10 CFR 2.201
EA-09-330

A subsidiary of Pinnacle West Capital Corporation

Palo Verde Nuclear Generating Station

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102-06149-DCM/MLL/DCE
March 11, 2010

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

Reference: Palo Verde Nuclear Generating Station - NRC Integrated Inspection Report 05000528/2009005, 05000529/2009005, and 05000530/2009005, and Notice of Violation, dated February 9, 2010

Subject: Palo Verde Nuclear Generating Station (PVNGS)
Units 1, 2 and 3
Docket Nos. STN 50-528, 50-529, and 50-530
Reply to Notice of Violation EA-09-330

Dear Sirs:

In the above referenced letter to Arizona Public Service (APS), the NRC identified that APS failed to ensure that an adequate procedure was available to control essential spray pond missile hazards and ensure operability of the ultimate heat sink.

Pursuant to the requirements of 10 CFR 2.201 and Notice of Violation (NOV) EA-09-330, attached to the above referenced letter, APS hereby submits its reply to the NOV. Enclosure 1 to this letter contains a restatement of the violation. Enclosure 2 contains the APS reply to the NOV.

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NRR

The following commitment is being made to the NRC by this letter:

> Full compliance with Criterion V of 10 CFR 50, Appendix B with respect to establishing adequate potential tornado borne missile control procedures will be achieved by June 30, 2010, by implementing a stand alone site-wide procedure and a tracking system to evaluate, approve, and track potential tornado borne missiles in outside areas within 400 ft. of the essential spray ponds.

If you have any questions, please contact Marianne Webb, Regulatory Affairs, Compliance Section Leader, at (623) 393-5730.

Sincerely,

Maria Lacal for

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Enclosures: 1. Restatement of Violation EA-09-330
2. Reply to Notice of Violation EA-09-330

cc:	E. E. Collins Jr.	NRC Region IV Regional Administrator
	J. R. Hall	NRC NRR Project Manager
	R. I. Treadway	NRC Senior Resident Inspector for PVNGS

Enclosure 1
Restatement of Notice of Violation EA-09-330

During an NRC inspection conducted on October 1 through December 31, 2009, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

> 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," requires, in part, that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, and shall be accomplished in accordance with these instructions, procedures, or drawings.
>
> Contrary to the above, from July 11, 2008 through December 31, 2009, the licensee failed to prescribe adequate procedures for the essential spray ponds. Specifically, the licensee failed to ensure an adequate procedure was available to control essential spray pond missile hazards and ensure operability of the ultimate heat sink.

This violation is associated with a Green Significance Determination Process finding.

Enclosure 2
Reply to Notice of Violation EA-09-330

Palo Verde Nuclear Generating Station concurs with the violation. The NRC Integrated Inspection Report 05000528/2009005, 05000529/2009005, and 05000530/2009005, noted prior non-cited violations with respect to control of potential tornado borne missile hazards. A root cause investigation of recurrent examples of failure to control potential tornado borne hazards was initiated on December 18, 2009, and completed on February 17, 2010. The investigation concluded that the root cause was inadequacies in the potential tornado borne missile control process with respect to work control processes and the clarity of procedure requirements. This root cause is consistent with the cited violation.

The Reason for the Violation

Several reasons resulted in the recurrence of the failure to control potential tornado borne missile hazards:

- Weak ownership of the potential tornado borne missile control program resulted in the inconsistent implementation of program requirements.
- Ineffective use of trending and ineffective corrective actions in the corrective action program resulted in a failure to identify and correct recurrent non-compliance with the potential tornado borne missile control program.
- A lack of knowledge existed among station personnel regarding the potential tornado borne missile control program, the requirements of the program, and where existing information is located.
- A lack of sensitivity existed among station personnel regarding the safety significance of the spray ponds and associated spray nozzles used for heat removal during normal and post-accident conditions.
- Weak standards existed among station personnel in the implementation of the requirements relative to controlling potential tornado borne missiles.

The Corrective Steps that Have Been Taken and the Results Achieved

A site-wide communication has been issued in the station newsletter entitled "Tornado Borne Missile Hazards Require Vigilance to Ensure Spray Ponds Remain Operable." Additional communication on this subject was provided by Executive Management in All Hands meetings.

The station's potential tornado borne missile control specification and the housekeeping procedure have been revised to specify only three acceptable methods for storing unattended transient potential tornado borne missile hazards

within missile zones when they are not being actively used for work in progress. These three approved methods are:

- Storage within "safe zones," i.e., areas within 50 ft. of designated structures.
- Storage inside enclosed C-Vans that weigh more than 4000 pounds when empty.
- Storage within an approved shielded configuration, such as within the area bounded by C-Vans in an approved horseshoe configuration.

A Palo Verde Missile Mitigation Team has been created to establish ownership areas for walkdowns and enforcement strategy. A Charter has been developed to document the Mitigation Team composition. Initial clean-up and control actions for tornado missile hazards have been performed.

Weekly walkdowns of missile zones within 400 ft. of the essential spray ponds have been initiated. The intent of these walkdowns is to enforce the existing housekeeping procedure standards for control of transient potential tornado borne missiles to ensure missile density margins for operability are not challenged. Identified non-compliance with the missile control housekeeping standards will be documented and tracked via the corrective action program. These walkdowns will continue until the actions needed to restore full compliance are completed and determined to be effective.

The most recent engineering verification of missile density, completed on March 4, 2010, confirmed that the missile density was less than the maximum density that could be sustained to consider the essential spray ponds OPERABLE.

The Corrective Steps That Will Be Taken To Avoid Further Violations

The potential tornado borne missile control program procedure will identify the program owner and stakeholders and identify corresponding responsibilities. This action will anchor ownership and establish standards for implementation of the program.

The station will implement an interactive automated trending program to facilitate identification of developing trends at both line and site levels, enabling program owners to identify issues and lagging performance.

To improve knowledge of the program requirements for implementation of potential tornado borne missile controls, training will be provided to targeted populations of the station's work force. A training needs analysis will identify the population and the needed objectives. Additionally, a communication plan will be

implemented to raise the station's overall awareness of the need to control potential tornado borne missiles and the program's requirements.

The station will implement a performance indicator to provide the potential tornado borne missile control program health indication. The potential tornado borne missile density will be included in the station's 06:30 am Teamwork and Communication Meeting report. The objectives of these actions are to improve the visibility of the program among the staff and raise the sensitivity to potential tornado borne missiles and their impact on the essential spray ponds and nuclear safety.

The Date When Full Compliance Will Be Achieved

Until full compliance with Criterion V is established, weekly monitoring of existing housekeeping standards for control of transient potential tornado borne missiles, as described above, will ensure that non-compliances that may have an adverse impact on spray pond operability are identified and corrected in a timely manner.

Full compliance with Criterion V of 10 CFR 50, Appendix B with respect to establishing adequate potential tornado borne missile control procedures will be achieved by June 30, 2010, by implementing a stand alone site-wide procedure and a tracking system to evaluate, approve, and track potential tornado borne missiles in outside areas within 400 ft. of the essential spray ponds.