

Palisades

2Q/2004 Plant Inspection Findings

Initiating Events

Significance:  Jun 30, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Evaluate Operating Experience Information Precluded Implementation of Effective Corrective Actions For Frazil Ice at the Intake Crib

The inspectors identified a finding of very low safety significance when licensee personnel failed to adequately review operating experience information. As a result, frazil ice formed on the intake crib in February 2003 which partially blocked flow from the ultimate heat sink to the intake structure. The finding was more than minor because the finding was associated with the Protection Against External Factors attribute of the Initiating Events cornerstone and adversely affected the cornerstone objective of limiting events that upset plant stability and challenge critical safety functions during power operations. The finding was of very low safety significance because the risk significance of the sequences evaluated using the Significance Determination Process Worksheet for the Palisades Nuclear Plant were less than the 1E-6 Green-to-White threshold.

Corrective actions to address this issue included the removal of bar racks from the intake crib to create a large enough gap to minimize the potential for frazil ice to form; revising plant procedures to add alternate methods of supplying water to the intake structure; and implementing the Nuclear Management Company operating experience program fleet procedure at Palisades. One Non-Cited Violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," was identified.

Inspection Report# : [2004007\(pdf\)](#)

Mitigating Systems

Significance:  May 20, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

Licensed Operators Were Not Completing the Requirements of 10 CFR 55.53(f) to Reactivate Their licenses Prior to Resuming Watchstation Activities

The inspectors identified that the licensee was not completing the requirements of 10 CFR 55.53(f) prior to allowing inactive licensed operators to resume control room watchstanding duties. Because the Shift Engineer position did not meet the definition of "actively performing the functions of an operator or senior operator" per 10 CFR 55.4, "Definitions," operators inappropriately received credit for license proficiency when standing this watch station. For licensees that stood this watch station exclusively, their licenses became inactive at the end of the next calendar quarter. When these licensees subsequently stood Shift Manager or Control Room Supervisor watches prior to completing the requirements of 10 CFR 55.53(f), a violation of 10 CFR 55.53(e) requirements occurred.

The finding was more than minor because the failure to satisfy license proficiency requirement increased the likelihood of an operator error involving systems used to mitigate an event. The Significance Determination Process (SDP) Appendix I flowchart focused on general record deficiencies exceeding a specified threshold of 20 percent of the records reviewed. The sample review of 27 operators revealed that 7 operators had inactive senior operator licenses (26 percent). The inspectors determined from the SDP that this finding was of very low safety significance.

Inspection Report# : [2004008\(pdf\)](#)

Significance:  Apr 09, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Maintain AFW Design Basis Physical Separation

A finding of very low safety significance was identified for the failure to maintain the design basis configuration (i.e., physical separation) between Auxilliary Feedwater (AFW) system trains. Specifically, the licensee's facility change that converted the spare high pressure safety injection pump into the independent AFW train C was to be physically separated from the AFW trains A and B. However, the AFW trains' A and B common pump discharge header piping was routed through the west safeguards (WESG) room, where the AFW train C pump was located. The primary cause of this finding was that the licensee's facility change provided no engineering evaluation that demonstrated the as-built configuration was acceptable.

This issue was more than minor because the lack of physical separation between the AFW trains' A and B common pump discharge header piping and the AFW train C pump affected the mitigating systems cornerstone objective. Specifically, a common pump discharge header piping break in the WESG room could potentially cause a failure of the AFW train C pump. As a result, the cornerstone objective of ensuring the availability, reliability, and capability of the AFW system to respond to initiating events was affected. The issue was of very low safety significance because it did not represent an

actual loss of a safety function as determined by the licensee's subsequently documented engineering analysis. The issue was a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the failure to maintain the design basis configuration (i.e., physical separation) between AFW system trains.

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

Significance: **G** Dec 31, 2003

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

Failure of High Pressure Safety Injection Pump P-66B Subcooling Valve CV-3070 to Open

A finding of very low safety significance was self-revealed when High Pressure Safety Injection Pump P-66B Subcooling Valve CV-3070 failed to stroke open during surveillance testing. Licensee personnel improperly installed a flow control valve in the operating air system which contributed to the valve failing to stroke open. The finding was more than minor because the availability and capability of High Pressure Safety Injection Pump P-66B was adversely affected. The finding was of very low safety significance because there was not an actual loss of safety function for High Pressure Safety Injection Pump P-66B for greater than the Technical Specification allowed outage time.

Corrective actions to address this issue included reinstalling the flow control valve in the proper direction, testing CV-3070 during a mid-surveillance cycle stroke test, and generating a work order to inspect the CV-3070 valve internals at the earliest opportunity. One Non-Cited Violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," was identified.

Inspection Report# : [2003008\(pdf\)](#)

Barrier Integrity

Significance: **G** Dec 31, 2003

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

Failure of Containment Spray Pump P-54C Inboard Motor Bearing

A finding of very low safety significance was self-revealed when the Containment Spray Pump P-54C inboard motor bearing failed on August 21, 2003. Following a scheduled oil change on the motor bearing, the bearing housing drain plug was also replaced and enough oil was lost during this drain plug replacement to uncover the bearing; however, the vent on the oiler had been plugged when the pump was painted in June 2002 which resulted in an erroneous level indication in the oiler for the bearing housing. Consequently, the operator did not add sufficient oil through the oiler to the bearing housing after the drain plug was replaced. As a result, the inboard motor bearing was inadequately lubricated which caused the bearing to fail when Containment Spray Pump P-54C was started. This finding was more than minor because if left uncorrected, it would become a more significant safety concern. Specifically, the painted vent hole on the motor bearing oiler resulted in erroneous oil level indication and prevented the oiler from adding oil to the bearing housing when the level decreased. Consequently, an inadequately lubricated bearing would not be detected until the bearing failed. The finding was of very low safety significance because it did not represent an actual reduction of the atmospheric pressure control function of the reactor containment.

