



Palo Verde Nuclear
Generating Station

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10 CFR 50.55a(a)(3)(ii)

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102-05504-CDM/SAB/RJR
May 26, 2006

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

- References:
1. Letter from Nuclear Regulatory Commission to Westinghouse Electric Company, "Summary of teleconference with the Westinghouse Owners Group regarding potential one cycle relief of reactor pressure vessel shell weld inspections at pressurized water reactors related to WCAP-16168-NP, 'Risk-Informed Extension of Reactor Vessel In-Service Inspection Intervals," dated January 27, 2005.
 2. Westinghouse Owners Group Topical Report, WCAP-16168-NP, "Risk-Informed Extension of Reactor Vessel In-Service Inspection Interval," December 2005.

Dear Sirs:

**SUBJECT: Palo Verde Nuclear Generating Station (PVNGS)
Units 2 and 3
Docket Nos. STN 50-529/530
Request to Extend the Second 10-Year, American Society of
Mechanical Engineers Section XI, Inservice Inspection Program
Interval for Reactor Vessel Visual Examinations – Relief Request
No. 35**

Pursuant to 10 CFR 50.55a(a)(3)(ii), Arizona Public Service Company (APS) is requesting approval to use an alternative to the requirements of the ASME Boiler and Pressure Vessel Code, Section XI, Paragraph IWB-2412, Inspection Program B, for PVNGS Unit 2 and 3. The alternative requests relief to defer the Unit 2 and 3 reactor vessel visual examinations for one fuel cycle as described in the enclosure to this letter.

In Reference 1 that the staff agreed to licensees submitting relief requests for a one cycle extension of the reactor vessel weld examinations to provide additional time for completing evaluations and staff review associated with Reference 2, the Westinghouse Owners Group Topical Report, WCAP - 16168.

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The Category B-N-2 and B-N-3 visual examinations are typically performed at the end of the interval during the same refueling outage as the reactor vessel Category B-A and B-D examinations addressed by Code Case N-691. In Relief Request 34, PVNGS requested a one-cycle extension of the reactor vessel weld examinations at PVNGS. The one-cycle interval extension being requested for the visual examinations is dependent upon approval of Relief Request 34 and would allow both exams to be performed during the same outage, which will reduce the dose and avoid the risk of removing the core barrel during two separate refueling outages. Compliance with the specified requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety, as described in the enclosed relief request.

APS's request is similar to the request submitted on March 31, 2005, by Palisades Nuclear Plant. APS requests staff approval by October 1, 2006, to support activities for the fall 2006 2R13 refueling outage.

This letter contains no new commitments and no revisions to existing commitments.

If you have any questions about this change, please telephone Thomas N. Weber at (623) 393-5764.

Sincerely,



CDM/SAB/RJR/gt

Enclosure: Relief Request No. 35 - Request to Extend the Second 10-Year, American Society of Mechanical Engineers Section XI, Inservice Inspection Program Interval for Palo Verde Units 2 and 3 Reactor Vessel Visual Examinations

cc: B. S. Mallett NRC Region IV Regional Administrator
M. B. Fields NRC NRR Project Manager
G. G. Warnick NRC Senior Resident Inspector for PVNGS

ENCLOSURE

Relief Request No. 35
Request to Extend the Second 10-Year, American Society of Mechanical Engineers Section XI, Inservice Inspection Program Interval for Palo Verde Units 2 and 3 Reactor Vessel Visual Examinations

1. ASME Code Component(s) Affected

The affected components are the PVNGS Unit 2 and 3 Reactor Vessels (RV), specifically the following American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (BPV) Code, Section XI examination categories and item numbers. These examination categories and item numbers are from IWB-2500 and Table IWB-2500-1 of the ASME BPV Code, Section XI.

Examination Category	Item No.	Description
B-N-2	B13.50	Interior Attachments within Beltline Region
B-N-2	B13.60	Interior Attachments Beyond Beltline Region
B-N-3	B13.70	Core Support Structure (Core Barrel)

(Throughout this request the above examination categories are referred to as "the subject examinations" and the ASME BPV Code Section XI is referred to as "the Code")

2. Applicable Code Edition and Addenda

The PVNGS Units 2 and 3 second 10-year interval Inservice Inspection (ISI) Program Plan is prepared to comply with the 1992 Edition 1992 Addenda of the Code.

3. Applicable Code Requirement

ASME Section XI – IWA-2432 - Inspection Program B states in part:
"The inspection intervals shall comply with the following, except as modified by IWA-2430(d):" "Successive Inspection Intervals – 10 years following the previous inspection interval."

ASME Section XI – IWA-2430(d) states:
"For components inspected under Program B, each of the inspection intervals may be extended or decreased by as much as 1 year. Adjustments shall not cause successive intervals to be altered by more than 1 year from the original pattern of intervals."

ASME Section XI – IWB-2412(b) states:

“The inspection interval specified in IWB-2412(a) may be decreased or extended by as much as 1 year to enable in inspection to coincide with a plant outage, within the limitations of IWA-2430(d)”

ASME Section XI – Table IWB-2500-1, Examination Category B-N-2 requires a visual examination on all accessible welds.

