San Onofre 3
1Q/2012 Plant Inspection Findings

Initiating Events

Significance: G Mar 24, 2012
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Control Work Activities and Prevent RCS Perturbations
The inspectors reviewed a self-revealing non-cited violation of Technical Specification 5.5.1.1 for the failure of operations personnel to follow Procedure SO23-3-1.8, “Draining the Reactor Coolant System to a Reduced Inventory Condition,” Revision 32, Attachment 13, “Reduced Inventory Condition RCS Perturbation Control.” Specifically, on February 8, 2012, operations personnel failed to document potential reactor coolant system perturbations and the measures, controls, and enhanced monitoring used to prevent perturbations. Consequently, work activities performed by heath physics personnel were not appropriately documented and controlled which resulted in a reactor coolant system perturbation while in reduced inventory conditions. The issue was entered into licensee’s corrective action program as Nuclear Notification NN 201848706.
The performance deficiency is more than minor, and therefore a finding, because it was associated with the Initiating Events Cornerstone attribute of configuration control and affected the associated cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Additionally, the failure to appropriately control work activities that could impact reactor coolant system inventory while in reduced inventory conditions, if left uncorrected, would have the potential to lead to a more significant safety concern. Using the Manual Chapter 0609, Appendix G, “Shutdown Operations Significance Determination Process,” Phase 1 guidance, a Phase 2 analysis is required because the finding increased the likelihood of a loss of reactor coolant system inventory during reduced inventory conditions as a result of inadequate controls implemented to avoid operations that could lead to perturbations in reactor coolant system level control. The finding was evaluated using the Phase 2 guidance in IMC 0609, Appendix G, as applied to Worksheet 2. Using the applicable tables and accounting for the availability of mitigating equipment, two sequences of value 8 and 9, respectively, were identified. This resulted in a determination of very low significance (Green). This finding has a cross-cutting aspect in the area of human performance associated with the work control component because health physics personnel failed to appropriately communicate and coordinate work activities with operations personnel to ensure there would be no impact to plant operations [H.3(b)](Section 1R20).
Inspection Report# : 2012002 *(pdf)*

Significance: SL-III Apr 18, 2011
Identified By: NRC
Item Type: VIO Violation
Inactive SRO Performed Licensed Duties as Refueling SRO Supervisor
The inspector identified one violation of 10 CFR 55.53(f) which states, in part, that the facility licensee is required to certify that the qualifications and status of a Senior Reactor Operator (SRO) are current and valid prior to the operator resuming activities authorized by their license. Specifically, on October 21, 2010, and October 27, 2010, an SRO performed licensed activities (core alterations) as Refueling SRO Supervisor while his license was INACTIVE. Additionally, the SRO was on a temporary medical hold from licensed activities on the dates identified. On October 27, 2010, the SRO’s license restrictions were questioned by on-shift operations personnel and the SRO was relieved from his watch station. The licensee has entered this violation into their corrective action program as NN 201174957. The corrective actions taken and planned to correct the violation and prevent recurrence and the date when full compliance will be achieved is considered adequate.
Failure of the facility licensee to maintain electronic programs used to verify licensed operator qualifications and to schedule licensed operator watch stations up-to-date with licensed operator worker qualifications and license restrictions could potentially impede the regulatory process by not providing complete and accurate information to NRC inspectors. NRC Enforcement Policy, Section 6.4, Licensed Reactor Operators, Item c.1.(c) states, in part, that if a licensed operator, or a senior operator actively performing the functions covered by that position, is determined to be in noncompliance with a condition stated on the individual’s license, then a Severity Level III violation exists.

