

## Nine Mile Point 2

### 4Q/2004 Plant Inspection Findings

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## Initiating Events

**Significance:** N/A Sep 30, 2004

Identified By: NRC

Item Type: FIN Finding

#### **NMPNS Adequately Addressed the Cause Evaluation Attributes of IP 95001**

Nine Mile Point Nuclear Station's (NMPNS's) causal evaluation of station scrams and scram precursors appropriately evaluated human performance and the failure to evaluate the recurring trend of Unit 2 unplanned scrams at a precursor level. These causes were related to the problem identification and resolution (PI&R) and human performance cross-cutting areas. NMPNS's reevaluation of the adverse trend of the Unit 2 unplanned reactor scrams PI was appropriately thorough in scope and extent to identify the causes contributing to the corrective actions that were untimely and ineffective to prevent recurrence.

Inspection Report# : [2004004\(pdf\)](#)

**Significance:** N/A Sep 30, 2004

Identified By: NRC

Item Type: FIN Finding

#### **NMPNS Adequately Addressed the Corrective Action Attributes of IP 95001**

Although scram prevention corrective actions (CAs) continue to be developed and implemented, the combination of the Scram Prevention Team oversight and the existing CAs provided reasonable assurance that the inspection objective to verify that the licensee's CAs for risk significant performance issues were sufficient to address the causes and prevent recurrence. Assessments performed by NMPNS identified continuing problems related to the problem identification and resolution (PI&R) and human performance cross cutting areas. The implemented and planned performance indicators, quality and performance assessments and self-assessments developed to quantitatively and qualitatively measure the success were appropriate means to determine the effectiveness of NMPNS's scram prevention CAs.

Inspection Report# : [2004004\(pdf\)](#)

**Significance:** N/A Apr 28, 2004

Identified By: NRC

Item Type: FIN Finding

#### **Unit 2 Unplanned Reactor Scram White Performance Indicator**

Overall, the inspectors concluded that NMPNS adequately addressed the problem identification attributes of IP 95001. Regarding the cause evaluation, NMPNS used systematic evaluation methods to identify and validate the common cause affinity categories. Notwithstanding, the inspectors identified several weaknesses in NMPNS's review of the issue. In particular, the NMPNS cause evaluation did not: (1) fully develop of the human performance evaluation; (2) thoroughly evaluate why the recurring trend of Unit 2 unplanned scrams was not identified for evaluation at a precursor level; (3) thoroughly evaluate why the 2002 corrective actions were untimely and ineffective to prevent recurrence of the adverse trend of the Unit 2 unplanned reactor scrams PI; and, (4) thoroughly evaluate the identified causes collectively for indications of higher level problems. The current trending program was too new for the inspectors to determine that it would be meaningful to correlate and validate if the predominant causes identified were indicative of higher level problems or a site-wide trend.

Inspection Report# : [2004006\(pdf\)](#)

**Significance:** N/A Apr 28, 2004

Identified By: NRC

Item Type: FIN Finding

#### **Unit 2 White Unplanned Reactor Scrams PI**

With regard to corrective actions, the NMPNS cause evaluation did not address the current effectiveness measure trends or the completion status of the existing initiatives intended to address the five predominant causes. Although the planned corrective actions for four of the five predominate causes appeared reasonable, the inspectors concluded that none of the corrective actions were fully developed or implemented and could not be assessed at the time of this inspection. Methods had not been established to validate the effectiveness of the corrective actions required to address the causal factors of the recurring adverse trend of the Unit 2 unplanned reactor scrams PI.

Inspection Report# : [2004006\(pdf\)](#)

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## Mitigating Systems

**Significance:**  Dec 31, 2004

Identified By: NRC  
Item Type: FIN Finding

### **Crew Failure Rate on the Dynamic Simulator Portion of the Facility-Administered Annual Operating Examinations**

A finding of very low safety significance was identified at Unit 2. The finding was associated with crew performance on the simulator during facility-administered requalification examinations. Of the nine crews evaluated, three failed to pass their simulator examinations.

The finding is more than minor because it reflected the potential inability of the crews to take appropriate safety-related actions in response to actual abnormal or emergency conditions. The finding is of very low safety significance because the failures occurred during annual testing of the operators on the simulator, because there were no actual consequences to the failures, and because the crews were removed from watch standing duties, retrained and re-evaluated before they were authorized to return to control room watches.

