Nine Mile Point 2
4Q/2011 Plant Inspection Findings

Initiating Events

Significance: G 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 conducing preventive maintenance on electrical breakers [H.4.(b)].
Inspection Report# : 2011005 *(pdf)*

Significance: G Dec 31, 2011
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Follow Valve Packing Procedure
A Green self-revealing NCV of technical specification (TS) 5.4.1, “Procedures,” was identified for NMPNS’ failure to properly implement S-MMP-GEN-201, “Site Valve Packing Procedure,” Revision 00600 when maintenance personnel repacked recirculation pump discharge isolation valve 2RCS*MOV18A in August 2011. As a result, on December 9, 2011, the packing for valve 2RCS*MOV18A failed and unidentified reactor coolant system (RCS) leakage increased above the TS limit of a 2 gpm increase per 24 hours forcing a plant shutdown. NMPNS’ immediate corrective actions were to repair the valve stem and install a live loaded packing system on the recirculation discharge isolation valves.

This finding is more than minor because it reasonably could be viewed as a precursor to a more significant event and adversely impacted the Initiating Events Cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. This finding challenged the availability and reliability of a mechanical RCS pressure boundary. This finding was evaluated using IMC 0609, “Significance Determination Process,” Attachment 04, “Phase 1-Initial Screening and Characterization of Findings,” Table 4a, and determined to require further evaluation because the as-found leakage exceeded a TS RCS leakage limit. Based on Region I Senior Reactor Analyst (SRA) review, the finding was determined to be of very low safety significance (Green) since the maximum possible leak rate through the valve packing would be compensated by normal operation of the control rod drive system and the condensate/feedwater system. This finding has a cross-cutting aspect in the area of human performance, work control because NMPNS did not define and effectively communicate expectations regarding procedural compliance and personnel did not follow procedures during their inspection of the valve stem [H.4.(b)].

Inspection Report# : 2011005 *(pdf)*

Significance: G Sep 30, 2011
Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate Actions to Prevent Vibration Induced Failure on a Socket Weld for a Vent Line on the 'A' FWP Minimum Flow Line
A Green self revealing finding was identified for inadequate implementation of corrective actions regarding vibration induced failures of socket welds. This finding resulted in an August 11, 2011, Nine Mile Unit 2 scram due to a failed socket weld on the vent line for the 'A' feedwater pump (FWP) minimum flow line. NMPNS did not properly consider the impact of high vibration levels on a vent line attached to the 'A' FWP mini-flow recirculation line. NMPNS corrective actions included upgrading the socket weld to the requirements outlined in industry operating experience (OE).

The inspectors determined that the finding was of very low safety significance (Green) through performance of a Phase 1 SDP in accordance with IMC 0609.04, Table 4a, "Characterization Worksheet for Initiating Events, Mitigating Systems (MS) and Barrier Integrity Cornerstones." Specifically, 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 problem identification and resolution in that NMPNS did not implement and institutionalize OE through changes to station processes, procedures, equipment and training programs. Specifically in 1998 and again in 2010, NMPNS did not institutionalize external and internal OE to reduce the probability of a socket weld failure.

Inspection Report# : 2011004 *(pdf)*

Mitigating Systems

Significance: G Mar 31, 2011
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadequate Identification and Corrective Actions for Emergency Diesel Generator Temperature Control Valve Degradation
A self-revealing finding of very low safety significance associated with a non-cited violation (NCV) of 10 CFR Part 50, Criterion XVI, "Corrective Action," was identified following a monthly surveillance test (ST) on January 18, 2011, when Unit 2 operators removed the Division I emergency diesel generator (EDG) from the grid due to rising jacket water cooling temperature. The condition resulted in an unplanned entry into a technical specification limiting condition for operation (LCO) and 23 hours of system unavailability. The inspectors determined that ineffective performance monitoring of the Division I EDG jacket water cooling system since April 2008 was a performance deficiency in that the degraded condition of the thermostatic control valve was reasonably within NMPNS' ability to foresee and correct. NMPNS entered this issue into its corrective action program (CAP), repaired the valve and enhanced the valve maintenance procedure to ensure smooth operation.

The finding was more than minor because it was associated with the reliability attribute of the mitigating systems cornerstone and 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 of very low safety significance because it was not a design or qualification deficiency, did not represent a loss of system/train safety function, and did not screen as potentially risk significant due to external events. The finding had a cross-cutting aspect in the area of problem identification and resolution, corrective action program, because NMPNS did not take appropriate correction actions to address an adverse trend in a timely manner, commensurate with its safety significance and complexity.
Inspection Report# : 2011002 *(pdf)*

Significance: G Mar 30, 2010
Identified By: NRC
Item Type: FIN Finding

Inadequate Maintenance Procedure Results in Loss of Loads for Non-Vital UPS
A self-revealing finding of very low safety significance was identified for inadequate coordination during concurrent execution of a maintenance procedure and an operating procedure, which resulted in a loss of power to the loads supplied by Unit 2 uninterruptible power supply (UPS) 2VBB-UPS1A. The loss of operational capabilities, and alarm and display functions, complicated normal plant operations and impacted an "anticipated transient without scram" (ATWS) mitigation strategy. As immediate corrective action, maintenance on UPS1A was stopped pending causal evaluation of the event. The issue was entered into the corrective action program (CAP) as condition report (CR) 2009-8928.