Inspection Report# : 2011012 *(pdf)*

Mitigating Systems

Significance: G Dec 31, 2011
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Implement Required Compensatory Measures Resulted in Inoperable Condensate Storage Tank
A self-revealing non-cited violation of Technical Specification 5.5.1.1, “Procedures,” was identified for the failure of operations personnel to adequately implement the appropriate compensatory measures per alarm response procedure to ensure equipment was maintained as required by technical specifications. Specifically, on September 13, 2011, operations personnel failed to implement the compensatory measures required by alarm response Procedure SO23-15-53.B, to maintain the safety-related condensate storage tank water level within limits required by technical specifications. The issue was entered into the licensee’s corrective action program as Nuclear Notification NN 201644782.
The performance deficiency is more than minor, and therefore a finding, because it was associated with Mitigating Systems Cornerstone attribute of human performance and affected the associated cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using the Manual Chapter 0609, “Significance Determination Process,” Phase 1 Worksheets, the finding is determined to have very low safety significance because it was not a design or qualification deficiency confirmed not to result in loss of operability or functionality; did not result in a loss of system safety function; did not represent an actual loss of safety function of a single train for greater than its technical specification allowed outage time; was not an actual loss of safety function of one or more non-technical specification trains of equipment designated as risk significant per 10 CFR 50.65 for greater than 24 hours; and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. This finding has a cross-cutting aspect in the area of human performance associated with the decision-making component because operations personnel failed to use a systematic process to effectively communicate and formally establish required compensatory measures to ensure that condensate storage tank water inventory remained within technical specification limits [H.1(a)](Section 4OA3.1)
Inspection Report# : 2011005 *(pdf)*

Significance: G Dec 31, 2011
Identified By: Self-Revealing
Item Type: FIN Finding
Failure to Correct Degraded Plant Equipment Results in Ammonia Spill
A self-revealing finding was identified for the failure to take adequate corrective actions for degraded equipment associated with the Unit 3 full flow condensate polishing demineralizer system. Specifically, on October 27, 2011, operations personnel failed to take adequate corrective actions for an unexpected rise in ammonia day tank level and annunciation of an ammonia day tank high level, which eventually resulted in an ammonia leak from the ammonia day tank on November 1, 2011, that caused areas of the turbine building to become inaccessible requiring an emergency declaration at the ALERT level. The issue was entered into the licensee’s corrective action program as Nuclear Notification NN 201713841.
The performance deficiency is more than minor because the performance deficiency was a precursor to a significant event (Emergency Declaration), and is therefore a finding. Using the Manual Chapter 0609, “Significance Determination Process,” Phase 1 Worksheets, the finding is determined to have very low safety significance because the finding did not result in a loss of safety function for greater than the 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 cross-cutting aspect in the area of human performance associated with resources because the licensee failed to provide adequate procedural guidance to operations personnel for responding to full flow condensate polishing demineralizer system degrading conditions [H.2(c)](Section 4OA3.2)
Inspection Report# : 2011005 *(pdf)*

Significance: G Sep 30, 2011

Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Provide Adequate Flood Protection for the Auxiliary Feedwater Steam Supply Piping
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” for failure to translate applicable regulatory requirements and the design basis into specifications, drawings, procedures, and instructions. The Updated Final Safety Analysis Report, states, in part that, “In the extreme event that the thunderstorm PMP occurs, no safety-related equipment will be impacted by flooding,” since, “Drainage water in the structures which entered from other areas (e.g. from roofs, open areas) will not reach safety-related equipment.” Specifically, from original construction until adequate compensatory measure were implemented on May 5, 2011, the steam supply piping to the auxiliary feedwater pump turbine was not adequately protected from all postulated flood levels and conditions, such that, in the extreme event that the thunderstorm probable maximum precipitation occurs, water could have reached the steam supply pipe resulting in steam condensation inside the pipe which could impact auxiliary feedwater pump operability. The compensatory measures will remain in place until the design nonconformance is resolved. This issue was entered into the licensee’s corrective action program as Nuclear Notification NN 201448584. The performance deficiency is more than minor and therefore a finding because it is associated with the protection against external events attribute of the Mitigating Systems Cornerstone and affects the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using NRC Inspection Manual 0609, Attachment 4, “Phase 1 – Initial Screening and Characterization of Findings,” the finding screened to a Phase 2 significance determination because it involved a potential loss of safety function. A Phase 2 was not appropriate for this external event. The Senior Reactor Analyst determined that the finding had very low significance. This was based on information received from the licensee indicating that the precipitation intensity required to render the turbine-driven auxiliary feedwater pump non-functional had a return frequency well below 1.0E-6/yr. In the case of clogged drains, less intense rain could affect the function of the pump, but would likely not cause a transient. A bounding risk estimate indicated that the delta core damage frequency of this scenario was less than 1.0E-7/yr. No crosscutting aspect was identified because this issue is not reflective of current performance, since this condition has existed since construction (Section 1R15).
Inspection Report# : 2011004 *(pdf)*

