



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION IV
1600 E LAMAR BLVD
ARLINGTON, TX 76011-4511

January 15, 2015

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 EMERGENCY
PREPAREDNESS INSPECTION REPORT 05000482/2014504**

Dear Mr. Heflin:

On December 17, 2014, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Wolf Creek Generating Station. On December 5 and on December 17, 2014, the NRC inspector discussed the results of this inspection with Mr. S. Smith, Plant Manager and other members of your staff. The inspector documented the results of this inspection in the enclosed inspection report. No NRC-identified or self-revealing findings were identified during this inspection.

The inspector documented a licensee-identified violation which was determined to be of very low safety significance in this report. The NRC is treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2.a of the NRC Enforcement Policy.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390, "Public Inspections, Exemptions, Requests for Withholding," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC's Public Document Room or from the Publicly Available Records (PARS) component of the NRC's

A. Heflin

- 2 -

Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Mark S. Haire, Branch Chief
Plant Support Branch 1
Division of Reactor Safety

Docket.: 50-482
License: NPF-42

Enclosure:
Inspection Report 05000482/2014504
w/Attachment: Supplemental Information

Distribution to Wolf Creek Generating Station

A. Heflin

-2-

Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Mark S. Haire, Branch Chief
Plant Support Branch 1
Division of Reactor Safety

Docket.: 50-482
License: NPF-42

Enclosure:
Inspection Report 05000482/2014504
w/Attachment: Supplemental Information

Distribution to Wolf Creek Generating Station

Distribution:
See next page

ADAMS ACCESSION NUMBER: ML15015A648

<input checked="" type="checkbox"/> SUNSI Review		ADAMS		<input checked="" type="checkbox"/> Publicly Available		<input checked="" type="checkbox"/> Non-Sensitive		Keyword:	
By: GGuerra		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Non-Publicly Available		<input type="checkbox"/> Sensitive		RGN-002	
OFFICE	EPI:PSB1	SEPI:PSB1	C:PSB1	C:DRP/B	C:PSB1				
NAME	GGuerra/dch	PEIkmann	MHaire	NO'Keefe	MHaire				
SIGNATURE	/RA/	/RA/	/RA/	/RA/	/RA/				
DATE	1/12/15	1/12/15	1/12/15	1/15/15	1/15/15				

OFFICIAL RECORD COPY

Letter to Adam C. Heflin from Mark S. Haire, dated January 15, 2015

SUBJECT: WOLF CREEK GENERATING STATION – NRC EMERGENCY
PREPAREDNESS INSPECTION REPORT 05000482/2014504

DISTRIBUTION:

Regional Administrator (Marc.Dapas@nrc.gov)
Deputy Regional Administrator (Kriss.Kennedy@nrc.gov)
Acting DRP Director (Troy.Pruett@nrc.gov)
Acting DRP Deputy Director (Thomas.Farnholtz@nrc.gov)
DRS Director (Anton.Vegel@nrc.gov)
DRS Deputy Director (Jeff.Clark@nrc.gov)
Senior Resident Inspector (Charles.Peabody@nrc.gov)
Resident Inspector (Raja.Stroble@nrc.gov)
WC Administrative Assistant (Carey.Spoon@nrc.gov)
Branch Chief, DRP/B (Neil.OKeefe@nrc.gov)
Senior Project Engineer, DRP/B (David.Proulx@nrc.gov)
Project Engineer, DRP/B (Fabian.Thomas@nrc.gov)
Public Affairs Officer (Victor.Dricks@nrc.gov)
Public Affairs Officer (Lara.Uselding@nrc.gov)
Project Manager (Fred.Lyon@nrc.gov)
Branch Chief, DRS/TSB (Geoffrey.Miller@nrc.gov)
RITS Coordinator (Marisa.Herrera@nrc.gov)
ACES (R4Enforcement.Resource@nrc.gov)
Regional Counsel (Karla.Fuller@nrc.gov)
Technical Support Assistant (Loretta.Williams@nrc.gov)
Congressional Affairs Officer (Jenny.Weil@nrc.gov)
RIV Congressional Affairs Officer (Angel.Moreno@nrc.gov)
RIV/ETA: OEDO (Cayetano.Santos@nrc.gov)

