San Onofre 2
2Q/2013 Plant Inspection Findings

Initiating Events

Significance: G Mar 24, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Two Examples of Failure to Follow Procedures for Control of Corrosion Related Maintenance
The inspectors identified a Green non-cited violation of Technical Specification 5.5.1.1 for the failure by licensee personnel to follow Procedure SO23-XX-30, "Nuclear Maintenance Order (NMO) Generation, Screening and Classification," Revision 9 EC1, and Procedure SO23-XX-36, "Toolpouch Maintenance Program," Revision 1 EC1. Specifically, prior to March 5, 2013, the licensee's Nuclear Maintenance Order Screening Committee failed to assign the appropriate job type and priority to seven corrosion-related nuclear maintenance orders in accordance with Procedure SO23-XX-30, "Nuclear Maintenance Order (NMO) Generation, Screening and Classification," Revision 9 EC1. Additionally, between February 9, 2012, and February 19, 2013, the Nuclear Maintenance Order Screening Committee failed to ensure the required conditions were met prior to assignment of toolpouch maintenance tasks for four nuclear notifications in accordance with Procedure SO23-XX-36, "Toolpouch Maintenance Program," Revision 1 EC 1. This issue has been entered into licensee's corrective action program as Nuclear Notifications 202346546 and 202351959.
The inspectors determined that the failure by the licensee's personnel to follow Procedure SO23-XX-30, "Nuclear Maintenance Order (NMO) Generation, Screening and Classification," to assign the appropriate job types and priority for corrosion-related nuclear maintenance orders, and the failure to follow Procedure SO23-XX-36, "Toolpouch Maintenance Program," for the conduct of toolpouch maintenance were performance deficiencies. These performance deficiencies were more than minor, and therefore a finding, because they were associated with the Initiating Events Cornerstone attribute of equipment performance and adversely affected the associated cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors determined that Manual Chapter 0609, Appendix G, "Shutdown Operations Significance Determination Process," was appropriate based on the plant conditions present when most of the examples of this performance deficiency occurred. The finding did not require a quantitative assessment because adequate mitigating equipment remained available and the finding did not constitute a loss of control, as defined in Appendix G. Therefore, the finding screened as having very low safety significance (Green). This finding had a crosscutting aspect in the area of human performance, decision-making component, because the Nuclear Maintenance Order Screening Committee failed to use conservative assumptions in decision making when assigning innappropriate job types and tool pouch maintenance tasks for nuclear notifications. [H.1(b)] (Section 4OA5)
Inspection Report# : 2013002 *(pdf)*

Significance: G Mar 24, 2013
Identified By: NRC
Item Type: FIN Finding
Failure to Follow Procedure for Plant Preservation Rust Grading
The inspectors identified a Green finding for failure to follow the requirements of the Plant Preservation Rust Grading and Budget Preparation Guide. Specifically, prior to February 28, 2013, licensee personnel failed to initiate nuclear notifications for plant areas that received a rust grade of 4 or higher. This issue has been entered into the licensee's corrective action program as Nuclear Notification NN 202341172.

The inspectors determined that the failure to initiate nuclear notifications for the areas assigned a rust grade of 4 as required by the Plant Preservation Rust Grading and Budget Preparation Guide was a performance deficiency. The performance deficiency was more than minor, and therefore a finding, because it was associated with the Initiating Events Cornerstone attribute of equipment performance and adversely affected the associated cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors determined that Manual Chapter 0609, Appendix G, "Shutdown Operations Significance Determination Process," was appropriate based on the plant conditions present when most of the examples of this performance deficiency occurred. The finding did not require a quantitative assessment because adequate mitigating equipment remained available and the finding did not constitute a loss of control, as defined in Appendix G. Therefore, the finding screened as having very low safety significance (Green). This finding has a cross-cutting aspect in the area of problem identification and resolution, corrective action program component, because the licensee failed to implement a corrective action program with a low threshold for identifying issues. [P.1(a)] (Section 4OA5)
Inspection Report# : 2013002 *(pdf)*

