

## Comanche Peak 2

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### Initiating Events



**Significance:** May 10, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Inadequate Design Control Results in Increased Impact from Internal Flooding in AFW Rooms**

Inspectors identified a violation of design control requirements for two flooding mitigation features, credited in the flooding analyses, that were never installed in the Unit 2 auxiliary feedwater pump rooms. The licensee evaluated this unanalyzed condition, and determined that worst-case flooding could render two auxiliary feedwater trains inoperable. This issue was determined to have very low safety significance because the licensee was able to demonstrate that at least one train of auxiliary feedwater would have remained unaffected during flooding. The issue had credible safety impact because specific cases of internal flooding could have had a greater impact on mitigation equipment than was analyzed. A noncited violation was identified for inadequate design control (10 CFR Part 50, Appendix B, Criterion III). Reference Smart Form 2001-001257. Inspection Report# : [2001003\(pdf\)](#)



**Significance:** Jan 02, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

#### **Inadvertent operation of a Unit 2 pressurizer power-operated relief valve**

Technical Specification 5.4.1 states that written procedures shall be established, implemented, and maintained as recommended in Regulatory Guide 1.33. Contrary to Procedure INC-7756B, "Channel Calibration of Reactor Coolant Wide Range Pressure and Residual Heat Removal Isolation Valve Interlock Test, Channel 0405," on January 2, 2001, the reactor operator placed 2-PCV-455A (pressurizer PORV) in the open position, which was an inappropriate position for Mode 1 power operations. Reference SmartForm 2001-000011-00. Inspection Report# : [2000009\(pdf\)](#)

### Mitigating Systems



**Significance:** May 20, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

#### **NCV for nonconservative design calculation for safety-related air accumulators.**

The inspectors identified that a calculation for all safety-related air accumulators did not properly account for air usage during a design basis mission. The calculation did not account for dynamic air consumption rates for the system and was therefore nonconservative. Failure to properly incorporate design basis information into station calculations was a violation of 10 CFR Part 50, Appendix B, Criterion III. This violation is being treated as a noncited violation in accordance with Section VI.A of the NRC Enforcement Policy and is in the licensee's corrective action program as Smart Form SMF-2000-0001232-00. This issue was characterized as a green finding using the significance determination process. It was determined to have very low risk significance because the nonconservative values had not been incorporated into station procedures and the operability of safety-related equipment was not affected. Inspection Report# : [2000003\(pdf\)](#)



**Significance:** Jul 13, 2001

Identified By: NRC

Item Type: FIN Finding

#### **Failure to recognize Technical Specification action statement entry conditions**

The licensee failed to recognize entry conditions for a short duration Technical Specification action statement due to the Unit 2 Shutdown Bank C rods being below their rod insertion limit. This issue had an actual impact on safety because the shutdown margin was reduced when rods were inserted below their insertion limit and operators did not recognize the requirement to verify adequate shutdown margin until prompted by the inspectors. This finding was characterized under the significance determination process as having very low safety significance because the actual position of Shutdown Bank C rods had minimal impact on the shutdown margin and adequate shutdown margin remained.

Inspection Report# : [2001004\(pdf\)](#)

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**Significance:** Sep 13, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to promptly identify and correct degraded EDG jacket water coolers**

The inspectors noted that heat exchanger performance trending had not been conducted for approximately 1½ years on the Unit 1 emergency diesel generator jacket water coolers and for about 1 year on the Unit 2 emergency diesel generator jacket water coolers. During those periods, the Units 1 and 2 Train B emergency diesel generator jacket water coolers were frequently fouled beyond the acceptance criteria and were considered degraded. Failure to promptly identify this condition adverse to quality was a violation of 10 CFR Part 50, Appendix B, Criterion XVI. This violation is being treated as a noncited violation in accordance with Section VI.A of the NRC Enforcement Policy and is in the licensee's corrective action program as Smart Form SMF-2000-0001548-00. This issue was characterized as a green finding using the significance determination process. It was determined to have very low risk significance because the licensee's past operability review determined that the degraded emergency diesel jacket water coolers were operable.

Inspection Report# : [2000006\(pdf\)](#)

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## Barrier Integrity

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## Emergency Preparedness

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## Occupational Radiation Safety

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**Significance:** Oct 06, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

#### **Failure to survey**

10 CFR 20.1501(a) states, in part, that each licensee shall make or cause to be made surveys that are reasonable under the circumstances to evaluate the magnitude and extent of radiation levels and concentrations or quantities of radioactive material. In the following three instances, the licensee failed to properly survey tools and equipment, and determine the quantities of radioactive material present. On March 27, 2001, the licensee discovered a Chicago fitting containing 2000 counts per minute of radioactive material outside the radiologically controlled area. The fitting caused the yard access small article monitor to alarm when personnel were exiting the yard access area. This event is described in the licensee's corrective action program, reference Smart Form SMF 2001-000630. On April 1, 2001, the licensee identified that eddy current equipment was not properly surveyed prior to decontamination. The label indicated contamination levels of 20,000 disintegrations per minute per 100 square centimeters when the actual contamination levels were mrad smearable. This event is described in the licensee's corrective action program, reference Smart Form SMF 2001-000729. On May 24, 2001, the licensee identified that a tool removed from the clean tool room contained 7000 counts per minute of radioactive material. The tool caused an alarm on the personnel monitor at the Alternate Access Point located outside the radiologically controlled area. This event is described in the licensee's corrective action program, reference Smart Form SMF 2001-001352. These three examples are being treated as a non-cited violation. The safety significance of this violation was determined to be very low by the Occupational Radiation Safety Significance Determination Process because there was no over exposure, no substantial potential for over exposure, and the ability to assess dose was not compromised.