U.S. NUCLEAR REGULATORY COMMISSION

REGION IV

Docket: 05000482

License: NPF-42

Report: 05000482/2014504

Licensee: Wolf Creek Nuclear Operating Corporation

Facility: Wolf Creek Generating Station

Location: 1550 Oxen Lane NE
Burlington, Kansas

Dates: November 17 through December 17, 2014

Inspector: G. Guerra, CHP, Emergency Preparedness Inspector

Approved Mark S. Haire

By: Branch Chief, Plant Support Branch 1
Division of Reactor Safety

SUMMARY

IR 05000482/2014504; 11/17/2014 – 12/17/2014; Wolf Creek Generating Station; Inspection Report; 71114.05

The inspection activities described in this report were performed between November 17 and December 17, 2014, by an emergency preparedness inspector from the NRC's Region IV office at the plant site and in-office. The NRC inspector documented in this report one licensee-identified violation of very low safety significance. The significance of inspection findings is indicated by their color (Green, White, Yellow, or Red), which is determined using Inspection Manual Chapter 0609, "Significance Determination Process", issued June 2, 2011. Their cross-cutting aspects are determined using Inspection Manual Chapter 0310, "Components Within the Cross-Cutting Areas," issued December 4, 2014. Violations of NRC requirements are dispositioned in accordance with the NRC Enforcement Policy. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process."

No NRC-identified or self-revealing findings were identified.

Cornerstone: Emergency Preparedness

- None

Licensee-Identified Violations

A violation of very low safety significance (Green) that was identified by the licensee has been reviewed by the inspector. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. This violation and associated corrective action tracking numbers are listed in Section 4OA7 of this report.

REPORT DETAILS

1. REACTOR SAFETY

Cornerstone: Emergency Preparedness

1EP2 Alert and Notification System Evaluation (71114.02)

a. Inspection Scope

The inspector verified the adequacy of the licensee's methods for testing the primary and backup alert and notification system (ANS). The inspector also reviewed the licensee's program for identifying emergency planning zone locations requiring tone alert radios and for distributing the radios. The inspector interviewed licensee personnel responsible for the maintenance of the primary and backup ANS and reviewed a sample of corrective action system reports written for any ANS problems. The inspector compared the licensee's alert and notification system testing program with criteria in NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," Revision 1; FEMA Report REP-10, "Guide for the Evaluation of Alert and Notification Systems for Nuclear Power Plants," and the licensee's current FEMA-approved alert and notification system design report, "FEMA REP-10 Design Review Report," dated May 2, 2008.

These activities constituted completion of one alert and notification system evaluation sample as defined in Inspection Procedure 71114.02.

b. Findings

No findings were identified.

1EP3 Emergency Response Organization Staffing and Augmentation System (71114.03)

a. Inspection Scope

The inspector verified the licensee's emergency response organization on-shift and augmentation staffing levels were in accordance with the licensee's emergency plan commitments. The inspector reviewed documentation and discussed with licensee staff the operability of primary and backup systems for augmenting the on-shift emergency response staff to verify the adequacy of the licensee's methods for staffing emergency response facilities, including the licensee's ability to staff pre-planned alternate facilities. The inspector also reviewed records of emergency response organization augmentation tests and events to determine whether the licensee had maintained a capability to staff emergency response facilities within emergency plan timeliness commitments.

These activities constitute completion of one emergency response organization staffing and augmentation testing sample as defined in Inspection Procedure 71114.03.

b. Findings

No findings were identified.

1EP4 Emergency Action Level and Emergency Plan Changes (71114.04)

a. Inspection Scope

The inspector performed an in-office review of Wolf Creek Generating Station Emergency Plan, "Radiological Emergency Response Plan," Revision 16. This revision updated the emergency plan with the description and location of a new Emergency Operations Facility, Alternate Technical Support Center, and Alternate Operations Support Center. Several editorial and title changes were also made. The inspector also performed a visual inspection of the new facilities during the on-site inspection of the emergency preparedness program the week of November 17, 2014.

This revision was compared to its previous revision, to the criteria of NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," Revision 1, and to the standards in 10 CFR 50.47(b) to determine if the revision adequately implemented the requirements of 10 CFR 50.54(q)(3) and 50.54(q)(4). The inspector verified that the revision did not decrease the effectiveness of the emergency plan. This review was not documented in a safety evaluation report and did not constitute approval of licensee-generated changes; therefore, this revision is subject to future inspection.

