

## River Bend 1

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### Initiating Events



**Significance:** Jun 07, 2001

Identified By: NRC

Item Type: FIN Finding

**Failure to specify or document postmaintenance test requirements.**

The inspectors identified that the licensee failed to specify or document postmaintenance test requirements in two main feedwater pump mechanical seal replacement work packages. The failure to specify and document postmaintenance testing for maintenance work activities precluded the ability to evaluate test results to ensure the affected equipment was capable of performing its design function. The inspectors determined that corrective actions for prior postmaintenance testing program deficiencies failed to preclude the recently identified deficiencies. The safety significance of the failure to specify or document postmaintenance test requirements in the two feedwater pump work packages was very low. The issue would not contribute to both the likelihood of an initiating event and the failure of mitigating equipment. Only two of the three main feedwater pumps were affected and only one main feedwater pump is required for mitigation of the reactor trip transient. This finding is documented in the licensee's corrective action program as CR-RBS-2001-0695.

Inspection Report# : [2001003\(pdf\)](#)

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### Mitigating Systems



**Significance:** Dec 07, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to control test equipment when it was considered unreliable during a Technical Specification surveillance and failure to evaluate initial out of tolerance test data**

The licensee did not control measuring and test equipment when it was considered to be unreliable during a reactor core isolation cooling system surveillance test and did not evaluate the initial out of tolerance data to ensure the original test results were not valid. Specifically, measuring and test equipment originally indicated a suppression pool level instrument failed a Technical Specification surveillance test, so the measuring and test equipment was considered to be unreliable. Another piece of measuring and test equipment was then used and the suppression pool level instrument passed the surveillance test. The inspectors identified that maintenance personnel did not control the original measuring and test equipment for subsequent calibration checks and did not notify operations personnel to evaluate the original out of specification data to ensure the original test results were not valid, as required by plant procedures for suspect measuring and test equipment. The inspectors determined that the safety significance of failing to control measuring and test equipment and then to evaluate the original test data was very low since it did not represent an actual loss of the reactor core isolation cooling system or suppression pool reliability. The failure to control unreliable measuring and test equipment and to evaluate test results provided by such equipment is a noncited violation of Technical Specification 5.4.1a. This human performance error is documented in the licensee's corrective action program as CR-RBS-2001-1650.

Inspection Report# : [2001004\(pdf\)](#)

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**Significance:** Aug 01, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to maintain fire barrier requirements described in the plant fire hazards analysis.**

The licensee did not maintain a 3-hour rated fire barrier as described in the plant fire hazards analysis. Specifically, the inspectors identified a penetration into a 3-hour rated floor barrier in the standby cooling tower that had not been sealed. The inspectors determined that the safety significance of the degraded fire barrier was very low since it did not separate redundant safe shutdown equipment. The failure to maintain a 3-hour rated fire barrier as described in the Fire Hazards Analysis is a noncited violation of Attachment 4 to Facility Operating License NPF-47. This violation is documented in the licensee's corrective action program as CR-RBS-2001-0898.

Inspection Report# : [2001003\(pdf\)](#)



**Significance:** Jul 11, 2001

Identified By: NRC

Item Type: FIN Finding

**Deficiencies with the conduct of maintenance risk assessments.**

The inspectors identified deficiencies with the conduct of maintenance risk assessments. Specifically, inadequate risk assessments were identified, a plant component was not identified by the licensee to be in the quantitative risk assessment tool, an opportunity to identify an error in the risk assessment tool was missed, and corrective actions taken for prior inadequate risk assessments failed to preclude the recently identified deficiencies. The inspectors determined that the safety significance of the maintenance risk assessment deficiencies was very low in that there was no actual loss of safety function and that the difference between the actual plant risk and the licensee determined risk was small enough such that significant risk management actions would not have been required. This finding is documented in the licensee's corrective action program as CR-RBS-2001-0674.

Inspection Report# : [2001003\(pdf\)](#)



**Significance:** Mar 31, 2001

Identified By: NRC

Item Type: FIN Finding

**Deficiencies With Implementation of Cold Weather Requirements**

The inspectors identified deficiencies with implementation of cold weather requirements. Specifically, no attempt was made to provide heating to the water treatment room, several room heater switch settings were not in accordance with the respective loop calibration report, and repetitive maintenance tasks did not exist to ensure that room heaters in the fire pump building, the normal switchgear room, or the auxiliary control room were functioning properly. The inspectors determined that the safety significance of not implementing cold weather requirements for reduced room temperatures was very low in that actual temperatures in these areas during the time the condition existed did not go low enough to affect the qualification of the equipment located in these areas.

Inspection Report# : [2000016\(pdf\)](#)



**Significance:** Mar 31, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure To Maintain the Required Inventory of Alternate Standby Liquid Control Chemicals**

The licensee failed to maintain the required inventory of chemicals onsite to support operation of the alternate standby liquid control system. Specifically, the licensee failed to maintain 2500 pounds of sodium borate and 2500 pounds of boric acid onsite for alternate standby liquid control injection as required by the emergency operating procedure. The inspectors determined that the safety significance of not maintaining alternate standby liquid control chemicals available was very low in that the standby liquid control system was only determined to be unavailable for a maximum of 12 days over the year during tank sparging evolutions. The failure to maintain adequate chemical inventory in the main warehouse/storeroom for alternate standby liquid control injection is a noncited violation of Technical Specification 5.4.1.a. This violation is in the licensee's corrective action program as Condition Report 2000-1680.

