

# River Bend 1

## 1Q/2003 Plant Inspection Findings

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### Initiating Events

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### Mitigating Systems

**Significance:**  Dec 28, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to take proper corrective actions for low pressure core spray pump minimum flow valve failure resulted in the failure of the residual heat removal pump minimum flow valve**

The inspectors identified a noncited violation of 10 CFR 50 Appendix B Criterion XVI for failure to take proper corrective action following a failure of the low pressure core spray pump minimum flow valve that resulted in an identical failure of the residual heat removal Pump A minimum flow valve nine months later. The inspector identified non-cited violation was greater than minor because it was associated with the mitigating systems cornerstone objective to ensure the availability, reliability and capability of systems (residual heat removal Train A) that respond to initiating events to prevent undesirable consequences. With the minimum flow valve open, residual heat removal Train A was not able to meet its design flow rate for either the low pressure coolant injection or suppression pool cooling mode of system operation. The inspectors evaluated the finding using IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Reactors" and determined that the residual heat removal Pump A minimum flow valve failure was of very low safety significance because the other low pressure coolant injection systems were available and the other train of suppression pool cooling was available at the time.

Inspection Report# : [2003003\(pdf\)](#)

**Significance:** TBD Sep 18, 2002

Identified By: Self Disclosing

Item Type: AV Apparent Violation

**Failure to properly lock open condensate valve resulted in loss of feedwater flow following reactor scram.**

(TBD) The inspectors identified an apparent violation of Technical Specification 5.4.1.a, which required that written procedures be established, implemented, and maintained covering the applicable procedures recommended in Regulatory Guide 1.33, Revision 2, Appendix A. Regulatory Guide 1.33 lists the condensate system as one of the systems requiring operating procedures. System Operating Procedure SOP-0007, "Condensate System," Revision 21, required that Condensate Prefilter Vessel Bypass Flow Control Valve CNM-FCV200 be locked open. On September 18, 2002, Valve VNM-FVC200 was found to be improperly locked in the open position. This failure to properly lock open CNM-FCV200 resulted in unexpected closure of the valve and a loss of feedwater flow to the reactor vessel following a reactor scram. The final significance of this issue will be determined using the Significance Determination Process.

Inspection Report# : [2002007\(pdf\)](#)

**Significance:**  Aug 15, 2002

Identified By: NRC

Item Type: FIN Finding

**Ineffective corrective actions caused station blackout diesel generator to be unavailable**

On August 15, 2002, the licensee performed a routine monthly performance test of the station blackout diesel generator. Four minutes into the one-hour run the diesel generator tripped on high coolant temperature. Similar failures of the station blackout diesel generator to run due to high temperature trips had occurred in each of the two previous monthly performance tests on June 21 and July 19, 2002. For each of these failures, the licensee identified an apparent cause for the failure and corrected the problems identified. Following the failure on August 15, 2002, the inspectors determined that the licensee-identified causes for the previous station blackout diesel generator failures were not accurate; therefore, the corrective actions taken were ineffective. The inspectors evaluated the ineffective corrective actions taken to correct two failures of the station blackout diesel generator using inspection Manual Chapter 0609, "Significance Determination Process," Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations." The inspectors determined that the finding was more than minor in that it affected the operability and availability of a risk-significant mitigating system, i.e., the station blackout diesel generator. The inspectors determined that the failure to maintain the station blackout diesel generator operable was of very low safety significance (Green) because of the low likelihood of a station blackout event occurring, the probability that operators could restore the diesel following an initial failure, and the availability of all other standby electrical systems. This problem identification and resolution issue was entered into the licensee's corrective action program as CR-RBS-2002-0664.

