Prairie Island 2
2Q/2005 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2005
Identified By: NRC
Item Type: FIN Finding
FAILURE TO IDENTIFY AND REMOVE/SECURE POTENTIAL TORNADO MISSILE HAZARDS
The inspectors identified a plate of aluminum material unsecured on the south side of the fuel oil transfer house and an unsecured prestaged temporary storage tank in close proximity to the 2M, 2RX, and 2RY transformers. 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# : 2005004*(pdf)*

Significance: G Jun 30, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
INADEQUATE CONTROL OF TRANSIENT COMBUSTIBLES
The inspectors identified a Non-Cited Violation of 10 CFR Part 50.48(a)(2)(I) associated with the licensee's storage of transient combustibles in the Unit 2 reactor building without required administrative controls.

The finding was more than minor because it affected the initiating events cornerstone of protection against external factors (fire), and if left uncorrected could have resulted in a greater probability of a fire. Plant personnel failed to identify these transient combustibles during the fire hazard review for work activities and housekeeping tours. The finding was determined to be of very low safety significance because it was in the category of fire prevention and administrative controls.
Inspection Report# : 2005004*(pdf)*

Mitigating Systems

Significance: G Jun 30, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
NON-CONSERVATIVE METHODOLIGY AND ASSUMPTIONS USED IN DESIGN CALCULATIONS
The inspector identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," having a very low safety significance involving the licensee's failure to adequately apply design control measures to verify the adequacy of certain design calculations. These calculations provided the basis to ensure the safety injection (SI) system would be capable of injecting water into the reactor vessel to remove decay heat following a postulated reactor vessel closure head (RVCH) drop onto the reactor vessel flange. Specifically, non-conservative assumptions and a non-conservative design methodology were used without justification and the calculations did not include all of the structural components that would be affected by a reactor vessel head drop in the design evaluations that provided the basis for the maximum lift elevation allowed for the reactor vessel head removal and replacement during refueling operations.

This finding was greater than minor because it affected the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events and if left uncorrected, it could become a more significant safety concern, in that the calculational deficiencies resulted in a non-conservative determination of maximum allowable head lift height. The finding was of very low safety significance because the polar crane capacity had considerable margin with respect to the original, lighter weight RVCH, and the issue was appropriately addressed prior to lifting of the heavier replacement RVCH.
Inspection Report# : 2005004*(pdf)*

Significance: G 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)*

Barrier Integrity

Significance: G Jun 30, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
INADEQUATE ULTRASONIC EXAMINATION PROCEDURE FOR THE REACTOR VESSEL FLANGE-TO-SHELL WELD
The inspectors identified a Non-Cited Violation of 10 CFR Part 50.55a(g)(4) associated with the licensee's failure to specify an ultrasonic calibration block with appropriate calibration reflectors, that met the American Society of Mechanical Engineers Code in a procedure that performed examinations of the reactor vessel flange-to-shell welds.

This finding was greater than minor because it affected the barrier integrity cornerstone objective of reactor coolant system equipment and barrier performance, and if left uncorrected could have resulted in allowing unacceptable flaws to remain in-service and the licensee would have relied on an inadequate examination for credit toward completing the required code weld volumetric coverage. The finding was of very low safety significance because this inadequate procedure was identified prior to taking Code credit for this weld examination, and a separate Code qualified examination was conducted on the affected vessel weld.
Inspection Report# : 2005004*(pdf)*

Significance: G 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: G Mar 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
FAILURE TO MEET TECHNICAL SPECIFICATION 3.0.3 REQUIREMENTS
The inspectors identified a finding of very low safety significance for a failure to comply with the required actions of Technical Specifications (TS) Limiting Condition for Operation (LCO) 3.0.3. Specifically, the licensee failed to place Unit 2 in Mode 3 within 7 hours and Mode 4 within 13 hours of entry into TS LCO 3.0.3 after 2 CFCUs, each from opposite trains, were declared inoperable on February 11, 2005. This finding constituted a Non-Cited Violation of TS LCO 3.0.3. The inspectors determined that the finding impacted the cross-cutting area of

Human Performance (organization) because the licensee's management organization failed to carefully assess the situation regarding TS compliance. The licensee's decision to not place Unit 2 in Mode 3 within 7 hours and Mode 4 within 13 hours was based on a conclusion reached in an operability evaluation. That evaluation concluded that the 21 CFCU, one of two CFCUs in Train A, by itself, was sufficient to remove the post-accident containment heat load. The licensee concluded that the 21 CFCU constituted an operable train of containment cooling, declared containment cooling Train A operable, and exited TS LCO 3.0.3. The licensee completed repairs and returned the two CFCUs to operable status on February 12, 2005.

The inspectors concluded that the licensee's failure to place Unit 2 in Mode 3 and Mode 4 as required by TS LCO 3.0.3 was a performance deficiency that warranted significance evaluation. The inspectors determined the finding to be more than minor because the failure to comply with a TS-required shutdown could reasonably be viewed as a precursor to a significant event. 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: G 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: G 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)*

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Last modified : August 24, 2005