

# Comanche Peak 1

## 2Q/2010 Plant Inspection Findings

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### Initiating Events

**Significance:**  Jun 19, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Inadequate Procedure Causes Inadvertent Power Reduction**

The inspectors identified a noncited violation of Technical Specification 5.4.1.a, for the failure to have an adequate procedure for placing a demineralizer resin bed in service. As a result, a reactivity management event occurred when the reactor coolant system was inadvertently borated. This caused an automatic rod withdrawal to maintain reactor coolant system temperature. Operators ultimately reduced power approximately 20 megawatts electric to stabilize the plant. The licensee entered the finding into the corrective action program as Condition Report CR-2010-002725.

The failure to adequately maintain a procedure required by Technical Specification 5.4.1.a was a performance deficiency and resulted in an unplanned boration, automatic rod withdrawal, and 20 megawatt power reduction. The finding was more than minor because it was associated with the procedure quality attribute of the initiating events cornerstone and affected the cornerstone objective, in that, it increased the likelihood of those events that upset plant stability. Using NRC Manual Chapter 0609, Attachment 4, "Phase 1 Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance because the finding did not contribute to both the likelihood of a reactor trip and the likelihood that mitigating equipment would not be available. This finding has a human performance crosscutting aspect associated with the decision making, in that, the licensee did not use conservative assumptions in the decision making process that lead to the use of the demineralizer [H.1b].

Inspection Report# : [2010003](#) (*pdf*)

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### Mitigating Systems

**Significance:**  Sep 19, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Control Transient Equipment**

The inspectors identified a Green noncited violation of Technical Specification 5.4.1.a for failure to comply with the work control procedure which requires that all transient equipment be tracked. Specifically, the licensee placed a floating dock in the service water intake structure for maintenance activities and did not track the dock in Maximo, the licensee's computer program for tracking work. As a result, the dock remained in place significantly longer than allowed without doing an engineering evaluation for the effects, potentially reducing the reliability of the service water pumps in case of a fire or flood. The licensee entered the finding into their corrective action program as Smart Form SMF 2009 001548-00.

The finding was more than minor because it was associated with the protection against external factors attribute of the Mitigating Systems cornerstone, and adversely affected the objective, in that, the reliability of the service water system was reduced in the cases of a fire or the probable maximum flood. The inspectors determined that because the fire scenario did not reflect the dominant risk of the finding, the flooding scenario would be used for the significance determination process. Using NRC Manual Chapter 0609, Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance because the performance deficiency did not cause the loss of any safety function. This finding has a human performance crosscutting aspect associated with resources, in that the licensee failed to provide adequate training for personnel.

Inspection Report# : [2009004](#) (pdf)

**Significance:**  Sep 19, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

**Inadequate Postfire Safe Shutdown Procedure**

The inspectors identified a noncited violation of Technical Specification 5.4.1.d for the failure to maintain adequate written procedures covering fire protection program implementation. Specifically, Procedure ABN 803A, "Response to a Fire in the Control Room or Cable Spreading Room," Revision 8, which is used to perform an alternative shutdown from outside of the control room, failed to assure that the train A charging pump, relied on for achieving postfire safe shutdown, would not be damaged because of a loss of suction. During an alternative shutdown, operators must use the train A charging pump for the reactivity control and reactor coolant makeup functions by providing borated water from the refueling water storage tank. The licensee entered the finding into their corrective action program as Smart Form SMF 2009-004453-00.

Failure to ensure that Procedure ABN 803 contained sufficient instructions to ensure that the credited train A centrifugal charging pump would be available following a postulated control room abandonment was a performance deficiency. This finding was more than minor because it was associated with the protection against external factors attribute of the Mitigating Systems cornerstone, and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to external events (such as fire) to prevent undesirable consequences. Based on the senior reactor analyst's significance determination process Phase 3 analysis, this finding was determined to have very low safety significance. The finding did not have a crosscutting aspect because it was not representative of current licensee performance.

Inspection Report# : [2009004](#) (pdf)

**Significance:**  Sep 19, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Assure That One Train of Equipment is Free From Fire Damage**

The inspectors identified a noncited violation of Unit 1 License Condition 2.G and Unit 2 License Condition 2.G. Specifically, the licensee failed to ensure that one train of the equipment required to achieve and maintain safe hot shutdown conditions remained free from fire damage as specified in the approved fire protection program. The inspectors identified that the licensee relied upon local manual actions to mitigate the effects of potential fire damage rather than provide the physical separation or protection required in the approved fire protection program. The licensee entered the finding into their corrective action program as Smart Form SMF 2009-004454-00.