Inspection Report# : [2000016\(pdf\)](#)



**Significance:** Mar 31, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure To Complete Annual Walkdowns of Emergency Operating Procedure Enclosures**

The licensee did not complete annual walkdowns of emergency operating procedure enclosures between November 1996 and October 2000. The inspectors determined that the safety significance of not completing annual walkdowns of emergency operating procedure enclosures was very low in that, other than missing alternate standby liquid control chemicals, no significant equipment issues were identified when the enclosures were walked down. Additionally, no actual plant problems occurred which would have required implementation of these enclosures. The failure to perform yearly walkdowns of each emergency operating procedure enclosure, as required by Procedure OSP-0009, is a noncited violation of Criterion V of Appendix B to 10 CFR Part 50. This violation is in the licensee's corrective action program as Condition Report 2000-1723.

Inspection Report# : [2000016\(pdf\)](#)



**Significance:** Mar 31, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure To Maintain A Fire Barrier Between Two Fire Areas Which Contain Redundant Safe Shutdown Equipment**

The licensee did not maintain a 3-hour rated fire barrier between two fire areas which contained redundant safe shutdown

equipment. Specifically, the inspectors identified an 11.5-inch deep hole in a 12-inch concrete fire barrier between the D-Tunnel and the D-Tunnel cable chase fire areas. The inspectors determined that the safety significance of the degraded fire barrier was very low due to the remaining mitigating detection and suppression systems, the fire brigade response, and the low initiating frequency. The failure to maintain a 3-hour rated fire barrier between Fire Areas AB-7 and -18, is a noncited violation of Attachment 4 to Facility Operating License 50-458. This violation is in the licensee's corrective action program as Condition Report 2000-1944.

Inspection Report# : [2000016\(pdf\)](#)



**Significance:** Mar 31, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure To Monitor the Performance of a Standby Service Water Component Against Established Goals To Ensure It Was Capable of Performing Its Maintenance Rule Function**

The licensee did not monitor the performance of standby service water station blackout Valve SWP-AOV599 against established goals in a manner sufficient to assure the valve was capable of supplying cooling water to the Division III emergency diesel generator during a station blackout event. The inspectors determined that the safety significance of the failure to monitor the station blackout valve was very low due to the high likelihood of success of operator recovery actions. The failure to monitor the performance of Valve SWP-AOV599 is a noncited violation of 10 CFR 50.65(a)(1). This violation (EA-01-090) is in the licensee's corrective action program as Condition Report 1999-0263.

Inspection Report# : [2000016\(pdf\)](#)



**Significance:** Mar 31, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

**Licensee Identified Failure To Implement Corrective Actions For a Condition Adverse To Quality**

Criterion XVI of Appendix B to 10 CFR Part 50 requires, in part, that measures shall be established to assure that conditions adverse to quality are promptly identified and corrected. The licensee determined that they failed to implement effective corrective actions to correct a condition adverse to quality involving the performance of loss of offsite power logic system functional testing. Consequently, during Refueling Outage 8, the licensee did not adequately perform Technical Specification Surveillance Requirement 3.3.8.1.4, which required that a logic system functional test of the loss of offsite power instrumentation be completed every 18 months. The issue is described in the licensee's corrective action program reference Condition Report 2000-1813 and Licensee Event Report 50-458/0015.

Inspection Report# : [2000016\(pdf\)](#)

**Significance: SL-IV** Dec 23, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to obtain Commission approval for a change to the USAR**

The licensee made a change to the fuel handling accident dose reported in the Updated Safety Analysis Report for the exclusion area boundary thyroid that represented an increase in consequences without obtaining prior Commission approval as required by 10 CFR 50.59. This violation of 10 CFR 50.59(b)(1) identified above is categorized at Severity Level IV and is being treated as a noncited violation, consistent with Section VI.A1 of the NRC Enforcement Policy. This violation (50-458/0015-01) (EA-00-267-1) was entered into the licensee's corrective action program as Condition Report 2000-2050 (Section 1R02.b). This finding was of very low safety significance because previous and subsequent doses for the fuel handling accident exclusion area boundary thyroid were greater than the value implemented by this change.

Inspection Report# : [2000015\(pdf\)](#)



**Significance:** Nov 11, 2000

Identified By: NRC

Item Type: FIN Finding

**Poor operability assessment of station blackout valve**

Engineering personnel did not properly assess the significance of system air leakage on the ability to maintain station blackout Valve SWP-AOV599 open for the 12-hour duration specified in the probabilistic safety assessment. Specifically, engineering personnel only considered the minimum air pressure necessary to open the valve and did not determine the minimum air pressure needed to maintain the valve in the open position. The poor engineering review of air leakage on station blackout Valve SWP-AOV599 was of very low safety significance in that subsequent air drop testing of the system and engineering analysis demonstrated that the valve would have remained open for the 12-hour duration specified in the probabilistic safety analysis.

Inspection Report# : [2000014\(pdf\)](#)



**Significance:** Nov 11, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to adequately assess and conduct fire drills**

The licensee did not adequately assess or conduct fire drills. During the October 11, 2000, fire brigade drill, the licensee failed to identify and assess several deficiencies. For example, brigade members incorrectly donned protective clothing, the brigade leader did not establish communications between the control room and scene, there was no simulated demonstration of the ability to pressurize a hose or use a hose nozzle, two brigade members did not actively participate in the simulated extinguishing of the fire, and objective criteria were not developed to evaluate the fire brigade's performance. Additionally, the licensee performed unannounced drills within 4 weeks of each other and did not use members of the management staff responsible for plant safety and fire protection to critique unannounced drills. The failure to adequately assess the effectiveness of the fire brigade and to adequately conduct fire brigade drills was a violation of Attachment 4 to Facility Operating License 50-458. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy. This finding was entered in the licensee's corrective action program as Condition Report 2000-1848. The inspectors determined that the safety significance of the fire brigade training issues and fire brigade performance was very low in that plant fire barriers and automatic suppression capability were maintained in accordance with the fire protection program.

