Public Service Company submitted the updated ISI Program for the second 10 year interval in the referenced letter, including a request for relief to use the 1992 Edition including the 1992 Addenda of the ASME Code. The relief request enclosed with this letter constitutes an exception to the 1992 Edition including the 1992 Addenda of the ASME Code.

No commitments are being made to the NRC by this letter.

Should you have any questions, please contact Scott A. Bauer at (602) 393-5978.

Sincerely,

JML/AKK/TNW/rlh

Enclosure

cc: E. W. Merschoff
M. B. Fields
J. H. Moorman

A047

ENCLOSURE

ASME SECTION XI RELIEF REQUEST NO. 10

TO THE SECOND 10 YEAR ISI INTERVAL

FOR THE PALO VERDE NUCLEAR GENERATING STATION

Relief Request No. 10
Extent of VT-2 Exam for Repair/Replacement

Code Class	1, 2 and 3
Code Reference	IWA-5120, IWA-5211, 1992 Ed, 1992A
Examination Category	ALL
Item Numbers	ALL
Component Description	ASME Repair and Replacement of Welds/Mechanical joints
PVNGS Units	ALL

Requirement

IWA-5120 and IWA-5211(a) require a "System Leakage test or System Hydrostatic test" and a "VT-2 visual examination" following a component repair or replacement. Also, IWA-5120 (c) states "When repaired or replaced components are isolable within a portion of a system, only that portion need be pressure tested."

Alternate Testing

The PVNGS ISI program will limit the VT-2 visual examination following a repair or replacement to the repaired, replaced or altered item.

Basis For Relief

This is a generic relief request for all repaired, replaced or altered items. As more clearly stated in earlier editions, the intent of the ASME Code is to only visually inspect the repaired, replaced or altered item during the post repair pressure test. This does not necessarily include visually examining the entire pressurized test boundary.

IWA-5120 (c) of the 1992 Edition, 1992 Addenda of the code states that 'When repaired or replaced components are isolable within a portion of a system, only that portion need be pressure tested. This wording implies that when a component is repaired, replaced or altered that the entire system up to the isolation boundaries for the pressure test must be VT-2 examined.

Earlier editions of the code (e.g., the 1989 Edition, 1990 Addenda) contain a section, IWA-5246, "Repaired or Replaced Components and Alteration of a System," that explicitly allows the post repair VT-2 visual examination to be limited to the repaired or replaced component or altered portion of the system and any connection made to the existing system. This section was deleted in the 1991 Addenda to the 1989 edition. The NRC has approved the 1989 edition of Section XI.

Approval

Since conformance with the ASME Code requirement cited previously is impractical, per 10 CFR 50.55a(g)(5)(iii) APS is requesting relief from this requirement. It is our understanding that it was not intended to change the code requirement when IWA-5246 was eliminated. Therefore, we are implementing this relief request immediately.

Additional information

10 CFR 50.55a(g)(5)(iii) requires that if the licensee has determined that conformance with a certain code requirement is impractical for its facility, the licensee shall notify the Commission and submit, as specified in 50.4, information to support the determination.

That this relief request is impractical is best illustrated by the following two examples.

Following a plant modification, it was necessary to perform a hydrostatic exam. A portion of the pressurized boundary ran through a high radiation area that may only be accessed by removal of a lead brick wall. The portion of the line that went through the high radiation area was not repaired, replaced or altered by this modification. Requiring a VT-2 examination of the portion of the line in a high radiation area (when that portion has not been repaired, replaced or altered) simply because it is part of the pressurized boundary is not practical.

Had the proposed relief request been applied, the system would have been pressurized and the extent of the VT-2 exam would have been limited to only the repaired, replaced or altered item(s). The portion of the line that is in the high radiation area would not have been required to be inspected eliminating the manhours for removal of the lead brick wall and the radiological dose that would have been received by the plant staff to perform the work and to perform the VT-2 examination.

In this case, compliance with the code is impractical and results in unusual difficulty, without a compensating increase in the level of quality and safety.

The second example is as follows:

Following a plant modification, it was necessary to perform a system leak test per the code. A portion of the pressurized boundary is insulated. The portion of the line that is insulated was not repaired,

replaced or altered by this modification. The hold time for system leak tests increases to 4 hours when the system is insulated as specified in ASME IWA-5213, "Test Condition Holding Time". For systems that are not insulated, the hold time is 10 minutes. Requiring an increased hold time for a system leak test prior to performing the VT-2 examination is not practical if the insulated portion of the system was not repaired, replaced or altered.

Applying the proposed relief request, the VT-2 exam would be limited to the area of repair, replacement or alteration (i.e., the uninsulated section) and the test would require only a ten-minute hold time prior to the VT-2 exam.

In this case, insulation removal of the entire pressurized area is not practical, and while a four-hour hold time could be performed, it requires significant additional effort without a compensating level of quality or safety.

References

1. ASME Section XI, Rules for Inspection and Testing of Components of Light Water Cooled Plants 1992 Edition and Addenda, Section IWA-5000.
2. ASME Section XI, Rules for Inspection and Testing of Components of Light Water Cooled Plants 1989 Edition and 90 Addenda, Section IWA-5246.