Comanche Peak 2
1Q/2003 Plant Inspection Findings

Initiating Events

Significance: G Oct 07, 2002
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Inadequate Procedure to Test Lockout Relay in 345 kV Switchyard Resulted in Loss of Shutdown Cooling
An inadequate maintenance procedure for testing the lockout relays on the East bus in the 345 kV switchyard resulted in the loss of residual heat removal shutdown cooling. The procedure failed to state that actuation of a relay would cause loss of power to both Unit 1 safety related 6.9 kV buses. A self-revealing non-cited violation of Technical Specification 5.4.1.a was identified. The finding is greater than minor in that it was associated with the procedure quality attribute of the initiating events cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during a shutdown. The finding is of very low safety significance because reactor cavity level was greater than 23 feet above the reactor vessel flange and residual heat removal cooling was recovered within 8 minutes.
Inspection Report# : 2002005*(pdf)*

Mitigating Systems

Significance: G Dec 06, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to test interlock circuits for residual heat removal system cross-tie valves
The inspectors identified one finding, which was a violation of NRC regulatory requirements. The inspectors found that the licensee had failed to fully and routinely test the control circuits for the residual heat removal system crosstie valves (two per unit), which are opened from the control room to provide suction to the charging and safety injection pumps during intermediate pressure cold leg recirculation following a loss-of-coolant accident. During the inspection, to address the inspectors' concerns, the licensee performed special tests, which revealed that a limit switch for one interlock for a Unit 1 valve failed to close as required, and wiring connections for another interlock on a Unit 2 valve were loose. The licensee determined that the remaining parts of the degraded interlock circuits were intact, and concluded that these as-found conditions would not have prevented the operator from opening the valves for the recirculation mode. Despite the problems encountered, the system and its trains would have performed their safety function with the proper valve line up. The inspectors concluded that failure to routinely test these circuits and detect these failures was a noncited violation of 10 CFR Part 50, Appendix B, Criterion XI, Test Control. Criterion XI requires a licensee establish a test program to assure identification and performance of all testing required to demonstrate that systems and components will perform satisfactorily in service. The inspectors considered the finding greater than minor because the lack of testing affected the reliability of a mitigating system. The inspectors considered the risk significance to be green because there was not an actual loss of a train of risk significant equipment. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy (50-445;446/0208-01). This violation is in the licensee's corrective action program as SmartForms 2002-004158, 2002-

004227, and 2002-004228.
Inspection Report# : 2002008*(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Significance: G Apr 12, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to inform workers of the radiological conditions in their work area
Between April 8-11, 2002, an NRC inspector identified approximately 10 workers assigned to different areas of the radiologically controlled area who were not informed of the radiological conditions in their work area. The failure to inform workers of the radiological conditions in their work area is a violation of 10 CFR 19.12(a). This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as SMF 2002-1272. The safety significance of this finding was determined to be very low by the Occupational Radiation Safety Significance Determination Process because there was no overexposure or substantial potential for an overexposure and the ability to assess dose was not compromised. The issue was more than minor because the failure to inform a worker of the radiological conditions in an assigned work area has a credible impact on safety and the occurrence had the potential to involve a worker's unplanned dose if radiological conditions had been significantly greater.
Inspection Report# : 2002002*(pdf)*

Significance: G Apr 12, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to assign dose to the highest whole body receptor
An NRC inspector determined that the licensee failed to monitor and assign the deep-dose equivalent to the part of the whole body exposed to the highest radiation field during reactor head disassembly work on April 2, 2002. The failure to account for the highest whole body exposure is a violation of 10 CFR 20.1201(c). This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as SMF 2002-1332. The safety significance of this finding was determined to be very low by the Occupational Radiation Safety Significance Determination Process because there was no overexposure or substantial potential for an overexposure and the ability to assess dose was not compromised. The issue was more than minor because a failure to assign exposure to the part of the whole body receiving the highest exposure has a credible impact on safety and the occurrence had the potential to involve a worker's unplanned dose if radiation levels had been significantly greater.
Inspection Report# : 2002002*(pdf)*

Significance: G Apr 10, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to follow radiation work permit requirements
On April 10, 2002, an NRC inspector observed that a radiation protection technician did not stop work when radiological airborne conditions exceeded 1.0 Derived Air Concentration (DAC). Radiation Work Permit (RWP) 2002-2223 Task 2, Revision 1, used to perform this task stated, in part, "if airborne activity levels exceed 1.0 DAC stop work." The failure to follow radiation work permit requirements is a violation of Technical Specification 5.4.1.a. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as SMF 2002-1330. The safety significance of this finding was determined to be very low by the Occupational Radiation Safety Significance Determination Process because there was no overexposure or substantial potential for an overexposure and the ability to assess dose was not compromised. The issue was more than minor because a failure to follow the RWP radiological requirements has a credible impact on safety and the occurrence had the potential to involve a worker's unplanned dose if radiological conditions had been significantly greater.
Inspection Report# : 2002002*(pdf)*

