

MAR 11 1985

Docket No. STN 50-482

Mr. Glenn L. Koester
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RHeischman PO'Connor EJordan
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Dear Mr. Koester:

Subject: Issuance of Facility Operating License NPF-32
Wolf Creek Generating Station, Unit 1

The U.S. Nuclear Regulatory Commission (NRC) has issued the enclosed Facility Operating License NPF-32, together with Technical Specifications and Environmental Protection Plan for Wolf Creek, Unit 1. License No. NPF-32 authorizes operation of Wolf Creek, Unit 1 at reactor core power levels not in excess of 3411 megawatts thermal (100% power). Pending Commission approval, operation is restricted to power levels not to exceed 5 percent of full power (170 megawatts thermal).

Enclosed is a copy of a related notice, the original of which has been forwarded to the Office of the Federal Register for publication.

Four signed copies of Amendment No. 2 to Indemnity Agreement No. B-99 which covers the activities authorized under License No. NPF-32 are also enclosed. Please sign all copies and return one to this office.

An Assessment of the Effect of License Duration on Matters Discussed in the Final Environmental Statement for the Wolf Creek Generating Station, Unit 1 is enclosed as Enclosure 4.

Sincerely,

Hugh L. Thompson Jr., Director
Division of Licensing
Office of Nuclear Reactor Regulation

Enclosures:

1. Facility Operating License NPF-32
2. Federal Register Notice
3. Amendment No. 2 to Indemnity Agreement No. B-99
4. Assessment of the Effect of License Duration on Matters Discussed in the FES

cc w/enclosures:
See next page

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*See previous concurrences

LB#1:DL
RJYoungblood
/ /85

*AD:L:DL
TNovak
01/29/85

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02/4/85

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*LB#1:DL
MRushbrook
01/8/85

SP
IDinitz
3/1/85

*DE
AToalston
01/8/85

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WOLF CREEK

MAR 11 1985

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WOLF CREEK

- 2 -

MAR 11 1985

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MAY 11 1985

WOLF CREEK - OTHER

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Topeka, Kansas 66612

Attorney General
1st Floor - The Statehouse
Topeka, Kansas 66612

Chairman, Coffey County Commission
Coffey County Courthouse
Burlington, Kansas 66839



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

KANSAS GAS AND ELECTRIC COMPANY

KANSAS CITY POWER & LIGHT COMPANY

KANSAS ELECTRIC POWER COOPERATIVE, INC.

DOCKET NO. STN 50-482

WOLF CREEK GENERATING STATION, UNIT NO. 1

FACILITY OPERATING LICENSE

License No. NPF-32

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for license filed by Kansas Gas and Electric Company, Kansas City Power & Light Company, and Kansas Electric Power Cooperative, Inc. (licensees), complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I, 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. Kansas Gas and Electric Company* 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;

*Kansas Gas and Electric Company is authorized to act as agent for the Kansas City Power & Light Company and the 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 Facility Operating License No. NPF-32, 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; and
 - 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.
2. Based on the foregoing findings regarding this facility, Facility Operating License No. NPF-32 is hereby issued to Kansas Gas and Electric Company, Kansas City Power & Light Company, and Kansas Electric Power Cooperative, Inc. (the licensees) to read as follows:
- A. The 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 Company, Kansas City Power & Light Company, and Kansas Electric Power Cooperative, Inc. 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 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," KG&E, 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) 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) KG&E, 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) KG&E, 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;
 - (5) KG&E, 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) KG&E, 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 license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth 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

KG&E is authorized to operate the facility at reactor core power levels not in excess of 3411 megawatts thermal (100% power) in accordance with the conditions specified herein and in Attachment 1 to this license. The preoperational tests, startup tests and other items identified in Attachment 1 to this license shall be completed as specified. Attachment 1 is hereby incorporated into this license. Pending Commission approval, this license is restricted to power levels not to exceed 5 percent of full power (170 megawatts thermal);

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. KG&E 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)*

All electrical equipment within the scope of 10 CFR 50.49 shall be qualified by November 30, 1985.

(5) Seismic and Dynamic Qualification (Section 3.10, SSER #5)

Prior to exceeding five percent of rated power, KG&E shall, for that equipment which is not completely qualified, complete such qualification or submit justification for safe operation at power levels greater than five percent.

(6) Fire Protection (Section 9.5.1, SER, Section 9.5.1.8, SSER #5)

- (a) KG&E 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 & c below.
- (b) KG&E may make no change to the approved fire protection program which would decrease the level of fire protection in the plant without prior approval of the Commission. To make such a change the licensee must submit an application for license amendment pursuant to 10 CFR 50.90.
- (c) KG&E may make changes to features of the approved fire protection program which do not decrease the level of fire protection without prior Commission approval, provided:
 - (i) such changes do not otherwise involve a change in a license condition or technical specification or result in an unreviewed safety question (see 10 CFR 50.59).

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

- (ii) such changes do not result in failure to complete the fire protection program approved by the Commission prior to license issuance.

KG&E shall maintain, in an auditable form, a current record of all such changes including an analysis of the effects of the change on the fire protection program and shall make such records available to NRC inspectors upon request. All changes to the approved program made without prior Commission approval shall be reported annually to the Director of the Office of Nuclear Reactor Regulation, together with supporting analyses.

(7) Qualification of Personnel (Section 13.1.2, SSER #5, Section 18, SSER #1)

KG&E shall have on each shift operators who meet the requirements described in Attachment 2.

(8) NUREG-0737 Supplement 1 Conditions (Section 22, SER)

KG&E shall complete the requirements described in Attachment 3 to the satisfaction of the NRC. These conditions reference the appropriate items in Section 22, "TMI Action Plan Requirements for Applicants for Operating Licenses," in the Safety Evaluation Report and Supplements 1, 2, 3, 4, and 5 NUREG-0881.

(9) Post-Fuel-Loading Initial Test Program (Section 14, SER Section 14, SSER #5)

Any changes in the Initial Test Program described in Section 14 of the FSAR made in accordance with the provisions of 10 CFR 50.59 shall be reported in accordance with 50.59(b) within one month of such change.

(10) Inservice Inspection Program (Sections 5.2.4 and 6.6, SER)

Within nine months of the date of this license, KG&E shall submit for staff review and approval, the inservice inspection program which conforms to the ASME Code in effect 12 months prior to the date of issuance of this license.

(11) Emergency Planning

- (a) In the event that the NRC finds that the lack of progress in completion of the procedures in the Federal Emergency Management Agency's final rule, 44 CFR Part 350, is an indication that a major substantive problem exists in achieving or maintaining an adequate state of emergency preparedness, the provisions of 10 CFR Section 50.54(s)(2) will apply.

