

Farley 2

1Q/2014 Plant Inspection Findings

Initiating Events

Significance: G Mar 31, 2014

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to properly conduct cold weather contingency procedures

A self-revealing non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” was identified for the licensee’s failure to implement cold weather preparation procedures prior to the onset of anticipated below-freezing temperatures. Specifically, the licensee did not identify and correct missing insulation for the sensing lines associated with the Unit 2 steam line pressure transmitters (PTs) 494, 495, and 496 as required by station procedure FNP-2-EMP-1383.01, “Freeze Protection Inspections.” As a result, the PT-496 output signal failed low during below-freezing temperatures on January 7, 2014. The licensee entered this issue into their corrective action program as condition report (CR) 754183, restored operability of PT-496, and installed a tarp and heat lamps as compensatory measures for the missing insulation.

The failure to identify and correct missing insulation associated with PTs 494, 495, and 496, as required by FNP-2-EMP-1383.01 prior to the onset of cold weather, was a performance deficiency. The performance deficiency was more than minor because it could reasonably be viewed as a precursor to a significant event. Specifically, the failure to protect the sensing lines of these pressure transmitters from below-freezing temperatures resulted in a low output signal of pressure transmitter PT-496 as evidenced on January 7, 2014 and could have resulted in an unnecessary safety injection and reactor trip of Unit 2. The significance of this finding was screened under the initiating events cornerstone using IMC 0609 Attachment 4, “Initial Characterization of Findings,” issued June 19, 2012 and IMC 0609 Appendix A, “The Significance Determination Process (SDP) for Findings At-Power,” issued June 19, 2012. The finding screened as Green (i.e. very low safety significance) because it did not cause a reactor trip. The inspectors determined the finding had a cross-cutting aspect of “procedure adherence” in the human performance area because plant staff failed to comply with written procedures and identify equipment deficiencies prior to the onset of cold weather. [H.8] (Section 1R01)

Inspection Report# : [2014002](#) (*pdf*)

Significance: G Sep 30, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to control transient combustible materials in the Unit 2 auxiliary building

The NRC identified a non-cited violation (NCV) of Technical Specification (TS) 5.4.1.c, “Fire Protection Program Implementation,” for failing to properly control combustible material in fire risk-significant areas without a continuous fire watch as required by FNP-0-SOP-0.4, “Fire Protection Program Administration Procedure” and FNP-0-ACP-35.2, “Flammable Material and Combustible Material Control.” This issue was captured in the licensee’s corrective action program (CAP) as condition reports (CRs) 669286, 669554 and 686872. The licensee immediately removed the combustible materials from the fire risk significant areas. This violation is applicable to Unit 2.

Storing transient combustibles in fire risk significant areas without establishing a continuous roving fire watch was a performance deficiency. The performance deficiency was determined to be more than minor because it was associated

with the protection against external factors (fire) attribute of the initiating events cornerstone and adversely affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown and power operations. Also, the finding was similar to example 4.k of Inspection Manual Chapter (IMC) 0612, Appendix E, for identified transient combustibles in a combustible free zone required for separation of redundant trains. The inspectors evaluated this finding using the NRC's SDP and IMC 0609 Attachment 4, "Initial Characterization of Findings." Because the finding involved a failure to adequately implement fire prevention and administrative controls for transient combustible materials, an evaluation using IMC 0609 Appendix F, Attachment 1, "Fire Protection SDP Worksheet" was required. The finding screened to Green because it would not affect the ability to reach and maintain safe shutdown conditions due to the amount of combustibles identified combined with an hourly fire watch previously established in those areas. The cause of this finding was directly related to the cross-cutting aspect of procedural compliance in the work practices component of the human performance area because plant staff failed to comply with written procedures and posted instructions regarding storage of combustible materials in fire risk significant areas [H.4(b)]. (Section 1R05)

Inspection Report# : [2013004](#) (pdf)

Significance:  Jun 30, 2013

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to properly maintain procedures to ensure reactor vessel head vent path was preserved

Green. A self-revealing non-cited violation (NCV) of Technical Specification (TS) 5.4.1, "Procedures," was identified for the licensee's failure to establish procedures recommended in Regulatory Guide (RG) 1.33. Specifically, the licensee did not properly establish written procedures for maintaining a vent path of the unit 2 reactor vessel head. As a result of not maintaining a vent path during a refueling outage, the indicated reactor coolant system level did not match actual level and operator action was required to restore level to 128 feet, 6 inches. The licensee wrote condition report (CR) 632668 to document the event.

