

# WOLF CREEK NUCLEAR OPERATING CORPORATION

Matthew W. Sunseri  
President and Chief Executive Officer

February 26, 2013  
WM 13-0002

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555

- References: 1) Letter WM 12-0041, dated October 31, 2012, from M. W. Sunseri, WCNOC, to USNRC
- 2) Letter dated January 23, 2013, from M. A. Mitchell, USNRC, to M. W. Sunseri, WCNOC, "Follow-up Letter on Technical Issues for Resolution Regarding Licensee Communication Submittals Associated with Near-Term Task Force Recommendation 9.3" (ADAMS Accession Number ML13010A162)

Subject: Docket No. 50-482: Wolf Creek Nuclear Operating Corporation Response to NRC Follow-Up Letter on Technical Issues for Resolution Regarding Licensee Communication Submittals Associated with Near-Term Task Force Recommendation 9.3

Gentlemen:

On January 23, 2013, the U.S. Nuclear Regulatory Commission (NRC) Staff issued a letter to Wolf Creek Nuclear Operating Corporation (WCNOC) (Reference 2). The Enclosure to Reference 2 identified eight generic technical issues for which the NRC needed resolution to determine WCNOC's communications capability regarding a station blackout event at Wolf Creek Generating Station. The NRC identified the eight generic issues to provide WCNOC with an opportunity to supplement WCNOC's communication assessment submittal associated with Near-Term Task Force Recommendation 9.3 (Reference 1). The NRC requested a response within 30 days from the date of the letter. On February 21, 2013, a teleconference was held with Mr. Brian Harris concerning this follow-up response. During that discussion, WCNOC indicated that the response would be provided early the week on February 25, 2013.

The Attachment to this letter provides information in response to the eight generic technical issues identified in Reference 2. The Attachment to this letter supplements WCNOC's communication assessment results provided in Reference 1.

This letter contains no commitments. If you have any questions concerning this matter, please contact me at (620) 364-4008, or Mr. Michael J. Westman at (620) 364-8831 ext. 4009.

Sincerely,

A handwritten signature in black ink that reads "M W Sunseri". The letters are cursive and somewhat stylized.

Matthew W. Sunseri

MWS/rtt

Attachment I: Tier 1 Near-Term Task Force Recommendation 9.3, Emergency  
Preparedness Communications-Technical Issues for Resolution

cc: E. E. Collins (NRC), w/a  
E. J. Leeds (NRC), w/a  
C. F. Lyon (NRC), w/a  
N. F. O'Keefe (NRC), w/a  
Senior Resident Inspector (NRC), w/a

STATE OF KANSAS    )  
                                  ) SS  
COUNTY OF COFFEY )

Matthew W. Sunseri, of lawful age, being first duly sworn upon oath says that he is President and Chief Executive Officer of Wolf Creek Nuclear Operating Corporation; that he has read the foregoing document and knows the contents thereof; that he has executed the same for and on behalf of said Corporation with full power and authority to do so; and that the facts therein stated are true and correct to the best of his knowledge, information and belief.

By Matthew W. Sunseri  
Matthew W. Sunseri  
President and Chief Executive Officer

SUBSCRIBED and sworn to before me this 26<sup>th</sup> day of February, 2013.



Janelle Fullen  
Notary Public

Expiration Date 8/27/2015

## **TIER 1 NEAR-TERM TASK FORCE RECOMMENDATION 9.3, EMERGENCY PREPAREDNESS COMMUNICATIONS - TECHNICAL ISSUES FOR RESOLUTION**

On March 12, 2012, the Nuclear Regulatory Commission (NRC) issued a letter (Reference 1) entitled, "Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident." Reference 2 provided Wolf Creek Nuclear Operating Corporation's (WCNOC's) response to Information Requests 1 and 3 from Reference 1, Enclosure 5, Communications. In Reference 3, the NRC staff identified eight generic technical issues needing resolution to determine the communications capability regarding a station blackout event. The NRC specific generic technical issue is provided in italics, followed by WCNOC's response.