Inspection Report# : [2000014\(pdf\)](#)**Significance:** Oct 30, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

**Improper minimum voltage assumed in design calculations**

The specified minimum voltage on the ac buses used to calculate equipment operability was based on an assumption of 95 percent nominal voltage at the Fancy Point substation in lieu of the more limiting technical specification allowable value for the degraded grid voltage relays on the 4.16 kV buses. The technical specification bases stated that these relays were set high enough to ensure that sufficient power was available to the required equipment. However, design calculations did not exist to support this statement. The non-conservative voltage assumption resulted in overestimating the minimum voltage available for motor-operated valves and other loads on the safety-related 480 Vac buses. This discrepancy was identified as a violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," and is being treated as a Non-Cited Violation consistent with Section VI.A of the NRC Enforcement Policy. This violation (50-458/0017-02) was entered into the licensee's corrective action program as Condition Report CR-RBS-2000-1764.

Inspection Report# : [2000017\(pdf\)](#)**Significance:** Oct 30, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to implement the Maintenance Rule**

The licensee failed to identify that a failure of the Division I hydrogen igniter to start in 1999 was a maintenance preventable functional failure. Consequently, when the same failure occurred in 2000, a repeat maintenance preventable functional failure was not identified. As a result, the hydrogen igniter system was not assessed as required for inclusion under the licensee's maintenance rule provisions of 10 CFR 50.65(a)(1). This was identified as a violation of 10 CFR 50.65(a)(1) and additionally of 10 CFR 50.65(a)(2), since the performance monitoring provisions of this section were not properly accomplished. This violation is being treated as a Non-Cited Violation consistent with Section VI.A of the NRC Enforcement Policy. This violation (EA-00-242) (50-458/0017-01) was entered into the licensee's corrective action program as Condition Report CR-RBS-2000-1762.

Inspection Report# : [2000017\(pdf\)](#)**Significance:** Oct 04, 2000

Identified By: NRC

Item Type: FIN Finding

**Review of functional failure criteria for inoperable but available structures, systems, and components**

The inspectors determined that engineering personnel did not properly characterize a maintenance activity associated with Valve E12-F067, which unexpectedly isolated residual heat removal Train C, as a maintenance preventable functional failure. The licensee's maintenance rule determination incorrectly assumed that a functional failure could not occur if the system was considered Technical Specification inoperable. This closes Unresolved Item 50-458/0011-04. The safety significance of this issue was very low because the additional maintenance preventable functional failure did not result in the residual heat removal system exceeding a maintenance rule performance monitoring criteria of less than or equal to one maintenance preventable functional failure in an 18-month period. Additionally, two redundant trains of low pressure coolant injection remained available.

Inspection Report# : [2000013\(pdf\)](#)**Significance:** Oct 04, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

### Failure to properly install scaffolding

The inspectors determined that scaffold components were installed in contact with permanent plant equipment without prior engineering approval. During tours of the plant between July 10 and September 7, 2000, the inspectors identified incorrectly installed scaffolding which contacted systems involving: control air, standby gas treatment, the main plant exhaust stack, and 480 volt switchgear. Additionally, scaffolding was identified which could have affected the operation of an auxiliary building ventilation system damper. The failure to properly install plant scaffolding as required by plant procedures was a violation of Technical Specification 5.4.1.a. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy. This issue was entered in the licensee's corrective action program as Condition Reports 2000-1350, 2000-1577, 2000-1584, and 2000-1657. The inspectors determined that the safety significance of the improperly installed scaffolding was very low because redundant components not affected by scaffolding were available.

Inspection Report# : [2000013\(pdf\)](#)



**Significance:** Oct 04, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

### Failure to implement corrective actions for technical deficiencies associated with procedures

The inspectors determined that the licensee did not implement corrective actions for identified safety-related operations procedural technical deficiencies. Between April 3, 1995, and June 14, 2000, operations personnel did not implement corrective actions to revise eight operating procedures following the licensee's identification of technical deficiencies with the documents. The failure to properly identify and resolve technical deficiencies in procedures was a cross-cutting issue which was representative of a programmatic problem which had the potential to impact safety in that: operations personnel were not familiar with the procedure revision process, supervisory or peer reviews were typically not completed for procedure action requests, the operations procedure group was not aware of the content of the procedure revision backlog, quality assurance audits of procedure controls did not assess the content of the procedure backlog, periodic reviews of most operating procedures were not performed, and technical deficiencies with operations procedures remained uncorrected for several years. The failure to implement corrective actions for conditions adverse to quality was a violation of Criterion XVI of Appendix B to 10 CFR Part 50. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy. This issue was entered in the licensee's corrective action program as Condition Report 2000-1442. The inspectors determined that the technical deficiencies associated with the procedures were of very low safety significance because, although the deficiencies could have caused some confusion and delay, trained operators would likely have been able to recognize the deficiencies and take the appropriate actions.