ASME Section XI – Table IWB-2500-1, Examination Category B-N-3, requires a visual examination on all accessible surfaces.

4. Reason for Request

The intent of the request is to extend the ISI interval of Examination Category B-N-2 and B-N-3 in Units 2 and 3 by one refueling cycle beyond the currently scheduled inspection. This is to allow time for NRC review of industry efforts to extend the ISI interval for Examination Category B-A and B-D under ASME Section XI Code Case N-691 (Reference 1). The subject examinations are typically performed at the end of the interval during the same refueling outage as the reactor vessel Category B-A and B-D examinations addressed by Code Case N-691. In Relief Request 34, PVNGS requested a one-cycle extension of the reactor vessel weld examinations at PVNGS. The deferral of the visual examinations will allow them to be performed during the mechanized examinations, which would reduce the dose and risk of removing the core barrel during two separate refueling outages.

5. Proposed Alternative and Basis for Use

Pursuant to 10 CFR 50.55a(a)(3)(ii), Arizona Public Service Company (APS) hereby requests approval to use an alternative to the requirements of the ASME Boiler and Pressure Vessel Code, Section XI, Paragraph IWB-2412, Inspection Program B, for PVNGS Units 2 and 3. The alternative is to defer the Unit 2 and 3 reactor vessel attachments and core support structure visual examinations for one fuel cycle. The one cycle deferral will allow performance of the reactor vessel internal examinations in conjunction with the reactor vessel weld examinations.

Currently, PVNGS Units 2 and 3 are in the third period of their second ten-year ISI interval. The second ISI interval is currently scheduled to end on March 17, 2007, for Unit 2 and January 10, 2008, for Unit 3. Applying the one year extension allowed by IWA-2430(d) would extend the end of the interval until March 17, 2008, for Unit 2 and January 10, 2009, for Unit 3. The 2R14 and 3R14 refueling outages are currently scheduled for the spring of 2008 and 2009, respectively. However, an additional amount of extension time will be required to capture the 2R14 and 3R14 outages, and the RV examinations, in their respective Second Intervals.

The additional extension being requested is less than 60 days for Unit 2 and less than 150 days for Unit 3. Although the proposed inspection dates are one

refueling outage beyond the Code required inspection interval, the net duration between the reactor vessel inspections will not be more than the maximum eleven years allowed by the Code.

The visual examinations of the reactor pressure vessel interior attachments and the core barrel have been performed several times at PVNGS with no relevant indications noted during the examinations. These examinations were last performed during the 1997 refueling outage for Unit 2 and the 1998 refueling outage for Unit 3 with acceptable results. Review of industry surveys (Reference 2) indicate that these examinations have been performed many times by the industry without any reportable findings.

During the 2006 and 2007 refueling outages, PVNGS will be performing the ASME category B-N-1 visual examination. This includes the space above and below the reactor core that is made accessible for examination by core removal during normal refueling outages. This examination is required once each period and will provide additional assurance of structural integrity.

In Relief Request 34, PVNGS requested a one-cycle extension of the reactor vessel mechanized examinations at PVNGS. The one-cycle interval extension being requested for the visual examinations is dependent upon approval of Relief Request 34 and would allow both exams to be performed during the same outage. The visual examination activities are estimated to add 4 days to the cycle 13 refueling outages. Removal of the core barrel is an infrequent evolution. As such, each removal of the core barrel contains an element of risk for equipment damage. Additionally, each removal and reinstallation of the core barrel results in approximately 200 millirem of dose to the workers. Performing the vessel weld (Relief Request 34) and vessel visual examinations (Relief Request 35) in the same outage will reduce dose and avoid the risk of removing the core barrel during two separate refueling outages.

Therefore, this one-cycle interval extension is requested because compliance with the specified requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety. The proposed inspection date is one refueling outage beyond the Code required inspection interval, which would defer the subject examinations to the 2R14 and 3R14 refueling outages. In accordance with 10 CFR 50.55a (a) (3) (ii), this interval extension is requested on the basis that the current ISI interval can be extended while providing an acceptable level of quality and safety.

6. Duration of Proposed Alternative

The alternative is requested to extend the second ISI interval by one refueling cycle beyond the ASME Code required 10-year inspection interval, which is beyond the Code-allowed twelve month extension for the subject examinations. This request is applicable to the second inspection interval for Units 2 and 3 only and is subject to the approval of Relief Request 34. If this relief request is

approved, the second ISI interval will end at the conclusion of the spring 2008 refueling outage in unit 2 and spring 2009 refueling outage in Unit 3 for the subject examinations.

7. References

1. ASME Boiler and Pressure Vessel Code, Code Case N-691, "Application of Risk-Informed Insights to Increase the Inspection Interval for Pressurized Water Reactor Vessels," Section XI, Division 1, November 2003.
2. Westinghouse Owners Group Topical Report, WCAP-16168-NP, "Risk-Informed Extension of Reactor Vessel In-Service Inspection Interval," December 2005.

8. Precedent

Palisades Nuclear Plant

January 17, 2006

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