Palo Verde 3
3Q/2009 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadvertent Decrease of Pressurizer Level Due to Personnel Error
A self-revealing non-cited violation of Technical Specification 5.4.1(a), "Procedures," was identified for the failure of operations personnel to follow procedural requirements during a planned plant startup. Specifically, on May 27, 2009, operations personnel did not take actions to lower turbine load after synchronizing the generator to the offsite electrical distribution grid during cooldown, causing a pressurizer low level alarm and a loss of pressurizer heaters. This issue was entered into the licensee's corrective action program as Palo Verde Action Request 3336555.

The finding is more than minor because it is associated with the human performance attribute of the initiating events cornerstone and affects the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown and power operations. 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 exceeding the technical specification limit for identified reactor coolant system leakage, did not affect other mitigation systems, did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions will not be available; and did not increase the likelihood of a fire or internal/external flood. This finding has a crosscutting aspect in the area of human performance associated with decision making because operations personnel failed to properly implement their roles in communicating between applicable operational personnel [H.1(a)].
Inspection Report# : 2009003 *(pdf)*

Mitigating Systems

Significance: G Sep 30, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Correct a Condition Adverse to Quality with the Emergency Diesel Generator Train A K-4 Relay in a Timely Manner
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion XVI, “Corrective Action,” for the failure of the licensee to correct a deficiency associated with the emergency diesel generator voltage regulator K-4 relay in a timely manner. Specifically, on October 16, 2004, maintenance personnel identified that the K-4 relay had a high resistance of approximately 800 ohms but did not replace the relay as required by procedures. This resulted in the failure of the emergency diesel generator to start following maintenance activities on May 7, 2009. This issue was entered into the licensee’s corrective action program as Palo Verde Action Request 3385257.

The finding is more than minor because it is associated with equipment performance attribute of the Mitigating Systems Cornerstone and affects the associated cornerstone objective to ensure the reliability and capability of systems that respond to initiating events. Using Manual Chapter 0609.04, “Phase 1 – Initial Screening and Characterization of Findings,” the finding was determined to require a Phase 2 and Phase 3 analysis by a senior reactor analyst, because the finding resulted in an actual loss of safety function of a single train for greater than its technical specification allowed outage time. Based on the analysis performed, the analyst concluded that the finding had very low safety significance because with only three failures of the K-4 relay in approximately 170 starts and crediting seven hours for the station batteries during a loss of offsite power event, the resulting core damage frequency

is 3.8E-7. This finding was evaluated as not having a crosscutting aspect because the performance deficiency is not indicative of current performance.

Inspection Report# : 2009004 *(pdf)*

Significance: G Aug 12, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow Foreign Material Exclusion Requirements
The inspectors identified a noncited violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," for the failure to adequately implement foreign material controls during maintenance. Specifically, on May 21, 2008, maintenance and quality control personnel failed to ensure that no foreign material entered the fuel injection pump 7R during refurbishment. As a result, fuel injection pump 7R seized in place, rendering emergency diesel generator 3A inoperable and unavailable for 31.5 days. This issue was entered into the licensee's corrective action program as Palo Verde Action Request 3280474.

The finding is more than minor because it is associated with the equipment performance 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 require a Phase 2 analysis because the finding resulted in an actual loss of safety function of a single train for greater than its technical specification allowed outage time. Using the Palo Verde pre-solved sequences and an exposure time of 3 to 30 days with one emergency diesel generator unavailable, the Phase 2 estimation determined this finding was of low to moderate significance. With credit for battery operation for seven hours, the Phase 3 analysis determined that the total delta core damage frequency from all of the combined scenarios was 5 E-7; and thus, the finding was considered to be of very low safety significance (Green). This finding has a crosscutting aspect in the area of human performance associated with decision making because the licensee did not communicate bases for decisions to personnel with a need to know such that work is performed safely, in a timely manner [H.1(c)]

Inspection Report# : 2009010 *(pdf)*

Significance: G Jun 30, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Develop an Adequate Procedure to Ensure Operability of the Essential Cooling Water Heat Exchangers
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” for the failure of operations, chemistry, and engineering personnel to develop a procedure with appropriate quantitative or qualitative acceptance criteria for chloride levels to ensure operability of the essential cooling water system heat exchangers. Specifically, from plant startup until April 28, 2009, chemistry personnel’s Policy CDP1-14, “Chemistry Department Policies,” stated, in part, that a Palo Verde Action Request will be generated for entry into any Action Level 1, 2, 3 or 5, and did not give actions for Action Level 4. This resulted in chlorides exceeding Action Level 4 quantitative acceptance criterion in the essential cooling water system Train A without a Palo Verde Action Request being generated, or an operability determination being performed in a timely manner. This issue was entered into the licensee's corrective action program as Palo Verde Action Request 3347097.

