

UNITED STATES NUCLEAR REGULATORY COMMISSION

REGION IV 1600 EAST LAMAR BOULEVARD ARLINGTON, TEXAS 76011-4511

November 7, 2018

Adam C. Heflin, President and Chief Executive Officer Wolf Creek Nuclear Operating Corporation P.O. Box 411 Burlington, KS 66839

SUBJECT: WOLF CREEK GENERATING STATION - NRC INTEGRATED INSPECTION

REPORT 05000482/2018003

Dear Mr. Heflin:

On September 30, 2018, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Wolf Creek Generating Station. On October 31, 2018, the NRC inspectors discussed the results of this inspection with Mr. S. Smith, Vice President Engineering, and other members of your staff. The results of this inspection are documented in the enclosed report.

NRC inspectors documented one finding of very low safety significance (Green) in this report. This finding involved a violation of NRC requirements. Additionally, NRC inspectors documented one Severity Level IV violation with no associated finding. The NRC is treating these violations as non-cited violations (NCVs) consistent with Section 2.3.2 of the Enforcement Policy.

If you contest the violations or significance of these NCVs, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region IV; the Director, Office of Enforcement; and the NRC resident inspector at the Wolf Creek Generating Station.

If you disagree with a cross-cutting aspect assignment in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region IV; and the NRC resident inspector at the Wolf Creek Generating Station.

A. Heflin 2

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at http://www.nrc.gov/reading-rm/adams.html and at the NRC Public Document Room in accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

/RA/

Nicholas H. Taylor, Chief Project Branch B Division of Reactor Projects

Docket No. 50-482 License No. NPF-42

Enclosure:

Inspection Report 05000482/2018003 w/Attachments:

- 1. Documents Reviewed
- 2. Request for Information Public Radiation Safety Inspection

U.S. NUCLEAR REGULATORY COMMISSION Inspection Report

Docket Number: 05000482

License Number: NPF-42

Report Number: 05000482/2018003

Enterprise Identifier: I-2018-003-0012

Licensee: Wolf Creek Nuclear Operating Corporation

Facility: Wolf Creek Generating Station

Location: Burlington, Kansas

Inspection Dates: July 1 to September 30, 2018

Inspectors: D. Dodson, Senior Resident Inspector

F. Thomas, Resident Inspector S. Alferink, Reactor Inspector

H. Anagnostopoulos, NRC Region I, CHP, Senior Health Physicist

L. Carson II, Senior Health Physicist

P. Elkmann, Senior Emergency Preparedness Inspector

N. Greene, PhD, Senior Health Physicist J. Kirkland, Senior Operations Engineer

J. Melfi, Project Engineer

J. O'Donnell, CHP, Health Physicist D. Proulx, Senior Project Engineer

Approved By: Nicholas H. Taylor

Chief, Project Branch B Division of Reactor Projects

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting an Integrated Inspection at Wolf Creek Generating Station in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to https://www.nrc.gov/reactors/operating/oversight.html for more information. NRC-identified and self-revealed findings, violations, and additional items are summarized in the table below. Licensee-identified non-cited violations are documented in the Inspection Results at the end of this report.

List of Findings and Violations

Failure to Correct Degraded Performance of a Safety-Related Tornado Damper			
Cornerstone	Significance	Cross-cutting Aspect	Inspection
			Procedure
Mitigating	Green	H.14 – Human	71152 –
Systems	NCV 05000482/2018003-01	Performance,	Problem
	Closed	Conservative Bias	Identification
			and
			Resolution

The inspectors identified a Green non-cited violation of 10 CFR Part 50, Criterion XVI, "Corrective Action," for the licensee's failure to promptly correct a condition adverse to quality associated with a safety-related tornado damper. Specifically, damper GTD0002 failed tests in 2012 and 2015, and following maintenance on the damper in 2017, again failed its next asfound test on February 8, 2018. As a result, this safety-related tornado damper's ability to close during a design basis tornado event was adversely impacted.

Failure to Submit a Licensee Event Report for a Condition Prohibited by Technical			
Specifications			
Cornerstone	Significance	Cross-cutting Aspect	Inspection Procedure
Not Applicable	Severity Level IV NCV 05000482/2018003-02 Closed	Not Applicable	71152 – Problem Identification and Resolution

The inspectors identified a Severity Level IV non-cited violation of 10 CFR 50.73(a)(2)(i)(B), because the licensee did not provide a written licensee event report (LER) to the NRC within 60 days. Specifically, the licensee did not provide a written LER to the NRC within 60 days of identifying a condition prohibited by the plant's Technical Specifications associated with inoperability of control room emergency ventilation system train B for longer than its Technical Specification allowed outage time. As a result, the NRC's ability to regulate was impacted.

PLANT STATUS

Wolf Creek Generating Station began the inspection period operating at full power. On August 16, 2018, operators reduced power to approximately 59 percent following the loss of the Wolf Creek-Rosehill offsite 345 kV line as a result of heavy offsite storms and the 345-40 switchyard circuit breaker failing to reclose. The plant was restored to approximately full power on August 18, 2018, and the plant operated at or near full power for the rest of the period.

INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors performed plant status activities described in IMC 2515 Appendix D, "Plant Status," and conducted routine reviews using IP 71152, "Problem Identification and Resolution." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

REACTOR SAFETY

71111.01—Adverse Weather Protection

External Flooding (1 Sample)

The inspectors evaluated readiness to cope with external flooding on July 12, August 8, and September 11, 2018.

71111.04—Equipment Alignment

Partial Walkdown (5 Samples)

The inspectors evaluated system configurations during partial walkdowns of the following systems/trains:

- (1) Safety injection train B on July 17, 2018
- (2) Charging pump train B on July 24, 2018
- (3) Class 1E offsite electrical circuit alignment in preparation for realigning to an alternate supply line-up to Class 1E 4160 volt alternating current bus NB01 on August 21, 2018
- (4) Motor driven auxiliary feedwater train A on August 29, 2018
- (5) Emergency diesel generator train B on September 19, 2018

71111.05AQ—Fire Protection Annual/Quarterly

Quarterly Inspection (4 Samples)

The inspectors evaluated fire protection program implementation in the following selected areas:

- (1) Control building, elevation 2,016 feet, fire areas C-13, C-14, C-15, C-16, C-18, C-19, and C-35 (Class 1E air conditioning unit rooms, safety-related battery rooms, and switchgear rooms) on July 12, 2018
- (2) Control building, elevation 2,032 feet, fire areas C-21, C-23, and C-24 (lower cable spreading room and cable chases) on July 12, 2018
- (3) Auxiliary building, elevation 1,974 feet, fire areas A-1 and A-4 (emergency core cooling system train B) on July 26, 2018
- (4) Control building, elevation 1,984 feet, fire area C-5 (access control) on September 11, 2018

Annual Inspection (1 Sample)

The inspectors evaluated fire brigade performance on August 10 and September 7, 2018.

71111.06—Flood Protection Measures

Cables (1 Sample)

The inspectors evaluated cable submergence protection in essential service water electrical manhole MHE2B on July 30, 2018.

71111.11—Licensed Operator Regualification Program and Licensed Operator Performance

Operator Requalification (1 Sample)

The inspectors observed and evaluated licensed operator requalification activities in the simulator that included multiple instrument and component malfunctions and a steam generator tube rupture scenario on August 27, 2018.

Operator Performance (1 Sample)

The inspectors observed and evaluated power ascension activities after a reduction in power associated with the loss of the Rosehill 345 kV line on August 17, 2018.

Operator Requalification Program (1 Sample)

The inspectors evaluated the operator regualification program from June 4 to June 7, 2018.

71111.12—Maintenance Effectiveness

Routine Maintenance Effectiveness (3 Samples)

The inspectors evaluated the effectiveness of routine maintenance activities associated with the following equipment and/or safety significant functions:

- (1) Class 1E instrument alternating current power inverter NN11 unexpectedly transferring to its bypass transformer on May 21, 2018
- (2) Chemical and volume control system reactor coolant system letdown to regenerative heat exchanger valve diaphragm leak and failure to open on April 29, 2018
- (3) Containment cooler train A breaker tripped while shifting to fast speed on May 9, 2018

71111.13—Maintenance Risk Assessments and Emergent Work Control (7 Samples)

The inspectors evaluated the risk assessments for the following planned and emergent work activities:

- (1) Planned safety-related NK24 battery charger maintenance on July 9 and July 10, 2018
- (2) Unplanned component cooling water train A essential service water weld leak on July 22 and July 23, 2018
- (3) Risk assessment and mitigation associated with protection of containment spray train B on July 24, 2018
- (4) Risk assessment associated with unplanned station blackout diesel generator switchgear PB005 non-functionality and planned emergency diesel generator train B maintenance on August 1, 2018
- (5) Risk assessment associated with extended service water pump A maintenance, abnormal switchyard alignment, and numerous lifts in the spent fuel pool building during the week of August 20, 2018
- (6) Risk assessment associated with protection of fuel building equipment during lift of cask handling crane trolley assembly from elevation 2,047 feet to crane trolley rail structure on August 27, 2018
- (7) Risk assessment associated with planned switchyard manipulations and extended instrument air compressor train A out-of-service time due to an unexpected breaker trip while restoring from maintenance

71111.15—Operability Determinations and Functionality Assessments (5 Samples)

The inspectors evaluated the following operability determinations and functionality assessments:

(1) Essential service water system piping U-bolt support configuration on June 13, 2018

- (2) Essential service water train A to component cooling water train A heat exchanger isolation valve EFHV0051 leakby on July 23, 2018
- (3) Class 1E 125 Volt direct-current busses NK01, NK02, NK03, and NK04, and switchboards and components downstream of the NK buses on July 31, 2018
- (4) Boric acid storage tank train B seismic support configuration on August 6, 2018
- (5) Essential service water train B pin hole leakage on the return line of control room chiller unit SGK04B on August 8, 2018

71111.18—Plant Modifications (1 Sample)

The inspectors evaluated the Class 1E heating, ventilation, and air conditioning system recirculation system permanent modification.

71111.19—Post Maintenance Testing (3 Samples)

The inspectors evaluated the following post maintenance tests:

- (1) Component cooling water heat exchanger train A essential service water leak repair on July 24, 2018
- (2) Component cooling water pumps A and C following planned breaker and pump maintenance on August 13, 2018
- (3) Charging pump train A following planned maintenance on September 18, 2018

71111.22—Surveillance Testing

The inspectors evaluated the following surveillance tests:

Routine (1 Sample)

- (1) STS EN-005, "Containment Spray Additive Tank Volume Verification," on July 18, 2018

 <u>In-service</u> (2 Samples)
- (1) STS EJ-100B, "[Residual Heat Removal] System Inservice Pump B Test," on July 11, 2018
- (2) STS BG-210, "[Chemical and Volume Control System] Inservice Check Valve Test," on September 20, 2018

71114.02—Alert and Notification System Testing (1 Sample)

The inspector evaluated the maintenance and testing of the licensee's alert and notification system on September 20, 2018.

71114.03—Emergency Response Organization Staffing and Augmentation System (1 Sample)

The inspector evaluated the readiness of the licensee's Emergency Preparedness Organization on September 20, 2018.

71114.05—Maintenance of Emergency Preparedness (1 Sample)

The inspector evaluated the maintenance of the emergency preparedness program on September 18, 2018. The inspector observed emergency response organization training conducted on September 18 and September 19, 2018.

71114.06—Drill Evaluation

Emergency Planning Drill (1 Sample)

The inspectors evaluated the emergency planning drill on August 28, 2018.

Drill/Training Evolution (1 Sample)

The inspectors evaluated simulator-based licensed operator qualification training on September 17, 2018.

RADIATION SAFETY

71124.05—Radiation Monitoring Instrumentation

Walk Downs and Observations (1 Sample)

The inspectors evaluated radiation monitoring instrumentation during plant walkdowns.

Calibration and Testing Program (1 Sample)

The inspectors evaluated the licensee's calibration and testing program.

71124.06—Radioactive Gaseous and Liquid Effluent Treatment

Walk Downs and Observations (1 Sample)

The inspectors evaluated the licensee's radioactive gaseous and liquid effluent treatment systems during plant walkdowns.

Calibration and Testing Program (Process and Effluent Monitors) (1 Sample)

The inspectors evaluated the licensee's gaseous and liquid effluent monitor instrument calibration and testing.