Significance: G Sep 30, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Incorporate Calculation Results into Plant Procedures
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” for the failure of engineering personnel to ensure that procedures for preventing unacceptable gas accumulation included appropriate qualitative or quantitative acceptance criteria to ensure that this important activity had been satisfactorily accomplished. Specifically, from July 2008 through August 2011, after performing Calculation M-0013-005, “Safety Injection Tank Fluid Nitrogen Evolution,” which determined the maximum permissible back-leakage from the safety injection tanks into the emergency core cooling systems pump discharge headers to preclude unacceptable gas accumulation, engineering personnel failed to incorporate the results of this calculation into plant procedures. This issue was entered into the licensee’s corrective action program as Nuclear Notification NN 201606472. The performance deficiency is more than minor because it is associated with the procedure quality attribute of the Mitigating Systems Cornerstone objective and to ensure the availability, reliability, and capability of systems to respond to initiating events to prevent undesirable consequences, and is therefore a finding. Using Inspection Manual Chapter 0609.04, “Phase 1 – Initial Screening and Characterization of Findings,” the inspectors determined the finding to be of very low safety significance because it did not represent the loss of safety function of any system or train and was not potentially risk significant due to a seismic, flooding, or severe weather initiating event. This finding has a crosscutting aspect in the area of human performance associated with the decision making component because, when confronted with conservatively calculated information, engineering personnel failed to incorporate these conservative assumptions into plant procedures to ensure accumulating gas was identified before reaching an unacceptable volume, instead deciding to use informal trending mechanisms to track safety injection tank leakage [H.1(b)](Section 4OA5).
Inspection Report# : 2011004 *(pdf)*

Significance: G Sep 30, 2011
Identified By: NRC

Item Type: NCV NonCited Violation
Failure to Perform Plant Modification in Accordance with Applicable Specifications
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” for the failure of licensee personnel to perform a modification to the Unit 3 high pressure safety injection system in accordance with the seismic requirements of the applicable construction specification. Specifically, in March 2010 (Unit 2) and February 2011 (Unit 3), licensee personnel failed to ensure that modifications per Engineering Change Packages NECP 800194395 (Unit 2) and NECP 800229823 (Unit 3) were either accomplished in accordance with Construction Specification CS-P206, “Design Guide for Supporting Small Piping (2 Inch and Under),” Revision 14, as required by the design change packages, or that deviations from the construction specification were controlled. This issue was entered into the licensee’s corrective action program as Nuclear Notification NN 201608558. The performance deficiency is more than minor because if left uncorrected, it would have the potential to lead to a more significant safety concern, and is therefore a finding. Using Inspection Manual Chapter 0609.04, “Phase 1 – Initial Screening and Characterization of Findings,” the inspectors determined the finding to be of very low safety significance because it did not represent the loss of safety function of any system or train, and because during a seismic event, the absence of seismic supports on the subject pipe would not cause a plant trip or other initiating event, would not degrade two or more trains of a multi-train safety system or function, and would not degrade one or more trains of a system that supports a safety system or function. This finding has a crosscutting aspect in the area of human performance associated with the work practices component because licensee personnel failed to define and effectively communicate expectations regarding procedural compliance and to ensure that personnel followed procedures [H.4(b)](Section 4OA5).
Inspection Report# : 2011004 *(pdf)*

Significance: G Sep 13, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Evaluate the Effects of Fuse Resistance and High Energy Line Break Conditions on Control Circuit Voltage
The team identified a Green noncited violation of 10 CFR 50, Appendix B, Criterion III, “Design Control,” which states in part: “Measures shall be established to assure that applicable regulatory requirements and the design basis are correctly translated into specifications, drawings, procedures, and instructions.” Specifically, as of July 22, 2011, the licensee failed to incorporate the fuse resistance, fuse clips resistance, and cable temperature and resistance effects (for Auxiliary Feedwater High Energy Line Breaks only), into Calculations E4C-084 and E4C-085, for degraded voltage conditions. This finding was entered into the licensee’s corrective action program as Nuclear Notification NN-201546570 and NN-201550186.

