Comanche Peak 2

Initiating Events

Significance: G 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: G 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: G Jan 14, 2002
Identified By: NRC
Item Type: FIN Finding
Failure to specify adequate postmaintenance testing for current-to-pneumatic converter for atmospheric relief valve.
A Green finding was identified for the failure of the licensee to specify an adequate postmaintenance test following replacement of the current-to-pneumatic converter for the Unit 2, Steam Generator 4 atmospheric relief Valve 2-PV-2328. The tests specified by the work order would not have validated the design basis of the supporting air accumulator. Furthermore, the leak rate from the current-to-pneumatic converter had not been identified as a quality attribute when procuring and conducting receipt inspections of new current-to-pneumatic converters. After the inspector discussed this with the licensee, a pressure drop test was performed prior to declaring the atmospheric relief valve operable, therefore no violation of NRC requirements occurred. However, this finding was greater than minor because it had a credible impact on safety since the maintenance could have rendered the valve incapable of completing its design function during a loss of offsite power. Since this finding did not involve a design or qualification deficiency

and did not represent an actual loss of safety function, Phase 1 of the Significance Determination Process characterized the finding to be of very low safety significance. This issue was documented in the corrective action program as Smart Form SMF-2002-000120-00.
Inspection Report# : 2001006*(pdf)*

Significance: G 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)*

Significance: G 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)*

Significance: G 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)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Significance: G Apr 12, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to inform workers of the radiological conditions in their work area
Between April 8-11, 2002, an NRC inspector identified approximately 10 workers assigned to different areas of the radiologically controlled area who were not informed of the radiological conditions in their work area. The failure to inform workers of the radiological conditions in their work area is a violation of 10 CFR 19.12(a). 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 SMF 2002-1272. The safety significance of this finding 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. The issue was more than minor because the failure to inform a worker of the radiological conditions in an assigned work area has a credible impact on safety and the occurrence had the potential to involve a worker's unplanned dose if radiological conditions had been significantly greater.
Inspection Report# : 2002002*(pdf)*

Significance: G Apr 12, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to assign dose to the highest whole body receptor
An NRC inspector determined that the licensee failed to monitor and assign the deep-dose equivalent to the part of the whole body exposed to the highest radiation field during reactor head disassembly work on April 2, 2002. The failure to account for the highest whole body exposure is a violation of 10 CFR 20.1201(c). 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 SMF 2002-1332. The safety significance of this finding 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. The issue was more than minor because a failure to assign exposure to the part of the whole body receiving the highest exposure has a credible impact on safety and the occurrence had the potential to involve a worker's unplanned dose if radiation levels had been significantly greater.
Inspection Report# : 2002002*(pdf)*

Significance: G Apr 10, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to follow radiation work permit requirements
On April 10, 2002, an NRC inspector observed that a radiation protection technician did not stop work when radiological airborne conditions exceeded 1.0 Derived Air Concentration (DAC). Radiation Work Permit (RWP) 2002-2223 Task 2, Revision 1, used to perform this task stated, in part, "if airborne activity levels exceed 1.0 DAC stop work." The failure to follow radiation work permit requirements is a violation of Technical Specification 5.4.1.a. 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 SMF 2002-1330. The safety significance of this finding 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. The issue was more than minor because a failure to follow the RWP radiological requirements has a credible impact on safety and the occurrence had the potential to involve a worker's unplanned dose if radiological conditions had been significantly greater.
Inspection Report# : 2002002*(pdf)*

Significance: SL-IV Mar 13, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to acknowledge a personnel contamination monitor alarm.
On March 13, 2002, an NRC inspector observed an individual leaving the protected area and exiting the portal radiation monitor (PM-7) while the monitor was in alarm. The individual did not stop, and when the inspector called the individual to recount he did not return. The individual was stopped by another site employee and returned for a recount. The recount did not detect any radioactive material. Station Administration Procedure STA-654, "Personnel and Discrete Radioactive Particle Contamination Control," Revision 3, requires that if a portal monitor alarm occurs, the individual is to step out and repeat the count. The failure to follow procedural requirements involving a personnel contamination monitor alarm was a violation of Technical Specification 5.4.1a. This 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 Form SMF-2002-000777. The safety significance of this violation was determined to be more than minor, because not responding to a personnel contamination monitor alarm had a credible impact on a worker's radiation safety. This violation did not affect the cornerstone since there was no impact on radiation monitors (instrumentation and/or personnel dosimetry) related to measuring workers' dose.
Inspection Report# : 2001006*(pdf)*

Significance: G 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)*

Significance: G 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: N/A Apr 25, 2002
Identified By: NRC
Item Type: FIN Finding
Supplemental Inspection Results
A supplemental inspection was performed by the NRC to assess the licensee's evaluation of the control of radioactive material. A finding previously characterized as having low to moderate safety significance (White) was documented in the Final Significance Determination for NRC Inspection Report 50-445/01-07; 50-446/01-07. During this supplemental inspection performed in accordance with Inspection Procedure 95001, the inspector determined that the licensee performed a thorough, broad-based evaluation of the causes of the radioactive material control issue and correctly identified the extent of the conditions that led to the control problems. The licensee's evaluation identified 17 root causes. Corrective actions included: (1) conducting a pre-outage stand-down with all station work groups to discuss the past associated problems and the importance for control of radioactive material; (2) procedural revisions that clarified radioactive material control expectations and identification programs; (3) improved Radiation Worker Training lesson plans that stressed the need for and the controls in-place for handling radioactive material; and, (4) increased staffing for monitoring and controlling the release of radioactive material during outages. An effectiveness evaluation of radiation protection activities, to include the control of radioactive material, will be documented in Nuclear Oversight Department Evaluation 2002-015, at the completion of refueling outage 2RFO6. Because of the licensee's acceptable performance in addressing the control of radioactive material, the White finding associated with this issue will only be considered in assessing plant performance for a total of four quarters, in accordance with the guidance in IMC 0305, "Operating Reactor Assessment Program."
Inspection Report# : 2002007*(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. A Notice of Violation was issued in a letter dated February 21, 2002. On March 6, 2002, the licensee filed an appeal of the characterization of the white finding to the NRC Region IV office. That appeal was denied by letter dated July 5, 2002. On August 6, 2002, the licensee filed an appeal with the EDO office. That appeal was denied by letter dated October 16, 2002.
Inspection Report# : 2001007*(pdf)*

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)*

Physical Protection

Significance: G 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)*

Last modified : December 02, 2002