Inspection Report# : [2000013\(pdf\)](#)



**Significance:** Oct 04, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

### Four examples of the failure to have adequate procedures or follow procedures

The inspectors identified four examples of a failure to have adequate procedures or follow procedures. Specifically, offgas system procedures did not provide instructions which were appropriate to the circumstances in that no limitations on air purge flow rates were specified when operating offgas air purge Valves N64-F004A and -B. Consequently, on August 21, 2000, operations personnel fully opened an air purge valve which resulted in a backpressure on the steam jet air ejectors and subsequent insertion of a manual reactor scram due to lowering main condenser vacuum. Additionally, during reviews of operability evaluations between August 31 and September 11, 2000, the inspectors identified inadequate operability evaluations involving: an inverter, 480 volt breakers, and standby cooling tower switchgear room ventilation. The failure to provide offgas system procedures with instructions appropriate to the circumstances and the failure to adequately perform operability evaluations as required by plant procedures was a violation of Criterion V of Appendix B to 10 CFR Part 50. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy. This issue was entered in the licensee's corrective action system as Condition Reports 2000-1506, 2000-1553, 2000-1572, and 2000-1583. The inspectors determined that the safety significance of the inadequate procedure and loss of main condenser vacuum with manual reactor scram event was very low. The reactor trip was uncomplicated and the main condenser remained in service throughout the duration of the scram recovery actions. Additionally, all equipment and operator responses following the event were appropriate. The safety significance of the inadequate operability evaluations was also very low in that subsequent operability evaluations determined that the affected components would have performed their intended safety functions (Sections 1R14 and 1R15). The inspectors determined that the safety significance of the inadequate procedure and loss of main condenser vacuum with manual reactor scram event was very low. The reactor trip was uncomplicated and the main condenser remained in service throughout the duration of the scram recovery actions. Additionally, all equipment and operator responses following the event were appropriate. The safety significance of the inadequate operability evaluations was also very low in that subsequent operability evaluations determined that the affected components would have performed their intended safety functions.

Inspection Report# : [2000013\(pdf\)](#)



**Significance:** Aug 05, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to implement corrective actions to locked valves**

The inspectors determined that the licensee did not implement adequate corrective actions in response to noncited violation 50-458/9913-01, to ensure manual valves in the main flow path of safety related systems were locked. Consequently, the inspectors identified approximately 70 manual valves which were not locked as required by plant procedures and the Updated Safety Analysis Report. The failure to implement corrective actions was a violation of Criterion XVI of Appendix B to 10 CFR Part 50. This issue was entered into the licensee's corrective action system as Condition Reports 1999-1557 and 2000-1405. The safety significance of this issue was very low because the unlocked manual valves were in the correct position for plant operation. Therefore, the safety function of the associated systems was not affected.

Inspection Report# : [2000011\(pdf\)](#)**Significance:** Aug 05, 2000

Identified By: Licensee

Item Type: NCV NonCited Violation

**Failure to isolate drywell purge isolation valve penetrations**

The licensee failed to adequately perform surveillance testing to verify that the drywell purge isolation valves were sealed closed. Consequently, two drywell penetrations were inoperable during MODE 1 operations. The failure to seal closed the affected drywell purge isolation valve penetrations by isolating their motive air was a violation of Technical Specification 3.6.5.3. The circumstances involving this issue were discussed in Licensee Event Report 50-458/0009. This issue was entered into the licensee's corrective action system as Condition Report 2000-1139. The safety significance of this issue was very low because the drywell purge isolation valves were administratively controlled by tags in the main control room and a caution note in plant procedures specified that drywell purge was not to be operated while in MODE 1, 2, or 3. Therefore, the inspectors determined that the drywell purge valves should have remained closed during accident conditions.

Inspection Report# : [2000011\(pdf\)](#)**Significance:** SL-IV Aug 05, 2000

Identified By: NRC

Item Type: VIO Violation

**Failure to complete monthly inspections of portable fire extinguishers**

The inspectors determined that fire protection personnel did not implement corrective actions to restore compliance in response to a minor violation identified on April 10, 2000, which involved the failure to complete inspections of portable fire extinguishers located in high radiation areas. During tours of the auxiliary building on June 25, 2000, the inspectors again determined that fire protection personnel were not completing inspections of portable fire extinguishers located in high radiation areas. The failure to perform inspections of fire extinguishers was a Severity Level IV violation of License Condition 1 of Attachment 4 to Facility Operating License No. NPF-47. This issue was entered into the licensee's corrective action system as Condition Report 2000-0969. Fire protection personnel failed to implement corrective actions to restore compliance within a reasonable period of time. The safety significance of this issue was very low because redundant methods of automatic and manual fire suppression were available.

Inspection Report# : [2000011\(pdf\)](#)Inspection Report# : [2000016\(pdf\)](#)**Significance:** Jun 24, 2000

Identified By: NRC

Item Type: FIN Finding

**Unnecessary Disabling of Suppression Pool Cooling Function**

The inspectors determined that engineering personnel provided inaccurate information to operations personnel on the functional capability of the residual heat removal heat exchanger bypass valve following the inspectors' discovery that the antirotation device had fallen off. Consequently, operations personnel took conservative action to disable the suppression pool cooling function of residual heat removal Train A for approximately 36 hours. Disabling the residual heat removal Train A suppression pool cooling function had a small impact on safety and affected the safety function of a train of a mitigating system. This issue was of very low risk significance because redundant methods of suppression pool cooling remained operable and unavailability time was less than that allowed by the Technical Specifications.

Inspection Report# : [2000010\(pdf\)](#)**Significance:** Jun 24, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to specify postmaintenance requirements in maintenance packages**

The inspectors determined that planning personnel failed to identify required postmaintenance testing requirements in four maintenance packages. The failure to identify the appropriate postmaintenance testing requirements as required by planning procedures was considered a violation of Technical Specification 5.4.1.a. This issue was entered into the licensee's corrective action

program as Condition Reports 2000-1010 and 2000-1199. The risk significance of this issue was very low because in-process maintenance activities provided assurance that the affected components were functionally capable.