Mitigating Systems

Significance: G Jun 23, 2013
Identified By: NRC
Item Type: FIN Finding
Failure to Properly Scope All the Pertinent External Flood Protection Features into the Walkdown List in Accordance with Industry Guidance NEI 12-07
The inspectors identified one finding of very low safety significance for the licensee's failure to follow procedures regarding the Fukushima event response for flood protection to comply with NRC endorsed NEI 12-07, "Guidelines for Performing Walkdowns of Plant Flood Protection Features." Specifically, the licensee failed to perform an evaluation of the aggregate effect on a failure on the five locations of inaccessible waterstops included in the flooding walkdown scope; failed to evaluate the conduits beneath the grating of the diesel generator building for inclusion in the walkdown scope; and failed to establish adequate procedures that included accurate assessment of the Available Physical Margin of flooding protection features included in the flooding walkdown scope. This finding was entered into the licensee's corrective action program as Nuclear Notifications NN 202367435, NN 202369978, and NN 202375161.
The performance deficiency is greater than minor, and therefore a finding, because it is associated with the Mitigating Systems Cornerstone attribute of Protection Against External Factors (Flood Hazard) and it adversely affects the associated cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors determined that the finding could be evaluated using the significance determination process in accordance with IMC 0609, "Significance Determination Process," and conducted a Phase 1 characterization and initial screening. Phase 1 initial screening determined that IMC 0609 Appendix A, Exhibit 2, "Mitigating Systems Screening Questions," should be used. Because the finding did not involve the loss or degradation of equipment or function specifically designed to mitigate a seismic, flooding, or severe weather initiating event (e.g., seismic snubbers, flooding barriers, tornado doors), the finding screened as Green. The finding has a cross-cutting aspect in the area of human performance, associated with the decision-making component, because the licensee did not verify the validity of the underlying assumptions and identify possible unintended consequences.
Inspection Report# : 2013003 *(pdf)*

Significance: G Mar 24, 2013

Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Completely Inspect and Maintain PMF Berm
The inspectors identified a Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for failure to accomplish activities in accordance with procedures. Specifically, prior to March 4, 2013, the licensee failed to accomplish inspections and maintenance of the downstream face of the probable maximum flood berm in accordance with Attachments 1 and 3 of Procedure SO123-XVIII-35, "Inspection and Maintenance of Seawall, Offsite Probable Maximum Flood Berm and Channel, and Related Drainage Facilities." These issues have been entered into the licensee's corrective action program as Nuclear Notifications NN 202346674, NN 202354058, and NN 202359197.
The inspectors determined that the licensee's failure to accomplish inspections and maintenance in accordance with Procedure SO123-XVIII-35, "Inspection and Maintenance of Seawall, Offsite Probable Maximum Flood Berm and Channel, and Related Drainage Facilities," was a performance deficiency. The performance deficiency was more than minor, and therefore a finding, because, if left uncorrected, the performance deficiency would have the potential to lead to a more significant safety concern. Specifically, the licensee routinely failed to maintain and inspect the downstream face of the berm for vegetation overgrowth, structural integrity, and animal burrows, resulting in identified degradation conditions during subsequent inspections. Using NRC Inspection Manual Chapter 0609, Attachment 4, "Initial Characterization of Findings," the finding screened as potentially risk important, affecting the Mitigating Systems cornerstone attribute for external events mitigating systems, because the finding resulted in the degradation of equipment and functions specifically designed to mitigate a flooding initiating event. Therefore, a Region IV senior reactor analyst performed a detailed risk evaluation using NRC Inspection Manual Chapter 0609, Appendix M, "Significance Determination Process Using Qualitative Criteria." Based on the inspector's observation of the condition of the berm, the senior reactor analyst determined that eventhough the berm was degraded, it remained functional. Since the probable maximum flood berm remained functional, there was no quantifiable change to the core damage frequency or the large early release frequency. Therefore, the finding was of very low safety significance (Green). This finding had a crosscutting aspect in the area of human performance, resources component, because the licensee did not ensure personnel were available and adequate to assure nuclear safety. [H.2(b)] (Section 1R01)
Inspection Report# : 2013002 *(pdf)*