(b) Prior to exceeding five percent of rated power, letters of agreement shall be signed by Coffey County with ambulance services and with funeral directors in surrounding counties providing for the transportation of non-ambulatory patients from the Coffey County Hospital and from the Golden Age Lodge Nursing Home in the event of an emergency evacuation occasioned by an accident at the Wolf Creek Plant. These executed letters of agreement shall be submitted to the NRC staff and shall be included in the Coffey County Plan.

(12) Steam Generator Tube Rupture (Section 15.4.4, SSER #5)

Prior to restart following the first refueling outage, KG&E shall submit for NRC review and approval an analysis which demonstrates that the steam generator single-tube rupture (SGTR) analysis presented in the FSAR is the most severe case with respect to the release of fission products and calculated doses. Consistent with the analytical assumptions, the licensee shall propose all necessary changes to Appendix A to this license.

(13) Low Temperature Overpressure Protection (Section 5, SSER #5)

By June 1, 1985, KG&E shall submit for NRC review and approval a description of equipment modifications to the residual heat removal system (RHRS) suction isolation valves and to closure circuitry which conform to the applicable staff requirements (SRP 5.2.2). Within one year of receiving NRC approval of the modifications, KG&E shall have the approved modifications installed. Alternately, by June 1, 1985, KG&E shall provide acceptable justification for reliance on administrative means alone to meet the staff's RHRS isolation requirements, or otherwise, propose changes to Appendix A to this license which remove reliance on the RHRS as a means of low temperature overpressure protection.

(14) LOCA Reanalysis (Section 15.3.7, SSER #5)

Prior to restart following the first refueling outage, KG&E shall submit for NRC review and approval a reanalysis for the worst large break LOCA using an approved ECCS evaluation model. At this time that model is the 1981 Westinghouse model. A modified version of the 1981 model which includes the BART computer code may be used.

(15) Generic Letter 83-28

KG&E shall submit responses to and implement the requirements of Generic Letter 83-28 on a schedule which is consistent with that given in their November 15, 1983, February 29, 1984, and February 6, 1985 letters.

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

KG&E shall perform a visual inspection of a sample of hafnium control rods during one of the first five refueling outages. A summary of the results of these inspections shall be submitted to the NRC.

- 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. KG&E shall fully implement and maintain in effect all provisions of the Commission approved Physical Security, Guard Training and Qualification, and Safeguards Contingency plans, including amendments made pursuant to the authority of 10 CFR 50.54(p). The approved plans, which contain Safeguards Information as described in 10 CFR 73.21 are collectively entitled "Wolf Creek Generating Station, Physical Security Plan Revision 0, transmitted by letter dated February 8, 1980, Revision 1, transmitted by letter dated September 8, 1981, Revision 2, transmitted by letters dated March 31, 1982 and April 30, 1982, Revision 3, transmitted by letter dated May 8, 1984, Revision 4, transmitted by letter dated August 15, 1984, Revision 5, transmitted by letter dated September 28, 1984, Revision 6, transmitted by letter dated November 30, 1984, Revision 7, transmitted by letter dated January 11, 1985, and Revision 8, transmitted by letter dated February 14, 1985; Safeguards Contingency Plan, Revision 0, transmitted by letter dated February 8, 1980, Revision 1, transmitted by letter dated September 8, 1981, Revision 2, transmitted by letters dated March 31, 1982 and April 30, 1982, (Revision 3 was not submitted), Revision 4, transmitted by letter dated August 22, 1984 (Revision 5 was not submitted), Revision 6, transmitted by letter dated November 30, 1984, Revision 7, transmitted by letter dated January 11, 1985 and Revision 8, transmitted by letter dated February 14, 1985; and the Security Training and Qualification Plan Revision 0, transmitted by letter dated July 30, 1981, Revision 1, transmitted by letters dated March 31, 1982, and April 30, 1982, (Revisions 2 through 5 were not submitted), Revision 6, transmitted by letter dated November 30, 1984, Revision 7, transmitted by letter dated January 11, 1985, and Revision 8, transmitted by letter dated February 14, 1985.

- F. Except as otherwise provided in the Technical Specifications or Environmental Protection Plan, the licensee shall report any violations of the requirements contained in Section 2.C of this license in the following manner: initial notification shall be made within 24 hours to the NRC Operations Center via the Emergency Notification System with written followup within thirty days in accordance with the procedures described in 10 CFR 50.73(b), (c) and (e).
- 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. This license is effective as of the date of issuance and shall expire at Midnight on March 11, 2025.

FOR THE NUCLEAR REGULATORY COMMISSION

Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Attachments/Appendices:

- 1. Attachment 1 - Tests and Other Items which must be Completed
- 2. Attachment 2 - Operating Staff Experience Requirements
- 3. Attachment 3 - NUREG-0737, Supplement 1, Requirements
- 4. Appendix A - Technical Specifications (NUREG-1104)
- 5. Appendix B - Environmental Protection Plan
- 6. Appendix C - Antitrust Conditions

Date of Issuance: MAR 11 1985

*See previous concurrences

DL:LB#1	DL:LB#1 <i>owl</i>	*DL:LB#1	*DE/SAB	SP	SP
MRushbrook:es	PO'Connor	JStevens	AToalston	JSaltzman	IDinitz
02/ /85	02/19/85	01/8/85	01/8/85	02/ /85	02/ /85

*OELD	DL:LR#1	*AD:DL	D:DL <i>da</i>	D:NBB
Karman	*BJYoungblood	TMNovak	HThompson	HDeCon
01/10/85	01/24/85	01/31/85	03/1 /85	03/11 /85

ATTACHMENT 1

1. Prior to achieving initial criticality, the licensee shall complete, to the satisfaction of Region IV, the following activities:
 - a. All outstanding test deficiencies and associated retesting from Radwaste System Preoperational Tests SU3-HA01, SU4-HR01, SU4-HR02, SU4-HC01, SU4-HC02, and SU4-HC04 shall be resolved consistent with system operability requirements. (482/8323-03, 04, 06, and 07)
 - b. The primary containment high radiation monitors shall be source checked and calibrated. (482/8406-04)
 - c. Establish by additional testing, the capability to close the pressurizer power operated relief valves following a pressure blowdown of approximately 200 psig starting at normal system operating pressure. (482/8455-04)
 - d. Verify that operating vibration of the turbine driven auxiliary feedwater pump is acceptable. (482/8509-01)
 - e. Resolve by test, the thermal expansion test discrepancies identified during the performance of Preoperational Test SU3-0004, "Power Conversion and ECCS Thermal Expansion Test." (482/8509-04)
 - f. Establish by test, the operability of process radiation monitors SJ-RE-01 (CVCS Letdown Monitor), GE-RE-92 (Condenser Air Discharge Monitor), and GH-RE-23 (Waste Gas Decay Tank Vent Monitor).
 - g. Preoperational testing and calibration of area, process and effluent radiation monitors. (482/8323-08, 09)
2. Prior to exceeding 5 percent of rated thermal power, the licensee shall complete, to the satisfaction of Region IV, the following activities:
 - a. Complete implementation of a radiochemistry training program for all required personnel. (482/8404-03)
 - b. Implementation and operability demonstration of the postaccident sampling system. (482/8404-07)
 - c. Demonstration of the ability to conduct timely shift augmentation. (482/8425-52)
 - d. Submit an evaluation demonstrating acceptable operation of ECCS, component cooling water, essential service water, and motor driven auxiliary feedwater pumps at the minimum electrical frequency allowed by Technical Specifications for the emergency diesel generators. (482/8459-06)

