

Palo Verde 3

4Q/2010 Plant Inspection Findings

Initiating Events

Significance:  Mar 31, 2010

Identified By: Self-Revealing

Item Type: FIN Finding

Failure to Take Corrective Actions for an Identified Adverse Condition

A self-revealing finding was identified for the failure of engineering personnel to follow procedures and adequately evaluate an identified adverse condition for corrective actions associated with containment isolation valve UV002 as required by Procedure 90DP-0IP10, "Condition Reporting" and Procedure 86DP-0EE01, "Reliability Centered Maintenance Based System Reviews." Specifically, the licensee identified during a cause analysis performed in 1997 and by a system review conducted in 2004 and 2007 that the failure of containment isolation valve UV002 could result in a reactor trip, but failed to take any corrective actions. This issue was entered into the licensee's corrective action program as Condition Report Disposition Request 3411547 which included corrective actions to evaluate the condition in accordance with station procedures and plan a modification to eliminate the adverse condition associated with containment isolation valve UV002.

The finding was more than minor because it affected the design control attribute of the Initiating Events Cornerstone, and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety function during shutdown as well as power operations. Using Manual Chapter 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to have very low safety significance because the finding did not contribute to both the likelihood of a reactor trip and mitigating equipment or functions would not be available. This finding was evaluated as not having a crosscutting aspect because the performance deficiency is not indicative of current performance.

Inspection Report# : [2010002](#) (*pdf*)

Mitigating Systems

Significance:  Aug 21, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Promptly Identify and Correct a Condition Adverse to Quality for Foreign Material in the Pneumatic Supply Lines to the Atmospheric Dump Valves Actuators

The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the failure of engineering personnel to promptly identify and correct a condition adverse to quality associated with foreign material in the nitrogen and instrument air supply to the atmospheric dump valve. Specifically, between July 2009 and August 2010, corrective actions to address foreign material in the Unit 3 instrument air supply to atmospheric dump valve ADV-185 failed to promptly identify and remove similar debris in remaining instrument air or nitrogen supply lines. The licensee is developing new work orders to flush and inspect pneumatic supply lines to the atmospheric dump valves. This issue was entered into the licensee's corrective action program as Palo Verde Action Request 3531638.

The performance deficiency was more than minor, and is therefore a finding, because it affected the equipment reliability attribute of the Mitigating Systems Cornerstone, and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Manual Chapter 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," the

finding was determined to have a very low safety significance because the finding did not result in a loss of system safety function, an actual loss of safety function of a single train for greater than its technical specification allowed outage time, or screen as potentially risk-significant due to a seismic, flooding, or severe weather initiating event. This finding was determined to have a crosscutting aspect in the area of human performance associated with the decision making component because the licensee failed to conduct effectiveness reviews of safety significant decisions to verify the validity of assumptions, identify possible unintended consequences, and determine how to improve future decisions.

Inspection Report# : [2010004](#) (pdf)

Significance:  May 13, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Work Instruction to Replace Emergency Diesel Generator Starting Air Turning Gear Interlock Valves

A self-revealing noncited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified for the failure of maintenance personnel to adequately establish and implement work order instructions associated with the emergency diesel generators starting air turning gear interlock valves. Specifically, on May 13, 2010, Unit 3 emergency diesel generator train B failed to start within its technical specification allowed time due to the turning gear interlock valve 3JDGBUV0234 being improperly positioned during installation. The turning gear interlock valve was replaced and the engine was started and verified to meet all acceptance criteria. Work orders were revised to reflect plunger depression requirements. This issue was entered into the licensee's corrective action program as Palo Verde Action Request 3475479.

The performance deficiency was more than minor, and is therefore a finding, because it affected the procedure quality attribute of the Mitigating Systems Cornerstone, and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Manual Chapter 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to have a very low safety significance because the finding did not result in a loss of system safety function, an actual loss of safety function of a single train for greater than its technical specification allowed outage time, or screen as potentially risk-significant due to a seismic, flooding, or severe weather initiating event. This finding was determined to have a crosscutting aspect in the area of problem identification and resolution associated with the operating experience component because the licensee failed to institutionalize operating experience through changes to station processes, procedures, equipment, and training programs.

