Nine Mile Point 1
4Q/2013 Plant Inspection Findings

Initiating Events

Significance: G Mar 31, 2013
Identified By: Self-Revealing
Item Type: FIN Finding
Test Conditions Not Properly Established
A self-revealing finding (FIN) was identified for the failure of CENG, maintenance personnel to ensure appropriate conditions were established during a surveillance test to confirm the lockup valves for flow control valve (FCV)-29-137 were properly functioning at Unit 1. As a result, a failure associated with the lockup valves was not detected during surveillance testing activities conducted in March 2011. This undetected failure led to an unexpected injection of water into the reactor pressure vessel (RPV) on November 6, 2012, during an unplanned outage, resulting in an increase in RPV water level, turbine trip signal, and initiation of the high-pressure coolant injection (HPCI) logic. CENG entered this issue into their corrective action program as condition report (CR)-2012-010141.

This finding is more than minor because it is associated with the human performance attribute of the Initiating Events cornerstone and affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, because maintenance personnel did not properly implement procedure N1-IPM-029-010, “Calibration of Feedwater FCV-29-134, FCV-29-137, and FCV-29-14,” Revision 00603, the lockup valves for FCV-29-137 were not adequately tested, and as a result, degraded valve performance was not detected during a March 2011 surveillance test. Consequently, on November 6, 2012, FCV-29-137 unexpectedly failed partially open when instrument air was removed from the valve which caused a subsequent increase in RPV level, creation of a turbine trip signal, and initiation of the HPCI injection logic. In accordance with Inspection Manual Chapter (IMC) 0609.04, “Initial Characterization of Findings,” and Exhibit 1 of IMC 0609, Appendix A, “The Significance Determination Process for Findings At-Power,” issued June 19, 2012, the inspectors determined that this finding is of very low safety significance (Green) because the performance deficiency did not cause a reactor trip, and the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable, shutdown condition.

This finding has a cross-cutting aspect in the area of Human Performance, Work Practices, because CENG maintenance personnel did not ensure plant conditions and system status were adequate to perform an air drop test on the lockup valves for FCV-29-137. Specifically, CENG personnel failed to ensure the actuating cylinder for FCV-29-137 was pressurized prior to commencing the test. As a result, the air drop test was not properly conducted, and the degraded condition of the lockup valves was not identified [H.4(a)].

Inspection Report# : 2013002 *(pdf)*

Significance: G Mar 31, 2013
Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate Procedure Change Review Results in Reactor Scram
A self-revealing finding (FIN) was identified for CENG’s failure to perform a cross-disciplinary engineering review in 2003, as required by station procedures, of the amplidyne excitation system operation setting. On September 20,

2012, Unit 1 experienced electrical oscillations at the main generator that required operators to take the automatic voltage regulator (AVR) from automatic to manual. As a result of the incorrect amplidyne operation setting at 10 to 20 volts boost, operators were unsuccessful at mitigating the electrical oscillations at the main generator, ultimately leading to a reactor scram. CENG entered this issue into their corrective action program as condition report (CR)-2012-008673.

This finding is more than minor because it is associated with the equipment performance attribute of the Initiating Events cornerstone and affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. Specifically, contrary to procedures NIP-PRO-04, “Procedure Change Evaluations and Future Procedure Enhancements,” Revision 14, and NIP-PRO-03, “Preparation and Review of Technical Procedures,” Revision 14, CENG failed to perform a cross-disciplinary engineering review to identify the inadequate amplidyne operation setting. As a result, the default set point of the AVR was not correct, and when electrical oscillations occurred at the Unit 1 main generator on September 20, the main generator became under excited when the AVR was placed in manual, resulting in a reactor scram. This finding was evaluated in accordance with Inspection Manual Chapter (IMC) 0609.04, “Initial Characterization of Findings,” and Exhibit 1 of IMC 0609, Appendix A, “The Significance Determination Process for Findings At-Power,” issued June 19, 2012. The inspectors determined that this finding is of very low safety significance (Green) because while the performance deficiency caused a reactor scram, it did not result in the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition. The inspectors did not assign a cross-cutting aspect to this finding because the performance deficiency is not indicative of present performance because it did not occur within the last 3 years.