The finding was more than minor because it was associated with the procedure quality 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. Additionally, the finding was significant because it would have impacted Nine Mile Point Nuclear Station's (NMPNS's) ability to execute emergency operating procedure N2-EOP-C5, "Failure to Scram," in that the reactor manual control system was not available for use in accordance with N2-EOP-6, Attachment 14, "Alternate Control Rod Insertions." The finding was of very low safety significance because it was not a design or qualification deficiency, did not represent a loss of a system/train safety function, and did not screen as potentially risk significant due to external events. The finding had a cross-cutting aspect in the area of human performance, work control, because NMPNS did not address the impact of changes to the work activity on the plant and human performance.

Inspection Report# : 2010002 *(pdf)*

Barrier Integrity

Significance: G Dec 31, 2011
Identified By: NRC
Item Type: FIN Finding
Troubleshooting Approach Not Consistent With Technical Specification Bases
The inspectors identified a Green finding for the failure of NMPNS to follow the technical specifications (TS) bases associated with limiting condition for operation (LCO) 3.0.2. Specifically on October 24, 2011, on three separate occasions, NMPNS entered TS 3.3.6.1 Condition B for operational convenience to conduct troubleshooting of a reactor water cleanup (RWCU) system differential flow high channel. The inspectors determined this action was contrary to the bases of TS LCO 3.0.2 which states, in part, intentional entry into actions should not be made for operational convenience and must not compromise safety. NMPNS immediate corrective actions included coaching the control room personnel involved in the troubleshooting process and entered the issue into the corrective action program as CR 2011-009767.

This finding is more than minor because it impacted the configuration control aspect of the Barrier Integrity Cornerstone and adversely affected the Cornerstone objective to maintain functionality of containment. Specifically, as part of a planned troubleshooting activity, a protective isolation feature was removed from service on multiple occasions that collectively exceeded the allowed LCO time for the system. The inspectors determined that the finding was of very low safety significance (Green) since the finding did not represent an actual open pathway in the physical integrity of the reactor containment. This finding has a cross-cutting aspect in the area of human performance in that NMPNS did not use conservative assumptions in decision making when performing multiple entries into TS [H.1.(b)].
Inspection Report# : 2011005 *(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Sep 30, 2010
Identified By: Self-Revealing
Item Type: FIN Finding
Failure to Maintain Radiation Exposure ALARA During RHR System Modification
A self-revealing finding of very low safety significance was identified due to Nine Mile Point Nuclear Station (NMPNS) having unplanned, unintended occupational collective dose resulting from deficiencies in "as low as is reasonably achievable" (ALARA) planning and work control while performing the removal of steam condensing mode piping and components associated with the Unit 2 residual heat removal (RHR) system. Specifically, NMPNS failed to properly plan and coordinate outage work, and failed to perform welding activities correctly. This resulted in expansion of the collective exposure for this work from 8.557 person-rem to 17.968 person-rem. NMPNS entered this issue into their corrective action program (CAP) as condition report (CR) 2010-8443.

The finding was more than minor because it was associated with the program and process attribute of the Occupational Radiation Safety cornerstone and affected the cornerstone objective to ensure the adequate protection of the worker health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operation. Additionally, the finding was similar to example 6.i in Appendix E of Inspection Manual Chapter (IMC) 0612, in that it resulted in collective exposure of greater than 5 person-rem and exceeded the outage goal by greater than 50 percent. The finding was evaluated in accordance with IMC 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," and was determined to be of very low safety significance because NMPNS's current three year rolling average collective dose is 144.781 person-rem, less than 240 person-rem per unit. The finding had a cross-cutting aspect in the area of human performance, work control, in that the outage plan did not adequately incorporate actions to address the impact of work on different job activities.
Inspection Report# : 2010004 *(pdf)*

Significance: G Sep 30, 2010
Identified By: Self-Revealing
Item Type: FIN Finding
Failure to Maintain Radiation Exposure ALARA During Refueling Floor Activities
A self-revealing finding of very low safety significance was identified due to Nine Mile Point Nuclear Station (NMPNS) having unplanned, unintended occupational collective dose resulting from deficiencies in "as low as is reasonably achievable" (ALARA) planning and work control while performing refueling floor activities at Unit 2. Specifically, the failure to have cleaned up a crud burst that had occurred late in the previous refueling outage, th decision to flood up the refueling cavity while refueling water activity remained four times higher than planned, incorrect calculations during reactor vessel (RV) head stud tensioning that resulted in having to remove the RV head insulation package and re-tension the RV head, and the inability to control work crew size on the refueling floor, resulted in expansion of the collective exposure for this work from 19.810 person-rem to 38.222 person-rem. NMPNS entered this issue into their corrective action program (CAP) as condition report (CR) 2010-8444.

The finding was more than minor because it was associated with the program and process attribute of the Occupational Radiation Safety cornerstone and affected the cornerstone objective to ensure the adequate protection of the worker health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operation. Additionally, the finding was similar to example 6.i in Appendix E of Inspection Manual Chapter (IMC) 0612, in that it resulted in collective exposure of greater than 5 person-rem and exceeded the outage goal by greater than 50 percent. The finding was evaluated in accordance with IMC 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," and was determined to be of very low safety significance because

NMPNS's current three year rolling average collective dose is 144.781 person-rem, less than 240 person-rem per unit. The finding had a cross-cutting aspect in the area of human performance, work control, in that the job site conditions which impacted human performance were not adequately incorporated into the outage plan.
Inspection Report# : 2010004 *(pdf)*

Public Radiation Safety

Physical Protection

Although the NRC is actively overseeing the Security cornerstone, the Commission has decided that certain findings pertaining to security cornerstone will not be publicly available to ensure that potentially useful information is not provided to a possible adversary. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Significance: N/A Oct 21, 2011
Identified By: NRC
Item Type: FIN Finding
PI&R Team Repoirt 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)*

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