Inspection Report# : [2000010\(pdf\)](#)



**Significance:** Jun 24, 2000

Identified By: Licensee

Item Type: NCV NonCited Violation

#### **Failure to perform functional test of containment unit coolersupply valve**

The failure to perform functional testing of standby service water supply Valve SWP-MOV502B following breaker maintenance resulted in the Division II primary containment unit cooler being inoperable while the facility was in MODE 1 between February 9 and March 4, 2000. The failure to restore the Division II containment unit cooler within 7 days with the facility in MODE 1 was considered a violation of Technical Specification 3.6.1.7. The circumstances involving this issue were discussed in Licensee Event Report 50-458/00-05. This issue was entered into the licensee's corrective action program as Condition Report 2000-0736. The inspectors and a senior reactor analyst used the significance determination process to evaluate the risk significance of this issue. The most limiting initiating event was an anticipated transient without scram. The risk significance for this event was very low because one containment unit cooler and two residual heat removal trains in the suppression pool cooling mode were available for mitigation.

Inspection Report# : [2000010\(pdf\)](#)



**Significance:** May 06, 2000

Identified By: NRC

Item Type: FIN Finding

#### **Control Room Configuration Not Consistent With Simulator**

The inspectors identified three simulator fidelity issues during a walkdown of selected panels in the simulator which involved an out of service reboiler vent valve, an out of service suppression pool temperature indication, and an elevated containment temperature indication. Additionally, the licensee identified four deficiencies during a subsequent audit which involved a feedwater heater controller, a deenergized regenerative evaporator supply shut-off valve, an average power range monitor, and suppression pool cooling Pump 1B. The risk significance of this issue was very low because the deficiencies would not have significantly impacted the effectiveness of simulator training.

Inspection Report# : [2000009\(pdf\)](#)



**Significance:** May 06, 2000

Identified By: NRC

Item Type: FIN Finding

#### **Inadvertent Engineered Safety Features Isolation**

During the restoration of the reactor core isolation cooling system following the steam supply pressure low channel functional test, an inadvertent engineered safety features actuation resulted in the isolation of the reactor core isolation cooling system. The subsequent investigation of the event by engineering personnel determined that instrument and controls personnel inadvertently contacted an adjacent terminal which caused an engineered safety features actuation of the reactor core isolation cooling system. The risk significance of the issue was very low because additional injection systems were operable.

Inspection Report# : [2000009\(pdf\)](#)



**Significance:** May 06, 2000

Identified By: NRC

Item Type: FIN Finding

#### **Residual heat removal function not included in the Maintenance Rule scope**

The function of the residual heat removal minimum flow valves, as described in the bases for Technical Specification 3.3.5.1, "Emergency Core Cooling System Instrumentation," was not included in the list of functions included in the maintenance rule scope for the residual heat removal system. Consequently, maintenance rule functional failures associated with residual heat removal minimum flow Valve E12-F064A opening when aligning the residual heat removal system to the shut down cooling mode of operation were not identified by engineering personnel. The risk significance of this issue was very low because the improper characterization of the failure of Valve E12-F064A did not significantly impact implementation of the maintenance rule for the residual heat removal system.

Inspection Report# : [2000009\(pdf\)](#)



**Significance:** May 06, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to implement corrective actions to prevent recurrence of inadvertent opening of residual heat removal minimum flow valve**

The licensee did not implement corrective actions following a previous occurrence to preclude opening of residual heat removal minimum flow Valve E12-F064A and subsequent loss of approximately 50 gallons of reactor vessel inventory while aligning the residual heat removal system to the shutdown cooling mode of operation. The risk significance of this issue was very low because redundant methods of inventory injection were either operating or available. This item was entered in the licensee's corrective action program as Condition Report 2000-0947.

Inspection Report# : [2000009\(pdf\)](#)



**Significance:** May 06, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

**Three examples of a failure to follow procedures involving debris in the drywell, unqualified coatings in the drywell, and scram time testing**

Maintenance and engineering personnel did not adequately perform a zone inspection of the drywell as required by Maintenance Action Item 329427, "Drywell Zone Inspection - All Levels." Specifically, the inspectors identified a significant amount of debris during a drywell closeout inspection which had not been identified during the licensee's zone inspection or during a management closeout tour. Maintenance and engineering personnel did not adequately perform a coatings inspection of the drywell as required by Maintenance Action Item 333068, "Drywell Coating Inspection." Specifically, the inspectors identified 400 to 500 square feet of degraded coatings during a drywell closeout inspection which had not been identified during the licensee's coatings inspection or during a management closeout tour. The risk significance of the drywell issues was very low because the emergency core cooling system suction strainers would not have been adversely affected. Operations and engineering personnel did not complete a control rod drop accident analysis as required by Procedure STP-500-0705, "Rod Sequence Verification When Rod Pattern Control System Is Bypassed." Specifically, operations personnel withdrew Control Rod 44-13 beyond the banked position withdrawal sequence restraints without having completed a control rod drop accident analysis. The risk significance of this issue was low because the licensee subsequently determined that the plant remained within the boundaries of the control rod drop accident analysis. These items were entered in the licensee's corrective action program as Condition Reports 2000-0911, 2000-0904, and 2000-0941.

Inspection Report# : [2000009\(pdf\)](#)

## Barrier Integrity



**Significance:** May 06, 2000

Identified By: NRC

Item Type: FIN Finding

**Incomplete Maintenance Rule Determination**

The licensee's maintenance rule functional failure review of the failure of Valve E51-F076 to close only considered the effect on reactor core isolation cooling system operation and did not evaluate the effect on the containment isolation function. The risk significance of this issue was very low because the improper characterization of the failure of Valve E51-F076 did not significantly impact implementation of the maintenance rule for the reactor core isolation cooling system.

