

Nine Mile Point 1

4Q/2012 Plant Inspection Findings

Initiating Events

Significance:  Dec 31, 2012

Identified By: Self-Revealing

Item Type: FIN Finding

Failure to Develop Adequate Inspection Requirements for Main Transformer Modification Results in Reactor Scram

A self-revealing Green finding (FIN) was identified for Nine Mile Point Nuclear Station, LLC. (NMPNS's) failure to develop adequate inspection requirements for the Unit 1 main transformer replacement. As a result, improper configuration of the main transformer current transformer's (CT) 11 and 12 bus bars went undetected. On October 29, 2012, the improper configuration of the CT bus bars combined with an electrical transient due to a lightning arrester collapse in the 345kV switchyard resulted in a reactor scram. Following the scram, an investigation revealed the improper configuration of the CT bus bars. NMPNS' took immediate corrective actions to correct the configuration of the CT 11 and 12 bus bars. NMPNS entered the issue into their corrective action program (CAP) as condition report (CR)-2012-009820.

This finding is more than minor because it adversely affected the design control 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. The finding was evaluated in accordance with 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 finding has a cross-cutting aspect in the area of human performance, work practices, because NMPNS did not ensure proper supervisory or management oversight of the Unit 1 main transformer replacement. Specifically, NMPNS failed to ensure proper oversight of the main transformer modification by not developing adequate inspection requirements, as required by NEP-DES-09, "Engineering Specification" [H.4(c)].

Inspection Report# : [2012005](#) (*pdf*)

Significance:  Sep 30, 2012

Identified By: Self-Revealing

Item Type: FIN Finding

Inadequate Implementation of Operational Decision Making Issues Monitoring Plan for EPR Results in Reactor Scram

A self-revealing Green finding (FIN) was identified for NMPNS' failure to adequately implement the monitoring activities specified in the operation decision making issues (ODMI) plan for the Unit 1 electronic pressure regulator (EPR) in accordance with procedure CNGOP-1.01-1001, "Operational Decision Making". As a result, when the EPR system began to degrade on June 21, 2012, this condition was not identified by station personnel and corrective action (CA) was not implemented. The EPR subsequently malfunctioned while in service, causing a July 17, 2012, reactor scram. NMPNS removed the EPR from service and entered the issue into its corrective action program as CR-2012-006792.

This finding is more than minor because it adversely affected 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 power operations. The inspectors evaluated the finding using Attachment 0609.04, "Initial Characterization of Findings," in Inspection Manual Chapter (IMC) 0609, "Significance Determination Process." The finding was determined to be of low safety significance (Green) because while it 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 finding has a cross-cutting aspect in the area of human performance, work practices, because NMPNS did not ensure proper supervisory and management oversight of the ODMI implementation plan.

Inspection Report# : [2012004](#) (pdf)

Significance:  Sep 30, 2012

Identified By: Self-Revealing

Item Type: FIN Finding

Inadequate Installation Instructions for Control Rod Blade Storage Rack

A self-revealing Green finding (FIN) was identified for NMPNS' failure to provide adequate instructions for the installation of a control rod blade storage rack in the Unit 1 spent fuel pool. Specifically, certain critical steps were missing from the installation instructions and as a result, the rack was not properly installed, causing it to shift. The rack could have dropped, potentially resulting in damage to the spent fuel bundles stored beneath the rack. NMPNS' immediate CAs were to halt further control rod blade moves and install temporary slings to hold up the rack. The rack was then re-leveled and the jacking pad was welded to the spent fuel pool curb. NMPNS entered this issue into its corrective action program as CR 2012-006547.

This finding is more than minor because it would have the potential to lead to a more significant safety concern; e.g. spent fuel bundle damage and a radiological release. The inspectors evaluated the finding using Attachment 0609.04 of Inspection Manual Chapter (IMC) 0609, "Significance Determination Process," Exhibit 3, "Barrier Integrity Screening Questions," pertaining to spent fuel pools and determined this finding to be of very low safety significance (Green), because the finding did not adversely affect decay heat removal capabilities or pool water inventory, and did not result from fuel handling errors, dropped fuel assembly, dropped storage cask, or crane operations over the spent fuel pool that caused mechanical damage to fuel clad and a detectible release of radionuclides. The finding has a cross-cutting aspect in the area of work practices because NMPNS did not ensure supervisory and management oversight of work activities, including contractors, such that nuclear safety is supported. Specifically, NMPNS supervision did not ensure that critical assumptions contained in the control rod storage rack design analysis concerning the configuration of the Unit 1 spent fuel pool curb were translated into the installation instructions, and differences between Units 1 and 2 curbs noted during the installation were captured or evaluated by engineering, work control, or the CA process.

