

Comanche Peak 1

2Q/2012 Plant Inspection Findings

Initiating Events

Significance:  Sep 17, 2011

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Inadequate Supervision Causes Inadvertent Engineered Safety Features Actuation

The inspectors reviewed a self-revealing noncited violation of Technical Specification 5.4.1.a for the failure of the unit supervisor to adequately maintain responsibility for the operation of Unit 1 and the supervision of operations personnel during preparations for a reactor startup. As a result, when an operator performed a trip of the main feedwater pump, the motor driven auxiliary feedwater pumps received an engineered safety features actuation and initiated full auxiliary feedwater flow to the steam generators. Operators throttled feedwater flow to prevent overflow of the steam generators and excessive cool down of the reactor coolant system. The licensee entered the finding into the corrective action program as Condition Report CR-2011-008052.

The failure of the unit supervisor to maintain responsibility for the operation of Unit 1 and the supervision of operations personnel during preparations for a reactor startup was a performance deficiency and resulted in an unplanned engineered safety features actuation of the auxiliary feedwater pumps. The finding was more than minor because it was associated with the configuration control 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 decision making, in that, the unit supervisor failed to communicate the decision to install the auxiliary feedwater pump auto start fuses to all control room personnel.

Inspection Report# : [2011004](#) (*pdf*)

Mitigating Systems

Significance:  Jun 26, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Analyze Tornado Missile Strike on Turbine Driven Auxiliary Feedwater Exhaust Pipe

The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, for the failure to translate tornado missile protection design requirements to a pipe stress analysis procedure. This resulted in the licensee's failure to analyze the effects of a tornado missile strike on the turbine driven auxiliary feedwater pumps' steam exhaust piping. The licensee preliminarily determined that the auxiliary feedwater system would be able to perform its safety function given a tornado missile strike. The licensee entered the finding into the corrective action program as Condition Report CR 2012 006134.

The licensee's failure to translate design requirements into the pipe stress analysis procedure resulted in the failure to analyze the effects of a tornado missile strike on the turbine driven auxiliary feedwater pump steam exhaust pipes. The finding was more than minor because it was associated with the protection against external events attribute of the mitigating systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the licensee failed to ensure the reliability of the auxiliary feedwater system in response to a tornado missile hazard.

Using NRC Manual Chapter 0609, "Significance Determination Process," Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance because it was a qualification deficiency confirmed not to result in loss of operability or functionality. The finding did not have a cross-cutting aspect because the performance deficiency was not representative of current plant performance.

Inspection Report# : [2012003](#) (*pdf*)

Significance:  Jun 26, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Revise Turbine Driven Auxiliary Feedwater Pump Acceptance Criteria

The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XI, for the failure to incorporate acceptance limits from applicable design documents into test procedures. Specifically, the licensee revised the Unit 1 and Unit 2 requirement for the turbine driven auxiliary feedwater pump discharge pressure for a power uprate, but failed to incorporate the change into the pump surveillance procedures. As a result, the acceptance criteria were incorrect and nonconservative. The pumps were able to meet the revised acceptance criteria and perform their safety function. The licensee entered the finding into the corrective action program as Condition Report CR 2012-006135.

The licensee's failure to update the turbine driven auxiliary feedwater surveillance procedure acceptance criteria following an accident analysis revision was a performance deficiency which resulted in the failure to ensure the pump was meeting its discharge pressure requirements. The finding was more than minor because if left uncorrected, it would have the potential to lead to a more significant safety concern, in that, if the turbine driven auxiliary feedwater pump performance degraded below the accident analysis assumptions, the surveillance would not detect the inoperability and corrective actions would not be taken. Using NRC Manual Chapter 0609, "Significance Determination Process," Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance in the mitigating systems cornerstone because it was not a design or qualification deficiency, was not a loss of system safety function, was not an actual loss of safety function of a single train for greater than its technical specification allowed outage time, and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. The finding did not have a cross-cutting aspect because the performance deficiency was not representative of current plant performance.