Inspection Report# : [2000009\(pdf\)](#)

## Emergency Preparedness

**Significance:** TBD Mar 20, 2002

Identified By: NRC

Item Type: AV Apparent Violation

**Failure to develop a range of protective actions, disseminate emergency response information, and maintain the emergency plan for members of the public located within the owner controlled area**

The inspector identified one preliminary finding involving the failure to develop a range of protective actions, disseminate emergency response information, and maintain the emergency plan in accordance with the requirements of 10 CFR 50.54(q), planning standards §50.47(b)(10) and (7), and 10 CFR Part 50, Appendix E, section IV(G) pertaining to members of the public located in the owner controlled area. Three apparent violations are associated with the finding. The issues involved: (1) a failure to establish effective means or provisions for warning, advising, evacuating, and monitoring members of the public during an owner controlled area evacuation, (2) a failure to disseminate emergency response information to the public using facilities in the River Bend Station owner controlled area, and (3) a failure to update the emergency plan and procedures after the public was permitted access to facilities in the owner controlled area. The licensee has entered these issues into its corrective action program in CR-RBS-2001-1713 and CR-RBS-2002-0183. This issue was preliminarily determined to have substantial safety significance (Yellow) because it



represented a failure to meet a risk-significant emergency preparedness planning standard.

Inspection Report# : [2002005\(pdf\)](#)



**Significance:** Dec 20, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

**Failure to flow test self-contained breathing apparatus regulators**

Technical Specification 5.4.1 requires the implementation of procedures listed in Regulatory Guide 1.33, Appendix A. Section 4.8 of Procedure RPP-022, "Respiratory Protection Equipment Cleaning, Inspection, and Repair," requires self-contained breathing apparatus regulators to be flow tested in accordance with the manufacture's recommendations every 2 years. On April 30, 2001, the licensee identified 48 self contained breathing apparatus regulators that were past due for their 2-year flow test. This event is documented in the licensee's corrective action program as CR-RBS-2001-0551. This violation is being treated as a noncited violation. The safety significance of this violation was determined to be very low by the Emergency Preparedness Safety Significance Determination Process because there was no failure to meet an emergency planning standard or risk significant planning standard.

Inspection Report# : [2001004\(pdf\)](#)



**Significance:** Dec 20, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

**Failure to perform hydrostatic testing of self contained breathing apparatus cylinders**

Technical Specification 5.4.1 requires the implementation of procedures listed in Regulatory Guide 1.33, Appendix A. Section 4.11 of Procedure RPP-022, "Respiratory Protection Equipment Cleaning, Inspection, and Repair," requires self-contained breathing apparatus cylinders be inspected and undergo hydrostatic testing every 3 years by a Department of Transportation approved test vendor. On December 12, 2001, the licensee identified 48 self-contained breathing apparatus cylinders that were in use and had not been hydrostatically tested within the last 3 years. This event is documented in the licensee's corrective action program as CR-RBS-2001-1666. This violation is being treated as a noncited violation. The safety significance of this violation was determined to be very low by the Emergency Preparedness Safety Significance Determination Process because there was no failure to meet an emergency planning standard or risk significant planning standard.

Inspection Report# : [2001004\(pdf\)](#)

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## Occupational Radiation Safety



**Significance:** Oct 05, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

**Failure to reduce dose margin**

10 CFR 20.1201(f) requires licensees to reduce the dose that an individual may be allowed to receive in the current year by the amount of dose received while employed by any other person. On July 25, 2001, the licensee identified that an employee, who supported Grand Gulf Station during their refueling outage and received approximately 1,100 millirem, returned to the site and entered the controlled access area to perform work without having his exposure margin reduced. This event is documented in the licensee's corrective action program as CR-RBS-2001-0860. This violation is being treated as a noncited violation. The safety significance of this finding was determined to be very low by the Occupational Radiation Safety Significance Determination Process because there was no overexposure or substantial potential for an overexposure, and the ability to assess dose was not compromised.

Inspection Report# : [2001004\(pdf\)](#)



**Significance:** Oct 05, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

**Technical Specification 5.4.1 violation for failure to follow procedure**

Technical Specification 5.4.1 requires written procedures to perform radiological surveys. Station Procedure RPP-006, "Radiological Surveys," requires that a survey including dose rates and contamination levels be conducted prior to allowing workers to access radiologically restricted areas that are not surveyed on a routine basis. On October 1, 2001, the licensee identified that workers entered the reactor water cleanup pump room, a locked high radiation area that is not routinely surveyed, without performing a current survey. This event is documented in the licensee's corrective action program as CR-RBS-2001-1264. This violation is being

treated as a noncited violation. The safety significance of this finding was determined to be very low by the Occupational Radiation Safety Significance Determination Process because there was no overexposure or substantial potential for an overexposure, and the ability to assess dose was not compromised.

Inspection Report# : [2001004\(pdf\)](#)



**Significance:** Oct 05, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

**Inaudible alarm for personal electronic dosimeter used in a high radiation area**

Technical Specification 5.7.1.b states, in part, that any individual or group of individuals permitted to enter a high radiation area shall be provided with a radiation monitoring device that continuously integrates the radiation dose rate and alarms when a preset integrated dose is received. On October 5, 2001, the licensee identified that an individual working in a high radiation area was unable to hear his electronic dosimeter alarming on the dose accumulated alarm. Because the individual was unable to respond to the aural alarm, the device was inadequate to fulfill its Technical Specification required function. This violation is being treated as a noncited violation and is in the licensee's corrective action program as CR-RBS-2001-1325. The safety significance of this finding was determined to be very low by the occupational radiation safety significance determination process because there was no overexposure, no substantial potential for overexposure, and no impact on the ability to assess dose.

