

## Wolf Creek 1

### 1Q/2016 Plant Inspection Findings

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## Initiating Events

**Significance:** G Nov 24, 2015

Identified By: Self-Revealing

Item Type: NCV Non-Cited Violation

#### **Failure to Provide Adequate Instructions for Control of Feedwater Flow in Startup Procedures**

The inspectors reviewed a self-revealing Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," because the licensee did not assure the procedures for reactor startup were appropriate to the circumstances. Specifically, prior to May 3, 2015, the licensee failed to include adequate instructions for transferring feedwater flow from the main feedwater regulating valve bypass valves to the main feedwater regulating valves in Procedure GEN 00-003, "Hot Standby to Minimum Load." As a result, operations personnel did not properly control feedwater flow during a reactor startup, which led to a plant trip on May 3, 2015. The licensee entered this condition into their corrective action program as Condition Reports 96064 and 100583. The corrective action taken to restore compliance was to revise Procedure GEN 00-003 to update the process for transferring main feedwater control from the main feedwater regulating valve bypass valves to the main feedwater regulating valves, including the monitoring of necessary parameters steam flow and feedwater flow.

The failure to assure the procedures for reactor startup were appropriate to the circumstances was a performance deficiency. The performance deficiency was more than minor, and therefore a finding, because it adversely affected the human performance attribute of the initiating events cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, prior to May 4, 2015, the licensee did not provide adequate guidance for the control of feedwater flow during plant startup, resulting in a plant trip on May 3, 2015. Using NRC Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," issued June 19, 2012, the inspectors determined that the finding was of very low safety significance (Green) because the finding did not cause a trip and the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition. Specifically, following the plant trip, all mitigation equipment responded as designed.

The inspectors concluded that the finding reflected current licensee performance and had a cross-cutting aspect in the area of human performance, avoid complacency, in that the licensee did not recognize and plan for the possibility of mistakes, latent issues, and inherent risk even while expecting successful outcomes. Specifically, the licensee did not recognize and plan for potential of mistakes when using a procedure that did not contain adequate guidance for minimizing mismatches in steam flow and feedwater flow.(H.12)

Inspection Report# : [2015009](#) (*pdf*)

**Significance:** G Nov 24, 2015

Identified By: Self-Revealing

Item Type: NCV Non-Cited Violation

#### **Failure of the Plant Referenced Simulator to Demonstrate Expected Plant Response**

The inspectors reviewed a self-revealing Green non-cited violation of 10 CFR 55.46(c)(1), "Plant-referenced Simulators," due to the licensee's failure to maintain a plant-referenced simulator used for the administration of the operating test such that it would demonstrate expected plant response to operator input and to normal, transient, and accident conditions to which the simulator has been designed to respond. Specifically, until June 13, 2015, the

licensee failed to maintain the simulator consistent with actual plant response when using the main feed regulating valves in manual control. The licensee entered this condition into their corrective action program as Condition Report 96252. The corrective action taken to restore compliance was to change the simulator modeling of the main feedwater regulating valve controller to match the installed plant controllers.

The failure to maintain the plant-referenced simulator such that it would accurately reproduce the operating characteristics of the facility was a performance deficiency. The performance deficiency is more than minor because it adversely affected the human performance attribute of the initiating events cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, prior to June 13, 2015, the licensee failed to maintain the simulator consistent with actual plant response when using the main feed regulating valves in manual control, which impacted operator control of the plant during power operations. Using NRC Inspection Manual Chapter 0609, Appendix I, "Licensed Operator Requalification Significance Determination Process (SDP)," issued December 6, 2011, the inspectors determined that the finding was of very low safety significance (Green) because the deficient simulator performance did not negatively impact operator personnel performance in the actual plant during a reportable event. Specifically, after the trip occurred the operators took all appropriate required actions.

The inspectors concluded that the finding did not have a cross-cutting aspect because the finding was not indicative of current performance. The configuration change that introduced the error occurred more than three years before the event. Specifically, the discrepancy between the simulator and the plant manual controller rates had existed since simulator use began in 1985.

