EA-03-009

Palo Verde Nuclear
Generating Station

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102-05361-CDM/CKS/DGM/DFH
October 18, 2005

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

Subject: **Palo Verde Nuclear Generating Station (PVNGS)**
Unit 2
Docket No. STN 50-529
Special Report 2-SR-2005-002
Report of Boron Deposit at Control Element Drive Mechanism Vent

Dear Sirs:

Attached please find Special Report 2-SR-2005-002 prepared and submitted by Arizona Public Service (APS) pursuant to NRC Revised Order EA-03-009, dated February 20, 2004. Section IV.D of the Order requires licensees to perform certain visual inspections to identify potential boric acid leaks from pressure-retaining components above the Reactor Pressure Vessel head. Section IV.E of the Order requires licensees to submit reports detailing the inspection results within sixty (60) days after returning plants to operation.

This special report details the results of visual inspections performed at PVNGS Unit 2 subsequent to a reactor shutdown on August 22, 2005. The visual inspections were performed in accordance with the Boric Acid Corrosion Prevention Program which APS implements to identify and prevent boric acid corrosion of reactor pressure boundary components.

In accordance with 10 CFR 50.4(b)(1), copies of this report are being provided to the Region IV Administrator and the Palo Verde NRC Senior Resident Inspector.

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No commitments are being made to the NRC by this letter. If you have questions regarding this submittal, please contact Dan Marks, Section Leader, Compliance, at (623) 393-6492.

Sincerely,

CDM/CKS/DGM/DFH/ca

Attachment

cc: B. S. Mallet, Region IV Administrator
M. B. Fields, PVNGS Project Manager
G. G. Warnick, Sr. Resident Inspector
Assistant General Counsel for Materials Litigation and Enforcement
Rulemaking and Adjudication Staff

Attachment
Palo Verde Nuclear Generating Station Unit 2
Special Report No. 2-SR-2005-002
Boron Deposit Found at Control Element Drive Mechanism Vent
Docket No. STN 50-529

Reporting Requirement:

The NRC Revised Order EA-03-009, "Interim Inspection Requirements for Reactor Pressure Vessel Heads at Pressurized Water Reactors," dated February 20, 2004, Section IV.D requires that certain visual inspections be performed to identify potential boric acid leaks from pressure-retaining components above the reactor pressure vessel head.

Additionally, Section IV.E of the NRC Order requires that licensees submit reports detailing the inspection results performed per section IV.D within sixty (60) days after returning the plant to operation if a leak or boron deposit was found during the inspection.

Background:

On August 22, 2005, Palo Verde Unit 2 was shutdown per Technical Specification 3.0.3 when Westinghouse notified Palo Verde that the current version of the Common Q based Core Protection Calculator System software was not consistent with the system design requirement. Subsequent to the reactor shutdown, routine visual inspections were performed in accordance with the Boric Acid Corrosion Prevention Program (APS procedure 70TI-9ZC01). APS implemented the Boric Acid Corrosion Prevention Program to prevent boric acid corrosion of reactor pressure boundary components and to ensure the provisions of USNRC Generic Letter No. 88-05, "Boric Acid Corrosion of Carbon Steel Reactor Pressure Boundary Components in PWR Plants" were met.

Report Detailing Inspection Results:

During boric acid walk-downs on August 22, 2005, two Unit 2 boric acid residue sites were identified above the RPV head. The sites were located on the Versa Vents for control element drive mechanisms (CEDM) no. 8 and 53. Versa Vent #53 was previously identified and documented on APS letter #102-05311 submitted for the 12th Unit 2 refueling outage. Neither of the sites exhibited evidence of an active leak, nor did the boric acid residue contact the RPV head or related insulation and no carbon steel was affected.

Both Versa Vents were left as is since rework would have required a major disassembly of the CEDM main power and position indication cables. Work orders were generated in accordance with the corrective action program to rework the Versa Vents at the next available opportunity. Unit 2 was returned to operation (Mode 1) on August 26, 2005.