



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

April 1, 2019

Mr. 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, UNIT 1 - ISSUANCE OF
AMENDMENT RE: REVISION TO THE EMERGENCY PLAN
(EPID L-2018-LLA-0138)

Dear Mr. Heflin:

The U.S. Nuclear Regulatory Commission (the Commission) has issued the enclosed Amendment No. 220 to Renewed Facility Operating License No. NPF-42 for the Wolf Creek Generating Station, Unit 1 (WCGS). The amendment consists of changes to the WCGS Radiological Emergency Response Plan in response to your application dated May 9, 2018, as supplemented by letter dated November 19, 2018.

The amendment revises the WCGS Radiological Emergency Response Plan to (1) reduce the number of required emergency response organization positions, (2) standardize activation times for the technical support center to 75 minutes, (3) replace the current full-time normal work hours licensed medical practitioner position with on-shift first aid responders, and (4) remove reference to performing dose assessment using containment pressure indication.

A copy of the related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

A handwritten signature in black ink, appearing to read "Balwant K. Singal for".

Balwant K. Singal, Senior Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-482

Enclosures:

1. Amendment No. 220 to NPF-42
2. Safety Evaluation

cc: Listserv



UNITED STATES
NUCLEAR REGULATORY COMMISSION
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WOLF CREEK NUCLEAR OPERATING CORPORATION

WOLF CREEK GENERATING STATION, UNIT 1

DOCKET NO. 50-482

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 220
License No. NPF-42

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Wolf Creek Generating Station, Unit 1 (the facility) Renewed Facility Operating License No. NPF-42 filed by the Wolf Creek Nuclear Operating Corporation (the Corporation), dated May 9, 2018, as supplemented by letter dated November 19, 2018, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, by Amendment No. 220, Renewed Facility Operating License No. NPF-42 is hereby amended to authorize revision to the facility Radiological Emergency Response Plan as set forth in the Wolf Creek Nuclear Operating Corporation's application dated May 9, 2018, as supplemented by letter dated November 19, 2018, and evaluated in the NRC staff's safety evaluation enclosed with Amendment No. 220.
3. The license amendment is effective as of its date of issuance and shall be implemented within 180 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in cursive script that reads "Michele A. Evans for".

Ho K. Nieh, Director
Office of Nuclear Reactor Regulation

Date of Issuance: April 1, 2019



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 220 TO

RENEWED FACILITY OPERATING LICENSE NO. NPF-42

WOLF CREEK NUCLEAR OPERATING CORPORATION

WOLF CREEK GENERATING STATION, UNIT 1

DOCKET NO. 50-482

1.0 INTRODUCTION

By application dated May 9, 2018 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18135A172), as supplemented by letter dated November 19, 2018 (ADAMS Accession No. ML18331A293), Wolf Creek Nuclear Operating Corporation (WCNOC, the licensee) submitted changes to the Wolf Creek Generating Station, Unit 1 (WCGS) Radiological Emergency Response Plan (RERP) for U.S. Nuclear Regulatory Commission (NRC, the Commission) review and approval pursuant to Section 50.54(q), "Emergency plans," of Title 10 of the *Code of Federal Regulations* (10 CFR). The proposed changes to the WCGS RERP include:

- Reducing the number of required emergency response organization (ERO) positions;
- Standardizing activation times for the Technical Support Center (TSC) to 75 minutes from the time of declaration of an Alert or higher emergency classification level (ECL);
- Replacing the current full-time normal work hours licensed medical practitioner position with on-shift first aid responders; and
- Removing reference to performing dose assessment using containment pressure indication.

The supplemental letter dated November 19, 2018, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the NRC staff's original proposed no significant hazards consideration determination as published in the *Federal Register* (FR) on July 3, 2018 (83 FR 31187).

2.0 REGULATORY EVALUATION

The regulatory requirements and guidance on which the NRC staff based its review are provided below.