Inspection Report# : [2015009](#) (*pdf*)

## Mitigating Systems

**Significance:**  Mar 31, 2016

Identified By: NRC

Item Type: NCV Non-Cited Violation

### **Failure to Adequately Establish and Adjust Preventive Maintenance Activities for Control Room Air Conditioning Unit SGK04A Sensing lines and Fittings**

The inspectors identified a Green non-cited violation of Technical Specification 5.4.1.a for the licensee's failure to adequately develop and adjust preventive maintenance activities in accordance with Procedure AP 16B-003, "Planning and Scheduling Preventive Maintenance," Revision 5. Specifically, the licensee did not adequately develop a preventive maintenance replacement task and schedule for control room air conditioning unit SGK04A refrigerant sensing lines and fittings. The licensee's immediate actions included securing and declaring the SGK04A system inoperable, completing corrective maintenance to eliminate the refrigerant leak, and confirming that the impacted preventive maintenance frequency was adequately established. The licensee entered this condition into the corrective action program as Condition Reports 101862 and 101867.

This finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors utilized Inspection Manual Chapter 0609, Appendix A, "Significance Determination Process (SDP) for Findings At-Power," issued June 19, 2012. The inspectors determined this finding is not a deficiency affecting the design or qualification of a mitigating structures, systems, and components (SSC) that maintained its operability or functionality, the finding does not represent a loss of system and/or function, the finding does not represent an actual loss of function of at least a single train for greater than it Technical Specification allowed outage time, and the finding does not represent an

actual loss of function of one or more non-Technical Specification trains of equipment designated as high safety-significant. Therefore, the inspectors determined the finding was of very low safety significance (Green). The finding has a cross-cutting aspect in the area of human performance, resources, because leaders did not ensure that personnel, equipment, procedures, and other resources are available and adequate to support nuclear safety. Specifically, leaders did not ensure procedures and other resource materials were available to support successful work performance when setting preventive maintenance activity base dates, which resulted in the licensee failing to adequately develop and adjust preventive maintenance activities associated with control room air conditioning unit SGK04A refrigerant sensing lines and fittings.

Inspection Report# : [2016001](#) (pdf)

**Significance:**  Dec 31, 2015

Identified By: NRC

Item Type: VIO Violation

### **Inadequate Measures to Assure SGK05A Issues Were Promptly Corrected**

The inspectors identified a Green cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, “Corrective Action,” for the licensee’s inadequate measures to assure that corrective action was taken to preclude repetition of a significant condition adverse to quality. Specifically, measures to correct train A Class 1E electrical equipment air conditioning system (SGK05A) issues following two trips of the unit on October 18, 2013, failed to preclude repetition, which resulted in the SGK05A unit tripping twice on May 15, 2015; the train A safety-related batteries, inverters, and alternating and direct current buses being declared inoperable due to the loss of area cooling; two separate Technical Specification 3.0.3 entries; and separate technical specification required reactor power reductions to 93 and 94.7 percent. The licensee’s immediate corrective actions included troubleshooting to determine the direct cause of the compressor trips, stationing a dedicated operator following the second trip on May 15, 2015, and subsequently implementing Temporary Modification 15-013-GK-00, which restored compliance. Actions to prevent recurrence following the May 15, 2015, SGK05A trips, documented in apparent cause evaluation 96392, included conducting a seminar with station managers to review lessons learned from the event, completing a change package to replace the SGK05A compressor that has been the source of residual contamination that has led to numerous trips of the unit, and tracking of the timely replacement of the SGK05A compressor with a due date of December 15, 2016. Wolf Creek entered this issue into its corrective action program as Condition Reports 96392 and 96397.

This finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems Cornerstone and affected the associated cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the train A safety-related batteries, inverters, and alternating and direct current buses became inoperable and their capability to respond to initiating events to prevent undesirable consequences was impacted as a result of the SGK05A unit tripping. In accordance with Inspection Manual Chapter 0609.04, “Initial Characterization of Findings,” and Exhibit 3 of Inspection Manual Chapter 0609, Appendix A, “The Significance Determination Process (SDP) for Findings At-Power,” issued June 19, 2012, and April 29, 2015, respectively, the performance deficiency affects a mitigating structure, system, and component. The performance deficiency does not affect the design or qualification of a mitigating structure, system, and component, and the structure, system, and component did not maintain its functionality. Additionally, the finding does not represent a loss of system and/or function, the finding does not represent an actual loss of function of at least a single train for greater than its technical specification allowed outage time or two separate safety systems out-of-service for greater than their technical specification allowed outage time, and the finding does not represent an actual loss of function of one or more non-technical specification trains of equipment designated as high safety-significant in accordance with the licensee’s maintenance rule program for greater than 24 hours. Therefore, the inspectors determined that this finding is of very low safety significance (Green). In accordance with Inspection Manual Chapter 0310, “Aspects Within The Cross-Cutting Areas,” issued December 4, 2014, the finding has a cross cutting aspect in the area of human performance, resources, because the licensee did not ensure that personnel, equipment, procedures, and other resources were available and adequate to support nuclear safety. Specifically, senior managers did not ensure successful completion of the replacement of the SGK05A

compressor in Refueling Outage 20, which was a missed opportunity that resulted in the SGK05A unit tripping twice on May 15, 2015, as a result of the same direct cause [H.1].

