

River Bend 1

4Q/2005 Plant Inspection Findings

Initiating Events

Significance:  Dec 31, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to complete TS required actions within allowed completion time

The NRC identified a noncited violation of Technical Specification 3.4.1.A for the licensee's failure to shut down one reactor recirculation loop within 2 hours of determining that jet pump loop flow mismatch was greater than 5 percent while operating at greater than 70 percent of rated core flow. On October 31, 2005, the Reactor Recirculation Flow Control Valve B hydraulic power unit tripped because of a blown control power fuse, causing Flow Control Valve B to drift open. Operators throttled closed Flow Control Valve A to maintain reactor power at 100 percent, resulting in a jet pump loop flow mismatch of approximately 8.2 percent. The flow mismatch existed for 4.5 hours. The licensee entered this into their corrective action program as Condition Report CR-RBS-2006-00274.

The finding was more than minor because, if left uncorrected, it would become a more significant safety concern. Matched recirculation loop flows is an assumption used in the accident analysis for a loss of coolant accident resulting from a loop break. A flow mismatch could result in core response that is more severe than assumed in the accident analysis. The significance of this finding could not be evaluated using MC 0609, "Significance Determination Process." Based on management review, the finding was determined to be of very low safety significance based on the short duration of the flow mismatch, 4.5 hours, and the low likelihood of a loss of coolant accident during that time. The cause of this finding is related to the crosscutting element of human performance in that operators failed to implement Technical Specification requirements. Inspection Report# : [2005005\(pdf\)](#)

Mitigating Systems

Significance:  Dec 31, 2005

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Inadequate design assumption results in RCIC turbine exhaust header filling with water following an automatic high water level shutdown

A self-revealing noncited violation of 10 CFR Part 50, Appendix B, Criterion III, Design Control, was identified for the licensee's failure to address the worst case conditions in the sizing calculation for the reactor core isolation cooling turbine exhaust line vacuum breaker system as part of a plant modification to remove the internals of the reactor core isolation cooling turbine exhaust line check valve. As a result, on December 10, 2004, when the reactor core isolation cooling system was started and subsequently shutdown on high reactor water level following a scram and loss of feedwater, the turbine exhaust line filled with water from the suppression pool, causing the operators to consider the system unavailable and complicating their response to the event. The licensee entered this finding into their corrective action program as CR-RBS-2005-00724 and reinstalled the turbine exhaust line check valve internals in February 2005.

The finding was more than minor because it was associated with the Mitigating Systems cornerstone attribute of Design Control and affected the cornerstone objective to ensure the availability and reliability of the reactor core isolation cooling system, a system that responds to initiating events (loss of feedwater and station blackout), to prevent undesirable consequences. Using Manual Chapter 0609, "Significance Determination Process," Phase 1 Worksheet, the finding was determined to have very low safety significance because it represented a design deficiency that did not result in a loss of system function.

Inspection Report# : [2005005\(pdf\)](#)

Significance:  Sep 30, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Implement Corrective Actions in Response to a 10 CFR Part 21 Report

The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion XVI for failure to implement corrective actions in response to a 10 CFR Part 21 Report. The corrective actions involved performing vendor-recommended magnetic particle inspections of emergency diesel generator cylinder liners to look for cracks. During a records review in August 2005, the inspectors identified that in April 1999, two cylinder liners from the Division I emergency diesel generator were replaced but the required magnetic particle testing inspections were not performed.

This finding was more than minor because it affected the mitigating systems cornerstone objective of ensuring the capability of emergency power to respond to initiating events to prevent undesirable consequences. Since the finding did not represent an actual loss of safety function for either of the emergency diesel generators, the finding was determined to be of very low safety significance using Phase 1 of the Significant Determination Process. This finding had crosscutting aspects associated with problem identification and resolution. The licensee entered this finding into their corrective action program as CR-RBS-2005-03400.

Inspection Report# : [2005004\(pdf\)](#)

Significance:  Sep 30, 2005

Identified By: NRC

Item Type: FIN Finding

Failure to Troubleshoot a Starting System Failure Caused Station Blackout Diesel Generator to Be Unavailable for 24 Hours Longer than Necessary

The inspectors identified a finding associated with the licensee's failure to perform adequate troubleshooting of a problem with the station blackout diesel generator that resulted in the diesel generator being out of service for 24 hours longer than necessary. Licensee personnel focused on the suspected cause, the engine starter, and did not perform comprehensive troubleshooting to identify the actual cause of the failure.

The finding was more than minor because it was associated with the mitigating system cornerstone attribute for equipment performance and the cornerstone objective to ensure the availability of a system that responds to initiating events to prevent undesirable consequences. During Phase 2 of the significance determination process for at power situations, the finding screened as having very low safety significance (Green), because the station blackout diesel generator was unavailable for less than three days and the other diesel generators were available. The finding had crosscutting aspects associated with problem identification and resolution based on the fact that licensee personnel failed to properly assess the starting system failure. This finding is entered in the licensee's corrective action program as CR-RBS- 2005-02897.