2.1 Regulatory Requirements

The planning standards in 10 CFR 50.47(b) establish the requirements that the onsite and offsite emergency response plans must meet for the NRC staff to make a finding that there is reasonable assurance that the licensee can, and will, take adequate protective measures in the event of a radiological emergency. Specifically, on-shift and augmented ERO staffing is addressed under 10 CFR 50.47(b)(2), which states:

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, timely augmentation of response capabilities is available and the interfaces among various onsite response activities and offsite support and response activities are specified.

Appendix E to 10 CFR Part 50, "Emergency Planning and Preparedness for Production and Utilization Facilities," Section IV, Part A, "Organization," states, in part, that "The organization for coping with radiological emergencies shall be described, including definition of authorities, responsibilities, and duties of individuals assigned to the licensee's emergency organization"

The regulatory requirements regarding the assessment and monitoring of offsite radiological releases are addressed in planning standard 10 CFR 50.47(b)(9), which states:

Adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use.

Further requirements are also specified in Appendix E to 10 CFR Part 50, Section IV, Part B, "Assessment Actions," which states, in part:

The means to be used for determining the magnitude of, and for continually assessing the impact of, the release of radioactive materials shall be described, including emergency action levels that are to be used as criteria for determining the need for notification and participation of local and State agencies, the Commission, and other Federal agencies, and the emergency action levels that are to be used for determining when and what type of protective measures should be considered within and outside the site boundary to protect health and safety.

2.2 Guidance

Regulatory Guide 1.101, Revision 2, "Emergency Planning and Preparedness for Nuclear Power Reactors," dated October 1981 (ADAMS Accession No. ML090440294), provides guidance on methods acceptable to the NRC staff for implementing specific parts of the NRC's regulations – in this case, 10 CFR 50.47(b)(2) and Appendix E to 10 CFR Part 50, Section IV, Part A. Regulatory Guide 1.101 endorses Revision 1 to NUREG-0654/FEMA-REP-1 (hereafter referred to as NUREG-0654), "Criteria for Preparation and Evaluation of Radiological

Emergency Response Plans and Preparedness in Support of Nuclear Power Plants,” dated November 1980 (ADAMS Accession No. ML040420012), which provides specific acceptance criteria for complying with the standards set forth in 10 CFR 50.47(b). These criteria provide a basis for NRC licensees and State and local governments to develop acceptable radiological emergency plans and to improve emergency preparedness.

NUREG-0654, Section II, “Planning Standards and Evaluation Criteria,” Evaluation Criteria II.B.1 and II.B.5 address planning standard 10 CFR 50.47(b)(2).

Evaluation Criterion II.B.1 states:

Each licensee shall specify the onsite emergency organization of plant staff personnel for all shifts and its relation to the responsibilities and duties of the normal staff complement.

Evaluation Criterion II.B.5 states, in part:

Each licensee shall specify the positions or title and major tasks to be performed by the persons to be assigned to the functional areas of emergency activity. For emergency situations, specific assignments shall be made for all shifts and for plant staff members, both onsite and away from the site. These assignments shall cover the emergency functions in Table B-1 entitled, “Minimum Staffing Requirements for Nuclear Power Plant Emergencies.” The minimum on-shift staffing levels shall be as indicated in Table B-1. The licensee must be able to augment on-shift capabilities within a short period after declaration of an emergency. This capability shall be as indicated in Table B-1.

Regulatory Issue Summary 2016-10, “License Amendment Requests for Changes to Emergency Response Organization Staffing and Augmentation,” dated August 5, 2016 (ADAMS Accession No. ML16124A002), provides examples of the scope and detail of information that should be provided in license amendment requests related to ERO staffing and augmentation to facilitate NRC review.

In addition, NUREG-0696, “Functional Criteria for Emergency Response Facilities,” dated February 1981 (ADAMS Accession No. ML051390358), describes the facilities and systems to be used by nuclear power plant licensees to improve responses to emergency situations.

3.0 TECHNICAL EVALUATION

The NRC staff has reviewed the licensee’s regulatory and technical analyses in support of the proposed changes to the WCGS RERP described in the application dated May 9, 2018, as supplemented by letter dated November 19, 2018. The NRC staff’s technical evaluation is detailed below.

