

## Millstone 2

# 1Q/2004 Plant Inspection Findings

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## Initiating Events

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## Mitigating Systems



**Significance:** Feb 27, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

### **FAILURE TO IMPLEMENT ADEQUATE DESIGN CONTROL AND SUITABLY TEST A MODIFICATION TO THE CHARGING SYSTEM**

The team identified a non-cited violation of 10 CFR 50 Appendix B, Criterion III, "Design Control," which requires that design control measures be established and implemented to assure that applicable regulatory requirements and the design basis for structures, systems, and components are correctly translated into specifications, drawings, procedures, and instructions. The charging system was modified to install pulsation dampeners, however, a suitable test program was not developed to ensure that the dampeners would remain available to support the charging system during postulated events.

This finding was more than minor because the condition of the pulsation dampeners subsequently degraded, which affected the design control and equipment performance attributes and the availability, reliability, and capability objective of the mitigating systems cornerstone. The degraded condition of the pulsation dampeners challenged the reliability of the charging system to mitigate design basis events. This finding was determined to be of very low safety significance (Green) based on the results of a bounding risk assessment.

Inspection Report# : [2004002\(pdf\)](#)



**Significance:** Feb 27, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

### **FAILURE TO CORRECT SAFETY INJECTION TANK LEAKAGE**

The team identified a non-cited violation of 10 CFR 50 Appendix B, Criterion XVI, "Corrective Action," which requires that measures shall be established to assure that conditions adverse to quality are promptly identified and corrected. The licensee failed to take appropriate corrective actions in a timely manner to address and correct repeat instances, over a multiple year period, of safety injection tank (SIT) leakage at Unit 2. The finding was more than minor because it affected the equipment performance attribute and the availability, reliability, and capability of the mitigating systems cornerstone. The chronic leakage problem resulted in an increased unavailability of a high pressure safety injection system train during the periods of time when the system was realigned and used to fill the SITs. This finding was determined to be of very low safety significance (Green) since an actual loss of the safety system function had not occurred and the high pressure safety injection train was removed from service for less than the Technical Specification allowed outage time.

Inspection Report# : [2004002\(pdf\)](#)



**Significance:** Dec 31, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

### **WEST 480 VAC SWITCHGEAR ROOM COMPENSATORY COOLING**

The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion III (Design Control), for the failure to take measures to assure that the design basis was correctly translated into procedures for the installation of temporary cooling when normal cooling is lost to the West 480 Volt AC switchgear room and to verify that the design was effective. The required air flow and flow path for the West 480 Volt AC temporary room cooling that had been evaluated in the design calculation were not correctly translated to the applicable procedure developed to install the temporary equipment and to establish the air flow path in the room. These temporary room cooling measures are designed to be implemented on the loss of normal cooling to retain operability of the vital switchgear located in the room. When the failure of these compensatory measures was recognized, the licensee took additional action outside of the design basis to maintain room temperature below design temperature limits. The finding is more than minor because the failure to provide the appropriate direction for establishing temporary cooling to the affected vital switchgear room resulted in inadequate room cooling which, if left uncorrected, could have resulted in exceeding the design temperature limit of the safety related and risk significant electrical equipment in the room.

This finding is associated with the equipment performance attribute of the initiating events and mitigating systems cornerstones, and the

containment SSC and barrier performance attribute of the barrier integrity cornerstone. Since more than one cornerstone was affected a Reactor Safety Significance Determination Process Phase 2 analysis was performed. The analysis resulted in a finding of very low safety significance (Green) because the improper installation of the compensatory measures did not result in an actual loss of the supported 480 Volt AC System or electro hydraulic control functions. This finding is related to licensee's problem identification & resolution process.