Inspection Report# : [2012004](#) (pdf)

Significance:  Mar 31, 2012

Identified By: Self-Revealing

Item Type: FIN Finding

Did Not Correctly Implement Procedure During Power Supply Transfer

A Green self-revealing finding was identified for the failure of Nine Mile Point Nuclear Station (NMPNS) to properly implement procedure N1-OP-30, "4.16 kV, 600V and 480V House Service," Revision 02800 when shifting the power supply for power board (PB) 101 from the south reserve transformer to the north reserve transformer on January 3, 2012. As a result, power was momentarily interrupted to PB 101 which caused the 13 reactor recirculation pump to

trip resulting in an unplanned reactor power reduction from 100 to 84 percent. NMPNS immediate corrective actions included removing the control room supervisor and plant operator who were involved in the event from shift activities, conducting a prompt investigation, and installing warning placards on the exterior cabinets to the potential transformers that state de-energizing the potential transformers could cause a loss of power to PB 101.

The finding is more than minor because it was associated with the configuration control attribute of the Initiating Events Cornerstone and adversely impacted cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. The finding was determined to be of very low safety significance (Green), because the finding did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions will not be available. This finding has a cross-cutting aspect in the area of Human Performance, decision making because NMPNS operators did not use conservative assumptions in decision making when questions arose regarding how to implement procedure N1-OP-30 [H.1(b)].

Inspection Report# : [2012002](#) (pdf)

Significance:  Mar 31, 2012

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Inadequate Torque Applied to Shutdown Cooling Isolation Valve Closure Bolts

A Green self-revealing NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified due to NMPNS' failure to adequately implement Standard Design Specification SDS-006, "Bolt-Torque Requirements for Unit 1 and Unit 2," to determine the amount of torque to apply to the bonnet bolts of shutdown cooling isolation valve IV-38-01. This resulted in a reactor coolant system (RCS) leak of one gallon per minute and a Unit 1 shutdown. NMPNS' corrective actions included applying an appropriate torque to the body to bonnet bolts, performing an extent of condition review of similar valves in the drywell, and checking the torque of bolts on valve IV-38-02, located outside the drywell, that had similarly been modified in 2011.

This finding is more than minor because it adversely impacted the equipment performance attribute of the Initiating Events Cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors determined this finding to be of very low significance (Green) because assuming the worst case degradation of the body to bonnet seal, the leak would not have exceeded the technical specification limit for identified reactor coolant system leakage. The finding has a cross-cutting aspect in the area of human performance, resources, because NMPNS' design documentation regarding required torque values was not complete and accurate [H.2(c)].

Inspection Report# : [2012002](#) (pdf)

Mitigating Systems

Barrier Integrity

Significance:  Dec 31, 2012

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Inadequate Post Maintenance Test Results in Subsequent Failure of 11 CREVS Fan

A self-revealing Green NCV of TS 6.4.1 occurred because NMPNS failed to develop an adequate post maintenance test (PMT) to determine operability of the 11 control room emergency ventilation system. Specifically, troubleshooting on December 2 failed to identify a cause of the failure and an inadequate PMT was performed to determine operability. As a

result the degraded system was returned to service even though it did not meet all the requirements for operability. The limiting condition for operation (LCO) was exited incorrectly, and the issue was not identified and resolved until subsequent surveillance testing. Following subsequent surveillance testing, the degraded circuit was repaired and a successful PMT was performed. The issue was entered into NMPNS CAP as CR-2012-011027.

This finding is more than minor because it adversely affected the structure, system, and component (SSC) and barrier performance attribute of the Barrier Integrity Cornerstone and affected the cornerstone objective of providing reasonable assurance that physical design barriers protect the operators in the control room from radionuclide releases caused by accidents or events. The finding was evaluated in accordance with IMC 0609.04, "Initial Characterization of Findings," and Exhibit 3 of IMC 0609, Appendix A. The inspectors determined that this finding is of very low safety significance (Green) because the performance deficiency only represented a degradation of the radiological barrier function provided for the control room. This finding has a cross-cutting aspect in the area of problem identification and resolution, because NMPNS failed to thoroughly evaluate the problem such that the resolution addressed the cause. Specifically, if NMPNS would have identified the cause of the problem and performed an adequate PMT, the system would not have been restored with a degraded condition [P.1(c)].

Inspection Report# : [2012005](#) (*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

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