### Generic Technical Issue 1

*The staff identified that licensees need to discuss how the power for the equipment analyzed is expected to be available, and how the planned communications enhancements are expected to be maintained. The following areas were identified:*

- A. *A detailed description of how power will be maintained for (1) planned or potential enhancements to the communication links and (2) existing equipment analyzed to be available.*
- 1. The number of replacement batteries expected to be needed for a 24-hour duration, per the Nuclear Energy Institute (NEI) 12-01, "Guideline for Assessing Beyond Design Basis Accident Response Staffing and Communications Capabilities."*

### Response to Issue 1.A.1:

The following information supplements the information provided in Reference 2, Attachment II, pages 2, 6, 9 and Attachment III, page 5.

Each satellite phone has a spare rechargeable battery, an AC travel charger and a DC "cigarette lighter" type charger. This will allow each satellite phone to have one battery installed and an additional battery being charged. Each portable radio has at least one (1) spare battery.

- From the Iridium Satellite Phone 9555 website, the phones have a standby duration of up to 30 hours and a talk time of 3.1 hours. The current batteries for the satellite phones can be charged in 3.25 hours. The satellite phones are capable of being operated while on either the AC or DC chargers.
- The batteries for the portable radios typically last a 12-hour shift. There is a spare battery available for each radio in use. The portable radio batteries typically can be charged in less than (2) hours. The site has 150 portable radios, 300 available radio batteries and associated chargers for both.
- As stated in Reference 2, WCNOC has purchased and distributed 14 Iridium Satellite Phone 9555 phone kits.

2. *Generator availability to charge batteries without offsite equipment for a duration of 24 hours.*

Response to Issue 1.A.2:

The following information supplements the information provided in Reference 2, Attachment I, pages 1 and 2 and Attachment IV.

The site has available cabling, installation and maintenance procedures to support use of a temporary Technical Support Center (TSC) diesel generator, if the main TSC diesel generator is unavailable. Procedure STN KAT-001, "Technical Support Diesel Generator Operation," provides instructions to verify the TSC diesel generator or temporary diesel generator (if installed) is functional.

Procurement and onsite storage of a temporary TSC diesel generator for maintaining communications capabilities (including recharging batteries for portable equipment) under Extended Loss of AC Power (ELAP) conditions, and/or procurement of additional portable diesel generators for the site, is under assessment as part of WCNO's FLEX strategies, which have not yet been fully developed. Ensuring sufficient generator equipment is available to implement the strategies is an inherent part of FLEX strategies development.

3. *A description of how ancillary equipment supports operations for a 24-hour duration (e.g., adequacy of fuel supplies for the generators; and the minimum number of battery chargers expected to be necessary).*

Response to Issue 1.A.3:

The following information supplements the information provided in Reference 2, Attachment I, pages 2 and 3 and Attachment IV.

NEI 12-01, Section 2.4, describes a scenario where the existing AC power sources, including alternate AC power sources, are not available. However, onsite diesel fuel is available, if stored in a manner protected from external events consistent with station design.

The site has diesel fuel stored onsite in the Emergency Diesel Engine Fuel Oil Storage and Transfer System (EDEFSTS), as described in the Wolf Creek Updated Safety Analysis Report (USAR), Section 9.5.4, "Emergency Diesel Engine Fuel Oil Storage and Transfer System." Each of the two EDEFSTS tanks has a storage capacity of 91,146 gallons of fuel, as described in engineering calculations. In the event the permanently installed emergency diesel generators are not available, over 182,000 gallons of diesel fuel is available onsite in the EDEFSTS to power portable diesel generators.

Other diesel fuel storage tanks are available onsite; their survivability will be assessed under the FLEX strategies. Transportation and utilization of available fuel for portable diesel generators from the EDEFSTS and other onsite diesel fuel storage tanks will be assessed under the FLEX strategies.

Wolf Creek Generating Station (WCGS) has sufficient battery charger capacity to be able to charge the spare batteries for each required portable radio and satellite phone. At the present time, WCNOG has enough satellite phones and portable radios to ensure the minimum communication links per NEI 12-01, Sections 4.1.1 through 4.1.5, are met. WCNOG presently considers that there are sufficient satellite phones and portable radios onsite to ensure the minimum communication links per NEI 12-01, Section 4.1.6, is met.

