

# Comanche Peak 2

## 2Q/2009 Plant Inspection Findings

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### Initiating Events

**Significance:**  Mar 21, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Follow Procedure Causes Unplanned Load Change**

A self-revealing noncited violation of Technical Specification 5.4.1.a was identified for the failure of operators to follow procedural requirements when reducing turbine load. As a result, operators transposed two digits and inadvertently reduced turbine load from 1273.7 megawatts to 1237.5 megawatts instead of 1273.5 megawatts. In response to the transient, the control rods automatically inserted approximately 17 steps to maintain programmed reactor coolant system temperature. The licensee entered the finding into their corrective action program as Smart Form SMF 2009 000028.

The finding was more than minor because it was associated with the human performance attribute of the initiating events cornerstone, and directly affected the cornerstone objective to limit the likelihood of those events that upset plant stability during power operations. Using Manual Chapter 0609, Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," the finding was determined to have very low safety significance (Green) because it did not contribute to the likelihood of mitigating equipment being unavailable. The cause of the finding was related to the Human Performance crosscutting component of work practices for the failure to use self and peer checking techniques.

Inspection Report# : [2009002](#) (*pdf*)

**Significance:**  Dec 31, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Have an Adequate Procedure to Test Main Steam Safety Valves**

The inspectors documented a self-revealing noncited violation of Technical Specification 5.4.1a (Procedures) for an inadequate test procedure that resulted in inadvertently holding open a main steam safety valve at power. During testing, a test engineer separated a quick disconnect fitting in accordance with the procedural instructions. The action sealed in nitrogen pressure in the test rig and caused the valve to remain held open. In response to the event, operators reduced reactor power to compensate for the partially open safety valve until maintenance personnel closed the valve. The licensee entered the finding into their corrective action program as Smart Form SMF-2008-002946.

The finding was more than minor because it was associated with the procedure quality attribute of the initiating events cornerstone, and directly affected the cornerstone objective to limit the likelihood of those events that upset plant stability during power operations. Using Manual Chapter 0609, Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," the finding had very low safety significance because it did not contribute to the likelihood of mitigating equipment being unavailable. This finding did not have a crosscutting aspect because the procedure section was last revised several years earlier.

Inspection Report# : [2008005](#) (*pdf*)

**Significance:**  Sep 21, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

#### **"Failure to Control Transient Combustibles"**

The inspectors identified a noncited violation of Technical Specification 5.4.1.d for the licensee's failure to obtain an approved transient combustible permit before introducing transient combustibles into plant areas. As a result, the licensee placed undocumented and unanalyzed transient combustibles in the plant without compensatory measures on five different occasions. The licensee entered the finding into their corrective action program for resolution.

This finding was more than minor because it affected the protection against external factors attribute of the initiating events cornerstone, and it directly affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Using NRC Inspection Manual Chapter 0609, Appendix F, "Fire Protection Significance Determination Process," Phase 1 worksheet, the finding was determined to have very low safety significance because the condition represented a low degradation of fire prevention and administrative controls and the amount of combustibles was within the combustible loading calculations. The cause of the finding was related to the Human Performance crosscutting component of Work Practices, in that, the licensee failed to effectively communicate expectations, and that personnel failed to follow procedures.

Inspection Report# : [2008004](#) (pdf)

**Significance:**  Jun 22, 2008

Identified By: NRC

Item Type: FIN Finding

### **Instrument Tubing Failure Causes Plant Trip**

The inspectors reviewed a self-revealing finding for the licensee's failure to follow a tubing installation specification when installing condenser vacuum instrument tubing. Specifically, the installation did not follow Tubing Specification CPSES-I-1018 for general flexibility or thermal growth considerations, ultimately resulting in tubing failure. The tubing failure caused turbine trip instrumentation to fail low, causing a Unit 2 turbine and reactor trip. The licensee entered the finding into their corrective action program and modified the instrument tubing in both Units 1 and 2 to prevent another failure.

The finding is greater than minor because it is associated with the Initiating Events Cornerstone attribute of design control and affected the cornerstone objective, in that it caused a turbine and reactor trip that challenged critical safety functions. The finding is of very low safety significance because, although the likelihood of a reactor trip increased, all mitigating systems were available. The cause of this finding is related to the human performance cross-cutting component of Work Practices, in that, the licensee failed to provide proper oversight of contractors such that nuclear safety is supported.