The finding is more than minor because it is associated with the procedure quality 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 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 has a crosscutting aspect in the area of human performance associated with decision-making because decisions and the basis for decisions were not communicated to personnel who have a

need to know the information in order to perform work safely, in a timely manner [H.1(c)].

Inspection Report# : 2009003 *(pdf)*

Significance: SL-IV Jun 30, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Perform Written Safety Evaluation in Accordance with 10 CFR 50.59 for Refueling Water Tank Full Flow Recirculation
The inspectors identified a non-cited Severity Level IV violation of 10 CFR 50.59 requirements for the failure of engineering personnel to perform adequate written safety evaluations prior to implementing changes to the emergency core cooling system. Specifically, between 1987 and February 2009, engineering personnel failed to obtained prior NRC approval for a change that involved two unreviewed safety questions involving emergency core cooling system operability and containment bypass leakage during an accident. The first example involved a change in an emergency core cooling system lineup that could have prevented the fulfillment of the safety functions of the safety injection system to remove residual heat and mitigate the consequences of an accident. The second example involved opening normally locked close valves, while the plant is operating, that could result in the loss of a safety function to control the release of radioactive material as a result of the containment bypass path. This issue was entered into the licensee's corrective action program as Condition Report / Disposition Request 3287805.

This finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone and adversely affects the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events. This finding is also more than minor because it is associated with the configuration control attribute of the Barrier Integrity cornerstone and adversely affects the cornerstone objective of providing reasonable assurance that physical design barriers (fuel cladding, reactor coolant system, and containment) protect the public from radionuclide releases caused by accidents or events. In accordance with Inspection Manual Chapter 0612, Appendix B, "Issue Disposition Screening," the inspectors determined that traditional enforcement applied because this issue may have impacted the NRC’s ability to perform its regulatory function, and should be evaluated using the traditional enforcement process. The issue was classified as Severity Level IV because the violation of 10 CFR 50.59 involved conditions evaluated as having very low safety significance by the Significance Determination Process. Using Manual Chapter 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," the finding required a Phase 2 analysis because the finding represented a loss of safety system function of the safety injection system. The Phase 2 analysis determined that this finding was potentially greater than Green; therefore, a Phase 3 analysis was completed by a regional senior reactor analyst. The Phase 3 analysis determined that this issue was of very low safety significance based on the senior reactor analyst reviewing the licensee's risk estimate of the condition which concluded that the ICCDP was much less than 1.0E-7. The analyst checked portions of the licensee's analysis using the Palo Verde SPAR model, and found the licensee results to be acceptable. Therefore, the significance of the finding was determined to be very low (Green). This finding was evaluated as not having a crosscutting aspect because the performance deficiency is not indicative of current performance.
Inspection Report# : 2009003 *(pdf)*

Significance: G Mar 31, 2009
Identified By: NRC
Item Type: FIN Finding
Failure to Correct Deficient Condition for the Essential Spray Pond Chemical Addition System Valves High Failure Rate
The inspectors identified a finding for the failure of engineering and maintenance personnel to adequately implement timely corrective actions for deficiencies associated with the essential spray pond sodium hypochlorite chemical addition system. Specifically, between May 2006 and March 2009, corrective actions to replace degraded sodium hypochlorite valves with a more reliable chemical addition system were not taken resulting in the Unit 2 spray pond Train A chemistry pH level being out of specification high on two occasions. This issue was entered into the licensee’s corrective action program as Palo Verde Action Request 3277070.

The finding is more than minor because it is associated with the equipment performance 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 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 has a crosscutting aspect in the area of human performance associated with decision making because the licensee did not communicate bases for decisions to personnel with a need to know such that work is performed safely in a timely manner [H.1(c)].

