# Comanche Peak 1
# 4Q/2004 Plant Inspection Findings

## Initiating Events

## Mitigating Systems

**Significance:** G Dec 03, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
**Failure to fully implement Commission granted relief and alternative requirements**
The team identified a non-cited violation of 10 CFR 50.55a(f)(6)(i), for failure to fully implement NRC granted relief and alternative inservice testing requirements. Specifically, the licensee failed to perform the alternative requirement for periodic assessments, which precluded the reassessment of components to reflect changes in plant configuration, component performance test results, industry experience, and other inputs to the risk-informed process. The finding has very low safety significance and has been entered into the corrective action program as Smart Form SMF-2004--003883-00.

The team characterized this finding as greater than minor because the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage) was affected. The finding is associated with the equipment performance attribute of the mitigating systems cornerstone. Using the Phase 1 worksheet in Manual Chapter 0609, "Significance Determination Process", this finding is determined to be of very low safety significance because there was no actual loss of a safety function.
Inspection Report# : 2004008*(pdf)*

**Significance:** G Dec 03, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
**Failure to maintain design control over a safety class boundary isolation**
A non-cited violation of 10CFR50 Appendix B Section III, Design Control, was identified for failure to maintain the design requirements for a safety class piping isolation boundary in the makeup line to the Condensate Storage Tank. The licensee performed plant modifications and operating procedure changes which involved a fundamental change in status of safety class piping boundary isolation valves from normally closed to normally open without determining that the new configuration did not meet the system design requirements. The issue was entered into the corrective action program as Smart Form SMF-2003-001773-00.

The licensee had performed an operability assessment of the Auxiliary Feedwater System and concluded that the system remains operable, even though it is degraded because of the lack of appropriate double valve isolation between the Class III and Class V piping in the Condensate Storage Tank makeup line. The licensee assessment showed operations personnel had over 30 minutes to manually isolate a leak from the non-safety class piping. The licensee is planning to modify the Condensate Storage Tank makeup lines to incorporate double check valve isolation meeting the appropriate design requirements for normally using the line for tank recirculation.

The team characterized this finding as greater than minor because the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage) was affected. The finding is associated with the design control attribute of the mitigating systems cornerstone. Using the Phase 1 worksheet in Manul Chapter 0609, "Significance Determination Process", this finding is determined to be of very low safety significance because there was no actual loss of a safety function.
Inspection Report# : 2004008*(pdf)*

## Barrier Integrity

**Significance:** G Mar 03, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation

**Storage of a fuel assembly in an unacceptable location in Spent Fuel Pool IAW T.S. 3.7.17 (Closure of LER 50-445:446/04-001-00)**
A self-revealing NCV was identified for storing a fuel assembly in an unacceptable location in Region II racks in the spent fuel pool in violation of Technical Specification 3.7.17. On March 3, 2004, the licensee discovered that Fuel Assembly C45 was stored in an unacceptable four-out-of-four configuration. Based on the enrichment and correct burnup value, Assembly C45 should have been restricted to a three-out-of-four configuration. During the transition to the new computer code to track fuel enrichment and burnup, prior burnup data was not correctly entered into the data files. As a result of this error, Assembly C45 had been in an unacceptable four-out-of-four configuration since June 25, 2001. Upon discovery, the fuel assembly was moved to a Region I rack location where Technical Specification 3.7.17 does not apply.

This finding is more than minor because it resulted in a violation of Technical Specifications. This finding cannot be evaluated by the significance determination process because Manual Chapter 0609, "Significance Determination Process," Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," and Appendix G, "Shutdown Operations Significance Determination Process," do not apply to the spent fuel pool. This finding is determined to be of very low safety significance by management review because the bounding analyzed accident scenario of a single fresh assembly at the maximum allowable enrichment misloaded into the spent fuel pool would be sufficiently subcritical with 1900 ppm soluble boron. The spent fuel pool boron concentration remained above 2370 ppm soluble boron during the entire time that Assembly C45 was in an unacceptable location. Because this violation was of very low safety significance and it was entered into the corrective action program as SMF-2004-0797-00, this violation is being treated as an NCV, consistent with Section VI.A of the NRC Enforcement Policy.

Inspection Report# : 2004004*(pdf)*

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# Emergency Preparedness

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# Occupational Radiation Safety

**Significance: SL-IV** May 28, 2004
Identified By: Self Disclosing
Item Type: VIO Violation
**Entry into a high radiation area without a briefing on radiation dose rates**
On November 4, 2003, an individual entered a high radiation area without contacting radiation protection personnel for a briefing on the dose rates in the area, despite verbal and posted instructions to the contrary. Dose rates within the room were as high as 250 millirems per hour at 30 centimeters from the source of radiation. The licensee was alerted to the situation when the individual's electronic dosimeter alarmed because the dose rate setpoint was exceeded. The occurrence was a violation of Technical Specification 5.7.1.e. The violation involved the act of a low-level individual; however, the licensee failed to promptly provide information concerning the violation to appropriate NRC personnel, in accordance with Section VI.A.1.d(1) of the NRC Enforcement Policy. Therefore, the finding could not be treated as a noncited violation.

The failure to contact radiation protection personnel for a briefing on radiation dose rates prior to entering a high radiation area is a performance deficiency because it resulted in the licensee's failure to meet a requirement in its technical specifications. Because there are willful aspects of the violation, it is subject to traditional enforcement. The willful aspects notwithstanding, the inspector used the Occupational Radiation Safety Significance Determination Process described in Manual Chapter 0609, Appendix C, to analyze the significance of the finding. The inspector determined that the finding was of very low safety significance because it did not involve (1) ALARA planning and controls, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose. The finding was entered into the licensee's corrective action program as SMF-2003-3594, and the individual was appropriately disciplined. This finding also had crosscutting aspects associated with human performance.

