Saint Lucie 1
3Q/2015 Plant Inspection Findings

Initiating Events

Significance: G Aug 09, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Follow Reactor Protection System Surveillance Procedure Resulting in Reactor Plant Trip (Section 4OA3.3)
A Green, self-revealing, NCV of TS 6.8.1 was identified for the licensee's failure to adequately implement surveillance procedures during reactor protection system (RPS) testing. Specifically, the licensee failed to implement as-written operations surveillance procedure 1-OSP-63.01, "RPS Logic Matrix Test," when operators failed to close two trip circuit breakers (TCBs) prior to proceeding to the next section of the procedure. This resulted in an unplanned automatic reactor trip when a second pair of TCBs were opened. Corrective actions completed for this event included a human performance review that was conducted by the shift manager, operations director and plant general manager, initially implementing around the clock management oversite, and revising the RPS logic matrix test procedure to change it from a reader/doer procedure to a procedure with more concurrent verification steps. The licensee entered this issue into their corrective action program as AR 2065821.

The licensee's failure to follow procedure 1-OSP-63.01, "RPS Logic Matrix Test," as-written is a performance deficiency. This performance deficiency was more than minor because it was associated with the human performance attribute of the Initiating Events Cornerstone and it adversely affected the associated cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions and resulted in an actual plant trip. The inspectors evaluated the risk of this finding using IMC 0609, "Significance Determination Process," Attachment 4, "Initial Characterization of Findings" and IMC 0609, Appendix A, "The Significance Determination Process for Findings At-Power." The inspectors determined that the finding was of very low safety significance because it did not result in both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available.

The finding involved the cross-cutting area of human performance, with an aspect of avoiding complacency (H.12), in that the licensee failed to ensure that personnel effectively used human performance tools during the logic matrix test to ensure procedure steps were completed as required (Section 4OA3.3).

Inspection Report# : 2015003 *(pdf)*

Mitigating Systems

Significance: G Sep 30, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Unsecured Utility Cart With An Unrestrained Operating Pedestal Fan Near Safety-related ECCS Equipment (Section 1R15)

NRC-identified, NCV of Technical Specification (TS) 6.8.1, Procedures and Programs, was identified for the licensee's failure to implement written procedures covering activities referenced in NRC Regulatory Guide 1.33, Revision 2, dated February 1978. Specifically, the licensee failed to follow procedural requirements to properly secure a pedestal fan positioned on a wheeled cart to the extent required to prevent a potential for adverse interaction with safety-related systems structures or components (SSCs) during a design basis seismic event. Failure to control equipment located near safety-related SSCs to prevent the equipment from interacting with safety-related SSCs during a design basis seismic event was a performance deficiency. Immediate corrective actions included removing the cart and fan assembly from the area and entering this issue into the corrective action program.

The performance deficiency was more than minor because the issue was associated with the Mitigating Systems Cornerstone attribute of Protection Against External Factors (seismic) and affected the cornerstone objective of ensuring the availability, reliability, and capability of safety-related SSCs to respond to initiating events to prevent undesirable consequences. Specifically, during a design basis seismic event the unsecured cart and unrestrained fan could have damaged the emergency core cooling system low and high pressure safety injection flowrate transmitters causing control room operators to have a loss of safety injection flowrate indication and a small amount of system leakage during accident mitigation. Using Manual Chapter 0609.04, Significance Determination Process Initial Characterization of Findings, Table 2, dated June 19, 2012, the finding was determined to affect the Mitigating Systems Cornerstone. Manual Chapter 0609, Appendix A, Significance Determination Process (SDP) for Findings At-Power, Exhibit 2 - Mitigating Systems Screening Questions dated, June 19, 2012, was used to further evaluate this finding. The finding screened as Green because the inspectors answered "No" to all four screening questions. The finding involved the cross-cutting aspect in the area of human performance associated with training because the organization failed to provide training and ensure knowledge transfer to maintain a knowledgeable, technically competent workforce and instill nuclear safety values to ensure temporarily placed equipment located near safety-related SSCs was adequately secured to prevent interaction during a seismic event [H.9] (Section 1R15).

