

## Prairie Island 1

### 1Q/2005 Plant Inspection Findings

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#### 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\(pdf\)](#)

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#### 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\(pdf\)](#)

**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\(pdf\)](#)

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## Barrier Integrity

**Significance:**  Mar 31, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

### **FAILURE TO IMPLEMENT PROMPT AND EFFECTIVE CORRECTIVE ACTIONS FOR REPETITIVE FAILURES OF CONTAINMENT FAN COIL UNITS**

The inspectors identified a finding of very low safety significance for inadequate corrective actions associated with the repetitive failure of Unit 1 and 2 containment fan coil units (CFCUs). Specifically, the licensee failed to identify and correct the root cause of the accelerated erosion of the CFCUs and to implement effective corrective actions in a timely manner to preclude repeat failures of these significant conditions adverse to quality. 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 (corrective actions) because the ineffective implementation of the licensee's corrective action program allowed the root cause of a Unit 1 fan coil unit failure in November 2001, to go unidentified and was not corrected. The licensee's inadequate corrective action has resulted in multiple performance failures of the safety-related containment cooling system and multiple unplanned Technical Specifications (TS) Limiting Condition for Operation (LCO) entries. The licensee has conducted a root cause evaluation, identified long-term corrective actions to prevent future failures, and has implemented short-term corrective actions to reduce the erosion rate until long-term corrective actions are fully implemented.

The inspectors concluded that the licensee's failure to identify the root cause of the fan coil unit accelerated erosion and implement effective corrective action to preclude recurrence was a performance deficiency that warranted significance evaluation. The inspectors determined the finding to be more than minor because the finding affected the barrier integrity cornerstone objective to provide reasonable assurance that the physical design barriers (the reactor containment) protect the public from radionuclide release from accidents or events. The significance evaluation resulted in a finding of very low safety significance (Green) since the unavailability of the CFCUs did not adversely affect core damage frequency nor did it adversely affect the large early release frequency.

Inspection Report# : [2005003\(pdf\)](#)

**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\(pdf\)](#)

**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\(pdf\)](#)

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**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\(pdf\)](#)

G

**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\(pdf\)](#)

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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**

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

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### **Miscellaneous**

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