Wolf Creek 1
1Q/2007 Plant Inspection Findings

Initiating Events

Significance: G Oct 07, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to follow procedure results in loss of coolant charging flow
The inspectors reviewed a self-revealing noncited violation of Technical Specification 5.4.1.a involving the licensee's failure to follow a procedure that resulted in a loss of coolant charging flow during a planned surveillance. The licensee entered this issue into their corrective action program as Condition Report 2006-0002030.

The failure to follow station procedures was considered a performance deficiency. This finding was more than minor because it affected the human performance attribute of the initiating events cornerstone and the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions. Using Manual Chapter 0609, “Significance Determination Process,” Phase 1 worksheets, this finding screened to a Phase 2 analysis because it affected both the initiating events and mitigating system cornerstones. The inspectors performed a Phase 2 analysis using Appendix A, "Technical Basis For At Power Significance Determination Process," of Manual Chapter 0609, "Significance Determination Process," and the Phase 2 worksheets for the Wolf Creek Generating Station. Based on the results of the Phase 2 analysis, the finding is determined to have very low safety significance. The inspectors also determined that the finding has crosscutting aspects in the area of human performance associated with work practices because the operators failed to use appropriate human error prevention techniques, such as self-checking, peer-checking, and not proceeding in the face of uncertainty.
Inspection Report# : 2006004 *(pdf)*

Significance: G Apr 07, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to provide adequate fire detection in the diesel generator rooms
An NRC identified Green noncited violation of Facility Operating License Condition 2.C.5, Fire Protection, was identified for inadequate fire detection in the emergency diesel generator rooms. The infrared detectors’ view of some combustibles in the rooms was blocked by temporary scaffolding and permanent plant equipment, which could delay the detection of fires and the fire brigade response. Wolf Creek Fire Hazard Analysis E-19905 Sections D.1.7.1 and D.2.7.1 state that the diesel generator rooms early warning fire detection is by infrared detectors, which will readily detect the type of fire caused by the burning of fuel and lube oils. Wolf Creek Updated Safety Analysis Report Section 9.5.1.2.3 states that these detectors respond directly to infrared radiation emanating from a flickering flame. However, with solid objects in between the detectors and the combustibles, the infrared light from the flame would not be sensed by the infrared detectors. The control room would still be alerted to the fire, but only if the fire spread to a part of the room visible to the infrared detectors or the heat from the fire reached thermal fire detectors also installed in the room.

The failure to provide adequate fire detection in the emergency diesel generator rooms was a performance deficiency. The inspectors determined that the inadequate fire detection in the diesel generator rooms was more than minor because it potentially affected diesel generator availability due to fire under the mitigating systems cornerstone. The inspectors used Inspection Manual Chapter 0609, Appendix F, Fire Protection Significance Determination Process, to determine the significance of the finding. The finding is of very low safety significance because a postulated fire in a diesel room would still be detected and extinguished before it affected any other safe shutdown equipment. The inspectors assigned a low degradation rating to the finding in the significance determination process because the fire detection would have nearly the same level of effectiveness and reliability with the degradation. Therefore, the significance determination process screens the finding as very low safety significance.
Inspection Report# : 2006002 *(pdf)*

Significance: G Apr 07, 2006
Identified By: Self-Revealing
Item Type: FIN Finding
INADEQUATE PROCEDURE FOR THE OPERATION OF LIMITORQUE MOTOR-OPERATED VALVES
A self-revealing Green finding was identified for the failure to provide adequate instructions for the operation of Limitorque motor-operated valves. The instructions were inadequate because they failed to provide guidance on declutching Limitorque motor-operated valves, such that the valve operators are not damaged. The inadequate guidance resulted in the degraded operation of a Limitorque motor-operated valve in the circulating water system. During maintenance activities on November 30, 2005, a Limitorque motor-operated valve would not stay declutched without an operator hanging onto the declutch lever. The declutch mechanism had become misaligned from previous improper manual operation of the Limitorque operator. The inability of the operators to promptly close the valve resulted in lowering the condenser vacuum which approached the turbine trip/reactor trip setpoint before the valve was closed. This finding had crosscutting aspects of human performance. The licensee had not provided adequate instructions for manual operation of the Limitorque motor-operated valve, which subsequently resulted in damage to the declutch mechanism.

