



102-07657-MLL/TNW  
March 2, 2018

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U. S. Nuclear Regulatory Commission  
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Washington, DC 20555-0001

Dear Sirs:

Subject: **Palo Verde Nuclear Generating Station Units 1, 2, and 3**  
**Docket Nos. STN 50-528/529/530**  
**Supplement to Relief Request 56 - Unit 2 Third 10-Year Inservice**  
**Inspection (ISI) Interval Extension**

By letter number 102-07604 [Agency Documents Access and Management System (ADAMS) Accession number ML17318A472], dated November 10, 2017, Arizona Public Service Company (APS) submitted Relief Request 56, which sought an extension to the third 10-year Inservice Inspection (ISI) interval for Palo Verde Nuclear Generating Station (PVNGS) Unit 2, as an alternative that provides an acceptable level of quality and safety pursuant to 10 CFR 50.55a(z)(1). The extension would be beyond the one year extension permitted in American Society of Mechanical Engineers (ASME) Code, Section XI, IWA-2430.

As stated in the relief request, APS had completed the planned third 10-year ISI interval examinations for Unit 2 and the interval closeout review was in progress. During the course of the closeout review, a limited number of ISI examinations were identified that were either not included in a previous relief request or were not performed during the third ISI interval for Unit 2, which currently ends on March 17, 2018. This supplemental letter addresses these discovery items, as discussed with the NRC staff on February 15, 2018, which have been entered into the site corrective action program.

APS plans to perform the identified examinations in the next Unit 2 refueling outage (2R21 – Fall 2018) for four ASME items and submit a new Relief Request 59 to address an attachment weld examination within the reactor vessel that is not accessible without removal of the reactor internals. The new Relief Request 59 will be provided in a separate letter. A specific description of the identified ISI examinations is provided in the enclosure to this letter. NRC approval of this relief request is requested by March 17, 2018.

As part of the submittal of Relief Request 56, APS requested authorization to adopt the 2013 Edition of Section XI of the ASME Code for each of the three PVNGS Units. The request for NRC approval is pursuant to 10 CFR 50.55a(g)(4)(iv).

No new commitments are being made in this submittal.

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If you have any questions about this request, please contact Matthew S. Cox, Licensing Section Leader, at (623) 393-5753.

Sincerely,

MLL/TNW/MDD/sma

Enclosure: Relief Request 56 – Extension of Unit 2 Third 10-Year ISI Interval Supplement

cc:	K. M. Kennedy	NRC Region IV Regional Administrator
	S. P. Lingam	NRC NRR Project Manager for PVNGS
	M. M. O'Banion	NRC NRR Project Manager
	C. A. Peabody	NRC Senior Resident Inspector for PVNGS

**Enclosure**

**Relief Request 56**

**Extension of Unit 2 Third 10-Year ISI Interval Supplement**

**Relief Request 56 - Extension of Unit 2 Third 10-Year ISI Interval Supplement**

Arizona Public Service Company (APS)  
Palo Verde Nuclear Generating Station (PVNGS) – Unit 2  
Proposed Alternative in Accordance with 10 CFR 50.55a(z)(1)  
Third 10-Year Inservice Inspection (ISI) Interval Extension  
Supplemental Information

**1.0 DESCRIPTION**

By letter number 102-07604 [Agency Documents Access and Management System (ADAMS) Accession number ML17318A472], dated November 10, 2017, Arizona Public Service Company (APS) submitted Relief Request 56, which sought an extension to the third 10-year Inservice Inspection (ISI) interval for Palo Verde Nuclear Generating Station (PVNGS) Unit 2, as an alternative that provides an acceptable level of quality and safety pursuant to 10 CFR 50.55a(z)(1). The extension would be beyond the one year extension permitted in American Society of Mechanical Engineers (ASME) Code, Section XI, IWA-2430.

As stated in the request, APS had completed the planned third 10-year ISI interval examinations for Unit 2 and the interval closeout review was in progress. During the course of the closeout review, a limited number of ISI examinations were identified that were either not included in a previous relief request or were not performed during the third ISI interval for Unit 2, which ends on March 17, 2018. This enclosure addresses these discovery items.

APS plans to perform the identified examinations in the next Unit 2 refueling outage (2R21 – Fall 2018) for four items and submit a new Relief Request 59 to address an attachment weld examination (ASME Item B13.50) within the reactor vessel that is not accessible without removal of the reactor internals. The new Relief Request 59 will be provided in a separate letter. A specific description of the identified ISI examinations follows. NRC approval of the relief request, including the four ASME items listed below, is requested by March 17, 2018.

**2.0 ASME Code Components Affected**

ASME Class 1 Item Number:            B14.10, Welds in Control Rod Drive Housings

ASME Class 2 Item Numbers:        C5.11, Circumferential Welds  
    C5.51, Circumferential Welds  
    C5.51, Break Exclusion Circumferential Welds

**3.0 Applicable Code Edition and Addenda**

The third 10-year ISI interval Code for PVNGS is the 2001 Edition through and including the 2003 Addenda of ASME Code, Section XI.

**4.0 Issue Discussion**

**4.1 ASME Class 1 Item Number B14.10, Welds in Control Rod Drive Housings**

During the closeout process it was discovered that 10 welds were examined with volumetric examination methods and six were examined with surface examination methods. The PVNGS Unit 2 reactor vessel head was replaced in the third interval during the first period. Pursuant to IWB-2412(b)(1), a total of seven welds would be required to be examined.

The examination report review indicated that the volumetric examinations were performed on the inner 1/3 only and did not meet the required full volume for this ASME requirement. The six surface examinations were performed satisfactorily.

**Relief Request 56 - Extension of Unit 2 Third 10-Year ISI Interval Supplement**

APS is planning to perform an examination of an additional weld during the 2R21 refueling outage.

4.2 ASME Class 2 Item Number C5.11, Circumferential Welds

During review of this ASME requirement, it was noted that the examinations did not include a sufficient number of dissimilar metal welds. There are a total of 19 dissimilar metal welds (each are ASME Class 2 on the secondary systems) and the ASME Code requires four examinations be performed.

The examination report review, along with previous condition reports, noted that some of the dissimilar welds were examined, but those examinations did not meet current industry and procedural requirements.

APS is planning to perform four additional dissimilar metal weld examinations during the 2R21 refueling outage.

4.3 ASME Class 2 Item Number C5.51, Circumferential Welds

During review of this ASME requirement, it was noted that the examinations did not include a sufficient number of welds that had been replaced during the third interval. Specifically there were seven welds replaced during the second period, and based on IWC-2412(b)(2), it was concluded that one of these should have been examined during the third period.

APS is planning to perform an examination of an additional weld during the 2R21 refueling outage.

4.4 ASME Class 2 Item Number C5.51, Break Exclusion Circumferential Welds

During review of this risk informed break exclusion region ASME requirement, it was noted that the examinations did not include two of the required welds. The source of the oversight was traced to an inadvertent database error.

APS is planning to perform an examination of these two welds during the 2R21 refueling outage.