

Prairie Island 1

4Q/2004 Plant Inspection Findings

Initiating Events

Significance:  Jun 30, 2004

Identified By: NRC

Item Type: FIN Finding

MISSILE HAZARDS IN THE SWITCH YARD

The inspectors identified loose decking materials installed on several equipment access platforms in the Prairie Island Nuclear Generating Plant switchyard. Plant personnel failed to identify these discrepant conditions during the performance of a plant surveillance procedure with the purpose of identifying and removing potential missile hazards from areas where they could damage important plant electrical equipment during adverse weather conditions.

The finding was more than minor because it affected the protection against external factors attribute of the initiating events cornerstone designed to limit the likelihood of events that upset plant stability. The finding was determined to be of very low safety significance since the finding did not contribute to the likelihood of a primary or secondary system loss of coolant accident initiator, nor did it contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available, and the finding did not increase the likelihood of a fire or internal or external flooding. The inspectors determined that no violation of NRC requirements were associated with this finding.

Inspection Report# : [2004005\(pdf\)](#)

Significance:  Mar 05, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

TRANSIENT COMBUSTIBLES INVALIDATED EXEMPTION FOR LACK OF A FIRE SUPPRESSION SYSTEM

A finding of very low safety significance was identified by the inspectors in that a hazardous quantity of transient combustibles was present in fire areas 58 and 73. The hazardous quantity of transient combustibles present invalidated anexisting exemption for the lack of a fire suppression system.

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

Mitigating Systems

Significance:  Aug 16, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO NOTIFY THE NRC OF A CHANGE IN OPERATOR STATUS IN ACCORDANCE WITH 10 CFR 50.74(c)

The inspector identified a violation of 10 CFR 50.74(c), "Notification of Change in Operator or Senior Operator Status." The inspector identified that the facility licensee failed to notify the NRC within 30 days after receiving a change in medical status of a licensed operator from the station's medical examiner. The change in medical status required conditioning the operator's license by the NRC.

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

Significance:  Jun 30, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

INAPPROPRIATE ACCEPTANCE CRITERIA FOR DIESEL DRIVEN COOLING WATER PUMP HEAT EXCHANGERS

The inspectors identified a finding of very low safety significance regarding inadequate acceptance criteria for the licensee's Generic Letter 89-13, "Service Water System Problems Affecting Safety-Related Equipment" heat exchanger inspections. The inspectors identified this issue during observation and review of the licensee's inspection of cooling water system heat exchangers. The finding constituted a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings."

The inspectors determined that the finding was more than minor because it adversely affected the licensee's ability to ensure that safety-related heat exchangers would be available, reliable, and capable of responding to initiating events to prevent undesirable consequences. The finding was of very low safety significance because the as-found and as-left conditions of the heat exchangers did not reveal any actual concerns with

the operability of the heat exchangers.

Inspection Report# : [2004005\(pdf\)](#)

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Significance: Jun 30, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

CYCLING OF SAFETY INJECTION PUMPS FOR FIRE SCENARIOS

The inspectors identified a finding of very low safety significance regarding the licensee's failure to assure that the design basis of the plant was accurately translated and maintained in Attachment 1, "Inventory Control with a Safety Injection Pump," of Procedure F5, Appendix D, "Impact of Fire Outside Control/Relay Room." Specifically, limitations on the starting and stopping of the safety injection pump motors that prevent motor degradation were not translated from the vendor manual to the plant procedure. The finding constituted a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control."

The inspectors determined that the finding was more than minor because it affected the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The violation was determined to be of very low safety significance since the licensee was able to determine that any adverse effects to the pump motor would be long term in nature and would not affect immediate operability.

Inspection Report# : [2004005\(pdf\)](#)

Barrier Integrity

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Significance: Dec 31, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO PROMPTLY IDENTIFY AND CORRECT CONDITIONS ADVERSE TO QUALITY ASSOCIATED WITH MULTIPLE 121 CRAH FAILURES.

An inspector identified finding of very low safety significance was identified for the licensee's failure to identify and promptly correct conditions adverse to quality associated with the 121 control room air handler. Specifically, the licensee failed to execute a comprehensive and systematic maintenance troubleshooting process as required by plant procedures. The finding constituted a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Actions." The primary cause of this finding was related to the cross cutting area of Problem Identification and Resolution because the ineffective troubleshooting resulted in a failure to promptly identify and correct conditions adverse to quality and prevent recurrence of 121 CRAH failures. The licensee's ineffective troubleshooting efforts resulted in multiple performance failures of the safety-related control room ventilation system and several unplanned Technical Specification Limiting Condition for Operation entries. The licensee implemented corrective actions to revise the troubleshooting process to meet industry best practices and developed training on troubleshooting techniques.

The inspectors concluded that the licensee's failure to conduct troubleshooting activities in a comprehensive and systematic manner and was a performance deficiency that warranted significance evaluation. The inspectors determined the finding to be more than minor because degraded and uncorrected conditions associated the 121 control room air handler could become a precursor to a more significant event. Since the finding only represented a degradation of the radiological barrier function provided for the control room, the finding was determined to be of very low safety significance.