Inspection Report# : 2009002 *(pdf)*

Significance: G Mar 31, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Periodically Inspect or Test, and Repair Fire Penetration Seals
The inspectors identified 5 examples of a non-cited violation of License Condition 2.C.(7), 2.C.(6), and 2.F for Unit 1, Unit 2, and Unit 3, respectively, for the failure of engineering and maintenance personnel to follow procedures to adequately inspect and repair fire penetration seals. Specifically, between 2004 and August 2008, engineering and maintenance personnel failed to inspect and repair fire penetration seals, which provide protection to safety-related equipment during fire events, resulting in the licensee declaring 4 fire penetration seals degraded and 1 non-functional. This issue was entered into the licensee's corrective action program as Palo Verde Action Request 3295124.

The finding is more than minor because it was associated with the external factors attribute (i.e. fire) of the mitigating systems cornerstone and affected the cornerstone objective of ensuring the availability and 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 require additional evaluation under Inspection Manual Chapter 0609, Appendix F, "Fire Protection Significance Determination Process." Based on the analysis performed, the inspector concluded that the degradation of the fire barrier penetration seals represented a low degradation of the fire confinement element of the fire protection program, the degraded fire barrier penetration seals had no credible fire damage state, and that the fire ignition sources present could not damage the post-fire safe shutdown equipment, and therefore determined the finding to have very low safety significance. 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 [P.1 (a)].

Inspection Report# : 2009002 *(pdf)*

Significance: G Feb 27, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Operability Evaluation for Potential Emergency Diesel Generator Slow Start Issue
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," when, on November 8, 2008, Palo Verde Nuclear Generating Station did not adequately test the emergency diesel generator to verify that a newly identified emergency diesel generator governor issue, would not cause the emergency diesel generators start time to exceed the Technical Specification allowable limit of 10 seconds. Palo Verde Nuclear Generating Station did not specify testing requirements and acceptance criteria to ensure continued operability of the affected emergency diesel generators. As an immediate corrective action, Palo Verde Nuclear Generating Station reevaluated the issue and specified additional testing requirements with specific acceptance criteria for the affected emergency diesel generators pending completion of a hardware modification that would eliminate the issue. The licensee documented this performance deficiency in Palo Verde Action Request 3280971.

The finding was more than minor because, if left uncorrected, it had the potential to lead to a more significant safety concern; specifically, that emergency diesel generator start time in excess of the Technical Specification allowable

maximum may not have been promptly identified. The finding is associated with the mitigating systems cornerstone. The finding was evaluated in accordance with Inspection Manual Chapter 0609.04, and determined to be of very low safety significance because the finding was confirmed not to result in loss of operability or functionality. The finding had a crosscutting aspect in the problem identification and resolution component of the corrective action program because Palo Verde Nuclear Generating Station did not thoroughly evaluate operability of the emergency diesel generators that remained susceptible to governor-related start time degradation [P.1.c].

Inspection Report# : 2009006 *(pdf)*

Significance: G Feb 27, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow Procedure for Screening Significant Condition Adverse to Quality
The inspectors identified a Green noncited violation of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures and Drawings,” for the licensee’s failure to follow procedures for identifying the significance of a significant condition adverse to quality. Specifically, the Action Request Review Committee screened Palo Verde Action Request 3221258 as an adverse Condition Report Disposition Request, despite the fact that the Procedure 01DP-OAP12 required it to be screened as significant. This error resulted in the failure to understand the failure mode associated with a safety related essential cooling water pump such that corrective actions would prevent recurrence. The licensee documented the failure to properly screen this issue for significance in Palo Verde Action Request 3288713.

The finding is more than minor because the finding is associated with the equipment performance attribute of the mitigating systems cornerstone, and affects the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors utilized Manual Chapter 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," to determine that the finding was of very low safety significance because it did not represent a design or qualification deficiency, did not result in a loss of safety function, or screen as a risk-significant external event. The cause of this finding is related to the problem identification and resolution crosscutting component of corrective action program, in that licensee failed to properly classify and evaluate a significant condition adverse to quality [P.1(c)].

Inspection Report# : 2009006 *(pdf)*

Significance: G Feb 27, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Perform 10 CFR 50.59 Screenings on Scaffolds Installed for Greater than 90 Days
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," when, on February 10, 2009, it was determined that 62 scaffolds that did not comply with the engineering installation specification had been in place in the three units in excess of 90 days, and that these scaffold installations had not been screened in accordance with 10 CFR 50.59, nor had these nonconforming conditions been evaluated for their potential impact on equipment operability. As immediate corrective action, Palo Verde Nuclear Generating Station informed the applicable control room operators of the 62 nonconforming conditions and operability assessments were performed under Palo Verde Action Requests 3283371, 3283489, and 3281680. Additionally, Palo Verde Nuclear Generating Station initiated Palo Verde Action Request 3283865 to perform 10 CFR 50.59 screenings on the 62 non-compliant scaffolds.