Inspection Report# : 2004003*(pdf)*

**Significance:** G Apr 09, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
**Two examples of a 10 CFR 20.1501 violation for failure to perform a radiological survey**
The NRC identified two examples of a noncited violation of 10 CFR 20.1501a because the licensee failed to perform surveys to identify dose rates and contamination levels of potential radiological hazards. On January 8, 2004, workers performing decontamination of a pole that was used for filter compaction alarmed the contamination monitors while exiting the radiologically controlled area. The licensee identified that the pole had contact dose rates of 150 millirem per hour; however, the inspector determined that the pole was not surveyed for contamination. In addition, on April 5, 2004, the inspector identified dose rates as high as 250 millirem per hour on contact and 80 millirem per hour at 30 centimeters on a containment spray line in Piping Area X-213. The posted survey map outside the room indicated general area dose rates near the pipe of between 1 and 5 millirem per hour.

The failure to perform surveys to evaluate the magnitude and extent of radiation levels and the concentrations or quantities of radioactive

materials are performance deficiencies. The finding is greater than minor because they are associated with the Occupational Radiation Safety cornerstone attribute of Program and Process and affected the cornerstone objective to ensure adequate protection of a worker's health and safety from exposure to radiation. When processed through the Occupational Radiation Safety Significance Determination Process, the finding was determined to be of very low safety significance because it was not associated with as low as is reasonably achievable issues, there was no overexposure or substantial potential for overexposure, and the ability to assess dose was not compromised. The two examples of the finding were entered into the licensee's corrective action program as SMF-2004-0069 and SMF-2004-1264.
Inspection Report# : 2004003*(pdf)*

**Significance:** G Apr 09, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
**Technical Specification 5.4.1 violation for failure to follow radiation work permit requirement**
The inspector reviewed a self-revealing noncited violation of Technical Specification 5.4.1 for failure to follow a radiation work permit requirement. On April 4, 2004, scaffold builders constructed scaffolding up into an area of containment that had not been surveyed by radiation protection personnel and received an electronic dosimeter dose rate alarm.

The failure to follow radiation work permit requirements is a performance deficiency. The finding was greater than minor because it was associated with the Occupational Radiation Safety cornerstone attribute of Program and Process and affected the cornerstone objective to ensure adequate protection of a worker's health and safety from exposure to radiation. When processed through the Occupational Radiation Safety Significance Determination Process, the finding was determined to be of very low safety significance because the finding was not associated with as low as is reasonably achievable issues, there was no overexposure or substantial potential for overexposure, and the ability to assess dose was not compromised. The finding was entered into the licensee's corrective action program as SMF-2004-1202.
Inspection Report# : 2004003*(pdf)*

**Significance:** G Apr 09, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
**Two examples of a Technical Specification 5.7.1e violation for failure of personnel to receive a briefing on radiation dose rates prior to entry into a high radiation area**
The NRC reviewed two examples of a self-revealing noncited violation of Technical Specification 5.7.1e for the failure of personnel to receive a briefing on radiation dose rates prior to entering a high radiation area. On February 10, 2004, an individual entered the Waste Monitor Tank Room X-185, a posted high radiation area, without being briefed on dose rates in the area and received an electronic dosimeter dose rate alarm. On February 18, 2004, an individual entered the piping penetration Train A, Room 077B, a posted high radiation area, without being briefed on the dose rates in the area before being stopped by another worker.

The failure to be briefed about radiation dose rates prior to entering a high radiation area is a performance deficiency. The finding was greater than minor because it was associated with the Occupational Radiation Safety cornerstone attribute of Program and Process and affected the cornerstone objective to ensure adequate protection of a worker's health and safety from exposure to radiation. When processed through the Occupational Radiation Safety Significance Determination Process, the finding was determined to be of very low safety significance because the finding was not associated with as low as is reasonably achievable issues, there was no overexposure or substantial potential for overexposure, and the ability to assess dose was not compromised. The two examples of the finding were entered into the licensee's corrective action program as SMF-2004-062 and SMF-2004-0471.
Inspection Report# : 2004003*(pdf)*

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# Public Radiation Safety

**Significance:** G Oct 22, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
**Failure to maintain and analyze composite samples on two occasions**
The team reviewed a self-revealing non-cited violation of Technical Specification 5.5.1, which occurred when the licensee failed on two occasions to sample in accordance with Offsite Dose Calculation Manual requirements. Specifically, during the third quarter of 2002 and the fourth quarter of 2003, the licensee failed to maintain portions of composite samples from the plant effluent tanks. The samples are required to be collected monthly and analyzed quarterly. The finding was placed into the licensee's corrective action program.

The finding is greater than minor because it is associated with one of the cornerstone attributes (effluent measurement) and affects the cornerstone objective because the failure to implement offsite dose calculation requirements decreases the licensee's assurance that the public will not receive unnecessary dose. The team determined that the finding had very low safety significance because: (1) the finding was not a radioactive material control finding, (2) it was an effluent release program finding, (3) the finding impaired the licensee's ability to assess dose, (4) the licensee did not fail to assess dose because it was able to assess dose to the public using the remaining composite samples, and (5) it did

not result in doses that exceeded 10 CFR Part 50, Appendix I or 10 CFR 20.1301(d). This finding had crosscutting aspects associated with human performance. When licensee personnel failed to store the samples properly, they directly contributed to the finding.
Inspection Report# : 2004009*(pdf)*

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## Physical Protection

Physical Protection information not publicly available.

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## Miscellaneous

Last modified : March 09, 2005