3. Prior to startup following the first refueling outage, the licensee shall complete, to the satisfaction of Region IV, the following activities:
 - a. Replace the emergency diesel generator lube oil keep warm pumps, with pumps satisfying ASME Section III Class 3 requirements.
(482/8455-01)

ATTACHMENT 2

Operating Staff Experience Requirements

KG&E shall have a licensed senior operator on each shift who has had at least six months of hot operating experience on a same type plant, including at least six weeks at power levels greater than 20% of full power, and who has had start-up and shutdown experience. For those shifts where such an individual is not available on the plant staff, an advisor shall be provided who has had at least four years of power plant experience, including two years of nuclear plant experience, and who has had at least one year of experience on shift as a licensed senior operator at a similar type facility. Use of advisors who were licensed only at the RO level will be evaluated on a case-by-case basis. Advisors shall be trained on plant procedures, technical specifications and plant systems, and shall be examined on these topics at a level sufficient to assure familiarity with the plant. For each shift, the remainder of the shift crew shall be trained in the role of the advisors. The training of the advisors and remainder of the shift crew shall be completed prior to exceeding 5% power. Prior to exceeding 5% power, KG&E shall certify to the NRC the names of the advisors who have been examined and have been determined to be competent to provide advice to the operating shifts. These advisors, or fully trained and qualified replacements, shall be retained until the experience levels identified in the first sentence above have been achieved. The names of any replacement advisors shall be certified by KG&E prior to these individuals being placed on shift. The NRC shall be notified at least 30 days prior to the date KG&E proposes to release the advisors from further service.

ATTACHMENT 3

NUREG-0737, SUPPLEMENT 1, REQUIREMENTS

(1) Control Room Design Review (I.D.1, SSER #5)

Prior to May 1, 1985, KG&E shall submit for review and approval by the NRC staff, the results of the function and task analysis to identify control room operation tasks and information and control requirements during emergency operations. The results of the task analysis shall be compared to a control room inventory. For those Human Engineering Discrepancies (HEDs) identified by this analysis that require correction, the submittal shall include the proposed correction and implementation schedule; and for those HEDs for which no planned correction is proposed, a basis for that determination shall be documented.

(2) Functional and Task Analysis (I.C.1, SSER #5)

Prior to startup following the first refueling outage, KG&E shall submit for staff review and approval, a description of the process used to complete the functional and task analysis, including a description and justification for all information and control deviations from the Westinghouse Owners Group Emergency Response Guidelines, Revision 1.

(3) Emergency Response Capabilities (Generic Letter 82-33, Supplement 1 to NUREG-0737)

Prior to restart following the first refueling outage, KG&E shall have a fully functional Technical Support Center and Emergency Operations Facility and a fully operable Emergency Response Facilities Information System (ERFIS).

(4) Regulatory Guide 1.97 (Section 7.5.2.3, SSER #3)

Prior to restart following the first refueling outage, KG&E shall have installed and operable the following instrumentation.

- (a) Source range instrumentation qualified to post-accident conditions
- (b) Reactor vessel water level instrumentation
- (c) Subcooling monitors
- (d) Radiation monitors for releases from steam generator safety/relief valves or atmospheric dump valves, and
- (e) Auxiliary feedwater pump turbine exhaust monitor

APPENDIX B

TO FACILITY OPERATING LICENSE NO. NPF-32

KANSAS GAS AND ELECTRIC COMPANY

KANSAS CITY POWER & LIGHT COMPANY

KANSAS ELECTRIC POWER COOPERATIVE, INC.

WOLF CREEK GENERATING STATION UNIT 1

DOCKET NO. 50-482

ENVIRONMENTAL PROTECTION PLAN

(NONRADIOLOGICAL)

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WOLF CREEK GENERATING STATION

UNIT NO. 1

ENVIRONMENTAL PROTECTION PLAN

(NON-RADIOLOGICAL)

July, 1984

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1.0 Objectives of the Environmental Protection Plan

The Environmental Protection Plan (EPP) is to provide for protection of nonradiological values during operation of Wolf Creek Generating Station. The principal objectives of the EPP are as follows:

- (a) Verify that the facility is operated in an environmentally acceptable manner, as established by the Final Environmental Statement Operating License Stage NUREG-0878 (FES-OLS), and other NRC environmental impact assessments.
- (b) Coordinate NRC requirements, assure they are suitably fulfilled and maintain consistency with other Federal, State and local requirements for environmental protection.
- (c) Keep NRC informed of the environmental effects of facility operation and of actions taken to control those effects.

Environmental concerns identified in the FES-OLS which relate to water quality matters are regulated by the NPDES permit issued by the State of Kansas.

2.0 Environmental Protection Issues

In the FES-OL dated January, 1982, the staff considered the environmental impacts associated with the operation of Wolf Creek Generating Station (WCGS). Certain environmental issues were identified which required monitoring, study or license conditions to resolve environmental concerns and to assure adequate protection of the environment.

2.1 Aquatic Issues

- (a) The impacts of Wolf Creek Generating Station operation on the aquatic environment of the John Redmont Reservoir - Neosho River system will be negligible during periods of normal and above-normal hydrologic conditions in the upstream watershed. However, should a severe and prolonged drought occur, the withdrawal of cooling-lake makeup water from the Redmont Dam tailwaters area would contribute to a marked draw-down of water in the reservoir and to reduced streamflow in the river, thus severely depleting available aquatic habitat and adversely affecting resident biota. (FES Section 5.5.2.1).
- (b) Some of the operational effects on aquatic organisms in the cooling lake will be locally severe. For example, periodically high concentrations of total residual chlorine in the vicinity of the cooling water discharge outlet is expected to cause appreciable mortality among aquatic organisms, especially during periods when temperatures in the area are insufficient to cause fish and other motile species to avoid the area. (FES Section 5.5.2.2).
- (c) Cold shock effects on fish due to reactor shutdowns could cause significant mortality to aquatic species in the cooling lake. (FES Section 5.5.2.2).
- (d) Impingement and/or entainment impacts on aquatic biota are expected to be significant since the approach velocity of water flow to the facility are relatively high. (FES Section 5.5.2.2).
- (e) Discharge from the cooling lake to Wolf Creek is expected to influence the composition of aquatic communities immediately downstream from the discharge outlet, but aquatic biota of the Wolf Creek-Neosho River confluence will not be adversely affected by the discharge. (FES Section 5.5.2.3).