Sampling and Analyses (1 Sample)

The inspectors evaluated radioactive effluent sampling and analysis activities.

<u>Instrumentation and Equipment</u> (1 Sample)

The inspectors evaluated radioactive effluent instrumentation and equipment.

Dose Calculations (1 Sample)

The inspectors evaluated dose calculations.

71124.07—Radiological Environmental Monitoring Program

Site Inspection (1 Sample)

The inspectors evaluated the licensee's radiological environmental monitoring program.

<u>Groundwater Protection Initiative Implementation</u> (1 Sample)

The inspectors evaluated the licensee's groundwater monitoring program.

The inspectors identified an incomplete element of Wolf Creek Nuclear Operating Corporation's implementation of the Ground Water Protection Initiative as described in NEI 07-07, "Industry Ground Water Protection Initiative – Final Guidance Document", dated August 2007.

Specifically, the inspectors could not find evidence that Objective 1.2.2, "Evaluate work practices that involve licensed material and for which there is a credible mechanism for the licensed material to reach ground water," had been performed as described in the initiative's acceptance criteria for that objective.

The inspectors found that:

- The licensee hired a contractor to perform a site risk assessment in 2008. That risk assessment focused specifically on site systems, structures and components as described in objective 1.2.1. The assessment did not specifically look at work practices as required in the second objective 1.2.2.
- Quick Hit Assessment QH-2013-0660 reviewed the site's compliance with NEI 07-07 using a comprehensive checklist of the document's requirements. The checklist combined objectives 1.2.1 and 1.2.2 together as one item. As a result, the previous failure to evaluate work practices (per objective 1.2.2) was not identified.
- Quick Hit Assessment QH-2016-1249 again reviewed the site's compliance with NEI 07-07, but using team members from other utilities. This assessment identified that "there was no documentation that lists the identified work practices that meet this criteria [objective 1.2.2]." Condition Report 101560 was written.
- The description provided in Condition Report 101560 adequately reflects the condition
 as identified in QH-2016-1249. The inspectors found, however, that the actions taken in
 response to the condition report focused only on updating the existing evaluation of
 systems, structures, and components (objective 1.2.1) and again did not address the
 missing evaluation of work practices as required in objective 1.2.2.

The incomplete implementation of NEI 07-07 was reviewed with licensee management on August 23, 2018. This was entered into the corrective action program by documenting the observations in Condition Reports 118440 and 126115.

<u>71124.08—Radioactive Solid Waste Processing and Radioactive Material Handling, Storage,</u> and Transportation

Radioactive Material Storage (1 Sample)

The inspectors evaluated the licensee's radioactive material storage.

Radioactive Waste System Walk-down (1 Sample)

The inspectors evaluated the licensee's radioactive waste processing facility during plant walkdowns.

Waste Characterization and Classification (1 Sample)

The inspectors evaluated the licensee's radioactive waste characterization and classification.

Shipment Preparations (1 Sample)

The inspectors evaluated the licensee's radioactive material shipment preparation processes.

Shipment Records (1 Sample)

The inspectors evaluated the licensee's non-excepted package shipment records.

OTHER ACTIVITIES - BASELINE

71151—Performance Indicator Verification (6 Samples)

The inspectors verified licensee performance indicators submittals listed below:

- (1) MS06: Emergency AC Power Systems (07/01/2017 06/30/2018)
- (2) MS07: High Pressure Injection Systems (07/01/2017 06/30/2018)
- (3) MS10: Cooling Water Support Systems (07/01/2017 06/30/2018)
- (4) EP01: Drill/Exercise Performance Sample (10/1/2017 06/30/2018)
- (5) EP02: Emergency Response Organization Drill Participation Sample (10/1/2017 06/30/2018)
- (6) EP03: Alert And Notification System Reliability Sample (10/1/2017 06/30/2018)

71152—Problem Identification and Resolution

Annual Follow-up of Selected Issues (1 Sample)

The inspectors reviewed the licensee's implementation of its corrective action program related to an unplanned auxiliary feedwater train actuation on May 12, 2018.

INSPECTION RESULTS

Failure to Correct Degraded Performance of a Safety-Related Tornado Damper					
Cornerstone	Severity Cross-cutting Aspect Inspection Procedure				
Mitigating Systems	ating Systems Green NCV 05000482/2018003-01 Closed		71152 – Problem Identification and Resolution		

The inspectors identified a Green non-cited violation of 10 CFR Part 50, Criterion XVI, "Corrective Action," for the licensee's failure to promptly correct a condition adverse to quality associated with a safety-related tornado damper. Specifically, damper GTD0002 failed tests in 2012 and 2015, and following maintenance on the damper in 2017, again failed its next as-found test on February 8, 2018. As a result, this safety-related tornado damper's ability to close during a design basis tornado event was adversely impacted.

<u>Description</u>: In December 2012 the licensee identified in Condition Report 61246 that during preventive maintenance and testing, the GTD0002 tornado damper exceeded its acceptance criteria for breakaway torque. Specifically, the as-found torque was 320 ft-lbs, which exceeded the acceptance criteria of 299 ft-lbs or less. The licensee implemented Work Order 12-355727-011, cycled the damper six times, and each time the damper break away torque was noted as between or equal to 280 to 290 ft-lbs. This failure was determined to be a result of lack of cycling leading to a non-uniform lubrication profile. No additional action was taken.

In January 2015, the licensee identified in Condition Report 90975 that during preventive maintenance and testing the GTD0002 damper was rubbing and exceeded its acceptance criteria for breakaway torque (as found break away torque was 380 ft-lbs as compared to the acceptance criteria of 299 ft-lbs or less). A contingency work order was implemented and actions were taken to reduce the rubbing that was identified. Rubbing was still noted following the corrective maintenance, but the as-left break away torque was found to be within acceptable ranges and the damper was described as cycling "relatively smooth." The licensee performed a basic cause evaluation and determined that the probable cause was "inadequate clearances between the damper blades and the associated ductwork during initial installation resulting in a rubbing or binding condition of the damper." A planned action included performing Work Order 15-397077-000.

On January 11, 2017, the licensee performed Work Order 15-397077-000 to adjust the ductwork at the GTD0002 damper. Bolting between the damper framework and the ductwork was loosened and the vertical duct face was mechanically adjusted. Work Order 15-397077-000 noted the as found condition of the two middle blades stating that they "rub hard." Condition Report 110377 also noted that five of nine damper blades still exhibited rubbing as the ductwork relaxed. Work Order 15-397077-000 also noted that the damper passed its as-left break away torque test at 291 ft-lbs. Though, the work order pointed out, "Damper blade still rubbing after adjustment." An email from maintenance personnel

(attached to the work order) described the condition of the damper following maintenance. The email stated.

I was able to cycle the damper much easier than before but when we put the to[r]que wrench on it we were getting it to move at [approximately] 330 [ft-lbs]. We tried several times and we were all eyeballing it but each time it seemed it would just barely start to creep at around 290 [ft-lbs] but nothing very noticeable until 320-330 [ft-lbs].

Engineering personnel were contacted and the condition was accepted based on "Slight movement at 290 [ft-lbs]" during three subsequent attempts.

On February 8, 2018, while performing planned testing and maintenance on normally open safety-related tornado damper GTD0002 in accordance with Work Order 17-428518-000, the first stroke breakaway torque failed to meet the acceptance criteria of less than or equal to 299 foot-lbs. Condition Report 119330 noted the damper did not break away until applied torque had reached 325 foot-lbs and the damper seemed to be "binding up the first quarter of the rotation."

Section 9.4.3.2.2, "Component Description," of the Updated Final Safety Analysis Report describes the function of the normally open GTD0002 damper. It states, "Tornado dampers are employed where isolation from the effects of extreme wind or tornado conditions is required. These dampers close with the flow produced by the differential pressure associated with tornadoes or high winds." Otherwise, the safety-related damper must be open to allow flow for the emergency exhaust system to vent through the unit stack.

Section 9.4.3.1.1, "Safety Design Bases," of Section 9.4.3, "Auxiliary Building," of the Updated Final Safety Analysis Report describes the design basis for this damper:

The emergency exhaust system, and those portions of the auxiliary building...and the auxiliary/fuel building normal exhaust...which are required to provide isolation of the auxiliary building are safety-related and are required to function following a [design basis accident] and to achieve and maintain the plant in a postaccident safe shutdown condition...The emergency exhaust system, and the auxiliary building isolation provisions are protected from the effects of natural phenomena, such as earthquakes, tornadoes, hurricanes, floods, and external missiles (GDC-2).

The inspectors noted that both trains of the safety-related emergency exhaust system could be prevented from performing their safety-related functions if the damper did not close as designed during a design basis tornado. Specifically, the negative pressure created by a tornado could result in the collapse of the unit vent exhaust plenum, which is the exhaust flowpath for the emergency exhaust system.

Corrective Actions: On February 8, 2018, Work Order 17-421482-000 was performed to remove a small amount of the GTD0002 damper blade material at the edge of the damper blades to eliminate rubbing. The licensee also created long-term action 18-0008 to provide a permanent resolution for the rubbing issues that have contributed to the numerous failures of the breakaway torque testing.

Corrective Action References: Condition Reports 119330 and 127690.

Performance Assessment:

Performance Deficiency: The failure to promptly correct a condition adverse to quality associated with safety-related tornado damper GTD0002 was a performance deficiency.

Screening: The performance deficiency is more than minor, and therefore a finding, because it is associated with the structure, system and component, and barrier performance attribute of the Barrier Integrity Cornerstone objective to provide reasonable assurance that physical design barriers (fuel cladding, reactor coolant system, and containment) protect the public from radionuclide releases caused by accidents or events. Specifically, the auxiliary building boundary and the emergency exhaust system's ability to exhaust potentially contaminated air from the emergency core cooling system could be adversely impacted by the GTD0002 damper's inability to meet breakaway torque requirements.

Significance: The inspectors assessed the significance of the finding using Exhibit 3, "Barrier Integrity Screening Questions," of Inspection Manual Chapter 0609, Appendix A, "Significance Determination Process (SDP) for Findings At-Power," issued June 19, 2012, and determined this finding does not only represent a degradation of the radiological barrier function provided for the control room, or auxiliary building, or spent fuel pool, and the finding does 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).

Cross-cutting Aspect: The inspectors determined that the finding has a human performance cross-cutting aspect in the area of conservative bias in that individuals did not use decision making-practices that emphasize prudent choices over those that are simply allowable. Specifically, individuals rationalized assumptions for the sake of completing a task when the rubbing condition was accepted with "slight movement" of the damper at the acceptance criteria, rather than pursuing resolution of the known degraded condition of the damper blades. As a result, when the damper was next tested, it failed at the same unsatisfactory torque value as that observed in January 2017.

Enforcement:

Violation: Title 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," requires, in part, that measures shall be established to assure that conditions adverse to quality, such as failures, are promptly corrected.

Contrary to the above, until February 8, 2018, measures were not established to assure that conditions adverse to quality, such as failures, were promptly corrected. Specifically, actions taken to correct the degraded condition of safety-related tornado damper GTD0002 were inadequate to ensure it could perform its safety function from January 2017 through February 2018. As a result, the damper failed testing again in 2018.

Enforcement Action: This violation is being treated as a non-cited violation, consistent with Section 2.3.2 of the Enforcement Policy.

Failure to Submit a Licensee Event Report for a Condition Prohibited by Technical					
Specifications					
Cornerstone Severity Cross-cutting Aspect Inspection Procedure					
Not Applicable Severity Level IV NCV 05000482/2018003-02 Closed Not Applicable 71152 – Problem Identification and Resolution					

The inspectors identified a Severity Level IV non-cited violation of 10 CFR 50.73(a)(2)(i)(B), because the licensee did not provide a written licensee event report (LER) to the NRC within 60 days. Specifically, the licensee did not provide a written LER to the NRC within 60 days of identifying a condition prohibited by the plant's Technical Specifications associated with inoperability of control room emergency ventilation system train B for longer than its Technical Specification allowed outage time. As a result, the NRC's ability to regulate was impacted.

Description: On March 5, 2018, the licensee performed Procedure STS PE-004, "Aux Building and Control Room Pressure Test," Revision 16, and the B train control room emergency ventilation system's ability to pressurize the control room envelope and maintain pressure greater than or equal to 0.25 inches water gauge failed. Later tests on March 5, 2018, which maintained control of control building doors, had results that varied between 0.18 and 0.26 inches water gauge, with an average of 0.2258 inches water gauge.