After the FLEX strategies have been developed, WCNOG will review the strategies to ensure sufficient communications equipment is available to implement the FLEX strategies. This review will include ensuring sufficient spare batteries and battery chargers are available for the existing equipment and evaluate the quantity of satellite phones and portable radios against the FLEX strategies.

### Generic Technical Issue 2

*The use and function of the planned enhancements for the improvement of communications.*

*A. A description of the use of the planned enhancements.*

- 1. A discussion of whether each planned enhancement identified is only to be used for maintaining the communication link identified, or if it is expected to be shared among other communication links.*

#### Response to Issue 2.A.1:

The following information supplements the information provided in Reference 2, Attachment II, pages 1, 2, 6 and 7.

Satellite phones have been purchased, received, and distributed for the purpose of maintaining the identified communications links within the Emergency Response Organization (ERO) and to the Offsite Response Organizations (ORO).

- 2. A general description of the planned enhancement and how the equipment will be integrated.*

#### Response to Issue 2.A.2:

The following information supplements the information provided in Reference 2, Attachment I, pages 1 and 2 and Attachment II, page 7.

Fourteen (14) satellite phones have been purchased and distributed. After the FLEX strategies have been developed, WCNOG will review the strategies to ensure sufficient communications equipment is available and integrated to implement the strategies. This review will include implementation of external antennae for the satellite phones and permanent recharging stations.

The use of existing 900 MHz base station radios for contact within the ERO and to the County ORO is described in existing procedures. Procedure AP 06-002, "Radiological Emergency Response Plan (RERP)," includes plans for establishing communications to protect the public and plant personnel, as described in Section

6.16.1.2, "Communications Equipment." Procedure EPP 06-007, "Emergency Notifications," provides guidance for conducting notifications to OROs; Attachment A, "State and County Radio Notification Instructions," specifically discusses use of 900 MHz base station radios to contact county and state authorities.

3. *The title and general description of the procedure that will be developed and used by plant personnel to describe protocols for shared usage of communication capabilities.*

Response to Issue 2.A.3:

WCGS has communication links available through multiple satellite phones and 900 MHz radio links – in particular, communications with the County ORO are possible using direct "line of sight" 900 MHz radio links with both the existing base-station radios and the portable radios. As part of the development and implementation of the FLEX strategies, a procedure describing protocols for shared usage of communications capabilities will be developed and either incorporated into the Emergency Notifications Procedure as described above, or developed as a stand-alone procedure.

Generic Technical Issue 3

*The protection of the new equipment purchased as a planned enhancement as well as the protection of existing communications equipment analyzed as being available.*

- A. *A discussion of how the existing equipment analyzed to be available and enhancements to these communication links as well as associated ancillary equipment will be stored in a manner that is protective from a large scale natural event.*

1. *A description of pre-identified areas that are considered protective for existing equipment and whether new equipment will be stored in a similar location.*

*The title and brief description of a procedure for new communications equipment storage is acceptable, if this procedure is planned to be developed in the future; or a statement that this will be completed in alignment with NRC order EA-12-049.*

Response to Issue 3.A.1:

The following information supplements the information provided in Reference 2, Attachment II, pages 8, 9 and 10.

WCNOC will store the communications equipment in diverse locations, if not stored in the TSC or Emergency Operations Facility (EOF). Those satellite phones allocated to the plant are stored in the Control Room, TSC, and EOF. The portable radios are stored in numerous diverse locations onsite. The number of available portable radios in these areas exceeds the minimum number required per NEI 12-01, Sections 4.1.1 through 4.1.5.

Storage of communications equipment will be assessed as part of the FLEX strategies. Should the results of the FLEX strategies warrant, any additional procedures or modification of existing procedures will be completed in alignment with NRC order EA-12-049.

2. *Equipment stored offsite, should have an analysis of duration to set-up this equipment for use.*

Response to Issue 3.A.2:

At this time, WCNOG does not store any of the communications equipment needed for an onsite response, in offsite locations. The EOF is a near-site facility. The ELAP scenario analysis does not assume that equipment would be moved across the owner-controlled area boundary within the first 24 hours of the event. Consequently this analysis was not required and was not performed.

