

## Surry 2

# 2Q/2014 Plant Inspection Findings

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## Initiating Events

**Significance:** G Jun 30, 2014

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

### **Inadequate Amount of Packing in Pressurizer Spray Valve**

A self-revealing NCV of Surry Technical Specification (TS) 6.4.A.7 was identified because 2-RC-PCV-2455A, the Unit 2 “A” pressurizer (PZR) spray valve’s packing gland was repacked with the incorrect number of packing rings in May, 2008. When the Unit 2 “A” PZR spray valve bellows failed in March 2014, the amount of packing in the valve was insufficient to prevent packing leakage. This leakage approached the technical specification (TS) allowable unidentified reactor coolant system (RCS) leak rate on March 19, 2014, and subsequently required an unplanned unit shutdown. The issue was documented in Surry’s corrective action program (CAP) as CR 542547.

The failure of the licensee’s packing control program to list the correct number of packing rings in the “packing control form” for the repack of 2-RC-PCV-2455A, the Unit 2 “A” PZR spray valve, was a performance deficiency that was within the licensee’s ability to foresee and correct. Specifically, the licensee did not thoroughly evaluate decreasing the number of packing rings from five to four when packing control was shifted from the PZR safety valve overhaul procedure to the licensee’s “Packing Control Program.” As a consequence of the inadequate number of packing rings, the Unit 2 “A” PZR spray valve experienced a packing leak that approached the TS allowable unidentified RCS leak rate on March 19, 2014, which subsequently required an unplanned shutdown of Unit 2. The inspectors determined that the performance deficiency was more than minor because it was associated with the procedural quality attribute of the Initiating Events Cornerstone and adversely affected the cornerstone objective to limit the likelihood of events that upset stability and challenge critical safety functions during shutdown as well as power operations. Specifically, an incorrect number of packing rings listed on the packing control form eventually allowed packing leakage to approach the TS limit. Using Manual Chapter 0609.04, “Initial Characterization of Findings,” Table 2, dated June 19, 2012; the finding was determined to affect the Initiating Events Cornerstone. The inspectors screened the finding using Manual Chapter 0609, Appendix A, “Significance Determination Process (SDP) for Findings at-Power” dated June 19, 2012, and determined that it screened as Green because the deficiency did not cause a loss of mitigation equipment relied upon to transition the plant to a stable shutdown condition. Because the PD occurred outside of the nominal three-year period for “present performance”, no cross-cutting aspect has been assigned. (Section 1R12)

Inspection Report# : [2014003](#) (*pdf*)

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## Mitigating Systems

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## Barrier Integrity

## Emergency Preparedness

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## Occupational Radiation Safety

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## Public Radiation Safety

**Significance:**  Dec 31, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Maintain Control of Licensed Radioactive Material that was not in Storage**

A self-revealing non-cited violation of 10 CFR 20.1802, “Control of Material not in Storage”, was identified for the licensee’s failure to maintain control and constant surveillance of licensed radioactive material in a controlled or unrestricted area (Health Physics (HP) technical services area of the administration building) that was not in storage. The material that was initially unaccounted for was an Americium-241 check source with an activity of 0.02 micro-Curies, used to perform routine function checks on iSolo alpha/beta counter. The issued was documented in the licensee’s corrective action program (CAP) as condition report (CR) 523692.

The licensee’s failure to control and maintain constant surveillance of licensed material that is in a controlled or unrestricted area and that is not in storage was a performance deficiency (PD). The PD was more than minor because it was associated with the Program and Process attribute of the Public Radiation Safety Cornerstone and affected the cornerstone objective of ensuring adequate protection of public health and safety from exposure to radioactive materials released into the public domain. Using Manual Chapter 0609, Appendix D, “Public Radiation Safety SDP,” this finding determined to be was of very low safety significance (Green) in that the public radiation exposure was not greater than 0.005 rem (5 millirem). The inspectors determined that cross-cutting issue H.4(b), “The licensee defines and effectively communicates expectations regarding procedural compliance and personnel follow procedures,” was applicable for this violation because the radiation protection (RP) technician had failed to follow procedure HP-1033.148, “Canberra iSolo: Performance Checks”, step 6.4.3 which states: “Ensure check source is removed from Canberra iSolo and returned to designated storage location”. (Section 2RS8

Inspection Report# : [2013005](#) (*pdf*)

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## 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.

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## Miscellaneous

**Significance:** N/A Jul 26, 2013

Identified By: NRC

Item Type: FIN Finding

### Identification and Resolution of Problems

The inspection team concluded that, in general, problems were adequately identified, prioritized, and evaluated; and effective corrective actions were implemented. Site management was actively involved in the corrective action program (CAP) and focused appropriate attention on significant plant issues. The team found that employees were encouraged by management to initiate condition reports (CRs) as appropriate to address plant issues.

The licensee was effective at identifying problems and entering them into the CAP for resolution, as evidenced by the relatively few deficiencies identified by the NRC that had not been previously identified by the licensee during the review period. The threshold for initiating CRs was appropriately low, as evidenced by the type of problems identified and large number of CRs entered annually into the CAP. In addition, CRs normally provided complete and accurate characterization of the problem.

Generally, prioritization and evaluation of issues were adequate and consistent with the licensee's CAP guidance. Formal root cause evaluations for significant problems were adequate, and corrective actions specified for problems did address the cause of the problems. The age and extensions for completing evaluations were closely monitored by plant management, both for high priority condition reports, as well as for adverse conditions of less significant priority. Also, the technical adequacy and depth of evaluations (e.g., root cause investigations) were typically adequate.

Corrective actions were generally effective, timely, and commensurate with the safety significance of the issues. The operating experience program was effective in screening operating experience for applicability to the plant, entering items determined to be applicable into the CAP, and taking adequate corrective actions to address the issues. External and internal operating experience was adequately utilized and considered as part of formal root cause evaluations for supporting the development of lessons learned and corrective actions for CAP issues. The licensee's audits and self-assessments were critical and effective in identifying issues and entering them into the corrective action program. These audits and assessments identified issues similar to those identified by the NRC with respect to the effectiveness of the CAP.

Based on general discussions with licensee employees during the inspection, targeted interviews with plant personnel, and reviews of selected employee concerns records, the inspectors determined that personnel at the site felt free to raise safety concerns to management and use the CAP as well as the employee concerns program to resolve those concerns.

Inspection Report# : [2013007](#) (*pdf*)

Last modified : August 29, 2014