Inspection Report# : [2001007\(pdf\)](#)



**Significance:** Sep 28, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to review work and identify dose saving measures.**

The inspector identified a noncited violation of very low safety significance because the licensee's work control process failed to ensure that all work activities were reviewed to identify opportunities to reduce radiation doses. The failure resulted from the lack of an implementing procedure that required the review of temporary electrical power installations to take into account factors for minimizing radiation exposure to workmen, in violation of Technical Specification 5.4.1. A total of 94 temporary power installations were scheduled for the outage but had not been reviewed. Three installations had been completed before the identification of the problem. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy. The licensee placed this item in its corrective action program as CR-RBS-2001-1149. The failure to implement dose saving measures had a credible impact on safety. The occurrences involved workers' unplanned, unintended doses that resulted from actions that were contrary to licensee procedures and Technical Specifications. However, the safety significance was determined to be very low because there was no exposure in excess of regulatory limits or significant potential for exposure in excess of regulatory limits.

Inspection Report# : [2001003\(pdf\)](#)



**Significance:** Jun 23, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to keep radiation workers informed of radiological conditions**

The inspectors identified a noncited violation of 10 CFR 19.12(a) for failure to keep radiation workers informed of radiological conditions. Specifically, personnel did not receive a radiological hazards briefing prior to a high radiation area entry as required by NRC regulations. This finding was greater than minor and had a credible impact on safety because of the potential for unintended and unplanned dose resulting from actual radiological conditions. The inspectors determined that this failure to brief radiation workers prior to entry into a high radiation area was of very low safety significance by the Occupational Radiation Safety Significance Determination Process since it was not an as low as reasonably achievable issue, the ability to assess dose was not compromised, and there was no actual or substantial potential exposure in excess of 10 CFR Part 20 dose limits. The safety significance of the condition was further mitigated by the conservative setpoints on the alarming dosimetry worn by the personnel during the entry.

Inspection Report# : [2001002\(pdf\)](#)

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## Public Radiation Safety



**Significance:** Mar 31, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

**Failure To Survey Licensd Radioactive Materials**

10 CFR 20.1501(a) states, in part, each licensee shall make or cause to be made, surveys that are reasonable under the circumstances to evaluate radiation levels, concentrations or quantities of radioactive material, and potential radiological hazards. On October 9, 2000, the licensee identified three examples of detectable licensed radioactivity that was unconditionally released from the controlled access area, as described in the licensee's corrective action program, reference Condition Report 2000-1788. Inspection Report#: [2000016\(pdf\)](#)



**Significance:** Mar 31, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

**Failure To Control Liquid Effluent Release Rates Below the Value Specified On Two Discharge Permits**

Technical Specification 5.5.1.b requires that the offsite dose calculation manual contain radioactive effluent controls. Offsite Dose Calculation Manual 7.2.2.1 states, in part, that release rates shall be administratively controlled to maintain the fraction of 10 CFR Part 20 limits less than or equal to 0.3. Station Procedure SOP-0113, step 5.6.20, requires that the LWS-FIC197 (liquid effluent discharge flow) setpoint is adjusted to the desired flow rate not to exceed the value specified on the liquid radwaste discharge permit. On February 26, 2000 (Permit 2000027) and April 15, 2000 (Permit 2000080), liquid discharges were made which exceeded the maximum allowable release rate, as described in the licensee's corrective action program (Condition Reports 2000-0403 and -0982).

Inspection Report#: [2000016\(pdf\)](#)



**Significance:** Oct 04, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to properly classify the radioactive waste in two shipments**

The inspector identified that the licensee did not properly classify the radioactive waste in two shipments. Radioactive Waste Shipments 00-058 and 00-059 contained sock type mechanical filters; however, there was no 10 CFR Part 61 waste stream analysis for any mechanical filters. Instead, the licensee utilized a bead resin waste stream analysis to classify the shipments. The licensee had not confirmed, through sampling and analysis, that these two waste streams were similar. Because the licensee had not sampled and analyzed the sock type mechanical filter waste stream, it did not provide reasonable assurance that the indirect method of identifying radionuclides was valid. Therefore, the radioactive waste in Radioactive Material Shipments 00-058 and 00-059 were not properly classified in accordance with 10 CFR 61.55 and were two examples of a violation of 10 CFR Part 20, Appendix G. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy. This issue was entered in the licensee's corrective action program as Condition Report 2000-1463. The inspectors determined that the improper classification of radioactive material shipments was of very low safety significance because the shipments were not underclassified.

Inspection Report#: [2000013\(pdf\)](#)

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## Physical Protection



**Significance:** Jun 23, 2001

Identified By: NRC

Item Type: FIN Finding

**Failure to prevent a simulated adversary from gaining access to a vital area**

During an Operational Safeguards Response Evaluation conducted on June 19-23, 2000, a vulnerability in the licensee's protective strategy was identified that resulted in the simulated loss of a target set. Further details (safeguards information) are available in NRC Inspection Report 50-458/2000-12. The issue was entered into the licensee's corrective action program as Condition Report CR-RBS-2000-1302. The safety significance of this finding was determined to be very low by the Physical Protection Significance Determination Process because it was not repeatable or predictable. The issue was more than minor because the potential loss of a target set represents a credible impact on safety and impacts a key performance attribute of the physical protection cornerstone.