Inspection Report# : [2001004\(pdf\)](#)

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**Significance:** Apr 03, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to survey**

The inspector identified two occasions, during the Unit 1 refueling outage, when radiation protection personnel failed to survey an area prior to workers entering the area. The first occasion was for failure to survey steam generator platform Loop Room 2/3. The second occasion was for failure to survey the overhead of the pressurizer relief tank room. 10 CFR 20.1501(a) requires each licensee to make or cause to be made surveys that are reasonable under the circumstances to evaluate radiation levels, concentrations or quantities of radioactive material, and the potential

radiological hazards. The failure to perform radiological surveys in the above areas was a violation of 10 CFR 20.1501(a). This violation is being treated as a noncited violation and is in the licensee's corrective action program as Smart Forms 2001-1619 and 2001-805, respectively. The safety significance of this violation was determined to be very low by the Occupational Radiation Safety Significance Determination Process because there was no overexposure or substantial potential for an overexposure, and the ability to assess dose was not compromised. This violation was more than minor because the failure to perform a survey has a credible impact on safety and the potential for unplanned or unintended dose. Inspection Report# : [2001003\(pdf\)](#)

**Significance:** SL-IV Dec 12, 2000  
Identified By: NRC  
Item Type: NCV NonCited Violation

**Failure to survey**

On December 12, 2000, the inspector identified that radiation protection personnel failed to perform a radiological survey of an area above the waste monitoring tank room on elevation 790 foot of the auxiliary building prior to a worker entering the area. 10 CFR 20.1501(a), states, in part, each licensee shall make or cause to be made, surveys that are reasonable under the circumstances to evaluate radiation levels, concentrations or quantities of radioactive material, and the potential radiological hazards. The failure to perform a radiological survey of the above area was a violation of 10 CFR 20.1501(a). This violation is being treated as a noncited violation and is in the licensee's corrective action program as Smart Form 2000-3407. The significance of this violation was determined to be more than minor because there was a credible impact on a worker's radiation safety; however, it did not affect the cornerstone since there were no actual consequences and monitoring devices remained operable. Inspection Report# : [2000009\(pdf\)](#)

## Public Radiation Safety



**Significance:** G May 18, 2000  
Identified By: NRC  
Item Type: FIN Finding

**Ineffective corrective actions for failure to source check a radiation monitor prior to a release**

The details surrounding the March 23, 1999, nonroutine release were in the licensee's corrective action program as Smart Form SMF-1999-000671-00. Corrective actions were completed, and Smart Form SMF-1999-000671-00 was closed on August 24, 1999. However, on September 28, 1999, the licensee again failed to source check the effluent radiation monitor prior to initiating a nonroutine gaseous batch release. Therefore, the inspectors concluded that the corrective actions were ineffective in preventing a second occurrence. This issue was characterized as a green finding because the significance of the related technical issue was green. Inspection Report# : [2000003\(pdf\)](#)



**Significance:** G May 04, 2000  
Identified By: NRC  
Item Type: NCV NonCited Violation

**Failure to source check a radiation monitor prior to a release**

The licensee identified that on March 23, 1999, a nonroutine gaseous release was initiated from the Unit 2 volume control tank prior to performing a source check on the primary plant ventilation noble gas release rate monitor. The inspectors identified another incident on September 28, 1999, in which the licensee performed a nonroutine gaseous batch release from the Unit 1 volume control tank prior to performing a source check to verify proper operation of the primary plant ventilation noble gas release rate monitor. The failure to perform the source check on the effluent monitors could have resulted in a radioactive gaseous release to the environment which was not properly monitored by an operable radiation monitor. The licensee's failure to perform source checks on the primary plant ventilation noble gas release rate monitors prior to initiating the gaseous batch releases from the volume control tanks was a violation of Technical Specification 5.5.1. This violation is being treated as a noncited violation consistent with Section VI.A of the NRC Enforcement Policy and is in the licensee's corrective action program as Smart Form SMF-2000-001412-00. This issue was characterized as a green finding using the public radiation safety significance determination process. It was determined to have very low risk significance because the incident did not impair the licensee's ability to assess dose, and the calculated dose to the public as a result of the two gaseous releases was less than 1.0 percent of 10 CFR Part 50, Appendix I limits. Inspection Report# : [2000003\(pdf\)](#)



