

Palo Verde 3

2Q/2011 Plant Inspection Findings

Initiating Events

Significance:  Jun 30, 2011

Identified By: Self-Revealing

Item Type: FIN Finding

Failure of 13.8kV Splice due to Inadequate Maintenance

Inspectors reviewed a Green self-revealing finding for failure to properly repair a 13.8kV cable associated with the AENANX02 startup transformer. Specifically, the work performed failed to achieve an acceptable level of quality as required by Procedure 30DP-9MP01 “Conduct of Maintenance,” and as a result the splice failed causing valid actuations of the emergency diesel generators due to a partial loss of offsite power to both Unit 1 and Unit 3. The licensee plans to revise Specification 13-EN-306, “Installation Specification for Cable Splicing and Terminations for PVNGS,” to remove the use of taped splices for 13.8kV cable. The licensee entered this issue into the corrective action program as Condition Report / Disposition Requests 3616634.

The failure of the licensee to perform work with an acceptable level of quality for 13.8kV cable splicing was a performance deficiency. The performance deficiency is more than minor, and therefore a finding, because it adversely affected the equipment reliability attribute of the Initiating Events 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 Inspection Manual Chapter 0609, Attachment 4, “Initial Screening and Characterization of Findings,” the inspectors concluded that the finding is of very low safety significance (Green) because it did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available. This finding had a cross-cutting aspect in the area of human performance associated with the resources component because the licensee failed to provide complete, accurate and up-to-date procedures and work packages for splicing of 13.8kV electrical cable.

Inspection Report# : [2011003](#) (*pdf*)

Significance:  Mar 31, 2011

Identified By: Self-Revealing

Item Type: FIN Finding

Inadequate Work Instructions for Condenser Coating

The inspectors identified a self-revealing finding after Palo Verde Nuclear Generating Station failed to adequately perform maintenance activities associated with main condenser tube sheet coatings in Unit 3. As a result, a degraded tube was not replugged following coating and failed on January 15, 2011, resulting in high sodium levels in the condensate system. Operators entered the abnormal operating procedures for condenser tube rupture and reduced power to 40 percent power to facilitate troubleshooting and repairs. The licensee concluded that Work Order 3384533 and Procedure 31MT-9ZZ19, “Tube Plugging of Secondary Heat Transfer Components,” did not provide adequate instructions for the removal, accountability, and reinstallation of permanent plugs during maintenance. The licensee also concluded that engineering verification inspection practices were inadequate and no procedural guidance existed for the verification. The licensee completed repairs to the main condenser and returned Unit 3 to full power. The licensee entered the performance deficiency into the corrective action program as Palo Verde Action Request 3580739 and implemented immediate corrective actions to revise the pre-job brief checklist and maintenance work instructions for condenser tube plugging. The licensee has not completed all corrective actions for this issue.

The inspectors determined that the performance deficiency is more than minor because it affected the equipment reliability 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 NRC Manual Chapter 0609, Attachment 4, “Phase 1 - Initial Screening and Characterization of Findings,” the inspectors concluded that the finding is of very low safety significance (Green) because it did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available. This finding had a crosscutting aspect in the area of human performance associated with the resources

component because the licensee failed to provide complete, accurate and up-to-date procedures and work packages for tube sheet coating, replugging and verification.

Inspection Report# : [2011002](#) (*pdf*)

Mitigating Systems

Significance:  Jun 30, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Complete an Immediate Operability Determination for Code System Leakage Test

The inspectors identified a Green noncited violation of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” which states “Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings.” Contrary to the above, from March 11 through April 19, 2011, the licensee failed to complete an immediate operability determination in accordance with Procedure 01PR-0AP04, “Corrective Action Program,” when the licensee discovered the system leakage test methodology for the diesel fuel oil transfer system did not conform to ASME Code, Section XI testing requirements. This condition was placed in the corrective action program as Palo Verde Action Requests 3704003.

