

Nine Mile Point 2

2Q/2009 Plant Inspection Findings

Initiating Events

Significance:  Dec 30, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

Untimely Corrective Action for Degraded Service Water Pumps

An NRC-identified Green non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," was identified on November 8, 2008 in that Nine Mile Point Nuclear Station (NMPNS) did not take prompt action to verify that service water (SW) pump performance had not been adversely affected following the inadvertent introduction of a cleaning hose into the pump suction lines. This resulted in delayed identification of two inoperable Unit 2 SW pumps due to fouling of the impellers by foreign material that had been drawn into the pumps on November 4, 2008. As immediate corrective action, the affected pumps were disassembled and the pieces of cleaning hose were removed.

The finding was more than minor because it was associated with the equipment performance attribute of the Initiating Events cornerstone and affected the associated 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 finding was determined to be of very low safety significance in accordance with Inspection Manual Chapter (IMC) 0609, Appendix A, "Determining the Significance of Reactor Inspection Findings for At-Power Situations," based on a Phase 2 analysis using the Nine Mile Point Unit 2 plant-specific Phase 2 pre-solved worksheets. The finding had a cross-cutting aspect in the area of human performance because NMPNS did not use conservative assumptions in decision making, in that they did not timely verify the assumption that the cleaning hose was fully retrieved and had not impacted operability of the service water pumps.

Inspection Report# : [2008005](#) (*pdf*)

Significance:  Sep 29, 2008

Identified By: NRC

Item Type: FIN Finding

Inadequate Maintenance Practices Result in a Plant Transient

A self-revealing finding was identified on July 14, 2008, when inadequate maintenance practices, during replacement and troubleshooting of a Unit 2 radioactive waste sump pump, caused an electrical transient that resulted in the loss of numerous plant components and required a power reduction. The inadequate maintenance practices included failure to perform post-maintenance testing and continuation of troubleshooting despite having obtained results that were not consistent with the troubleshooting plan. This issue was entered into NMPNS's corrective action program for evaluation.

The finding was greater than minor because it affected the human 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 finding was evaluated in accordance with IMC 0609 and determined to be of very low safety significance because the finding did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available, 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 because NMPNS did not appropriately plan the pump troubleshooting activity by incorporating abort criteria.

Inspection Report# : [2008004](#) (*pdf*)

Significance:  Jul 31, 2008

Identified By: NRC

Item Type: FIN Finding

Failure to perform a technical evaluation or restore a nonconformance to the original design requirement

A self revealing Green finding was identified because Constellation failed to either perform a technical evaluation or restore a nonconforming condition to the original design requirement which resulted in a failure of the Unit 2 instrument air piping on March 26, 2008. The nonconforming condition was unannealed red brass piping which was installed in the Unit 2 instrument air system. Subsequent to the piping failure, the licensee performed corrective actions which included replacing all unannealed red brass piping that is not protected by an excess flow check valve and began closely monitoring for water in the instrument air system. Additionally, the licensee plans to replace the instrument air dryers and replace the remaining unannealed red brass piping in the instrument air system.

The finding was greater than minor because it is associated with the design control attribute of the initiating events cornerstone and the associated 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 in that a loss of instrument air could cause a plant scram with complications. The finding was determined to be of very low safety significance in accordance with IMC 0609, Appendix A, "Determining the Significance of Reactor Inspection Findings for At-Power Situations," based on a Phase 3 analysis. The Region I senior reactor analyst (SRA) used the Nine Mile Point Unit 2 Standardized Plant Analysis Risk (SPAR) model to determine the risk significance.

Inspection Report# : [2008007](#) (*pdf*)

Mitigating Systems

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Significance: Jun 19, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Implement Fire Brigade Training Program Procedure

The team identified a finding of very low safety significance (Green) involving a non-cited violation of Unit 1 Technical Specifications, section 6.4.1 and Unit 2 Technical Specifications, section 5.4.1., for NMPNS's failure to correctly implement the fire brigade training program procedure to ensure that fire brigade members met the fire drill requirements to be qualified. Specifically, NMPNS failed to correctly assess the acceptance criteria required for a successful drill per their implementing procedure. Further review of fire brigade qualifications by the licensee determined that a number of fire brigade members were not qualified. The licensee removed the appropriate individuals from shift for remediation and placed the issue into their corrective action program for further review.

The finding is greater than minor because the Mitigating Systems cornerstone objective to provide protection against external factors (fires) was affected. Specifically, the reliability and capability of the fire brigade's ability to respond to a fire was challenged. In accordance with Manual Chapter 0609, Appendix M, the safety significance of this finding was determined to be of very low safety significance (Green) because the fire brigades were able to meet the required times for fire extinguishment for the fire drill scenarios, and the issue did not significantly affect the ability of the fire brigades to respond to a fire. The finding had a cross-cutting aspect in the area of human performance because Nine Mile Point Nuclear Station failed to follow their fire brigade training program procedure.