Troubleshooting was performed and, on March 6, 2018, an interim configuration associated with Design Change Package 14269, "SGK05 Tech Spec Addition and Compensatory

with Design Change Package 14269, "SGK05 Tech Spec Addition and Compensatory Modifications," was found to be impacting readings. Specifically, between September 17, 2017, and January 17, 2018, four openings, approximately 2 foot by 2 foot, were cut in the floor/ceiling between the 2,032 foot and 2,016 foot elevations of the control building to support ongoing ductwork installation. On January 17, 2018, after penetrations for the modification were completed, compensatory measures consisting of steel plates covering the four floor openings were in place until ductwork installation began on February 19, 2018. Beginning on February 19, 2018, the penetrations remained open during ductwork and damper installation until March 6, 2018, when the ductwork and damper installation was completed.

Following numerous actions to restore margin to the ability to pressurize the control room envelope, surveillance testing was performed for the B and A trains of the control room emergency ventilation system on March 15, 2018, and the control room envelope was pressurized to 0.3448 and 0.3695 inches water gauge, respectively. Additional information on this issue is described in NCV 05000482/2018002-02, "Failure to Maintain Adequate Pressurization of the Control Room Envelope," (ADAMS ML18226A175).

The licensee's cause evaluation determined that the probable causes of the issue were inadequate identification of control building ventilation isolation boundaries in WCRE-35, "Boundary Matrix," and control of conditions during STS PE-004. Relative to the interim configuration in which the ducting was found on March 6, 2018, the licensee's cause evaluation stated,

When the ducting was fully installed and the control room pressure tested in the same configuration, an increase of 0.04 to 0.07 [inches water gauge] was noted initially. Enough to pass acceptance criteria and close to the pressures last noted during performance of STS PE-004 in 2016. The readings were taken immediately following the closure of the main control room door and while the total average over that period was 0.2641 [inches water gauge], the last 5 minutes of readings averaged 0.2935 [inches water gauge]. This would

seem to indicate that the control room pressure was still stabilizing and that the pressure was similar to those found during past differential pressure tests. When the surveillance was ran the following week it did not pass but conditions under which the surveillance were ran differed in both timing and alignment which may have contributed to the lower than expected pressure.

In addition to the licensee's conclusions regarding the interim configuration's impact on the control room emergency ventilation system, the licensee's evaluation noted,

A number of factors were found to be consequential to control room pressure during the event under evaluation. Direct comparison between all the pressures found is complicated by the numerous varying factors between each of the tests. However, based on the test results the probable cause of the initial failure is related to the penetration between the 2032' and 2016' elevations of the Control Building.

Considering successful informational testing on March 6, 2018, after ductwork and dampers were installed, considering additional information provided in the licensee's cause evaluation, and considering reportability subject matter expert input the inspectors determined that train B of the control room emergency ventilation system was inoperable between February 19, 2018, and March 16, 2018, when the system was returned to operable.

Corrective Actions: In response to the inspectors' questions the licensee initiated Condition Report 127691.

Corrective Action References: Condition Report 127691.

<u>Performance Assessment</u>: The inspectors determined this violation was associated with a minor performance deficiency.

<u>Enforcement</u>: The Reactor Oversight Process's significance determination process does not specifically consider the regulatory process impact in its assessment of licensee performance. Therefore, it is necessary to address this violation which impedes the NRC's ability to regulate using traditional enforcement to adequately deter non-compliance.

Severity: The inspectors determined that the failure to provide a written LER within 60 days was a performance deficiency that was reasonably within the licensee's ability to foresee and correct, and should have been prevented. This violation involved not making a required report to the NRC and is considered to impact the regulatory process. Such violations are dispositioned using the traditional enforcement process instead of the Significance Determination Process. Using the Enforcement Policy, Section 6.9, "Inaccurate and Incomplete Information or Failure to Make a Required Report," example (d)(9), which states, "A licensee fails to make a report required by 10 CFR 50.72 or 10 CFR 50.73," the NRC determined this violation is more than minor and is categorized as a Severity Level IV violation (very low safety significance).

Violation: Title 10 CFR 50.73(a) requires, in part, that licensees submit an LER for any event of the type described in the paragraph within 60 days after the discovery of the event. Title 10 CFR 50.73(a)(2)(i)(B) requires, in part, that any operation or condition which was prohibited by the plant's Technical Specifications be reported in an LER.

Contrary to the above, on May 4, 2018, an operation or condition which was prohibited by the plant's Technical Specifications was not reported in an LER. Specifically, Technical

Specification 3.7.10, "Control Room Emergency Ventilation System (CREVS)," requires, in part, immediate initiation of action to implement mitigating actions when one or more control room emergency ventilation system trains is inoperable due to an inoperable control room envelope boundary or control building envelope boundary in MODES 1, 2, 3, or 4, or the unit must be in MODE 3 in 6 hours and MODE 5 in 36 hours. Neither immediate initiation of action to implement mitigating actions was implemented, nor the unit placed in MODE 3 in 6 hours and MODE 5 in 36, and the condition prohibited by the plant's Technical Specifications was not later reported in an LER.

Enforcement Action: This violation is being treated as a non-cited violation, consistent with Section 2.3.2 of the Enforcement Policy.

EXIT MEETINGS AND DEBRIEFS

On August 16, 2018, the inspector presented the licensed operator requalification inspection results to Ms. J. Yunk, Training Manager, and other members of the licensee staff. The inspector verified no proprietary information was retained or documented for this inspection period.

On August 23, 2018, the inspectors presented the baseline radiation protection inspection results to Mr. T. Fugate, Director, Plant Support, and other members of the licensee staff. The inspectors verified no proprietary information was retained or documented in this report.

On September 21, 2018, the inspector presented the results of the onsite inspection of the emergency preparedness program to Mr. M. Boyce, Director, Engineering Projects, and other members of the licensee staff. The inspector verified no proprietary information was retained or documented in this report.

On October 31, 2018, the inspector presented the quarterly resident inspector inspection results to Mr. S. Smith, Vice President, Engineering, and other members of the licensee staff. The inspectors verified no proprietary information was retained or documented in this report.

DOCUMENTS REVIEWED

71111.01—Adverse Weather Protection

Procedures				
Number	Title			Revision
OFN SG-048	Flash Flood Warnii	ng		6
STS PE-049E	Train A Essential S Test	Service Water Sys	tem in Vaults Pressure	1
Drawings				
Number	Title			Revision
10466-A-1330	Access Control Flo	oor Plan, El. 1984'	-0"	5
C-1C3902	Control Building Ar Reinforcing Wall E			7
C-K201	E.S.W.S. Yard Pipe Sections and Sche		Duct Banks Plan,	10
C-K201	E.S.W.S. Yard Pipe Sections and Sche		Duct Banks Plan,	12
C-K202	E.S.W.S. Yard Pipe Sections and Sche		Duct Banks Plan,	10
C-K202	E.S.W.S. Yard Pipe Sections and Sche		Duct Banks Plan,	11
C-K208	E.S.W.S. Yard Pipe Details Sht. 1	eline Valve House	Plans, Sections, and	5
C-K208	E.S.W.S. Yard Pipe Details Sht. 1	eline Valve House	Plans, Sections, and	8
Condition Reports	S			
121699	124381	124382	124383	124397
124409	124988	125177	125196	125197
126267	126345			
Miscellaneous Documents				
Number	Title			Revision
014592	•	•	kage Title: ESW Below omponent Abandonme	

Number	Title	Revision
014592	Field Change Notice – Change Package Title: ESW Below Ground Plant Tie-In Approval and Component Abandonment	3
10466-C107-1	Bechtel: Technical Specification for Purchase of Waterstops and Expansion Joint Filler for the Standardized Nuclear Unit Power Plant System (Snupps); Job No. 10466	1
APF 05-002-05	Engineering Disposition: ESW Below Ground Plant Tie-In Approval and Component Abandonment – Package # 014592	0
APF 05-002-05	Engineering Disposition: ESW Below Ground Plant Tie-In Approval and Component Abandonment – Package # 014592	1
APF 05-007-01	Safety Classification Analysis – Change Package #013503	1

71111.04—Equipment Alignment

Procedures

Number	Title	Revision
AI 15C-006	Management Oversight Requirements for Infrequently Performed and Potentially Degrading Evolutions	22
AP 21G-001	Control of Locked Component Status	73
AP 26C-004	Operability Determination and Functionality Assessment	32
CKL AL-120	Auxiliary Feedwater Normal Lineup	42
CKL BG-120	Chemical and Volume Control System Normal Valve Lineup	41
CKL BG-130	Chemical and Volume Control System Switch and Breaker Lineup	31A
CKL EM-120	Safety Injection System Lineup Checklists	32
CKL KJ-121	Diesel Generator NE01 and NE02 Valve Checklist	40B
MGM MOOP-01	Relief Valve Bench Testing	25
STS IC 645A	Slave Relay Test K645 Train A Containment Spray	17
SYS NB-200	Transferring XNB01 Supply Between SL7 and #7 Transformer	19
SYS NP-201	Transferring NB01 Power Sources	61

Drawings

Number	Title	Revision
E-1001	Single Line Diagram Site Area Loads	37
E-11001	Main Single Line Diagram	11
E-11005	List of Loads Supplied by Emergency Diesel Generator	52
E-11010	DC Main Single Line Diagram	11
E-11010A	DC Main Single Line Diagram (PK03 and PK04 BUS)	5
E-12KJ01	Standby Generation Engine and Governor Control Logic Diagram	6
E-12NE01	Standby Generation Excitation Control Logic Diagram	3
E-12NE02	Logic Diagram Standby Gen. System Protection	6
E-K1001	Single Line Diagram Essential Service Water System	3
KD-7496	One Line Diagram	63
KD-7496	One Line Diagram	67
KD-7750	Wolf Creek Substation General Plan	13
M-12AL01	Piping & Instrumentation Diagram Auxiliary Feedwater System	28
M-12AP01	Piping & Instrumentation Diagram Condensate Storage and Transfer System	21
M-12BG03	Piping and Instrumentation Diagram Chemical & Volume Control System	48
M-12EJ01	Piping and Instrumentation Diagram Residual Heat Removal System	52
M-12EM01	Piping & Instrumentation Diagram High Pressure Coolant Injection System	42
M-12EM01	Piping & Instrumentation Diagram High Pressure Coolant Injection System	45
M-12EM02	Piping & Instrumentation Diagram High Pressure Coolant Injection System	23
M-12EM03	Piping & Instrumentation Diagram High Pressure Coolant Injection System Test Line	4
M-12KJ04	Piping & Instrumentation Diagram, Standby Diesel Generator "B", Cooling Water System	18
M-12KJ05	Piping & Instrumentation Diagram, Standby Diesel Generator "B", Intake Exhaust, F.O. & Start Air Sys.	17

I Irai	wings	
Dia	MILIUS	

Number	Title	Revision
M-12KJ06	Piping & Instrumentation Diagram, Standby Diesel Generator "B", Lube Oil System	22
M-724-00323	Crosby Valve & Gage Co. Drawing DS-C-60705, Titled - Nozzle Type Relief Valve	W05

Condition Reports

125096	125097	125253
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Miscellaneous Documents

Number	Title	Revision/Date
0303	Westar Energy, Inc. – Transmission Operating Directive	August 17, 2018
APF 21C-001-01	Wolf Creek Substation Work Authorization: 2018-026, SY124 Cable PMT	August 20, 2018
APF 22C-003-01	On-Line Nuclear Safety and Generation Risk Assessment: Schedule Week 2018-308	August 20 to 26, 2018
M-724-00811	Installation, Operation and Maintenance Instructions for Anderson Greenwood Crosby Style Pressure Relief Valves	W01

71111.05AQ—Fire Protection Annual/Quarterly

Procedures

Number	Title	Revision
AP 10-105	Fire Protection Training and Drills	22
AP 10-105	Fire Protection Training and Drills	23
AP 10-106	Fire Preplans	18A
AP 10-107	Fire Event Investigation and Reporting	5
OFN KC-016	Fire Response	47

Condition Reports

125027	125028	125752	126417	126418	
126419	126517	126518	126527	126528	
126529	126530				