The inspectors determined that the failure to complete an immediate operability determination in accordance with paragraph 3.2.1.5 of Procedure 01PR-0AP04 was a performance deficiency. The performance deficiency is more than minor because the nonconforming condition created a reasonable doubt on the operability of the diesel fuel oil transfer system. Using Phase 1 of NRC Manual Chapter 0609, “Significance Determination Process,” the finding screens as having very low safety significance (Green) because the finding is a design or qualification deficiency confirmed not to result in the loss of operability or functionality of the system. The finding has a cross-cutting aspect in the area of problem identification and resolution, associated with the corrective action program component, because the licensee failed to identify issues completely, accurately, and in a timely manner commensurate with their safety significance. Specifically, the licensee failed to accurately document the nonconforming condition identified in Palo Verde Action Requests 3654452 which led to a failure to complete an immediate operability determination as required.

Inspection Report# : [2011003](#) (*pdf*)

Significance:  Mar 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Follow Corrective Action Program Procedure

The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criteria V, “Instructions, Procedures, and Drawings,” after the licensee failed to promptly evaluate a nonconforming condition for operability as required by Procedure 01PR-0AP04, “Corrective Action Program.” Procedure 01PR-0AP04, “Corrective Action Program,” step 3.2.1.5, stated “Operability shall be determined immediately upon discovery that an SSC subject to technical specification or that supports SSCs subject to technical specification is in a degraded or nonconforming condition.” Operators failed to perform an operability determination immediately following the licensee’s discovery of a potentially degraded and nonconforming condition associated with a manufacturing defect in K-600S 480 VAC Class 1E circuit breakers. On December 7, 2010, an extent of condition review identified 76 breakers installed in the three units that could be susceptible to the same failure mechanism. However, operators did not perform an immediate operability determination until January 28, 2011. Operators subsequently concluded the affected breakers remained capable of performing their safety functions. The licensee entered the performance deficiency into the corrective action program as Palo Verde Action Request 3587124 and has not completed corrective actions for this issue.

The inspectors concluded the finding was more than minor because it affected the equipment performance 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 NRC Manual Chapter 0609, Attachment 4, “Phase 1 - Initial Screening and Characterization of Findings,” the inspectors determined

the finding had a very low safety significance (Green) because it did not represent a loss of system safety function, represent actual loss of safety function of a single train for greater than its technical specification allowed outage time, represent an actual loss of safety function of one or more non-technical specification trains of equipment designated as risk-significant per 10 CFR 50.65 for greater than 24 hours, or screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. The inspectors concluded that this finding had a crosscutting aspect in the area of problem identification and resolution associated with the corrective action program component because the licensee failed to implement a corrective action program with a low threshold for identifying issues. In this case, the licensee failed to initiate a Palo Verde Action Request that would have required a review for operability when the extent of condition review identified that safety-related components were affected.

Inspection Report# : [2011002](#) (*pdf*)

Significance: SL-IV Mar 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Perform a 10 CFR Part 21 Evaluation

The inspectors identified a Severity Level IV noncited violation of 10 CFR Part 21 after Palo Verde Nuclear Generating Station failed to evaluate an identified deviation within 60 days of discovery to determine if there was a substantial safety hazard. On November 23, 2010, the licensee completed an apparent cause evaluation for a failure of the Unit 3 train B spent fuel pool cooling pump and concluded the cause of the failure was a misalignment by the vendor of the bell alarm bracket within the K-600S 480 VAC Class 1E circuit breaker. Additionally, the apparent cause evaluation identified similar failures of the same type of breaker dating back to April 29, 2009. On December 7, 2010, the extent of condition review identified seventy six breakers, including some in safety related applications, installed in the three units that could be impacted by the same failure mechanism. The inspectors questioned whether the licensee should have performed an evaluation in accordance with 10 CFR Part 21 to determine if a defect existed. On February 15, 2011, the licensee completed an evaluation of prior deviations related to the alignment of bell alarm switches and concluded the deviations were defects that were reportable per 10 CFR Part 21. The licensee subsequently submitted Part 21 Report 2011-07-00 on February 24, 2011. The licensee entered the performance deficiency into the corrective action program as Palo Verde Action Request 3593672 and has not completed corrective actions for this issue.

