

Nine Mile Point 1

4Q/2009 Plant Inspection Findings

Initiating Events

Significance:  Jun 30, 2009

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to Follow Startup Procedure for Second Stage Reheaters Leads to Turbine Trip

A self-revealing non-cited violation (NCV) of Technical Specification (TS) 6.4, "Procedures," was identified when operators did not follow the operating procedure when placing the Unit 1 second stage main steam reheaters in service during plant power ascension. The resultant uneven turbine heating caused an increase in turbine vibrations that led the control room operators to rapidly reduce power and trip the turbine, which, in turn, cause an automatic initiation of the high pressure coolant injection (HPCI) system. As corrective action, the operating procedure was revised to provide improved guidance on placing the second stage main steam reheaters in service. This issue was entered into the corrective action program (CAP) as condition report (CR) 2009-2238.

The finding was more than minor because it is associated with the procedure quality attribute of the Initiating Events cornerstone and affected the 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 is 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, Work Practices, because the operators did not follow the procedure for placing the second stage main steam reheaters in service (H.4.b per IMC 0305).

Inspection Report# : [2009003](#) (*pdf*)

Significance:  Mar 31, 2009

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Inadequate Procedure for Main Steam Isolation Valve Troubleshooting

A self-revealing non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified when use of an inadequate maintenance procedure resulted in unanticipated partial closure of Unit 1 main steam isolation valve (MSIV) 01-01. The troubleshooting procedure did not identify that the valve would move in the closed direction when power was reapplied to the control circuit. As immediate corrective action, the control circuit was deenergized to stop further closure of the MSIV and power was reduced to 97 percent. The issue was entered into the corrective action program (CAP) as condition report (CR) 2009-442.

The finding was more than minor because it was similar to example 4.b in Inspection Manual Chapter (IMC) 0612, Appendix E, in that it challenged stability of the plant due to closure of the MSIV and resulted in a power reduction to 97 percent. The finding was associated with the procedure quality attribute of the Initiating Events cornerstone and adversely 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 evaluated in accordance with IMC 0609, Attachment 4, 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 problem identification and resolution because Nine Mile Point Nuclear Station did not implement internal operating experience from 2001, concerning the response of a mid-positioned MSIV to reapplication of control circuit power, in the MSIV troubleshooting procedure (P.2.b per IMC 0305).

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

Mitigating Systems

Significance:  Dec 31, 2009

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

APRM Made Inoperable Contrary to Procedure Requirement

A self-revealing non-cited violation (NCV) of Technical Specification (TS) 6.4, "Procedures," was identified when Unit 1 operators removed average power range monitor (APRM) 18 from service for maintenance while APRM 14 was inoperable due to a detector malfunction, contrary to a prerequisite of the APRM 18 maintenance procedure. Operators did not use a readily available control room indication of APRM 14, which showed that the instrument was malfunctioning, when verifying that it was operable. As immediate corrective action, APRM 14 was placed in bypass. The failed local power range monitor (LPRM) input that was causing the malfunction was identified and placed in bypass, and APRM 14 was returned to service. The issue was entered into the corrective action program (CAP) as condition report (CR) 2009-7943.

The finding was more than minor because it was associated with the equipment performance 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 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 practices, because operators did not utilize all available information when verifying that APRM 14 was operable, and thereby did not satisfy a procedure requirement prior to proceeding with the APRM 18 maintenance activity.

Inspection Report# : [2009005](#) (*pdf*)

Significance:  Dec 31, 2009

Identified By: NRC

Item Type: FIN Finding

Failure to Implement the Operator Workaround Program During 2009

An NRC-identified finding was identified on November 19, 2009, when inspectors determined the NMPNS Operator Workaround program had not been implemented at Unit 1 and Unit 2 in accordance with Nuclear Administration Instruction NAI-REL-02, "Control of Operator Workarounds, Burdens and Interests," Revision 07, during the year 2009. As a result, determinations of operational encumbrances that constituted workarounds, burdens, and interests, had not been made by the Unit Workaround Coordinators, lists of these items had not been maintained, and quarterly aggregate reviews of their impact on the ability of operators to perform their duties had not been performed during that period. As corrective action, NMPNS performed a review of work orders that were opened during 2009, and were coded as being operator workarounds or burdens, to identify existing operator workarounds and burdens. An evaluation of that information was performed, which concluded that the station had not been in an unrecognized increased risk condition as a result of the cumulative effects of all workarounds and burdens. The issue was entered into the corrective action program (CAP) as condition report (CR) 2009-8395.