Work Orders

17-428938-000

Miscellaneous Documents

Number	Title	Revision/Date
APF 06-002-01	Emergency Action Levels	17B
APF 10-105-02	Fire Drill Scenario and Critique Report: Time - 0800	August 10, 2018
APF 10-105-02	Fire Drill Scenario and Critique Report: Time - 0800	September 7, 2018
APF 10-105-02	Fire Drill Scenario and Critique Report: Time - 1300	September 7, 2018
APF 10-105-04	Fire Brigade Meeting Agenda	September 7, 2018
APF 21-001-02	Control Room Turnover Checklist - On-Coming CRS/WC SRO/RO/BOP Review: Day Shift	September 7, 2018
APF 21-001-02	Control Room Turnover Checklist - On-Coming CRS/WC SRO/RO/BOP Review: Night Shift	September 7, 2018
APF 21-001-02	Control Room Turnover Checklist - On-Coming CRS/WC SRO/RO/BOP Review: Night Shift	September 8, 2018
APF 30E-003-02	Training Attendance	September 10, 2018
E1F9905	Fire Hazard Analysis	8
EPF 06-007-01	Wolf Creek Generating Station Emergency Notification	14
FL1224000	Fire Brigade Leader/Incident Commander	8
No. 18	Coffey County Emergency Management Office Contingency Plan Implementing Procedure	14
OBSR 2018- 6427	Observation Card: Fire Protection – Fire Brigade Drill	August 10, 2018
XX-X-004	Combustible Fire Loading For Each Room in the Various Fire Areas at WCNOC	4

71111.06—Flood Protection Measures

Drawings

Number	Title	Revision
C-K202	E.S.W.S. Yard Pipelines and Electrical Duct Banks Plan, Sections and Schedules Sht2	11

Drawings		
Number	Title	Revision
C-K209	E.S.W.S. Electrical Manholes Plans Sections and Details	9
C-K210	ESWS Yard Pipelines and Elect. Duct Banks Sections and Details	9
C-K212	E.S.W.S. Yard Pipelines and Elec. Duct Banks Plan and Sections	3
C-K212	E.S.W.S. Yard Pipelines and Elec. Duct Banks Plan and Sections	4

Raceway Plot Plan Essential Service Water System Plan

Raceway Plot Plan Essential Service Water System Plan and Sections

9

10

71111.11—Licensed Operator Requalification Program and Licensed Operator Performance

Procedures Number

E-KR0231

E-KR0231

and Sections

Number	Title	Revision
AI 21-016	Operator Time Critical Actions Validation	7
AI 30B-005	Conduct of Simulator Activities for Licensed Operator Training	30
AI 30B-15	Licensed Operator Requalification Exam Guidelines	12
AI 30C-001	Continued Assurance of Simulator Fidelity	17
AI 30C-004	Simulator Real Time Capacity Testing	5B
AI 30C-005	Simulator Steady State Testing	9A
AI 30C-006	Simulator Transient Testing	11
AI 30C-007	Simulator Core Testing	3
AI 30C-008	Scenario Based Testing	2A
AI 30E-13	Written and Oral Examinations	26A
AI 30E-15	Just in Time Training	13
AI 30E-23	Remediation	3
AP 30B-001	Licensed Operator Requalification Training Program	29
GEN 00-004	Power Operation	91
STS SE-001	Power Range Adjustment to Calorimetric	36
SYS MA-200	Placing the Switchyard in a Ring Bus Configuration	14

Drawings				
Number	Title			Revision
KD-7496	One Line Diagram			67
Canditian Danast	_			
Condition Reports				
105145	105841	112616	114281	115643
116660	117338	117340	117341	117414
117619	120012	120582	123951	
Miscellaneous Do	ocuments			
Number	Title			Revision/Date
	Rose Hill Line Ret	urn to 100%		August 17, 2018
AIF 30B-15-07	Ops Requal Walk-	through Exam Pr	rep Checklist	1
AIF 30B-15-08	Simulator Examina	ation Preparation	Checklist	1
AIF 30B-15-09	Simulator Security	Checklist		8
AIF 30B-15-15	Sequestering Che	cklist		1
AIF 30B-15-18	Simulator Setup C	Simulator Setup Checklist		
AIF 30B-15-19	JPM Exam Simula	JPM Exam Simulator Setup Checklist		
APF 21-001-02		Control Room Turnover Checklist – On-Coming CRS/WC SRO/RO/BOP Review: Day Shift		
APF 21-001-02	Control Room Turr SRO/RO/BOP Rev		On-Coming CRS/WC	August 16, 2018
APF 21-001-02	Control Room Turnover Checklist – On-Coming CRS/WC SRO/RO/BOP Review: Night Shift			August 17, 2018
APF 29B-003-01	Surveillance Test Routing Sheet: STS SE-001			Completed August 17, 2018
JPMs	2018 Exam –Weel	< 2		June 2018
Remediation Plan	February 2017			February 2017
Remediation Plan	February 2018 February 20			February 2018
Remediation Plan	January 2017			January 2017

Number	Title	Revision/Date
Remediation Plan	March 2018	March 2018
Remediation Plan	September 2016	September 2016
Scenario 16-06	Requalification Exam	2
Scenarios	2018 Exam – Week 2	June 2018
Simulator Test	ATWS with a Faulted Steam Generator	May 10, 2017
Simulator Test	Steam Generator Fault Inside Containment	May 24, 2017
Simulator Test	Steam Generator Fault Outside Containment	May 18, 2017
SMP A11-095	Alarm Sounds are Different than in the Plant	May 31, 2011
SMP A16-041	Accumulator Reliefs Will Not Open or Leak By	August 24, 2016
SMP A16-047	Turbine Trip on Loss of Condensate Pump B	July 27, 2016
SMP A16-068	A Change in CCW Temp Does not Change RCP Bearing Temps	November 15, 2016
SMP A17-102	Ventilation Fans Won't Stop/Start	July 20, 2017
SMP A17-114	MFP Speed Impacted by Change in RCS Pressure	April 10, 2018
SMP A17-160	Taking DRPI Switch to Half Accuracy Cleared DRPI Short	December 4, 2017

71111.12—Maintenance Effectiveness

Procedures

Number	Title	Revision
AI 22C-010	Operations Work Controls	1
AI 22C-013	Protected Equipment Program	21
AP 22C-003	On-Line nuclear Safety and Generation Risk Assessment	22
AP 22C-007	Risk Management Contingency Planning	11
AP 22C-008	Qualitative Risk Management	4B
SYS NN-200A	Transferring NN01 and NN03 Buses Between Power Sources	1

Drawings

Diawingo				
Number	Title			Revision
M-12BG01	Piping & Instru Control Syste	•	ı, Chemical and Volume	19
Condition Repor	ts			
121823	122610	122858	123047	123103
125743				
Work Orders				

17-426767-000

iviiscellaneous Do	cuments	
Number	Title	Revision/Date
	Evidence and Action Matrix: CR 122858/SWO 18-439146-000/001	May 3, 2018
	Functional Failure Evaluation – CR 94075	Review Date April 24, 2015
	Functional Failure Evaluation for GN – CR 89850	Review Date December 8, 2014
	Functional Failure Evaluation for GN – CR 91851	Review Date March 21, 2015
	Functional Failure Evaluation for GN – CR 94058	Review Date April 21, 2015
	Functional Failure Evaluation for GN – CR 95765	Review Date May 3, 2015
	Functional Failure Evaluation for GN – CR 95845	Review Date May 4, 2015
	Functional Failure Evaluation for GN – CR 110725	Review Date August 22, 2017
	Functional Failure Evaluation for GN – CR 11072508	Review Date July 20, 2017
	Functional Failure Evaluation for GN – CR 117126	Review Date November 22, 2017

Number	Title	Revision/Date
	Functional Failure Evaluation for GN – CR 123103	Review Date June 7, 2018
	Functional Failure Evaluation for GN – CR 123272	Review Date May 23, 2018
	System Health Report – Containment Cooling – System GN	January 1 – June 30, 2017
	System Health Report – Containment Cooling – System GN	July 1 – December 31, 2017
	System Health Report – Containment Cooling – System GN	January 1 – June 30, 2018
	System Health Report – Instrument AC Power – System NN	January 1 – June 30, 2017
	System Health Report – Instrument AC Power – System NN	July 1 – December 31, 2017
	System Health Report – Instrument AC Power – System NN	January 1 – June 30, 2018
APF 15C-002-01	Procedure Cover Sheet: Transferring NN01 and NN03 Buses Between Power Sources	1
EDI 23M-050	Engineering Desktop Instruction Monitoring Performance to Criteria and Goals: System NN	May 21, 2018
GN	Maintenance Rule Final Scope Evaluation: Containment Cooling System – GN-01	Printed September 18, 2018
GN	Maintenance Rule Final Scope Evaluation: Containment Cooling System – GN-02	Printed September 18, 2018
GN	Maintenance Rule Final Scope Evaluation: Containment Cooling System – GN-03	Printed September 18, 2018
GN	Maintenance Rule Final Scope Evaluation: Containment Cooling System – GN-04	Printed September 18, 2018
GN	Maintenance Rule Final Scope Evaluation: Containment Cooling System – GN-05	Printed September 18, 2018

Number	Title	Revision/Date
GN	Maintenance Rule Final Scope Evaluation: Containment Cooling System – GN-06	Printed September 18, 2018
GN	Maintenance Rule Final Scope Evaluation: Containment Cooling System – GN-07	Printed September 18, 2018
GN	Maintenance Rule Final Scope Evaluation: Containment Cooling System – GN-08	Printed September 18, 2018
NN	Maintenance Rule Final Scope Evaluation: Instrument AC Power System – 120V (Class IE Power System) – NN01	Printed August 15, 2018
NN	Maintenance Rule Final Scope Evaluation: Instrument AC Power System – 120V (Class IE Power System) – NN02	Printed August 15, 2018

71111.13—Maintenance Risk Assessments and Emergent Work Control

Procedures

Number	Title	Revision
AI 15C-006	Management Oversight Requirements for Infrequently Performed and Potentially Degrading Evolutions	22
CWD-1	Welding Program Manual	14
SYS NB-200	Transferring XNB01 Supply Between SL7 and #7 Transformer	19
SYS NB-200	Transferring XNB01 Supply Between SL7 and #7 Transformer	20
Drawings		
Number	Title	Revision
C-1C6311	Fuel Building Conc. Neat Line & Reinforcing Plan Floor El. 2,047'-6"	2
KD-7496	One Line Diagram	67
M-618.4-00010		
M-12EF01	Piping & Instrumentation Diagram Essential SVC Water System	29

Drawings				
Number	Title			Revision
M-12EF02	Piping & Instrumentation Diagram Essential SVC Water System			42
M-12EG01	Piping & Instrumer Water System	ntation Diagram Co	mponent Cooling	24
M-12EG02	Piping & Instrumer Water System	ntation Diagram Co	mponent Cooling	27
M12EG03	Piping & Instrumer Water System	ntation Diagram Co	mponent Cooling	19
M-12EM02	Piping & Instrumer Injection System	ntation Diagram Hig	h Pressure Coolant	23
M-K2EF01	Piping & Instrumer System	ntation Diagram Ess	sential Service Water	r 70
M-K2EF03	Piping & Instrumer System	ntation Diagram Ess	sential Service Wate	r 19
Condition Reports	5			
125201	125205	125224	125239	125245
125249	125250	125251	125252	125280
125372	125563	125637	125638	125716
Work Orders				
16-414781-223	16-414781-304	18-441467-000	18-441467-003	18-441467-005
18-441467-008				
Miscellaneous Do	ocuments			
Number	Title			Date
303	Westar Energy, Inc	c. – Transmission O	perating Directive	August 17, 2018
982987	Performance Improvement Request			October 2, 1998
APF 05C-004-01	WCNOC – Basic Engineering Disposition – SWO 16-4162460926 – Evaluation of Fuel Building for Loads From Installation of the Cask Handling Crane (HKE14 – Change Package 15044)			June 25, 2018
APF 05C-004-01	WCNOC – Basic Engineering Disposition – Cask Handling Crane Modification: SAREN's Heavy Lift Unit (HLU)			August 28, 2018
APF 10-104-06	Boundary Watch Duties: Door #11274			July 22, 2018