The failure to provide adequate instructions for the operation of Limitorque motor-operated valves was a performance deficiency. This finding is more than minor because it affected the initiating events cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions and affected the cornerstone attribute of procedural quality because an inadequate procedure increased the probability of an initiating event. Using the Phase 1 worksheets in Manual Chapter 0609, “Significance Determination Process,” the issue was determined to have very low safety significance because the finding did not contribute to both the likelihood of a reactor trip and loss of mitigation equipment (power conversion system would have remained available), nor increase the likelihood of fire or flooding.
Inspection Report# : 2006002 *(pdf)*

Mitigating Systems

Significance: G Dec 31, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to implement the reactor vessel closure head installation procedure
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” involving the licensee's failure to properly implement the reactor vessel closure head installation procedure during Refuel 15. Specifically, on October 30, 2006, the licensee performed Procedure FHP-02-007B, “Reactor Vessel Closure Head Installation," Revision 5. During the performance of Procedure FHP-02-007B, the licensee encountered problems with the polar crane that prevented the crane hoist from being lowered. The problems with the polar crane were encountered while the reactor vessel head was being transported along the North-South axis of the refueling cavity towards the reactor vessel. Consequently, the licensee transported the reactor vessel closure head approximately 3 feet over the reactor vessel flange while suspended approximately 4 feet above the operating deck. This condition was not allowed by procedure and exceeded the maximum analyzed height in the head drop analysis.
The failure to properly implement the reactor vessel closure head installation procedure was considered a performance deficiency. The finding was greater than minor because it affected the human performance attribute of mitigating systems cornerstone and the cornerstone objective to ensure the availability, reliability and capability of systems that respond to initiating events. Using Manual Chapter 0609 Appendix G, “Shutdown Operations Significance Determination Process” Phase 1 worksheets, the finding was found to be of very low safety significance because it did not affect decay heat removal or reactor coolant system inventory. The inspectors determined that the finding has crosscutting aspects in the area of human performance associated with work practices because the licensee failed to use appropriate human error prevention techniques, such as self, peer-checking and not proceeding in the face of uncertainty. The inspectors also determined that the finding has crosscutting aspects in the area of problem identification and resolution associated with operating experience because the licensee failed to effectively communicate internally generated lessons learned following the procedural noncompliance during the Refuel 13 reactor vessel head installation.
Inspection Report# : 2006005 *(pdf)*

Significance: G Oct 07, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate inspections of potentially defective pressure transmitter
The inspectors identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion V, regarding the failure to implement Administrative Procedure AP 28-011, “Resolving Deficiencies Impacting SSC’s,” Revision 1. Procedure AP 28-011 requires that, during the operability determination process, a reasonable expectation must exist that the structure, system, or component is operable and that the prompt determination process will support that expectation. Contrary to this requirement, “reasonable expectation” was not established for a deficiency affecting safety-related Barton pressure transmitters. The licensee entered this issue into their corrective action program as Condition Report 2006-000895.

The failure to implement Procedure AP 28-011 following identification of a potential degraded condition was a performance deficiency. This finding was more than minor because it affected the equipment performance attribute of the mitigating systems cornerstone and the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events. Using Manual Chapter 0609, “Significance Determination Process,” Phase 1 worksheets, the inspectors determined that the finding is of very low significance because it did not represent a loss of a safety function or operability and was not potentially risk significant due to external events. The inspectors also determined that this finding has crosscutting aspects in the human performance area associated with decision making in that the licensee failed to use conservative assumptions in decision making and verify the validity of underlying assumptions for operability of the pressure transmitters.
Inspection Report# : 2006004 *(pdf)*

Significance: G Jun 23, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow System Operating Procedure
An NRC-identified noncited violation of Technical Specification 5.4.1 was identified for failing to follow system operating procedures for the Class 1E electrical equipment air conditioning units. On May 4, 2006, a planned maintenance evolution was scheduled to be performed that required shut down of safety-related Class 1E electrical equipment air conditioning Unit A (SGK05A); however, the operator incorrectly secured Class 1E electrical equipment air conditioning Unit B (SGK05B) and used steps that had been previously marked N/A. While later performing additional steps, the operator returned to the same incorrect Unit SGK05B and secured the unit a second time. However, the planned work had previously tripped the correct unit (SGK05A). This resulted in both trains being inoperable. The control room was notified, immediately declared both trains inoperable, and entered Technical Specification 3.0.3, which requires the plant to be in Mode 3 in 7 hours. The control room instructed operators to return Unit SGK05B to service and approximately 2 minutes later exited Technical Specification 3.0.3.

