Comanche Peak 1
4Q/2007 Plant Inspection Findings

Initiating Events

Significance: G Sep 25, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to appropriately secure adjustment set screw resulted in RHR valve failure.
The team identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, for failure to provide work instructions or procedures appropriate to the circumstances. Specifically, Work Order 3-05-333517-01 and Procedure INC-2085, “Rework and Replacement of I&C [Instrumentation and Control] Equipment,” Revision, 3, directed the replacement of the positioner for Valve 1-HCV-0607, but did not contain appropriate instructions for applying loctite or other measures to ensure the adjustment screw remained securely in place, despite operational experience in 1999, that indicated this action was necessary. As a result Valve 1-HCV-0607 failed to operate when called upon.

When operators attempted to place the Train B residual heat removal system in service, Valve 1-HCV-0607, the Train B residual heat removal heat exchanger outlet valve would not open because the Bailey Type AV1 positioner had malfunctioned. The pilot valve stem adjustment screw (that had been replaced during a recent outage) became loose and repositioned such that it prevented the valve from stroking open. The licensee had received and reviewed 1999 operating experience information that a loose pilot valve adjustment screw was determined to be the main cause of a Bailey positioner failure that led to a reactor trip at another facility. However, the team determined that the licensee had not taken appropriate action to prevent such failures at Comanche Peak Steam Electric Station, resulting in the failure of Valve 1-HCV-0607 when called upon.

The team determined that the failure of the licensee to adequately implement operating experience into maintenance procedures was a performance deficiency. The performance deficiency had plant impact because it caused a loss of one train of a safety function (residual heat removal). The finding was determined to be more than minor because it is associated with the equipment performance attribute for assuring availability and reliability and affected the initiating events cornerstone to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown operations. Using Appendix G, “Shutdown Operations Significance Determination Process,” Checklist 2, of Manual Chapter 0609, “Significance Determination Process,” the significance of the finding was determined to be Green, very low safety significance, because one train of residual heat removal was operable and at least two steam generators were available for decay heat removal.
Inspection Report# : 2007007 *(pdf)*

Significance: G Jun 22, 2007
Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate restoration following valve maintenance
The inspectors reviewed a self-revealing finding for the inadequate restoration from valve maintenance which resulted in a manual turbine runback. On November 30, 2006, while Unit 1 was at 100 percent power, the 2A Feedwater Heater Normal Level Control Valve 1-LV-2509 failed closed. Operators initially ran the turbine back to 1100 MWe, but eventually reduced load to 700 MWe due to main feedwater pump suction oscillations. The root cause of the event was determined to be inadequate maintenance work practices upon restoration from maintenance on the level control valve.

The finding is more than minor because it is related to the human performance attribute and affected the initiating event cornerstone objective to limit the likelihood of those events that upset plant stability during power operations. The finding was determined to have a very low risk significance (Green) because it did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available.
Inspection Report# : 2007003 *(pdf)*

Mitigating Systems

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Significance: G Jun 22, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Evaluate Radiological Hazards
The inspectors reviewed a self-revealing noncited violation of 10CFR20.1501(a) for the failure to adequately evaluate radiological conditions in a work area. While performing maintenance on proximity switch cable sleeves on an assembly from the spent fuel pool up-ender, one worker was exposed to concentrations of airborne radioactivity higher than anticipated, resulting in the internal contamination and unplanned dose to the individual. A committed effective dose equivalent of 27 millirem was assigned to the individual. Additionally, after the initial alarm of the airborne activity monitor, a contamination survey of the work area was not performed to evaluate conditions prior to resuming work.

The finding is more than minor because it is associated with the occupational radiation safety attribute of program and process and affected the cornerstone objective because it involves unplanned and unintended dose to a worker. Using the Occupational Radiation Safety Significance Determination Process, the inspectors determined that the finding was of very low safety significance because: (1) it was not an ALARA finding, (2) there was no overexposure, (3) there was no substantial potential for an overexposure, and (4) the ability to assess dose was not compromised. In addition, this finding has a cross-cutting aspect in the area of human performance associated with work control because the licensee failed to appropriately coordinate work activities by incorporating actions to keep personnel apprised of conditions at the job site which impacted radiological safety (H.3(b)).
Inspection Report# : 2007003 *(pdf)*

Significance: G Jun 22, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Provide a Detailed Work Plan
The inspectors identified a noncited violation of Technical Specification 5.4.1.a for the failure to develop an adequately detailed work plan for the maintenance of proximity switch sleeves which resulted in the internal contamination of one individual. Specifically, the licensee did not provide adequately detailed work instructions in the work order to allow the ALARA planners to develop an adequate Radiation Work Permit and radiological controls for the maintenance evolution.

The finding is more than minor because it is associated with the occupational radiation safety attribute of program and process and affected the cornerstone objective because it involves unplanned and unintended dose to a worker. Using the Occupational Radiation Safety Significance Determination Process, the inspectors determined that the finding was of very low safety significance because: (1) it was an ALARA work planning finding, (2) the 3-year rolling average collective dose is less than 135 person-rem/unit. In addition, this finding has a cross-cutting aspect in the area of human performance associated with work control because the licensee failed to appropriately plan work activities by

incorporating job site conditions which may impact radiological safety (H.3(a)).
Inspection Report# : 2007003 *(pdf)*

Public Radiation Safety

Physical Protection

Although the NRC is actively overseeing the Security cornerstone, the Commission has decided that certain findings pertaining to security cornerstone will not be publicly available to ensure that potentially useful information is not provided to a possible adversary. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Significance: N/A Sep 25, 2007
Identified By: NRC
Item Type: FIN Finding
Problem Identification and Resolution Team Inspection Results
The team reviewed approximately 189 risk significant issues, apparent and root cause analyses, and other related documents, to assess the effectiveness of the licensee's problem identification and resolution processes and systems. The team concluded that the licensee's management systems were effective, although seven examples occurred during the assessment period of failure to implement appropriate and timely corrective actions. Overall, corrective actions were appropriate to the circumstances. The licensee implemented an effective program for evaluating operational experience, although the team identified one example where ineffective use of operating experience led to a valve becoming inoperable.

The team concluded that the licensee maintained an overall safety-conscious work environment. However, based on interviews, concerns with trust in management and the ability to raise issues above direct supervision existed within the security force. A majority of security officers interviewed stated that although they would issue smart forms or inform their direct supervision with concerns, they would be hesitant to elevate issues. Individuals interviewed (outside of the security organization) were comfortable raising safety issues and elevating them to appropriate levels of management as necessary. The team concluded that the employee concerns program (SafeTeam) effectively resolved safety issues raised by plant and contract personnel. Plant personnel interviewed generally considered the employee concerns program a viable option to pursue safety issues. However, the majority of security force personnel interviewed lacked confidence in the SafeTeam's ability to resolve issues or maintain confidentiality.

The licensee overall performed effective and critical self-assessments. However, a licensee contract employee safety culture survey performed during this assessment period failed to identify the above concerns within the security force. Licensee management stated that a new safety culture survey was planned (with emphasis on ensuring a representative sample within the security force) for the fall of 2007.
Inspection Report# : 2007007 *(pdf)*

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