

Palo Verde 1

3Q/2010 Plant Inspection Findings

Initiating Events

Significance:  Mar 07, 2010

Identified By: Self-Revealing

Item Type: FIN Finding

Failure to Establish Procedures to Restore the Required Configuration of 13.8kV Electrical Bus Ducting.

A self-revealing finding was identified for the failure of maintenance personnel to provide adequate procedures and ensure work was performed properly for installation of the ducting for the 13.8 kV bus to ensure it was weather tight. Specifically, on March 7, 2010, the 1E-NAN-A03 electrical bus catastrophically failed due to water intrusion from heavy rains due to improper installation of the ducting in November 2007. The licensee has implemented corrective actions to provide adequate instruction for this maintenance activity and training for maintenance personnel, and has entered this issue into the licensee's corrective action program as Condition Report Disposition Request 344792.

The finding was more than minor because it affected the configuration 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 functions 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 not being available. This finding has a crosscutting aspect in the area of human performance associated with the resources component because the licensee failed to ensure training of personnel was adequate to assure nuclear safety.

Inspection Report# : [2010003](#) (*pdf*)

Significance:  Dec 31, 2009

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Inadequate Procedures to Diagnose and Mitigate a Loss of Instrument Air to the Containment

A self-revealing noncited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified for the failure of operations personnel to adequately establish and implement procedures associated with a loss of instrument air to containment. Specifically, on December 3, 2009, the alarm response and abnormal operating procedures available to the Unit 3 control room operating staff were inadequate to consistently diagnose and mitigate a loss of instrument air to containment. This issue was entered into the licensee's corrective action program as Condition Report/Disposition Request (CRDR) 3411457.

The performance deficiency associated with this finding involved the failure of operations personnel to adequately establish and implement alarm response and abnormal operating procedures associated with a loss of instrument air to containment. The finding is more than minor because it is associated with the procedure quality attribute of the Initiating Events Cornerstone and affects the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions 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 the likelihood that mitigation equipment or functions will not be available. This finding has a crosscutting aspect in the area of problem identification and resolution associated with the corrective action program because the licensee failed to implement the corrective action program with a low threshold for identifying issues.

Inspection Report# : [2009005](#) (*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:  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:  Dec 31, 2009

Identified By: NRC

Item Type: VIO Violation

Failure to Establish Adequate Procedures to Control Potential Tornado Borne Missile Hazards Near the Essential Spray Ponds

The inspectors identified a cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure of engineering personnel to establish adequate procedures to ensure evaluation and approval of transient missile hazards that have an effect on the operability of the essential spray ponds. Specifically, since January 15, 1997, civil engineering personnel failed to develop an adequate procedure to verify missile density criteria are not exceeded to ensure operability of the essential spray ponds during severe weather. Due to the licensee's failure to restore compliance from the previous NCV 05000528/2008004-04 within a reasonable time, this violation is being cited in a Notice of Violation consistent with Section VI.A of the NRC Enforcement Policy. This issue was entered into the licensee's corrective action program as CRDR 3397839.

The finding is more than minor because it is associated with the external factors attribute of the Mitigating Systems Cornerstone and affects the cornerstone objective of ensuring the reliability 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 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 has a crosscutting aspect in the area of problem identification and resolution associated with the corrective action program because appropriate corrective actions were not taken to address safety issues and adverse trends in a timely manner, commensurate with their safety significance and complexity.

Inspection Report# : [2009005](#) (*pdf*)

Barrier Integrity

Significance:  May 02, 2010

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Inadequate Post Maintenance Test Results with an Inoperable Containment.

A self-revealing noncited violation of Technical Specification 5.4.1, "Procedures," was identified for the failure of maintenance personnel to follow work instructions during the 1R15 refueling outage. Specifically, on May 2, 2010, maintenance personnel were performing maintenance on the containment equipment hatch hoist and failed to ensure an adequate postmaintenance test was completed. On May 8, maintenance personnel discovered that the hoist would not completely lower and that they could not position the containment equipment hatch due to a malfunctioning lower limit switch. The licensee readjusted the malfunctioning limit switch for the west hoist to restore the ability to close the containment hatch and performed a proper postmaintenance test as a corrective action and entered this issue into the licensee's corrective action program as Palo Verde Action Request 3478220.

The finding was more than minor because it affected the configuration control attribute of the Barrier Integrity Cornerstone, and affected the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. Using Manual Chapter 0609, Appendix H, "Containment Integrity Significance Determination Process," Figure 6.2, the finding was determined to have very low safety significance because the finding occurred in a time window greater than 8 days after the start of the outage. This finding has a crosscutting aspect in the area of human performance associated with the work practices component because the licensee failed to ensure personnel do not proceed in the face of uncertainty or unexpected circumstances.

Inspection Report# : [2010003](#) (*pdf*)

Emergency Preparedness

Significance:  Mar 22, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Emergency Action Level Declaration.

The inspectors identified a noncited violation of 10 CFR 50.47(b)(4) for the failure of operations personnel to adequately implement the emergency plan. Specifically, on March 22, 2010, leakage from the packing of a main pressurizer spray valve at a rate of 12 gpm into the reactor drain tank was incorrectly diagnosed as “unidentified leakage”. This led operations personnel to declare a Notification of Unusual Event when the emergency action thresholds for this emergency classification level had not actually been met. The licensee has taken action to train operations personnel on leakage diagnosis and classification to restore compliance and entered this issue into the licensee's corrective action program as Palo Verde Action Request 3484532.

The finding was more than minor because it adversely affected the Emergency Response Organization performance attribute of the Emergency Preparedness Cornerstone and affected the cornerstone objective to ensure the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. Using Manual Chapter 0609 Appendix B, "Emergency Preparedness Significance Determination Process," Sheet 2, the finding was determined to have very low safety significance because the actual event implementation problem was associated with a Notice of Unusual Event. This finding has a crosscutting aspect in the area of human performance associated with resources component because the licensee failed to ensure training of personnel was adequate to assure consistent interpretation of the emergency action levels.

Inspection Report# : [2010003](#) (*pdf*)

Occupational Radiation Safety

Public Radiation Safety

Significance: SL-IV Dec 31, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Periodically Update the UFSAR

The inspectors identified a noncited violation of 10 CFR 50.71 “Maintenance of Records,” because the licensee failed to update their updated final safety analysis report with submittals that include the effects of a change made to the facility. Specifically, the licensee built the old steam generator storage facility on the owner controlled area for long-term radwaste storage of six decommissioned steam generators and three reactor vessel heads and failed to update the updated final safety analysis report to include these changes to the facility and all safety analyses and evaluations performed. This issue was entered in the licensee’s corrective action program as CRDR 3398042.

This issue was dispositioned using traditional enforcement because it had the potential for impacting the NRC’s ability to perform its regulatory function. The finding is more than minor because it has a material impact on licensed activities in that the six decommissioned steam generators and the Unit 2 reactor vessel head, with a significant radioactive source term have been relocated from the plant radiological controlled area to the owner controlled area. In addition, the radwaste management program was affected because the licensee determined that this low-level radwaste facility will store these large components until the site is decommissioned. The finding is characterized as a Severity Level IV, noncited violation in accordance with NRC Enforcement Policy, Supplement I, and was treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy. This finding was reviewed for crosscutting aspects and none were identified because the performance deficiency is not indicative of current performance.

Inspection Report# : [2009005](#) (*pdf*)

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

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