The finding was more than minor because the NRC considers licensee identification of operator workaround problems at an appropriate threshold, and implementation of follow-on actions that focus and progress corrective actions to completion, to be an important aspect of problem identification and resolution, as discussed in IP 71152, "Identification and Resolution of Problems." The failure to implement the operator workaround program, if left uncorrected, had the potential to increase the likelihood of operator errors during normal and off-normal conditions and lead to a more significant safety concern. The finding had a cross-cutting aspect in the area of human performance, decision-making, because the roles and authorities of the Operator Workaround Coordinators for Units 1 and 2 were not effectively communicated during the personnel turnover that occurred at the beginning of 2009, and therefore were not implemented as designed during the year 2009.

Inspection Report# : [2009005](#) (*pdf*)

Significance: G Oct 23, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Properly Scope the SPDS Function of the Plant Process Computer Into the Maintenance Rule

The inspectors identified a Green NCV of 10 CFR 50.65 b(2) for failure to properly scope the Safety Parameter Display System (SPDS) function of the Unit 1 Plant Process Computer into the Maintenance Rule. As a result, a required Structure, System, and Component (SSC) was not placed in a maintenance rule a(1) status based upon unreliable system performance as required by 10 CFR 50.65. The licensee entered this issue into their corrective action program.

The SPDS function of the Unit 1 Plant Process Computer not properly being scoped into the Maintenance Rule program is considered to be a performance deficiency that was reasonably within Constellation's ability to foresee and prevent. This issue is similar to a more than minor example, 7d, of IMC 0612, Appendix E, "Examples of Minor Issues." Specifically, had this issue been properly scoped into the Maintenance Rule, system performance would require that it would be placed in an a(1) status. Additionally, the finding was more than minor because it impacts the equipment performance attribute of the Mitigating Systems cornerstone and the corresponding cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). The inspectors assessed this finding in accordance with IMC 0609 Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings." The issue screens to very low safety significance (Green) because it did not result in the loss of a safety function, it did not result in outage time for one or more trains of a SSC to exceed its allowed Technical Specification (TS) outage times, and it is not potentially risk significant due to a seismic, flooding, or severe weather initiating event.

The inspectors did not assign a cross-cutting issue to this finding because this was not considered to be indicative of current performance as the Maintenance Rule scoping determinations were legacy decisions.

Inspection Report# : [2009010](#) (*pdf*)

Significance: G Oct 23, 2009

Identified By: NRC

Item Type: NCV NonCited Violation

Deficient Control of Plant Staff Overtime

The inspectors identified a Green NCV of Unit 1 TS 6.2.2.d, "Unit Staff," for not properly implementing and maintaining procedures for controlling plant staff work hours of personnel performing safety-related activities. Constellation management authorized over 1000 overtime deviations for personnel to work greater than TS work hour limits for routine outage support activities during NMP Unit 1 outages and other reasons not permitted by TS or NMP Administrative procedures. Constellation received a NCV in July 2008 for deficient control of staff overtime in the Operations Department and repeated the same performance deficiency in the Maintenance Department during the Unit 1 Spring 2009 refueling outage. The licensee entered the issue into their corrective action program.