The NRC will rely on the State of Kansas for determination of the need for monitoring or permit limitations related to these and other aquatic issues.

2.2 Terrestrial Issues

- (a) That the composition and structure of vegetation in the 453 ha (1120 acre) exclusion zone will be selectively controlled to be compatible with the function and security of station facilities. (FES-OLS: Section 5.5.1.1; Station Site)
- (b) That the vegetation within a buffer zone surrounding the cooling lake will be retained in or allowed to develop toward a natural state, i.e. naturally occurring biotic communities. (FES-OLS: Section 5.5.1.1; Station Site)
- (c) That herbicides used for the maintenance of transmission line corridors will be limited to herbicides approved by the U. S. EPA and the State of Kansas at the times of such use. (FES-OLS: Section 5.5.1.2; Energy-Transmission System)
- (d) That in the event a serious disease problem involving waterfowl attributable to station operation occurs, the actions specified in the reference will be initiated following technical evaluation if deemed necessary. (FES-OLS: Section 5.5.1.1; Station Site)
- (e) The need for a wildlife monitoring program which includes a general survey program for waterfowl collision events be accomplished. (FES-OLS: Section 5.5.1.2; Energy-Transmission System)
- (f) The need for a fog monitoring program to document any potential increase in fogging due to the operation of the cooling lake heat dissipation system. (FES-OLS: Section 5.4.1; Fog and Ice)

3.0 Consistency Requirements

3.1 Plant Design and Operation

The licensee may make changes in station design or operation or perform tests or experiments affecting the environment provided such activities do not involve an unreviewed environmental question and do not involve a change in the EPP*. Changes in station design, operation, performance of tests or experiments which do not affect the environment are not subject to requirements of this EPP. Activities governed by Section 3.3 are not subject to the requirements of this Section.

Before engaging in additional construction or operational activities which may significantly affect the environment, the licensee shall prepare and record an environmental evaluation of such activity. Activities are excluded from this requirement if all measurable nonradiological environmental effects are confined to the on-site areas previously disturbed during site preparation and plant construction. When the evaluation indicates that such activity involves an unreviewed environmental question, the licensee shall provide a written evaluation of such activity and obtain prior NRC approval. When such activity involves a change in the EPP, such activity and change to the EPP may be implemented only in accordance with an appropriate license amendment as set forth in Section 5.3 of this EPP.

A proposed change, test or experiment shall be deemed to involve an unreviewed environmental question if it concerns: (1) a matter which may result in a significant increase in any adverse environmental impact previously evaluated in the FES-OL, environmental impact appraisals, or in any decisions of the Atomic Safety and Licensing Board; or (2) a significant change in effluents or power level (3) a matter not previously reviewed and evaluated in the documents specified in (1) of this Subsection, which may have a significant adverse environmental impact.

* This provision does not relieve the licensee of the requirements of 10 CFR 50.59.

The licensee shall maintain records of changes in facility design or operation and of tests and experiments carried out pursuant to this Subsection. These records shall include written evaluations which provide bases for the determination that the change, test, or experiment does not involve an unreviewed environmental question or constitute a decrease in the effectiveness of this EPP to meet the objectives specified in Section 1.0. The licensee shall include as part of the Annual Environmental Operating Report (per Subsection 5.4.1) brief descriptions, analyses, interpretations, and evaluations of such changes, tests and experiments.

3.2 Reporting Related to the NPDES Permit and State Certification

Changes to, or renewals of, the NPDES Permit or the State certification shall be reported to the NRC within 30 days following the date the change or renewal is approved. If a permit or certification, in part or in its entirety, is appealed and stayed, the NRC shall be notified within 30 days following the date the stay is granted.

The licensee shall notify the NRC of changes to the effective NPDES Permit proposed by the licensee by providing NRC with a copy of the proposed change at the same time it is submitted to the permitting agency. The licensee shall provide the NRC a copy of the application for renewal of the NPDES Permit at the same time the application is submitted to the permitting agency.

3.3 Changes Required for Compliance with Other Environmental Regulations

Changes in plant design or operation and performance of tests or experiments which are required to achieve compliance with other Federal, State, and local environmental regulations are not subject to the requirements of Section 3.1.

4.0 Environmental Conditions

4.1 Unusual or Important Environmental Events

Any occurrence of an unusual or important event that indicates or could result in significant environmental impact casually related to plant operation shall be recorded and promptly reported to the NRC within 24 hours followed by a written report per Subsection 5.4.2. The following are examples: excessive bird impaction events, onsite plant or animal disease outbreaks, mortality or unusual occurrence of any species protected by the Endangered Species Act of 1973, fish kills, increase in nuisance organisms or conditions, and unanticipated or emergency discharge of waste water or chemical substances.

No routine monitoring programs are required to implement this condition.

4.2 Environmental Monitoring and Management

Environmental monitoring and management activities shall be undertaken as outlined in Section 2 and as described in the following.

4.2.1 Fog Monitoring

A fog monitoring program shall be accomplished to document the frequency of occurrence of natural fog and future cooling lake operation induced fog through the first year of commercial operation of WCGS. A visiometer and continuous recorder shall be utilized in a conservative location throughout the program.

4.2.2 Waterfowl Impaction

A general survey program shall be accomplished to document significant waterfowl collision events and determine if mitigation is warranted.

4.2.3 Land Management

There shall be a land management program instituted at WCGS to provide for revegetation, maintenance, and restoration of the WCGS site. This program shall attempt to achieve a balance between production and conservation values on site property through the implementation of conservation and wildlife management techniques. There shall be no reporting requirements associated with this condition.

5.0 Administrative Procedures

5.1 Review and Audit

The licensee shall provide for review and audit of compliance with the EPP. The audits shall be conducted independently of the individual or groups responsible for performing the specific activity. A description of the organization structure utilized to achieve the independent review and audit function and results of the audit activities shall be maintained and made available for inspection.

5.2 Retention of Program Documentation

Program documentation relative to the environmental aspects of plant operation shall be made and retained in a manner convenient for review and inspection. Program documentation shall be made available to NRC on request.

Documentation of modifications to plant structures, systems, and components determined to potentially affect the continued protection of the environment shall be retained for the life of the plant. All other information, data, and finalized reports relating to this EPP shall be retained for five years or, where applicable, in accordance with the requirements of other agencies.