The team determined that the failure to fully evaluate the circuit load in determining design limits in electrical calculations for degraded voltage conditions was a performance deficiency. The finding was more than minor because it was associated with the mitigating systems cornerstone attribute of design control, and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with NRC Inspection Manual Chapter 0609, Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings," the team determined that the finding was of very low safety significance (Green) because it did not represent a design issue resulting in the loss of function, did not represent an actual loss of a system safety function, did not result in exceeding a Technical Specification allowed outage time, and did not affect external event mitigation. Specifically, the licensee performed subsequent preliminary analyses which demonstrated that the control circuits, where marginal voltage was available, would function as required to mitigate an accident. This finding did not have a crosscutting aspect because the most significant contributor did not reflect current licensee performance (Section 1R21.2.15).
Inspection Report# : 2011010 *(pdf)*

Significance: G Sep 13, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Adequately Control Document Changes
The team identified a Green non-cited violation, with multiple examples, of 10 CFR 50, Appendix B, Criterion VI, “Document Control,” which states in part: “Measures shall be established to control the issuance of documents, such

as instructions, procedures, and drawings, including changes thereto, which prescribe all activities affecting quality. These measures shall assure that documents, including changes, are reviewed for adequacy and approved for release." Specifically, on June 23, 2011, the team identified numerous drawing inconsistencies where changes to certain components were not changed on all affected drawings and procedural errors where changes were not made to all affected documents. The licensee has entered the errors into their corrective action program under numerous Nuclear Notifications listed in section 4AO2.

The team identified that collectively, from a program perspective, the failure to properly incorporate design changes of components in the plant to all affected drawings, procedures, or instructions, 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 accordance with Inspection Manual Chapter 0609, Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings," the team determined that the finding was of very low safety significance (Green) because it did not represent a design issue resulting in the loss of function, did not represent an actual loss of a system safety function, did not result in exceeding a Technical Specification allowed outage time, and did not affect external event mitigation. Specifically, none of the documents with the identified errors had been used in response to any events or plant perturbations. This finding did not have a crosscutting aspect because the most significant contributor did not reflect current licensee performance (Section 4OA2).
Inspection Report# : 2011010 *(pdf)*

Significance: G Jun 30, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Compensatory Measures for a Design Nonconformance
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, for the failure of operations personnel to establish adequate compensatory measures to restore or maintain operability as required by Procedure SO123-XV-52, "Operability Determination and Functionality Assessments," Revision 18. Specifically, on November 12, 2010, although engineering identified measures were required to maintain water level below the steam line in the auxiliary feedwater trenches, no measures had been taken to stage pumps or limit flows into the trenches. On May 5, 2011, as a result of the inspectors' questions, the licensee established additional compensatory measures including blocking storm drains that flow into the trench and staging sump pumps. This issue was entered into the licensee's corrective action program as Nuclear Notification NN 201448584.
The performance deficiency is more than minor, and therefore a finding, because it is associated with the protection against external events attribute of the Mitigating Systems Cornerstone and affects the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. During a design basis flooding from a probable maximum precipitation event, the auxiliary feedwater pump could be rendered inoperable. Using NRC Inspection Manual 0609, Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings," the finding screened to a Phase 2 significance determination because it involved a potential loss of safety function. A Phase 2 was not appropriate for this external event. The senior reactor analyst determined that the finding had very low significance. This was based on information received from the licensee indicating that the precipitation intensity required to render the turbine-driven auxiliary feedwater pump non-functional had a return frequency well below 1.0E-6/yr. In the case of clogged drains, less intense rain could affect the function of the pump, but would likely not cause a transient. A bounding risk estimate indicated that the delta core damage frequency of this scenario was less than 1.0E-7/yr. The finding was determined to have a cross-cutting aspect in the area of human performance associated with the decision-making component because operations personnel failed to verify the validity of underlying assumptions for operability decision-making [H.1(b)](Section 1R01).
Inspection Report# : 2011003 *(pdf)*

