Palo Verde Nuclear
Generating Station

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EA-03-009

192-01148-CDM/DFH
August 6, 2004

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-2004-002
Report of Boron Deposit at Control Element Drive Mechanism Vent

Dear Sirs:

Attached please find Special Report 2-SR-2004-002 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 June 14, 2004, and July 14, 2004. 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,

David D Mauldin

CDM/DFH/kg

Attachment

cc: B. S. Mallet, Region IV Administrator
M. B. Fields, PVNGS Project Manager
N. L. Salgado, 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-2004-002
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 June 14, 2004, Palo Verde Unit 2 was shutdown due to an offsite grid perturbation. Additionally, on July 14, 2004, Unit 2 was shutdown due to a main generator trip. Subsequent to both reactor shutdowns, 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 requirements contained in USNRC Generic Letter No. 88-05, "Boric Acid Corrosion of Carbon Steel Reactor Pressure Boundary Components in PWR Plants" are met.

Report Detailing Inspection Results:

During boric acid walk-downs on June 15, 2004, one Unit 2 boric acid residue site was identified above the RPV head. The site was located on the Versa Vent for control element drive mechanism (CEDM) no. 8. The site exhibited no evidence of being an active leak and the boric acid residue did not contact the RPV head or related insulation.

Since no carbon steel was affected and the leak site on Versa Vent for CEDM no. 8 was not an active leak, no non-conforming condition exists. Versa Vent no. 8 was not reworked prior to restarting Unit 2 as this would have required a major disassembly of the CEDM main power and position indicator cables.

Unit 2 was returned to operation (Mode 1) on June 19, 2004.

During boric acid walk-down on July 14, 2004, the same Versa Vent for CEDM no. 8 was found in a similar condition as found from the previous shutdown. The site

exhibited no evidence of being an active leak and the boric acid residue did not contact the RPV head or related insulation.

Again, since no carbon steel was affected and the leak site on Versa Vent for CEDM no. 8 was not an active leak, no non-conforming condition exists. Versa Vent no. 8 was not reworked prior to restarting Unit 2.

Unit 2 was returned to operation (Mode 1) on July 17, 2004.