The inspectors determined that the failure to follow station procedures was a performance deficiency. The finding was greater than minor because it affected the mitigating systems cornerstone attribute of support equipment that ensures the availability of equipment that responds to initiating events. Using the Significance Determination Process Phase 1 Worksheet in Inspection Manual Chapter 0609, the inspectors determined that this finding is of very low safety significance because the finding did not result in a loss of safety function per Generic Letter 91-18. This finding had crosscutting aspects of human performance because personnel did not follow established procedures and did not use appropriate human error prevention techniques, such as self- and peer-checking.
Inspection Report# : 2006003 *(pdf)*

Significance: G May 10, 2006
Identified By: NRC
Item Type: FIN Finding
Inadequate Procedure to Address a 10 CFR Part 21 Notification of a Potential Safety-Related Component Defect
The team identified a finding for the licensee’s failure to establish appropriate testing procedures for the operation of the turbine-driven auxiliary feedwater pump following notification (10 CFR Part 21 report issued April 12, 2005) of a component defect, which could substantially and adversely affect turbine-driven auxiliary feedwater pump operation. Specifically, the licensee did not adequately address appropriate testing, acceptance criteria, and test frequency to assure that the turbine-driven auxiliary feedwater governor operability remained unaffected by a potential null voltage shift that

could prevent the fail safe mode of operation of the governor, as described in the 10 CFR Part 21 report. Since there were no indications of drifting of the null voltage for the past two surveillances, the licensee concluded that no additional actions were required to address the 10 CFR Part 21 report. Contrary to the vendor recommended actions, the licensee did not establish a monitoring frequency in accordance with recommended actions. This finding had crosscutting aspects associated with problem evaluation.

The failure to establish appropriate testing, acceptance criteria, and test frequency for the operation of the turbine-driven auxiliary feedwater pump was considered a performance deficiency. The finding was more than minor because if left uncorrected, the finding could become a more significant safety concern and affected the mitigating system cornerstone objectives of ensuring the availability, reliability, and capability of systems that respond to events to prevent undesirable consequences. The finding was determined to be of very low safety significance because it did not result in a loss of function in accordance with Generic Letter 91-18, “Information to Licensees Regarding NRC Inspection Manual Section on Resolution of Degraded and Nonconforming Conditions,” Revision 1.

Inspection Report# : 2006010 *(pdf)*

Significance: G May 10, 2006
Identified By: NRC
Item Type: FIN Finding
Inadequate procedure for long-standing component cooling water pump problems
The team identified a finding for the failure to establish appropriate procedures for the operation of the component cooling water pump. Specifically, the licensee did not establish procedures to include appropriate acceptance criteria for component cooling water pump axial shaft movement that has existed for approximately 18 years. The licensee’s procedure did not contain any vendor acceptance criteria to ensure axial shaft movement did not result in a failure of the pump during a postulated accident. The licensee did not evaluate the long-term impact from wear to the bearing fit surfaces, wear particles in oil samples, or long-term cyclic fatigue to adjacent piping and other components. This issue had crosscutting aspects associated with problem evaluation.
The failure to establish a procedure with appropriate acceptance criteria was considered a performance deficiency. The finding was more than minor because it affected the mitigating systems cornerstone attribute of procedure quality and affected the cornerstone objective of ensuring availability, reliability and capability of systems to respond to events. The finding was of very low safety significance because, despite the fact that the condition was not properly evaluated, the affected equipment remained operable consistent with Generic Letter 91-18, Revision 1.

Inspection Report# : 2006010 *(pdf)*

Significance: G May 10, 2006
Identified By: NRC
Item Type: FIN Finding
Inadequate procedure to address industry operating experience regarding submerged cables
The team identified a finding for the failure to establish appropriate procedures for the inspection of buried safety-related electrical cables. Specifically, the licensee did not establish procedures to include acceptance criteria to determine if buried safety-related electrical cables were subject to the degradation described in NRC Information Notice 2002-12, “Submerged Safety-Related Electrical Cables.” The licensee did not develop a maintenance activity to inspect the underground cables for degraded or damaged jacketing, contrary to industry operating experience, which provided examples of visual inspections that discovered degraded cable jacketing. This issue had crosscutting aspects associated with problem evaluation.