Number	Title	Date
APF 21-001-02	Control Room Turnover Checklist – On-Coming CRS/WC SRO/RO/BOP Review – Day Shift	August 24, 2018
APF 21-001-02	Control Room Turnover Checklist – On-Coming CRS/WC SRO/RO/BOP Review – Night Shift	August 25, 2018
APF 22C-003-01	On-Line Nuclear Safety and Generation Risk Assessment: 2018-0305	July 30 to August 5, 2018
APF 22C-003-01	On-Line Nuclear Safety and Generation Risk Assessment: 2018-0308	August 20 to August 26, 2018
APF 22C-003-01	On-Line Nuclear Safety and Generation Risk Assessment 2018-0309	August 27 to September 2, 2018
APF 22C-003-01	On-Line Nuclear Safety and Generation Risk Assessment: 2018-0313	September 24 to September 30, 2018
APF 28A-001-01	Performance Improvement Request	PIR 982987

71111.15—Operability Determinations and Functionality Assessments

Procedures

Number	Title	Revision
AP 21I-001	Temporary Configuration Changes	15
AP 26C-004	Operability Determination and Functionality Assessment	35
CNT-MM-303	Temporary Support Guidelines	3
CWD-1	Welding Program Manual	14
Drawings		
Number	Title	Revision
M-12BG05	Piping & Instrumentation Diagram Chemical and Volume Control System	24
M-12EF01	Piping & Instrumentation Diagram Essential SVC Water System	29
M-12EF02	Piping & Instrumentation Diagram Essential SVC Water System	42
M-12EF06	Piping Isometric Essential Service Water Sys. [System] Aux. [Auxiliary] Bldg. [Building] "A" & "B" Train Supply & Return	23

Drawings				
Number	Title			Revision
M-12EG01	Piping & Instrume Water System	ntation Diagram Co	mponent Cooling	24
M-12EG02	Piping & Instrume Water System	ntation Diagram Co	mponent Cooling	27
M-12EG03	Piping & Instrume Water System	ntation Diagram Co	mponent Cooling	19
M18BG35A(Q)	Hanger Details Sn Tanks Vents – Aux		Boric Acid Storage	2
M-19BG35(Q)	•	Drawing Small Pipe nts-Auxiliary Buildin	Misc. and Boric Acid g	5
M-K2EF01	Piping & Instrume System	ntation Diagram Ess	sential Service Water	70
M-K2EF03	Piping & Instrume System	ntation Diagram Ess	sential Service Water	19
Condition Reports	s			
123902	123903	123905	123906	123907
123908	124948	125201	125205	125224
125243	125361	125374	125468	125487
125552	125560	125561	125638	125641
125716				
Work Orders				
18-439119-000	18-440015-000	18-441039-002	18-441039-003	18-441467-000
18-441467-003	18-441467-005	18-441467-008		
Miscellaneous Documents				
Number	Title			Revision/Date
AIF 28A-100-12		erating Station – Bas oorary Support Usag	sic Cause Evaluation je	: September 8, 2018
APF 05C-004-01	Temporary Pipe		lluation of the Use of ement of BGLT0106,	a 0
APF 10-104-06	Boundary Watch Duties: Door #11274			July 22, 2018

Number	Title	Revision/Date
CNTF-MM-300-01	Quality Inspection Checklist – Pipe Support: BG35-C527/112 (Q)	3
CNTF-MM-300-02	Section I Generic Inspection Item Instructions	3
CNTF-MM-300-07	Section VI – Small Bore/MS 25W Supports – Pipe Support: BG35-C257/112 (Q)	2
CNTF-MM-303-01	Temporary Supports – Pipe Support: BG35-C527/112 (Q)	1
DG-C-002	Wolf Creek Nuclear Operating Corporation – Design Guide: Evaluation Criteria for Temporary Acceptance of Flaws in Moderate Energy Class 2 or 3 Piping	1
NK-E-001	125 VDC [Volt Direct Current] Class 1E Battery System Sizing, Voltage Drop and Short Circuit Studies	4
OE EF-18-003	Operability Evaluation	0
OE NK-18-005	Operability Evaluation	0
WCRE-34	Fourth 10-Year Interval Inservice Testing Basis Document	9

71111.18—Plant Modifications

Work Orders

16-414781-160 16-414781-223 16-414781-351

Number	Title	Revision
DCP 14269	50.59 Evaluation TMP 18-001	0
DCP 14269	Configuration Summary	1
DCP 14269	Design Input Data Sheet	0
DCP 14269	Design Verification Report, SGK05 Permanent Compensatory Modifications	0
DCP 14269	Engineering Screening, SGK05 Permanent Compensatory Modifications	0
DCP 14269	Post Modification Testing Plan	0

71111.19—Post Maintenance Testing

Procedures				
Number	Title			Revision
QCP-20-540	VT-1 Visual Examir	nation		1
STS BG-100A	Centrifugal Chargir	ng System "A" Tı	ain Inservice Pump Te	st 48
STS EG-100A	Component Coolin	g Water Pumps	A/C Inservice Pump Te	st 33A
SYS EG-120	Component Coolin	g Water System		41
Drawings				
Number	Title			Revision
M-12EG01	Piping & Instrumen Water System	itation Diagram (Component Cooling	24
Condition Reports	3			
126021	126025	126036	126037	126038
126039	126040	126041	126734	
Work Orders				
18-441467-000	18-441467-003			
Miscellaneous Do	cuments			
Number	Title			Revision/Date
18-025	Section XI Program Signature Sheet: W		ler Completion Review per 18-441467-003	July 31, 2018
APF 15C-002-01	Procedure Cover S System	Sheet – Compon	ent Cooling Water	41
APF 16A-003-01	ASME Section XI F Generating Station		nent Plan Wolf Creek 3-025	July 22, 2018
APF 22C-008-01	Qualitative Risk Sc	reening		July 22, 2018
APF 29B-003-01	Surveillance Test R Water Pumps A/C	•	Component Cooling Test	August 13, 2018
APF 29B-003-01	Surveillance Test R	Routing Sheet – S	STS BG-100A	Completed September 18, 2018

Number	Title	Revision/Date
ET 18-0026	Docket No. 50-482: Supplement to Letter Dated July 23, 2018, "Inservice Inspection Program Relief Request From the Requirements of American Society of Mechanical Engineers (ASME) Code Case N-666-1, "Weld Overlay of Class 1, 2, and 3 Socket Welded Connections, Section XI, Division 1"	August 28, 2018

71111.22—Surveillance Testing

Procedures

Number	Title	Revision
STS BG-210	CVCS Inservice Check Valve Test	35
STS CH-019	Containment Spray Additive Tank NAOH Concentration	7A
STS EJ-100B	RHR System Inservice Pump A Test	55
STS EN-005	Containment Spray Additive Tank Volume Verification	3
STS IC-459	Channel Calibration Spray Additive Tank Level Loop ENLP0015	6C

Drawings

Number	Title	Revision
10466-J-110- 149-W08	Instrument Loop Diagram – Containment Spray System Spray Additive Tank Full Range Level (Train A)	0
M-105B-0005	A6' ODX13Y-8' LG Contain Spray Additive Tank	11
M-105B-00018	Details-Containment Spray Additive Tank	4

Condition Reports

104070	105017	100000
124979	125017	126396

Number	Title	Revision/Date
APF 05-002-05	Engineering Disposition: Use of EN-LG-22 for Tech Spec Surveillance	0
APF 28A-001-01	Performance Improvement Request: PIR 2006-0425	Initiated February 19, 2006

Number	Title	Revision/Date
APF 29B-003-01	Surveillance Test Routing Sheet – STS BG-210	Completed September 20, 2018
APF 29B-003-01	Surveillance Test Routing Sheet – STS CH-019	Completed July 18, 2018
APF 29B-003-01	Surveillance Test Routing Sheet – STS EN-005	Completed July 18, 2018
APF 05-002-05	Engineering Disposition: PIR 2000-0394 - Use of EN-LG-22 for Tech Spec Surveillance	0
APF 05-004-01	Design Specification for Shop Fabricated Tanks (ASME III): M-105B	15
LER 2000-001-00	Surveillance Method Results in Low NaOH Level in the Spray Additive Tank	March 13, 2000
STS CH-019	Containment Spray Additive Tank NAOH Concentration	Completed July 18, 2018
STS EN-005	Containment Spray Additive Tank Volume Verification	Completed July 18, 2018

71114.02 - Alert and Notification System Testing

Proced	ures
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Number	Title			Revision
EPP 06-019	Alert and Notification System Sirens, March 26, 2003			3
EPP 06-019	Alert and Notification System Sirens, October 2, 2016		9A	
EPP 06-022	Tone Alert Radio Maintenance/Compensating Measures, April 4, 2014		5A	
Work Orders				
16-411700	16-416603	17-422188	17-430259	

Number	Title	Date
	Letter, Mr. Ronald L. McCabe, RAC Chair, FEMA Region VII to Mr. Richard Flannigan, Manager, Regulatory Affairs, Wolf Creek Nuclear Operating Corporation; Response to the Final Siren Test Report Review, from American Signal Corporation for WCNOC	May 7, 2008

Number	Title	Date
	Memorandum, American Signal Corporation; Validation of Outdoor Siren Propagation Model through Acoustic Testing and Measurement of the Wolf Creek ANS Sy	
	REP-10 Design Review Report, Wolf Creek Nuclear Operating Company	May 7, 2008
	Tone Alert Radio Audit Plan	December 5, 2017
	Tone Alert Radio Audit Plan	December 8, 2016

71114.03 - Emergency Response Organization Staffing and Augmentation System

Procedures		
Number	Title	Revision
EPP 06-015	Emergency Response Organization Callout, September 30, 2015	14

Condition F	Reports
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115983 124451

Number	Title	Date
	16-Q3 Quarterly Callout Test Conducted September 12, 2016	September 13, 2016
	16-Q4 Quarterly Callout Test Conducted December 8, 2016	December 8, 2016
	17-Q1 Quarterly Callout Test Conducted March 28, 2017	March 30, 2017
	17-Q2 Quarterly Callout Test Conducted June 27, 2017	June 29, 2017
	17-Q3 Quarterly Callout Test Conducted September 6, 2017	September 20, 2017
	17-Q4 Quarterly Callout Test Conducted November 27, 2017	November 29, 2017
	18-Q1 Quarterly Callout Test Conducted March 14, 2018	March 14, 2018
	18- Q2 Quarterly Callout Test Conducted June 18, 2018	June 21, 2018

71114.05 - Maintenance of Emergency Preparedness

Procedures				
Number	Title			Revision/Date
AP 06-002	Radiological Eme	rgency Response	Plan, August 7, 2018	18B
AP 06-004	Equipment Import 2018	ant to Emergency	Response, January 1	8, 8
AP 17C-024	Emergency Plann	ing Responsibilitie	es, September 30, 201	5 13
AP 17C-028	Emergency Respo September 24, 20		Responsibilities,	15
AP 21A-002	Diverse and Flexil	ole Coping Mitigat	ion Strategies Prograr	n 3
APF 06-002-01	Emergency Action	Levels		17B
EPP 06-009	Drill and Exercise	Requirements, Ja	anuary 24, 2017	11
EPP 06-018	Maintenance of El Checks, November		es and Communication	s 13
EPP 06-021	Training Programs	s, November 28, 2	2017	12
EPP 06-023	Emergency Respo	onse Facility Fund	tionality, December 16	3, 3
Tool Kit 010	Dosimeter Annual	Calibration (RDD	s and PICs)	April 13, 2017
Condition Report	s			
109918	111604	111626	112435	113322
113710	114405	115932	116368	116717
117040	117446	119507	119903	120017
120356	123795	123980	124428	124498
125031	125976			
Work Orders				
12-352615-000	15-408018-000			
Miscellaneous				
Number	Title			Revision/Date
			ions for AP 06-004, Preparedness, R7	October 16, 2017
	10 CFR 50.54Q So Control Room Ope		ions for EPP 06-001,	July 30, 2018

