

Perry 1

4Q/2014 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance:  Dec 31, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

Unevaluated Preconditioning of Emergency Service Water Motor Operated Valves and Check Valves prior to conducting As-Found Inservice Surveillance Testing

The inspectors identified a finding of very low safety significance and associated NCV of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," for the licensee's unevaluated preconditioning, on October 15, 2014, of emergency service water (ESW) pump discharge motor-operated valves and check valves prior to performing as-found inservice testing (IST). This finding was entered into the licensee's corrective action program for resolution as Condition Report 2014-15759.

The unevaluated preconditioning was a performance deficiency that was determined to be more than minor, and thus a finding, because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone, and adversely affected the associated cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, unevaluated preconditioning of valves could mask their actual as-found conditions and result in an inability to verify their operability, as well as make it difficult to determine whether the valves would perform their intended safety function during an event. The inspectors determined that the finding was of very low safety significance because the finding was confirmed not to result in a loss of operability or functionality of the ESW system. The finding has a cross-cutting aspect in the area of human performance associated with the work management component because the licensee did not implement a process of planning, controlling, and executing work activities to prevent preconditioning of valves prior to testing (H.5).

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

Significance:  Dec 31, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Procedure for Performing an Acceptable Technical Specification Required Channel Check

The inspectors identified a finding of very low safety significance and associated NCV of Technical Specification (TS) 5.4.1.a., "Procedures," was identified for the licensee's failure to establish and maintain a correct surveillance inspection procedure for redundant reactivity control system (RRCS) channel checks. The licensee entered the issue into the corrective action program as Condition Report 2014-17635 and took immediate actions for a missed surveillance in accordance with TS.

The inspectors determined that the failure to establish and maintain a correct surveillance procedure required by TS

5.4.1.a. was a performance deficiency and resulted in the licensee's failure to perform a channel check that meets the TS definition of a channel check. The performance deficiency was determined to be more than minor, and thus a finding, because it was associated with the procedure quality 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. Specifically, the channel check surveillance procedure did not compare the channel indication and status to other indications or status derived from available independent instrument channels measuring the same parameter. The inspectors determined that the finding was of very low safety significance because the finding (1) did not affect a reactor protection system trip signal and the function of other redundant trips or diverse methods of reactor shutdown, (2) did not involve control manipulations that unintentionally added positive reactivity, and (3) did not result in a mismanagement of reactivity by operators. No cross-cutting aspect is assigned as this performance deficiency first occurred in 1986 and is not indicative of current licensee performance.

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

Significance:  Dec 31, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Follow Licensee Procedure to Properly Screen and Evaluate Temporary Changes to Plant Facilities / Structures, Systems, or Components

The inspectors identified a finding of very low safety significance and associated NCV of Technical Specification 5.4.1.a, "Procedures," for the licensee's failure to implement the requirements of Nuclear Operating Business Practice (NOBP)-LP-4003A, "FENOC 10 CFR 50.59 User Guidelines." This finding was entered into the licensee's corrective action program for resolution as Condition Report 2015-00284.

The inspectors determined that the failure to complete a Regulatory Applicability Determination (RAD) specified in NOBP-LP-4003A was a performance deficiency. The performance deficiency was more than minor, and thus a finding, because it was associated with the procedure quality 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. The finding was determined 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 and/or system; (3) did not result in the loss of one or more trains of TS equipment; and (4) does not represent the loss of a non-TS train of equipment. The finding has a

cross-cutting aspect in the area of human performance associated with the change management component, in that leaders use a systematic process for evaluating and implementing change so that nuclear safety remains the overriding priority (H.3).

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

Significance:  Jun 30, 2014

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to Promptly Correct a Condition Adverse to Quality on Division 2 EDG

A self-revealed finding of very low safety significance and associated non-cited violation (NCV) of 10 CFR, Part 50, Appendix B, Criterion XVI, "Corrective Action," was identified on May 7, 2014, for the failure to correct a condition adverse to quality. Specifically, the licensee failed to correct a lube oil leak, identified by operations personnel on April 12, 2014, during the monthly run of the Division 2 Emergency Diesel Generator (EDG). As discussed in

Condition Report (CR) 2014-06755, the leak was from a Swagelok fitting on the turbocharger supply line and at a rate of less than an ounce per hour. The CR was closed to a work order to complete repairs. On May 7, the next scheduled surveillance run of the Division 2 EDG occurred. The leak had not been repaired and, during the run, became progressively worse resulting in an unplanned (emergency) shutdown of the diesel and the diesel being declared inoperable. The leak was quantified as approximately a gallon per hour at the time of the shutdown (CR 2014-08487). The line was repaired and the diesel was returned to operable status on May 8. The licensee promptly evaluated the other EDGs and determined that a common cause condition did not exist. The failure was caused by fatigue cracking of the Swagelok fitting due to misalignment during installation. A root cause evaluation was conducted by the licensee.

The finding was determined to be more than minor because it was associated with the Mitigating Systems Cornerstone attribute of 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 finding was determined to be of very low safety significance because there was no design deficiency, no actual loss of safety function, and no single train loss of safety function for greater than the Technical Specification (TS)-allowed outage time. This finding has a cross-cutting aspect in the area of problem identification and resolution evaluation, for the failure to thoroughly evaluate the issue and ensure that the resolution addressed the cause and extent of condition when identified in April 2014.