Significance: G Mar 24, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Properly Screen Nuclear Notifications Results in Missed Operability Determinations and Functionality Assessments
The inspectors identified a Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure by operations personnel to implement procedures associated with evaluating the impact of degraded or non-conforming conditions on the operability of equipment required by technical specifications. Specifically, between December 2010 and February 2013, the inspectors identified fourteen examples where operations personnel failed to follow Procedure SO123-XV-50.CAP-2, "SONGS Nuclear Notification Screening," Attachment 3, step 6.2.9, resulting in the failure to complete the immediate operability determination or the immediate functionality assessment as required. This issue has been entered into licensee's corrective action program as Nuclear Notification NN 202337603.
The inspectors determined that the failure of operations personnel to follow Procedure SO123-XV-50.CAP-2, "SONGS Nuclear Notification Screening," for screening nuclear notifications was performance deficiency. The performance deficiency was more than minor, and therefore a finding, because it is associated with the Mitigating Systems Cornerstone attribute for equipment performance and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the inspectors determined that this was a significant programmatic deficiency that would lead to worse errors, if left uncorrected. The inspectors determined that Manual Chapter 0609, Appendix G,

"Shutdown Operations Significance Determination Process," was appropriate based on the plant conditions present when most of the examples of this performance deficiency occurred. The finding did not require a quantitative assessment because adequate mitigating equipment remained available and the finding did not constitute a loss of control, as defined in Appendix G. Therefore, the finding screened as having very low safety significance (Green). This finding had a cross-cutting aspect in the area of human performance, decision-making component, because operations personnel failed to make decisions demonstrating that nuclear safety was an overriding priority. [H.1(b)] (Section 1R15)
Inspection Report# : 2013002 *(pdf)*

Significance: G Mar 24, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Write Nuclear Notifications for Degraded or Non-Conforming Conditions
The inspectors identified a Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure of licensee to implement procedures associated with entry of degraded or non-conforming issues into the corrective action program. Specifically, the NRC staff identified seven examples of problems that were not documented in a nuclear notification until prompted by NRC many days or years after they were known to the licensee between June 2009 and January 2013. This issue has been entered into licensee's corrective action program as Nuclear Notification NN 202364842.
The inspectors determined that the failure by licensee personnel to write nuclear notifications in accordance with Procedure SO123-XV-50.CAP-1 was a performance deficiency. The performance deficiency was more than minor, and therefore a finding, because it was associated with the Mitigating Systems Cornerstone attribute for equipment performance and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors determined that Manual Chapter 0609, Appendix G, "Shutdown Operations Significance Determination Process," was appropriate based on the plant conditions present when most of the examples of this performance deficiency occurred. The finding did not require a quantitative assessment because adequate mitigating equipment remained available and the finding did not constitute a loss of control, as defined in Appendix G. Therefore, the finding screened as having very low safety significance (Green). This finding had a cross-cutting aspect in the area of problem identification and resolution, corrective action program component, because the licensee failed to implement a corrective action program with a low threshold for identifying issues. [P.1(a)] (Section 4OA2)
Inspection Report# : 2013002 *(pdf)*

Significance: G Mar 24, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Untimely Corrective Actions for Nitrogen Gas Accumulation in the Auxiliary Feedwater System
The inspectors identified a Green non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Actions," associated with the licensee's failure to take appropriate and prompt corrective actions regarding nitrogen gas accumulation in safety related auxiliary feedwater system. Specifically, from March 2012 until January 2013, a condition adverse to quality related to the accumulation of gas, from steam generator nitrogen purge, into piping and safety related pumps in the auxiliary feedwater system was not promptly identified and corrected until a gas binding event occurred during a start of an auxiliary feedwater pump in Unit 3 in January 2, 2013. This issue has has been entered into the licensee's corrective action program as Nuclear Notifications NN 202268941 and NN 202382092.
The inspectors determined the failure to take prompt corrective actions for nitrogen gas accumulation in the safety-related auxiliary feedwater system as required by 10 CFR Criterion XVI was a performance deficiency. The finding was more than minor because it was associated with the Mitigating Systems Cornerstone attribute for equipment performance and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Additionally, the finding was more than

minor because not promptly correcting gas accumulation on safety related system used to support decay heat removal would have the potential to lead to a more significant safety concern. The inspectors determined that Manual Chapter 0609, Appendix G, "Shutdown Operations Significance Determination Process," was appropriate based on the plant conditions present when most of the examples of this performance deficiency occurred. The finding did not require a quantitative assessment because adequate mitigating equipment remained available and the finding did not constitute a loss of control, as defined in Appendix G. Therefore, the finding screened as having very low safety significance (Green). The inspectors determined the finding had a cross cutting aspect in the area human performance area, decision-making component, because the licensee did not make safety-significant or risk-significant decisions using a systematic process when they identified a degraded condition of gas accumulation in the auxiliary feedwater system. [H.1(a)] (Section 4OA2)
Inspection Report# : 2013002 *(pdf)*