The inspectors concluded that the failure to perform the substantial safety hazard evaluation within 60 days as required by 10 CFR 21.21(a)(1) was a violation of NRC requirements. The inspectors evaluated this violation using the traditional enforcement process because the failure to submit a required report affected the NRC's ability to perform its regulatory function. Consistent with the guidance in Section 2.2.2 and Section 6.9.d of the NRC Enforcement Policy, the inspectors concluded the violation was a Severity Level IV because the licensee failed to make a timely written report that resulted in no or relatively inappreciable potential safety consequences.

Inspection Report# : [2011002](#) (*pdf*)

Significance: SL-IV Feb 08, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Ensure All License Conditions Are Met for Licensed Operators

The inspectors identified a Severity Level IV violation of 10 CFR 55.3, "License Requirements," for the failure of the licensee to ensure that all individuals authorized by a license to operate the controls of the facility met all the conditions of their licenses as defined in 10 CFR 55.3. Specifically, the requirement to have a biennial physical completed and certified by the facility's physician during the continuous two year period for all licensed operators was not met for three licensed operators. Two of these licensed operators performed licensed operator duties 42 times between February 8 and March 25, 2010, after the deadline for their biennial examinations had passed. Upon discovery, the licensee removed these individuals from watchstanding duties pending follow-up medical evaluations. This issue was entered into the licensee's corrective action program as Condition Report Disposition Request 3526981.

The failure of the licensee to ensure that all individuals authorized by a license to operate the controls of the facility met all the conditions of their licenses as defined in 10 CFR 55.3 is a performance deficiency. Specifically, the requirement to have a biennial physical completed and certified by the facility's physician during the continuous two year period for all licensed operators (as required in 10 CFR 55.21) was not met for three licensed operators, two of

which were standing watch with expired medical examinations. The finding was evaluated using the traditional enforcement process because the failure to determine an operator's medical condition and general health has the potential to impact the NRC's ability to perform its regulatory function; the NRC was not notified nor allowed an opportunity to review the specific medical conditions of the two operators whose medical qualifications had expired while they were standing watch or eligible to stand watch. Using the NRC's Enforcement Policy, section 6.4.d, Severity Level IV violation examples, this finding is similar to example 1 which states, in part that "an unqualified individual performing the functions of an operator or senior operator." Two licensed operators stood watch without a certified medical examination within the two year period that the medical examination is required to be completed and certified by the physician. Because: (1) the medical conditions of the two licensed operators did not change when they received their medical examinations in recent weeks; (2) the finding did not cause any plant events or transients while the individuals were on watch; (3) it was not repetitive or willful; and (4) it was entered into the corrective action program, the finding was determined to be of very low safety significance and is being treated as a Severity Level IV noncited violation consistent with the NRC Enforcement Policy. This finding has a crosscutting aspect in the area of human performance associated with the work practices component because medical staff supervisors did not oversee the biennial physical examination due dates such that nuclear safety was supported.

Inspection Report# : [2010005](#) (pdf)

Significance:  Nov 15, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Promptly Correct a Condition Adverse to Quality for the Essential Cooling Water Room Cooler

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 correct a condition adverse to quality associated with room cooler AHU-3MHAAZ05 blower shaft dimensions. Specifically, between July 2008 and November 2010, corrective actions for high vibrations in the Unit 3 essential cooling water system train A room cooler blower failed to promptly address the incorrect shaft dimensions at the bearing shaft interface. The licensee is developing corrective actions to replace the defective shaft by procuring a new shaft or machining a shaft on site. The licensee entered this issue into the corrective action program as Palo Verde Action Request 3559219.