The finding was more than minor because it is associated with the mitigating systems cornerstone attribute for protection against external factors and affected the cornerstone objective of ensuring the availability and reliability of systems that respond to initiating events to prevent undesirable consequences. The finding, associated with the mitigating systems cornerstone, was evaluated in accordance with Inspection Manual Chapter 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," and determined to be of very low safety significance per the Significance Determination Process because the finding was not a design or qualification deficiency, did not represent a loss of a system/train safety function, and did not screen as potentially risk significant due to external events. The finding had a crosscutting aspect in the human performance component of resources because Palo Verde Nuclear

Generating Station did not ensure that adequate personnel were assigned to ensure that long term scaffold installations remained compliant with applicable procedural requirements [H.2.a].

Inspection Report# : 2009006 *(pdf)*

Significance: G Feb 27, 2009
Identified By: NRC
Item Type: VIO Violation
Failure to Implement Adequate Design Controls
The inspectors identified a cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the failure of engineering personnel to translate the design basis maximum condensate storage tank temperature requirements into procedures to ensure the plant is operated within its design basis. This issue was entered into the licensee's corrective action program as Palo Verde Action Requests 3289578 and 3289530.

This finding is greater than minor because it is associated with the mitigating systems cornerstone attribute of equipment performance and affected the cornerstone objective of ensuring the availability and reliability of systems that respond to initiating events to prevent undesirable consequences. Using the Inspection Manual Chapter 0609.04, "Phase 1 – Initial Screening and Characterization of Findings," the finding is determined to have very low safety significance since it only affected the mitigating systems cornerstone and did not represent a loss of system safety function. The cause of this finding had crosscutting aspects associated with corrective action component of the problem identification and resolution area in that engineering personnel failed to thoroughly evaluate problems such that resolutions ensured that the problems were resolved [P.1(c)].

Inspection Report# : 2009006 *(pdf)*

Significance: G Feb 27, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Identify and Correct Age-Related Degradation of Safety-Related Inverters
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the licensee's failure to promptly identify and correct a condition adverse to quality. Specifically, the licensee failed to incorporate industry and vendor recommended preventative maintenance requirements to prevent the age related degradation of safety-related inverter components. This finding was entered into the licensees corrective action program as Palo Verde Action Request 3291971.

The inspectors determined that the failure to identify the necessary maintenance practices and take corrective actions prior to the 2008 inverter failures was a performance deficiency. This finding is more than minor because it affects the equipment performance attribute of the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Inspection Manual Chapter 0609, "Significance Determination Process," Phase 1 worksheets, the team determined that a Phase 2 analysis was required because the finding represented a loss of system safety function. A Phase 2/Phase 3 significance determination was performed by an NRC senior reactor analyst. Based on a bounding analysis, the analyst determined that the delta core damage frequency result was less than 1.0E-7/yr. This noncited violation was therefore determined to be of very low safety significance. This finding has a crosscutting aspect in the problem identification and resolution component of operating experience, in that the licensee failed to implement operating experience through changes to station procedures [P.2(b)].

Inspection Report# : 2009006 *(pdf)*

Significance: G Feb 27, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Properly Implement Corrective Action Process for Potential Operability Issues with the Safety Related Systems and Systems Important to Safety

The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure of operations personnel to follow the corrective action program to ensure that degraded and nonconforming conditions associated with safety related systems and systems important to safety were properly reviewed for operability. Specifically, between December 21, 2006, and January 30, 2009, operations personnel failed to perform adequate operability determinations of Palo Verde Action Requests associated with the component design basis review project and other site projects, resulting in 97 Palo Verde Action Requests that either needed an immediate operability determination or a functional assessment, or needed more information to provide reasonable assurance of operability. Of the 97 examples 20 occurred following implementation of corrective actions associated with the Confirmatory Action Letter to improve this process and therefore are reflective of current performance. This issue was entered into the licensee's corrective action program as Palo Verde Action Request 3281099.

The finding is greater than minor because it is associated with the equipment performance 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 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 has a crosscutting aspect in the area of problem identification and resolution associated with the corrective action program because 9 of the 20 examples, reflective of current performance, were not thoroughly evaluated such that the resolutions address causes and extent of conditions, as necessary, including properly evaluating for operability conditions adverse to quality [P.1(c)].