These activities constitute completion of one emergency action level and emergency plan changes sample as defined in Inspection Procedure 71114.04.

b. Findings

No findings were identified.

1EP5 Maintenance of Emergency Preparedness (71114.05)

a. Inspection Scope

The inspector reviewed the following for the period November 2012 to November 2014:

- After-Action reports for emergency classifications and events
- After-Action evaluation reports for licensee drills and exercises
- Independent audits and surveillances of the licensee's emergency preparedness program
- Self-assessments of the emergency preparedness program conducted by the licensee
- Licensee evaluations of changes made to the emergency plan and emergency plan implementing procedures

- Drill and Exercise performance issues entered into the licensee's corrective action program
- Emergency preparedness program issues entered into the licensee's corrective action program
- Maintenance records for equipment supporting the emergency preparedness program
- Emergency response organization and emergency planner training records

The inspector reviewed summaries of over 300 corrective action program reports associated with emergency preparedness and selected 55 to review against program requirements, to determine the licensee's ability to identify, evaluate, and correct problems in accordance with planning standard 10 CFR 50.47(b)(14) and 10 CFR Part 50, Appendix E, IV.F. The inspector verified that the licensee accurately and appropriately identified and corrected emergency preparedness weaknesses during critiques and assessments.

The inspector reviewed summaries of licensee evaluations of the impact of changes to the emergency plan and implementing procedures to review against program requirements to determine the licensee's ability to identify reductions in the effectiveness of the emergency plan in accordance with the requirements of 10 CFR 50.54(q)(3) and 50.54(q)(4). The inspector verified that evaluations of proposed changes to the licensee emergency plan appropriately identified the impact of the changes prior to being implemented.

The inspector reviewed records pertaining to the maintenance of equipment and facilities used to implement the emergency plan. The inspector verified that equipment and facilities were maintained in accordance with the commitments of the licensee's emergency plan.

These activities constitute completion of one sample of the maintenance of the licensee's emergency preparedness program as defined in Inspection Procedure 71114.05.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151)

.1 Drill/Exercise Performance (EP01)

a. Inspection Scope

The inspector reviewed the licensee's evaluated exercises, emergency plan implementations, and selected drill and training evolutions that occurred between October 2013 and September 2014 to verify the accuracy of the licensee's data for classification, notification, and protective action recommendation (PAR) opportunities. The inspector reviewed a sample of the licensee's completed classifications, notifications, and PARs to verify their timeliness and accuracy. The inspector used definitions and guidance contained in Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, to determine the accuracy of the data reported. The specific documents reviewed are described in the attachment to this report.

These activities constituted verification of the performance indicator for drill/exercise performance as defined in Inspection Procedure 71151.

b. Findings

No findings were identified.

.2 Emergency Response Organization Drill Participation (EP02)

a. Inspection Scope

The inspector reviewed the licensee's records for participation in drill and training evolutions between October 2013 and September 2014 to verify the accuracy of the licensee's data for drill participation opportunities. The inspector verified that all members of the licensee's emergency response organization (ERO) in the identified key positions had been counted in the reported performance indicator data. The inspector reviewed the licensee's basis for reporting the percentage of ERO members who participated in a drill. The inspector reviewed drill attendance records and verified a sample of those reported as participating. The inspector used definitions and guidance contained in Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, to determine the accuracy of the data reported. The specific documents reviewed are described in the attachment to this report.

These activities constituted verification of the emergency response organization drill participation performance indicator as defined in Inspection Procedure 71151.

b. Findings

No findings were identified.

.3 Alert and Notification System Reliability (EP03)

a. Inspection Scope

The inspector reviewed the licensee's records of alert and notification system tests conducted between October 2013 and September 2014 to verify the accuracy of the licensee's data for siren system testing opportunities. The inspector reviewed procedural guidance on assessing alert and notification system opportunities and the results of periodic alert and notification system operability tests. The inspector used definitions and guidance contained in Nuclear Energy Institute Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, to determine the accuracy of the data reported. The specific documents reviewed are described in the attachment to this report.

These activities constituted verification of the alert and notification system reliability performance indicator as defined in Inspection Procedure 71151.

b. Findings

No findings were identified.