Inspection Report# : 2015003 *(pdf)*

Significance:  Mar 30, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Inadequate Risk Assessments on the Emergency Core Cooling System
The inspectors identified a Green non-cited violation of 10 CFR 50.65, "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," paragraph (a)(4), for the licensee's failure to conduct adequate risk assessments prior to performing surveillance testing on the emergency core cooling system (ECCS). Consequently, ECCS surveillance testing was completed while the unit was in a Green online risk configuration when the risk should have been elevated to Yellow. Corrective actions completed included implementing instructions via an Operations Standing Order to declare any system, structure or component unavailable when it is declared inoperable unless an assessment is completed to show that operator actions can restore the safety function before it is needed.
The licensee's failure to implement the online risk assessment program as required by ADM-17.16, Implementation of the Configuration Risk Management Program, was a performance deficiency (PD). Specifically, in each of the three examples identified by the inspectors, the plant's online risk was reclassified from Green to Yellow when properly assessed as established by the licensee's online risk monitor (OLRM). The inspectors determined that the PD was more than minor because it adversely affected the equipment performance attribute of the Mitigating Systems Cornerstone. Specifically, the failure to identify increases in operational risk and implement risk management actions adversely affected the reliability of those systems relied upon to respond to plant events. The finding was determined to be

of very low safety significance (Green) because for each instance, the Incremental Core Damage Probability Deficit for the timeframe the ECCS was unavailable was less than 1E-6. The inspectors determined that the finding had a cross-cutting aspect of Training in the Human Performance area, because the control room operators did not have adequate risk insight guidance and an adequate understanding regarding use of operator actions to take credit for safety function availability, causing incorrect application of the on-line risk monitoring tool [H.9].
Inspection Report# : 2015001 *(pdf)*

Significance: G Mar 06, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Submit a License Amendment Request for Unit 1 RPS
Severity Level IV.
An NRC-identified severity level IV (SL IV) non-cited violation (NCV) of 10 CFR 50.59(c)(2)(ii) and an associated finding of very low safety significance (Green) was identified for the licensee's failure to obtain a license amendment prior to implementing a change to the Unit 1 reactor protective system (RPS). The failure to obtain a license amendment for the change resulted in the implementation of a modification that did not conform with the licensee's current licensing basis. The licensee's failure to obtain NRC approval prior to implementing the change to the Unit 1 RPS was determined to impact the regulatory process because the change required NRC review and approval prior to implementation. The licensee entered this issue into their corrective action program as action requests (ARs) 2029652 and 2030820, planned to restore the RPS configuration into conformance, and performed a prompt operability determination which concluded that there was a reasonable expectation that the RPS channels remained operable and could perform their required design basis functions. The performance deficiency was determined to be more than minor because it was associated with the design control 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 to prevent undesirable consequences. Specifically, the modification did not ensure the reliability of the RPS to respond to a design basis event because the design requirements for physical separation of RPS channels A and C were not met and resulted in a condition where revision or rework would be required to resolve the physical separation concerns. The team determined the finding to be of very low safety significance (Green) because the finding did not affect a single RPS trip signal to initiate a reactor scram and the function of other redundant trips or diverse methods of reactor shutdown, did not involve control manipulations that unintentionally added positive reactivity, and did not result in a mismanagement of reactivity by operators. The traditional enforcement violation was evaluated using the NRC Enforcement Policy dated January 28, 2013, and revised February 4, 2015. The inspectors determined the violation was SL IV per Section 6.1.d.2 because the associated finding was evaluated by the SDP as having very low

safety significance (i.e., Green). The inspectors determined the finding was indicative of present licensee performance and was associated with the cross-cutting aspect of change management, in the area of human performance, because the licensee did not use a systematic process for evaluating and implementing a change such that nuclear safety remained the overriding priority. [H.3] (Section 1R17)