Number	Title	Revision/Date
	10 CFR 50.54Q Screenings/Evaluations for EPP 06-003, Emergency Operations Facility Operations, R13	October 16, 2017
	10 CFR 50.54Q Screenings/Evaluations for EPP 06-007, Emergency Notifications, R16	October 16, 2017
	10 CFR 50.54Q Screenings/Evaluations for EPF 06-018-09, Offsite Monitoring Inventory Checklist, R29	August 2, 2017
	10 CFR 50.54Q Screenings/Evaluations for EPF 06-018- 12, Emergency Operations Facility Checklist, R30	August 2, 2017
	10 CFR 50.54Q Screenings/Evaluations for EPP 06-021, Training Programs, R19	November 16, 2017
	Annual PMP Checks	November 16, 2017
	Control Room Inventory Checklist	March 13, 2018
	Control Room Inventory Checklist	October 5, 2017
	Emergency Planning Monthly Communications Checklist	December 5, 2016
	Emergency Planning Monthly Communications Checklist	March 21, 2017
	Emergency Planning Quarterly Communications Checklist	February 27, 2017
	Emergency Planning Quarterly Communications Checklist	February 28, 2018
	Emergency Response Facility Functionality Evaluation	October 11, 2017
	Offsite Medical Emergency Supplies Inventory Checklist	December 14, 2016
	Offsite Medical Emergency Supplies Inventory Checklist	April 23, 2018
	Offsite Monitoring Inventory Checklist	December 15, 2016
	Offsite Monitoring Inventory Checklist	March 13, 2018
	Offsite Monitoring Inventory Checklist, Post-Exercise	March 1, 2018
	Technical Support Center Inventory Checklist	September 8, 2016
	Technical Support Center Inventory Checklist	July 21, 2017
	Technical Support Center Inventory Checklist	October 5, 2017

Miscellaneous

Number	Title	Revision/Date
	Technical Support Center Inventory Checklist, Post- Exercise	September 25, 2017
	Topeka Joint Information Clearinghouse Inventory Checklist	February 16, 2017
	Topeka Joint Information Clearinghouse Inventory Checklist	February 28, 2018
	Topeka Joint Information Clearinghouse Inventory Checklist, Post-Exercise	March 30, 2017
	Wolf Creek Joint Information Clearinghouse Inventory Checklist	March 30, 2017
	Wolf Creek Joint Information Clearinghouse Inventory Checklist	February 28, 2018
16-SA-02	Evaluation Report for the Exercise Conducted December 7, 2016	December 14, 2016
17-04-EP	Quality Assurance Audit Report	June 8, 2017
17-EVAL	Evaluation Report for the Exercise Conducted November 14, 2017	December 12, 2017
17-PRE-01	Evaluation Report for the Exercise Conducted September 19, 2017	September 25, 2017
17-PRE-02	Evaluation Report for the Exercise Conducted October 24, 2017	December 12, 2017
17-SA-01	Evaluation Report for the Exercise conducted February 14, 2017	March 13, 2017
17-SA-01	Evaluation Report for the Exercise Conducted February 13, 2018	February 20, 2018
17-SA-02	Evaluation Report for the Exercise Conducted March 14, 2017	April 3, 2017
17-SA-02	Evaluation Report for the Exercise Conducted April 18, 2017	August 15, 2017
17-SA-02	Evaluation Report for the Exercise Conducted July 18, 2017	August 15, 2017
18-05-EP	Quality Assurance Audit Report	June 20, 2018
18-SA-01	Evaluation Report for the Exercise Conducted February 27, 2018	
CE1235610	Lesson Plan: Offsite Dose Projection using EDCP, August 14, 2018	13A

Miscellaneous				
Number	Title			Revision/Date
QH-2016-1348	NRC Emergency F	Preparedness Corn	erstone Assessment	
QH-2016-1357	ERO Membership	Review by Organiz	ation	October 5, 2016
QH-2017-1426	Monticello 50.54(q) Review		March 8, 2017
QH-2017-1427	Monticello ERO Te	eam Change Briefin	g	March 8, 2017
QH-2017-1438	Assessment of Cho Staffing Assessme	•	e within the On Shift	March 8, 2017
QH-2017-1464	INPO Drill and Exe	rcise Scenario Ser	ninar Trip Report	April 24, 2017
QH-2017-1558	Emergency Planni	ng NRC Inspection	Readiness	October 5, 2017
QH-2018-1681	Emergency Respo Assessment	nse Personnel Trai	ning Self-	June 26, 2018
71114.06—Drill Ev	<u>valuation</u>			
Procedures				
Number	Title			Revision
EPP 06-006	Protective Action F	Recommendations		9A
Condition Reports	S			
126171	126183			
	120100	126184	126185	126186
126189	126190	126184 126192	126185 126193	126186 126195
126189 126197				
	126190	126192	126193	126195
126197	126190 126198	126192 126199	126193 126200	126195 126201
126197 126202	126190 126198 126203 126208	126192 126199 126204	126193 126200 126205	126195 126201 126206
126197 126202 126207	126190 126198 126203 126208	126192 126199 126204	126193 126200 126205	126195 126201 126206
126197 126202 126207 Miscellaneous Do	126190 126198 126203 126208 ocuments Title	126192 126199 126204 126210	126193 126200 126205	126195 126201 126206 126213 Revision/Date
126197 126202 126207 Miscellaneous Do Number	126190 126198 126203 126208 ocuments Title	126192 126199 126204 126210 ating Station – Eme	126193 126200 126205 126212	126195 126201 126206 126213 Revision/Date
126197 126202 126207 Miscellaneous Do Number 18-SA-02	126190 126198 126203 126208 ccuments Title Wolf Creek Gener	126192 126199 126204 126210 ating Station – Eme	126193 126200 126205 126212	126195 126201 126206 126213 Revision/Date II August 28, 2018 17B

Number	Title	Revision/Date
EPF 06-007-01	Wolf Creek Generating Station Emergency Notification – Message #: EOF-002	August 28, 2018
EPF 06-007-01	Wolf Creek Generating Station Emergency Notification – Message #: EOF-003	August 28, 2018
EPF 06-007-01	Wolf Creek Generating Station Emergency Notification – Message #: EOF-004	August 28, 2018
EPF 06-007-01	Wolf Creek Generating Station Emergency Notification – Message #: TSC-001	August 28, 2018
Scenario 16-06	Requalification Exam	1

71124.05—Radiation Monitoring Instrumentation

Number	Title	Revision
AI 02E-009	Instructions for Intrinsic Germanium Detector Energy Calibration	13A
AI 02E-010	Instructions for IG Detector Efficiency Calibration	7A
AI 03-008	Control Chart Development, Use and Review Using Lab Stats	6
AP 02-008	Verification of Analytical Performance	14
AP 02E-001	Chemistry Calibration Program	36
AP 23-006	System Engineering Program	27A
AP 25A-001	Radiation Protection Manual	18
RPP 01-405	HP Instrument Program	34
RPP 03-407	Testing of Portal Monitors as Passive Whole Body Counters	1A
RPP 05-306	PM12 Operation	6
RPP 05-707	Operation of Whole Body Counters	9
RPP 06-103	Ludlum 9-4 Calibration	0
RPP 06-113	MGP Telepole Calibration	3
RPP 06-222	Escort Elf Calibration	2
RPP 06-306	PM12 Calibration	9
RPP 06-315	Eberline PCM-1B Calibration	10
RPP 06-317	Eberline PCM-2 Calibration	5

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Number	Title	Revision
RPP 06-319	SAM11 Calibration	1
RPP 06-707	Calibration of WBC Detectors Using Ortec Renaissance Software	4
RPP 06-715	Whole Body Counter Quality Control	9
RPP 06-825	J. L. Shephard Multi-Source Calibration System Operation	8A
STS IC-452B	Channel Calibration New Fuel Storage Facility Criticality Monitor SDRE-0035	4A
STS IC-454B	Channel Calibration Spent Fuel Pool Criticality Monitor Area Radiation Monitor SDRE-0038	11
STS SP-292	Channel Calibration of Condenser Air Discharge Monitor GE RE-0092	3

Audits, Self-Assessments, and Surveillances

Number	Title	Date
18-01-RP/PC	Quality Assurance Audit Report: Radiation Protection and Process Control (RP & PC)	February 15, 2018
QA-2017-0387	Quality Assessment: Radiation Protection (RP) Equipment Calibration Controls	December 29, 2017
0 "" D (

Condition Reports

107189	107190	107191	107193	113038	
113556	116717	118252	118867	120567	
120963	121150				

Number	Title	Revision/Date
	System Health Report: Radiation Monitoring	January 1, 2018, through June 30, 2018
10066	WBC Calibration Certificate GI Detector	
10066	WBC Calibration Certificate Lung Detector	
10066	WBC Calibration Certificate Thyroid Detector	
10178	Telepole	
10242	PCM-2	

Number	Title	Revision/Date
10256	ASP-1	
10257	ASP-1	
11005	SAM 11	
11075	Shepherd Calibrator	
11377	PCM-1B	
11451	Radeco H809V-1	
13027	WBC Calibration Certificate Lower Detectors	
13027	WBC Calibration Certificate Upper/Lower Detectors	
95217	Ludlum 9-4	
95219	Ludlum 9-4	
2160566	Liquid Scintillator	
Chapter 11	Updated Safety Analysis Report: Radioactive Waste Management	29
WO 16-427623- 001	Minor Maintenance Containment Atmospheric Radiation Monitor GTRE0032	November 15, 2016
WO 16-427623- 003	Routine Maintenance Containment Purge Exhaust Radiation Monitor GTRE0033	November 15, 2016
WO 18-42244	Channel Calibration High Range Area Radiation Monitor GTRE60	
WO 18-422785	Channel Calibration High Range Area Monitor GTRE-0059	
WO 18-422892	Channel Calibration High Range Area Radiation Monitor GTRE59	
WO 18-422893	Channel Calibration High Range Area Radiation Monitor GTRE60	
WO 18-434709	Channel Calibration of Condenser Air Discharge Monitor GE RE-0092	

71124.06—Radioactive Gaseous and Liquid Effluent Treatment

Number	Title	Revision
AP 02E-001	Chemistry Calibration Program	38
AP 07B-003	Offsite Dose Calculation Manual	9
CHS AC-001	Accident Sampling	4C

Procedures				
Number	Title			Revision
CHS AX-G01	Unit Vent S	ampling and/or Exchang	ge of Filters	10
STN BM-054		Steam Generator Blowdown System Surge Tank Discharge Flow to Lake Channel Calibration		
STN CH-021		Calibration of the Particulate Detector for Radiation Monitors GTRE21A and GHRE10A		
STN CH-022		of the lodine Detector fo and GHRE10A	or Radiation Monitors	3 2
STN HB-1085	Liquid Rady Calibration	waste System Discharge	e Line Flow Rate	5
STN SP-118	Channel Ca Monitor HB	alibration Liquid Radwas RE-0018	te Discharge Radiat	ion 9
STN SP-195		alibration Hi/Lo TDS Disc Radiation Monitor HF R	<u> </u>	er 7
STS CH-014	Calibration	Calibration of Monitors GT RE-21B and GH RE-10B		
STS PE-002	Charcoal Adsorbent Sampling for Nuclear Safety Related Units			ed 15
STS PE-006 Charcoal Adsorber In-Place Leak Test Safety Related Units				nits 16
Audits and Self-A	ssessments			
Number Title Date				
18-03-ENV	QA Audit: E	Environmental Managem	nent	April 17, 2018
Condition Reports				
107421	107983	108892	111266	112928
113578	113944	116717	118486	123726
126072				
Effluent Release	Permits			
Permit Number	Туре	Release System		Date
U1GB2018-111	Gas	Containment Purge		August 12, 2018
U1GC2018-110	Gas	Radwaste Vent		August 9, 2018
U1LB2018-067	Liquid	THF04A		July 14, 2018
U1LC2018-065	Liquid	Steam Generator Blov	wdown	July 3, 2018

Calibrations and Surveillances

Work Order	System	Date
	GH-RE-10A	March 20, 2018
	GH-RE-10B	December 13, 2016
	GT-RE-21A	February 19, 2018
	GT-RE-21B	October 3, 2017
16-418841-000	BM-054	March 2, 2017
17-421198-000	HF RE-0095	June 26, 2017
17-423608-000	HB-RE-0018	July 18, 2017
17-431311-000	FGG02B	January 9, 2018
17-433703-000	FGG02A	June 18, 2018
18-435515-000	HB-1085	August 13, 2018
Miscellaneous Do	ocuments	
Number	Title	Date
15-CHL-008	Certificate of Calibration- Standard Reference Source 101145 Simulated Gas in 130G GA-MA Gas Beaker	July 1, 2015
16-CHL-005	Certificate of Calibration- Standard Reference Source 102600 47mm Diameter Simulated Filter in Snap Falcon Petri	January 1, 2016
2016	Annual Radioactive Effluent Release Report	April 25, 2017
2017	Annual Radioactive Effluent Release Report	April 25, 2018