Inspection Report# : [2015004](#) (pdf)

**Significance:**  Dec 31, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

**Failure to Ensure Essential Service Water Valves were Adequately Protected from External Flooding Hazards**

The inspectors identified a Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the licensee's failure to establish measures to assure that applicable regulatory requirements and the design basis, for applicable structures, systems, and components, are correctly translated into specifications, drawings, procedures, and instructions. Specifically, the licensee failed to ensure that safety-related essential service water valves in the control building were adequately protected from external flooding hazards in the event of a design basis local intense precipitation event, which resulted in a reasonable doubt on the operability of safety-related essential service water valves. The station's immediate corrective actions included entering the condition into the corrective action program and performing a prompt operability evaluation that showed the essential service water valves remained operable. Additional corrective actions include accelerating three Fukushima project schedules that include a new sump pump in the turbine building area four cable vault, ground and surface water improvements for non-safety related electrical duct banks, and new sump pumps in electrical manholes near the turbine building. The violation was entered into the licensee's corrective action program as Condition Report 102250.

This finding is more than minor because it is associated with the design control attribute of the Mitigating Systems Cornerstone and affected the associated cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, during design basis local intense precipitation events, the safety-related essential service water train A and B service water cross-connect motor-operated valves EFHV0023, EFHV0024, EFHV0025, and EFHV0026, and the essential service water train A and B to service water system valves EFHV0039, EFHV0040, EFHV0041, and EFHV0042 were susceptible to external flooding hazards, and there was a reasonable doubt on the operability of these essential service water valves; however, subsequent evaluation determined that the essential service water valves would not have been impacted in the event of a design basis local intense precipitation event, and the valves were determined to be operable. In accordance with Inspection Manual Chapter 0609.04, "Initial Characterization of Findings," and Exhibit 2 of Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," issued June 19, 2012, and April 29, 2015, respectively, the performance deficiency affects mitigating structures, systems, and components. The finding is a deficiency affecting the design or qualification of mitigating structures, systems, and components, and the structures, systems, and components maintained their operability and functionality. Therefore, the inspectors determined that this finding is of very low safety significance (Green). In accordance with Inspection Manual Chapter 0310, "Aspects Within The Cross-Cutting Areas," issued December 4, 2014, the finding has a cross cutting aspect in the area of human performance, challenge the unknown, because Wolf Creek individuals did not stop when faced with uncertain conditions. Specifically, the licensee did not maintain a questioning attitude during flooding walk-downs performed in accordance with NEI 12-07 or during evaluation of Condition Report 59257 to identify and resolve unexpected conditions like the floor drain pathway from the communication corridor to the control building basement (room 3101), which was an opportunity for the station to identify the open pathway from the exterior of the plant [H.11].

Inspection Report# : [2015004](#) (pdf)

**Significance:**  Dec 31, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

**Failure to Perform an Adequate Operability Determination and Consider Design Basis Events**

The inspectors identified a Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” for the licensee’s failure to accomplish activities affecting quality in accordance with Procedure AP 26C-004, “Operability Determination and Functionality Assessment,” Revision 31. Specifically, the licensee failed to document an operability determination of sufficient scope to address the capability of safety-related essential service water valves in the control building to perform their specified safety functions in the event of a design basis local intense precipitation event. Immediate corrective actions included completing a prompt operability determination and performing analyses that determined the valves remained operable. Additional corrective actions include accelerating three Fukushima project schedules that include a new sump pump in the turbine building area four cable vault, ground and surface water improvements for non-safety related electrical duct banks, and new sump pumps in electrical manholes near the turbine building. The violation was entered into the licensee’s corrective action program as Condition Report 100299.

This finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems Cornerstone and affected the associated cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, during design basis local intense precipitation events, the safety-related essential service water train A and B service water cross-connect motor-operated valves EFHV0023, EFHV0024, EFHV0025, and EFHV0026, and the essential service water train A and B to service water system valves EFHV0039, EFHV0040, EFHV0041, and EFHV0042 were susceptible to external flooding hazards, and there was a reasonable doubt on the operability of these essential service water valves; however, subsequent evaluation determined that the essential service water valves would not have been impacted in the event of a design basis local intense precipitation event, and the valves were determined to be operable. In accordance with Inspection Manual Chapter 0609.04, “Initial Characterization of Findings,” and Exhibit 2 of Inspection Manual Chapter 0609, Appendix A, “The Significance Determination Process (SDP) for Findings At-Power,” issued June 19, 2012, and April 29, 2015, respectively, the performance deficiency affects mitigating structures, systems, and components. The finding is not a deficiency affecting the design or qualification of mitigating structures, systems, and components; the finding does not represent a loss of system and/or function; the finding does not represent an actual loss of function of at least a single train or two separate safety systems out-of-service for greater than their allowed outage times; and the finding does not represent an actual loss of function of one or more non-technical specification trains of equipment. Therefore, the inspectors determined that this finding is of very low safety significance (Green). In accordance with Inspection Manual Chapter 0310, “Aspects Within The Cross-Cutting Areas,” issued December 4, 2014, the finding has a cross-cutting aspect in the area of human performance, conservative bias, because Wolf Creek did not use decision making-practices that emphasize prudent choices over those that are simply allowable, and proposed action was not determined to be safe in order to proceed, rather than unsafe in order to stop. Specifically, the licensee did not consider long-term consequences or design basis events when determining how to resolve emergent concerns like the unexpected water in room 3101, which resulted in the licensee’s failure to thoroughly evaluate and assess impacts to the plant when Condition Report 96404 was entered into the corrective action program on May 17, 2015 [H.14].

Inspection Report# : [2015004](#) (*pdf*)

**Significance:** TBD Dec 16, 2015

Identified By: NRC

Item Type: VIO Violation

**Incomplete and Inaccurate Medical Information Resulted in Issuance of a Renewed Operator License Without a Required Medical Restriction**

Nov's were issued in 2015011

Wolf Creek Nuclear Operating Corporation (Wolf Creek) identified two apparent violations (AVs): (1) An apparent violation of Title 10 of the Code of Federal Regulations (10 CFR) 50.9, “Completeness and Accuracy of Information;” and (2) an apparent violation of 10 CFR 50.74, “Notification of Change in Operator or Senior Operator Status.” Specifically, on January 10, 2010, Wolf Creek submitted certified copies of an NRC operator license application that did not specify that the applicant required a restriction (to take medication as prescribed) in order to maintain medical qualifications. The NRC issued the renewed operator’s initial license on February 25, 2010, but

without the necessary medical restriction (AV #1). From May 31, 2006, until July 9, 2015, Wolf Creek had several additional opportunities to identify that medication was required to compensate for a disqualifying medical condition and that a license condition was required during the licensee's biennial licensed operator requalification program reviews and medical examinations. On July 9, 2015, a period that exceeded 30 days from when the condition was identified, the facility notified the NRC of the medical condition via a letter requesting amendment to the operator's license to include the restriction (AV #2). On July 15, 2015, the NRC issued the license amendment with the new restriction. This issue was entered into Wolf Creek's corrective action program.

The inspector determined that Wolf Creek's failure to provide complete and accurate information to the NRC in the operator license application and to notify the NRC of a change in a licensed operator's status for a condition was a performance deficiency. This performance deficiency was known by the licensee and within its ability to foresee and correct and should have been prevented. The inspector determined that traditional enforcement applies, as the issue affected the NRC's ability to perform its regulatory function. Namely, the NRC relies upon Wolf Creek to ensure all licensed operators meet the medical conditions of their licenses. If, during the term of the individual operator license, an operator develops a permanent physical or mental disability that causes the operator to fail to meet the requirements of 10 CFR 55.21, "Medical Examination," the licensee shall notify the NRC within 30 days of learning of the diagnosis, in accordance with 10 CFR 50.74(c). Additionally, the NRC issued a renewed operator license to the applicant based on information that was not complete and accurate in all material aspects. The performance deficiencies were screened against the Reactor Oversight Process per the guidance of Inspection Manual Chapter 0612, Appendix B, "Issue Screening." No associated Reactor Oversight Process finding was identified and no cross-cutting aspect was assigned. These issues constitute apparent violations in accordance with the NRC's Enforcement Policy and their final significance will be dispositioned in separate future correspondence.