Significance: G Jun 30, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Work Instructions to Ensure Environmentally Qualified Configuration
The inspectors identified that work instructions to replace a safety-related steam generator differential pressure transmitter did not contain adequate instructions to ensure that the scope of work was defined and the installed configuration would satisfy environmental qualification requirements. This involved multiple examples of a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings." The inspectors also

identified that the licensee had failed to maintain procedures intended to address previous problems damaging delicate insulation needed to maintain environmental qualification, and had failed to plan modifications needed to implement a planned improvement to the environmental qualification configuration, challenging maintenance workers during transmitter replacement. The licensee has entered this issue into their corrective action program as Nuclear Notification NN 201477774.
Failure to provide adequate work instructions to replace a safety-related steam generator differential pressure transmitter to ensure that the scope of work was defined and the installed configuration would satisfy environmental qualification requirements is a performance deficiency. The performance deficiency affected the procedure quality attribute of the Mitigating Systems Cornerstone. This finding is more than minor because, if left uncorrected, it would have the potential to lead to a more significant safety concern in that inadequate work instructions could result in a failure to meet the environmental qualification in systems needed to mitigate accidents. This finding was determined to have very low safety significance during a Phase 1 significance determination because it involved a qualification deficiency that was confirmed not to result in loss of operability or functionality. This finding has a cross-cutting aspect in the resources component in the human performance area because the licensee failed to ensure that procedures and other resources were adequate to assure nuclear safety. Specifically, the licensee did not ensure that complete, accurate, and up-to-date design documentation, procedures, and work packages were provided to support replacement activities for generator differential pressure transmitter 2PDT-0979-2 [H.2(c)](Section 1R12).
Inspection Report# : 2011003 *(pdf)*

Significance: G Jun 30, 2011
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Appropriately Assess and Manage Risk for Work in Unit 3 Intake
A self-revealing noncited violation of 10 CFR 50.65(a)(4), “Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants,” was identified for the failure of work control and operations personnel to adequately assess and manage the increase in risk associated with maintenance on the Unit 3 fish elevator. Specifically, on March 29, 2011, a stop log was installed in the Unit 3 intake structure without informing the Unit 2 control room operators or establishing measures to maintain adequate Unit 2 saltwater flow to ensure the operability of the component cooling water system. Immediate corrective actions included verifying and monitoring Unit 2 train A component cooling water operability and taking actions to restore saltwater cooling flow and component cooling water/saltwater cooling heat exchanger differential pressure to normal. This issue was entered into the licensee’s corrective action program as Nuclear Notification NN 201395115.
The performance deficiency is more than minor and therefore a finding because it is associated with the operating equipment configuration control attribute of the Mitigating Systems Cornerstone and affects the associated cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Manual Chapter 0609, Appendix K, “Maintenance Risk Assessment and Risk Management Significance Determination Process,” Flowcharts 1 and 2, the finding was determined to have very low safety significance because the incremental core damage probability deficit was less than 1E-6 and the incremental large early release probability deficit was less than 1E-7. This finding has a cross-cutting aspect in the area of human performance associated with the decision-making component because work control and operations personnel did not communicate decisions and the basis for decisions to individuals that needed to know the information in order to perform work safely and take appropriate risk management actions [H.1(c)](Section 1R13).
Inspection Report# : 2011003 *(pdf)*

Significance: G Jun 30, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Provide Adequate Long-Time Over-Current Protection for the Cables for Charging Pumps 2P190 and 2P191
The inspectors identified that the licensee did not provide adequate long-time over-current protection for charging pumps 2P190 and 2P191 feeder cables. The finding involved a noncited violation of 10 CFR Part 50, Appendix B, Criterion III, “Design Control”, for failure to translate applicable regulatory requirements and the design basis into specifications, drawings, procedures, and instructions. The licensee entered this issue into their corrective action program as Nuclear Notification NN 201443248.
Failure to provide adequate long-time over-current protection for the feeder cables for charging pumps 2P190 and

2P191 is a performance deficiency. The performance deficiency affected the Mitigating Systems Cornerstone. The performance deficiency is more than minor and therefore a finding, because if left uncorrected, it would have the potential to lead to a more significant safety concern in that possible mechanical problems with the pump or motor could cause the affected cables to exceed their current limit and cause cable damage without tripping the associated breaker. The finding was determined to have very low safety significance during a Phase 1 significance determination because it involved a design deficiency that was confirmed not to have resulted in a loss of operability or functionality. No crosscutting aspect was identified because this issue is not reflective of current performance, since this condition has existed since construction (Section 1R17).
Inspection Report# : 2011003 *(pdf)*