Inspection Report# : [2012003](#) (*pdf*)

Significance:  Jun 26, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Adequately Evaluate Fish Intrusion Operating Experience and Initiate Corrective Action

The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, for the failure of the licensee to identify and correct a condition adverse to quality. Specifically, the licensee failed to adequately evaluate industry operating experience related to fish intrusion into cooling water systems, which resulted in the failure to take appropriate corrective actions. Subsequently, shad from the safe shutdown impoundment entered the service water system and lowered cooling water flow to safety-related components when the fish were caught in the component strainers. The licensee entered the finding into the corrective action program as Condition Report CR-2012-006133.

The licensee's failure to identify a condition adverse through an inadequate evaluation of industry operating experience related to fish intrusion into cooling water systems was a performance deficiency and resulted in the failure to take appropriate corrective actions that could have prevented a similar fish intrusion event at the station. The finding was more than minor because it was associated with the protection against external events attribute of the mitigating systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the fish intrusion resulted in the clogging of strainers and the lowering of service water flow to safety-related pumps. Using NRC Manual Chapter 0609, "Significance Determination Process," Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance because it was not a design or qualification deficiency, was not a loss of system safety function, was not an actual loss of safety function of

a single train for greater than its technical specification allowed outage time, and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. The finding did not have a cross-cutting aspect because the performance deficiency was not representative of current plant performance.

Inspection Report# : [2012003](#) (pdf)

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Significance: Jun 26, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Take Corrective Actions for Safety Chiller Trips

The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, for the failure to follow procedure and develop corrective actions for a low tier cause analysis. Specifically, the licensee performed a low tier cause analysis on two safety chiller 2-06 trips, but failed to develop corrective actions or provide any justification for not taking corrective actions. The licensee entered the finding into the corrective action program as Condition Report CR 2012-006136.

The licensee's failure to follow procedure for a low tier cause analysis was a performance deficiency and resulted in not taking corrective actions for two safety chiller trips. The finding was more than minor because it was associated with the equipment performance attribute of the mitigating systems cornerstone and adversely affected the cornerstone objective to ensure the availability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the safety chillers are unavailable while they are tripped. Using NRC Manual Chapter 0609, "Significance Determination Process," Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance because it was not a design or qualification deficiency, was not a loss of system safety function, was not an actual loss of safety function of a single train for greater than its technical specification allowed outage time, and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. The finding has a problem identification and resolution cross-cutting aspect associated with the corrective action program because the licensee failed to thoroughly evaluate the problem such that the resolution addresses the cause.

Inspection Report# : [2012003](#) (pdf)

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Significance: Mar 27, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Initiate Condition Report for Emergency Core Cooling System Pump Leaks

The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, for the failure to follow procedure and initiate a condition report for degradation of safety-related equipment. Specifically, the licensee failed to initiate a condition report for multiple small oil leaks on emergency core cooling system pumps and motors. As a result, the licensee failed to characterize the operability of the equipment and identify potential corrective actions. The licensee entered the finding into the corrective action program as Condition Report CR-2012-003390.

The licensee's failure to follow procedure and initiate a condition report for emergency core cooling system pump and motor oil leaks was a performance deficiency and resulted in the failure to characterize the operability of the equipment and the failure to initiate appropriate corrective actions. The finding was more than minor because if left uncorrected, it would have the potential to lead to a more significant safety concern, in that, the leaks could worsen before establishing corrective actions and cause inoperable safety-related equipment. Using NRC Manual Chapter 0609, "Significance Determination Process," Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance in the mitigating systems cornerstone because the equipment was able to perform its safety function and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. The finding has a problem identification and resolution cross-cutting aspect associated with the corrective action program because the licensee did not use a low threshold for identifying issues [P.1a].

Inspection Report# : [2012002](#) (pdf)

G**Significance:** Mar 27, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Past Operability Determination for the Diesel Generators

The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, for the failure to follow procedure and perform an adequate past operability evaluation to determine if a condition would have made a system inoperable in the past. Specifically, the licensee failed to determine that when a diesel generator was paralleled to the grid with a high bus voltage condition, the diesel generator was inoperable. As a result of the inadequate past operability evaluation, the licensee incorrectly classified the significance of the condition report. The licensee entered the finding into the corrective action program as Condition Report CR-2011-006113.