Inspection Report# : 2009006 *(pdf)*

Significance: G Feb 27, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Procedures for Performing Operability Determinations
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” for the failure of operations personnel to follow the corrective action program to ensure that degraded and nonconforming conditions associated with safety related systems and systems important to safety were reviewed for operability. Specifically, between December 21, 2006 and January 30, 2009, operations personnel failed to perform adequate operability determinations of Palo Verde Action Requests associated with the component design basis review project and other site projects, resulting in 97 Palo Verde Action Requests that either needed an immediate operability determination or a functional assessment, or needed more information to provide reasonable assurance of operability. Of the 97 examples 20 occurred following implementation of corrective actions to improve this process and therefore are reflective of current performance. This issue was entered into the licensee's corrective action program as Palo Verde Action Request 3281099.

The finding is greater than minor because it is associated with the equipment performance 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 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 has a crosscutting aspect in the area of human performance associated with resources because 11 of the 20 examples, reflective of current performance, were the result of inadequate procedural guidance governing the conduct of operability determinations to ensure that conditions adverse to quality are properly evaluated for their potential operability impacts [H.2(c)].

Inspection Report# : 2009006 *(pdf)*

Significance: G Dec 31, 2008
Identified By: NRC
Item Type: FIN Finding

Failure to Promptly Identify and Correct Degraded Hydrostatic Penetration Seals
The inspectors identified a finding at Palo Verde Nuclear Generating Station Procedure 01DP-0AP10, "Corrective Action Program," Revision 1, for the failure of operations and engineering personnel to promptly identify and correct a condition adverse to quality. Specifically, between February 13, 2007 and July 18, 2008, operations and engineering personnel failed to identify and correct degraded hydrostatic flood penetration seals which provide protection to safety-related equipment during internal flooding events. This resulted in over 100 hydrostatic penetration seals in the control, diesel, and main steam support structure buildings being left degraded for greater than 12 months. This issue was entered into the licensee's corrective action program as Palo Verde Action Request 3264501.

The finding is greater than minor because it is associated with the protection against external factors (i.e. flood hazard) attribute of the mitigating systems cornerstone and affects 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 has a crosscutting aspect in the area of problem identification and resolution associated with operating experience because operations and engineering personnel failed to implement and institutionalize operating experience through changes to station processes, procedures, equipment, and training programs [P.2(b)].

Inspection Report# : 2008005 *(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 Mar 13, 2009
Identified By: NRC
Item Type: FIN Finding

Assessment of PVNGS Corrective Action Program
The team concluded that the implementation of the corrective action program at the Palo Verde Nuclear Generating Station was generally effective. Once entered into the system, items were screened and prioritized in a timely manner using established criteria. The station properly evaluated items entered into the corrective action program commensurate with their safety significance. Corrective actions addressed the identified causes. The team selected and reviewed approximately 350 risk-informed action requests, work orders, associated root and apparent cause evaluations, and other supporting documentation to assess problem identification and resolution activities. The inspectors verified that the licensee had taken actions to address previous NRC findings. The team performed a five year review of the diesel generator performance and a focused review of inverter systems to determine whether problems were being effectively addressed and that the corrective action program was effective in identifying problems. As a result of these reviews, the team concluded that when site personnel identified problems, they entered them into the corrective action program at a low threshold; however, the team identified several issues with the quality of evaluations and linking of corrective action documents. Corrective actions were generally implemented in a timely manner, although the team identified several corrective actions associated with conditions adverse to quality that were not completed in a timely manner. The team also identified that operability assessments and reportability reviews were not being implemented consistent with procedural guidance and, although the equipment remained operable, many of these assessments did not demonstrate the appropriate level of technical rigor to support conclusions made for operability.

The team determined that in most cases the licensee identified, reviewed, and applied industry operating experience relevant to the facility, and had entered applicable items into the corrective action program. The team noted that the licensee was evaluating industry operating experience when performing root cause and apparent cause evaluations. The team also noted that Quality Assurance audits and other self-assessment activities were generally effective.

Based on 34 interviews conducted during this inspection, observations of plant activities, and reviews of the corrective action and nuclear safety concerns programs, the team determined that site personnel were willing to raise safety issues and document them in the corrective action program. The team observed that workers at the site felt free to report problems to their management, and were willing to use the Employee Concerns Program.

Inspection Report# : 2009006 *(pdf)*

Last modified : December 10, 2009