

KANSAS GAS AND ELECTRIC COMPANY
KANSAS CITY POWER & LIGHT COMPANY
KANSAS ELECTRIC POWER COOPERATIVE, INC.
WOLF CREEK NUCLEAR OPERATING CORPORATION
DOCKET NO. 50-482
WOLF CREEK GENERATING STATION, UNIT 1
RENEWED FACILITY OPERATING LICENSE

Renewed License No. NPF-42

1. The Nuclear Regulatory Commission (the Commission), having previously made the findings set forth in License No. NPF-42, has now found that:
 - A. The application for a renewed operating License No. NPF-42 filed by Wolf Creek Nuclear Operating Corporation* (WCNOC) complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the rules and regulations of the Commission as set forth in Title 10, Chapter I, CFR, and all required notifications to other agencies or bodies have been duly made;
 - B. Construction of the Wolf Creek Generating Station, Unit No. 1 (the facility) has been substantially completed in conformity with Construction Permit No. CPPR-147 and the application, as amended, the provisions of the Act, and the regulations of the Commission;
 - C. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission, (except as exempted from compliance in Section 2.D below);
 - D. There is reasonable assurance: (i) that the activities authorized by this operating license 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 set forth in 10 CFR Chapter I, (except as exempted from compliance in Section 2D below);
 - E. Wolf Creek Nuclear Operating Corporation* is technically qualified to engage in the activities authorized by this license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;

*Wolf Creek Nuclear Operating Corporation is authorized to act as agent for the Kansas Gas and Electric Company, Kansas City Power & Light Company, and Kansas Electric Power Cooperative, Inc., and has exclusive responsibility and control over the physical construction, operation, and maintenance of the facility.

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- F. The licensees have satisfied the applicable provisions of 10 CFR Part 140 "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;
 - G. The issuance of this license will not be inimical to the common defense and security or to the health and safety of the public;
 - H. After weighing the environmental, economic, technical and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of this renewed Facility Operating License No. NPF-42, subject to the conditions for protection of the environment set forth in the Environmental Protection Plan attached as Appendix B, is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied;
 - I. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70; and
 - J. Actions have been identified and have been or will be taken with respect to (1) managing the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require review under 10 CFR 54.21(a)(1), and (2) time-limited aging analyses that have been identified to require review under 10 CFR 54.21(c), such that there is reasonable assurance that the activities authorized by this renewed operating license will continue to be conducted in accordance with the current licensing basis, as defined in 10 CFR 54.3, for the facility, and that any changes made to the facility's current licensing basis in order to comply with 10 CFR 54.29(a) are in accordance with the Act and the Commission's regulations.
2. Facility Operating License No. NPF-42 is superseded by Renewed Facility Operating License No. NPF-42, hereby issued to Kansas Gas and Electric Company, Kansas City Power & Light Company, Kansas Electric Power Cooperative, Inc., and WCNOC (the licensees), to read as follows:

- A. This renewed operating license applies to the Wolf Creek Generating Station, Unit No. 1, a pressurized water nuclear reactor and associated equipment (the facility), owned by Kansas Gas and Electric Company¹, Kansas City Power & Light Company, and Kansas Electric Power Cooperative Inc., and operated by the Wolf Creek Nuclear Operating Corporation. The facility is located in Coffey County, Kansas, approximately 28 miles east-southeast of Emporia, Kansas, and is described in the licensees' "Final Safety Analysis Report," as supplemented and amended, and in the licensees' Environmental Report, as supplemented and amended.
- B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses Wolf Creek Nuclear Operating Corporation (the Operating Corporation), Kansas Gas and Electric Company (KG&E), Kansas City Power & Light Company (KCPL), and Kansas Electric Power Cooperative, Inc. (KEPCO):
- (1) Pursuant to Section 103 of the Act and 10 CFR Part 50 "Domestic Licensing of Production and Utilization Facilities," the Operating Corporation, to possess, use and operate the facility at the designated location in Coffey County, Kansas, in accordance with the procedures and limitations set forth in this license;
 - (2) KG&E, KCPL and KEPCO to possess the facility at the designated location in Coffey County, Kansas, in accordance with the procedures and limitations set forth in this license;
 - (3) The Operating Corporation, pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;
 - (4) The Operating Corporation, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

¹ Kansas Gas and Electric Company, which owns a 47% undivided interest in the Wolf Creek Nuclear Operating Corporation and a 47% undivided interest in a possession-only license for the Wolf Creek Generating Station, has merged with and into a wholly owned subsidiary of The Kansas Power and Light Company. This subsidiary, originally named KCA Corporation, was renamed "Kansas Gas and Electric Company" upon consummation of the merger. Accordingly, the name "Kansas Gas and Electric Company" as it appears in this license refers to the post-merger Kansas Gas and Electric Company and not the former entity of the same name.

- (5) The Operating Corporation, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (6) The Operating Corporation, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
- C. This renewed operating license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission, now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:
- (1) Maximum Power Level
- The Operating Corporation is authorized to operate the facility at reactor core power levels not in excess of 3565 megawatts thermal (100% power) in accordance with the conditions specified herein.
- (2) Technical Specifications and Environmental Protection Plan
- The Technical Specifications contained in Appendix A, as revised through Amendment No. 178, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated in the license. The Corporation shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.
- (3) Antitrust Conditions
- Kansas Gas & Electric Company and Kansas City Power & Light Company shall comply with the antitrust conditions delineated in Appendix C to this license.
- (4) Environmental Qualification (Section 3.11, SSER #4, Section 3.11, SSER #5)*
- Deleted per Amendment No. 141.