The failure to follow procedure and perform an adequate past operability evaluation of the diesel generators was a performance deficiency which resulted in the licensee incorrectly classifying the significance of the condition report. The finding was more than minor because if left uncorrected, it would have the potential to lead to a more significant safety concern, in that, the licensee could fail to correct a condition commensurate with its safety significance. Using NRC Manual Chapter 0609, "Significance Determination Process," Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," the finding was determined to be of very low safety significance in the mitigating systems cornerstone because it did not result in the equipment being unable to perform its safety function for greater than its technical specification allowed outage time, and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. The finding has a human performance cross-cutting aspect associated with work practices because the licensee failed to use error prevention techniques, such as pre-job briefings, that were commensurate with the risk of the assigned task and support human performance error prevention [H.4a].

Inspection Report# : [2012002](#) (pdf)**G****Significance:** Dec 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Remove Materials and Debris from Containment

The inspectors identified a non-cited violation of Technical Specification 5.4.1.a for the failure to follow procedure and remove items from containment. As a result, maintenance personnel failed to remove materials that could be transported to the containment emergency core cooling sumps during an accident. The inspectors informed the licensee of the debris inside containment and the licensee corrected the condition. The licensee entered the finding into the corrective action program as Condition Report CR 2011 013343.

The failure of the maintenance personnel to follow procedure and remove materials from containment was a performance deficiency which resulted in debris remaining in containment. The finding was more than minor because it was associated with the equipment performance attribute of the mitigating systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of the emergency core cooling sumps. Using NRC Manual Chapter 0609, "Significance Determination Process," Appendix G, "Shutdown Operations Significance Determination Process," Attachment 1, Checklist 2, the finding was determined to be of very low safety significance because the licensee maintained adequate mitigation capability for the current plant state and the finding was not characterized as a loss of control event. The finding has a human performance crosscutting aspect associated with resources because the licensee failed to ensure that personnel performing the maintenance activity were adequately trained on the procedure requirement to remove the materials when leaving containment.

Inspection Report# : [2011005](#) (pdf)**G****Significance:** Dec 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Correctly Reassemble a Motor Operated Valve

The inspectors identified a non-cited violation of Technical Specification 5.4.1.a for the failure to follow procedure and correctly restore motor operated valves. As a result, the licensee inverted the Unit 1 power operated relief valve

block valves' limit switch covers and placed the drain on the top. The licensee entered the finding into the corrective action program as Condition Report CR 2011 011871.

The failure to follow procedure and correctly restore motor operated valves, which resulted in inverted limit switch covers with the drain on the top, was a performance deficiency. The finding was more than minor because if left uncorrected, the performance deficiency had the potential to lead to a more significant safety concern in that other valves may have been incorrectly restored. The inspectors determined that the finding was associated with the mitigating systems cornerstone and affected the unit during a refueling outage. Using NRC Manual Chapter 0609, "Significance Determination Process," Appendix G, "Shutdown Operations Significance Determination Process," Attachment 1, Checklist 2, the finding was determined to be of very low safety significance because the licensee maintained adequate mitigation capability for the current plant state and the finding was not characterized as a loss of control event. The finding has a human performance crosscutting aspect associated with work practices because the licensee failed to use appropriate self and peer checking.

Inspection Report# : [2011005](#) (pdf)

Significance:  Dec 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Identify Inadequate Auxiliary Feedwater Pump Bearing Oil Levels

The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the failure of the licensee to promptly identify and correct adverse auxiliary feedwater pump oil levels. As a result, the inspectors identified seven instances where the oil level was outside of the prescribed sight glass indication. The licensee entered the finding into the corrective action program as Condition Report CR-2011- 12430.

The licensee's failure to promptly identify and correct the improper auxiliary feedwater pump bearing oil level was a performance deficiency. The finding was more than minor because it was associated with the equipment performance attribute of the mitigating systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of the auxiliary feedwater pumps. 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 result in an actual loss of safety function of an auxiliary feedwater pump. The finding has a problem identification and resolution crosscutting aspect associated with corrective action program, in that, licensee personnel failed to trend and assess the abnormal oil level condition reports in the aggregate to identify common cause problems.