40A6 Meetings

Exit Meeting Summary

On November 20, 2014, the inspector presented the results of the onsite inspection of the emergency preparedness program to Mr. S. Smith, Plant Manager, and other members of the licensee staff. The licensee acknowledged the issues presented. The licensee confirmed that any proprietary information reviewed by the inspectors had been returned or destroyed.

On December 17, 2014, the inspector conducted a telephonic exit meeting to present the results of the in-office inspection of changes to the licensee's emergency plan to Mr. S. Koenig, Manager Regulatory Affairs, and other members of the licensee staff. The licensee acknowledged the issues presented.

40A7 Licensee-Identified Violations

The following violation of very low safety significance (Green) was identified by the licensee and is a violation of NRC requirements which meets the criteria of the NRC Enforcement Policy for being dispositioned as a non-cited violation.

- Title 10 CFR 50.54(q) requires, in part, that licensees follow and maintain in effect an emergency plan that meets the requirements of 50.47(b). Planning Standard 50.47(b)(2) requires on-shift facility licensee responsibilities for emergency response are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times. Procedure AP 06-002, "Radiological Emergency Response Plan," Revision 15, Attachment D, "WCGS Minimum Staffing for Emergencies," identifies two chemists for on-shift staffing. Procedure AP 21-001,

“Conduct of Operations,” Revision 69, Step 6.6.2, states that “the off-going SM [Shift Manager] shall ensure that the on-coming watchstanders are qualified to stand the watches assigned to them.”

The failure to have the required qualified chemistry technicians on staff is a performance deficiency. The performance deficiency is more than minor because it impacts the emergency response organization readiness attribute of the Emergency Preparedness Cornerstone objective to ensure that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. Using the examples in Table 5.2-1, “Significance Examples § 50.47(b)(2),” of Appendix B to Inspection Manual Chapter 0609, “Emergency Preparedness Significance Determination Process,” issued June 2, 2011, the inspector concluded that this finding represents a degradation of the planning standard function. It meets the degraded planning standard function example, “Staffing processes would permit a shift to go below E-plan minimum staffing requirements, but there were no actual instances in which such shortages occurred.” It is not Greater-than-Green because they had the required number of personnel on shift and they were capable of completing the required functions, albeit task qualified. The licensee had the required minimum staff and could perform the function; however, their processes could have failed if they had not identified this condition and could have not met functional requirements in the future by the use of unqualified personnel. It is not a loss of planning standard function because it was personnel error that caused the finding. An acting chemistry manager did not understand that two qualified chemistry technicians were required one for sampling and one for dose assessment. The licensee identified a broken process in that the watchstander bill did not require verifying qualifications for staff other than for operations personnel.

Contrary to the above, on 21 shifts, between May 24 and July 14, 2014, the licensee used two unqualified chemistry technicians for on-shift staffing. Specifically, the licensee had an on-shift unqualified chemistry technician along with a qualified chemistry technician. The emergency plan specifies two tasks for the technicians; sampling and dose assessment. For the time period in question, the licensee had placed two technicians on back shift, one fully qualified technician, who could perform sampling and dose assessment, and one not fully qualified technician for the fire brigade. The licensee missed the fact that one technician was needed for sampling and one technician for dose assessment. Although the technicians were not both fully qualified, their skills and abilities allowed for the required emergency preparedness functions to be completed. The licensee has entered this into their corrective action program as Condition Report CR86306.

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

L. Aiken, Health Physicist II
A. Broyles, Manager Information Services
J. Dagenette, Emergency Planning
S. Dekat, Chemistry
T. East, Supervisor, Emergency Planning
J. Edwards, Manager, Operations
K. Egan, Quality
N. Good, Licensing
S. Good, Superintendent, Security
C. Gross, Manager, Chemistry
J. Hawkinson, Emergency Planning
S. Henry, Manager, Integrated Plant Scheduling
R. Hobby, Licensing Engineer
S. Koenig, Manager Regulatory Affairs
W. Muilenburg, Supervisor, Licensing
E. Ray, Manager, Training
S. Smith, Plant Manager
R. Stumbaugh, Health Physics
K. Thrall, Emergency Planning
L. Upton, Manager, Strategic Initiatives
B. Vickery, Manager, Financial Services
J. Yunk, Manager, Corrective Actions