Inspection Report#: [2001002\(pdf\)](#)



**Significance:** May 09, 2001

Identified By: NRC

Item Type: FIN Finding

**Failure to prevent a simulated adversary from gaining access to a vital area**

During an Operational Safeguards Response Evaluation conducted on June 19-23, 2000, a vulnerability in the licensee's protective strategy was identified that resulted in the simulated loss of part of a target set. Further details (safeguards information) are available

in NRC Inspection Report 50-458/2000-12. The issue was entered into the licensee's corrective action program as Condition Report CR-RBS-2000-1302. The safety significance of this finding was determined to be very low by the Physical Protection Significance Determination Process because it was not repeatable or predictable. The issue was more than minor because the potential loss of a target set represents a credible impact on safety and impacts a key performance attribute of the physical protection cornerstone. Inspection Report# : [2001002\(pdf\)](#)

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## Miscellaneous

**Significance: N/A** Dec 13, 2001

Identified By: NRC

Item Type: FIN Finding

### **Overall, an effective corrective action program was in place**

The licensee was effective at identifying problems and putting them into the corrective action program. However, the licensee's corrective action program procedures did not require an additional review of reportability when an operability determination was subsequently modified. In several instances documentation for past operability and reportability decisions was lacking. However, no instances were identified in which the licensee failed to make a required report. There were instances in which the licensee conducted reviews and evaluations as a part of their corrective actions that were related to events or conditions, but did not document these activities. The licensee implemented corrective actions, when specified, in a timely manner. The licensee performed effective audits and self-assessments. During interviews conducted during this inspection, the site staff expressed open willingness to input safety issues into the problem identification and resolution program.

Inspection Report# : [2001008\(pdf\)](#)

**Significance: N/A** Dec 13, 2001

Identified By: NRC

Item Type: FIN Finding

### **Weak reportability evaluation and past operability assessment performance**

In several instances, licensee records lacked evidence that evaluations for past-operability assessments were performed when equipment or systems failed routine surveillance tests. Further, in some instances, the licensee determined reportability before relevant evaluations were completed. Finally, as a matter of routine, the licensee did not re-assess the reportability of an event or condition following a revision to an operability determination subsequent to the initial reportability determination. However, no instances were identified in which the licensee failed to make a required report. The NRC evaluated the issue using the significance and documentation determination process of NRC Inspection Manual Chapter 0610\*, "Power Reactor Inspection Reports," Appendix B, "Thresholds for Documentation." The NRC determined that the described reportability determination weaknesses, if left uncorrected, could cause the same issues under the same conditions to become a more significant safety concern, due to the latent potential to fail to make a required report. The NRC determined that the issue did not apply to any specific cornerstone and was, therefore, not subject to the Significance Determination Process. The NRC also determined that the issue had the potential to impact the NRC's ability to perform its regulatory function, specifically, the ability of the NRC to monitor compliance with safety standards. Therefore, the NRC considered the issue to have extenuating circumstances that warranted documentation as a finding of No Color.

Inspection Report# : [2001008\(pdf\)](#)

**Significance: N/A** Dec 18, 2000

Identified By: NRC

Item Type: FIN Finding

### **Acceptable Corrective Action Program**

The licensee adequately identified problems and put them into the corrective action program. The licensee adequately used risk in prioritizing the extent to which individual problems would be evaluated and in establishing schedules for implementation of corrective actions. The licensee implemented corrective actions in a timely manner. Workers at the site expressed willingness to input safety issues into the problem identification and resolution program. However, the licensee's emergency diesel generator team, established to increase emphasis on emergency diesel generator reliability, was not involved in the recent operability assessment and subsequent root cause evaluations of an apparent concurrent inoperability of the Division I and II emergency diesel generators. This performance was not consistent with the expectation conveyed in a recent licensee response to agency concerns regarding the emergency diesel generator reliability at River Bend Station (Entergy Operations, Inc., Letter G9.5, G15.4.1 dated June 12, 2000). Further, the licensee's failure to make an early identification of the extent of condition was partly the result of a human performance error that reported the wrong piece of equipment as needing repair. The recent NRC Inspection Report 50-458/00-14 identified human performance errors as a cross-cutting finding at the site.

Inspection Report# : [2000018\(pdf\)](#)

**Significance: N/A** Nov 11, 2000

Identified By: NRC

Item Type: FIN Finding

### **Declining human performance trend**

The inspectors identified a declining human performance trend with failure of personnel to adhere to plant procedural requirements or to maintain a questioning attitude as common elements. Approximately 27 findings, which were documented as violations of NRC

requirements during the previous 12 months, had a direct or credible impact on safety. This adverse performance trend is considered a cross-cutting finding not captured in individual findings.

Inspection Report# : [2000014\(pdf\)](#)

**Significance: N/A** Nov 11, 2000

Identified By: NRC

Item Type: FIN Finding

**Declining problem identification and resolution trend**

The inspectors identified a declining problem identification and resolution trend with not implementing timely corrective actions as a common element. Approximately 9 findings, which were documented as violations of NRC requirements during the previous 12 months, had a direct or credible impact on safety. This adverse performance trend is considered a cross-cutting finding not captured in individual findings.

Inspection Report# : [2000014\(pdf\)](#)

**Significance: SL-IV** Nov 11, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

**Unauthorized use of computer at an operations watch station**

Operations personnel inappropriately accessed nonjob related information on the operations shift superintendent's computer. The participation in potentially distracting activities at the operations shift superintendent's watch station was a violation of Technical Specification 5.4.1.a. This violation is being treated as a noncited violation consistent with Section VI.A.1 of the NRC Enforcement Policy. This finding was entered in the licensee's corrective action program as Condition Report 2000-1709. The inspectors determined that the safety significance of the potentially distracting activity at the operations shift superintendent's watch station was very low in that no actual plant problems occurred during the time in question which would have required the operations shift superintendent's response. The inspectors also determined that the finding was representative of an isolated human performance cross-cutting issue involving the failure to follow plant procedures.

Inspection Report# : [2000014\(pdf\)](#)

Last modified : July 22, 2002