3. *The analysis demonstrates that the existing equipment that is expected to be available will be functional.*

Response to Issue 3.A.3:

Existing equipment is tested in accordance with procedure EPP 06-018, "Maintenance of Emergency Facilities and Communication Checks." This procedure ensures tools and equipment and emergency supplies are available and capable of performing their emergency function during a radiological emergency at the WCGS in support of the radiological emergency response plan. If the results of the FLEX strategies assessment warrant, additional analyses and procedures will be developed at that time.

Generic Technical Issue 4

*The programmatic controls for the use of the new equipment purchased as a planned enhancement.*

- A. *A description of planned proceduralization and training for the use of these planned enhancements. It is acceptable to provide the title and description of a new procedure for new communications equipment.*

1. *A description of any credited manual actions and their procedures.*

Response to Issue 4.A.1:

The equipment and systems added by WCNOG to support communications after a large scale external event will be included in existing surveillance and maintenance programs. FLEX strategies are under development. Once the FLEX strategies have been developed, WCNOG will develop procedures to support those strategies, as separate documents and/or as part of an overall FLEX procedure.

Laminated operator aids for the usage of the satellite phones are included with each of the satellite phones.



2. *A description of any maintenance for this equipment, including operability testing.*

Response to Issue 4.A.2:

Equipment testing is covered under procedure EPP 06-018, "Maintenance of Emergency Facilities and Communications Checklist," as described above, using forms EPF 06-018-06, "Emergency Planning Monthly Communications Checklist," and EPF 06-018-15, "Emergency Planning Quarterly Communications Checklist."

Maintenance for other than field-replaceable items would be expected to be conducted by the manufacturer (e.g., satellite phones, portable radios). As part of the FLEX strategies, an analysis will be conducted and a procedure developed for replenishment of communications equipment.

3. *A description of any periodic inventory checks.*

Response to Issue 4.A.3:

Inspections of emergency preparedness equipment and supplies are performed in accordance with procedure EPP 06-018, "Maintenance of Emergency Facilities and Communications Checklist," and associated forms.

FLEX strategies are under development. Once the FLEX strategies have been developed, WCNOG will supplement existing procedures and forms and/or add inventory check information to an overall FLEX procedure, as appropriate.

4. *A description of planned staff training.*

Response to Issue 4.A.4:

Training is covered under procedure AP 06-002, "Radiological Emergency Response Plan (RERP)," Section 6.18, "Emergency Plan Drills." FLEX strategies are under development. Once the FLEX strategies have been developed, WCNOG will supplement staff training as appropriate to the analysis.

Generic Technical Issue 5

*A discussion on what assumptions are used as part of the Communications Assessment.*

- A. *A description of the assumptions used for the submitted Communications Assessment Summary, and technical justification for any differences from the assumptions within NEI 12-01, Sections 2.2 "Assumptions Common To Both Assessments" and 2.4 "Assumptions For Communications Assessment".*

Response to Issue 5.A:

The following information supplements the information provided in Reference 2, Attachment II, page 1.

The WCNOC response identified NEI 12-01, Section 2.4, as providing the assumptions used as part of the Communications Assessment. The response should have identified both NEI 12-01, Sections 2.2 and 2.4, as being used for the Communications Assessment. No deviations from those assumptions were made.

### Generic Technical Issue 6

*How plant personnel will be notified in the event of a large scale natural event that causes a loss of all AC power.*

- A. *A description and title of the procedure for emergency notification of essentially all plant staff within 30 minutes [If applicable to the licensee Emergency Plan].*

#### Response to Issue 6.A:

The following information supplements the information provided in Reference 2, Attachment II, pages 1 and 4.

Procedure EPP 06-010, "Personnel Accountability and Evacuation," provides guidance for personnel accountability in the event of a Personnel Accountability Assembly or Exclusion Area Evacuation at WCGS. Section 7.1, "Initiating Personnel Accountability" discusses notification of plant staff using the plant public address system. Section 7.1.1 discusses compensatory announcements in case of loss of offsite power.

