

## Nine Mile Point 2

### 4Q/2006 Plant Inspection Findings

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## Initiating Events

**Significance:** G Jun 30, 2006

Identified By: Self-Revealing

Item Type: FIN Finding

**Inadequate use of human performance tools during maintenance results in an equipment failure that causes a reactor scram.**

A self-revealing finding of very low safety significance occurred on March 9, 2006, when Nine Mile Point Unit 2 automatically scrambled due to a main turbine trip caused by low condenser vacuum. The loss of condenser vacuum occurred when the normal turbine gland seal supply isolated due to high water level and the emergency gland seal steam supply (non-safety related) failed. The emergency gland seal steam supply failed because a maintenance technician improperly assembled a pressure indicating controller for the system following maintenance in April 2004. Maintenance repaired the pressure indicating controller and Operations restored the plant to full power on March 13, 2006. Nine Mile Point Nuclear Station (NMPNS) entered the issue into its corrective action program (CAP) as CR 2006-0993.

The finding is greater than minor because it was associated with the human performance attribute of the Initiating Event cornerstone and adversely affected the cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during power operations. The inspectors determined the finding to be of very low safety significance using the Phase 1 SDP screening worksheet for at power situations. The finding screened to Green because it did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions will not be available, and was not potentially risk significant due to external events.

Inspection Report# : [2006003](#) (*pdf*)

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## Mitigating Systems

**Significance:** G Jun 30, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

**RCIC Alignment During Maintenance Not Consistent With Design Bases.**

An NRC-identified NCV of 10 CFR 50, Appendix B, Criterion III, "Design Control," was identified on February 8, 2006, when the reactor core isolation cooling (RCIC) system was operated in an unanalyzed configuration that degraded plant safety. Specifically, steam exhaust line vacuum breaker isolation valve 2ICS\*MOV148 was shut while RCIC remained aligned for automatic operation. This configuration would have prevented the vacuum breakers from mitigating the water hammer event that occurs following system shutdown, which can produce stresses in the RCIC steam exhaust line that exceed code-allowable values during certain accident scenarios. Operations revised the operating procedure to direct operators to inhibit RCIC automatic initiation if the steam exhaust line vacuum breakers were isolated. NMPNS entered the issue into its CAP as CR 2006-0545.

The finding is greater than minor because it is 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. The Region I SRA conducted a Phase 3 risk assessment and determined the finding to be of very low safety significance. The only accident conditions that could cause the suppression pool to pressurize and RCIC to automatically start were medium and large break loss of coolant accidents (LOCAs). The SRA conservatively assumed, based on NMPNS data, that RCIC was in the degraded condition for 3 hours. Using the annual initiating event frequencies from the NMP2 SPAR model for medium and large break LOCAs, the SRA determined that the delta-CDF could not be greater than the low E-8 range, because even if RCIC caused the failure of all injection sources, the increase in the probability of core damage could not be greater than the initiating event frequency adjusted for the exposure time.

Inspection Report# : [2006003](#) (*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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## **Physical Protection**

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

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## **Miscellaneous**

Last modified : March 01, 2007