Significance: G Jun 30, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Lack of Adequate Procedures to Respond to the Inability to Drive Control Rods
The inspectors identified a noncited violation of Technical Specification 5.5.1.1, "Procedures," for the licensee's failure to establish procedures for the inability to drive control rods. Specifically, from initial licensing to May 2011, Abnormal Operating Instruction SO23-13-13, "Misaligned or Immovable Control Element Assembly," did not contain guidance to address an immovable control element assembly. This issue was entered into the licensee's corrective action program as Nuclear Notification NN 201497724.
The performance deficiency is more than minor and therefore a finding, because it was associated with the procedure quality attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using the Manual Chapter 0609, "Significance Determination Process," Phase 1 Worksheets, the inspectors determined the finding to have very low safety significance 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. The inspectors reviewed this finding for cross-cutting aspects and none were identified since the deficiency has existed since initial licensing and is not reflective of current performance (Section 1R22).
Inspection Report# : 2011003 *(pdf)*

Significance: G Aug 16, 2010
Identified By: NRC
Item Type: VIO Violation
Failure to Ensure At Least One Train of Equipment Necessary to Achieve Hot Shutdown Conditions Is Free of Fire Damage
The team identified a cited violation of License Condition 2.C(14), "Fire Protection," for failure to correct a noncompliance. Specifically, Inspection Report 05000361;362/2007008 documented a noncompliance involving the failure to ensure that at least one train of safe shutdown equipment would remain free from fire damage in each fire area. The NRC exercised discretion not to cite this violation at that time because the licensee met the criteria described in Enforcement Guidance Memorandum 98-002, Revision 2, and Supplement 2 to that revision. Enforcement Guidance Memorandum 07-004 superseded Enforcement Guidance Memorandum 98-002 and required licensees to complete corrective actions for noncompliances related to post-fire operator manual actions by March 6, 2009. This violation is being cited due to the failure to complete corrective actions and restore compliance within the required time. This finding was entered into the licensee's corrective action program as Notification NN 200940265.

The failure to promptly restore adequate fire protection and/or separation of required safe shutdown systems was a performance deficiency. This performance deficiency was more than minor because it was associated with the protection against external factors (fire) attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events in order to prevent undesirable consequences. Because the violation involved multiple fire areas, the team could not evaluate this issue using Phase 2 of Inspection Manual Chapter 0609, Appendix F, and a Phase 3 significance determination process risk assessment was performed by a senior reactor analyst. The finding was determined to have very low risk significance (Green), with a delta-CDF of 3.2E-8/yr, because of a combination of the availability of long recovery times for feasible operator manual actions and low-probability fire damage scenarios in the nine fire areas

with fire sources which could potentially damage cables of required safe shutdown components. This finding involved a cross-cutting aspect in the decision-making component in the human performance area because the licensee failed to make a risk-significant decision using a systematic process when considering the scheduling of corrective actions.
Inspection Report# : 2010007 *(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Significance: G Dec 31, 2011
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Control Work in a High Radiation Area
The inspectors reviewed a self-revealing non-cited violation of Technical Specification 5.8.1 for the failure to control work in a high radiation area. On August 25, 2011, diving was performed in a high radiation area using stay time calculations instead of the radiation protection coverage described in the Technical Specifications. The licensee suspended further diving operations until interim corrective actions were put in place. The licensee placed this issue into their corrective action program as Nuclear Notification NN 201620253.
The failure to adequately control work in a high radiation area was a performance deficiency. The performance deficiency was more than minor, and therefore a finding, because it negatively impacted 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, in that a worker received unplanned, unintended radiation 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 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. This finding has a cross-cutting aspect in the area of human performance related to resources. Specifically, the licensee did not have a diving procedure to control this evolution [H.2.(c)] (Section 2RS01)
Inspection Report# : 2011005 *(pdf)*

Public Radiation Safety

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.

Miscellaneous

Last modified : May 29, 2012