Failure to ensure that one train of the systems required for hot shutdown is free from fire damage was a performance deficiency. This finding was more than minor because it was associated with the protection against external factors attribute of the Mitigating Systems cornerstone, and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to external events (such as fire) to prevent undesirable consequences. Based on the senior reactor analyst's significance determination process Phase 3 analysis, this finding was determined to have very low safety significance. The finding did not have a crosscutting aspect because it was not representative of current licensee performance.

Inspection Report# : [2009004](#) (pdf)

**Significance:**  Sep 19, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

**Inadequate Alternative Shutdown Procedure**

The inspectors identified a noncited violation of Technical Specification 5.4.1.d for the failure to maintain adequate written procedures covering fire protection program implementation. Specifically, during operator walkthroughs, the inspectors identified that Procedure ABN 803A, "Response to a Fire in the Control Room or Cable Spreading Room,"

Revision 8, used to perform an alternative shutdown from outside of the control room, had two examples of critical actions that could not be completed in the time required by the postfire safe shutdown analysis. The steps to respond to a potential spurious opening of the train A power operated relief valve and a potential loss of station service water cooling to the emergency diesel generator were not completed within the maximum allowable times specified in the procedure. As a compensatory measure, the licensee issued night orders to alert operators of these procedural concerns. The licensee entered the finding into their corrective action program as Smart Form SMF 2009 004455-00.

Failure to provide adequate procedural guidance to implement the requirements of the approved fire protection program was a performance deficiency. This finding was more than minor because it was associated with the protection against external factors attribute of the Mitigating Systems cornerstone, and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to external events (such as fire) to prevent undesirable consequences. Based on the senior reactor analyst's significance determination process Phase 3 analysis, this finding was determined to have very low safety significance. The finding did not have a crosscutting aspect because it was not representative of current licensee performance.

Inspection Report# : [2009004](#) (pdf)

**Significance:**  Aug 14, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Untimely Corrective Actions For Bailey/Asea Brown Boveri Positioners**

The team identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Actions," for the failure of to promptly correct a condition adverse to quality when they did not apply thread sealant to safety-related atmospheric relief valves positioner adjustment screws. This issue was entered into the licensee's corrective action program as SmartForm SMF-2009-004054. The licensee took corrective actions by performing an operability determination, which provided reasonable assurance that the atmospheric relief valves were operable and completion of the thread sealant repairs could be reasonably delayed until the next scheduled outage.

The finding was more than minor since it affected the Mitigation System Cornerstone attribute of availability and reliability of mitigating equipment, specifically the operability of the atmospheric relief valves. Using Manual Chapter 0609, Attachment 4, "Phase 1- Initial Screening and Characterization of Findings," the finding was determined to have very low safety significance since it did not result in a loss of the safety system function. No crosscutting aspect was assigned because this issue was not indicative of current plant performance.

Inspection Report# : [2009006](#) (pdf)

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## **Barrier Integrity**

**Significance:**  Dec 31, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Inadequate procedure for environmentally qualified actuator refurbishment**

The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion III, for the failure of the licensee to translate environmental qualification requirements for motor operated valve and damper actuators into procedures. Specifically, actuator refurbishment procedures directed the removal of conduit plugs, drain plugs, and T-drains, but did not require them to be re-installed in the correct configuration. As a result, multiple actuators were not in their specified condition for environmental qualification. After evaluation, the licensee determined that the actuators were still environmentally qualified in the as-found configuration. The licensee entered the finding into the corrective action program as Condition Report CR 2009 000848.

The finding was more than minor because it was associated with the containment configuration control attribute of the barrier integrity cornerstone and adversely affected the cornerstone objective, in that, the licensee's procedure for actuator refurbishment did not provide reasonable assurance that actuators would continue to be environmentally qualified in order to protect the public from radionuclide releases caused by accidents or events. Using NRC Manual

Chapter 0609, Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance because the finding did not represent an actual open pathway in the physical integrity of reactor containment. The finding has a human performance cross cutting aspect associated with resources because the licensee failed to maintain complete and accurate procedures.