The failure to establish a maintenance activity with appropriate acceptance criteria was considered a performance deficiency. The finding was more than minor because if left uncorrected the finding could become a more significant safety concern and it affected the mitigating system cornerstone objectives of ensuring the availability, reliability, and capability of systems that respond to events to prevent undesirable consequences. The finding was determined to be of very low safety significance because it did not result in a loss of function in accordance with Generic Letter 91-18, Revision 1.

Inspection Report# : 2006010 *(pdf)*

Significance: TBD Dec 29, 2005

Identified By: NRC
Item Type: AV Apparent Violation
Failure to Maintain Reactor Coolant System Subcooling During the Alternative Shutodwn
The team identified an Apparent Violation of Wolf Creek License Condition 2.C.(5)(a) concerning an inadequate alternative shutdown analysis. The licensee's alternative shutdown analysis was inadequate in that it used an acceptance criteria which was inconsistent with and less conservative than that required by the approved Fire Protection Program. The licensee developed Calculation Number AN-02-021, Revision 0, "OFN RP-017, 'Control Room Evacuation,' Consequence Evaluation", to demonstrate alternative shutdown capability for Wolf Creek in response to NRC-identified Noncited Violation 2002008-01, Inadequate alternative shutdown procedure. The calculation predicted that during an alternative shutdown, the reactor coolant system subcooling margin would not be maintained, significant voiding would occur in the core, and a steam void would form in the reactor vessel head. The licensee found the results of the calculation to be acceptable since it demonstrated that the void formation would be limited, natural circulation in the reactor coolant system would be maintained, sufficient decay heat removal would be maintained, and no fuel damage would occur. This is not consistent with the license condition to meet the technical requirements of 10 CFR Part 50, Appendix R. Section III.L of 10 CFR Part 50, Appendix R, "Alternative and dedicated shutdown capability", that states in part, "During the postfire shutdown, the reactor process variables shall be maintained within those predicted for a loss of normal a.c. power."
This finding is greater than minor because it impacted the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to external events (such as fire) to prevent undesirable consequences (i.e., core damage). It is the NRC's understanding that the licensee does not consider these circuit vulnerabilities to be violations of NRC requirements. The licensee considers the spurious operation of multiple components to be outside of the plant licensing basis for the Fire Protection Program. Specifically, in this case, both pressurizer power-operated relief valves are assumed to spuriously open because of fire induced circuit damage. The NRC staff and the industry are currently working on developing a resolution methodology to address these types of potential fire induced circuit failures. The team concluded that this violation meets the criteria of the NRC Enforcement Manual Section 8.1.7.1 for deferring enforcement actions for postulated fire induced circuit failures.
Inspection Report# : 2005008 *(pdf)*

Significance: TBD Dec 29, 2005
Identified By: NRC
Item Type: AV Apparent Violation
Inadequate Alternataive Shutdown Procedure
The team identified an Apparent Violation of Technical Specification 5.4, Procedures, due to an inadequate alternative shutdown procedure that is required for implementation of the Fire Protection Program. The team found that some time critical actions required to safely shutdown the plant following a control room fire could not be accomplished within the required time periods. Specifically, the team found that the recommendations by Westinghouse Owners Group for assuring reactor coolant pump seal reliability and avoiding component cooling water thermal barrier water hammer concerns would not be met if the operators had to respond to multiple spurious operations. The procedure was developed and verified based on a time line assuming operators only have to respond to one spurious operation from the fire induced damage during the scenario. The team disagrees with this limitation of potential spurious operations.
This finding is greater than minor because it impacted the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to external events (such as fire) to prevent undesirable consequences (i.e., core damage). It is the NRC's understanding that the licensee does not consider these circuit vulnerabilities to be violations of NRC requirements. The licensee considers the spurious operation of multiple components to be outside of the plant licensing basis for the Fire Protection Program. The NRC staff and the industry are currently working on developing a resolution methodology to address these types of potential fire induced circuit failures. The team concluded that this violation meets the criteria of the NRC Enforcement Manual Section 8.1.7.1 for deferring enforcement actions for postulated fire induced circuit failures.
Inspection Report# : 2005008 *(pdf)*

Barrier Integrity

Significance:  Oct 07, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation

Failure to completely close SFP valves resulted in a loss of SFP water inventory
A self-revealing noncited violation of Technical Specification 5.4.1.a was identified for the failure to close Valves EC-V025 and -V033 during a lineup to recirculate the refueling water storage tank through the spent fuel pool cleanup system. These two systems were cross- connected for approximately 26 hours, which resulted in approximately 1200 gallons of SFP water being inadvertently transferred to the refueling water storage tank. The licensee entered this issue into their corrective action program as Condition Report 2006-000589.