Inspection Report# : [2004005\(pdf\)](#)

**G**

**Significance:** Dec 31, 2004

Identified By: NRC  
Item Type: NCV NonCited Violation

### **Failure of the Nine Mile Point Unit 1 & 2 Plant-Referenced Simulator to Demonstrate Expected Plant Response to Operator Input and to Transient Conditions**

An NRC identified finding for failure of the NMP Unit 1 and Unit 2 simulators to comply with 10 CFR 55.46(c)(1), "Plant-referenced simulators." The NCV involved two examples of the failure of Nine Mile Point simulators to correctly demonstrate the expected plant response to two separate events, one at each NMP unit.

This finding is more than minor because it affects the human performance (human error) attribute of the Mitigating Systems Cornerstone. The finding is of very low safety significance (Green) because the simulators' uncorrected model discrepancies did not have an adverse impact on operator actions such that safety-related equipment was made inoperable during normal operations or in response to a plant transient.

Inspection Report# : [2004005\(pdf\)](#)

**G**

**Significance:** Dec 31, 2004

Identified By: NRC  
Item Type: NCV NonCited Violation

### **Failure to Take Prompt Corrective Action for a Condition that Affected the Ability to Perform a TS Surveillance**

An NRC identified non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," was identified for failure to take prompt action to correct a condition adverse to quality. A graph of predicted jet pump loop flow versus flow control valve position, used to perform a daily Technical Specification (TS) surveillance to verify jet pump operability, had not been updated as required after the 2004 refueling outage (April 2004) and the deficiency was not corrected until October 26, 2004. The performance deficiency associated with this finding is the failure to take prompt action to correct a condition that affected the ability of operators to verify the operability of safety-significant reactor vessel internal components (the jet pumps).

The finding is greater than minor because it is associated with the Mitigating Systems Cornerstone attribute of equipment performance and affects the cornerstone attribute of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding is of very low safety significance because it was not a design or qualification deficiency that had been confirmed to result in a loss of function per Generic Letter 91-18, did not represent a loss of safety function, did not represent actual loss of safety function of a single train for greater than its TS allowed outage time, did not represent an actual loss of safety function of one or more non-TS trains of equipment designated as risk-significant per 10 CFR 50.65 for greater than 24 hours, and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. The failure to promptly inform operators when a problem was identified that affected performance of the daily jet pump surveillance is an example of a cross-cutting issue in problem identification and resolution

Inspection Report# : [2004005\(pdf\)](#)

**G**

**Significance:** Sep 30, 2004

Identified By: NRC  
Item Type: NCV NonCited Violation

### **Use of an Out-of-Calibration Voltmeter to Measure and Adjust Division III DC Voltage Rendered HPCS Inoperable**

A self-revealing non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion XII, "Control of Measuring and Test Equipment," was identified when technicians used an out-of-calibration voltmeter to measure and adjust the output voltage of the Unit 2 Division III battery charger. As a result, battery bus voltage was adjusted to less than the minimum required for high pressure core spray system operability, while the reactor core isolation cooling system was also inoperable. The performance deficiency associated with this finding is that the use of out-of-calibration measuring and test equipment resulted in a safety-class system being made inoperable. The battery bus voltage was restored and the performance deficiencies were addressed by the corrective action program. The finding is greater than minor because it is associated the pre-event human performance attribute and affects the Mitigating System Cornerstone objective of ensuring the availability, reliability, and capability of a system that responds to initiating events to prevent undesirable consequences. The finding is of very low safety significance because it was not a design or qualification deficiency that had been confirmed to result in a loss of function per Generic Letter 91-18. The use of an out-of-calibration voltmeter to perform maintenance on a safety-class system is an example of a cross-cutting issue in human performance.

Inspection Report# : [2004004\(pdf\)](#)

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## Barrier Integrity

**Significance:**  Sep 03, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

**Inadequate Operability Evaluation of a Degraded NMP2 Primary Containment Isolation Valve Inadequate Operability Evaluation of a Degraded NMP2 Primary Containment Isolation Valve**

The inspectors identified a Non-Cited Violation of 10CFR50, Appendix B, Criterion XVI, "Corrective Action," for NMP2's failure to promptly identify and correct a condition adverse to quality concerning a valve that had dual position indication. Specifically, the operators did not recognize that the dual position indication was a degraded condition relative to the ability to close a primary containment isolation valve (CIV). In addition, engineering did not adequately evaluate the continued operability of the valve, and closed the associated Deviation/Event Report and operability determination without implementing the identified compensatory actions.