3.1 Major Functional Areas

In the application dated May 9, 2018, WCNOG provided a justification for the proposed WCGS RERP changes that included a detailed review of each Major Functional Area described in Table B-1 to NUREG-0654.

The current WCGS RERP describes the ERO as consisting of personnel staffing in the following emergency response facilities:

- Control Room
- Operations Support Center (OSC)
- TSC
- Emergency Operations Facility (EOF)

At WCGS, the TSC and OSC are co-located and, unless specifically stated, are referred to as the TSC. The licensee proposes to standardize both the off-normal and normal working hour goals to activate the TSC to within 75 minutes of the declaration of an Alert or higher ECL. Augmentation time for key ERO positions would remain at 60 minutes per Attachment D, "WCGS Minimum Staffing for Emergencies," of the WCGS RERP.

The licensee would continue to activate the EOF within 90 minutes of declaring an Alert or higher ECL. Although the guidance in NUREG-0654 provides that activation of the EOF is not required until a Site Area Emergency or higher ECL has been declared, the proposed changes to the WCGS RERP would continue to require all emergency response facilities to activate at an Alert or higher ECL.

The NRC staff's review of the proposed changes to the WCGS RERP is described based on each Major Functional Area provided in Table B-1 to NUREG-0654.

3.1.1 Major Functional Area: Plant Operations and Assessment of Operational Aspects

The licensee proposes to add two Nuclear Station Operators to its current on-shift staffing as shown in the table below:

Position	Number of On-Shift Operations Personnel	
	Current	Proposed
Shift Manager (Senior Reactor Operator)	1	1
Control Room Supervisor	1	1
Reactor Operator	2	2
Nuclear Station Operator	5	7

The licensee proposes that the addition of two Nuclear Station Operators is to replace one Radiation Protection (RP) Technician and one Chemistry Technician currently supporting the WCGS Fire Brigade. The two additional Nuclear Station Operators would be available to assist with event mitigation for non-fire events. No other changes are proposed for the Plant Operations and Assessment of Operational Aspects Major Functional Area.

The proposed WCGS RERP does not change the ability or timing to perform required Plant Operations and Assessment of Operational Aspects from those outlined in the current WCGS RERP and continues to meet the guidance provided in NUREG-0654. Based on its evaluation of the above changes, the NRC staff has determined that the proposed WCGS RERP continues to meet planning standard 10 CFR 50.47(b)(2) and the requirements in Section IV.A of Appendix E to 10 CFR Part 50.

3.1.2 Major Functional Area: Emergency Direction and Control

The licensee revised Attachment D to the WCGS RERP to clearly indicate that a Site Emergency Manager will respond within 60 minutes of the declaration of an Alert or higher ECL.

The licensee is not requesting a change to the Emergency Direction and Control Major Functional Area and continues to meet the guidance provided in NUREG-0654. Based on its evaluation of the above changes, the NRC staff has determined that the proposed WCGS RERP continues to meet planning standard 10 CFR 50.47(b)(2) and the requirements in Section IV.A of Appendix E to 10 CFR Part 50.

3.1.3 Major Functional Area: Notification/Communication

The current WCGS RERP assigns two on-shift individuals as dedicated On-shift Communicators to perform the notification/communication function with no other functions assigned. WCGS currently has three additional Communicators available within 60 minutes of the declaration of an Alert or higher ECL.

The proposed WCGS RERP would eliminate one of the two dedicated On-shift Communicators with the remaining dedicated On-shift Communicator performing the offsite notifications to designated State and county government officials and notifications to the NRC via the emergency notification system. No other changes are proposed for the Notification/Communication Major Functional Area.

The licensee provides that dedicated telephone circuits and the use of a wireless headset enables a single communicator to perform State and county notifications on one line while maintaining an open line with the NRC on the emergency notification system. WCNOG further provides that this capability has been successfully demonstrated in four emergency drills conducted at WCGS.

Notification of licensee ERO personnel is initiated through an automated call-out process, which is not being changed.

