River Bend 1
1Q/2007 Plant Inspection Findings

Initiating Events

Significance: G Feb 28, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to identify and correct discrepancies between the design function and observed response of the feedwater isolation valves prior to reactor restart
An NRC-identified noncited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Actions," was identified for the failure of licensee personnel to identify and correct a condition adverse to quality in a timely manner. Specifically, following the reactor scram on October 19, 2006, licensee personnel failed to properly evaluate discrepancies between the expected response of Feedwater Isolation Valves FWS-MOV7A and FWS-MOV7B, operator observation of valve indication, and indication of actual plant parameters affected by the valves, prior to restarting the reactor on October 22, 2006.

This violation was greater than minor because it was associated with the problem identification and resolution and the human performance attributes of the initiating events cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown, as well as power operations. A Phase 2 estimation was required, as determined by the Manual Chapter 0609, Appendix A, Phase 1 Worksheet, "SDP Phase 1 Screening Worksheet for Initiating Events, Mitigation Systems, and Barriers Cornerstones," because the associated performance deficiency represented an increase in the likelihood of both a reactor trip and the likelihood that the power conversion system would be unavailable. Using the appropriate plant-specific Phase 2 worksheets, this violation was determined to have very low safety significance because the violation only increased the initiating event likelihood by a very small amount and the power conversion system was actually recoverable. This finding has a cross-cutting aspect in the area of problem identification and resolution, in that, the licensee did not implement a corrective action program that ensured timely resolution of conditions adverse to quality.

The licensee entered this performance deficiency into their corrective action program for resolution.
Inspection Report# : 2006013 *(pdf)*

Significance: G Feb 28, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure of reactor operators to perform an adequate control board walkdown resulting in failure to identify that feedwater isolation valves were closing
A self-revealing noncited violation of Technical Specification, Section 5.4, "Procedures," was identified for the failure of licensee personnel to accomplish activities affecting quality in accordance with prescribed conduct-of-operations procedures. Specifically, on October 19, 2006, two senior reactor operators (one on-coming and one off-going), conducting turnover activities, and the at-the-controls reactor operator failed to identify that the push buttons for Main Feedwater Isolation Valves 7A and 7B were out of alignment upon panel inspection during panel walk downs conducted in accordance with Entergy Operations Procedure EN-OP-115, "Conduct of Operations," Revision 2.

This violation was greater than minor because it was associated with the human performance attribute of the initiating events cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown, as well as power operations. A Phase 2 estimation was required, as determined by the Manual Chapter 0609, Appendix A, Phase 1 Worksheet, "SDP Phase 1 Screening Worksheet for Initiating Events, Mitigation Systems, and Barriers Cornerstones," because the associated performance deficiency represented an increase in the likelihood of both a reactor trip and the likelihood that the power conversion system would be unavailable. Using the appropriate plant-specific Phase 2 worksheets, this violation was initially determined to have very low safety significance because the violation only increased the initiating event likelihood by a very small amount and

the power conversion system was actually recoverable. This violation has a cross-cutting aspect in the area of human performance, work practices component associated with the failure to effectively use human error prevention techniques, such as self and peer checking.

The licensee entered this performance deficiency into their corrective action program for resolution.
Inspection Report# : 2006013 *(pdf)*

Significance: G Feb 28, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Licensee personnel failed to identify, place in the corrective action program, and correct deficiencies with Chart Recorder C33-R608 prior to restarting the reactor
An NRC-identified noncited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Actions," was identified for the failure of licensee personnel to identify and correct a condition adverse to quality in a timely manner. Specifically, on October 19, 2006, a licensed reactor operator noted a nonconforming condition with Strip Chart Recorder C33-R608 following the fall of the chart paper mechanism and discussed this with his supervision. However, this condition was not documented in the condition reporting process, the recorder was not properly inspected and repaired by qualified maintenance technicians prior to reactor restart, and at least one member of the on-site safety review committee may have been misinformed about the extent and composition of the evaluation and repair activities conducted on control room recorders prior to authorizing plant restart on October 22, 2006.