The performance deficiency was that NMP2 did not properly identify and take adequate actions to address a condition adverse to quality; namely, a degraded primary containment isolation valve. The finding was more than minor because NMP2 failed to adequately evaluate a degraded condition with the potential to impact the Barrier Integrity cornerstone objective of providing reasonable assurance that the containment barrier protects the public from radio nuclide releases caused by accidents or events. Specifically, the issue involved the design control attribute of maintaining functionality of containment. The significance of the finding was evaluated using Manual Chapter 0609, "Significance Determination Process," Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations." The finding was determined to be of very low safety significance (Green), because the degraded valve did not represent an actual open pathway in the physical integrity of reactor containment or an actual reduction of the atmospheric pressure control function of the reactor containment. The inadequate evaluation of the dual indication of a CIV and the failure to address the recommended compensatory actions for potential pipe voiding concerns was an example of a cross-cutting issue in problem identification and resolution.

Inspection Report# : [2004007\(pdf\)](#)**Significance:**  Jun 30, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

**Inadequate Secondary Containment Integrity Test Procedure.**

The inspectors identified a non-cited violation (NCV) of Unit 2 Technical Specification 5.4.1 concerning the test configuration specified in surveillance procedure N2-OSP-GTS-R001, "Secondary Containment Integrity Test," in that the test did not establish conditions duplicating the allowable worst case configuration for the access doors in secondary containment. The performance deficiency associated with this finding is an inadequate test procedure, in that degraded seals on one of the two doors in a secondary containment access opening would not always be identified by the surveillance. The finding is greater than minor because it is associated with the Barrier Integrity Cornerstone attribute of procedure quality and adversely affects the associated cornerstone objective of providing reasonable assurance that the primary containment protect the public from radionuclide releases caused by accidents or events. The finding is of very low safety significance because it did not represent a degradation of the radiological, toxic or smoke barrier function; did not represent an actual open pathway in physical integrity or actual reduction of the atmospheric pressure control function of the containment; and was not potentially risk significant due to seismic, flood, fire or weather related initiating events.

Inspection Report# : [2004003\(pdf\)](#)

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## Emergency Preparedness

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## Occupational Radiation Safety

**Significance:**  Sep 30, 2004

Identified By: NRC

Item Type: FIN Finding

**Refuel Floor Work Activities During 2RFO9 Exceeded ALARA Goal**

A self-revealing finding having very low safety significance was identified due to a deficiency in "as low as is reasonably achievable" (ALARA) performance. During the 2004 Unit 2 refueling outage (RFO), refueling floor activities resulted in collective exposures of 42.9 person-rem against a 24.8 person-rem estimate for the work activities. This work activity was 173 percent of its estimate. The performance deficiency that resulted in the exposure overrun was due to multiple equipment problems and management's failure to reassess the work once the exposure goal had been exceeded. Nine Mile Point's three-year rolling average (2001-2003) is 205 person-rem, which is below the Significance Determination Process (SDP) criteria of 240 person-rem for boiling water reactors (BWRs); therefore, overall ALARA performance has been effective and this finding is of very low safety significance.

Inspection Report# : [2004004\(pdf\)](#)

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**Significance:** Sep 30, 2004

Identified By: NRC

Item Type: FIN Finding

**Anchor Darling Valve Modification Work Activities During 2RFO9 Exceeded ALARA Goal**

A self-revealing finding having very low safety significance was identified due to a deficiency in ALARA performance. During the 2004 Unit 2 RFO, drywell Anchor Darling valve modification work activities resulted in collective exposures of 21.9 person-rem against a 10.2 person-rem estimate for the work activities. This work activity was 215 percent of its estimate. The performance deficiency that resulted in the exposure overrun was due to poor vendor supplied materials, poor workmanship during the valve modifications, and management's failure to reassess the work once the exposure goal had been exceeded. Nine Mile Point's three-year rolling average (2001-2003) is 205 person-rem, which is below the SDP criteria of 240 person-rem for BWRs; therefore, overall ALARA performance has been effective and this finding is of very low safety significance.

Inspection Report# : [2004004\(pdf\)](#)

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## Public Radiation Safety

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## Physical Protection

[Physical Protection](#) information not publicly available.

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## Miscellaneous

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