The failure to establish procedures to ensure an open vent path of the reactor vessel head when required was a performance deficiency. This performance deficiency was more than minor because it was associated with the procedural quality attribute of the initiating events cornerstone and adversely affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown operations. The procedure quality attribute of the initiating event (IE) cornerstone was determined to be adversely affected because procedure FNP-2-SOP-1.11, "Reactor Coolant System Filling and Venting – Dynamic Method," did not provide instructions to establish a reactor vessel vent path as required by procedure FNP-2-UOP-4.1, "Controlling Procedure for Refueling." This resulted in an unplanned RCS level decrease to 127 feet, 6 inches when the licensee was controlling level at 128 feet, 6 inches. The significance of this finding was screened using IMC 0609, Appendix G, "Shutdown Operations Significance Determination Process" and IMC 0609, Appendix G, Attachment 1: "Phase 1 Operational Checklists for both PWRs and BWRs." The finding screened as Green, because it did not require a quantitative assessment per checklist 3 of the attachment and it did not represent an inadvertent loss of two feet of RCS inventory when not in midloop as described in Table 1 of Appendix G.

The finding was related to the cross-cutting aspect of human error prevention techniques (pre-job briefings) in the work practices component of the human performance area because the licensee failed to discuss the expected configuration of the reactor vessel head vent path to ensure a vent path was properly established as required [H.4(a)]. (Section 1R20)

A violation of very low safety significance that was identified by the licensee has been reviewed by the NRC. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. This violation and corrective action tracking number are listed in Section 4OA7 of this report.

Inspection Report# : [2013003](#) (pdf)

Mitigating Systems

Significance: TBD Mar 31, 2014

Identified By: NRC

Item Type: AV Apparent Violation

Failure to implement preventive maintenance on 4160V breaker mechanism opened cell switches

An apparent violation (AV) of Technical Specification (TS) 5.4.1.a, "Procedures," was identified for the licensee's failure to perform preventive maintenance on safety-related 4160V breaker MOC switches in accordance with FNP-0-EMP-1313.12, "Maintenance of Siemens-Allis 4.16kv Metal-Clad Switchgear MOC Switch". Specifically, the licensee did not lubricate 4160V breaker MOC switches in accordance with station procedure FNP-0-EMP-1313.12. The licensee entered this issue into their corrective action program as CR 713134 and replaced the affected MOC switches.

The failure to perform preventive maintenance on safety-related 4160V breaker MOC switches in accordance with FNP-0-EMP-1313.12, "Maintenance of Siemens-Allis 4.16kv Metal-Clad Switchgear MOC Switch," was a performance deficiency. The performance deficiency was more than minor because it adversely affected the equipment 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 (i.e., core damage). Specifically, the failure to perform preventive maintenance procedure FNP-0-EMP-1313.12 adversely affected the reliability and capability of safety-related 4160V MOC switches, as evidenced by the B1G sequencer MOC switch failure on October 4, 2013. The inspectors evaluated the finding using IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," issued June 19, 2012. A detailed risk analysis was required by a NRC Senior Reactor Analyst because the finding represented an actual loss of function of at least a single train for greater than its TS-allowed outage time. The finding could not be screened to Green and is pending a final significance determination. The inspectors determined the finding had a cross-cutting aspect of "teamwork" in the human performance area because the licensee did not communicate and coordinate activities within and across organizational boundaries to ensure nuclear safety is maintained. Specifically, the licensee did not coordinate implementation of MOC switch preventive maintenance procedure FNP-0-EMP-1313.12 and the appropriate preventive maintenance "rep-task" was not created for these MOC switches. [H.4] The associated cross-cutting aspect is conditional on the final significance determination being White, Yellow or Red. (Section 1R12)

Inspection Report# : [2014002](#) (*pdf*)

Significance:  Mar 31, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

Lack of acceptance criteria for nuclear instrument channel checks

The inspectors identified an NCV of 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedures and Drawings," was identified for the licensee's failure to include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished. Specifically, licensee procedures FNP-1-STP-1.0 and FNP-2-STP-1.0, "Operations Daily and Shift Surveillance Requirements," did not include acceptance criteria for the intermediate range (IR) neutron flux channel check required by technical specifications (TS). The licensee entered this issue into their corrective action program as CR 775544 and was evaluating corrective actions.