5.3 Changes in Environmental Protection Plan

Requests for changes in the EPP shall include an assessment of the environmental impact of the proposed change and a supporting justification. Implementation of such changes in the EPP shall not commence prior to NRC approval of the proposed changes in the form of a license amendment incorporating the appropriate revision to the EPP.

5.4 Plan Reporting Requirements

5.4.1 Routine Reports

An Annual Environmental Operating Report describing implementation of this EPP for the previous calendar year shall be submitted to the NRC prior to May 1 of each year. The initial report shall be submitted prior to May 1 of the year following issuance of the operating license. The period of the first report shall begin with the date of issuance of the operating license.

The report shall include summaries and analyses of the results of the environmental protection activities required by Subsection 4.2 of this EPP for the report period, including a comparison with related preoperational studies, operational controls (as appropriate), and previous non-radiological environmental monitoring reports, and an assessment of the observed impacts of the plant operation on the environment. If harmful effects or evidence of trends toward irreversible damage to the environment are observed, the licensee shall provide a detailed analysis of the data and a proposed course of action to alleviate the problem.

The Annual Environmental Operating Report shall also include:

- (a) A list of EPP noncompliances and the corrective actions taken to remedy them.
- (b) A list of all changes in station design or operation, tests, and experiments made in accordance with Subsection 3.1 which involved a potentially significant unreviewed environmental issue.
- (c) A list of nonroutine reports submitted in accordance with Subsection 5.4.2.

In the event that some results are not available by the report due date, the report shall be submitted noting and explaining the missing results. The missing results shall be submitted as soon as possible in a supplementary report.

5.4.2 Nonroutine Reports

A written report shall be submitted to the NRC within 30 days of occurrence of an unusual or important environmental event (see Section 4.1). The report shall (a) describe, analyze, and evaluate the event, including extent and magnitude of the impact, and plant operating conditions, (b) describe the probable cause of the event, (c) indicate the action taken to correct the reported event, (d) indicate the corrective action taken to preclude repetition of the event and to prevent similar occurrences involving similar components or systems, and (e) indicate the agencies notified and their preliminary responses.

Events reportable under this subsection which also require reports to other Federal, State or local agencies shall be reported in accordance with those reporting requirements in lieu of the requirements of this Subsection. The NRC shall be provided a copy of such report at the time it is submitted to the other agency.

APPENDIX C

WOLF CREEK, UNIT 1

ANTITRUST CONDITIONS FOR
KANSAS GAS AND ELECTRIC COMPANY

1. As used herein:

(a) "Licensee" means Kansas Gas and Electric Company.

(b) "Licensee's Service Area" means those counties located in whole or in part within the area certificated to Licensee by the appropriate state regulatory commission.

(c) "Bulk Power" means the electric power, and any attendant energy, supplied or made available at transmission or subtransmission voltage by one entity to another.

(d) "Emergency support" is capacity and energy as available from one system, and as needed by another system to replace capacity and energy made unavailable due to forced outages of generating equipment or transmission facilities.

(e) "Maintenance support" is capacity and energy planned by one system to be made available to another system to replace capacity and energy made unavailable due to maintenance of generating equipment or transmission facilities.

(f) "Entity" means a financially responsible private or public corporation, governmental agency or authority, municipality, cooperative, or lawful association of any of the foregoing, owning, contractually controlling, or operating, or in good faith proposing to own, contractually control, or operate, facilities for the generation and transmission of electricity for bulk power supply which meets each of the following criteria: (1) its existing or proposed facilities are technically feasible of interconnection with those of Licensee; (2) with the exception of municipalities, cooperatives, government agencies or authorities it is, or upon commencement of operations will be, a public utility subject to regulation with respect to rates and services under the laws of Kansas.

(g) "Participating entity" is an "entity" participating in the ownership of or power output from Wolf Creek Unit 1.

(h) "KEC" refers to Kansas Electric Cooperatives, Inc. or Kansas Electric Power Cooperative, Inc. insofar as it shall become a successor in interest.

(i) "KEC members in Licensee's Service Area" refers to the following KEC member rural electric cooperatives: the Butler Rural Electric Cooperative Association, Inc.; the Caney Valley Electric Cooperative Association, Inc.; Coffey County Rural Electric Cooperative Association, Inc.; the United Electric Cooperative, Inc.; the Radiant Electric Cooperative, Inc.; the Sedgwick County Electric Cooperative Association, Inc.; the Sekan Electric Cooperative Association, Inc.; and Sumner-Cowley Electric Cooperative, Inc.

(j) The "total demand requirements" or the "power requirements" of the KEC members in Licensee's Service Area refers to the sum for all such KEC members of the KG&E delivery point contributions to the maximum monthly sum of the integrated 15 minute non-coincidental demands for each member.

2. (a) Licensee shall offer an opportunity to participate in Wolf Creek Nuclear Unit Number 1 and any other nuclear generating unit(s) which it may construct, own and operate severally or jointly, during the term of the instant license or an extension or renewal thereof, to any entity(ies) in Licensee's Service Area. Such participation shall be in reasonable amounts, by an ownership interest, or at the option of the entity, by a contractual right to purchase a portion of the output of such units, or on any other mutually agreeable basis. The transmission provisions herein relate to participation in Wolf Creek Nuclear Unit No. 1 and not to any transmission which may be associated with participation in other nuclear generating unit(s) which Licensee may construct, own and operate severally or jointly.

(b) Licensee shall make available to KEC an undivided 17 percent ownership participation in the Wolf Creek Nuclear Unit Number 1 upon mutually agreeable terms and conditions, which ownership participation KEC shall acquire as of the date of issuance of the Nuclear Regulatory Commission's construction permit for the Wolf Creek Nuclear Unit Number 1 or as soon thereafter as KEC can secure the necessary regulatory and financing approvals pursuant to the terms of the May 20, 1976 settlement agreement between Licensee and KEC. The power which KEC obtains from the Wolf Creek Nuclear Unit Number 1 shall be utilized first to satisfy the power requirements of the KEC members in Licensee's Service Area to the maximum extent reasonable and efficient to do so and to the extent consistent with KEC's other power supply obligations to KEC's members in Kansas. During the calendar year in which the Wolf Creek Nuclear Unit Number 1 commences commercial operation and in each succeeding year of operation of the Wolf Creek Nuclear Unit Number 1 no less than 42 percent of the total demand requirements of the KEC members in Licensee's Service Area shall be satisfied by KEC by use of its available power from Wolf Creek Nuclear Unit Number 1. KEC's power from Wolf Creek Unit Number 1 shall be transmitted by Licensee for KEC to such delivery and interconnection points on Licensee's system and in such amounts as specified by KEC, pursuant to paragraph 5(a) below.