Inspection Report# : [2015010](#) (*pdf*)

Inspection Report# : [2016001](#) (*pdf*)

**Significance:** TBD Dec 16, 2015

Identified By: NRC

Item Type: VIO Violation

**Failure to Report a Permanent Change in a Licensed Operator's Medical Status and Request a Condition be Placed on the Operator's License**

NOV was issued in inspection report 2014011

Wolf Creek Nuclear Operating Corporation (Wolf Creek) identified two apparent violations (AVs): (1) An apparent violation of Title 10 of the Code of Federal Regulations (10 CFR) 50.9, "Completeness and Accuracy of Information;" and (2) an apparent violation of 10 CFR 50.74, "Notification of Change in Operator or Senior Operator Status." Specifically, on January 10, 2010, Wolf Creek submitted certified copies of an NRC operator license application that did not specify that the applicant required a restriction (to take medication as prescribed) in order to maintain medical qualifications. The NRC issued the renewed operator's initial license on February 25, 2010, but without the necessary medical restriction (AV #1). From May 31, 2006, until July 9, 2015, Wolf Creek had several additional opportunities to identify that medication was required to compensate for a disqualifying medical condition and that a license condition was required during the licensee's biennial licensed operator requalification program reviews and medical examinations. On July 9, 2015, a period that exceeded 30 days from when the condition was identified, the facility notified the NRC of the medical condition via a letter requesting amendment to the operator's license to include the restriction (AV #2). On July 15, 2015, the NRC issued the license amendment with the new restriction. This issue was entered into Wolf Creek's corrective action program.

The inspector determined that Wolf Creek's failure to provide complete and accurate information to the NRC in the operator license application and to notify the NRC of a change in a licensed operator's status for a condition was a performance deficiency. This performance deficiency was known by the licensee and within its ability to foresee and correct and should have been prevented. The inspector determined that traditional enforcement applies, as the issue affected the NRC's ability to perform its regulatory function. Namely, the NRC relies upon Wolf Creek to ensure all

licensed operators meet the medical conditions of their licenses. If, during the term of the individual operator license, an operator develops a permanent physical or mental disability that causes the operator to fail to meet the requirements of 10 CFR 55.21, "Medical Examination," the licensee shall notify the NRC within 30 days of learning of the diagnosis, in accordance with 10 CFR 50.74(c). Additionally, the NRC issued a renewed operator license to the applicant based on information that was not complete and accurate in all material aspects. The performance deficiencies were screened against the Reactor Oversight Process per the guidance of Inspection Manual Chapter 0612, Appendix B, "Issue Screening." No associated Reactor Oversight Process finding was identified and no cross-cutting aspect was assigned. These issues constitute apparent violations in accordance with the NRC's Enforcement Policy and their final significance will be dispositioned in separate future correspondence.

Inspection Report# : [2015010](#) (*pdf*)

Inspection Report# : [2016001](#) (*pdf*)

**Significance:**  Aug 06, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

**Class 1E 4kV Feeder Breakers from Station Blackout Diesel Generators Current Transformer Wiring not Installed per Design Drawings**

The inspectors identified a Green, non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, for not installing the current transformer wiring in the Class 1E 4kV alternate feeder breaker cubicles from the station blackout diesel generators per the design drawings.

As a result, testing performed seven months after the system was declared operational identified that the connections were unable to power the safety-related buses due to incorrect wiring of the current transformers. The licensee entered this issue into the corrective action program as Condition Report 83379.

This finding was more than minor because it was associated with the Mitigating Systems Cornerstone to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, due to the incorrect wiring of the current transformers, the SBO diesel generators were unable to power safety related buses as they were designed. The inspectors performed the initial significance determination for the finding using NRC Inspection Manual 0609, Appendix A, Exhibit 2, "Mitigating Systems Screening Questions," dated June 19, 2012. The finding required a detailed evaluation because it had the potential to degrade at least one train of a system that supports a risk significant system or function. Therefore, a senior reactor analyst performed a bounding detailed risk evaluation. The finding was of very low safety significance (Green) because the risk assessment programs quantified the change in core damage frequency less than  $1.0 \times 10^{-6}$ .

The inspectors determined that the finding had a teamwork cross-cutting aspect in the area of human performance. The licensee individuals and work groups did not communicate and coordinate their activities within and across organizational boundaries. Specifically a drawing revision was not properly attached to the work order which resulted in the incorrect wiring of both trains, and because different groups were completing different components, parts of the wiring were incorrectly installed per a superseded revision [H.4].