**Significance:** W Dec 06, 2001  
Identified By: Licensee  
Item Type: VIO Violation

**Failure to survey**

Between January 24, 2000, and May 24, 2001, the licensee identified 11 examples in which radioactive material was inadvertently released from the radiologically controlled area because the licensee failed to properly perform surveys. Two of these examples have been dispositioned as a

noncited violation of very low safety significance (Green) in NRC Inspection Report 50-445;446/01-04. The failure to perform proper radiological surveys are nine examples of a Technical Specification 5.4.1.a violation consistent with the NRC Enforcement Policy. These events are described in the licensee's corrective action program, reference Smart Forms 2000-000187, 2000-001080, 2000-002380, 2000-002445, 2000-002458, 2000-002740, 2000-003122, 2001-000850, and 2001-000968. Using the public radiation safety significance determination process, the NRC determined that the finding was of low-to-moderate risk significance (white) because the public exposure associated with each item was less than 5 millirem; however, there were more than five events. The events were more than minor, because the failure to properly survey radioactive material has a credible impact on safety, and the issues involved occurrences in the licensee's radioactive material control program that were contrary to NRC requirements or licensee procedures.

Inspection Report# : [2001007\(pdf\)](#)

## Physical Protection



**Significance:** Dec 06, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

### **Failure to maintain continuous observation of degraded vital area barriers.**

On April 2, 1999, and October 16, 2000, the licensee identified that a vital area barrier associated with Unit 2 main steam safety tail pipe work was found in a degraded condition and not continuously observed. 10 CFR 73.40 requires, in part, that a licensee establish and maintain physical security in accordance with security plans. Section 10.4.5 of the licensee's physical security plan requires continuous observations of vital area barriers that are found in a degraded condition. The failure to maintain continuous observation of degraded vital area barriers were two examples of a physical security plan violation. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy. This violation is in the licensee's corrective action program as Smart Forms 1999-000830 and 2000-002864. The safety significance of this finding was determined to be very low (Green) by the physical protection significance determination process because there were no malevolent acts and there were not more than two similar findings in four quarters. The issues were more than minor because the failure to properly control vital area boundaries has a credible impact on safety.

Inspection Report# : [2001007\(pdf\)](#)

## Miscellaneous

**Significance:** N/A Dec 06, 2001

Identified By: NRC

Item Type: FIN Finding

### **Overall, an effective corrective action program was in place.**

The licensee was effective at identifying problems and entering them into the corrective action program for resolution. Safety significance was appropriately considered in prioritizing the extent to which individual problems would be evaluated and in establishing schedules for implementation of corrective actions. Licensee evaluations and department self-assessments were comprehensive and self-critical. Based on interviews conducted during this inspection, individuals at the site felt free to input safety issues into the corrective action program and felt that the program effectively addressed safety issues documented. Overall, the licensee implemented corrective actions that were timely and effective. However, the team found that the licensee's process for identifying performance trends relied heavily on each department manager recognizing when adverse trends existed. In one instance, an adverse performance trend involving the inadvertent release of radioactive material from the radiologically controlled area had not been identified and corrected by the department manager. Two violations of NRC requirements were identified where corrective actions were either not effective or timely to prevent a similar occurrence.

Inspection Report# : [2001007\(pdf\)](#)

**Significance:** SL-IV Nov 03, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to properly conduct training of a plant equipment operator trainee during an equipment training evolution**

On October 27, 1999, a plant equipment operator trainee was directed and allowed by a qualified plant equipment operator to perform the helium compensation calibration of the hydrogen recombiner in the waste gas holdup system without direct supervision. As a result, the calibration was performed incorrectly. Technical Specification 5.4.1.a requires, in part, that written procedures be established, implemented, and maintained covering the activities recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978. Regulatory Guide 1.33, Appendix A, Section 1.b, requires procedures for authorities and responsibilities for safe operation. Section 6.15, of Operations Department Administrative Manual Procedure ODA-102, Conduct of Operations, Revision 17, stated, in part, "Whenever trainees operate equipment, a qualified operator shall observe the trainee . . ." and "When a Trainee is performing any equipment operation or control manipulation, the qualified personnel shall observe the necessary indication as if he performed the task himself using all required self verification techniques." The failure of a qualified radwaste equipment operator to directly observe a radwaste equipment operator trainee operating equipment and performing the helium compensation

calibration of the hydrogen recombiner is a violation of Technical Specification 5.4.1.a. The NRC determined that this was a willful violation of Operations Department Administrative Procedure ODA-102 requirements. This Severity Level IV violation is being treated as a noncited violation and was entered in the licensee's corrective action program as Smart Form SMF-1999-002891-00.

Inspection Report# : [2000007\(pdf\)](#)

**Significance: N/A** Aug 28, 2000

Identified By: NRC

Item Type: FIN Finding

**Effective Corrective Action Program**

The licensee was effective at identifying problems and putting them into the corrective action program. The licensee self-identified the significant deficiencies identified during the review period. The licensee effectively prioritized the extent to which individual problems would be evaluated consistent with their safety and risk significance and established schedules for implementation of corrective actions. The licensee implemented corrective actions that were timely and effective.

Inspection Report# : [2000005\(pdf\)](#)

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