3. Licensee shall interconnect with any participating entity in Licensee's Service Area which requests such interconnection and provide for the following:

(a) maintaining and coordinating of reserves, including, where applicable, the purchase and sale of reserve capacity and energy,

(b) emergency support,

(c) maintenance support,

(d) delivery of "unit power" or other participation power out of Wolf Creek Unit 1 from the Licensee, and

(e) transmission services for the above and as described subsequently.

4. (a) Licensee and the participating entities in Licensee's Service Area having a reserve coordination arrangement provided for in Paragraph 3, above, shall from time to time jointly establish the minimum reserve requirements to be installed and/or provided under contractual arrangements as necessary to maintain in total a reserve margin sufficient to provide adequate reliability of power supply to the interconnected systems of the parties. To have reserve coordination rights, other than reserves for Wolf Creek, with the Licensee, a participating entity must own or have contractual rights to generating capacity other than of Wolf Creek Nuclear Unit Number 1. Unless otherwise agreed upon, the minimum reserve requirement shall be calculated as a percentage of the projected annual peak load, adjusted for purchases and sales of firm power, including partial requirements firm power. The parties to such a reserve coordinating arrangement shall provide such amounts of operating (ready and spinning) reserve capacity as may be adequate to avoid the imposition of unreasonable demands on the others in meeting the normal contingencies of operating their systems. However, in no circumstances shall any party's spinning or operating reserve requirement exceed the minimum reserve requirement as provided above. (Moreover, if the parties to a reserve coordination agreement cannot agree upon a minimum reserve requirement, the participating entities' minimum reserve requirement shall be neither less than nor greater than Licensee's minimum system reserve requirement.)

(b) Emergency and/or scheduled maintenance bulk power service shall be provided by each party to the extent required by the system in need, and be furnished to the fullest extent available from the supplying system. Licensee and each party(ies) within Licensee's Service Area shall provide to the other emergency and/or scheduled maintenance bulk power service if and when available from its own generation (and from generation of

others with whom Licensee is interconnected to the extent it can do so without impairing service to its customers including other electric systems to whom it has firm commitments).

5. (a) Licensee shall transmit the power from a participating entity's share of Wolf Creek Nuclear Unit Number 1 to the participating entity, or for the account of such participating entity, to delivery or interconnection points on Licensee's system and in amounts as specified by the participating entity. Such deliveries shall be reasonable as to the number of points, system adequacy and frequency of schedule changes.

(b) Licensee shall transmit power from an entity(ies) outside Licensee's Service Area to a participating entity within Licensee's Service Area in an amount at least equal to the share of Wolf Creek Nuclear Unit Number 1 of a participating entity within Licensee's Service Area when the output of this unit is reduced or unavailable because of maintenance or for other reasons.

(c) If capacity and energy from a participating entity's(ies') portion of Wolf Creek Nuclear Unit Number 1 are delivered to other entities, Licensee shall also provide transmission for a later scheduled return of such energy within the same calendar year, in an equal amount of mwhrs, from these other entities to the delivery point of the participating entity within Licensee's Service Area, provided that such transmission arrangements can be reasonably accommodated from a functional and technical standpoint. (For example, any Wolf Creek power transmitted (permissible within the terms of these conditions) out of Licensee's system shall create in participating entity(ies) the right to call upon Licensee, and the corresponding obligation of Licensee, to transmit equal power back into Licensee's system for account of said participating entity(ies), all within the same calendar year. At any point in time the transfer of power back in (for account of participating entity(ies)) could occur simultaneously with full delivery of that participating entity's(ies') power from Wolf Creek Nuclear Unit Number 1.

6. (a) Licensee shall sell power at its filed and effective rates (for total or partial requirements) to any entity in Licensee's Service Area now engaging or proposing to engage in the wholesale or retail sale of electric power.

(b) Insofar as the power requirements of the KEC members in Licensee's Service Area are satisfied by power which is not Licensee's power and which has been transmitted by Licensee for KEC pursuant to Paragraphs 2(b) and 7 of these license conditions, Licensee's sale of full or partial requirements to KEC or to its members in Licensee's Service Area pursuant to Paragraph 6(a) above shall be correspondingly reduced.

7. In addition to the transmission offered by Licensee in Paragraphs 2(b), 3, 5, and 6 above, Licensee shall, consistent with Paragraph 8 below and with the terms of the May 20, 1976 settlement agreement between Licensee and KEC, transmit for KEC the following power:

(a) Commencing July 1, 1980, and until the Wolf Creek Nuclear Unit Number 1 commences commercial operation or is finally abandoned, (i) 30 megawatts of preference customer power, to the extent available, which KEC obtains from Southwestern Power Administration, provided that such preference power is delivered to Licensee's Neosho substation near Parsons, Kansas; (ii) said 30 megawatts may be increased to 90 megawatts of Southwestern Power Administration preference customer power once the Harry S. Truman Dam commences commercial operation, but not before;

(b) When Wolf Creek Nuclear Unit Number 1 commences commercial operation, and thereafter in each succeeding calendar year until the Project ceases operation or until calendar year 2021, whichever is later, a total of 90 megawatts of preference customer power (inclusive of the power described in subparagraph 7(a) above) which KEC obtains from the Southwestern Power Administration or from a source or sources which as a matter of law are administratively foreclosed to Licensee by virtue of a statutory or regulatory preference. The power described in subparagraphs 7(a)

and (b) shall be transmitted by Licensee for KEC on a contractual buy-sell arrangement unless by entering into such arrangement KEC would lose its entitlement to such preference power;

(c) When Wolf Creek Nuclear Unit Number 1 commences commercial operation and thereafter so long as this Unit continues operation, or until calendar year 2021, whichever is later, (i) any additional quantities of power which KEC generates from a source other than Wolf Creek Nuclear Unit Number 1, or which KEC obtains from any power source or sources which as a matter of law are not administratively foreclosed to Licensee by virtue of a statutory or regulatory preference, provided that such power is transmitted by Licensee to KEC members in Licensee's Service Area for the use of such members; and (ii) any other quantities of power which KEC generates from a source other than Wolf Creek Unit Number 1, or which KEC obtains from any power source or sources which as a matter of law are not administratively foreclosed to Licensee by virtue of a statutory or regulatory preference, to the same extent that Licensee would reasonably agree to transmit such power for any other electric utility. All the power described in this subparagraph shall be transmitted by Licensee for KEC upon reasonable and timely request for such transmission only on the basis of a contractual buy-sell arrangement similar in duration to Licensee's then existing comparable buy-sell contractual arrangements with other electric utilities. Pursuant to any such buy-sell contract, Licensee shall purchase the designated power as delivered by the seller or any other entity at delivery or interconnection points on Licensee's system and shall resell the same to KEC at the Licensee's purchase price plus an amount which constitutes Licensee's transmission cost including a reasonable return on the investment allocable solely to the transmission of such power;