This finding was greater than minor because it was associated with the problem identification and resolution and the human performance attributes of the initiating events cornerstone and affected the associated cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations because the chart recorder was left in a condition that had resulted in a reactor scram. A Phase 2 estimation was required, as determined by the Manual Chapter 0609, Appendix A, Phase 1 Worksheet, "SDP Phase 1 Screening Worksheet for Initiating Events, Mitigation Systems, and Barriers Cornerstones," because the associated performance deficiency represented an increase in the likelihood of both a reactor trip and the likelihood that the power conversion system would be unavailable. Using the appropriate plant-specific Phase 2 worksheets, this finding was determined to be of very low safety significance because it only impacted the plant for a 2-day period. This finding has a cross-cutting aspect in the area of problem identification and resolution, in that, the licensee did not implement a corrective action program with a low threshold for identifying issues.

The licensee entered this performance deficiency into their corrective action program for resolution.
Inspection Report# : 2006013 *(pdf)*

Significance: G Feb 28, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Licensee personnel failed to provide complete corrective actions to address the probable cause of the October 19, 2006, scram, prior to restarting the reactor
An NRC-identified noncited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Actions," was identified for the failure of licensee personnel to correct a condition adverse to quality. Specifically, following the reactor scram on October 19, 2006, licensee personnel determined that the probable cause of the scram was a human performance error while handling the chart recorder. However, while significant corrective actions were taken, these actions did not completely address this probable cause prior to restarting the reactor on October 22, 2006, in that, expectations for working over control panels were not fully conveyed.

This violation was greater than minor because it was associated with the problem identification and resolution and the human performance attributes of the initiating events cornerstone and affected the associated cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during power operations because expectations and/or guidance were not provided to licensed operators on how to correct paper take up problems on strip chart recorders while minimizing the risk of dropping components on controls. A Phase 2 estimation was required, as determined by the Manual Chapter 0609, Appendix A, Phase 1 Worksheet, "SDP Phase 1 Screening Worksheet for Initiating Events, Mitigation Systems, and Barriers Cornerstones," because the associated performance deficiency represented an increase in the likelihood of both a reactor trip and the likelihood that the power conversion system would

be unavailable. Using the appropriate plant-specific Phase 2 worksheets, this violation was determined to be of very low safety significance because it only impacted the plant for a limited period of time. This finding has a cross-cutting aspect in the area of problem identification and resolution, in that, the licensee did not implement a corrective action program that ensured timely resolution of conditions adverse to quality.

The licensee entered this performance deficiency into their corrective action program for resolution.
Inspection Report# : 2006013 *(pdf)*

Mitigating Systems

Significance: G Feb 28, 2007
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to place the reactor mode switch in the SHUTDOWN position following a reactor scram as required by abnormal operating procedures
A self-revealing noncited violation of Technical Specification, Section 5.4, "Procedures," was identified for the failure of licensee personnel to accomplish activities affecting quality in accordance with prescribed procedures. Specifically, the at-the-controls operator failed to perform an immediate action required by Abnormal Operating Procedure AOP-0001, "Reactor Scram," Revision 22, which required him to place the mode switch in the SHUTDOWN position. The failure to reposition the mode switch resulted in an inadvertent main steam isolation, complicating the scram recovery.

This violation was greater than minor because it was associated with the human performance attribute and affected the mitigating systems cornerstone objective to ensure the availability, reliability, or function of a system or train in a mitigating system. A Phase 2 estimation was required because this violation represented a loss of function of the steam side of the power conversion system as determined by the Manual Chapter 0609, Appendix A, Phase 1 Worksheet, "SDP Phase 1 Screening Worksheet for Initiating Events, Mitigation Systems, and Barriers Cornerstones." Using the appropriate plant-specific Phase 2 worksheets, this violation was determined to have very low safety significance because the errors only impacted the plant for a short period of time and the power conversion system was actually recoverable. This violation has a cross-cutting aspect in the area of human performance, work practices component associated with the failure to effectively use human error prevention techniques.

