Palo Verde 1
4Q/2015 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G Jun 30, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Verify the Design of the Essential Spray Pond System Crosstie Valves
The inspectors identified a Green noncited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, involving the failure to maintain adequate design control measures associated with the ultimate heat sink. Specifically, the essential spray pond crosstie valves did not meet design requirements established in Regulatory Guide 1.117, "Tornado Design Classification," as described in the Updated Final Safety Analysis Report. If the crosstie valves were damaged by a tornado, the licensee would not have enough available water inventory to meet the mission time of the essential spray pond system during accident conditions. The licensee has added steps to their emergency operating procedure to instruct operators to open the crosstie valves during the initial response to a loss of coolant accident and is evaluating potential plant modifications. The licensee has entered this issue into the corrective action program as Palo Verde Action Request 4633058.

The failure to verify the design of the essential spray pond system in accordance with Regulatory Guide 1.117 was a performance deficiency. The inspectors determined that this performance deficiency was more than minor because it affected the protection against external factors attribute of the Mitigating Systems Cornerstone objective of ensuring the capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, if the crosstie valves were damaged by a tornado, the licensee would not have enough available water inventory to meet the mission time for one train of the essential spray pond system during accident conditions. The inspectors performed the initial significance determination for the performance deficiency using NRC Inspection Manual 0609, Appendix A, Exhibit 2, "Mitigating System Screening Questions," dated July 1, 2012. The finding required a detailed risk evaluation because it involved the potential loss of a safety system. Specifically, after at least 13 days of spray pond operation, operators were required to open the spray pond cross-connect valve to enable one train of the ultimate heat sink to use both trains of spray pond inventory. A Region IV senior reactor analyst performed a detailed risk evaluation. The design basis accident mission time was 30 days. However, the probabilistic risk assessment mission time was only 24 hours. Since the spray ponds could still perform the probabilistic risk assessment function for the probabilistic risk assessment mission time, this finding was of very low safety significance (Green). The change to the core damage frequency was much less than 1E 7/year. The finding did not contribute to the large early release frequency. Because the most likely cause of the finding does not reflect current licensee performance, no cross-cutting aspect is assigned to this finding.

Inspection Report# : 2015002 *(pdf)*

Significance: G Mar 31, 2015
Identified By: NRC

Item Type: NCV Non-Cited Violation
Failure to conduct required in-service testing in accordance with ASME OM Code
The inspectors identified a Green, non-cited violation of Palo Verde Technical Specification 5.5.8 “Inservice Testing Program” which requires the in-service testing of ASME Code Class 1, 2, and 3 components in accordance with the ASME Code for Operation and Maintenance of Nuclear Power Plants (OM Code) 2001 Edition with Addenda through 2003. On April 26, 2013, the licensee did not test Unit 1 train A shutdown cooling isolation valve SIA-UV-651, an ASME Code Class 1 valve, in accordance with ASME OM Code Section ISTC-3310.The licensee entered this issue into the corrective action program as Palo Verde Action Request 4398843.
The failure to complete ASME OM Code required in-service testing on a Class 1 motor operated valve is a performance deficiency. This performance deficiency is more than minor, and therefore is a finding, because it affected the equipment performance attribute of the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events. Specifically, by not performing the required testing, the licensee did not maintain the requisite level of assurance of the equipment’s capability of performing its intended function. Using Inspection Manual Chapter 0609 Appendix A, Exhibit 2, “Mitigating Systems Screening Questions,” the inspectors determined that the finding was of very low safety significance (Green) because the condition was not a design or qualification deficiency, did not involve an actual loss of safety function for greater than its technical specification allowed outage time, and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. Because the most-significant contributor to the finding was that Individuals and work groups communicate and coordinate their activities within and across organizational boundaries to ensure nuclear safety is maintained, the finding has a cross-cutting aspect in the Human Performance area and the aspect of Teamwork (H.4).
Inspection Report# : 2015001 *(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the cover letters to security inspection reports

may be viewed.

Miscellaneous

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