The failure to completely close Valves EC-V025 and -V033 was a performance deficiency. This finding is more than minor because it is associated with the barrier integrity cornerstone attribute of configuration control and affected the cornerstone objective to maintain functionality of the spent fuel pool system. Using Manual Chapter 0609, "Significance Determination Process," Phase 1 worksheets, the inspectors determined that the finding is only of very low significance because the finding only affected the barrier function of the spent fuel pool. The inspectors also determined that the finding has crosscutting aspects in the area of human performance associated with work practices because the operators failed to use appropriate human error prevention techniques, such as peer-checking and not proceeding in the face of uncertainty.
Inspection Report# : 2006004 *(pdf)*

Significance: G May 10, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate corrective actions to address spent fuel pool foreign material.
The team identified a noncited violation of 10 CFR Part 50, Appendix B, Criterion XVI, for the failure to take adequate corrective actions to address spent fuel pool foreign material issues. Specifically, the licensee did not determine the source of the foreign material and prevent it from entering the spent fuel pool on multiple occasions. The spent fuel pool is considered a foreign material exclusion zone in which no foreign material is allowed. Although it was considered a low probability event, foreign material in the spent fuel pool could cause problems with spent fuel pool cooling equipment or could be carried into the core during refueling and result in degradation of the fuel assembly cladding. As such, the introduction of foreign material into the spent fuel pool was considered a significant condition adverse to quality. This issue had crosscutting aspects associated with problem evaluation and resolution.

The failure to take effective corrective actions to determine and correct the source of spent fuel pool foreign material was considered a performance deficiency. The finding was more than minor because it affected the barrier integrity cornerstone attribute of cladding performance and human performance (foreign material exclusion). This finding was of very low safety significance because it is associated with a fuel barrier concern and did not affect reactor coolant system barrier performance.
Inspection Report# : 2006010 *(pdf)*

Significance: G Apr 07, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to follow administrative procedure for operability determination
The inspectors identified a noncited violation of Technical Specification 5.4.1 for failure to follow Administrative Procedure AP28-011, "Resolving Deficiencies Impacting SSC's [structures, systems and components]," Revision 1. The inspectors identified a faulty evaluation of a containment spray system degraded condition. The degraded condition was caused by the potential for a 5 cubic foot void in both trains of the containment spray system. The licensee identified the condition and performed their evaluation in response to industry operating experience regarding voiding in safety-related fluid systems. The evaluation was faulty in its interpretation of the information provided in NUREG/CR-2792. Once aware of the faulty evaluation, the licensee failed to adhere to Procedure AP 28-011 in the following ways: (1) they failed to document the deficiency as soon as possible; (2) they failed to inform the shift manager immediately; (3) they failed to provide reasonable assurance of operability in a time frame commensurate with safety; and (4) they failed to provide a valid reasonable assurance of operability prior to completion of a prompt operability evaluation. This finding had crosscutting aspects associated with problem identification and resolution based on the fact that both the original evaluation of the industry operating experience and the engineering judgement used to provide reasonable assurance of operability were inadequate.

The failure to implement Procedure AP 28-011 following identification of a degraded condition was a performance deficiency. This finding is more than minor because, if left uncorrected, the failure to follow Procedure AP 28A-011 would

become a more significant safety concern. Based on the results of a significance determination process Phase 1 evaluation, this finding was determined to have very low safety significance since the licensee was ultimately able to demonstrate operability of the affected equipment.
Inspection Report# : 2006002 *(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Dec 31, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to provide instructions to workers
The inspector identified a non-cited violation of 10 CFR 19.12(a)(2) because the licensee failed to provide instructions to a worker on how to minimize exposure while working with radioactive material and contaminated equipment. Specifically, on October 18, 2006, a worker on the "A" steam generator platform received an intake of cobalt-58 while removing contaminated conduit from the primary side of the steam generator and placing it in a radioactive material bag for storage. The worker was wearing a face shield, however, the inspector identified that the licensee failed to provide the worker with instructions on how to minimize exposure to radioactive material while performing this task. The licensee's corrective actions included providing workers with powered face shields that blow air away from the face. This finding was entered into the licensee's corrective action program.
The finding was greater than minor because it was associated with the Occupational Radiation Safety Cornerstone attribute of Exposure Control, and affected the cornerstone objective to ensure the adequate protection of a worker's health and safety from exposure to radioactive materials because a worker received an unintended internal dose. The finding was processed through the Occupational Radiation Safety Significance Determination Process and determined to be of very low safety significance because it was not an ALARA finding, there was no overexposure or substantial potential for an overexposure, and the ability to assess dose was not compromised. Additionally, this finding has a cross-cutting aspect in the area of human performance related to work practices because the licensee did not ensure supervisory oversight of work activities such that exposure to radioactive material was minimized and properly controlled.
Inspection Report# : 2006005 *(pdf)*