The licensee entered this performance deficiency into their corrective action program for resolution.
Inspection Report# : 2006013 *(pdf)*

Significance: G Feb 28, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to verify that the reactor mode switch was in the SHUTDOWN position following a reactor scram as required by emergency operating procedures
An NRC-identified noncited violation of Technical Specification, Section 5.4, "Procedures," was identified for the failure of licensee personnel to accomplish activities affecting quality in accordance with prescribed procedures. Specifically, the control room supervisor failed to follow Emergency Operating Procedure EOP-0001, "Reactor Pressure Vessel Control," Revision 20, which required him to verify that the mode switch was in the SHUTDOWN position. The failure to reposition the mode switch resulted in an inadvertent main steam isolation, complicating the scram recovery.

This violation was greater than minor because it was associated with the human performance attribute and affected the mitigating systems cornerstone objective to ensure the availability, reliability, or function of a system or train in a mitigating system. A Phase 2 estimation was required because this violation represented a loss of function of the steam side of the power conversion system, as determined by the Manual Chapter 0609, Appendix A, Phase 1 Worksheet, "SDP Phase 1 Screening Worksheet for Initiating Events, Mitigation Systems, and Barriers Cornerstones." Using the appropriate plant-specific Phase 2 worksheets, this violation was determined to have very low safety significance because the errors only impacted the plant for a short period of time and the power conversion system was actually recoverable. This violation has a cross-cutting aspect in the area of human performance, work practices component associated with the failure to provide

adequate management oversight in this situation.

The licensee entered this performance deficiency into their corrective action program for resolution.
Inspection Report# : 2006013 *(pdf)*

Significance: G Feb 28, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Operators failed to permit the safety/relief valves to cycle in automatic and to manually operate the safety/relief valves without driving level outside the prescribed level band as required by AOPs
An NRC-identified noncited violation of Technical Specification, Section 5.4, "Procedures," was identified for the failure of licensee personnel to accomplish activities affecting quality in accordance with prescribed procedures. Specifically, licensed operators operated the safety/relief valves manually contrary to Abnormal Operating Procedure AOP-0001, OSP-0053, Attachment 1B, "Post Scram Pressure Control Strategies," Revision 5, requirements to operate them in automatic with the main steam isolation valves closed. Additionally, operators failed to manually operate the safety/relief valves, as required, to control pressure in the prescribed pressure band, without driving level outside the prescribed level band.

This violation was more than minor because it was associated with the human performance attribute and affected the mitigating systems cornerstone objective to ensure the availability, reliability, or function of a system or train in a mitigating system because manual actions affect licensed operator capability to perform simultaneous actions. Using the Manual Chapter 0609, Appendix A, Phase 1 Worksheet, "SDP Phase 1 Screening Worksheet for Initiating Events, Mitigation Systems, and Barriers Cornerstones," the finding was of very low safety significance because it did not represent a loss of safety function nor did it screen as potentially significant to external initiators. This violation has a cross-cutting aspect in the area of human performance, work practices component associated with the effectiveness of communicating expectations regarding procedural compliance.

The licensee entered this performance deficiency into their corrective action program for resolution.
Inspection Report# : 2006013 *(pdf)*

Significance: G Feb 28, 2007
Identified By: NRC
Item Type: FIN Finding
Senior reactor operator relieved the watch during a transient without waiting for the plant to be in a stable condition, resulting in an inadvertent main steam isolation
The team identified a finding for the failure of licensed operators to accomplish activities affecting quality in accordance with the standards established in the conduct-of-operations procedures. Specifically, on October 19, 2006, the on-coming control room supervisor relieved the watch during the loss of feedwater transient, instead of waiting for the plant to be in a stable condition, a self-imposed standard documented in Entergy Operations Procedure EN-OP-115, "Conduct of Operations," Revision 2. Although licensee personnel stated that turnover activities were essentially complete at the time, changing the watch at this time caused the at-the-controls reactor operator and other control room personnel to misunderstand who was in charge of the event response and contributed to the at-the-controls operator not placing the mode switch in the SHUTDOWN position, as required by Procedure AOP-0001, "Reactor Scram," Revision 22. The failure to reposition the mode switch resulted in an inadvertent main steam isolation.