NRC Personnel

C. Peabody, Senior Resident Inspector

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

None

LIST OF DOCUMENTS REVIEWED

Section 1EP2: Alert and Notification System Testing

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision Date</u>
	FEMA REP-10 Design Review Report	May 2, 2008
EPP 06-019	Alert and Notification System Sirens	8

Section 1EP3: Emergency Response Organization Staffing and Augmentation System

<u>Title</u>	<u>Date</u>
Wolf Creek On-Shift Staffing Analysis Report	December 12, 2012
12-Q4 Quarterly Callout Test 12/10/2012	December 10, 2012
13-Q1 Quarterly Callout Test 01/17/2013	January 17, 2013
13-Q2 Quarterly Callout Test 06/24/2013	June 24, 2013
13-Q3 Quarterly Callout Test 09/30/2013	September 30, 2013
13-Q4 Quarterly Callout Test 12/05/2013	December 5, 2013
14-Q1 Quarterly Callout Test 02/25/2014	February 25, 2014
14-Q1 Quarterly Callout Test 02/25/2014	June 27, 2014
14-Q3 Quarterly Callout Test 09/24/2014	September 24, 2014

Section 1EP4: Emergency Action Level and Emergency Plan Changes

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
AP 06-002	Radiological Emergency Response Plan	16
DRR 14-2399	Document Review Request for Radiological Emergency Response Plan, Revision 16	

Section 1EP5: Maintenance of Emergency Preparedness

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
AP 21-001	Conduct of Operations	69

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
APF 21-001-01	Shift Manager Relief Checklist	16
AP 06-002	Radiological Emergency Response Plan (RESP) - Attachment D "WCGS Minimum Staffing For Emergencies" - Figure 2 "Minimum Shift Staffing"	15
AP 06-004	Equipment Important to Emergency Response	1
EPP 06-023	Emergency Response Facility Functionality	1
EPP 06-009	Drill and Exercise Requirements	8
AP 17C-024	Emergency Planning Responsibilities	11
Tool Kit 41	Evacuation Time Estimate Update	0
Tool Kit 42	On-Shift Staffing Analysis Review	0

Other Documents

<u>Number</u>	<u>Title</u>	<u>Date</u>
White Paper	Chemistry Technician Qualifications	
RCA 86306	Root Cause Analysis: Minimum Staffing Requirements Not Met	
RA 12-0126	Evacuation Time Estimates for Wolf Creek Generating Station	December 19, 2012
	ETE Update Evaluation	December 19, 2013
Drill Reports		October 23, 2012 November 6, 2012 November 13, 2012 July 8, 2013 July 10, 2013 August 20, 2013 August 22, 2013 October 30, 2013 June 18, 2014 August 20, 2014 August 27, 2014 September 10, 2014
Exercise Report	13-PRE-01	October 9, 2013
Exercise Report	13-EVAL-EX	November 5, 2013
Event Report	Alert Classification	October 16, 2014

Audits/Surveillances

<u>Number</u>	<u>Title</u>	<u>Date</u>
QS-2014-0695	Emergency Planning Drill – 14-SA-02	September 10, 2014
QH-2012-0261	EP NRC Inspection Readiness	August 7, 2012
SA-2013-0056	Emergency Planning Administrative Processes and Interface with Emergency Response Organization Assessment	April 18, 2013
QS-2012-0297	Follow-up of corrective actions for QA-12-05-EP	October 9, 2012
QS-2014-0659	Adequacy of position training for E-Plan Operations Coordinator	September 10, 2014
QS-2014-0660	Support to QA Audit 2014-06-EP	October 6, 2014
Audit 13-04-EP	Emergency Preparedness	June 26, 2013
Audit 14-06-EP	Emergency Preparedness	August 4, 2014

Condition Reports (CRs) in Emergency Preparedness

40719	53396	55977	57107	57603
57604	57605	59011	59052	59648
59803	59992	60783	60784	60785
60786	60787	60788	60789	61717
69253	63404	63405	64677	67522
68611	70899	71318	71470	72022
73735	74632	75927	75980	75999
76178	78216	78428	78532	79005
79670	84257	84462	84581	84812
85703	85706	86306	86347	86703
86898	87071	87303	88711	88786

Section 40A1: Performance Indicator Verification

Procedures

<u>Number</u>	<u>Title</u>	<u>Revision</u>
AP 26A-007	NRC Performance Indicators	10
AI 26A-004	Emergency Planning Performance Indicators	6