Inspection Report# : 2015007 *(pdf)*

Significance: G Mar 06, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Establish Appropriate Procedural Limitations to Prevent Exceeding Non-LOCA Event Analysis Assumptions for Steam Generator Blowdown Flow Rate
Green.
An NRC-identified non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion III, Design Control, was identified for the licensee's failure to assure that design basis assumptions for steam generator blowdown (SGBD) flow rate were translated into procedural guidance. Specifically, procedures 1-NOP-23.02 and 1-AOP-09.03 for Unit 1, and 2-NOP-23.02 and 2-AOP-09.03 for Unit 2, allowed SGBD flow rates significantly in excess of the assumed values in non-loss of coolant accident (LOCA) event analyses. The licensee entered the issue into their corrective action program as action requests (ARs) 2030177, 2031217, and 2031218. The licensee's immediate corrective actions included performing a functionality assessment of the SGBD systems for both units, which included; re-performing the event analyses, issuing an operations department night order to temporarily provide operators appropriate direction for limiting the SGBD system flow, and plans to update the analyses of record, plant procedures, and the UFSAR with new system limitations.
The performance deficiency was determined to be more than minor because it affected the procedure quality attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective of ensuring reliability, availability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the licensee did not ensure the capability of the secondary side heat removal systems to respond to design basis non-LOCA events because analysis assumptions were not translated into procedural limitations for the SGBD system. The inspectors determined the finding to be of very low safety significance (Green) because the finding was a deficiency affecting the design or qualification of a mitigating structure, system, or component (SSC), and the SSC maintained its operability or functionality.
The inspectors determined that the issue was indicative of present licensee performance because the analyses were performed in 2013. The finding was associated with the cross-cutting aspect of design margins, in the area of human performance, because the organization did not operate and maintain equipment within design margins. [H.6] (Section 1R17)
Inspection Report# : 2015007 *(pdf)*

Significance: G Jan 16, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Procedural Non Compliances Relating to Temporarily Installed Ladders Located Near Safety-related SSCs
The NRC identified a Green, non-cited violation of Technical Specification (TS) 6.8.1, Procedures and Programs, for the licensee's failure to establish, implement, and maintain written procedures covering activities referenced in NRC Regulatory Guide 1.33, Revision 2, dated February 1978. Specifically, the licensee failed to track, inspect and evaluate the placement of temporarily installed ladders (TILs) that were touching or placed near safety-related Structures, Systems, and Components (SSCs) with the potential to interact with the SSCs during a design basis seismic event. Corrective actions completed

included removing TILs that were no longer being used and entering the remaining ladders into the corrective action program (CAP) for tracking and inspection, and reviewing whether any ladder required an engineering evaluation.
The licensee's repeated failure to track, inspect, or complete an engineering evaluation on TILs located near safety-related SSCs as required by licensee procedures ADM-27-21 and MA-AA-100-1008 was a performance deficiency. The performance deficiency was more than minor because if left uncorrected, the performance deficiency had the potential to lead to a more significant safety concern. Specifically, routinely not tracking, inspecting or completing engineering evaluations of TILs that are touching or located near safety-related SSC could allow ladders to be installed, which interact with safety-related equipment resulting in equipment rendered inoperable during a design basis seismic event. The finding screened as green because the finding did not represent an actual loss of function of at least a single Train for > its TS Allowed Outage Time OR two separate safety systems out-of-service for > its TS Allowed Outage Time. The finding involved the crosscutting area of Problem Identification and Resolution, in the aspect of Identification, in that non-compliances associated with TILs had been long-term issues, which the licensee had failed to identify and enter into the CAP. As a result, the ladder issues remained unnoticed and unaddressed in the CAP until identified by the inspectors [P.1]
Inspection Report# : 2015001 *(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Significance: G Jun 30, 2015
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Assess Potential Gaseous Effluents Released from Containment Equipment Hatch Openings during a Loss of Negative Pressure
The inspectors identified a Green non-cited violation of Technical Specification 6.8.1 for the failure to implement procedures for the monitoring, evaluating, and reporting of gaseous effluents in accordance with the methodology in the Off-Site Dose Calculation Manual. Specifically, there was no program in place to assess potential effluent releases from containment equipment hatch openings during periods when negative pressure was lost. The licensee took immediate corrective actions including placement of a low-volume air sampler near the Unit 1 Reactor Containment Building equipment hatch, and entered the issue into their corrective action program as AR 02037629.

The performance deficiency is more than minor because it is associated with the Public Radiation Safety cornerstone attribute of Programs and Processes and adversely affects the cornerstone objective of ensuring adequate protection of public health and safety from exposure to radioactive materials released into the public domain as a result of routine civilian nuclear reactor operation. The finding was assessed using the Public Radiation Safety Significance Determination Process. Based on the fact that routine (i.e. non-accident) effluents released from an equipment hatch are unlikely to contribute significantly to public dose, this finding does not represent a substantial failure to implement the effluent program and was determined to be of very low safety significance (Green). This finding has a crosscutting aspect of Operating Experience (P.5) because the licensee failed to recognize the applicability of regulatory issues experienced by other plants regarding equipment hatch monitoring.

Inspection Report# : 2015002 *(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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