(d) All of the power transmitted by Licensee for KEC pursuant to the provisions of subparagraph 7(a)(i) above, shall be used to satisfy the power requirements of the KEC members in Licensee's Service Area. When the Harry S. Truman Dam commences commercial operation and in

each succeeding year of commercial operation of the Project, no less than 40 megawatts of the power transmitted by Licensee for KEC pursuant to the provisions of subparagraph 7(b) above, if available, shall be used to satisfy the power requirements of the KEC members in Licensee's Service Area; and

(e) Insofar as the power of KEC from Wolf Creek Nuclear Unit Number 1 and the power transmitted by Licensee for KEC in the manner provided in subparagraphs 2(b) and 7(a) through (d) is not utilized in Licensee's Service Area, as reasonably and fairly determined by KEC in accordance with the foregoing provisions, Licensee shall, upon reasonable and timely request for such service, transmit such excess power for KEC from and to such interconnection points on Licensee's system and in such amounts as specified by KEC on terms and conditions as provided in subparagraphs 2(b) and 7(a) through (c) above.

8. The transmission described in these license conditions shall be made available only upon terms which fully compensate Licensee for its costs, including any transmission power losses and a reasonable return on investment allocable solely to such transmission and reflected in Licensee's schedules or tariffs filed with the Kansas Corporation Commission or the Federal Power Commission. The transmission described in Paragraphs 2(b) and 7 above shall be available to KEC for the transmission of requested amounts of power in the manner specified in Paragraphs 2(b) and 7(a) through (e) above, provided that KEC gives Licensee reasonable advance notice of the transmission required and, provided further, that such transmission arrangements can be reasonably accommodated from a functional and technical standpoint and to the extent that Licensee can do so without impairing service to its customers including other electric systems to which it has firm commitments. Nothing herein imposes a requirement on Licensee to become a common carrier.

9. Licensee shall include in its planning and construction of additional transmission facilities sufficient transmission capacity to accommodate the transmission described in Paragraphs 2(b), 7(b), and 7(c)(i) above, provided that

KEC gives Licensee sufficient advance notice as may be necessary to accommodate such requirements from a functional and technical standpoint. Licensee and KEC shall consult with respect to the planning and construction of additional transmission facilities.

10. The foregoing conditions shall be implemented in a manner not inconsistent with the provisions of, and as provided under, the Federal Power Act and all other applicable Federal and State laws and all rates, charges and practices in connection therewith are to be subject to the approval of regulatory agencies having jurisdiction over them.

APPENDIX C

WOLF CREEK, UNIT 1

ANTITRUST CONDITIONS FOR
KANSAS CITY POWER & LIGHT COMPANY

1. As used herein:

(a) "Licensee" means Kansas City Power & Light Company.

(b) "Licensee's Service Area" means those portions of the States of Missouri and Kansas which are certificated to Licensee by the respective state regulatory commissions. An entity shall be deemed to be in the "Licensee's Service Area" if it has electric power generation, transmission or distribution facilities located in whole or in part in or adjacent to the above-described area or in counties served in part at retail by Licensee.

(c) "Bulk Power" means the electric power, and any attendant energy, supplied or made available at transmission or subtransmission voltage by one entity to another.

(d) "Entity" means person, a private or public corporation, a municipality, a cooperative, a joint stock association, business trust or a lawful association of any of the foregoing constituting, a separate legal entity owning, operating or proposing to own or operate equipment or facilities for the generation, transmission, or distribution of electricity, provided that, except for municipalities and cooperatives, an "entity" is restricted to those which are or will be a public utility under the laws of the state in which the entity transacts business or under the Federal Power Act and are or will be providing electric service under a contract or rate schedule on file with and subject to the regulation of a state regulatory commission or the Federal Power Commission.

(e) "Cost" means any and all operating, maintenance, general and administrative expenses, together with any and all ownership costs, which are reasonably allocable to the transaction consistent with industry practices. Cost shall include a reasonable return on Licensee's investment. The

sale of a portion of the capacity of a generating unit shall be upon the basis of a rate that will recover to the seller the pro rata part of the fixed costs and operating, maintenance, general and administrative expenses of the unit, provided that, in circumstances in which Licensee and one or more entities in Licensee's Service Area each takes an undivided interest in a unit in fee, construction costs and operation, maintenance, general and administrative expenses shall be paid pro rata.

2. (a) Licensee shall interconnect with and coordinate operations (by means of reserve sharing and the sale and purchase of emergency and/or scheduled maintenance and/or other classes of bulk power) with any entity(ies) in Licensee's Service Area engaging in or proposing to engage in electric bulk power supply on terms that will fully compensate Licensee for its costs in connection therewith. Such coordination arrangements will allow the other party(ies) full access to the benefits of coordination.

(b) Emergency and/or scheduled maintenance bulk power service shall be provided by each party to the extent required by the system in need, and be furnished to the fullest extent available from the supplying system. Licensee and each party(ies) shall provide to the other emergency and/or scheduled maintenance bulk power service if and when available from its own generation and from generation of others to the extent it can do so without impairing service to its customers including other electric systems to whom it has firm commitments and the receiving party shall fully compensate the other party for its costs in connection therewith.

(c) Licensee and the other party(ies) to an interconnection and reserve sharing arrangement shall from time to time jointly establish the minimum reserves to be installed and/or provided under contractual arrangements as necessary to maintain in total a reserve margin sufficient to provide adequate reliability of power supply of the interconnected systems of the parties. Unless otherwise agreed upon, minimum reserves shall be calculated as a percentage of estimated peak load responsibility. No party to the arrangement shall be required to maintain greater reserves

than such minimum, provided that, if the reserve requirements of a party are increased over the amount such party would be required to maintain or have available without such interconnection, then the other party(ies) to such interconnection shall be required to carry or provide for, in addition to such minimum reserves, the full amount in kilowatts of such increase. If in addition to sharing reserves, one party sells capacity to another in order for that other to meet its reserve responsibility, the seller shall be appropriately compensated for such sale in accordance with applicable filed rates.

(d) The parties to such a reserve sharing arrangement each shall provide such amounts of operating (ready and spinning) reserve capacity as may be adequate to avoid the imposition of unreasonable demands on the other in meeting the normal contingencies of operating its system. However, in no circumstances shall a party's operating reserve requirement exceed its minimum installed reserve requirement as determined in 2(c).

(e) Interconnections will not be limited to low voltages when higher voltages are available from Licensee's installed facilities in the area where interconnection is appropriate, if and when the proposed arrangement is found to be technically and economically feasible. Control and telemetering facilities shall be provided as required for safe and prudent operation of the interconnected systems.

(f) Interconnection and coordination agreements shall not embody any unreasonably restrictive provisions pertaining to intersystem coordination. Good industry practice as developed in the area from time to time (if not unreasonably restrictive) will satisfy this provision.