Inspection Report# : [2005004\(pdf\)](#)

Significance:  Sep 30, 2005

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to Completely Close a Residual Heat Removal System Valve Resulted in Pumping Suppression Pool Water to Containment Upper Pool

A self-revealing noncited violation of Technical Specification 5.4.1.a. was identified for a failure to follow procedures. During motor-operated valve stroke time testing of Residual Heat Removal to Upper Pool Fuel Pool Cooling Assist Valve E12-MOVF037A, an operator failed to follow procedures by not completely closing Valve E12-F037A. As a result, when Residual Heat Removal System A was later operated in suppression pool cooling mode, approximately 5,000 gallons of suppression pool level was pumped to the containment upper pool. The licensee took immediate corrective action to identify and close all motor-operated throttle valves and issued a standing order to ensure all motor-operated throttle valves were completely closed when operated from the main control room.

The finding was more than minor because, if left uncorrected, the failure to completely close motor-operated throttle valves could become a more significant safety concern. Using the significance determination process, the inspectors determined that the finding was of very low safety significance (Green) because it was not a design or qualification issue and it did not represent an actual loss of safety function of either residual heat removal System A or the suppression pool. The inspectors determined that this finding had human performance and problem identification and resolution crosscutting aspects. The failure to completely close Valve E12-F037A was a human performance error caused by a lack of understanding of the operation of motor-operated throttle valves and inadequate guidance in the test procedure. The inspectors also determined that a similar event involving the same valve occurred during the last refueling outage, and the licensee failed to identify and correct the underlying cause of the performance deficiency. Because this failure to comply with TS 5.4.1.a. was of very low safety significance and was entered in the licensee's corrective action program as CR-RBS-2005-02772, the inspectors determined that it was a noncited violation in accordance with Section VI. A of the NRC Enforcement Policy.

Inspection Report# : [2005004\(pdf\)](#)

Significance:  Jun 30, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to inspect portable fire extinguishers within the required frequency

The inspectors identified a Green noncited violation of Attachment 4 to Facility Operating License NPF-47 for failure to inspect portable fire extinguishers within the required frequency. The inspectors identified a total of 24 portable fire extinguishers that had not received an inspection during the month of April 2005. The inspectors found 28 condition reports in the licensee's corrective action program documenting missed inspections of portable fire extinguishers during the period from January 2000 through April 2005. Two of these condition reports were based on NRC-identified missed inspections of portable fire extinguishers in January and September of 2004.

The inspectors determined that this NRC-identified finding was more than minor because it was associated with the mitigating systems cornerstone attribute to protect against external factors, like fire, and because the finding affected the associated cornerstone objective to ensure availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors

evaluated the finding using Inspection Manual Chapter 0609, Appendix F, "Fire Protection Significance Determination Process." The inspectors determined that the degradation rating was "low" because the fire extinguishers were expected to display nearly the same level of effectiveness and reliability as they would have had the fire extinguishers been inspected during the month of April 2005. Because this finding was assigned a low degradation rating, it was screened as having very low risk significance (Green). This finding also had crosscutting aspects associated with problem identification and resolution since the inspectors found 28 condition reports in the licensee's corrective action program documenting missed inspections of portable fire extinguishers during the period from January 2000 through April 2005. Because this Green finding was documented in the licensee's corrective action program as CR-RBS-2005-01726, this violation is being treated as a noncited violation, consistent with Section VI. A of the NRC Enforcement Policy.

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

Barrier Integrity

Emergency Preparedness

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Significance: Dec 31, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate procedure for implementation of an EAL

The NRC identified a noncited violation of 10 CFR Part 50, Appendix E, Section IV. B., as a result of inadequate procedures for the implementation of an emergency action level. The criteria in Procedure EIP-2-001, "Classification of Emergencies," Revision 12, for declaring an Alert emergency action level based on primary coolant leak rate, relied solely on a computer generated leakrate report that would not be valid under all conditions. The licensee entered this finding into their corrective action program as CR-RBS-2005-03078 and issued Standing Order 192, as an interim corrective action, to provide additional criteria to determine whether a primary coolant leak rate Alert emergency action level declaration was required.

The finding is more than minor because it is associated with the Emergency Preparedness Cornerstone attribute of procedural quality and affects the cornerstone objective to ensure the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. The inadequate procedure could result in a failure to declare an Alert emergency classification when required. Using Manual Chapter 0609, Appendix B, "Emergency Preparedness Significance Determination Process," this finding was determined to be of very low safety significance since it was a failure to comply with a regulatory requirement associated with a risk-significant planning standard that did not result in the loss or degradation of that risk-significant planning standard function.

Inspection Report# : [2005005\(pdf\)](#)

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

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

Miscellaneous

Significance: N/A Sep 09, 2005

Identified By: NRC

Item Type: FIN Finding

Unplanned Scrams Exceed the Criteria for a White Performance Indicator

The U.S. Nuclear Regulatory Commission performed this supplemental inspection to assess the licensee's evaluations associated with four unplanned reactor scrams that occurred between August 15, 2004 and January 15, 2005. The cumulative effect of these trips was that the Performance Indicator for unplanned scrams per 7000 critical hours crossed the threshold from Green (very low risk significance) to White (low to moderate risk significance) for the first quarter of calendar year 2005. The licensee performed individual root cause evaluations for all of the four reactor scrams. In addition to the individual trip evaluations, the licensee performed a common cause analysis to identify any performance and process issues that led to the White performance indicator. During this supplemental inspection, performed in accordance with Inspection Procedure 95001, the inspector determined that for each scram, the licensee performed a comprehensive and thorough evaluation in which specific problems were identified, an adequate root cause evaluation was performed, and corrective actions were taken or planned to prevent recurrence.

Inspection Report# : [2005012\(pdf\)](#)

Last modified : March 03, 2006