Millstone 2
2Q/2003 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G 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 Migitating Systems Cornerstone. The finding is more than minor because it affects the mitigating systems objective of ensuring the availability, reliability and capablity 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: G 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 Cornerstore 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: G 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: G 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)*

Significance: G 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 auxilliary 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: G Sep 28, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO ADEQUATELY ESTABLISH, IMPLEMENT, AND MAINTAIN PROCEDURES COVERING THE CLEANING, INSPECTION AND LUBRICATION OF PUMP COUPLINGS
The inspectors identified an inadequate preventive maintenance procedure , which caused a failure of the "C" charging pump high speed coupling and rendered the "C" charging pump incapable of performing its required safety function. Specifically, vendor manual instructions related to grease removal and seal inspections were not translated into the licensee's procedures. The finding impacted the Mitigating Systems cornerstone and affected the availability of the "C" charging pump to perform its required safety function. However, this finding was of very low safety significance (Green) based on a Phase 1 Significance Determination Process evaluation because the finding did not represent an actual loss of the charging system's safety function or an actual loss of charging pumps for greater than the technical specification allowed outage time. The issue was determined to be a violation of Technical Specification 6.8.1, Procedures. 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.
Inspection Report# : 2002005*(pdf)*

Significance: G Sep 28, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO TAKE ADEQUATE CORRECTIVE ACTIONS TO PROMPTLY IDENTIFY AND CORRECT CVCS WELD SUSCEPTIBILITY TO FATIGUE FAILURES
The inspectors identified inadequate corrective actions to promptly identify and correct welds susceptible to fatigue failure following two weld failures in the chemical and volume control system (CVCS) which occurred in July 1999 and November 2001. This finding is associated with the Mitigating Systems cornerstone and it affected the reliability of the charging system. The failure to promptly identify and correct susceptible welds in the CVCS system resulted in two additional weld failures, on like welds, during August 2002. The finding was of very low safety significance (Green) because neither weld failure would have prevented the CVCS discharge header from completing its safety function while the Unit was at power. 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 the finding 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.
Inspection Report# : 2002005*(pdf)*

Significance: G Sep 28, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
INADEQUATE 50.59 EVALUATION IN SUPPORT OF AN ALTERNATE INJECTION PATH WOULD SUBJECT HIGH PRESSURE SAFETY INJECTION PIPING AND NOZZLE TO THERMAL TRANSIENTS NOT BOUNDED BY DESIGN

The inspectors identified an inadequate 10 CFR 50.59 evaluation involving a procedure change to allow the use of the "A" high pressure safety injection (HPSI) flow path as an alternate charging flow path in Mode 3. The licensee's safety evaluation failed to accurately assess the temperature transients in piping associated with this flow path. The procedure change was developed during a forced shutdown of Unit 2 and the HPSI system piping and nozzle were subjected to thermal transients that were not bounded by the Final Safety Analysis Report (FSAR). This finding is associated with the Mitigating Systems cornerstone and it had the potential to impact the NRC's ability to perform its regulatory function. However, because of the potential for the thermal transients to impact the integrity of the HPSI system under subsequent operational conditions, the inspectors evaluated the finding in accordance with Appendix "A" of the Significance Determination Process. The inspectors determined that the impact from thermal cycles in excess of the FSAR analyses was of very low safety significance (Green) because a subsequent licensee analysis showed there would be no actual loss of the system's safety function. The issue was determined to be a violation of 10 CFR 50.59, Changes, tests, and experiments. Because the finding is of very low safety significance and because the finding 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.
Inspection Report# : 2002005*(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: G 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 : September 04, 2003