Inspection Report# : 2013002 *(pdf)*

Significance: G Mar 31, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Perform a 50.59 Evaluation for a Procedure Change
The inspectors identified a Severity Level IV non-cited violation (NCV) and associated Green finding (FIN) of Title 10 of the Code of Federal Regulations (10 CFR) 50.59, “Changes, Tests and Experiments,” because Unit 1 failed to perform a written 50.59 evaluation for changes to the operating procedure for the shutdown cooling system (SDCS) isolation valves. Specifically, CENG added steps to the procedure to defeat the design basis safety function of the SDC isolation valves to automatically isolate on a reactor pressure vessel (RPV) low-low water level signal without performing a written 50.59 evaluation. CENG entered this issue into their corrective action program as condition report (CR)-2012-009540.

The inspectors determined that CENG’s failure to perform a written 50.59 evaluation for changes to N1-OP-4, “Shutdown Cooling System,” Revision 03701, as required by 10 CFR 50.59 was a performance deficiency that was reasonably within CENG’s ability to foresee and correct and should have been prevented. Because this issue had the potential to affect the NRCs ability to perform its regulatory function, the inspectors evaluated the performance deficiency in accordance with the traditional enforcement process. The violation was determined to be more than minor because the inspectors could not reasonably determine that the changes would not have ultimately required NRC prior approval, because the change resulted in a more than minimal change in the frequency of occurrence of a previously evaluated accident (LOCA).

However, both the NRC Enforcement Policy and NRC Inspection Manual Chapter (IMC) 0612 Appendix B, “Issue Screening,” direct the inspector to evaluate the finding under the significance determination process (SDP) as well. Under the SDP, this finding is more than minor because it is associated with the equipment performance attribute of the Initiating Events cornerstone and affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, by

failing to maintain the safety function of the SDCS isolation valves to automatically isolate on low-low RPV water level, Unit 1 increased the likelihood of a LOCA. In accordance with IMC 0609.04, “Initial Characterization of Findings,” IMC 0609 Appendix G, “Shutdown Operations Significance Determination Process,” and Checklist 6 of IMC 0609 Appendix G, Attachment 1, “BWR Cold Shutdown or Refueling Operation, Time to Boil <2 hours: RCS Level <23 feet Above Top of Flange,” the inspectors determined this finding to be of very low safety significance (Green) because this finding was not a loss of control and did not impact checklist attributes requiring a Phase 2 or Phase 3 analysis.

Therefore, in accordance with Section 6.1.d.2 of the NRC Enforcement Policy, this violation is also categorized as a Severity Level IV violation because the resulting conditions were evaluated as having very low safety significance (Green) by the SDP. The inspectors did not assign a cross-cutting aspect to this finding because the performance deficiency is not indicative of present performance because it did not occur within the last 3 years.

Inspection Report# : 2013002 *(pdf)*

Mitigating Systems

Barrier Integrity

Significance: G Jun 30, 2013
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Containment Leakage Exceeds Technical Specification 3.3.3 Limits
A self-revealing non-cited violation of Technical Specification (TS) 3.3.3, “Leakage Rate,” was identified for Constellation Energy Nuclear Group's (CENG) failure from December 3 to December 13, 2012, to maintain containment leakage less than 1.5 percent by weight of the containment air per day and less than 0.6 percent by weight of the containment air per day for all penetrations and all primary containment isolation valves subject to Title 10 of the Code of Federal Regulations Part 50, Appendix J, Types ‘B’ and ‘C’ tests, when pressurized to 35 pound per square inch gauge when reactor coolant system temperature is above 215 degree Fahrenheit and primary containment integrity is required. CENG entered this issue into their corrective action program as condition report CR-2012-011247. Corrective actions included cleaning iron oxide from the primary containment vent and purge valve and replacing the resilient seals.

