

Comanche Peak 1

2Q/2009 Plant Inspection Findings

Initiating Events

Significance:  Mar 21, 2009

Identified By: NRC

Item Type: FIN Finding

Failure to Remove Debris from Rooftop Causes Potential Missile Hazard

The inspectors identified a finding for the failure to follow housekeeping guidance in Procedure STA 607, "Housekeeping Control," Revision 19. Specifically, the licensee failed to remove several pieces of thin scrap sheet steel approximately five feet long and one foot wide from the Unit 1 diesel generator building roof following maintenance. As a result, the material could have affected the offsite power supply to safety-related electrical busses if high winds carried it on to nearby transmission lines. The inspectors determined that the material was on the rooftop during periods of severe weather. The licensee entered the finding into their corrective action program for resolution as Smart Form SMF 2008 004000.

The finding was more than minor because it was associated with the initiating events cornerstone attribute of protection against external factors and affected the cornerstone objective, in that, it increased the likelihood of an event that would upset plant stability and challenge critical safety functions during shutdown as well as power operations. 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 contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment would not be available. The cause of this finding was related to the Human Performance crosscutting component of work control, in that, the licensee failed to appropriately coordinate work activities.

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

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 Adequately Evaluate Material Condition Following a Boric Acid Leak

The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, for the licensee's failure to follow procedures that required an evaluation and corrective actions in response to the effects of a borated water leak on primary coolant pressure boundary components. Corrective actions described as "Fix Now" were identified as boric acid deposits or anticipated accumulation of boric acid deposits which directly impact a carbon steel pressure boundary components or subcomponents and could result in increased corrosion rates. The inspectors identified that the inadequate evaluation and corrective actions resulted in the increased corrosion rate. The licensee entered the finding into their corrective action program as Smart Form SMF-2008-003194.

The finding was more than minor using NRC Inspection Manual Chapter 0612, Appendix E, "Examples of Minor Issues," Example 4.a, because the inadequate evaluation led to the reactor vessel nozzle being adversely affected, in that the corrosion degraded the material condition of the carbon steel portions. The finding was determined to have very low safety significance because assuming worst case degradation, the finding would not result in exceeding the Technical Specification limit for reactor coolant system leakage or affect other mitigation systems resulting in a total loss of their safety function. The cause of the finding was related to the Human Performance crosscutting component of Decision Making in that the licensee failed to use conservative assumptions for decision making when evaluating degraded and nonconforming conditions [H1.b]

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

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Significance: Dec 31, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Assess and Manage Risk Associated with Maintenance Activities

The inspectors identified three examples of a noncited violation of 10 CFR 50.65(a)(4) (Maintenance Rule) for the failure to adequately assess and manage the risk of maintenance activities during the outage. In two instances the licensee performed maintenance activities that initiated plant transients and increased the time at midloop without managing the risk. First, workers created a breach of the reactor coolant system boundary and loss of nitrogen cover gas pressure in the system. This caused the pressurizer level to rapidly increase approximately two feet. Second, the licensee removed high pressure seals for the flux thimble tubes creating a cold leg vent path during nozzle dam installation. This also caused spikes in level instrumentation and operators were required to stay in a midloop condition for an additional two hours. The third example involved emergency diesel generator synchronization to the 6.9 kV bus that was supporting the only running residual heat removal pump in a midloop condition with time to boil less than 10 minutes. The testing was originally schedule outside the midloop window. The licensee had started the activity but, after the inspectors raised concerns, the shift manager took actions to back out of the testing. After being properly assessed, the risk for this activity was classified as a red condition (the highest risk threshold), but the licensee was only in an orange condition. The licensee entered the finding into their corrective action program as Smart Forms SMF-2008-003143, SMF-2008-003172, SMF-2008-003196, and SMF-2008-003209.

The finding was more than minor because it was similar to non-minor Example 7.e from Manual Chapter 0612, Appendix E, "Examples of Minor Issues," in that, for the first two examples the activities required additional risk management actions and for the third example, the plant changed from a risk level of Orange to Red. Using Inspection Manual Chapter 0609, Appendix K, "Maintenance Risk Assessment and Risk Management Significance Determination Process," the finding had very low safety significance because the incremental conditional core damage probability deficit was less than 1×10^{-6} . The cause of the finding was related to the Human Performance crosscutting component of work control for the failure of the licensee to appropriately coordinate work activities [H3.b].

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

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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*)

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:  Dec 31, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Instructions Leads to Failure to Identify Fibrous Material in Containment

The inspectors identified a noncited violation of Technical Specification 5.4.1a (Procedures) for the failure to have adequate instructions in place for containment walkdowns looking for fibrous material. As a result, the licensee entered a mode where the containment sumps were required to be operable with unidentified fibrous material in the containment. The licensee had not identified the material during several walkdowns in response to NRC Generic Letter 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation during Design Basis Accidents at Pressurized-Water Reactors," and failed to identify several additional instances of fibrous material after inspectors initially identified some of the material. The licensee entered the finding into their corrective action program for resolution as Smart Form SMF-2008-003587.

The finding was more than minor because it was associated with the procedure quality attribute of the mitigating systems cornerstone, and it affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using NRC Manual Chapter 0609, Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings," the finding had very low safety significance because it did not represent a loss of system safety function or cause inoperability of a system or train. The finding had a Human Performance crosscutting aspect (work control component) in that the work instructions and pre job brief failed to effectively incorporate job site conditions into the work instructions and consider that both sides of the seals required inspection [H3.a].

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

Significance:  Dec 31, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Initiate Corrective Actions for the Malfunction of a Reactor Trip Bypass Breaker

The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, for the failure to follow procedures to enter a malfunction of a reactor trip bypass breaker into the corrective action program. The breaker tripped slower than permitted during response time testing and was inoperable. Because the condition was not entered into the corrective action program, the licensee did not evaluate the condition or assess the extent of condition. The licensee entered the finding into their corrective action program as Smart Forms SMF-2008-003735 and SMF 2008 003767.

The finding was more than minor because, if left uncorrected, it would have led to a more safety significant concern. Specifically, because the cause of the failure would not have been fully evaluated and appropriate corrective actions may not be initiated. Once entered into the corrective action program, the licensee identified additional corrective measures. Using NRC Inspection Manual Chapter 0609, Attachment 4, "Phase 1 - Initial Characterization and Screening of Findings," the finding had very low safety significance because the condition did not result the inoperability of the reactor trip breaker when it was 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 their corrective action program [P1.a].

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

Barrier Integrity

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*)

Emergency Preparedness

Occupational Radiation Safety

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

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