Inspection Report# : [2002003\(pdf\)](#)



**Significance:** May 29, 2002

Identified By: NRC

Item Type: FIN Finding

**Increased Division I Emergency Diesel Generator jacket cooling water leak rate caused diesel generator to be operable but degraded beyond the licensee's existing evaluation**

Following maintenance performed on May 9, 2002, to determine the source of a leak from the Division 1 emergency diesel generator jacket cooling water system, the leak rate more than doubled. The licensee's attempt to correct the problem on May 30, 2002, resulted in another increase in the leak rate to the point that makeup to the jacket cooling water system would be required within approximately 2 hours of Division I emergency diesel generator operation during a loss of offsite power. Although, the cause for the increased jacket water leak was repaired on June 4, 2002, the diesel generator remained degraded, but operable. The licensee planned to repair the original leak during the next extended diesel generator maintenance outage. The inspectors determined that the increased leak rate was beyond the licensee's evaluation that concluded that the Division 1 emergency diesel generator was degraded but operable. If left uncorrected, the jacket cooling water leak could have caused the emergency diesel generator to become inoperable and unavailable. The normal source of makeup water would not have been available during a loss of offsite power and the licensee did not develop a written procedure for use of an alternate makeup source until May 30, 2002. Using the significance determination process, the risk significance of the finding was determined to be very low because the emergency diesel generator remained operable, although degraded. This maintenance induced problem was documented in the licensee's corrective action program as Condition Report CR-RBS-2002-0672.

Inspection Report# : [2002002\(pdf\)](#)



**Significance:** May 12, 2002

Identified By: Self Disclosing

Item Type: FIN Finding

**Operator action caused a high reactor water level trip of the running reactor feed pump following a planned scram from 26 percent power**

Following a planned reactor scram during a plant shutdown, operators failed to take manual control of the feedwater level control system in time to stop an unexpected rise in reactor water level until after the running reactor feed pump

tripped on high reactor water level. The licensee determined that the reduction of the reactor pressure control setpoint and subsequent opening of the main turbine bypass valves caused a "swell" in reactor water level which contributed to the higher than expected reactor water level transient. The inspectors determined that the operators did not manually close and isolate one of the two automatic feedwater regulating valves in time to eliminate leakage past the feedwater regulating valve, and failed to reject water from the reactor through the reactor water cleanup system in time to stop the rise in reactor water level to the high level trip of the reactor feed pump. The failure of the operators to manually control reactor water level resulted in the unavailability of a risk-significant reactor feed pump. The inspectors, using the significance determination process, determined that the safety significance of the high reactor water level trip of the running reactor feed pump following a planned reactor scram was very low because the reactor feed pump was restarted from the main control room as soon as reactor water level was lowered and the high reactor water level trip signal was cleared, and other reactor water makeup sources remained available. This human performance error was documented in the licensee's corrective action program as Condition Report CR-RBS-2002-0688.

Inspection Report# : [2002002\(pdf\)](#)



**Significance:** May 11, 2002

Identified By: Self Disclosing

Item Type: FIN Finding

### **Station Blackout Diesel Generator inoperable due to discharged starting battery**

The station blackout diesel generator was found to be inoperable by the licensee because its starting battery had been allowed to completely discharge. The station blackout diesel generator had been moved from its normal storage location as a contingency for a planned maintenance outage on several Division I safety-related systems. The inspectors determined that the Division I maintenance outage contingency plan and the weekly work schedule did not plan for the return of the station blackout diesel generator to its normal storage location to re-energize its battery charger. The licensee determined that this is a repeat of a similar event of April 4, 1998, documented in Condition Report CR-RBS-1998-0384. The failure to maintain its starting battery charged caused the risk significant station blackout diesel generator to be inoperable and unavailable. The inspectors, using the significance determination process, determined that the safety significance of the unavailability of the station blackout diesel generator was very low because the length of time the diesel generator was unavailable was less than 24 hours and all other electrical systems were available during that time. This human performance error was documented in the licensee's corrective action program as Condition Report CR-RBS-2002-0664.

Inspection Report# : [2002002\(pdf\)](#)

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## **Barrier Integrity**

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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

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## Miscellaneous

Last modified : May 30, 2003