This finding is more than minor because it is associated with the structure, system, component, and barrier performance attribute of the Barrier Integrity cornerstone and affected the cornerstone objective to provide reasonable assurance that physical design barriers (fuel cladding, reactor coolant system, and containment) protect the public from radionuclide releases caused by accidents or events. Specifically, containment leakage exceeded the leakage limits outlined in the Unit 1 TS 3.3.3 from December 3 to December 13, 2012. This finding was evaluated in accordance with Inspection Manual Chapter (IMC) 0609.04, “Initial Characterization of Findings,” and Table 6.2, “Phase 2 Risk Significance-Type B Findings at Full Power,” of IMC 0609, Appendix H, “Containment Integrity Significance Determination Process,” issued May 6, 2004. The inspectors determined this finding was of very low safety significance (Green) because the leakage was less than 100 percent of containment volume per day for the duration of the leak. This finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program, because CENG failed to take appropriate corrective action to address safety issues and adverse trends in a timely manner commensurate with their safety significance. Specifically, following identification

of the adverse trend regarding the frequency of nitrogen addition to the drywell, CENG did not assess in a timely manner the significance of the leakage and the impact on primary plant containment [P.1(d)].

Inspection Report# : 2013003 *(pdf)*

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 Aug 23, 2013
Identified By: NRC
Item Type: FIN Finding
PI&R Report Summary
Problem Identification and Resolution
The inspectors concluded that NMPNS was generally effective in identifying, evaluating, and resolving problems. NMPNS personnel identified problems, entered them into the corrective action program (CAP) at a low threshold, and prioritized issues commensurate with their safety significance. In most cases, NMPNS appropriately screened issues for operability and reportability and performed causal analyses that appropriately considered extent of condition, generic issues, and previous occurrences. The inspectors also determined that NMPNS typically implemented corrective actions to address the problems identified in the CAP in a timely manner. However, the inspectors identified one violation of NRC requirements in the area of corrective action implementation.
The inspectors concluded that, in general, NMPNS adequately identified, reviewed, and applied relevant industry operating experience to NMPNS operations. In addition, based on those items

selected for review, the inspectors determined that NMPNS's self-assessments and audits were thorough.
Based on the interviews the inspectors conducted over the course of the inspection, observations of plant activities, and reviews of individual CAP and employee concerns program (ECP) issues, the inspectors did not identify any indications that site personnel were unwilling to raise safety issues nor did they identify any conditions that could have had a negative impact on the site's safety conscious work environment.
Inspection Report# : 2013007 *(pdf)*

Significance: N/A Mar 31, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Submit a Required Licensee Event Report
The inspectors identified a Severity Level IV non-cited violation (NCV) of Title 10 of the Code of Federal Regulations (10 CFR) 50.73(a)(2)(iv)(A) in that Unit 1 inappropriately retracted an event notification report (ENR) and subsequently failed to make the required licensee event report (LER) for a valid actuation of the high-pressure coolant injection (HPCI) system. Specifically, CENG inappropriately retracted ENR number 48477, an 8-hour notification for a valid HPCI actuation and failed to submit an LER within 60 days of discovery of the actuation. CENG entered this issue into their corrective action program as CR-2013-001859.

The inspectors determined that the inappropriate retraction of a notification required by 10 CFR 50.72(b)(3)(iv)(A) and failure to make a required event report in accordance with 10 CFR 50.73(a)(2)(iv)(B)(4) were performance deficiencies that were reasonably within CENG's ability to foresee and correct and should have been prevented. Because this issue had the potential to affect the NRC's ability to perform its regulatory function, the inspectors evaluated these performance deficiencies in accordance with the traditional enforcement process. Using example 6.9.d.9 from the NRC Enforcement Policy, the inspectors determined that the violation was a Severity Level IV (more than minor concern that resulted in no or relatively inappreciable potential safety or security consequence) violation. Because this violation involves the traditional enforcement process and does not have an underlying technical violation that would be considered more than minor, the inspectors did not assign a cross-cutting aspect to this violation in accordance with Inspection Manual Chapter 0612, Appendix B, "Issue Screening," issued September 7, 2012.

Inspection Report# : 2013002 *(pdf)*

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