The proposed WCGS RERP does not change the ability or timing to perform required Federal, State, and county notifications from that outlined in the current WCGS RERP, and continues to meet the guidance provided in NUREG-0654. Based on its evaluation of the above changes, the NRC staff has determined that the proposed WCGS RERP continues to meet planning standard 10 CFR 50.47(b)(2) and the requirements in Section IV.A of Appendix E to 10 CFR Part 50.

3.1.4 Major Functional Area: Radiological Accident Assessment and Support of Operational Accident Assessment

The current WCGS RERP, Attachment D, has three RP personnel on-shift, which are augmented by one individual with senior health physics expertise and eight RP personnel responding within 60 minutes of the declaration of an Alert or higher ECL.

The licensee proposes to remove one on-shift Chemistry Technician, one on-shift RP Technician, and two augmenting RP Personnel. The licensee also proposes to provide a person with "senior radiation protection expertise" rather than a person with "senior health physics expertise." However, the Attachment D tasks performed by this person have not

changed, and the NRC staff views this title change as administrative only to ensure consistency in position titles.

This Major Functional Area includes the following tasks:

EOF Director: WCNOG is not requesting a change to this overall utility emergency management and offsite agency interface major task, which continues to meet the guidance provided in NUREG-0654. Based on its evaluation of the above changes, the NRC staff has determined that the proposed WCGS RERP continues to meet planning standard 10 CFR 50.47(b)(2) and the requirements in Section IV.A of Appendix E to 10 CFR Part 50.

Offsite Dose Assessment: The guidance in Table B-1 to NUREG-0654 identifies one person to perform the offsite dose assessment function as a 30-minute augmented position. The licensee proposes to remove one of the existing two Chemistry Technicians as an on-shift position. This position supported Fire Brigade staffing and was not needed to support either offsite dose assessment or chemistry functions. The remaining WCGS Chemistry Technician will continue to perform offsite dose assessment until relieved by augmenting personnel at the EOF.

A Dose Assessment Technician at the EOF currently reports offsite dose assessment results to the Dose Assessment Coordinator, who then reports the results to the Radiological Coordinator. The licensee proposes to eliminate the Dose Assessment Technician and have dose assessment functions performed by the Dose Assessment Coordinator, who is trained to perform dose assessments.

With the continued use of a dedicated on-shift position to perform offsite dose assessment, which will continue to be augmented by the EOF within 90 minutes of the declaration of an Alert or higher ECL, the NRC staff concludes that there is no loss of function or impact on the timing for performing offsite dose assessment. Based on an evaluation of the above changes, the NRC staff has determined that the proposed WCGS RERP continues to meet planning standard 10 CFR 50.47(b)(2) and the requirements in Section IV.A of Appendix E to 10 CFR Part 50.

Onsite Surveys and In-Plant Surveys: The guidance in Table B-1 to NUREG-0654 identifies an RP Technician on-shift to perform in-plant surveys, with one RP Technician augmenting within 30 minutes and an additional RP Technician augmenting within 60 minutes after declaration of an emergency. Additionally, Table B-1 to NUREG-0654 identifies one RP Technician augmenting within 30 minutes and an additional RP Technician augmenting within 60 minutes after declaration of an emergency to perform onsite (out-of-plant) surveys.

The current WCGS RERP has two RP Technicians on-shift and a third on-shift RP Technician assigned as a Fire Brigade member. Augmentation is currently provided by eight RP Technicians responding within 60 minutes of the declaration of an Alert or higher ECL. The licensee proposes to remove two of the eight augmenting RP Technicians.

The licensee also proposes to remove the on-shift RP Technician, who was assigned as a Fire Brigade member. The licensee proposes to provide an additional on-shift Nuclear Station Operator to replace the on-shift RP Technician on the Fire Brigade.

The installed in-plant radiological monitoring instrumentation at WCGS provides a means by which radiological conditions can be determined during an emergency, thereby reducing the need to send RP personnel into the plant to obtain radiological data. The WCGS monitors

cover key areas of the plant and are integrated into the plant computer system with readings available in the control room, RP office, TSC, OSC, and EOF.