Corrective actions to address this issue included clearing the vent hole on the bearing oiler, verifying that the oiler vent holes on other safety-related pump motors were not painted over and replacing the inboard motor bearing on Containment Spray Pump P-54C. One Non-Cited Violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," was identified.

Inspection Report# : [2003008\(pdf\)](#)

Significance: **G** Sep 30, 2003

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

Degraded Motor Bearing in Containment Air Cooler Fan V-4A

A finding of very low safety significance was self-revealed when the Containment Air Cooler Fan V-4A motor bearing failed and the fan tripped unexpectedly on July 1, 2003, after the fan was declared operable and returned to service following emergent repairs on June 20, 2003. A lack of rigor in the technical evaluation to determine the operability for Fan V-4A on June 20 resulted in the fan being declared operable and returned to service with more significant motor bearing degradation than recognized by licensee personnel. The primary cause of this finding was related to the cross-cutting area of Problem Identification and Resolution.

The finding was more than minor because the finding was associated with the Human Performance attribute of the barrier integrity cornerstone and adversely impacted the cornerstone objective to provide reasonable assurance that the containment barrier protect the public from radionuclide releases caused by accidents or events. The finding was of very low safety significance because there was no adverse impact on the physical integrity of reactor containment and there was no adverse impact on the atmospheric pressure control function of the reactor containment. Corrective actions to address the issue included replacing the motor for Fan V-4A and entering all containment air cooler fans and motors into a predictive maintenance program. One Non-Cited Violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," was identified.

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

Emergency Preparedness

Occupational Radiation Safety

Significance:  Aug 29, 2003

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

Failure to Obtain a Radiological Briefing Prior to Entry into a High Radiation Area

A finding of very low safety significance was self-revealed when two workers entered a high radiation area to move a drum and trash bags of radioactive material out of the area without obtaining a briefing regarding the radiological conditions in the area.

The issue was associated with the Human Performance attribute of the Occupational Radiation Safety Cornerstone and affected the cornerstone objective of ensuring adequate protection of worker health and safety from exposure to radiation from radioactive material because the workers were not sufficiently cognizant of the radiation fields they could have encountered while inside the high radiation area. The finding was of very low safety significance because the radiological conditions the workers could have encountered were not sufficient to produce a substantial potential for an exposure in excess of regulatory limits. To address this issue, the individuals involved were administratively precluded from entering the Radiologically Controlled Area for the remainder of the outage. Additionally, training to reinforce radiation protection standards and expectations was provided to radiation workers. One Non-Cited Violation for the failure to meet the requirements of Technical Specification 5.7.1.e for the conduct of pre-entry high radiation area briefings was identified.

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

Significance:  Aug 29, 2003

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

Failure to Meet Radiation Work Permit Requirements Upon Receipt of an Electronic Dosimetry Alarm

A finding of very low safety significance was self-revealed when a worker failed to stop work and contact radiation protection personnel upon receiving an electronic dosimetry dose rate alarm while rigging a drum of radioactive material to be removed from a posted high radiation area.

The issue was associated with the Human Performance attribute of the Occupational Radiation Safety Cornerstone and affected the cornerstone objective of ensuring adequate protection of worker health and safety from exposure to radiation from radioactive material because the failure to appropriately act upon hearing the alarm was a failure of the radiation safety barrier against unplanned and unintended radiation exposures. The finding was of very low safety significance because the dose rates encountered and the worker's short time period within the dose rate field were not sufficient to produce a substantial potential for an exposure in excess of regulatory limits. To address this issue, the individuals involved were administratively precluded from entering the Radiologically Controlled Area for the remainder of the outage. Additionally, training to reinforce radiation protection standards and expectations was provided to radiation workers. One Non-Cited Violation for the failure to meet the requirements of Technical Specification 5.7.1.b regarding the control of activities in a high radiation area through a radiation work permit was identified.

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

Significance:  Aug 29, 2003

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

Failure to Barricade and Post a High Radiation Area

A finding of very low safety significance was self-revealed when a drum and trash bags of radioactive material were moved and created an unposted and unbarricaded high radiation area.

The issue was associated with the Human Performance and Program and Process attributes of the Occupational Radiation Safety Cornerstone and affected the cornerstone objective of ensuring adequate protection of worker health and safety from exposure to radiation from radioactive material because the uncontrolled high radiation area created the potential for unplanned and unintended dose to individuals working in the proximity of the drum and trash bags. The finding was of very low safety significance because the dose rates were not sufficient to produce a substantial potential for an exposure in excess of regulatory limits. Upon discovery, the licensee took immediate corrective actions to properly post the high radiation area. Additionally, further surveys were conducted to verify that no other unknown radiological conditions existed. One Non-Cited Violation for the failure to meet the requirements of Technical Specification 5.7.1.a regarding barricading and posting a high radiation area was identified.

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

Public Radiation Safety

Physical Protection

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

Miscellaneous

Last modified : September 08, 2004