

## Nine Mile Point 1 3Q/2012 Plant Inspection Findings

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### Initiating Events

**Significance:** G 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:** G 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 detectable 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*)

**Significance:**  Dec 31, 2011

Identified By: NRC

Item Type: FIN Finding

#### **Failure to Meet Fleet Standards for Preventive Maintenance Templates**

The inspectors identified a Green finding for the failure of NMPNS to meet the fleet standard for establishing and implementing preventive maintenance (PM) templates. Specifically, in 2009, NMPNS failed to implement PM templates for critical non-safety related molded case circuit breakers in accordance with the guidance in the new fleet standard. NMPNS entered this issue into their corrective action program as CR-2011-011000 and CR-2011-011045 to evaluate corrective actions needed to address this issue.

The inspectors determined that the finding was more than minor because if left uncorrected, the performance deficiency would have the potential to lead to a more significant safety concern. Specifically, continued failure to perform the "clean and inspect" PM on critical NSR MCCBs could lead to a failure that could cause a plant transient. The inspectors determined that the finding was of very low safety significance (Green) since 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 had a cross-cutting aspect in the human performance area, work practices component, in that NMPNS did not implement procedures for conducting preventive maintenance on electrical breakers [H.4.(b)].

Inspection Report# : [2011005](#) (*pdf*)

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## **Mitigating Systems**

**Significance:**  Dec 09, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Vital Bus Degraded Voltage Time Delay Not Maintained Within LOCA Analysis Assumptions**

The inspector identified a finding of very low safety significance (Green) involving a non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion III "Design Control," in that station personnel did not implement appropriate measures to ensure design basis and regulatory requirements for the vital bus degraded voltage protection time delay were correctly translated into specifications, procedures, and instructions. Specifically, station personnel implemented the vital bus degraded voltage protection

design modification which established a protection relay time delay that resulted in the Emergency Core Cooling System (ECCS) injection times exceeding the times assumed in the Updated Final Safety Analysis Report (UFSAR) Loss-of-Coolant Accident (LOCA) analysis. Constellation performed an operability determination and entered this issue into their corrective action program as condition report (CR) 201 1-10339 to track resolution of this issue.

The performance deficiency was determined to be more than minor because it was associated with the Design Control attribute of the Mitigating Systems Cornerstone 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 inspector evaluated the finding in accordance with Inspection Manual Chapter (IMC) 0609, Significance Determination Process, Attachment 0609.04, "Phase 1-Initial Screening and Characterization of Findings." The finding was determined to be of very low safety significance because the issue was a design deficiency confirmed not to result in loss of operability. The principle underlying cause of this performance deficiency did not reflect current performance and, therefore, no crosscutting aspect was assigned to this finding. (Section 4OA2)

Enclosure

Inspection Report# : [2011011](#) (*pdf*)

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## **Barrier Integrity**

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## **Emergency Preparedness**

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## **Occupational Radiation Safety**

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## **Public Radiation Safety**

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## **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.

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## Miscellaneous

**Significance:** N/A Oct 21, 2011

Identified By: NRC

Item Type: FIN Finding

### PI&R Team Report Summary

The inspectors concluded that Constellation was generally effective in identifying, evaluating, and resolving problems. Constellation personnel identified problems, entered them into the corrective action program at a low threshold, and prioritized issues commensurate with their safety significance. In most cases, Constellation 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 Constellation typically implemented corrective actions to address the problems identified in the corrective action program in a timely manner.

The inspectors concluded that, in general, Constellation adequately identified, reviewed, and applied relevant industry operating experience to Nine Mile Point operations. In addition, based on those items selected for review, the inspectors determined that Constellation'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 corrective action program and employee concerns program 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# : [2011008](#) (*pdf*)

Last modified : November 30, 2012