The improved access to real-time plant data reduces the need to perform onsite (out-of-plant) and in-plant surveys, which significantly reduces the burden on the RP Technicians. As such, the NRC staff concludes that the proposed changes will not result in a loss of function or impact the timing for onsite (out-of-plant) and in-plant surveys. Based on an evaluation of the above changes, the NRC staff has determined that the proposed WCGS RERP continues to meet planning standard 10 CFR 50.47(b)(2) and the requirements in Section IV.A of Appendix E to 10 CFR Part 50.

Offsite Surveys: The guidance in Table B-1 to NUREG-0654 identifies two personnel to perform the offsite survey function as 30-minute augmented positions, with two additional personnel as 60-minute augmented positions.

The licensee will continue to provide three RP personnel to support three joint radiological monitoring teams (JRMTs). However, WCNOG proposes to eliminate a fourth JRMT that remained at the EOF to operate as a counting station. The licensee provides that all WCGS JRMT members are trained to count samples in the field and that counting samples in the field is more expeditious than transporting the samples back to the EOF for counting. As such, the elimination of the EOF JRMT will not impact the WCGS capability to have three offsite survey teams perform the field monitoring function.

Based on its evaluation of the above change, the NRC staff has determined that the proposed WCGS RERP continues to meet planning standard 10 CFR 50.47(b)(2) and the requirements in Section IV.A of Appendix E to 10 CFR Part 50.

3.1.5 Major Functional Area: Plant System Engineering, Repair, and Corrective Actions

This Major Functional Area includes the following tasks:

Technical Support: The guidance in Table B-1 to NUREG-0654 identifies one on-shift Shift Technical Advisor and one core/thermal hydraulics engineering expert responding in 30 minutes, with one electrical and one mechanical engineering expert responding in 60 minutes after declaration of an emergency.

The current WCGS RERP identifies an on-shift Shift Technical Advisor with a Core/Thermal Engineer, a Mechanical Engineer, and an Electrical Engineer augmenting within 60 minutes of the declaration of an Alert or higher ECL. The licensee is not proposing a change to these positions.

As such, the NRC staff concludes that the proposed changes will not result in a loss of function or impact the timing for the Technical Support function. Therefore, the proposed WCGS RERP continues to meet planning standard 10 CFR 50.47(b)(2) and the requirements in Section IV.A of Appendix E to 10 CFR Part 50.

Repair and Corrective Actions: The guidance in Table B-1 to NUREG-0654 specifies the major task of Repair and Corrective Actions to be fulfilled on-shift by a total of two personnel and "may be provided by shift personnel assigned other functions." One person would perform the function of a mechanic, and one person would perform the function of an electrician. In addition, Table B-1 to NUREG-0654 specifies that one electrician and one instrument and

control technician would respond within 30 minutes after declaration of an emergency to augment the ERO. Finally, one mechanic, one radwaste operator, and one additional electrician would respond within 60 minutes after declaration of an emergency to augment the ERO.

The current WCGS RERP has one on-shift radwaste operator and an additional on-shift person to perform electrical maintenance and designates that these individuals may be assigned other functions. These on-shift positions are currently augmented by two mechanical maintenance technicians, two electricians, and one instrument and control technician responding within 60 minutes of the declaration of an Alert or higher ECL.

The licensee proposes to eliminate one mechanical maintenance technician and one electrician, who currently respond within 60 minutes of an Alert or higher ECL. The augmenting maintenance responders will provide additional resources for repair and corrective actions and are not expected to immediately perform significant repair activities.

Based on the availability of on-shift operators with the knowledge, skills, and abilities to perform all tasks that may be required to implement the WCGS Abnormal Operating Procedures and Emergency Operating Procedures; the redundant and diverse emergency core cooling systems design; and one mechanical maintenance technician, one electrician, and one instrument and control technician responding within 60 minutes of the declaration of an Alert or higher ECL, the NRC staff finds the requested changes to augmentation staffing to be acceptable. Based on its evaluation of the above changes, the NRC staff has determined that the proposed WCGS RERP continues to meet planning standard 10 CFR 50.47(b)(2) and the requirements in Section IV.A of Appendix E to 10 CFR Part 50.