The inspectors concluded the finding was more than minor because it affected the equipment performance 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 inspectors determined the finding had a very low safety significance (Green) 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. The inspectors determined this finding had a crosscutting aspect in the area of human performance associated with the resources component because the licensee failed to ensure that personnel, equipment, and procedure were available and adequate to assure nuclear safety by minimizing long standing equipment issues.

Inspection Report# : [2010005](#) (pdf)

Significance:  Sep 30, 2010

Identified By: Self-Revealing

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:  Sep 30, 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:  Sep 10, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Maintain Operator Licensing Examination Integrity

The inspectors identified a noncited violation of 10 CFR 55.49, "Integrity of Examinations and Tests," for the failure of the licensee to ensure that the integrity of an operating test administered to licensed operators was maintained. During the week of December 8, 2009, twenty-four licensed operators received three job performance measures and one additional licensed operator received five job performance measures for their operating tests that had been previously administered to other licensed operators in previous weeks. This failure resulted in a compromise of examination integrity because it exceeded the 50 percent overlap required by quality procedure LOCT-TPD-R56, "Licensed Operator Continuing Training Program," Revision 56, for this portion of the examination, but did not lead to an actual effect on the equitable and consistent administration of the examination. This issue was entered into the licensee's corrective action program as Condition Report Disposition Request 3527071.

The failure of the licensee's training staff to maintain the integrity of examinations administered to licensed operations personnel was a performance deficiency. The performance deficiency is more than minor, and therefore a finding, because it adversely impacted the human performance attribute of the mitigating systems cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable

consequences. Additionally, if left uncorrected, the performance deficiency could have become more significant in that allowing licensed operators to return to the control room without valid demonstration of appropriate knowledge on the biennial examinations could be a precursor to a more significant event. Using Manual Chapter 0609, "Significance Determination Process," Phase 1 worksheets, and the corresponding Appendix I, "Licensed Operator Requalification Significance Determination Process," the finding was determined to have very low safety significance (Green) because, although the finding resulted in a compromise of the integrity of operating test job performance measures and compensatory actions were not immediately taken when the compromise should have been discovered in 2009, the equitable and consistent administration of the test was not actually impacted by this compromise. This finding has a crosscutting aspect in the area of human performance associated with the resources component because the licensee failed to ensure that procedures were accurately translated from industry standards such that the 50 percent maximum overlap was not exceeded.

Inspection Report# : [2010005](#) (pdf)

Significance:  Sep 09, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Follow Procedures for Medical Examinations of Licensed Operators

The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure of the licensee to follow their quality procedure 01DP-0EM13, "Licensed Operator Medical Examinations," Revision, which provides the medical examination requirements for licensed operators at Palo Verde Nuclear Generating Station. Of the 15 medical records reviewed by the inspectors, 7 licensed senior reactor operator medical records did not contain the proper no-solo restrictions imposed by the NRC when these individuals were licensed. Additionally, the software that the licensee used to track these restrictions (Station Work Management System or SWMS) did not reflect the proper restrictions for these 7 individuals. This issue was entered into the licensee's corrective action program as Condition Report Disposition Requests 3527072 and 3526979.

The failure of the licensee's medical staff to follow their procedure for implementing the required medical examination program was a performance deficiency. The performance deficiency is more than minor, and therefore a finding, because it adversely impacted the human performance attribute of the mitigating systems cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Manual Chapter 0609, "Significance Determination Process," Phase 1 worksheets, and the corresponding Appendix I, "Licensed Operator Requalification Significance Determination Process," the finding was determined to have very low safety significance and is being characterized as a Green, noncited violation. The finding was determined to be Green, using Appendix I of Manual Chapter 0609, because more than 20 percent of the medical records reviewed contained significant deficiencies. The finding was also determined to have very low safety significance (Green) because: (1) the finding did not result in any events in the control room; and (2) no health requirements required by ANS/ANSI 3.4-1983 "Medical Certification and Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants" were exceeded by any licensed operator while on watch. This finding has a crosscutting aspect in the area of human performance associated with the work practices component because this procedure and its associated software are the two principle mechanisms that the facility uses to ensure that licensed operators are fit for duty.