Inspection Report# : [2003010\(pdf\)](#)

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**Significance:** Dec 31, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

#### **FAILURE TO PERFORM ADEQUATE POST-MODIFICATION TEST OF DESIGN CHANGES TO THE CHARGING SYSTEM**

The inspectors identified a non-cited violation for failure to comply with 10 CFR 50, Appendix B, Criterion III, Design Control, for two design changes which adversely affected the charging system and for which post-modification testing was not specified, or performed to ensure the charging system could fulfill its design function under anticipated conditions. However, the NCV was inadvertently left out of Inspection Report 05000336/2003004 dated November 10, 2003. As a result, the description of the issue and its safety significance is included in this report and the NCV will be documented under this report number. This finding is more than minor because it is associated with the equipment performance attribute of the mitigating systems cornerstone objective. Specifically, the charging system was not capable of providing adequate high pressure injection to the reactor coolant system following an initiating event that resulted in the simultaneous auto-start of the two standby charging pumps. Inspection Report 05000336/2003004 contains a detailed description of the Phase 3 assessment of the safety significance of this issue. The inspectors concluded in this assessment that the performance deficiency was of very low safety significance (Green). This finding is related to licensee's problem identification & resolution process.

Inspection Report# : [2003010\(pdf\)](#)

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**Significance:** May 30, 2003

Identified By: NRC

Item Type: FIN Finding

#### **INADEQUATE CORRECTIVE ACTIONS FOR LONG-STANDING PROBLEMS WITH CONDENSER STEAM DUMP CONTROL SYSTEM**

The team identified a lack of adequate corrective action for a longstanding problem with the Unit 2 condenser steam dump valve control circuit. In May of 2000 and in April of 2002, the licensee identified problems with the configuration and performance of condenser steam dump control wiring. These problems remained uncorrected up to the time of the March 7, 2003, reactor trip and resulting transient. Although problems with the control signal and valves were repeatedly entered into the corrective action program, the cause was not determined and effective actions were not taken to correct this equipment problem. A primary cause of this finding was related to the cross-cutting area of Problem Identification and Resolution.

This finding is associated with both the Design Control and Equipment Performance attributes of the Mitigating Systems Cornerstone. The finding is more than minor because it affects the mitigating systems objective of ensuring the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. The finding was considered to be of very low safety significance (Green) because it did not result in a loss of safety function of the system.

Inspection Report# : [2003006\(pdf\)](#)

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**Significance:** May 30, 2003

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

#### **CHARGING PUMP RELIEF VALVES GAGGED WITHOUT PROCEDURES OR AUTHORIZATION**

A violation of Technical Specification 6.8.1, "Procedures" occurred on March 7, 2003, when operators gagged charging pump relief valves without procedural controls or proper authorization. During efforts to restore flow from the charging system, a senior reactor operator in the field directed a plant equipment operator to install the relief valve gagging devices. Subsequently, the "C" charging pump was started and run with its discharge relief valve gagging device installed.

This finding was more than minor because it affected the human performance and equipment performance attributes of the Mitigating Systems Cornerstone objective. This finding was considered to have very low safety significance (Green) using NRC Inspection Manual Chapter 0609, Appendix A, SDP Phase 1 screening, because the installation of the gagging devices did not result in damage to, or unavailability of, the charging system.

Inspection Report# : [2003006\(pdf\)](#)

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## Barrier Integrity

G**Significance:** May 30, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

**FAILURE TO DIAGNOSE AND ENTER THE AOP FOR RCS LEAKAGE**

The team identified a non-cited violation for the failure of Unit 2 operators to enter the abnormal operating procedure (AOP) for reactor coolant system (RCS) leakage when confronted with plant conditions that were consistent with the procedure entry conditions. A primary cause of this finding was related to the cross-cutting area of Human Performance.

This finding was more than minor because it affects the RCS Barrier performance attribute of the Barrier Integrity Cornerstone objective, in that, failure to enter the applicable AOP and perform a timely containment entry to identify the source of RCS leakage reduced the assurance that the RCS barrier would protect the public from radionuclide releases. The finding is of very low safety significance because it did not increase the likelihood of any initiating events and it did not adversely impact any mitigating equipment.

Inspection Report# : [2003006\(pdf\)](#)

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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

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## Miscellaneous

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