Inspection Report# : [2011005](#) (pdf)

Significance:  Sep 17, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Maintain Operator Licensing Examination Integrity

The inspectors identified a noncited violation of 10 CFR Part 55.49, "Integrity of Examinations and Tests," for the failure of the licensee to ensure the integrity of annual operating exams. During the 2009 annual operating exam, 17 licensed operators received three of five job performance measures, and 17 additional licensed operators received four of five job performance measures for their operating tests that had been administered to other licensed operators in previous weeks. In addition, five licensed operators received two of three crew simulator scenarios as part of their operating test that had been administered to other licensed operators in previous weeks. Allowing more than 50 percent of an operating test section to be comprised of exam material previously administered on any other test in the same examination cycle is considered an exam integrity compromise. However, evaluation of the 2009 exam results for the affected population showed that the compromise did not have an actual effect on the equitable and consistent administration of the examination. The licensee entered the finding into the corrective action program as Condition Report CR-2010-010851.

The failure of the licensee's training staff to maintain the integrity of examinations administered to licensed operations personnel was a performance deficiency. The finding was more than minor because it adversely impacted the human performance attribute of the mitigating systems cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Additionally, if left uncorrected, the performance deficiency could have become more significant in that allowing licensed operators to return to the control room without valid demonstration of appropriate knowledge on the annual operating examinations could be a precursor to a more significant event. Using NRC Manual Chapter 0609, "Significance Determination Process," Phase 1 worksheets, and the corresponding Appendix I, "Licensed Operator Requalification Significance Determination Process," the finding was determined to have very low safety significance because, although the 2009 finding resulted in a compromise of the integrity of operating test job performance measures and simulator scenarios with no compensatory actions immediately taken when the compromise should have been discovered in 2009. The equitable and consistent administration of the test was not actually impacted by this compromise. This finding has a crosscutting aspect in the area of resources associated with ensuring that procedures are accurately translated from industry standards, such that the 50 percent maximum overlap criteria was not exceeded.

Inspection Report# : [2011004](#) (pdf)

Significance:  Sep 17, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Ensure All License Conditions Are Met for Licensed Operators

The inspectors identified a noncited violation of 10 CFR 55.53, "Conditions of License," for the failure of the licensee to ensure that licensed operators met all the conditions of their licenses in order to be considered an active watch stander. Specifically, the licensee failed to ensure that three licensed operators met the complete plant tour requirement specified in 10 CFR 55.53(f) prior to license reactivation and subsequent performance of licensed operator duties. The licensee entered the finding into the corrective action program as Condition Report CR-2011-004990.

The failure of the licensee to ensure that all individuals authorized by a license to operate the controls of the facility met the conditions of their licenses as defined in 10 CFR Part 55.53 was a performance deficiency. This finding was more than minor because it was associated with the human performance attribute of the mitigating system cornerstone and affects the cornerstone's objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using NRC Manual Chapter 0609, "Significance Determination Process," Phase 1 worksheets, and the corresponding Appendix I, "Licensed Operator Requalification Significance Determination Process," the finding was determined to have very low safety significance because more than 20 percent of the license reactivation records reviewed contained these deficiencies. This finding has a crosscutting aspect in the area of resources that support human performance in that the licensee failed to ensure that procedures are complete and accurate to ensure licensed operators maintain all conditions of their licenses in accordance with 10 CFR 55.53.

Inspection Report# : [2011004](#) (pdf)

Significance: SL-IV Jul 28, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Conclude a Change from the UFSAR Required Prior NRC Review and Approval

The inspectors identified a Severity Level IV Non-Cited Violation of 10 CFR 50.59, "Changes, Tests, and Experiments," associated with the failure to conclude that a change from the UFSAR required prior NRC review and approval prior to implementation. Specifically, the licensee made changes to the acceptance criteria for allowable diesel generator jacket water leakage in the UFSAR that resulted in more than a minimal increase in the likelihood of occurrence of a malfunction of a structure, system, or component important to safety. The licensee captured this finding in their corrective action program as Condition Report CR 2011-008509.