Significance: G Apr 07, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to follow a station procedure for the operation of the incore detector drive system
The inspectors identified a noncited violation of Technical Specification 5.4.1(a) for the failure to follow licensee Procedure SYS SR-200, "Movable Incore Detector Operation," Revision 18. Contrary to this procedure, during troubleshooting activities on the incore detector drive system, an incore detector was moved with personnel in the area. This issue was determined to have crosscutting aspects regarding human performance.

The failure to follow the procedure for incore detector system operation was a performance deficiency. The finding is more than minor because it is associated with the occupational radiation safety cornerstone attribute regarding programs and processes and affected the cornerstone objective of ensuring the adequate protection of worker health and safety from exposure to radiation in that not following station procedure could increase personnel exposure. Using the occupational radiation safety determination process to analyze the significance of the finding, the inspectors concluded the issue was of very low safety significance because the inspection finding was not related to ALARA, did not involve an overexposure, and there was no substantial potential for overexposure.
Inspection Report# : 2006002 *(pdf)*

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Significance: G Jun 23, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow Station Procedures for Clearance Orders
An NRC-identified noncited violation of Technical Specifications 5.4.1 for failing to follow procedures was identified when electricians removed terminal leads that were still energized with 500 volt ac. During work under Clearance Orders C15-D-LF-005 and C15-D-LF-006 to replace two sump pump motors located in the radwaste tunnel, the electricians discovered that the terminals on the sump motors were still energized with 500 volt ac. The licensee's investigation discovered that the clearance orders written to isolate the sump motors did not include 120 volt ac breakers for moisture sensors located in the motor.

The inspectors determined that the failure to follow station procedures to establish appropriate administrative controls and verify components were de-energized prior to work was a performance deficiency. The inspectors concluded that the finding was greater than minor because, if left uncorrected, the failure to adhere to clearance order procedure requirements that are applicable to work on safety-related and mitigating equipment and the failure to ensure equipment is in a configuration where an unexpected response will not occur prior to work could result in a plant transient or effect mitigating equipment and become a more significant safety concern. This issue was reviewed using Manual Chapter 0609, Significance Determination Process, and determined that NRC management review for safety significance was appropriate. The safety significance was determined to be very low based on the fact that there was no impact on safety-related equipment and failure of the sump pumps would not initiate a plant transient. This finding had crosscutting aspects of problem identification and resolution for the failure to adequately address previous occurrences, specifically involving the sump pump motors, as well as human performance because the licensee failed to thoroughly evaluate a similar concern such that the cause was resolved and personnel did not follow established procedures.
Inspection Report# : 2006003 *(pdf)*

Significance: N/A May 10, 2006
Identified By: NRC
Item Type: FIN Finding
Identification and Resolution of Problems
The team reviewed approximately 270 performance improvement requests, corrective work requests, work orders, associated apparent and root cause analyses, as well as supporting documents and corrective actions to assess problem identification and resolution activities. Overall, corrective action procedures and processes were generally effective; thresholds for identifying issues were low and, in most cases, corrective actions were adequate to address conditions adverse to quality. However, inconsistent problem evaluations and corrective actions resulted in some self-disclosing and NRC identified violations and findings. The licensee had identified corrective actions to address these performance problems.

Based on the interviews conducted, the team concluded that a safety conscience work environment existed at Wolf Creek Generating Station. The team determined that employees felt free to raise safety concerns to their supervision, the employee concerns program, and the NRC. The team received a few isolated comments regarding the lack of knowledge of the corrective action program, an increased workload caused by the corrective action process and a concern about the effectiveness of knowledge transfer because of an aging workforce. However, the interviewees all believed that potential safety issues were being addressed and there were no instances identified where individuals had experienced adverse

actions for bringing safety issues to the NRC. The team determined that licensee management was aware of the perceptions and was taking action to address them.

Inspection Report# : 2006010 *(pdf)*

Last modified : June 01, 2007