71124.07—Radiological Environmental Monitoring Program

Number	Title	Revision
AI 07-007	Onsite Groundwater Protection Program Monitoring	17
AI 07B-002	Review of Radiological Environmental Lab Analysis	12
AI 07B-009	Collection, Prep, and Shipment of Sediment	10
AI 07B-011	Collection, Prep, and Ship of Water	17
AI 07B-015	Land Use Census	12

Procedures		
Number	Title	Revision
AI 07B-034	Radiological Environmental Monitoring Program Air Sampling	15
AI 07B-035	REMP OSL Dosimeters	8
AP 07B-005	Ground Water Protection Program	4
STS IC-890A	Wind Speed Meteorological Instrumentation Channel Calibration	18
STS IC-890D	Sonic Wind-Direction-Deviation Meteorological Instrumentation Channel Calibration	3
Audits, Self-Asse	essments, and Surveillances	
Number	Title	Date
2428	Evaluation Report (NUPIC) of ATI Environmental, Inc.	June 16, 2017
4059	Evaluation Report (NUPIC) of Landauer (4059)	June 16, 2017
Audit 18-03	Quality Assurance Audit Report, Environmental Management: K15-002	March 29, 2018
QH-2017-1456	Al 07B-034, Radiological Environmental Monitoring Program Air Sampling	March 30, 2018
QH-2017-1456	Radiological Environmental Monitoring Program (REMP) contracted services per Al 07B-005, Section 6.12	April 24, 2017
QH-2018-1391	Review of the KDHE REMP Report	December 6, 2016
QH-2018-1684	REMP Review of 2015 through 2017 Wind Directions	June 7, 2018
Condition Report	ds .	
101560	106475 115681 118440	
Calibrations and	Surveillances	
Number	Title	Date
3302	Digital Venturi Calibrator	March 7, 2017
3302	Digital Venturi Calibrator	March 13, 2018
W0 17-432379	Channel Calibration Sonic Wind Speed	April 20, 2018

Channel Calibration Wind Direction

W0 17-432382

March 26, 2018

Calibrations and Surveillances

Number	Title	Date
W0 17-432417	Channel Calibration Wind Speed Meteorological Instrumentation	March 26, 2018

Miscellaneous Documents

Number	Title	Revision/Date
	Environmental Resources Management: Risk Assessment for Systems, Structures, and Components", Groundwater Protection Initiative, Wolf Creek	August 20, 2008
	Review of Radiological Environmental Lab Analysis Results	12
	Technical Requirements Manual	25
	Wolf Creek Generating Station Power Block – Ground Water Monitoring Network	
2008	Preliminary Hydrology Study, Wolf Creek Generating Station, Environmental Resources Management	December 18, 2007
2009	Coffey County Lake – Ground Water Monitoring Network Documentation Report, Delta Consultants	October 9, 2009
2016	Annual Radioactive Effluent Release Report	April 25, 2017
2016	Annual Radiological Environmental Operating Report	April 24, 2017
2017	Annual Radioactive Effluent Release Report	April 25, 2018
2017	Annual Radiological Environmental Operating Report	April 25, 2018
2018	Digital Flow Meter Calibration Verification, AIF 07B-034-01	1

71124.08—Radioactive Solid Waste Processing, and Radioactive Material Handling, Storage, and Transportation

Number	Title	Revision
AP 31A-100	Solid Radwaste Process Control Program	8
HW1215801	Regulations and Requirements	12A
HW1215802	Regulatory Awareness for Hazardous Material Handlers	0
HW8115901	Wolf Creek Hazardous Material Transportation Security Plan	4
RPP 07-110	Solid Radwaste Packaging	10

Procedures

Number	Title	Revision
RPP 07-112	Processing Cartridge Filters	5
RPP 07-123	Preparation and Shipment of Radioactive Waste and Material	8
RPP 07-131	Bead Resin/Activated Carbon Dewatering Procedure For Energy Solutions 14-215 or Smaller Liners, Utilizing Energy Solutions Self-Engaging Dewatering System	5

Audits and Self-Assessments

Number	Title	Date
18-01-RP/PC	Quality Assurance Audit Report: Radiation Protection and Process Control (RP & PC)	February 15, 2018

Condition Reports

82184	97750	97752	110270	113038	
114455	119333	119745	119751	119765	
119766	120567				

Radioactive Material and Waste Shipments

Number	Туре	Title	Date
16R02	Dry Active Waste	UN2912, Radioactive Material, LSA-I, 7, A(U)	February 9, 2016
16R15	Resins	UN3321, Radioactive Material, LSA-II, 7, A(U)	May 18, 2016
16R16	Filters; Resin	UN3321, Radioactive Material, LSA-II, 7, C	June 1, 2016
16R32	Dry Active Waste	UN3321, Radioactive Material, LSA-II, 7, A(U)	September 15, 2016
16R59	Resin	UN3321, Radioactive Material, LSA-II, 7, RQ, B	October 14, 2016
16R64	Resin	UN3321, Radioactive Material, LSA-II, 7, A(U)	October 23, 2016
17R04	Dry Active Waste	UN2912, Radioactive Material, LSA-I, 7, A(U)	February 16, 2017
17R14	Dry Active Waste	UN3321, Radioactive Material, LSA-II, 7, A(U)	May 24, 2017
17R15	Resin	UN3321, Radioactive Material, LSA-II, 7, A(U)	June 22, 2017

Radioactive	Material	and	Waste	Shipments
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Number	Type	Title	Date
17R17	Dry Active Waste	UN2912, Radioactive Material, LSA-I, 7, A(U)	July 12, 2017
17R31	Dry Active Waste; Resin	UN3321, Radioactive Material, LSA-II, 7, A(U)	September 18, 2017

Waste Stream Analysis – Nuclide Distribution Reports

Number	Title	Date
429898001	Cation Resin	July 17, 2017
429998002	BTRS Resin	August 2, 2017
446223001	RCS Filters	March 1, 2018
446223002	SFP Filters	February 28, 2018
446223003	Dry Active Waste	March 12, 2018
447547001	CVCS Resins	March 27, 2018
447769002	Drum Dryer Waste Tank	March 31, 2018

Radiological Surveys

Number	Title	Date
M-20180321-11	High Level Radwaste Storage	March 21, 2018
M-20180326-10	Low Level Radwaste Storage	March 26, 2018
M-20180523-9	RCA Yard	May 23, 2018
M-20180611-3	Owens Corning	June 11, 2018
M-20180721-1	New Radwaste Building	July 21, 2018
M-20180728-7	RCA Yard	July 28, 2018

Number	Title	Revision/Date	
	2016 Annual Radioactive Effluent Release Report	April 25, 2017	
	2017 Annual Radioactive Effluent Release Report	April 25, 2018	
	Spent Fuel Pool Inventory: Tri-Nuke Filters	August 23, 2018	

Number	Title	Revision/Date
	Wolf Creek Updated Safety Analysis Report – Chapter 11.4 and Chapter 12.2.1	30
RPF 07-123-01	Radioactive Shipment Log: 2016, 2017, 2018	

71151—Performance Indicator Verification

Proced	lures
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Number	Title	Revision
AI 26A-004	Emergency Planning Performance Indicators, May 2, 2016	8
AP 26A-001	Reportable Events, Evaluation and Documentation, July 24, 2014	20
AP 34-003	Performance Indicator Program, August 17, 2010	0
EPP 06-005	Emergency Classification, February 23, 2016	8
EPP 06-006	Protective Action Recommendations, December 14, 2017	9A
EPP 06-007	Emergency Notifications, October 18, 2017	25
EPP 06-019	Alert and Notification System Sirens, October 2, 2016	9A

Condition Reports

110999	116997	118425	119906	120323
126201	127496	127526		

Number	Title	Revision/Date
	MSPI Derivation Report – MSPI System: MSPI Cooling Water System; MSPI Element: Performance Limit Exceeded (PLE)	August 2018
	MSPI Derivation Report – MSPI System: MSPI Cooling Water System; MSPI Element: Unavailability Index (UAI)	August 2018
	MSPI Derivation Report – MSPI System: MSPI Cooling Water System; MSPI Element: Unreliability Index (URI)	August 2018
	MSPI Derivation Report – MSPI System: MSPI Emergency AC Power System; MSPI Element: Performance Limit Exceeded (PLE)	August 2018
	MSPI Derivation Report – MSPI System: MSPI Emergency AC Power System; MSPI Element: Unavailability Index (UAI)	August 2018

Number	Title	Revision/Date
	MSPI Derivation Report – MSPI System: MSPI Emergency AC Power System; MSPI Element: Unreliability Index (URI)	August 2018
	MSPI Derivation Report – MSPI System: MSPI High Pressure Injection System; MSPI Element: Performance Limit Exceeded (PLE)	August 2018
	MSPI Derivation Report – MSPI System: MSPI High Pressure Injection System; MSPI Element: Unavailability Index (UAI)	August 2018
	MSPI Derivation Report – MSPI System: MSPI High Pressure Injection System; MSPI Element: Unreliability Index (URI)	August 2018
	MSPI Unavailability for Chemical & Volume Control System BG-07A	Printed September 11, 2018
	MSPI Unavailability for Chemical & Volume Control System BG-07B	Printed September 11, 2018
	MSPI Unavailability for Component Cooling Water System EG-01A	Printed September 11, 2018
	MSPI Unavailability for Component Cooling Water System EG-01B	Printed September 11, 2018
	MSPI Unavailability for Essential Service Water EF-01A	Printed September 11, 2018
	MSPI Unavailability for Essential Service Water EF-01B	Printed September 11, 2018
	MSPI Unavailability for High Pressure Coolant Injection System EM-01A	Printed September 11, 2018
	MSPI Unavailability for High Pressure Coolant Injection System EM-01B	Printed September 11, 2018
	MSPI Unavailability for Standby Diesel Engine System KJ- 01A	Printed September 11, 2018

Number	Title	Revision/Date
	MSPI Unavailability for Standby Diesel Engine System KJ- 01B	Printed September 11, 2018
	Unavailability Data	July 2017 through June 2018
	Unreliability Data	July 2017 through June 2018
EDI 23M-050	Engineering Desktop Instruction Monitoring Performance to Criteria and Goals – System: BG – 112594	May 17, 2017
EDI 23M-050	Engineering Desktop Instruction Monitoring Performance to Criteria and Goals – System: BG – CR 118860	February 12, 2018
EDI 23M-050	Engineering Desktop Instruction Monitoring Performance to Criteria and Goals – System: BG – CR 121938	May 3, 2018
EDI 23M-050	Engineering Desktop Instruction Monitoring Performance to Criteria and Goals – System: BG – CR 122610	May 16, 2018
EDI 23M-050	Engineering Desktop Instruction Monitoring Performance to Criteria and Goals – System: EF – CR 125201	August 9, 2018
EDI 23M-050	Engineering Desktop Instruction Monitoring Performance to Criteria and Goals – System: EG – CR 120591	December 5, 2017
EDI 23M-050	Engineering Desktop Instruction Monitoring Performance to Criteria and Goals – System: EM – CR 112588	May 17, 2017
EDI 23M-050	Engineering Desktop Instruction Monitoring Performance to Criteria and Goals – System: EM – CR 112594	May 17, 2017
EDI 23M-050	Engineering Desktop Instruction Monitoring Performance to Criteria and Goals – System: KJ – CR 112131	April 27, 2017
EDI 23M-050	Engineering Desktop Instruction Monitoring Performance to Criteria and Goals – System: KJ – CR 115725	October 1, 2017
EDI 23M-050	Engineering Desktop Instruction Monitoring Performance to Criteria and Goals – System: KJ – CR 117441	December 5, 2017
EDI 23M-050	Engineering Desktop Instruction Monitoring Performance to Criteria and Goals – System: NB – CR 126025	September 5, 2018
EDI 23M-050	Engineering Desktop Instruction Monitoring Performance to Criteria and Goals – System: NG – CR 115725	October 1, 2017
WCNOC-163	NEI 99-02 Reactor Oversight Process Performance Indicators – Mitigating System Performance Index (MSPI) Basis Document	12

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IVIIOCC	IIaiic	uus		มเบษแร

Number	Title	Revision/Date
WCRE-34	Fourth Ten Year Interval Inservice Testing Bases Document	3