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

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Significance: Dec 31, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO IDENTIFY THAT IMPORTANT INFORMATION ASSOCIATED WITH LTOP DESIGN BASIS WAS NOT INCLUDED IN OPERABILITY EVALUATION

An inspector identified finding of very low safety significance was identified for the licensee's failure to identify and promptly correct conditions adverse to quality associated with the low temperature overpressure protection function of the pressurizer power operated relief valves. Specifically, the licensee failed to recognize and correct a clear lack of understanding of the design basis for the 15 pressurizer power operated relief valve cycles required to complete the low temperature overpressure protection function for a postulated mass injection event prior to the determination that the function remained operable. The finding constituted a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Actions." The primary cause of this finding was related to the cross cutting area of Problem Identification and Resolution because the licensee failed to recognize and correct a clear lack of understanding of the design basis for the 15 pressurizer PORV cycles required to complete the LTOP function for a postulated mass injection event prior to the determination that the function remained operable. The licensee implemented corrective actions that included the identification of LTOP design basis requirements; establishment of new and more conservative LTOP design basis; and the development, installation, and testing of a recurring temporary modification.

The inspectors determined that a performance deficiency existed with the problem identification and resolution actions taken by the licensee

during development and review of the operability recommendation. The finding was more than minor since it could be viewed as a precursor to a more significant event such as a failure of the reactor coolant system barrier integrity and affected the barrier integrity cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide release caused by accidents and events, and was associated cornerstone attributes of reactor coolant system equipment and barrier performance. Since sufficient mitigating capabilities were maintained and no non-compliance with Technical Specifications were identified, the finding was determined to be of very low safety significance.

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

Significance:  Sep 30, 2004

Identified By: NRC

Item Type: FIN Finding

CONTAINMENT FAN COIL UNITS NOT TESTED IN ACCORDANCE WITH GENERIC LETTER 89-13 COMMITMENTS

A finding of very low safety significance was identified by the inspectors for untimely corrective actions to meet a regulatory commitment. In response to Generic Letter (GL) 89-13, "Service Water System Problems Affecting Safety-Related Equipment," the licensee committed to test the containment fan coil units (CFCUs) at the maximum recommended frequency of every 5 years. The Unit 1 CFCUs were last tested in 1995. The primary cause of this finding was related to the cross-cutting area of Corrective Action. Despite three Corrective Action Program (CAP) documents in 2003 and two CAPs in 2004, the testing was postponed to December of 2004, 9 years since the previous test.

The finding was more than minor because if left uncorrected it would become a more significant safety concern and it affected the barrier integrity cornerstone objective of providing assurance that the containment will protect the public from releases caused by accidents or events. The finding was of very low safety significance because it did not represent an actual reduction of the containment pressure control function. No violations of NRC requirements were identified.

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

Significance:  Jun 30, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

MISSED UT EXAMINATIONS FOR SG 12 AND SG 21 W-A WELDS

The inspectors identified a finding of very low safety significance regarding the licensee's failure to perform ultrasonic examinations on additional tubesheet-to-head welds in steam generators 12 and 21 following identification of indications on similar welds. The finding constituted a Non-Cited Violation of 10 CFR 50.55a(g)(4).

The inspectors determined that the finding was more than minor because it affected the barrier integrity cornerstone objective of maintaining the reactor coolant system barrier integrity and if left uncorrected, could allow unacceptable piping system weld flaws to remain in-service. The finding was of very low safety significance because the welds were subsequently ultrasonically examined and the affected welds did not have flaws greater than that allowed by the American Society of Mechanical Engineers Code.

Inspection Report# : [2004005\(pdf\)](#)

Significance:  Mar 31, 2004

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

FAILURE TO MEET TS LIMITING CONDITION FOR RCS PRESSURE AND TEMPERATURE LIMITS

Green. A finding of very low safety significance associated with exceeding Technical Specification (TS) and Pressure Temperature Limits Report (PTLR) limits was self-revealed. Technical Specification 3.4.3 requires that reactor coolant system (RCS) temperature be maintained within the limits of the PTLR. Section 3.0 of the PTLR requires that RCS temperature remain above 86 degrees Fahrenheit when the RCS is not vented. On December 1, 2002, with Unit 1 in Mode 5, and the RCS not vented, the reactor coolant pumps were started causing RCS temperature to drop below 86 degrees Fahrenheit. Action statement C.2 of TS 3.4.3 requires that the RCS be evaluated for acceptability for continued operation prior to entering Mode 4. Operators placed Unit 1 in Mode 4 without completing the required evaluation. Upon identification of the failure to meet the criteria contained in action statement C.2 of TS 3.4.3, the licensee performed the required evaluation to demonstrate the acceptability of continued operation. This finding also affected the cross-cutting areas of human performance and problem identification and resolution. Operators and engineers failed to recognize the violation of TS 3.4.3 and PTLR limits associated with RCS temperatures, and failed to recognize and implement the TS-required actions prior to a change in Mode. Additionally, supervisors and plant managers failed to recognize the significance of the event and assign an appropriate priority during the corrective action screening process.

This issue was more than minor since the finding could be reasonably viewed as a precursor to a significant event such as the degradation or failure of the reactor pressure vessel. The finding was determined to be not suitable for significance determination process evaluation. NRC management reviewed the finding for significance and determined it to be of very low safety significance based on engineering evaluation conclusions that the limiting vessel baseline material stresses remained within allowable limits. Therefore, the deficiency was confirmed not to result in loss of function per Generic Letter 91-18. This finding resulted in a Non-Cited Violation of TS 3.4.3 which required the RCS be evaluated for acceptability for continued operation prior to entering Mode 4 when temperature limits contained in the PTLR are exceeded.

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

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

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

Miscellaneous

Last modified : March 09, 2005