3.1.6 Major Functional Area: Protective Actions (In-Plant)

The guidance in Table B-1 to NUREG-0654 specifies the major task of Protective Actions (in-plant) to be fulfilled on-shift by a total of two personnel and "May be provided by shift personnel assigned other functions." Additionally, the guidance in Table B-1 to NUREG-0654 identifies two personnel to perform this function as 30-minute augmented positions, with two additional personnel as 60-minute augmented positions.

Attachment D to the current WCGS RERP identifies one RP position that may be provided by an individual assigned other functions. Attachment 1, "Evaluation of Proposed Changes," of the application dated May 9, 2018, provides that an additional RP Technician listed as the second RP Technician on-shift, will perform the Protective Actions (in-plant) function. The Protective Actions (in-plant) function is currently augmented by four RP Technicians who will respond within 60 minutes of the declaration of an Alert or higher ECL.

Previously, dedicated RP Technicians were required to check dose margins, check training qualifications, and ensure that workers had read and understood the applicable radiation work permit. The current WCGS radiological access control is now an automated process that allows workers to sign in on radiation work permits and self-issue electronic dosimeters.

The installed in-plant radiological monitoring instrumentation at WCGS also provides a means by which radiological conditions can be determined during an emergency, thereby reducing the need to send RP personnel into the plant to obtain radiological data. The WCGS monitors cover key areas of the plant and are integrated into the plant computer system with readings available in the control room, RP office, TSC, OSC, and EOF.

The NRC staff finds that with the improved use of technology regarding access control and electronic area radiation monitoring, the staffing of two on-shift RP Technicians and six RP Technicians augmenting within 60 minutes of the declaration of an Alert or higher ECL is acceptable. Based on its evaluation of the above changes, the NRC staff has determined that the proposed WCGS RERP continues to meet planning standard 10 CFR 50.47(b)(2) and the requirements in Section IV.A of Appendix E to 10 CFR Part 50.

3.1.7 Major Functional Area: Firefighting

The guidance in Table B-1 to NUREG-0654 specifies the Firefighting Major Functional Area to be fulfilled on-shift by the "Fire Brigade per Technical Specifications." Additionally, the guidance in Table B-1 to NUREG-0654 identifies augmentation by "Local Support" after declaration of an emergency.

The licensee provides that the Fire Brigade will continue to be staffed in accordance with the site's Fire Protection Program. WCGS is not proposing a change to the Fire Fighting Major Functional Area.

The number of personnel required by the Fire Protection Program does not change the Firefighting Major Functional Area from the current WCGS RERP and continues to meet the guidance provided in NUREG-0654. Based on its evaluation of the above changes, the NRC staff has determined that the proposed WCGS RERP continues to meet planning standard 10 CFR 50.47(b)(2) and the requirements in Section IV.A of Appendix E to 10 CFR Part 50.

3.1.8 Major Functional Area: Rescue Operations and First-Aid

The guidance in Table B-1 to NUREG-0654 specifies the Rescue Operations and First-Aid Major Functional Area to be fulfilled by two personnel on-shift who may be assigned other functions. Additionally, the guidance in Table B-1 to NUREG-0654 identifies augmentation by "Local Support" after declaration of an emergency.

The current and proposed Attachment D to the WCGS RERP provides two personnel to perform the Rescue Operations and First Aid Major Functional Area. The current WCGS RERP also provides that an onsite medical facility is staffed with a full-time Licensed Practitioner during normal business hours. The licensee proposes to remove the reference to a "full-time Licensed Practitioner," but will continue to maintain on-shift personnel trained in first aid that are available 24 hours per day. This will maintain the commitment for qualified on-shift personnel to provide first-aid treatment for injured personnel. Local support organizations will continue to support rescue operations and first-aid per the agreements established with these organizations.

The number of personnel performing rescue operations and first-aid does not change from the current WCGS RERP and continues to meet the guidance provided in NUREG-0654. Based on its evaluation of the above changes, the NRC staff has determined that the proposed WCGS RERP continues to meet planning standard 10 CFR 50.47(b)(2) and the requirements in Section IV.A of Appendix E to 10 CFR Part 50.