Inspection Report# : [2008003](#) (pdf)

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## **Mitigating Systems**

**Significance:**  Mar 21, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Initiate a Smart Form for Damage to Safety-Related Breakers**

The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, for failure to follow procedures that require initiating a Smart Form for damage to safety-related equipment. The licensee discovered a bent shutter pin in the internal racking mechanism of a safety-related circuit breaker during maintenance. However, because the condition was not entered into the Smart Form database, the licensee failed to correct the cause of the condition and formally evaluate the impact of the condition on all of the associated 480 volt breakers. The licensee entered the finding into their corrective action program as Smart Form SMF-2009-000095.

The finding was more than minor because if the licensee continues to fail to document damage to safety-related equipment in a Smart Form, there is potential that it could lead to a more significant safety concern in that the damage will not be evaluated and corrected. Using NRC Inspection Manual Chapter 0609, Attachment 4, "Phase 1- Initial

Characterization and Screening of Findings,” the finding screened as very low safety significance (Green) because the condition did not result in the inoperability of safety-related breakers when they were required to be operable. The cause of this finding was related to the Problem Identification and Resolution crosscutting component of the corrective action program, in that, the licensee failed to enter the issue into the Smart Form database.

Inspection Report# : [2009002](#) (*pdf*)

**Significance:**  Dec 31, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

### **Non-Seismic Scaffolding Installed Over Service Water Equipment**

The inspectors identified a noncited violation of Technical Specification 5.4.1.a (Procedures), for the licensee’s failure to erect scaffolding over safety-related equipment with adequate seismic supports. As a result, the scaffolding would likely fail during a seismic event and impact the service water system. Contract personnel assembled the scaffolding and were under perceived time pressure to finish the work, which was their last task before departing the site. A licensee supervisor inspected the scaffolding and failed to identify the deficiency. The licensee entered the finding into their corrective action program as Smart Form SMF-2008-003683.

The finding was more than minor because it was similar to non-minor Example 4.a from Manual Chapter 0612, Appendix E, "Examples of Minor Issues," in that the scaffolding could adversely affect safety related equipment during a seismic event. Using the NRC Manual Chapter 0609, Attachment 4, “Phase 1 - Initial Screening and Characterization of Findings,” the finding was a qualification deficiency confirmed not to result in loss of operability or functionality. This finding had a Human Performance crosscutting aspect (work practices component) because the licensee failed to ensure adequate supervisory and management oversight of work activities, including contractors, such that nuclear safety was supported [H4.c].

Inspection Report# : [2008005](#) (*pdf*)

**Significance:**  Sep 21, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

### **"Failure to Follow Diesel Generator Test Procedure"**

A self-revealing noncited violation of Technical Specification 5.4.1.a was reviewed for the failure of the licensee to follow the procedure for testing the emergency diesel generator. As a result, a cylinder indicator cock was left open and cylinder performance was affected. The licensee entered the finding into their corrective action program for resolution.

The finding was more than minor because it was associated with the availability/reliability of equipment performance attribute of the mitigating systems cornerstone, and it directly affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using NRC Inspection Manual Chapter 0609, Attachment 4, “Phase 1 – Initial Characterization and Screening of Findings,” the finding screened as having very low safety significance because it resulted in a minimal degradation of a diesel generator cylinder. The cause of this finding was related to the Human Performance crosscutting component of resources, in that, the licensee failed to provide adequate equipment to close the indicator cock.

Inspection Report# : [2008004](#) (*pdf*)

**Significance:**  Sep 21, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

### **"Failure to Ensure Roll-up Fire Doors Complied With Fire Code"**

The inspectors identified a noncited violation of License Condition 2.G because the licensee failed to ensure that two

fire-rated roll up doors complied with the mounting requirements in National Fire Protection Association (NFPA) 80 1977. Specifically, during original construction, the licensee used bolts with a diameter less than the required 3/8-inch. The licensee entered this finding into their corrective action program for resolution as Smartform SMF 2008 001637.