Inspection Report# : [2015002](#) (*pdf*)

**Significance:**  May 26, 2012

Identified By: NRC

Item Type: VIO Violation

### **Failure to Take Timely corrective Action to Preclude Repetition**

The inspectors identified a violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," for the licensee's failure to take corrective action to preclude repetition of system leaks due to water hammer events in the essential service water system. Extensive inadequately evaluated corrosion in the system has led to multiple water-hammer-induced leaks of essential service water piping. These leaks were the subject of two previous violations issued by the NRC. The licensee failed to take timely corrective action to restore compliance. The licensee entered this finding in its corrective action program as condition report 53443.

The failure to preclude recurrence of water hammer in the essential service water system and the failure to take adequate corrective action to control internal pitting corrosion in essential service water system piping was a performance deficiency. The deficiency was more than minor because it is associated with the equipment performance attribute of the mitigating systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. It is therefore a finding. Using Inspection Manual Chapter 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," the team determined that the finding was of very low safety significance (Green) because the finding was a design or qualification deficiency that was confirmed not to result in loss of system operability or functionality. This finding has a cross-cutting aspect in the corrective action program component of the problem identification and resolution cross-cutting area because the licensee failed to take appropriate corrective actions to address safety issues and adverse trends in a timely manner, commensurate with their safety significance (P.1(d)). (Section 40A2.5.c)

Inspection Report# : [2012007](#) (*pdf*)

## **Barrier Integrity**

**Significance:** G Sep 26, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

### **Inadequate Implementation of the Breach Authorization Procedure**

The inspectors identified a non cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," associated with the licensee's inadequate implementation of Procedure AP 10 104, "Breach Authorization," Revision 34. Specifically, control room door 36043, which is a fire, security, and control room ventilation isolation signal barrier, was fully opened prior to the breaching party obtaining required written authorization. Additionally, following the opening of normally closed control room door 36043, control room door 36042 was not adequately positioned, which resulted in a doubt on the operability of the control room envelope boundary. Wolf Creek's immediate corrective actions included closing door 36043 to restore the control room boundary, completing a breach authorization permit until repairs could be completed on door 36043, and entering the issue into its corrective action program as Condition Report 99097.

This finding is more than minor because it is associated with the system, structure, and component and barrier performance attribute of the Barrier Integrity Cornerstone, and affected the associated cornerstone objective to provide reasonable assurance that physical design barriers (fuel cladding, reactor coolant system, and containment), including the radiological barrier functionality of the control room, are maintained and protect the public from radionuclide releases caused by accidents or events. Specifically, while control room door 36043 was opened and control room door 36042 was being credited as the control room envelope boundary, door 36042 was not in the required position to maintain the control room envelope operable, and there was a reasonable doubt on the operability of the control room envelope because neither operations nor stationed security personnel verified and recognized the required position of door 36042. In accordance with Inspection Manual Chapter 0609.04, "Initial Characterization of Findings," and

Exhibit 3 of Inspection Manual Chapter 0609, Appendix A, “The Significance Determination process (SDP) for Findings At Power,” issued June 19, 2012, and April 29, 2015, respectively, the performance deficiency was a deficiency affecting the control room, auxiliary, reactor, or spent fuel pool building. The performance deficiency did not represent only a degradation of the radiological barrier function, but the deficiency did not represent a degradation of the barrier function of the control room against smoke or a toxic atmosphere. Therefore, the inspectors determined the finding was of very low safety significance (Green). The finding has a cross cutting aspect in the area of human performance, challenge the unknown, because Wolf Creek did not stop when faced with uncertain conditions or evaluate and manage risks before proceeding. Specifically, Wolf Creek’s immediate actions to open door 36043 without a breach authorization permit and its actions to inadequately position door 36042 were not adequately evaluated prior to implementation, which resulted in door 36042 being left in a position inconsistent with Procedure AP 10 104 and a reasonable doubt on the operability of the control room envelope.(H.11)  
Inspection Report# : [2015003](#) (*pdf*)

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## **Emergency Preparedness**

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## **Occupational Radiation Safety**

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## **Public Radiation Safety**

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## **Security**

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the [cover letters](#) to security inspection reports may be viewed.

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## **Miscellaneous**

Last modified : July 11, 2016