3.1.9 Major Functional Area: Site Access Control and Personnel Accountability

The licensee is not requesting a change to the Site Access and Personnel Accountability Major Functional Area from the current WCGS RERP. Therefore, the proposed WCGS RERP continues to meet planning standard 10 CFR 50.47(b)(2) and the requirements in Section IV.A of Appendix E to 10 CFR Part 50.

3.2 Technical Support Center/Operations Support Center Augmentation Time Standardization

The licensee proposes to standardize the TSC activation time to within 75 minutes of the declaration of an Alert or higher ECL. Currently, WCGS RERP, Attachment D, Section 6.6.1, states:

TSC activation will be performed as soon as practical and within the times as stated in the following:

1. During off-normal working hours, it is the goal to activate the TSC within 75 minutes of a declaration of an Alert or higher classification.
2. During normal working hours, it is the goal to activate the TSC within 30 minutes of a declaration of an Alert or higher classification.

As discussed above in Section 3.1, "Major Functional Areas," the proposed WCGS RERP continues to meet planning standard 10 CFR 50.47(b)(2) and the requirements in Section IV.A of Appendix E to 10 CFR Part 50 for all Major Functional Areas. The augmentation time for key augmented ERO positions would remain unchanged at 60 minutes per Attachment D to the WCGS RERP. As such, the NRC staff has determined that standardizing the TSC activation time to the currently approved off-normal working time of within 75 minutes of declaration of an Alert or higher classification, while maintaining the augmentation time for key augmented ERO positions at 60 minutes, is acceptable. Therefore, the proposed WCGS RERP continues to meet planning standard 10 CFR 50.47(b)(2) and the requirements in Section IV.A of Appendix E to 10 CFR Part 50.

3.3 Emergency Response Organization Staffing Changes

In addition to the changes discussed above, WCNOG proposes to reduce the number of ERO positions through the elimination or consolidation of job functions. The ERO positions discussed in this section are not positions under Table B-1 to NUREG-0654 and do not perform major tasks as described in NUREG-0654.

3.3.1 Emergency Operations Facility Staffing

The licensee proposes to eliminate the EOF Facility Technician as a position required for facility activation. The EOF Facility Technician function is to establish and monitor facility habitability. The licensee has a new EOF that is outside of the Plume Exposure Pathway Emergency Planning Zone. As such, habitability monitoring is no longer required for facility activation in accordance with Table 2, "Relation of EOF Location to Habitability Criteria," of NUREG-0696, which does not identify specific habitability guidance for an EOF greater than 10 miles from the TSC.

The licensee also proposes to eliminate one of two EOF Operations Recorders, one of two EOF Team Communicators, and one of four EOF Administrative Assistants. The EOF Team Communicator position does not provide notification/communications support to the offsite response organizations or the NRC. The licensee states that these positions are redundant based on technological changes and procedural streamlining. None of these positions is identified under Table B-1 to NUREG-0654 in support of designated Major Functional Areas or designated as required minimum staffing to support EOF activation.

Based on its evaluation of the above changes, the NRC staff has determined that the proposed WCGS RERP continues to meet planning standard 10 CFR 50.47(b)(2) and the requirements in Section IV.A of Appendix E to 10 CFR Part 50.

3.3.2 Technical Support Center Staffing

The licensee proposes to eliminate the Warehouse Support position. Due to procedural changes, a dedicated person is no longer needed to ensure that maintenance teams have access to the warehouse. The licensee proposes to change the procedural task of locating and securing parts and equipment from the Warehouse Support position to the Maintenance Planner. As such, WCGS will continue to have access to parts and equipment if needed.

The licensee proposes to reduce the TSC engineering team from five individuals to three individuals. As discussed in Section 3.1.5 above, WCNOG will continue to provide engineering support that supports the major task of Technical Support as described in Table B-1 to NUREG-0654.

