

Palo Verde 2

1Q/2004 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance:  Dec 31, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Implement Surveillance Requirement 3.5.3.8

Green. The inspectors identified a noncited violation for the licensee's failure to implement Surveillance Requirement 3.5.3.8 for all three units. The licensee failed to identify and remove debris in Trains A and B emergency core cooling system sumps during their last performance of Procedure 31ST-SI01, "Cleaning/Inspection of ECCS Sumps," Revision 7. Specifically, the licensee failed to identify unqualified tie-wraps that were attached to the stem of the containment sump suction valves inside the emergency core cooling system sumps.

This finding is greater than minor, since it affected the mitigating system cornerstone objective of equipment reliability because the debris could have affected containment spray pump flow by clogging spray nozzles. The finding is of very low safety significance because the amount of debris would have only degraded containment spray pump flow during a potential large break loss of coolant accident, but the safety function would have been fulfilled based on the small amount of debris.

Inspection Report# : [2003005\(pdf\)](#)

Significance:  Dec 31, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

Improper Design Control Results in Unscreened 1-inch Hole in Emergency Core Cooling Sump Cover

Green. The inspectors identified a noncited violation related to 10 CFR Part 50, Criterion III, "Design Control." This violation is related to having an unscreened hole in each emergency core cooling system train's sump covers. These 1-inch holes were greater than the 1/8-inch gaps allowed by the emergency core cooling system sump design.

This finding is greater than minor because it affected the mitigating system cornerstone objective of equipment reliability by not assuring that the sump structure would filter out all debris greater than 3/16-inch diameter. The finding is of very low safety significance because the location of these holes were not in the design flowpath for water into the emergency core cooling system sump, which would have limited the amount of debris introduced into the system.

Inspection Report# : [2003005\(pdf\)](#)

Barrier Integrity

Significance:  Dec 31, 2003

Identified By: NRC

Item Type: FIN Finding

FAILURE TO USE A CONSERVATIVE METHOD TO CALCULATE REACTOR COOLANT SYSTEM HEAT LOSSES FOR POSTMODIFICATION TESTING

Green. Proposed postmodification testing to determine the new heat losses to ambient term used in reactor thermal power calculations was inappropriate because it would have resulted in a nonconservative bias. Changes to the reactor coolant system components and new insulation were expected to cause a change in heat lost from the reactor coolant system. The licensee's software for calculating reactor thermal power included a constant term used to account for the reactor power lost in this way. The licensee planned to determine the new heat loss term by measuring it with the plant shutdown at the no-load operating temperature, and then applying it to all power levels. The proposed test would

measure a lower heat loss term than would be present at full load power and temperatures, introducing a nonconservative bias in the calculated reactor power. The licensee estimated that the bias was expected to be about 0.3 MWth (.01 percent power). Since the output of this calculation was used to calibrate nuclear instrument reactor power and turbine power instruments, this bias would have caused a similar effect in these instruments.

The safety significance of the proposed testing being nonconservative was very low, since the licensee planned to account for this condition prior to the implementation of the plant changes. This issue affected the Barrier Integrity Cornerstone objective for design control in maintaining fuel integrity. It was more than minor because if left uncorrected, it would be more significant because the licensee could inadvertently operate Unit 2 above its maximum licensed power level.

Inspection Report# : [2003009\(pdf\)](#)

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Miscellaneous

Last modified : May 05, 2004