This finding was greater than minor because it was associated with the human performance attribute and affected the mitigating systems cornerstone objective to ensure the availability, reliability, or function of a system or train in a mitigating system, namely the main feedwater system. A Phase 2 estimation was required because this finding resulted in a loss of function of the steam side of the power conversion system as determined by the Manual Chapter 0609, Appendix A, Phase 1 Worksheet, "SDP Phase 1 Screening Worksheet for Initiating Events, Mitigation Systems, and Barriers Cornerstones." Using the appropriate plant-specific Phase 2 worksheets, this finding was determined to have very low safety significance because the finding only increased the initiating event likelihood by a very small amount and the power conversion system was actually recoverable. This finding has a cross-cutting aspect in the area of human performance, work practices component associated with the failure to implement the roles and responsibilities of the senior reactor operators in the main control room as designed.

The licensee entered this performance deficiency into their corrective action program for resolution.

Inspection Report# : 2006013 *(pdf)*

Significance: G Dec 31, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to identify a degraded condition of steam leak detection system Transmitter E31-N084B
A self-revealing, noncited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," was identified involving the failure to identify a degraded condition affecting the steam leak detection and Division II isolation logic for residual heat removal/reactor core isolation cooling systems. The degraded condition resulted in a spurious isolation of the reactor core isolation cooling system during power operations on November 23, 2006. This issue was entered into the licensee's corrective action program as CR-RBS-2006-04460.

The finding was more than minor because it is associated with the mitigating system cornerstone attribute of equipment performance and affected the associated cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using NRC Manual Chapter 0609, "Significance Determination Process," a Phase 2 analysis concluded that the finding was of very low safety significance. The cause of the finding is related to the crosscutting aspect of problem identification and resolution in that the licensee failed to completely and accurately identify the condition that caused a previous isolation of the reactor core isolation cooling system on October 1, 2004. This failure resulted in the spurious reactor core isolation cooling system isolation on November 23, 2006.
Inspection Report# : 2006005 *(pdf)*

Significance: G Sep 30, 2006
Identified By: Self-Revealing
Item Type: FIN Finding
Inadequate procedure for reassembly of the turbine bypass valve hydraulic system filter cartridge
A self-revealing finding of very low safety significance was reviewed involving an inadequate procedure for conducting maintenance on the turbine bypass valve hydraulic system filter cartridge. This resulted in the improper reassembly of the filter. The resultant hydraulic oil leak caused the main turbine bypass valves to be inoperable, and a power reduction to less than 23.8 percent power was required by Technical Specifications. This issue was entered into the licensee's corrective action program as Condition Report CR-RBS-2006-02632.

The performance deficiency associated with this finding was: (1) the failure to provide adequate instructions for reassembly of the turbine bypass valve hydraulic system filter cartridge to ensure that the cover gasket was properly installed, and (2) the failure to perform an adequate operational leak test of the system. The finding was more than minor because it was associated with the mitigating systems cornerstone attribute of equipment performance and it affected the associated cornerstone objective to ensure the availability and reliability of a system that responds to initiating events to prevent undesirable consequences. The inspectors performed a Phase 2 analysis using Manual Chapter 0609 and determined that the finding was of very low safety significance. The cause of the finding was related to the crosscutting element of human performance in that the licensee failed to provide complete, accurate, up-to-date instructions in the maintenance work package to change the hydraulic oil filter cartridge.
Inspection Report# : 2006004 *(pdf)*

Significance: G Jun 30, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to identify Division III ESF bus supply breaker not racked in
A self-revealing noncited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," was reviewed involving the failure of the licensee to identify that the normal supply breaker to the Division III 4.16 kV engineered safety features bus was not properly racked in for a period of 24 days following maintenance. This issue was entered into the licensee's corrective action program as CR-RBS-2006-02402.