Significance: G Dec 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Provide Complete and Accurate Information Regarding Auxiliary Feedwater Operation System Operability
The inspectors identified a Severity Level IV noncited violation of 10 CFR 50.9, "Completeness and Accuracy of Information," for the failure of the licensee to provide complete and accurate information in all material respects in operability and reportability review supporting documents. Specifically, on September 29, 2011, the licensee did not provide information that was complete and accurate in all material respects, in that Evaluation Report FAI/11-0655, "Evaluation of Potential Cooling of the SONGS Steam Line for the AFW Turbine," used inaccurate information to inappropriately determine that the turbine-driven auxiliary feedwater pump was operable, the condition was not reportable per the requirements of 10 CFR 50.73, and the compensatory measures implemented on May 5, 2011, could be removed. The compensatory measures were improperly removed on October 27, 2011. This violation has been entered into the licensee's corrective action program as Nuclear Notification NN 202280026.
The failure of the licensee to provide complete and accurate information related to the operability of the AFW system was a performance deficiency. The significance determination process is not suited to assess the significance of a violation of 10 CFR 50.9 because it affected the ability of the NRC to perform its regulatory oversight function and, as such, it was assessed using traditional enforcement. This violation was determined to be a Severity Level IV violation based on NRC Enforcement Policy examples provided in Section 6.9. No crosscutting aspect was assigned because the performance deficiency was assessed using traditional enforcement (Section 4OA3).
Inspection Report# : 2012005 *(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

Significance: G Sep 23, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Correct Drill Performance Weaknesses
The inspectors identified a non-cited violation of 10 CFR 50.47(b)(14) for failure to correct weakness or deficiencies that are identified in formal critiques of drills or exercises. The licensee did not take corrective actions for fourteen weaknesses in site assembly and evacuation, tracking of non-licensed operators, and provision of radiation protection to non-licensed operators, identified in critiques between September 2010 and June 2012. The failure to correct weaknesses identified in drills and exercises was a performance deficiency within the licensee's control. This failure has been entered into the licensee's corrective action program as Nuclear Notifications NNs 201974817, 201811829, and 201645589
This finding is more than minor because it affected the emergency response organization cornerstone attribute. The finding was evaluated using the Emergency Preparedness Significance Determination Process and determined to be of very low safety significance because it was a failure to comply and was not a loss of planning standard function. The finding was not a loss of planning standard function because the weaknesess that were not corrected were not associated with risk significant planning standards. This finding was assigned a corrective action cross-cutting aspect because San Onofre did not take corrective actions for numerous drill weaknesses in a timely manner commensurate with their safety significance [P.1(d)] (Section 1EP5).
Inspection Report# : 2012004 *(pdf)*

Occupational Radiation Safety

Public Radiation Safety

Significance: G Sep 23, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Update the Final Safety Analysis Report for Solid Radioactive Waste
The inspectors identified a Severity Level IV, non-cited violation of 10 CFR 50.71, "Maintenance of Records, Making of Reports," paragraph (e) which states, in part, "Each person licensed to operate a nuclear power reactor shall update periodically, the final safety analysis report originally submitted as part of the application for the license, to assure that the information included in the report contains the latest information developed." Contrary to the above, from 1985 to June 2012, the licensee failed to update the Final Safety Analysis Report to assure that the information included in the report contains the latest information developed. Specifically, since its construction in 1985, the licensee stored a significant source of radioactivity in the Multi-Purpose Handling Facility (South Yard Storage Facility), but failed to describe the source, volume, and storage of radioactive equipment in the Final Safety Analysis Report. The licensee has entered this violation into their corrective action program as Nuclear Notification NN 202076593.
The inspectors determined that the failure to update the Final Safety Analysis Report as required by 10 CFR 50.71(e), "Maintenance of Records, Making of Reports" is a performance deficiency. This performance deficiency was dispositioned using traditional enforcement because failing to update a Final Safety Analysis Report had the potential to adversely impact the NRC's ability to perform its regulatory function. The performance deficiency is characterized as a Severity Level IV violation in accordance with the NRC Enforcement Policy, Section 6.1.d.3. Since this issue was dispositioned using traditional enforcement, there is no cross-cutting aspect (Section 2RS08).
Inspection Report# : 2012004 *(pdf)*

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

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