Inspection Report# : [2010004](#) (pdf)

Significance:  Apr 10, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Unqualified Coatings in Containment

The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for an inadequate procedure for the application of coatings in containment. Specifically, during construction, Specification 13-AM-314, "Installation Specification for Surface Coating Systems for Concrete," improperly required a dry-film thickness of 2 to 5 mils for Mobil/Valspar 84-V-200, which is beyond the limits of 2 to 5 mils wet-film thickness that was allowed by the vendor instructions. Mobil/Valspar 84-V-200 was found to lack design basis testing and subsequent testing demonstrated that 50 percent of the coating in excess of 2 mils thickness failed as particulate, rather than chips, which increases debris loading on the containment sump. The licensee plans to revise calculation N001-1106-00002, "Debris Generation Due to LOCA within Containment for Resolution of GSI-191," to incorporate the added debris loading from the unqualified coatings as a corrective action. This issue was entered into the licensee's corrective action program as Palo Verde Action Request 3469133.

The performance deficiency was more than minor, and is therefore a finding, because it affected the design control attribute of the Mitigating Systems Cornerstone, and affected the cornerstone objective of ensuring the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Using Manual Chapter 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to have a very low safety significance because the finding did not result in a loss of system safety function, an actual loss of safety

function of a single train for greater than its technical specification allowed outage time, or screen as potentially risk-significant due to a seismic, flooding, or severe weather initiating event. This finding was evaluated as not having a crosscutting aspect because the performance deficiency is not reflective of current performance.

Inspection Report# : [2010004](#) (*pdf*)

Significance:  Mar 31, 2010

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

ADV Drop Test Failure Due to Foreign Material

A self-revealing noncited violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified for the failure of maintenance personnel to prevent the introduction of foreign material into the atmospheric dump valve nitrogen system as required by Procedure 30DP-9MP03, "System Cleanliness and Foreign Material Exclusion Controls." Specifically, on January 10, 2010, atmospheric dump valve 3-ADV-184 failed the nitrogen accumulator drop test when leakage exceeded an acceptance criterion which was caused by a check valve leaking by due to the presence of foreign material during maintenance. This issue was entered into the licensee's corrective action program as Palo Verde Action Request 3425640 which included corrective actions to flush the nitrogen lines for all the ADV's and train maintenance personnel on the foreign material exclusion requirements.

The finding was more than minor because it affected the equipment reliability attribute of the Mitigating Systems cornerstone, and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Manual Chapter 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," the finding was determined to have a very low safety significance because the finding did not result in a loss of system safety function, an actual loss of safety function of a single train for greater than its technical specification allowed outage time, or screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. This finding was evaluated as not having a crosscutting aspect because the performance deficiency is not indicative of current performance.

Inspection Report# : [2010002](#) (*pdf*)

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Although the NRC is actively overseeing the Security cornerstone, the Commission has decided that certain findings pertaining to security cornerstone will not be publicly available to ensure that potentially useful information is not provided to a possible adversary. Therefore, the [cover letters](#) to security inspection reports may be viewed.

Miscellaneous

Significance: N/A Dec 17, 2010

Identified By: NRC

Item Type: FIN Finding

Palo Verde Nuclear Generating Station Biennial PI&R Inspection Summary

The team concluded that the corrective action program at Palo Verde Nuclear Generating Station was generally effective. The team concluded that site personnel identify problems at a low threshold and enter them into the corrective action program. The licensee utilizes a rigorous screening process to characterize issues and that the vast majority of issues are appropriately evaluated and adequate corrective actions are taken. The team did identify isolated cases where problem evaluation could have been more effective at addressing the underlying causes of issues as well as a number of examples where corrective actions were not timely or adequate to address identified problems. The team also determined that though the overall process for identifying and correcting issues was well established, certain incidents of procedural violations associated with corrective action program processes led to delays and less than adequate actions to correct material deficiencies. Though the team identified areas in which the licensee could improve their corrective action program, the overall process was determined to be effective in identifying and correcting conditions adverse to quality.

The licensee appropriately evaluated industry operating experience for relevance to the facility, entered applicable items in the corrective action program, and subsequently utilized OE in root cause and apparent cause evaluations. The team did determine that the licensee could improve its utilization of OE to prevent the occurrence of similar events at Palo Verde. The team determined that the licensee performed very effective quality assurance audits and self assessments.

The team performed 7 safety culture focus group discussions involving approximately 70 licensee personnel in order to assess the safety conscious work environment of the site. The team felt that most of the work groups interviewed had a strong safety conscious work environment; however, 3 of the 7 work groups interviewed exhibited weaknesses in safety culture. Specifically, the team found that although there were many individuals who felt comfortable raising safety concerns without fear of retaliation, there were some individuals in the operations department who expressed the perception that they would or might be retaliated against for raising certain safety concerns.

Inspection Report# : [2010008](#) (*pdf*)

Last modified : March 03, 2011