The finding was more than minor because it was associated with the mitigating system cornerstone attribute of configuration control and affected the associated cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Utilizing Manual Chapter 0609,

"Significance Determination Process," a Phase 3 analysis concluded that the finding was of very low safety significance. The cause of the finding was related to the crosscutting aspect of problem identification and resolution in that the licensee failed to properly evaluate available indications to identify that the breaker was not properly racked in.
Inspection Report# : 2006003 *(pdf)*

Significance: G Jun 30, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to adequately manage an increase in plant risk
An NRC identified noncited violation of 10 CFR 50.65 Maintenance Rule Section (a)(4) was identified for the failure of the licensee to provide prescribed compensatory measures for two Orange shutdown risk conditions during Refueling Outage 13. Specifically, the preoutage risk assessment recommended that two work orders be in place for maintenance electricians to provide power to one spent fuel pool cooling pump in the event of problems with the running pump during periods of electrical bus maintenance. The inspectors found that the work packages were not in place before entering shutdown risk condition Orange on April 26, 2006, during the Division II engineering safety features bus testing, and May 3, 2006, during the Division I engineered safety features bus outage. This issue was entered into the licensee's corrective action program as CR-RBS-2006-01937.

The finding was more than minor because the licensee failed to implement a prescribed compensatory measure during the highest risk condition of Refueling Outage 13. The specific compensatory measures were called for in the preoutage risk assessment and the shutdown operations protection plan. The finding affected the mitigating system cornerstone because of the increased risk of a sustained loss of spent fuel pool cooling during core offloading operations. The finding could not be evaluated using the significance determination process, therefore the finding was reviewed by regional management and determined to be of very low safety significance. Factors that were considered included: (1) electrical maintenance technicians had previously performed the task of providing alternate power to a spent fuel pool cooling pump, (2) the necessary equipment was staged as part of the abnormal operating procedure for loss of decay heat removal, and (3) the relatively long “time to boil” of the spent fuel storage pool at that time during the refueling outage. The cause of the finding was related to the crosscutting aspect of human performance because the licensee’s planned maintenance activities and the predetermined increase in outage risk was not effectively managed by prescribed compensatory measures.
Inspection Report# : 2006003 *(pdf)*

Significance: G Jun 30, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate procedure to verify required offsite power breaker alignment
An NRC identified noncited violation of Technical Specification 5.4.1.a was identified for the failure of the licensee to provide an adequate surveillance test procedure to perform Technical Specification Surveillance Requirement 3.8.1.1. Specifically, STP-000-0102, “Power Distribution Alignment Check,” Revision 4, did not verify the required offsite power circuit breaker alignment and indicated power availability for the Division III 4.16 kV engineered safety features bus as required in Modes 1, 2, and 3. This issue was entered into the licensee's corrective action program as CR-RBS-2006-02675 and -02402.

The finding was more than minor because it was associated with the mitigating system cornerstone attribute of configuration control and affected the associated cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Utilizing Manual Chapter 0609, "Significance Determination Process," a Phase 3 analysis concluded that the finding was of very low safety significance.
Inspection Report# : 2006003 *(pdf)*

Barrier Integrity

Significance: G Dec 31, 2006
Identified By: Self-Revealing

Item Type: NCV NonCited Violation
Inadequate work instructions result in isolation of annulus pressure control system and automatic start of the Division II standby gas treatment system
A self-revealing, noncited violation of Technical Specification 5.4.1.a was identified involving the failure to provide adequate maintenance instructions for replacement of relays in the Division I standby gas treatment system initiation logic. As a result, on November 21, 2006, during relay replacement, the annulus pressure control system tripped and the Division II standby gas treatment system automatically initiated. This issue was entered into the licensee's corrective action program as CR-RBS-2006-04445.