Public Radiation Safety

Significance: G Dec 13, 2002
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Failure to properly classify a radioactive material shipment package as Surface Contaminated Object-II.
A self-revealing non-cited violation of 49 CFR 173.421 was identified because the licensee failed to properly classify a shipment package as Surface Contaminated Object (SCO)-II, Schedule 8. On May 1, 2002, box number 300125 included in Radioactive Material Shipment 2002-0039 was classified by the licensee as limited quantity based on a maximum exterior surface dose rate of 0.4 millirem per hour measured prior to shipment. However, on May 9, 2002, receipt surveys performed by Westinghouse personnel showed that the maximum dose rate on the exterior surface of the box was 2.4 millirem per hour, which exceeded the 0.5 millirem per hour limit for a limited quantity package. The team determined that this issue was self-revealing rather than licensee identified because the issue was identified during receipt surveys by the recipient of the radioactive materials shipment. The failure to properly classify box number 300125 as SCO-II was a performance deficiency. The finding was determined to be more than minor because it was associated with one of the Public Radiation Safety cornerstone attributes (Transportation Program) and affected the associated cornerstone objective. Using the Public Radiation Safety Significance Determination Process, the team determined the finding had very low safety significance because radiation limits for SCO-II were not exceeded, the package was not breached during transit, no certificate-of-compliance problem was involved, there was no low level burial ground nonconformance, and the licensee did not fail to make notifications. This violation is being treated as a non-cited violation consistent with Section VI.A.1 of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Smart Form SMF-2002-001873.
Inspection Report# : 2002010*(pdf)*

Significance: G Dec 13, 2002
Identified By: Self Disclosing
Item Type: NCV NonCited Violation

Failure to control detectable licensed radioactive material.
A self-revealing non-cited violation of Technical Specification 5.4.1a was identified because the licensee did not prevent the release of detectable licensed radioactive material from the radiologically controlled area. Specifically, Procedure RPI-213, "Survey and Release of Material and Personnel," Revision 8, Section 4.2.1, states, in part, that the criteria for unconditional release from an Radiologically Controlled Area is no detectable activity. However, on November 12, 2002, a contract worker was discovered with radioactive material on his lanyard during an in-processing whole body count at another licensee's facility. The individual last worked at Comanche Peak Steam Electric Station. The team determined that this example was self-revealing rather than licensee identified because the example was found by another licensee. The failure to properly control detectable licensed radioactive material is a performance deficiency. The finding was more than minor because it was associated with one of the Public Radiation Safety cornerstone attributes (Material Release Program) and affected the associated cornerstone objective. Using the Public Radiation Safety Significance Determination Process, the team determined the finding had very low safety significance because there were not more than 5 occurrences and the exposure associated with each item was less than 5 millirem. This violation is being treated as a non-cited violation consistent with Section VI.A.1 of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Smart Form SMF-2002-3975.
Inspection Report# : 2002010*(pdf)*

Significance: N/A Apr 25, 2002
Identified By: NRC
Item Type: FIN Finding
Supplemental Inspection Results
A supplemental inspection was performed by the NRC to assess the licensee's evaluation of the control of radioactive material. A finding previously characterized as having low to moderate safety significance (White) was documented in the Final Significance Determination for NRC Inspection Report 50-445/01-07; 50-446/01-07. During this supplemental inspection performed in accordance with Inspection Procedure 95001, the inspector determined that the licensee performed a thorough, broad-based evaluation of the causes of the radioactive material control issue and correctly identified the extent of the conditions that led to the control problems. The licensee's evaluation identified 17 root causes. Corrective actions included: (1) conducting a pre-outage stand-down with all station work groups to discuss the past associated problems and the importance for control of radioactive material; (2) procedural revisions that clarified radioactive material control expectations and identification programs; (3) improved Radiation Worker Training lesson plans that stressed the need for and the controls in-place for handling radioactive material; and, (4) increased staffing for monitoring and controlling the release of radioactive material during outages. An effectiveness evaluation of radiation protection activities, to include the control of radioactive material, will be documented in Nuclear Oversight Department Evaluation 2002-015, at the completion of refueling outage 2RFO6. Because of the licensee's acceptable performance in addressing the control of radioactive material, the White finding associated with this issue will only be considered in assessing plant performance for a total of four quarters, in accordance with the guidance in IMC 0305, "Operating Reactor Assessment Program."
Inspection Report# : 2002007*(pdf)*

Physical Protection

Miscellaneous

Last modified : May 30, 2003