The failure to include appropriate qualitative or quantitative acceptance criteria for the IR nuclear instruments channel check surveillance was a performance deficiency. The performance deficiency was more than minor because it adversely affected the procedure quality attribute of the mitigating systems cornerstone to ensure the availability,

reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the lack of qualitative or quantitative acceptance criteria for the IR channel check impacted the determination of continued operability of the NI-36 instrument channel during the reactor startup. This finding was evaluated using IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," issued June 19, 2012. This finding screened to Green because the questions listed under the Reactivity Control Systems in Exhibit 2, Mitigating Systems Screening Questions of IMC 0609, Appendix A, were answered "No". The inspectors determined the finding had a cross-cutting aspect of "resources" in the human performance area because procedures did not have adequate acceptance criteria to perform TS required IR neutron flux channel checks. [H.1] (Section 1R15)

Inspection Report# : [2014002](#) (*pdf*)

Significance: G Mar 31, 2014

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to implement fire protection program requirements

A self-revealing NCV of TS 5.4.1.c, "Fire Protection Program Implementation," was identified for the licensee's failure to establish and implement adequate procedures required to maintain functionality of the Unit 2 auxiliary building fire protection system (pyro panel). On January 18, 2014, the operations shift crew determined the Unit 2 pyro panel was non-functional when multiple suppression alarms came in on a main control room panel and all of the detection alarms came in on Unit 2 pyro panel. The licensee entered this issue into their corrective action program as CR 760108 and established continuous fire watches, as compensatory measures, until the Unit 2 pyro panel was returned to service on January 20, 2014.

The failure to establish and implement adequate procedures to maintain functionality of the Unit 2 auxiliary building fire protection pyro panel was a performance deficiency. The performance deficiency was more than minor because it adversely affected the protection against external factors (fire) attribute of the mitigating systems cornerstone objective to ensure the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the failure to establish and implement adequate procedures to maintain functionality of the Unit 2 auxiliary building fire protection pyro panel led to a degraded fire indicating unit, which resulted in a non-functional Unit 2 fire protection pyro panel and certain auxiliary building fire detection systems. The finding was evaluated using IMC 0609, Appendix F, "Fire Protection Significance Determination Process," issued September 20, 2013. According to question 1.4.2-G, the finding screened to Green because the Unit 2 auxiliary building suppression system was still able to suppress a fire such that no additional equipment important to safety would be affected by a fire. The inspectors determined the finding had a cross-cutting aspect of "change management" in the human performance area, because licensee staff failed to maintain functionality of the Unit 2 pyro panel before a design change could be implemented. [H.3] (Section 1R19)

Inspection Report# : [2014002](#) (*pdf*)

Barrier Integrity

Emergency Preparedness

Significance: **W** Dec 31, 2013

Identified By: Licensee

Item Type: VIO Violation

Calculation Error Results in Significantly non-Conservative EAL Threshold Values

White: A finding and associated violation of 10 CFR 50.54(q)(2) was identified by the licensee for the failure to follow and maintain the effectiveness of emergency plans which use a standard emergency classification and action level scheme. Specifically, the licensee's emergency plan emergency action level (EAL) Category R – Abnormal Radiological RG1 (General Emergency) and RS1(Site Area Emergency) specified threshold values which were sixty times too high due to a calculation error. As immediate corrective action, the licensee provided the corrected threshold values to appropriate management and decision-makers (shift managers/emergency directors). The licensee entered this issue into the corrective action program as CR 648187.

The performance deficiency was determined to be more than minor because it was associated with the emergency preparedness cornerstone attribute of procedure quality. It impacted the cornerstone objective because it was associated with inappropriate EAL and emergency plan changes and their adequacy to protect the health and safety of the public in the event of a radiological emergency. Specifically, the licensee's ability to declare a Site Area and General Emergency based on effluent radiation monitor values was degraded in that event classification using these radiation monitors would be delayed. The finding was assessed for significance in accordance with NRC Manual Chapter 0609, Appendix B, "Emergency Preparedness Significance Determination Process," which states, "FAILURE TO COMPLY means that a program is noncompliant with a REGULATORY REQUIREMENT." The inspector determined that the situation constituted a degraded rather than failed risk-significant planning standard (RSPS). The issue of concern was similar to the example in Table 5.4.1 (Degraded RSPS) and was determined to be of low to moderate safety significance (White). The violation was determined to meet the IMC 0305 criteria for enforcement discretion as an old design issue. A cross-cutting aspect was not assigned based on the elapsed time since the performance deficiency occurred and because the inspectors determined it was not reflective of current licensee performance. (Section 40A2)

Inspection Report# : [2013005](#) (*pdf*)

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

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