This finding was more than minor because it is associated with the barrier integrity cornerstone attribute of human performance affecting the cornerstone objective to provide reasonable assurance that the secondary containment barrier protects the public from radionuclide releases caused by accidents and events. Using the NRC Manual Chapter 0609, "Significance Determination Process," Phase 1 Worksheet, the finding was determined to have very low safety significance because only the standby gas treatment system was affected. The cause of the finding is related to the crosscutting element of human performance in that the licensee failed to provide complete, accurate, and up-to-date instructions in the work package to replace the relays in the Division I standby gas treatment system initiation logic.
Inspection Report# : 2006005 *(pdf)*

Significance: G Dec 31, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to follow procedure resulted in loss of power to safety-related instrumentation bus and isolation of reactor water cleanup system
A self-revealing, noncited violation of Technical Specification 5.4.1.a was identified involving the failure to follow Procedure SOP-0048, “120 Vac System,” Revision 303. Due to ineffective self- and peer-checking a procedure step was missed, resulting in inadvertent isolation of the reactor water cleanup and the suppression pool cooling and cleanup systems. This issue was entered into the licensee's corrective action program as CR-RBS-2006-03874.

The finding was more than minor because the loss of the reactor water cleanup system, providing reactor water chemistry control, affects the fuel barrier integrity cornerstone attribute of configuration control. Using the NRC Manual Chapter 0609, "Significance Determination Process," Phase 1 Worksheet, the finding was determined to have very low safety significance because only the fuel cladding barrier was affected. The cause of the finding is related to the crosscutting element of human performance in that operations personnel failed to make proper use of human performance techniques of self- and peer-checking.
Inspection Report# : 2006005 *(pdf)*

Significance: G Dec 31, 2006
Identified By: Self-Revealing
Item Type: FIN Finding
Newly installed reactor water cleanup pump coupling failed because it was beyond its expected service lifetime
A self-revealing finding was identified involving the installation of a pump coupling that exceeded vendor shelf- and service-life recommendations on November 15, 2006. As a result, the reactor water cleanup Pump A coupling failed on November 28, 2006, requiring operators to remove from service the reactor water cleanup pump and a demineralizer affecting the primary means of reactor water chemistry control. This issue was entered into the licensee's corrective action program as CR-RBS-2006-04488 and -04517.

The finding is greater than minor because it would become a more significant safety concern if left uncorrected, since failure of similar couplings affecting other plant components, such as the drywell floor and equipment drain pumps, would require a plant shutdown to make repairs. The finding affected the barrier integrity cornerstone. Using the NRC Manual Chapter 0609, "Significance Determination Process," Phase 1 Worksheet, the finding was determined to have very low safety significance because the finding only affected the fuel cladding barrier.
Inspection Report# : 2006005 *(pdf)*

Emergency Preparedness

Significance: G May 10, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Maintain a Standard Scheme of Emergency Classification and Action Levels in Use
The NRC has considered the information developed during the inspection, the EOI position on the issue which was attached to the inspection report, the information you provided at the Regulatory Conference, and the information provided by your staff in a July 28, 2006, letter following the conference. On the basis of this information, the NRC has concluded that a violation occurred. The violation involves a failure to meet 10 CFR 50.54(q), which requires that the licensee follow and maintain in effect emergency plans which meet the standards in 10 CFR 50.47(b). Specifically, during periods when certain seismic monitoring instrumentation was out of service, the licensee could not implement the emergency actions levels as described in the applicable Emergency Plan implementing procedure. However, there was other seismic instrumentation available during these periods that could be used to determine the ground force acceleration associated with a seismic event in the vicinity of the River Bend Station. This information could then be used by the Operations Shift Manager or Emergency Director to determine the correct classification for a seismic event; although, the classification could be delayed for as long as 4 hours. On the basis of this information, the NRC has concluded that the inspection finding did not represent a degradation of a risk significant planning standard function, as defined in Appendix B of NRC's Inspection Manual Chapter 0609, and therefore is of very low safety significance.

