

Millstone 2

3Q/2003 Plant Inspection Findings

Initiating Events

Mitigating Systems

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\(pdf\)](#)

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\(pdf\)](#)

Significance:  Dec 28, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

INADEQUATE CORRECTIVE ACTION TO PREVENT RECURRENCE OF EDG EXHAUST DAMPER SOLENOID VALVE FAILURE

The inspectors identified a failure to determine the cause and take corrective action to preclude repetition of the May 2000 "A" emergency diesel generator (EDG) room ventilation exhaust damper solenoid valve failure. Following an "A" EDG ventilation system solenoid valve failure, the identified condition was not adequately investigated and the root cause never fully determined to prevent recurrence of a similar failure in August 2002. The failure of the "A" EDG's ventilation exhaust damper rendered the EDG incapable of performing its required safety function. The finding impacted the Mitigating Systems cornerstone and affected the availability of the "A" EDG. The inspectors evaluated the significance of this finding using the SDP Phase 1 worksheets and the SDP Phase 2 risk-informed inspection notebook (Revision 1) for Millstone Unit 2. Based on the results of the SDP Phase 2 evaluation, a SDP Phase 3 evaluation was performed. The SDP Phase 3 evaluation concluded that the finding was of very low safety significance (Green) following application of refined operator recovery credit. The increase in core damage frequency was greater than $1.0E-7$, but less than $1.0E-6$ due to internal initiating events. The issue was determined to be a violation of 10 CFR 50, Appendix, B, Criterion XVI, Corrective Action. Because the finding is of very low safety significance and it was captured in the licensee's corrective action program, this finding is being treated as a non-cited violation, consistent with Section VI.A of the NRC Enforcement Policy. As a result, URI 50-336/02-05-02 is closed. This issue is related to the Problem Identification and Resolution cross-cutting area with failure to determine the root cause and take effective corrective action to preclude repetition as causal factors.

Inspection Report# : [2002006\(pdf\)](#)

Significance:  Nov 22, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

DESIGN CONTROL - HIGH ENERGY LINE BREAK IMPACT ON OPERABILITY OF THE MOTOR-DRIVEN AUXILIARY FEEDWATER PUMPS

The inspectors identified that a small line high energy line break (HELB) in the turbine building could cause a loss of both motor-driven auxiliary feedwater pumps. The loss of the pumps would be the result of the motor bearings overheating and failing due to the high ambient room temperatures caused by the small line HELB. This issue was considered to be of very low safety significance (Green) based on a Phase 1 evaluation of the Significance Determination Process because the inadequate cooling of the auxiliary feedwater (AFW) pump motor bearings was a design deficiency of the AFW system that did not result in an actual loss of system function. The issue was determined to be a non-cited violation of 10 CFR 50, Appendix B, Criterion III, Design Control. This issue is related to the Problem Identification and Resolution cross-cutting area with failure to identify a condition adverse to quality as a causal factor.

Inspection Report# : [2002012\(pdf\)](#)

Significance:  Nov 22, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

DESIGN CONTROL - AVAILABILITY OF SERVICE WATER SYSTEM FOLLOWING A FLOODING EVENT

The inspectors identified that the design bases of the service water system (SWS) pertaining to pump operation following a flooding event were not correctly translated into instruction because, (1) the need to and the steps that are required to restore operability of the SWS within two hours were not included in the applicable plant procedure; and (2)

the steps required to initiate manual blowdown of the SWS strainers were not included in the applicable plant procedure. This issue was considered to be of very low safety significance (Green) based on a Phase 1 evaluation of the Significance Determination Process (SDP) because the inadequate service water system restoration procedure was a system design deficiency that did not result in an actual loss of system function. The issue was determined to be a non-cited violation of 10 CFR 50, Appendix B, Criterion III, Design Control. This issue is related to the Problem Identification and Resolution cross-cutting area with failure to identify a condition adverse to quality as a causal factor. Inspection Report# : [2002012\(pdf\)](#)

Barrier Integrity

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\(pdf\)](#)

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Significance:  Mar 29, 2003

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

Failure to label a radioactive material package prior to shipping the package to a low level burial facility

The licensee did not label a package containing radioactive waste prior to shipping the package to a low level burial facility. This self-revealing NCV of 49 CFR 172.400 is greater than minor because if left uncorrected, an incorrectly labeled radioactive waste package could lead to a more significant safety concern if the integrity of the shipping

package was compromised and the radiological risk, associated with the package contents, could not be promptly determined. Further program procedures did not provide adequate guidance to ensure packages were properly labeled in accordance with Department of Transportation requirements. This finding was of very low safety significance since the motor vehicle was properly placarded as a radioactive shipment, shipping documentation contained the information to identify the radioactive material, and emergency information was included with the shipping papers.

Inspection Report# : [2003002\(pdf\)](#)

Physical Protection

Miscellaneous

Last modified : December 01, 2003