Inspection Report# : [2009006](#) (*pdf*)

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Significance: Mar 31, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Maintenance Instructions Result in Residual Heat Removal System Voiding

A self-revealing non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified when inadequate instructions for maintenance that had previously been performed on the Unit 2 residual heat removal (RHR) system were found to have allowed the accumulation of voids in the 'C' RHR pump suction line, the combined volume of which could have potentially affected the operability of the pump. As

immediate corrective action, the 'C' RHR pump suction line was filled and vented. After the void volume had been sufficiently reduced to allow pump operation, the 'C' RHR pump quarterly surveillance was performed to sweep out the remaining voids. This issue was entered into the corrective action program (CAP) as condition report (CR) 2009-457.

The finding was more than minor because it was similar to example 3.k in Appendix E of Inspection Manual Chapter (IMC) 0612, in that there was a reasonable doubt on the operability of the 'C' RHR system because the as-found condition exceeded the industry standard limit for operability. The finding 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 evaluated in accordance with IMC 0609, Attachment 4, and determined to be of very low safety significance because the finding 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. This finding had a cross-cutting aspect in the area of problem identification and resolution because the susceptibility of the RHR pump discharge lines to voiding was identified in 1999 and reflected in plant procedures, but this internal operating experience was not incorporated into the 2008 maintenance procedure (P.2.b per IMC 0305). (Section 1R13)

Inspection Report# : [2009002](#) (*pdf*)

Significance:  Mar 31, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Properly Perform Standby Liquid Control System Surveillance

A self-revealing non-cited violation (NCV) of Technical Specification (TS) 5.4, "Procedures," was identified on January 30, 2009, when operators did not align the Unit 2 Division 2 Standby Liquid Control (SLC) system in accordance with the surveillance procedure and establish a pump discharge flow path. As a result, following pump start, the pump discharge relief valve lifted due to high system pressure and the valve subsequently required replacement due to excessive seat leakage. As immediate corrective action for this event, the SLC pump was secured and the system was returned to its normal standby alignment to support further testing. The issue was entered into the corrective action program (CAP) as condition report (CR) 2009-548.

The finding was more than minor because it was associated with the human 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. The inspectors determined that the finding was of very low safety significance because the finding 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. This finding had a cross-cutting aspect in the area of human performance because the operators did not effectively use human error prevention techniques such as pre-job briefing, self and peer checking, and proper documentation of activities (H.4.a per IMC 0305). (Section 1R22)

Inspection Report# : [2009002](#) (*pdf*)

Significance:  Oct 31, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Design Control Regarding Adequacy of Safety Bus Allowable Degraded Voltage Relay Reset Setpoint and Impact on Offsite Power Supply

The team identified a finding of very low safety significance (Green) involving a non-cited violation of 10 CFR 50, Appendix B, Criterion III, Design Control, in that Constellation did not verify the adequacy of design with respect to ensuring the availability of offsite power during postulated events such as a loss-of-coolant accident (LOCA) or a unit trip. Specifically, Constellation did not perform a calculation or analyses to demonstrate that the allowable degraded voltage relay reset setpoint was adequate with respect to preventing spurious separation of offsite power for postulated events. Constellation entered the issue into their corrective action program for further review. They initiated administrative controls during the inspection period to prevent aligning a safety bus to the alternate source pending

resolution of the issue. They also plan to review and revise, as appropriate, the allowable relay reset values in surveillance procedures to provide more margin.

The finding is more than minor because it was associated with the design control attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. The team determined the finding was of very low safety significance (Green) because it was a design deficiency confirmed not to result in the loss of operability of the normal power source for the onsite emergency power distribution system. The issue had a cross-cutting aspect in the area of Problem Identification and Resolution – Corrective Action, because Constellation had not thoroughly evaluated similar non-conservative issues with the associated calculation raised in a December 2007 vendor letter and again in a subsequent condition report.

Inspection Report# : [2008008](#) (*pdf*)

Significance:  Sep 29, 2008

Identified By: NRC

Item Type: NCV NonCited Violation

Incorrect Risk Assessment for RCIC Unavailability

An NRC-identified non-cited violation (NCV) of 10 CFR 50.65(a)(4) was identified for inaccurate risk assessments completed for August 5 and 6, 2008. Specifically, the unavailable reactor core isolation cooling (RCIC) system was not properly incorporated into the risk assessment. The cause was determined to be that an error had been made while entering a change to the risk monitor computer software, which resulted in RCIC incorrectly being assigned a zero risk importance. As corrective actions, the modeling of RCIC was corrected and a verification of all mapping codes used in the risk monitor was performed.

The finding was greater than minor because the risk assessment for RCIC system maintenance was inadequate due to inaccurate information that was provided to the risk assessment tool. As a result, the overall elevated plant risk, when correctly assessed, put the plant into a higher licensee-established risk category. The finding was evaluated in accordance with IMC 0609, Appendix K, and determined to be of very low safety significance because the incremental core damage probability deficit (ICDPD) was less than 1E-6. The finding had a cross-cutting aspect in the area of human performance because NMPNS did not appropriately plan work activities by incorporating valid risk insights.

Inspection Report# : [2008004](#) (*pdf*)

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

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

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