Also, this finding had crosscutting aspects in the area of problem identification and resolution because the River Bend Station staff did not identify the effect that inoperable seismic monitoring instrumentation had on the ability to implement the River Bend Station Emergency Plan and did not effectively utilize pertinent industry operating experience to prevent the performance deficiency.
Inspection Report# : 2006005 *(pdf)*
Inspection Report# : 2006011 *(pdf)*

Occupational Radiation Safety

Significance: G Dec 31, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Licensee failed to perform a radiological survey in off-gas sample room after radiological conditions had changed
A self-revealing, noncited violation of 10 CFR 20.1501(a)(2) was identified involving the failure of radiation protection personnel to perform a survey in the off-gas sample room during main condenser leak testing. As a result, when a chemistry technician entered the room to obtain a grab sample, his electronic alarming dosimeter alarmed unexpectedly. When another chemistry technician reached into the room to perform a survey of the test equipment, his dosimeter also alarmed. It was later determined that they were exposed to a dose rate of 440 and 521 millirem per hour, respectively. This issue was entered into the licensee's corrective action program as CR-RBS-2006-04340.

The finding was more than minor because it was associated with the occupational radiation safety cornerstone attribute of programs and processes, such as the monitoring of radiological conditions, specifically the failure to perform a survey following changes in radiological conditions in the off-gas sample room, and affects the associated cornerstone objective to ensure the adequate protection of worker health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operation. Utilizing Manual Chapter 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," the inspectors determined that the finding was of very low safety significance because it did not involve: (1) as low as is reasonably achievable planning and controls, (2) an overexposure, (3) a substantial potential for an overexposure, or (4) an impaired ability to assess dose. The cause of the finding was related to the crosscutting element of problem identification and resolution in that the licensee failed to communicate to affected personnel in a timely manner internal operating experience, specifically, while there was off-gas flow through the condenser leak test equipment, radiological conditions would increase.
Inspection Report# : 2006005 *(pdf)*

Significance: G Sep 30, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to follow radiation work permit requirements
The inspector reviewed a self-revealing, noncited violation of Technical Specification 5.4.1 resulting from workers' failure to follow radiation work permit requirements. Two workers performing a scaffolding modification in the inclined fuel transfer system canal became externally and internally contaminated. As the workers were exiting the controlled access area, they alarmed the personnel contamination monitors. Based upon the whole-body count results, the licensee assigned a committed effective dose equivalent of 30 millirem to one worker and 70 millirem to the other worker. The licensee's investigation determined that the workers did not inform radiation protection personnel that they would be lowering the scaffolding 3 feet below surveyed areas and contamination control devices. Consequently, the workers were in radiological conditions not bounded by the radiation work permit and as low as is reasonably achievable planners did not have a chance to conduct a total effective dose equivalent as low as is reasonably achievable review to determine if respiratory protection was necessary. As a corrective action, the licensee is incorporating a lessons learned item associated with this event into radiation worker training.

This finding is greater than minor because it is associated with one of the cornerstone attributes (exposure/contamination control) and affects the Occupational Radiation Safety cornerstone objective in that the failure to follow radiation work permit instructions resulted in additional personnel exposure. Using the Occupational Radiation Safety Significance Determination Process, the inspector determined that this finding was of very low safety significance because it did not involve: (1) an as low as is reasonably achievable finding, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess doses. Additionally, this finding has a crosscutting aspect in the area of human performance because the workers failed to use error prevention tools such as self- and peer-checking.
Inspection Report# : 2006004 *(pdf)*

Significance: G Sep 30, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to evaluate radiological conditions
The inspector reviewed a self-revealing, noncited violation of 10 CFR 20.1501(a) resulting from the licensee's failure to correctly measure the airborne radioactivity where personnel worked. The licensee's review of the January 26, 2006, contamination event identified that the air sample taken to support the work activity was positioned above the high-efficiency particulate air hose suction in an air flow area above the actual work area. This meant that the air sample was not representative of the workers' actual work area. In addition, the radiation protection technician providing continuous job coverage failed to identify the deficiency and adjust the position of the air sampler. As a corrective action, the licensee is incorporating a lessons learned item associated with this event into the radiation protection technician training.

