

Robinson 2

3Q/2015 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G Jun 30, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Follow Engineering Change Procedure for Modification of RPS

A self-revealing Green NCV of 10 CFR Part 50, Appendix B, Criterion V, Instructions, Procedures, and Drawings, was identified when the licensee failed to follow EGR-NGGC-0005, Engineering Change, during a modification of the RPS. This resulted in having inadequate work instructions associated with EC 75690 and EC 86690, which resulted in a cross tied configuration of independent trains of the RPS and the DC electrical system. The licensee entered this into the corrective action program (CAP) as AR 729926 and took immediate corrective actions to cut the cable and restore the independence of safety trains for both systems.

The failure to have adequate work instructions for engineering changes as required by procedure EGR-NGGC-0005 was a performance deficiency. This finding is more than minor because it is associated with the design control 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 (i.e., core damage). Specifically, the cross-tied configuration rendered the RPS and DC electrical subsystem inoperable because the required independence and redundancy of systems were eliminated. The finding was screened using IMC 0609 Appendix A Exhibit 2.C, Reactivity Control Systems, dated June 19, 2012, and was determined to be of very low safety significance (Green) because the finding it did not result in a mismanagement of reactivity by the operators. The performance deficiency had a cross-cutting aspect of Teamwork in the area of Human Performance because the licensee failed to coordinate their activities between work control planners and engineering to ensure nuclear safety is maintained. (H.4)

Inspection Report# : [2015002](#) (*pdf*)

Significance: N/A Mar 31, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

Inadequate 10 CFR 50.59 Evaluation Results in RPI System Inoperability

The inspectors identified a severity level IV (SLIV) non-cited violation (NCV) of 10 CFR 50.59, “Changes, Tests, and Experiments,” for the licensee’s failure to obtain a license amendment prior to implementing a change to licensee procedure OST-20, “Shiftly Surveillances.” Specifically, a note was added to procedure OST-20 to allow the use of the Emergency Response Facility Information System (ERFIS) as an acceptable alternate method to determine Analog Rod Position Indication (ARPI) System operability if the position indicators were not indicating properly. This change resulted in an associated Green NCV of Technical Specification (TS) 3.1.7, “Rod Position Indication,” for failing to shut down the reactor or follow remedial actions permitted by a TS action requirement when a Limiting Condition for Operation (LCO) was not met. Upon determination that the practice of crediting ERFIS for rod position indication (RPI) operability was not allowed by the current licensing basis (CLB), Standing Instruction 14 023 was issued to

suspend the practice and condition report (CR) 720726 was written to document the issue.

The licensee's failure to obtain a license amendment for a change that resulted in a change to technical specifications incorporated in the license was a performance deficiency. The performance deficiency was determined to be more than minor because it was associated with the mitigating systems cornerstone attribute of procedure quality and adversely affected the objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the procedure change adversely impacted the availability and capability of systems to respond to a design basis event because it allowed the use of a non CLB method for determining rod position after failure of the ARPI system. Rod position indication is required to determine maximum rod misalignment which is an initial assumption in the safety analysis that directly affects core power distributions and assumptions of available shutdown margin. The finding was screened using IMC 0609 Appendix A Exhibit 2.C, Reactivity Control Systems, dated June 19, 2012, and was determined to be of very low safety significance (Green) because the finding did not result in a mismanagement of reactivity by operators. The violation was determined to be a SLIV violation using the Enforcement Policy example 6.1.d.2, because it resulted in a condition having very low safety significance. No cross-cutting aspect was assigned in association with the ROP finding because the change to the procedure was performed greater than three years ago and did not reflect current licensee performance.

Inspection Report# : [2015001](#) (*pdf*)

Significance:  Dec 31, 2014

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Protect Diesel Driven Equipment from Effects of Extreme Cold Temperatures

The inspectors identified a Green non-cited violation (NCV) of Technical Specification (TS) 5.4.1, for failure to establish procedural guidance to protect diesel driven equipment important to safety from the effects of extreme cold temperatures. Specifically, the licensee's cold weather procedures failed to include actions to maintain fuel oil temperatures above the diesel fuel oil cloud point for the dedicated shutdown diesel generator (DSDG) and/or the engine driven fire pump (EDFP). The licensee entered this into the corrective action program (CAP) as AR 715032 and took immediate corrective actions to revise station procedures to protect the diesel driven equipment during periods of extreme low temperatures.

The failure to establish procedural guidance to protect diesel-driven equipment important to safety from the effects of extreme cold temperatures was a performance deficiency. This issue was more than minor because if left uncorrected this finding would have the potential to lead to a more significant safety concern. Specifically, failure to maintain the fuel oil temperatures for the DSDG and/or the EDFP greater than the measured cloud point, may impact the operation of the equipment during extreme low temperature conditions, due to the associated fuel oil transfer system becoming non-functional. A detailed risk assessment was performed by a regional Senior Reactor Analyst in accordance with NRC IMC 0609 Appendices A and F. The latest NRC Robinson SPAR risk model was used to quantify the internal events risk and a calculation was performed to estimate the fire risk. The major analysis assumptions included: both the EDFP and the DSDG were simultaneously considered unavailable without recovery for a 1-day exposure interval, DSDG fire scenarios were considered for the emergency switchgear room (ESWGR), the cable spreading room, and the main control room, where fire could cause a loss of offsite power and the emergency diesel generators (EDGs), compartment total ignition frequency data from the Robinson NFPA 805 project was used and a bounding Conditional Core Damage Probability for the fire scenarios of 1.0. The dominant sequence was a fire in the ESWGR which remained unsuppressed long enough to cause a loss of offsite power and the EDGs requiring use of alternate shutdown which failed due to the performance deficiency impact on the DSDG resulting in station blackout, and core damage due to an unmitigated reactor coolant pump seal loss of cooling accident. The risk was mitigated by the low likelihood of the initiators occurring during the specific cold weather vulnerability periods. The risk due to the performance deficiency was determined to be an increase in core damage frequency of $<1E-6$ /year, a GREEN finding of very low safety significance. The performance deficiency had a cross cutting aspect of Evaluation in the area of Problem

Identification and Resolution because the licensee failed to thoroughly evaluate the effects of cold weather on the fuel system for diesel driven equipment to ensure that resolutions address the extent of conditions commensurate with their safety significance (P.2).

Inspection Report# : [2014005](#) (*pdf*)

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

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

Significance: N/A Jun 30, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Timely Report Required Information as Required by 10 CFR 50.73

- SL IV. An NRC-identified Severity Level IV NCV of 10 CFR 50.73, Licensee Event Report System, was identified for the licensee's failure to submit a Licensee Event Report (LER) within 60 days after discovery of a condition which was prohibited by the plant's Technical Specifications (TS). The issue was entered into the licensee's CAP. The licensee submitted the LER to restore compliance.

The licensee's failure perform an adequate reportability evaluation and subsequently submit an LER within 60 days after discovery of a condition which was prohibited by the plant TS's as required by 10 CFR 50.73 was a performance

deficiency (PD). This PD was assessed using traditional enforcement because it had the potential for impacting the NRC's ability to perform its regulatory function. The inspectors determined the significance of this violation was a Severity Level IV violation using Section 6.9.d.9 of the NRC's Enforcement Policy. Cross cutting aspects are not assigned to traditional enforcement violations.

Inspection Report# : [2015002](#) (*pdf*)

Last modified : December 15, 2015