The inspectors determined that failure to properly implement procedures to limit work hours for plant staff performing safety-related functions in accordance with TS 6.2.2.d was a performance deficiency that was reasonably within Constellation's ability to foresee and prevent. The finding is more than minor because, if left uncorrected, the excessive work hours could increase the likelihood of human errors during refueling outage activities and response to plant events. The finding was also similar to IMC 0612, Appendix E, "Examples Minor Issues," example 9a and would be more than minor because this inappropriate use of work hour control waivers was not an isolated incident (e.g., one or two instances). The finding has been reviewed by NRC management in accordance with IMC 0609, Appendix M, "Significance Determination Process Using Qualitative Criteria." The resulting increased likelihood of human error could adversely affect the station's defense-in-depth. However, the violation was determined to be of very low significance, because no significant events or human performance issues were directly linked to personnel fatigue as a result of the hours worked.

This issue has a cross-cutting aspect in the area of PI&R and the aspect of Corrective Action Program - Evaluation (P.1.C of IMC 0305). The licensee did not thoroughly evaluate problems such that the resolutions address causes and extent of conditions, as necessary. Specifically, an appropriate extent of condition review following the 2008 NCV

2008003-04 was not completed and Constellation did not identify that other departments on site (besides Operations) were vulnerable to the performance deficiencies identified and this led to Maintenance repeating many of these same performance deficiencies during the 2009 Unit 1 refueling outage.

Inspection Report# : [2009010](#) (*pdf*)

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*)

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

Significance: N/A Oct 22, 2009

Identified By: NRC

Item Type: FIN Finding

PI&R Team Report Summary

The inspectors concluded that Constellation, in general, adequately identified, evaluated, and resolved problems; however, several weaknesses were noted related to the quality of evaluations. In general, Constellation personnel identified problems, entered them into the corrective action program at a low threshold, and prioritized issues commensurate with the safety significance. For most cases, Constellation screened issues for operability and reportability and performed causal analyses that adequately considered extent of condition, generic issues, and previous occurrences. However, weaknesses were noted in this area related to the quality of evaluations, and for one issue reviewed, the inspectors identified that the Plant Process Computer's Safety Parameter Display System (SPDS) was not appropriately scoped into the maintenance rule, resulting in an NRC identified NCV. Corrective actions taken to address the problems identified in Constellation's corrective action process were typically implemented in a timely manner. However, for one issue reviewed, Constellation did not conduct an appropriate extent of condition review for a 2008 NCV related to work hours and repeated the same performance deficiency during the 2009 Unit 1 refueling outage, resulting in an NRC identified NCV.

The inspectors also concluded that, in general, Constellation adequately identified, reviewed, and applied relevant industry operating experience to Nine Mile Point Nuclear Station operations. In addition, based on those items selected for review by the inspectors, Constellation's audits and self-assessments were thorough and probing.

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 employees concerns program issues, the inspectors did not identify any concerns that site personnel were not willing to raise safety issues nor did they identify conditions that could have had a negative impact on the site's safety conscious work environment.

Inspection Report# : [2009010](#) (*pdf*)

Significance: SL-IV Mar 16, 2009

Identified By: NRC

Item Type: VIO Violation

Operator Failure to Obtain Senior Reactor Operator Permission Prior to Changing Reactor Power

A cited violation (VIO) of Unit 1 Technical Specification (TS) 6.4, "Procedures," was identified when a Reactor Operator (RO) and a Chief Reactor Operator (CRO) failed to notify the Control Room Supervisor (CRS) of an "over power" event and manipulated reactor power without CRS approval or direction. Specifically, the RO deliberately manipulated the controls to increase power without the approval or direction of a senior reactor operator (SRO); the CRO and RO manipulated the controls to decrease power without the approval or direction of an SRO when power exceeded the megawatt-thermal license limit; and, the CRO deliberately failed to immediately report the over power and down power events to Operations management.

The violation, absent willfulness, would be considered a minor violation because it did not impact the safe operation of the reactor, in that, the over power condition was minimal (100.03 percent for approximately one hour). However, the NRC considered the violation to have been more significant than minor because it involved willfulness, and therefore, the NRC has classified the violation at Severity Level (SL) IV, in accordance with the NRC Enforcement Policy.

Inspection Report# : [2009003](#) (*pdf*)

Inspection Report# : [2009004](#) (*pdf*)

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