This finding is greater than minor because it is associated with one of the cornerstone attributes (exposure control) and affects the Occupational Radiation Safety cornerstone objective in that an inadequate evaluation of the hazards could lead to inadequate radiation protection and dose saving measures. This finding could also be reasonably viewed as a precursor to a significant event, such as a personnel overexposure, had contamination levels been higher. Using the Occupational Radiation Safety Significance Determination Process, the inspector determined that this finding was of very low safety significance because it did not involve: (1) an as low as is reasonably achievable finding, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess doses. Additionally, this finding has a crosscutting aspect in the area of human performance because radiation protection personnel failed to use error prevention tools such as self- and peer-checking.
Inspection Report# : 2006004 *(pdf)*

Significance: G Sep 30, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to evaluate radiological conditions
The inspector identified a noncited violation of 10 CFR 20.1501(a), resulting from the licensee’s use of an inadequate alpha contamination survey technique. The inspector determined that the licensee's procedure for the use of the Eberline SAC-4 alpha scintillation counter established a screening limit that did not allow sufficient sample activity for the discovery of

alpha emitting radionuclides. Therefore, the inspector concluded that surveys using this technique could not identify alpha contamination and were inadequate. As a corrective action, the licensee adapted the corporate procedural guidance, which raised the maximum sample activity.

This finding is greater than minor because it is associated with one of the cornerstone attributes (exposure control) and affects the Occupational Radiation Safety cornerstone objective in that an inadequate evaluation of the hazards could lead to inadequate radiation protection and dose saving measures. This finding could also be reasonably viewed as a precursor to a significant event, such as a personnel overexposure, had contamination levels been higher. Using the Occupational Radiation Safety Significance Determination Process, the inspector determined that this finding was of very low safety significance because it did not involve: (1) an as low as is reasonably achievable finding, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess doses. Additionally, this finding has a crosscutting aspect in the area of human performance because the licensee used procedures that were inadequate to ensure that alpha contamination was identified.
Inspection Report# : 2006004 *(pdf)*

Significance:  Jun 30, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to control access to a high radiation area
The inspector reviewed a self-revealing noncited violation of Technical Specification 5.7.1, resulting from the licensee's failure to control access to a high radiation area. While transferring reverse osmosis system filters in the radwaste building, the licensee allowed two workers to inadvertently enter a high radiation area. This occurred after a guard prematurely left his post in front of the 123 foot elevation elevator door. The highest dose rate recorded by an electronic alarming dosimeter was 164 millirem per hour. The guard returned and evacuated the workers before they accrued additional radiation dose. Planned corrective action was still being evaluated by the licensee at the conclusion of the inspection.

The finding was more than minor because it was associated with the occupational radiation safety attribute of exposure control and affected the cornerstone objective in that not controlling a high radiation area could increase personal exposure. Using the Occupational Radiation Safety Significance Determination Process, the inspector determined that the finding was of very low safety significance because it did not involve: (1) an as low as is reasonably achievable finding, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose. Additionally, this finding had crosscutting aspects associated with human performance in that the failure of the individual to guard the elevator door directly contributed to the violation.
Inspection Report# : 2006003 *(pdf)*

Significance:  Jun 30, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to perform airborne radiation survey
The inspector identified a noncited violation of 10 CFR 20.1501(a) because the licensee failed to survey airborne radioactivity. During the removal of local power range monitors, the licensee started collecting an air sample of the work area, but discarded the sample before analyzing it. Successful passage through the portal monitors at the exit of the controlled access area confirmed that no worker experienced an uptake of radioactive material. Planned corrective action is still being evaluated.

The finding was more than minor because it was associated with the occupational radiation safety program attribute of exposure control and affected the cornerstone objective in that the lack of knowledge of radiological conditions could increase personnel dose. Using the Occupational Radiation Safety Significance Determination Process, the inspector determined that the finding was of very low safety significance because it did not involve: (1) an as low as is reasonably achievable finding, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose. Additionally, this finding had crosscutting aspects associated with human performance in that the failure to maintain the sample for analysis directly contributed to the violation.
Inspection Report# : 2006003 *(pdf)*

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Last modified : June 01, 2007