71152—Problem Identification and Resolution

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	ıv	CE	u	162

Number	Title	Revision
AP 10-104	Breach Authorization	35
AP 10-104	Breach Authorization	37A
AP 15C-002	Procedure Use and Adherence	43
AP 23-009	Control Room Envelope Habitability Program	2
STS PE-004	Aux Building and Control Room Pressure Test	16
SYS AE-150	Main Feedwater Pump Reset	2
SYS AE-150	Main Feedwater Pump Reset	3
SYS GK-122	Manual CRVIS Line-Up	24

Drawings

Number	Title	Revision
M-12GG01	Piping & Instrumentation Diagram Fuel Building HVAC	8
M-12GL02	Piping & Instrumentation Diagram Auxiliary Building HVAC	17
M-12GT01	Piping & Instrumentation Diagram Containment Purge Systems HVAC	29
M-1H1531	Heating Ventilating and Air Cond. Auxiliary Building El. 2047'-6" Area-3	5

Condition Reports

29602	61246	90956	90975	110377
119330	120056	120151	122180	123289
Work Orders				
12-355727-011	15-397077-000	17-421482-000	17-421482-001	17-423496-000
17-428518-000	17-428518-001	18-437033-006		

Number	Title	Revision/Date
	U.S. Nuclear Regulatory Commission Regulatory Guide 1.117: Tornado Design Classification	1
AIF 10-001-02	SCBA Inspection [3.2.1]	Completed March 1, 2018
AIF 28A-100-12	Wolf Creek Generating Station Basic Cause Evaluation – CR 90975	February 20, 2015
AIF 28A-100-12	Wolf Creek Generating Station Basic Cause Evaluation – CR 120056	April 5, 2018
APF 29B-003-01	Surveillance Test Routing Sheet (STRS) – Aux Building and Control Room Pressure Test – Train A – STS PE-004	Completed March 15, 2018
APF 29B-003-01	Surveillance Test Routing Sheet (STRS) – Aux Building and Control Room Pressure Test – Train B – STS PE-004	Completed March 7, 2018
APF 29B-003-01	Surveillance Test Routing Sheet (STRS) – Aux Building and Control Room Pressure Test – Train B – STS PE-004	Completed March 15, 2018
CR 120056	Evidence and Action Matrix 'B' CRVIS Pressure Issue	March 5, 2018
K01-048 03146	Material Safety Data Sheet: Ventilation Smoke Tube – P/N 458480	
WCRE	Boundary Matrix	0
WCRE-35	Boundary Matrix	3

The following items are requested for the Public Radiation Safety Inspection at Wolf Creek Dates of Inspection: August 20, 2018 to August 23, 2018 Integrated Report 2018003

Inspection areas are listed in the attachments below.

Please provide the requested information on or before **August 6, 2018**.

Please submit this information using the same lettering system as below. For example, all contacts and phone numbers for Inspection Procedure 71124.05 should be in a file/folder titled "5- A," applicable organization charts in file/folder "5- B," etc.

If information is placed on *ims.certrec.com*, please ensure the inspection exit date entered is at least 30 days later than the onsite inspection dates, so the inspectors will have access to the information while writing the report.

In addition to the corrective action document lists provided for each inspection procedure listed below, please provide updated lists of corrective action documents at the entrance meeting. The dates for these lists should range from the end dates of the original lists to the day of the entrance meeting.

If more than one inspection procedure is to be conducted and the information requests appear to be redundant, there is no need to provide duplicate copies. Enter a note explaining in which file the information can be found.

If you have any questions or comments, please contact Louis Carson at (817) 200-1221 or <u>Louis.Carson@nrc.gov</u>.

PAPERWORK REDUCTION ACT STATEMENT

This letter does not contain new or amended information collection requirements subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). Existing information collection requirements were approved by the Office of Management and Budget, control number 3150-0011.

5. Radiation Monitoring Instrumentation (71124.05)

Date of Last Inspection: May 23, 2016

- A. List of contacts and telephone numbers for the following areas:
 - 1. Effluent monitor calibration
 - 2. Radiation protection instrument calibration
 - 3. Installed instrument calibrations
 - 4. Count room and Laboratory instrument calibrations
- B. Applicable organization charts
- C. Copies of audits, self-assessments, vendor or NUPIC audits for contractor support and LERs, performed since the date of the last inspection related to:
 - 1. Area radiation monitors, continuous air monitors, criticality monitors, portable survey instruments, electronic dosimeters, teledosimetry, personnel contamination monitors, or whole body counters
 - 2. Installed radiation monitors
- D. Procedure index for:
 - Calibration, use, and operation of continuous air monitors, criticality monitors, portable survey instruments, temporary area radiation monitors, electronic dosimeters, teledosimetry, personnel contamination monitors, and whole body counters.
 - 2. Calibration of installed radiation monitors
- E. Please provide specific procedures related to the following areas noted below. Additional procedures may be requested by number after the inspector reviews the procedure index.
 - 1. Calibration of portable ion chambers
 - 2. Whole body counter calibration
 - 3. Laboratory instrumentation quality control
- F. A summary list of corrective action documents (including corporate and sub-tiered systems) written since the date of the last inspection, related to the following programs:
 - 1. Area radiation monitors, continuous air monitors, criticality monitors, portable survey instruments, electronic dosimeters, teledosimetry, personnel contamination monitors, whole body counters
 - 2. Installed radiation monitors
 - 3. Count room radiation instruments
 - NOTE: The lists should indicate the <u>significance level</u> of each issue and the <u>search</u> <u>criteria</u> used. Please provide in document formats which are "searchable" so that the inspector can perform word searches.
- G. Most recent calibration data for the whole body counter's.
- H. Radiation Monitoring System health report for the previous 12 months

6. Radioactive Gaseous and Liquid Effluent Treatment (71124.06)

Date of Last Inspection: May 23, 2016

- A. List of contacts and telephone numbers for the following areas:
 - 1. Radiological effluent control
 - 2. Engineered safety feature air cleaning systems
- B. Applicable organization charts
- C. Audits, self-assessments, vendor or NUPIC audits of contractor support, and LERs written since the date of the last inspection, related to:
 - 1. Radioactive effluents
 - 2. Engineered Safety Feature Air cleaning systems
- D. Procedure indexes for the following areas
 - 1. Radioactive effluents
 - 2. Engineered Safety Feature Air cleaning systems
- E. Please provide specific procedures related to the following areas noted below.

 Additional procedures may be requested by number after the inspector reviews the procedure indexes.
 - 1. Sampling of radioactive effluents
 - 2. Effluent monitor setpoint determination
 - 3. Generating radioactive effluent release permits
 - 4. Laboratory instrumentation quality control
 - 5. In-place testing of HEPA filters and charcoal adsorbers
- F. List of corrective action documents (including corporate and sub-tiered systems) written since the date of the last inspection, associated with:
 - 1. Radioactive effluents
 - 2. Effluent radiation monitors
 - 3. Engineered Safety Feature Air cleaning systems

NOTE: The lists should indicate the <u>significance level</u> of each issue and the <u>search</u> <u>criteria</u> used. Please provide in document formats which are "searchable" so that the inspector can perform word searches.

- G. Annual Radioactive Effluent Release Reports for calendar years 2016 and 2017, or the two most recent reports.
- H. Current revision of the Offsite Dose Calculation Manual
- I. The 2016 and 2017 inter-laboratory comparison results for laboratory quality control performance of effluent sample analysis, or the two most recent results.
- J. Effluent sampling schedule for the week of the inspection
- K. New entries into 10 CFR 50.75(g) files since the date of the last inspection
- L. Operations department (or other responsible dept.) log records for effluent monitors removed from service or out of service

- M. Listing or log of liquid and gaseous release permits since the date of the last inspection
- N. A list of the technical specification-required air cleaning systems with the two most recent surveillance test dates of in-place filter testing (of HEPA filters and charcoal adsorbers) and laboratory testing (of charcoal efficiency) and the work order numbers associated with the surveillances
- O. System Health Report for radiation monitoring instrumentation. Also, please provide a specific list of all effluent radiation monitors that were considered inoperable for 7 days or more since the date of the last inspection. If applicable, please provide the relative Special Report and condition report(s).
- P. A list of significant changes made to the gaseous and liquid effluent process monitoring system since the date of the last inspection. If applicable, please provide the corresponding UFSAR section in which this change was documented.
- Q. A list of any occurrence in which a non-radioactive system was contaminated by a radioactive system since the date of the last inspection. Please include any relevant condition report(s).

7. Radiological Environmental Monitoring Program (71124.07)

Date of Last Inspection: May 23, 2016

- A. List of contacts and telephone numbers for the following areas:
 - 1. Radiological environmental monitoring
 - 2. Meteorological monitoring
- B. Applicable organization charts
- C. Audits, self-assessments, vendor or NUPIC audits of contractor support, and LERs written since the date of the last inspection, related to:
 - 1. Radiological environmental monitoring program (including contractor environmental laboratory audits, if used to perform environmental program functions)
 - 2. Environmental TLD processing facility
 - 3. Meteorological monitoring program
- D. Procedure index for the following areas:
 - 1. Radiological environmental monitoring program
 - 2. Meteorological monitoring program
- E. Please provide specific procedures related to the following areas noted below. Additional procedures may be requested by number after the inspector reviews the procedure indexes.
 - 1. Sampling, collection and preparation of environmental samples
 - 2. Sample analysis (if performed onsite)
 - 3. Laboratory instrumentation quality control
- F. A summary list of corrective action documents (including corporate and sub-tiered systems) written since the date of the last inspection, related to the following programs:
 - 1. Radiological environmental monitoring
 - 2. Meteorological monitoring
 - NOTE: The lists should indicate the <u>significance level</u> of each issue and the <u>search</u> <u>criteria</u> used. Please provide in document formats which are "searchable" so that the inspector can perform word searches.
- G. Copies of the two most recent calibration packages for the meteorological tower instruments
- H. Copies of the 2016 and 2017 Annual Radiological Environmental Operating Reports and Land Use Census, and current revision of the Offsite Dose Calculation Manual.
- I. Copy of the environmental laboratory's inter-laboratory comparison program results for 2016 and 2017, or the two most recent results, if not included in the annual radiological environmental operating report
- J. Data from the environmental laboratory documenting the analytical detection sensitivities for the various environmental sample media (i.e., air, water, soil, vegetation, and milk)
- K. Quality Assurance audits (e.g., NUPIC) for contracted services

- L. Current NEI Groundwater Initiative Plan and status
- M. Technical requirements manual or licensee controlled specifications which list the meteorological instruments' calibration requirements
- N. If applicable, per NEI 07-07, provide any reports that document any spills/leaks to groundwater since the date of the last inspection.

8. Radioactive Solid Waste Processing, and Radioactive Material Handling, Storage, and Transportation (71124.08)

Date of Last Inspection: May 23, 2016

- A. List of contacts and telephone numbers for the following areas:
 - 1. Solid Radioactive waste processing
 - 2. Transportation of radioactive material/waste
- B. Applicable organization charts (and list of personnel involved in solid radwaste processing, transferring, and transportation of radioactive waste/materials)
- C. Copies of audits, department self-assessments, and LERs written since the date of the last inspection related to:
 - 1. Solid radioactive waste management
 - 2. Radioactive material/waste transportation program
- D. Procedure index for the following areas:
 - 1. Solid radioactive waste management
 - 2. Radioactive material/waste transportation
- E. Please provide specific procedures related to the following areas noted below. Additional procedures may be requested by number after the inspector reviews the procedure indexes.
 - 1. Process control program
 - 2. Solid and liquid radioactive waste processing
 - 3. Radioactive material/waste shipping
 - 4. Waste stream sampling and analysis
- F. A summary list of corrective action documents (including corporate and sub-tiered systems) written since the date of the last inspection, related to:
 - 1. Solid radioactive waste
 - 2. Transportation of radioactive material/waste
 - NOTE: The lists should indicate the <u>significance level</u> of each issue and the <u>search</u> <u>criteria</u> used. Please provide in document formats which are "searchable" so that the inspector can perform word searches.
- G. Copies of training lesson plans for 49 CFR 172 subpart H, for radwaste processing, packaging, and shipping.
- H. A summary of radioactive material and radioactive waste shipments made from the date of the last inspection, to present
- Waste stream sample analysis results and resulting scaling factors for 2016 and 2017, or the two most recent results.
- J. A listing of onsite radwaste storage facilities. Please include a summary or list of the items stored in each facility.

WOLF CREEK GENERATING STATION - NRC INTEGRATED INSPECTION REPORT 05000482/2018003 - November 7, 2018

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