Inspection Report# : [2010005](#) (pdf)

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

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)

Barrier Integrity

Significance:  Jun 30, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Include Screening Criteria in the Boric Acid Corrosion Control Program

The inspectors identified a Green noncited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," which states, in part, that "Instructions, procedures, or drawings shall include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished." Specifically, Procedure 70TI-9ZC01, "Boric Acid Walkdown Leak Detection," Revision 11 did not include appropriate screening criteria to satisfactorily evaluate boric acid leaks and deposits that may cause degradation of risk significant system barriers. The condition was placed in the corrective action program as Palo Verde Action Request 3691351.

The inspectors determined the failure to include appropriate screening criteria into Procedure 70TI-9ZC01 was a performance deficiency. The performance deficiency is more than minor because it is associated with the procedure quality attribute of the Barrier Integrity Cornerstone and adversely affects the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. Using Phase 1 of NRC Manual Chapter 0609, "Significance Determination Process," the finding screens as having very low safety significance (Green) because the finding does not represent a degradation of a radiological barrier, does not represent a degradation of the control room toxic barrier functions, does not represent an actual open pathway of reactor containment, and does not involve an actual degradation of hydrogen igniters in the reactor containment. The finding includes a cross-cutting aspect in the area of problem identification and resolution, associated with the corrective action program component, because the licensee failed to take appropriate corrective actions to address safety issues and adverse trends in a timely manner, commensurate with their safety significance and complexity. Specifically, the licensee identified similar deficiencies in the self assessment of the boric acid program in September 2010 however, failed to take appropriate corrective actions to fully correct the identified deficiencies.

Inspection Report# : [2011003](#) (pdf)

Significance: SL-IV Jun 30, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Submit an LER for a Condition Prohibited by the Plant's Technical Specifications

The inspectors identified a Severity Level IV noncited violation of 10 CFR 50.73(a)(1) for failure to submit a Licensee Event Report within 60 days following discovery of a condition prohibited by Technical Specifications. The licensee made a procedure change in 1986 to Procedure 41OP-1HJ01, "Control Room Handswitch/Valve Checklist," to maintain control room outside air dampers normally closed instead of the normally open position stipulated in the final safety analysis report. The inspectors concluded that the incorrect alignment of the dampers was a condition

prohibited by Technical Specification 3.3.9, "Control Room Essential Filtration Actuation Signal" and that the licensee failed to adequately evaluate the issue for reportability. The licensee entered the issue into the corrective action program as Palo Verde Action Request 3791486.

The inspectors concluded the failure of Arizona Public Service to report a condition prohibited by Technical Specifications was a performance deficiency. The inspectors evaluated this performance deficiency using the traditional enforcement process because the failure to submit a required report affected the NRC's ability to perform its regulatory function. Consistent with the guidance in Section 2.2.2 and Section 6.9.d of the NRC Enforcement Policy, the inspectors concluded the finding was a Severity Level IV violation because the licensee failed to make a timely written report that resulted in no or relatively inappreciable potential safety consequences.

Inspection Report# : [2011003](#) (*pdf*)

Significance:  Jun 30, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Have Adequate Documentation for Verification of ASME Code Compliance

The inspectors identified a Green noncited violation of 10 CFR Part 50, Appendix B, Criterion VII "Control of Purchased Material, Equipment, And Services" for the failure of licensee personnel to maintain radiographs onsite for the verification of ASME Code, Section III compliance. Specifically, radiographs for welds associated with the reactor head vent line were neither received nor reviewed as required. When the radiographs were obtained, reviews identified that welds for Units 1 and 2 did not meet the standards of Section III of the ASME Boiler and Pressure Vessel Code. The licensee corrected the non-conforming weld in Unit 2 during refueling outage 2R16 and Unit 1 welds will be restored to Section III standards during the next refueling outage beginning October 1, 2011. The licensee entered the issue into the corrective action program as Condition Report / Disposition Requests 3540575.

