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Palo Verde 1 – Quarterly Plant Inspection Findings

4Q/2017 – Plant Inspection Findings

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Initiating Events

Mitigating Systems

Significance: G Apr 06, 2017

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Analyze Shutdown Cooling and Feedwater Lines for High-Energy Line Break Pipe Whip Effects

The team identified a Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," which states, in part, "Measures shall be established to assure that applicable regulatory requirements and the design basis, as defined in § 50.2 and as specified in the license application, for those structures, systems, and components to which this appendix applies are correctly translated into specifications, drawings, procedures, and instructions." Specifically, from August 11, 1982, to March 3, 2017, the licensee did not analyze dynamic pipe whip effects of a main feedwater line for a high-energy line break of a shutdown cooling line. In response to this issue, the licensee performed immediate and prompt operability evaluations and determined that the piping systems remained operable and could withstand the effects of a high-energy line break. This finding was entered into the licensee's corrective action program as Condition Report CR-17-02815.

The team determined that the failure to perform an adequate analysis for shutdown cooling and feedwater lines for high-energy line break pipe whip effects was a performance deficiency. This finding was more-than-minor because it was associated with the design control attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the failure to analyze the main feedwater piping for high-energy line break effects called the operability of the piping system into question. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," dated June 19, 2012,

Exhibit 2, "Mitigating Systems Screening Questions," the issue screened as having very low safety significance (Green) because it was a design or qualification deficiency that did not represent a loss of operability or functionality; did not represent an actual loss of safety function of the system or train; did not result in the loss of one or more trains of non-technical specification equipment; and did not screen as potentially risk significant due to seismic, flooding, or severe weather. The team determined that this finding did not have a cross-cutting aspect because the most significant contributor to the performance deficiency did not reflect current licensee performance. Specifically, the licensee performed the calculation in 1982 and revised it in 1991; therefore, the performance deficiency occurred outside of the nominal three-year period for "present performance."

Inspection Report# : 2017007 (*pdf*)

Barrier Integrity

Significance: G Aug 08, 2017

Identified By: NRC

Item Type: NCV Non-Cited Violation

Inoperable Containment Isolation Valve Due to Not Operating Valve in Accordance with Station Procedures

The inspectors reviewed a Green self-revealing non-cited violation of Technical Specification 3.6.3 Condition C for exceeding the allowed outage time of 4 hours to isolate the flow path of an inoperable containment isolation valve. Specifically, Unit 1 containment isolation valve SG-1134 was inoperable from June 28, 2016, to September 21, 2016, due to improper restoration from planned maintenance. The licensee entered this condition in their corrective action program and performed a Level 2 cause analysis under Condition Report 16-14896. The licensee also undertook immediate actions to restore the valve from the neutral position and remotely stroke the valve per procedure.

The inspectors concluded the failure to restore Unit 1 containment isolation valve SG-1134 from maintenance in accordance with station procedures was a performance deficiency. The performance deficiency was more-than-minor and a finding because it is associated with the configuration control attribute of maintaining functionality of containment under the Barrier Integrity cornerstone which affects the cornerstone objective to provide reasonable assurance that physical design barriers will protect the public from radionuclide releases caused by accidents or events. Specifically, the inoperability of this containment isolation valve allowed the potential of a radioactive release during a design basis accident. The inspectors performed the initial significance determination using NRC Inspection Manual Chapter 0609, Appendix H, "Containment Integrity Significance Determination Process," Issue Date: 05/06/04. Section 4.1 determined this to be a Type B finding since the degraded condition did not affect the likelihood of core damage. Table 4.1 shows that containment isolation valves in lines connecting reactor coolant systems to environments with small lines would not contribute to large early release frequency. Since valve SG-1134 is a small (one-inch) valve, this finding screened to Green using the flow chart in Figure 4.1 "LERF-based Significance Determination Process." This finding has a cross-cutting aspect in the area of human performance associated with the documentation component. Specifically, the licensee failed to provide a work package that was complete, thorough, accurate, and current in accordance with station procedure 40OP-09OP01, "Operation of Air Operated Valves," when returning SG-1134 to its normal operating condition following maintenance. As a result, the valve handwheel was left out of neutral, thereby preventing remote operation.

Inspection Report# : 2017002 (*pdf*)

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Security

The security cornerstone is an important component of the ROP, which includes various security inspection activities the NRC uses to verify licensee compliance with Commission regulations and thus ensure public health and safety. The

Commission determined in the staff requirements memorandum (SRM) for SECY-04-0191, "Withholding Sensitive Unclassified Information Concerning Nuclear Power Reactors from Public Disclosure," dated November 9, 2004, that specific information related to findings and performance indicators associated with the security cornerstone will not be publicly available to ensure that security-related information is not provided to a possible adversary. Security inspection report cover letters will be available on the NRC Web site; however, security-related information on the details of inspection finding(s) will not be displayed.

Miscellaneous

Current data as of : February 01, 2018

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