The licensee proposes to eliminate one of two TSC Operations Recorders, one of two TSC Team Communicators, two of four TSC Administrative Assistants, and two of three Maintenance Planners. The TSC Team Communicator position, which will continue to be staffed, does not provide notification/communications support to the offsite response organizations or the NRC. The licensee states that these positions are redundant based on technological changes and procedural streamlining. None of these positions is identified under Table B-1 to NUREG-0654 in support of designated Major Functional Areas or designated as required minimum staffing to support TSC activation.

Based on its evaluation of the above changes, the NRC staff has determined that the proposed WCGS RERP continues to meet planning standard 10 CFR 50.47(b)(2) and the requirements in Section IV.A of Appendix E to 10 CFR Part 50.

3.3.3 Joint Information Clearinghouse Staffing

The licensee proposes to eliminate the On-site Public Information Coordinator and the Media Liaison positions from the Joint Information Clearinghouse. The Off-site Public Information Coordinator, whose tasks are redundant to the On-site Public Information Coordinator (in the TSC), will continue to provide information to the Joint Information Clearinghouse, as needed. The licensee also proposes to remove the Media Liaison position because the functions of this position are either redundant or were transferred to the Media Center Manager.

In addition, WCNOG proposes to eliminate one of two Technical Support positions, one of two Media Center Registrars, one of four Phone Team Members, and one of four Media Monitoring Team positions. These positions are redundant based on technological changes and procedural streamlining. None of these positions is identified under Table B-1 to NUREG-0654

in support of designated Major Functional Areas or designated as required minimum staffing to support Joint Information Clearinghouse activation.

Based on its evaluation of the above changes, the NRC staff has determined that the proposed WCGS RERP continues to meet planning standard 10 CFR 50.47(b)(2) and the requirements in Section IV.A of Appendix E to 10 CFR Part 50.

3.4 Dose Assessment Based on Containment Pressure

The current WCGS RERP utilizes reductions in containment pressure to estimate release rates and offsite radiological exposures for an unmonitored, pressure-driven release from containment. The licensee states that this methodology erroneously attributes all changes in containment pressure to leakage and, therefore, has resulted in over-estimations of offsite radiological doses during exercise scenarios leading to potentially unwarranted protective action recommendations for the public. The licensee proposes to remove the pressure-driven containment release based on Containment High Area Radiation monitor readings used, in conjunction with changes in containment pressure, from the WCGS dose assessment software. The licensee provides that offsite survey teams provide a more accurate method to calculate release rates and offsite exposures for an unmonitored, pressure-driven release from containment.

The NRC staff finds that removing the potentially inaccurate dose assessment methodology based, in part, on a reduction in containment pressure while retaining the capability to calculate release rates and offsite exposures from offsite field team data, as proposed, continues to meet planning standard 10 CFR 50.47(b)(9) and the requirements in Section IV.B.1 of Appendix E to 10 CFR Part 50.

3.5 Summary

The NRC staff performed a technical and regulatory review of the proposed changes to the WCGS RERP. Based on this review, the NRC staff finds that the proposed WCGS RERP, as changed, continues to meet planning standards 10 CFR 50.47(b)(2) and (b)(9), and the requirements in Sections IV.A and IV.B.1 of Appendix E to 10 CFR Part 50, and provides reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. Therefore, the NRC staff concludes that the proposed WCGS RERP changes to certain ERO staffing and augmentation times, as described in the application dated May 9, 2018, as supplemented by letter dated November 19, 2018, are acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the State of Kansas official was notified of the proposed issuance of the amendment on February 27, 2019. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes the site emergency plan. The amendment changes requirements with respect to the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative

occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration published in the *Federal Register* on July 3, 2018 (83 FR 31187), and there has been no public comment on such finding. The amendment also relates to changes in recordkeeping, reporting, or administrative procedures or requirements. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and 51.22(c)(10). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: R. Hoffman

Date: April 1, 2019

SUBJECT: WOLF CREEK GENERATING STATION, UNIT 1 - ISSUANCE OF
 AMENDMENT RE: REVISION TO THE EMERGENCY PLAN
 (EPID L-2018-LLA-0138) DATED APRIL 1, 2019

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*by memorandum

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