This finding was more than minor because there was a reasonable likelihood that the change would require a prior NRC approval. Violations of 10 CFR 50.59 are violations that potentially impede or impact the regulatory process and are processed through Traditional Enforcement. As required by Section 6.1 of the Enforcement Policy, the inspectors

performed a Phase 1 screening in accordance with Manual Chapter 0609, Attachment 4, “Phase 1 – Initial Screening and Characterization of Findings,” to determine the significance of the finding. The inspectors determined that the finding is of very low safety significance (Green) because the finding: (1) was not a design or qualification issue confirmed not to result in a loss of operability or functionality; (2) did not represent an actual loss of safety function of the system or train; (3) did not result in the loss of one or more trains of nontechnical specification equipment; and (4) did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. Since violations of Title 10 CFR 50.59 may result in conditions evaluated as having very low safety significance by the Significance Determination Process, the inspectors categorized the finding as Severity Level IV in accordance with the Enforcement Manual. The finding was a violation determined to be of very low safety significance, was not repetitive or willful, and was entered into the corrective action program. Therefore, this violation is being treated as a noncited violation consistent with the NRC Enforcement Policy. The inspectors did not identify a crosscutting aspect with this finding since this performance issue occurred in 2004 and is not reflective of current performance. Inspection Report# : [2011006](#) (*pdf*)

G

Significance: Jul 28, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Diesel Generator Jacket Water Instructions

The inspectors identified a Green noncited violation of 10 CFR Part 50, Appendix B, Criterion V, for the licensee’s failure to have documented instructions for an activity affecting quality. Specifically, the licensee did not have documented instructions for filling the diesel generator jacket water system when the normal fill method would not be available during a loss of offsite power. Specifically, prior to July 27, 2011, the licensee failed to have adequate instructions for filling the diesel generator jacket water system, an activity affecting quality, during a loss of offsite power. This issue was entered into the licensee’s corrective action program as Condition Report CR-2011-008510.

This performance deficiency was determined more than minor because it was associated with the procedure quality attribute of the mitigating systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using IMC 0609, Attachment 4, “Phase 1 - Initial Screening and Characterization of Findings,” the finding is determined to be of very low safety significance because the finding did not result in an actual loss safety related equipment for greater than its technical specification allowed outage time and did not represent a loss of equipment designated as risk-significant in the maintenance rule. The finding did not have a crosscutting aspect because it was not representative of current licensee performance.

Inspection Report# : [2011006](#) (*pdf*)

G

Significance: Jul 28, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Follow Operability Determination Process for a Degraded Condition Related to Emergency Diesel Generator

The inspectors identified a Green noncited violation of Title 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” for the failure of the licensee to follow the operability determination Procedure ODA-309, “Operability Determination and Functionality Assessment Program.” Specifically, the licensee did not appropriately evaluate a long-standing degraded condition such that the emergency diesel generators would remain operable for their mission time duration as required by ODA-309. As a result, adequate compensatory measures were not established to ensure operability. This issue was entered into the licensee’s corrective action program as Condition Report CR 2011-008508.

The performance deficiency was determined to be more than minor because it was associated with the equipment performance attribute of the Mitigating System cornerstone and affects the cornerstone objective to ensure the availability and reliability of emergency diesel generators that respond to initiating events to prevent undesirable consequences in that the emergency diesel generators supply power to vital and safety related loads. Because Manual Chapter 0609, Attachment 4, “Phase 1-Initial Screening and Characterization of Findings,” was not well suited for this finding a Phase 3 Risk Significance Estimation was required. A Region IV senior reactor analyst performed a

bounding Phase 3 significance determination and found that the finding was of very low safety significance. The bounding change to core damage frequency was $6.7E-7$ /year. The simplified plant analysis risk (SPAR) model does not include the contribution of the recently installed alternate power generators, which would considerably lower the risk significance of an emergency diesel generator failure for the station blackout sequences, which comprise most of the risk of this finding. The inspectors determined that there was a crosscutting aspect in the area of human performance decision-making because the licensee failed to use conservative assumptions in decision making in the assessment of operability.

Inspection Report# : [2011006](#) (*pdf*)

G

Significance: Jul 28, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Repeated Diesel Generator Cam Cover Bolt Failures

The inspectors identified a Green noncited violation of Title 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," in that the licensee did not correct a condition adverse to quality regarding the safety related emergency diesel generators. Specifically, as of July 12, 2011, the licensee failed to assure that the identified broken cam cover bolts on the emergency diesel generators were adequately corrected. This issue was entered into the licensee's corrective action program as Condition Report CR 2011-008505.