*The parenthetical notation following the title of many license conditions denotes the section of the supporting Safety Evaluation Report and/or its supplements wherein the license condition is discussed.

- (5) Fire Protection (Section 9.5.1, SER, Section 9.5.1.8, SSER #5)
- (a) The Operating Corporation shall maintain in effect all provisions of the approved fire protection program as described in the SNUPPs Final Safety Analysis Report for the facility through Revision 17, the Wolf Creek site addendum through Revision 15, and as approved in the SER through Supplement 5, subject to provisions b and c below.
 - (b) The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.
 - (c) Deleted.
- (6) Qualification of Personnel (Section 13.1.2, SSER #5, Section 18, SSER #1)
- Deleted per Amendment No. 141.
- (7) NUREG-0737 Supplement 1 Conditions (Section 22, SER)
- Deleted per Amendment No. 141.
- (8) Post-Fuel-Loading Initial Test Program (Section 14, SER Section 14, SSER #5)
- Deleted per Amendment No. 141.
- (9) Inservice Inspection Program (Sections 5.2.4 and 6.6, SER)
- Deleted per Amendment No. 141.
- (10) Emergency Planning
- Deleted per Amendment No. 141.
- (11) Steam Generator Tube Rupture (Section 15.4.4, SSER #5)
- Deleted per Amendment No. 141.
- (12) LOCA Reanalysis (Section 15.3.7, SSER #5)
- Deleted per Amendment No. 141.

(13) Generic Letter 83-28

Deleted per Amendment No. 141.

(14) Surveillance of Hafnium Control Rods (Section 4.2.3.1 (10), SER and SSER #2)

Deleted per Amendment No. 141.

(15) Mitigation Strategy

Develop and maintain strategies for addressing large fires and explosions that include the following key areas:

- (a) Fire fighting response strategy with the following elements:
 - 1. Pre-defined coordinated fire response strategy and guidance
 - 2. Assessment of mutual aid fire fighting assets
 - 3. Designated staging areas for equipment and materials
 - 4. Command and control
 - 5. Training of response personnel
- (b) Operations to mitigate fuel damage considering the following:
 - 1. Protection and use of personnel assets
 - 2. Communications
 - 3. Minimizing fire spread
 - 4. Procedures for implementing integrated fire response strategy
 - 5. Identification of readily available, pre-staged equipment
 - 6. Training on integrated fire response strategy
 - 7. Spent fuel pool mitigation measures
- (c) Actions to minimize release to include consideration of:
 - 1. Water spray scrubbing
 - 2. Dose to onsite responders

(16) Additional conditions

The Additional Conditions contained in Appendix D, as revised through Amendment No. 163, are hereby incorporated into this license. Wolf Creek Nuclear Operating Corporation shall operate the facility in Accordance with the Additional Conditions.

- D. Exemptions from certain requirements of Appendix J to 10 CFR Part 50, and from a portion of the requirements of General Design Criterion 4 of Appendix A to 10 CFR Part 50, are described in the Safety Evaluation Report. These exemptions are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest. Therefore, these exemptions are hereby granted pursuant to 10 CFR 50.12. With the granting of these exemptions the facility will operate, to the extent authorized herein, in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.
- E. The licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The set of combined plans, which contains Safeguards Information protected under 10 CFR 73.21, is entitled: "Wolf Creek Security Plan, Training and Qualification Plan, and Safeguard Contingency Plan," and was submitted on May 17, 2006.
- F. Deleted per Amendment No. 141.
- G. The licensees shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1954, as amended, to cover public liability claims.
- H. The Updated Safety Analysis Report (USAR) supplement, as revised, submitted pursuant to 10 CFR 54.21(d), shall be included in the next scheduled update to the USAR required by 10 CFR 50.71(e)(4), as appropriate, following the issuance of this renewed operating license. Until that update is complete, WCNOG may make changes to the programs and activities described in the supplement without prior Commission approval, provided that WCNOG evaluates such changes pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.
- I. The USAR supplement, as revised, describes certain future activities to be completed prior to the period of extended operation. WCNOG shall complete these activities by the dates specified in the applicable USAR section, but in no event, any later than March 11, 2025. WCNOG shall notify the Nuclear Regulatory Commission (NRC) in writing when implementation of these activities is complete and can be verified by NRC inspection.

- J. All capsules in the reactor vessel that are removed and tested meet the requirements of American Society for Testing and Materials (ASTM) E 185-82 to the extent practicable for the configuration of the specimens in the capsule. Any changes to the capsule insertion and withdrawal schedule, including use of spare capsules, must be approved by the staff prior to implementation. All capsules placed in storage must be maintained for future insertion. Any changes to storage requirements must be approved by the staff, as required by 10 CFR Part 50, Appendix H.
- K. This renewed operating license is effective as of the date of issuance and shall expire at midnight, March 11, 2045.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Eric J. Leeds, Director
Office of Nuclear Reactor Regulation

Attachments/Appendices:

1. Attachment 1 - Deleted
2. Attachment 2 - Deleted
3. Attachment 3 - Deleted
4. Appendix A - Technical Specifications (NUREG-1136)
5. Appendix B - Environmental Protection Plan
6. Appendix C - Antitrust Conditions
7. Appendix D - Additional Conditions

Date of Issuance: November 20, 2008