Inspection Report# : [2009005](#) (pdf)

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## Emergency Preparedness

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## Occupational Radiation Safety

**Significance:**  Jun 19, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Barricade and Post a High Radiation Area**

The inspectors reviewed a self-revealing noncited violation of Technical Specification 5.7.1.a for the failure to maintain a high radiation area barricaded and conspicuously posted. A high radiation area in the Unit 1 containment was posted as a radiation area. Consequently, an individual received unexpected electronic dosimeter dose rate alarm while building scaffolding in the Unit 1 containment building because the worker entered a high radiation area without the knowledge that the dose rates measured 145 millirem per hour. Subsequently, a radiation protection technician barricaded the area with rope and posted it as a high radiation area. The licensee entered the finding into the corrective action program as Condition Report CR 2010 003382.

The failure to barricade and post a high radiation area was a performance deficiency. The finding was more than minor because it was associated with the program and process attribute of the occupational radiation safety cornerstone and affected the cornerstone objective, in that, the failure to properly control a high radiation area had the potential to increase personnel dose. Using NRC Manual Chapter 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," the finding was determined to be of very low safety significance because: (1) it was not associated with as low as reasonably achievable (ALARA) planning or work controls, (2) there was no overexposure, (3) there was no substantial potential for an overexposure, and (4) the ability to assess dose was not compromised. The finding has a human performance crosscutting aspect associated with work control because the licensee did not appropriately plan work activities by incorporating job site conditions or radiological safety [H.3a].

Inspection Report# : [2010003](#) (pdf)

**Significance:**  Jun 19, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Follow the Radiation Work Permit Requirements**

Inspectors identified a noncited violation of Technical Specification 5.4.1.a for the failure of a rigger to follow radiation work permit requirements. Specifically, a rigger made an unauthorized entry into a high radiation area on a radiation work permit that did not grant access to that area. A radiation protection technician confirmed that the rigger was not briefed and not authorized to enter the high radiation area and had the rigger exit the area. The licensee entered the finding into the corrective action program as Condition Report CR 2010-003458.

The failure to follow the instructions on a radiation work permit was a performance deficiency. The finding was more than minor because it was associated with the program and process attribute of the occupational radiation safety cornerstone and affected the cornerstone objective, in that, the failure to follow a radiation work permit instruction had the potential to increase personnel dose. Using NRC Manual Chapter 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," the finding was determined to be of very low safety significance because: (1) it was not associated with as low as reasonably achievable (ALARA) planning or work controls, (2) there was no

overexposure, (3) there was no substantial potential for an overexposure, and (4) the ability to assess dose was not compromised. The finding has a human performance crosscutting aspect associated with work practices because the licensee failed to effectively communicate expectations regarding procedural compliance to the rigger [H.4b].

Inspection Report# : [2010003](#) (pdf)

**Significance:**  Dec 31, 2009

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

#### **Failure to barricade and post a high radiation area**

A self-revealing noncited violation of Technical Specification 5.7.1.a was identified for failure to maintain a high radiation area barricaded and conspicuously posted. The lower valve gallery on the 832-foot elevation of the auxiliary building had been de-posted from a locked high radiation area to radiation area after a resin transfer and flush operation. Radiation protection had mistakenly determined, by a partial radiation survey, that the entire lower valve gallery was a radiation area. Consequently, two workers received unexpected electronic dose rate alarms because the workers entered a high radiation area without knowledge that dose rates measured 900 millirem per hour. The licensee revised Procedure RPI-624, "Resin Transfer Job Coverage," to provide clear instructions requiring that radiation surveys of the whole system after resin transfers and flushes are completed. The licensee entered the finding into the corrective action program as Condition Report CR 2009 002876.

The failure to barricade and post a high radiation area is a performance deficiency. The finding was more than minor because it was associated with the occupational radiation safety cornerstone attribute (exposure control) of program and process and affected the cornerstone objective, in that, the failure to properly control a high radiation area had the potential to increase personnel dose. Using the occupational radiation safety significance determination process, the inspectors determined the finding to have very low safety significance because: (1) it was not associated with as low as reasonably achievable (ALARA) planning or work controls, (2) there was no overexposure, (3) there was no substantial potential for an overexposure, and (4) the ability to assess dose was not compromised. The finding has a human performance crosscutting aspect associated with resources because the licensee did not ensure that the procedure was complete and accurate.

Inspection Report# : [2009005](#) (pdf)

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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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