The Wolf Creek USAR, Section 9.5.2.3, "Safety Evaluation," identifies two-way (portable) radios (discussed earlier) and [in-plant] dial-telephones as an available backup to the public address system. The in-plant dial-telephones are supplied by 48 V DC battery power.

- B. *A description and title of the procedure for notification of emergency response organization staff (i.e., self-activation) [If applicable].*

#### Response to Issue 6.B:

Procedure AP 17C-028, "Emergency Duties and Responsibilities," Section 6.6, "ERO Response During Significant Natural Disasters" describes the self-activation process.

### Generic Technical Issue 7

*How communications will be maintained during the period of final implementation of the communication enhancements.*

- A. *Identification and description of the interim actions that will be in place to bridge the gap until all final mitigation strategies being proceduralized are implemented. This also includes equipment protection.*

Response to Issue 7.A:

The following information supplements the information provided in Reference 2, Attachment I, page 1 and Attachment II, pages 2, 4, 6 and 7.

WCNOC has obtained 14 new satellite phones, with spare batteries and both AC and DC chargers. These phone kits have been distributed with protective equipment cases. The cases are ingress protected to IP 67 (dust-tight, leak proof for up to 30 minute's submersion in a meter of water) and are environmentally protected to STANAG 4280 / DEF STAN 81-41 standards (can withstand temperature extremes, +/- 2 g vibrations for a 2 hour duration, and survive meter-high impacts).

As stated in response to Generic Technical Issue 3, until such time as the FLEX strategies assessment has been completed, the communications equipment are stored in diverse locations, if not stored in the Control Room, TSC or EOF. The portable radios are stored in numerous diverse locations onsite.

The portable radios are maintained for shift personnel in diverse locations, as described in procedure EPP 06-002, "Technical Support Center Operations," which describes responsibilities and guidance for ERO personnel assigned to the TSC. Portable radio quantities and locations are listed in Figure 1 (page 43) of EPP 06-002. The number of available portable radios in these areas exceeds the minimum number required per NEI 12-01, Sections 4.1.1 through 4.1.5.

The 14 satellite phones are located in the various emergency response facilities (Control Room, TSC, and EOF) and the OROs. Laminated operator aids are provided with each satellite phone.

WCNOC will depend on the Gai-tronics (for as long as it will be available after the event), portable radios in "talk around" mode and direct communications (i.e., face-to-face) within the power block.

Generic Technical Issue 8

*Descriptions are needed regarding how communications will be maintained with the on-site and in-plant response teams and offsite response organizations if their communication links are not expected to be available.*

- A. A timeline for when the evaluation for site specific improvements for on-site and in-plant response teams will be completed.*

Response to Issue 8.A:

The following information supplements the information provided in Reference 2, Attachment I, pages 1, 2 and 3 and Attachment IV.

Site specific improvements are incorporated in the FLEX strategy and a Voice over Internet Protocol (VoIP) phone system study. Dates are as described in the "List of Regulatory Commitments" in Attachment IV of Reference 2.

- B. A discussion of the enhancements that are planned for the offsite response organization communication links.*

Response to Issue 8.B:

The following information supplements the information provided in Reference 2, Attachment II, page 7.

The satellite phones for the offsite response organizations have been procured, distributed and tested. The County ORO also has 900 MHz "direct line of sight" radio links to WCGS. Both the 900 MHz base station radios and the portable radios are within direct "line of sight" range of the County ORO.

References:

1. Letter from E. J. Leeds and M. R. Johnson, USNRC, to M.W. Sunseri, WCNO, "Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3 and 9.3 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident," March 12, 2012.
2. WCNO letter WM 12-0041, "Wolf Creek Nuclear Operating Corporation Submittal of Emergency Preparedness Communications Assessment Results in Response to Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendation 9.3 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident," October 31, 2012.
3. Letter from M. A. Mitchell, USNRC, "Follow-up Letter on Technical Issues for Resolution Regarding Licensee Communication Submittals Associated with Near-Term Task Force Recommendation 9.3, (TAC NO. ME7951)," January 23, 2013.