Inspectors determined that the failure to maintain radiographs onsite for review was a performance deficiency. The performance deficiency was more than minor because it adversely affected the RCS equipment and barrier performance attribute of the Barrier Integrity Cornerstone's objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. Using Inspection Manual Chapter 0609, Attachment 4, "Initial Screening and Characterization of Findings," the inspectors concluded that the finding is of very low safety significance (Green) because the reactor coolant system barrier remained intact, was not associated with the fuel barrier, and did not constitute a spent fuel pool issue. This finding had a cross-cutting aspect in the area of human performance associated with the work practices component because the licensee failed to communicate expectations regarding procedural compliance and personnel follow procedures.

Inspection Report# : [2011003](#) (*pdf*)

Emergency Preparedness

Significance:  Jun 30, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Critique a Weakness during a Biennial Exercise

The inspectors identified a Green noncited violation for failure to critique weak performance in the Technical Support Center during a biennial exercise conducted March 1, 2011, as required by 10 CFR Part 50, Appendix E, IV(F)(2)(g). Specifically, the licensee did not identify that the Technical Support Center did not understand the radiological release path and that they had developed ineffective mitigation strategies based on their inaccurate understanding.

This performance deficiency is more than minor because it affected the emergency preparedness cornerstone and was associated with the emergency response organization performance attribute. The finding had a credible impact on the emergency preparedness cornerstone objective because a lack of understanding of the release path for radioactive material affects the licensee's ability to implement adequate measures to protect the health and safety of the public. The finding was evaluated using the emergency preparedness significance determination process and was determined to be of very low safety significance (Green) because it was a failure to comply with NRC requirements, was

associated with Emergency Planning Standard 50.47(b)(14), was not a risk significant planning standard issue, and was not a functional failure of the planning standard. The issue was entered into the licensee's corrective action program as Condition Report / Disposition Requests 3693235. This finding was assigned a cross-cutting aspect in the area of problem identification and resolution because the licensee failed to identify a performance issue completely and accurately.

Inspection Report# : [2011003](#) (*pdf*)

Occupational Radiation Safety

Significance:  Mar 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Have Adequate Procedures to Prevent Resin Contamination into the Auxiliary Building Exhaust Ventilation System

Inspectors reviewed a self-revealing noncited violation of Technical Specification 5.4.1 for failure to have adequate procedures to prevent resin contamination of the auxiliary building exhaust ventilation system while filling and venting the pre-holdup ion exchanger. This event resulted in posting a high radiation area and unintended dose to radiation workers. Licensee immediate actions included posting the affected area as a high radiation area and decontamination of the affected area and duct. The event was placed in the licensee's corrective action program as Condition Report Disposition Requests 3554716 and 3563863.

The finding was more than minor because it was associated with the program and process attribute of the Occupational Radiation Safety Cornerstone and affected the objective to ensure the adequate protection of the worker health and safety from exposure to unintended radiation from radioactive material during routine civilian nuclear reactor operation. Using Manual Chapter 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," the inspectors determined the finding to have very low safety significance because: (1) it was not associated with ALARA planning or work controls; (2) there was no overexposure; (3) there was no substantial potential for an overexposure; and (4) the ability to assess dose was not compromised. The licensee previously had similar issues in Units 1 and 2 in 1985, 1995, and 1996 and, consequently, made modifications to procedures and equipment. These changes were not implemented in Unit 3. However, these issues are not indicative of current performance and thus, resulted in no crosscutting aspect.

Inspection Report# : [2011002](#) (*pdf*)

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 its 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 operating experience in root and apparent cause evaluations. The team did determine that the licensee could improve its utilization of operating experience to prevent the occurrence of similar events at Palo Verde. The team determined that the licensee performed effective quality assurance audits and self assessments.

The team performed seven 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 a strong safety conscious work environment existed in most of the work groups interviewed; however, one work group interviewed exhibited weaknesses in this area. 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 using certain avenues available to them. In all instances, these individuals stated they would use one avenue or another to raise their concerns.

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