The performance deficiency was determined to be more than minor because it was associated with the equipment performance attribute of the Mitigating System cornerstone and affects the cornerstone objective to ensure the availability and reliability of emergency diesel generators that respond to initiating events to prevent undesirable consequences in that the emergency diesel generators supply power to vital and safety related loads. Because Manual Chapter 0609, Attachment 4, "Phase 1-Initial Screening and Characterization of Findings," was not well suited for this finding a Phase 3 Risk Significance Estimation was required. A Region IV senior reactor analyst performed a bounding Phase 3 significance determination and found that the finding was of very low safety significance. The bounding change to core damage frequency was $6.7E-7$ /year. The simplified plant analysis risk (SPAR) model does not include the contribution of the recently installed alternate power generators, which would considerably lower the risk significance of emergency diesel generator failure for the station blackout sequences, which comprise most of the risk of this finding. The inspectors determined that there was a crosscutting aspect in the area of problem identification and resolution because the licensee failed to thoroughly evaluate problems such that the resolutions address causes and extent of conditions, as necessary.

Inspection Report# : [2011006](#) (*pdf*)

Barrier Integrity

Emergency Preparedness

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Significance: Dec 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Provide Guidelines for Protective Action Recommendations Outside the Emergency Planning Zone

The inspectors identified a non-cited violation of 10 CFR 50.47(b)(10) for failure of the licensee to have guidelines developed and in place for the choice of protective actions during an emergency. Specifically, Procedure EPP 304, "Protective Action Recommendations," Revision 20, did not provide direction for the development of protective action recommendations outside the emergency planning zone. The licensee entered the finding into the corrective action program as Condition Report CR-2011 009218.

The failure to develop and implement guidelines for the choice of protective actions during an emergency is a

performance deficiency. This finding is more than minor because it has the potential to affect safety, and affects the emergency preparedness cornerstone attributes of emergency response organization performance and procedure quality. The finding is of very low safety significance because it was a failure to comply with NRC requirements, was associated with a risk-significant planning standard, and was not a functional failure of the planning standard or degraded planning standard function. The finding has a problem identification and resolution crosscutting aspect associated operating experience because the licensee did not use operating experience to maintain and update the protective action procedure.

Inspection Report# : [2011005](#) (pdf)

Occupational Radiation Safety

Significance:  Dec 31, 2011

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to Perform Adequate Radiation Surveys

The inspectors reviewed a self-revealing non-cited violation of 10 CFR 20.1501(a) because radiation protection staff failed to perform an adequate survey to evaluate and determine the radiological hazards in the floor drain tank room. The licensee entered the finding into the corrective action program as Condition Report CR 2011 010174 and immediately posted the room as a locked high radiation area.

The failure to perform a radiation survey to determine radiological hazards was 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 of ensuring adequate protection of worker health and safety from exposure to radiation during routine operations. Using NRC Manual Chapter 0609, "Significance Determination Process," 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 is reasonably achievable (ALARA) planning (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 failed to ensure interdepartmental communication and coordination prior to commencing work activities and assuring accurate radiation safety information was provided to workers.

Inspection Report# : [2011005](#) (pdf)

Significance:  Dec 31, 2011

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to Follow Radiological Work Permit Requirements

The inspectors reviewed a self-revealing non-cited violation of Technical Specification 5.4.1.a for the failure of a worker to follow radiological work permit requirements. Specifically, a chemistry technician received a dose rate alarm greater than 120 millirem per hour and failed to immediately exit the area and contact radiation protection. The licensee entered the finding into the corrective action program as Condition Report CR 2011- 010774.

The failure to follow the instructions on a radiation work permit by not immediately contacting radiation protection when a dose rate alarm was received was 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 of ensuring adequate protection of worker health and safety from exposure to radiation during routine operations. Using NRC Manual Chapter 0609, "Significance Determination Process," 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 is 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 worker.

Inspection Report# : [2011005](#) (*pdf*)

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the [cover letters](#) to security inspection reports may be viewed.

Miscellaneous

Last modified : September 12, 2012