Failure to meet the mounting requirements of NFPA 80 1977 for fire-rated roll up doors is a performance deficiency. The inspectors determined this deficiency was more than minor because it was similar to the more than minor description in Manual Chapter 0612, Appendix E, Example 3.g. This finding affected the mitigating systems cornerstone. This fire confinement finding was assigned a Moderate A degradation rating because the fire-rated roll up door had improperly installed fire door hardware. Using NRC Inspection Manual Chapter 0609, Appendix F, "Fire Protection Significance Determination Process," Phase 1, Step 1.3.2, Question 5, the exposed fire area contained no potential damage targets closer than 20 feet (i.e., passive barrier) to the exposing fire area that would result in a demand for safe shutdown and the fire barrier would remain functional for at least 20 minutes. Therefore, the degraded fire-rated roll up doors had very low risk significance.

Inspection Report# : [2008004](#) (*pdf*)

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## Barrier Integrity

**Significance:**  Jun 20, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Initiate Smart Form for Damage to Steam Generator Tubes Due to Loose Parts**

The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, for the failure to follow procedures that require initiating a Smart Form for damage to safety-related equipment. The licensee failed to initiate a Smart Form when multiple loose parts were discovered in the steam generators during a refueling outage that had damaged the tubes to varying degrees. As a result, the licensee did not identify sources of loose parts and potential corrective actions. The licensee entered the finding into their corrective action program as Smart Form SMF-2009-001069-00.

The finding was more than minor because if the licensee continues to fail to document damage to safety-related equipment in the Smart Form database, there is potential that this could lead to a more significant safety concern, in that, the cause of the damage will not be evaluated and corrected. Once entered into the Smart Form database, a review of the loose parts was conducted. Although the licensee could not identify sources for any of the parts, similar reviews in the future could reasonably produce corrective actions that would not have been taken without the reviews. Using NRC Inspection Manual Chapter 0609, Appendix J, "Steam Generator Tube Integrity Findings Significance Determination Process," the finding was determined to be of very low safety significance because none of the tested tubes failed the in situ pressure tests. The cause of this finding was related to the Problem Identification and Resolution crosscutting component of the corrective action program, in that the licensee failed to enter the issue into their corrective action program. [P1.a]

Inspection Report# : [2009003](#) (*pdf*)

**Significance:**  Sep 21, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

### **"Unevaluated Temporary Modification of Containment Isolation Valve"**

The inspectors identified a noncited violation of Technical Specification 5.4.1.a for the licensee's failure to control a fire hose that was used to redirect the discharge of a vent chill water relief valve, which is also a containment isolation valve. As a result, a hose was left on the discharge piping at various times for approximately 10 years without documentation or evaluation. The hose affected the relief valve, in that, operators could not directly observe leakage from the valve. In addition, the hose created a backpressure on the valve that increased its lift setpoint, therefore, potentially affecting the containment penetration integrity. The licensee entered the finding into their corrective action program for resolution.

This finding was greater than minor because it was similar to NRC Inspection Manual Chapter 0612, Appendix E, "Examples of Minor Issues," Example 4.a, and met the "not minor if" criteria because the licensee routinely failed to perform evaluations on this issue, and the inspectors determined that the safety-related equipment was adversely affected. Using NRC Inspection Manual Chapter 0609, Attachment 4, "Phase 1 - Initial Characterization and Screening of Findings," the inspectors determined that the issue was of very low safety significance because the finding did not result in an actual open pathway of the reactor containment. The cause of this finding was related to the Human Performance crosscutting component of Work Practices, in that, the licensee failed to define and effectively communicate expectations regarding procedural compliance and personnel failed to follow procedures.

Inspection Report# : [2008004](#) (*pdf*)

**Significance:**  Sep 15, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

### **B.5.b. Phase 2 and 3 Mitigating Strategy**

This finding, affecting the Barrier Integrity Cornerstone, is related to mitigative measures developed to cope with losses of large areas of the plant; in response to Section B.5.b. of the February 25, 2002, Interim Compensatory Measures (ICM) Order (EA-02-026) and related NRC guidance. This finding has been designated as "Official Use Only - Security-Related Information;" therefore, the details of this finding are being withheld from public disclosure. This finding has no cross-cutting aspect. See inspection report 2008-008 for more details.

Inspection Report# : [2008008](#) (*pdf*)

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## **Emergency Preparedness**

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## **Occupational Radiation Safety**

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## **Public Radiation Safety**

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## **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.

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## **Miscellaneous**

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