Inspection Report# : [2014003](#) (pdf)

Significance:  Mar 31, 2014

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Inadequate Procedure for Extreme Cold Weather

A self-revealed finding of very low safety significance (Green) and associated non-cited violation of Technical Specification 5.4.1.a was identified for the licensee's failure to maintain adequate procedures to respond to acts of nature as required by Regulatory Guide 1.33, "Quality Assurance Program Requirements." Specifically, the cold weather procedure did not adequately direct equipment walkdowns and subsequent actions to protect equipment important to safety from severe weather risks, directly resulting in freezing and breaking of fire protection piping in Unit 2 turbine power complex, elevation 593' level. The piping provides fire protection for Unit 2 startup transformer's deluge system and the three Unit 2 inter-bus transformer deluge systems. The Unit 2 startup transformer is an integral part of one of the two qualified circuits specified in Technical Specification 3.8.1 between the offsite electrical transmission network and the onsite 4160-volt safety-related electrical system. Corrective actions included immediate posting of compensatory actions and warming of the space to prevent further damage to the system until repairs were completed.

The finding was determined to be more than minor because it is associated with the procedure quality 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. Specifically, the procedure did not direct the licensee to take proactive steps to limit the likelihood of extreme cold weather freezing and breaking the fire protection piping located on the Unit 2 turbine power complex elevation 593' level. In Step 1.2 of Inspection Manual Chapter 0609, Appendix F, Attachment 1, "Category of Fire Inspection Finding," the inspectors assigned Category 1.4.2, "Fixed Fire Protection Systems," to the finding and by answering "yes" in Step 1.3 A, "Is the reactor able to reach and maintain safe shutdown (either hot or cold) condition?" the inspectors determined that the finding was of very low safety significance. The finding was determined to have a cross-cutting aspect in the area of human performance, avoid complacency, where individuals recognize and plan for the possibility of mistakes, latent issues, and inherent risk, even while expecting successful outcomes. Specifically, the licensee did not identify that the fire protection deluge valves and piping in the Unit 2 turbine power complex were subject to freezing, even though extreme cold conditions had existed in prior weeks, allowing the licensee ample time for additional walkdowns to ensure that the plant was ready for the extreme cold weather event the first week of January 2014 (H.12).

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

Significance:  Mar 31, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Ensure Required 3-Hour Fire Barriers (Seals) Were In-Place

The inspectors identified a finding of very low safety significance (Green) and associated non-cited violation of Perry Operating License Condition 2.C(6) for failure to establish a required 3-hour fire barrier as required by design. Specifically, on March 13, 2014, the inspectors identified four incomplete fire barrier seals in ceiling-level penetrations between the Division 1 and Division 2 battery rooms and the adjoining direct current (DC) switchgear rooms, and on March 14 identified the lack of a fire barrier seal in a ceiling-level penetration between the remote shutdown panel room and an adjoining alternating current (AC) switchgear room. The licensee implemented compensatory measures that included hourly fire watches and entered the issues into the corrective action program.

The finding was determined to be more than minor because it was associated with the protection against external factors 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. Specifically, the lack of a barrier caused the required 3-hour barrier required by design to be non-functional. In Step 1.2 of Inspection Manual Chapter 0609, Appendix F, Attachment 1, "Category of Fire Inspection Finding," the inspectors assigned Category 1.4.3, "Fire Confinement," to the finding, which was determined to be of very low safety significance. For the battery room seals, the inspectors identified a cross-cutting aspect in the area of human performance, work management, where the organization implements a process for planning and controlling, and executing work activities such that nuclear safety is the overriding priority (H.5). Specifically, the licensee did not follow its procedures when the fire seal material was formed in the workshop and then installed in the openings instead of being formed in situ as required by the licensee's procedures (H.5). The inspectors determined there was no cross-cutting aspect associated with the lack of a fire seal in the remote shutdown panel room because it did not reflect current performance.

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

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Significance:  Sep 30, 2014

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

RADIOACTIVE MATERIAL FOUND OFF-SITE AT A SCRAP METAL VENDOR FACILITY

A self-revealed finding of very low safety significance (Green) and an associated non-cited violation (NCV) of 10 CFR 20.1501 was identified on July 14, 2014, for the failure to conduct surveys that may be necessary for the licensee to comply with the regulations in Part 20 of the Code of Federal Regulations (CFR). The inspectors determined that the licensee did not perform adequate surveys to assure compliance with 10 CFR 20.1802, which requires that the licensee control and maintain constant surveillance of licensed material that is in a controlled area or unrestricted areas and that is not in storage. Specifically, on July 14, licensee surveys of the service air compressor lube oil coolers were not adequate to control licensed material from being unconditionally released from the site. The inspectors determined that this was a performance deficiency, the cause of which was reasonably within the licensee's ability to foresee and correct, and should have been prevented. This finding was not subject to traditional enforcement since the incident did not result in a significant safety consequence, did not impact the NRC's ability to perform its regulatory function, and was not willful. This issue was entered into the licensee's corrective action program as Condition Report (CR) 2014-11729. Licensee corrective actions included intrusive management actions to address individual performance weaknesses, radioactive material control practices, and sharing lessons learned with applicable station staff.

The performance deficiency was determined to be more than minor because it was associated with the Public Radiation Safety Cornerstone attribute for program and process and affected the cornerstone objective to ensure adequate protection of public health and safety from exposure to radioactive material released into the public domain. The finding was determined to be of very low safety significance because the finding was not a transportation issue, did not involve radioactive effluents, and did not involve the Radiological Environmental Monitoring Program. This finding has a cross-cutting aspect in the area of human performance, challenge the unknown, for the radiation protection technician's failure to stop when faced with uncertain conditions and to ensure that risks are evaluated and managed before proceeding

Inspection Report# : [2014004](#) (*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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