3. Licensee will sell bulk power from new generating capacity planned or under construction at its cost or purchase bulk power from any other entity(ies) in Licensee's Service Area engaging in or proposing to engage in generation of electric power when such transaction would serve to reduce the overall costs of new bulk power supply for itself or for the (other) party(ies) to the transaction. This refers

specifically to the opportunity to coordinate in the planning of new generation, transmission and related facilities. This provision shall not be construed to require Licensee to purchase or sell bulk power if it finds such purchase or sale infeasible or its costs in connection with such purchase or sale would exceed its benefits therefrom.

4. Licensee and any successor in title shall offer an opportunity to participate in Wolf Creek Nuclear Unit 1 to any entity(ies) in Licensee's Service Area which shall indicate its interest therein in writing delivered to Licensee prior to October 31, 1974, and in any other nuclear generating unit(s) which they or either of them, may construct, own and operate severally or jointly, during the term of the instant license, or any extension or renewal thereof, by either a reasonable ownership interest in such unit(s), or by a contractual right to purchase a reasonable portion of the output of such unit(s) at the cost thereof if the entity(ies) so elects. Upon timely offer by Licensee, notice of intention to participate in future nuclear units must be given to Licensee in writing prior to the placement of orders for major equipment. In connection with such access, Licensee will also offer transmission service as may be required for delivery of such power to such entity(ies) on a basis that will fully compensate Licensee for its cost.

5. (a) Licensee shall facilitate the exchange of bulk power by transmission over its transmission facilities to, from, between or among any entities in Licensee's Service Area with which it is at any time interconnected, and between any such interconnected entity(ies) and any other entity(ies) engaging in bulk power supply outside Licensee's Service Area between whose facilities Licensee's transmission lines and the transmission lines of others would form a continuous electrical path, provided that (1) the necessary rights to utilize such (other) transmission lines have been obtained, (2) the reliability of Licensee's bulk power system is not thereby impaired, and (3) the arrangements reasonably can be accommodated from a functional and technical standpoint. Such transmission shall be on terms that fully compensate Licensee for its cost, including transmission losses associated therewith. Any entity(ies)

requesting such transmission arrangements shall give reasonable advance notice to Licensee of its (their) schedule and requirements for bulk power to be scheduled by Licensee over Licensee's transmission facilities.

(b) Licensee shall include in its planning and construction of facilities to be owned by Licensee sufficient transmission capacity as may be contractually reserved for the type of transactions referred to in subparagraph (a) of this paragraph, provided that the entity(ies) in Licensee's Service Area give Licensee sufficient advance notice as may be necessary to accommodate its (their) requirements from a functional and technical standpoint and provided that such entity(ies) fully compensates Licensee for the contractual reservation by Licensee of capacity in its transmission facilities.

6. Licensee will sell power for resale to any entity(ies) in Licensee's Service Area now engaging in or proposing to engage in retail distribution of electric power under contracts for its (their) full or partial requirements at Licensee's applicable filed rates to the extent Licensee can do so without impairing service to its retail customers.

7. The foregoing conditions shall be implemented in a manner not inconsistent with the provisions of, and as provided under, the Federal Power Act and all other applicable Federal and State laws and all rates, charges and practices in connection therewith are to be subject to the approval of regulatory agencies having jurisdiction over them.

ENCLOSURE 2

7590-01

KANSAS GAS & ELECTRIC COMPANY

KANSAS CITY POWER & LIGHT COMPANY

KANSAS ELECTRIC POWER COOPERATIVE, INC.

DOCKET NO. STN 50-482

WOLF CREEK GENERATING STATION, UNIT NO. 1

NOTICE OF ISSUANCE OF FACILITY OPERATING LICENSE

Notice is hereby given that the U. S. Nuclear Regulatory Commission (the Commission or NRC), has issued Facility Operating License No. NPF-32 to Kansas Gas & Electric Company, Kansas City Power & Light Company and Kansas Electric Power Cooperative, Inc. (the licensees) which authorizes operation of the Wolf Creek Generating Station, Unit No. 1 at reactor core power levels not in excess of 3411 megawatts thermal in accordance with the provisions of the License, the Technical Specifications and the Environmental Protection Plan with a condition currently limiting operation to five percent of full power (170 megawatts thermal). Authorization to operate beyond five percent of full power will require specific Commission approval.

Wolf Creek Generating Station, Unit No. 1 is a pressurized water reactor located approximately 28 miles east-southeast of Emporia, in Coffey County, Kansas. The application was submitted and accepted for review under the Commission's standardization policy statement of March 5, 1973. Kansas Gas & Electric Company was one of five utilities who joined together under the acronym SNUPPS (Standardized Nuclear Unit Power Plant System) to submit applications

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for Construction Permits for a standard plant design for review under the Commission's standardization policy, using the duplicate plant option described in Appendix N to the Commission's regulations in Part 50 of Title 10 of the Code of Federal Regulations (10 CFR Part 50), "Licensing of Production and Utilization Facilities." This option allows for a simultaneous review of the safety-related parameters of a limited number of duplicate plants which are to be constructed within a limited time span at a multiplicity of sites. The license is effective as of the date of issuance.

The application for the license complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations. The Commission has made appropriate findings as required by the Act and the Commission's regulations in 10 CFR Chapter I which are set forth in the License. Prior public notice of the overall action involving the proposed issuance of an operating license was published in the Federal Register on December 8, 1980 (45 FR 83360).

The Commission has determined that the issuance of this license will not result in any environmental impacts other than those evaluated in the Final Environmental Statement since the activity authorized by the license is encompassed by the overall action evaluated in the Final Environmental Statement.

- 3 -

For further details with respect to this action, see (1) Facility Operating License No. NPF-32, with Technical Specifications (NUREG-1104) and the Environmental Protection Plan; (2) the report of the Advisory Committee on Reactor Safeguards, dated May 11, 1982; (3) the Commission's Safety Evaluation Report, dated April 1982 (NUREG-0881), and Supplements 1 through 5; (4) the Final Safety Analysis Report and Amendments thereto; (5) the Environmental Report and supplements thereto; (6) the Final Environmental Statement, dated June 1982; and (7) Assessment of the Effect of License Duration on Matters Discussed in the Final Environmental Statement for the Wolf Creek Plant Unit 1.

These items are available for inspection at the Commission's Public Document Room located at 1717 H Street, N. W., Washington, D. C. 20555 and at the Emporia State University, William Allen White Library, 1200 Commercial Street, Emporia, Kansas 66801. A copy of Facility Operating License NPF-32 may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Licensing. Copies of the Safety Evaluation Report and Supplements 1 through 5 (NUREG-0881) and the Final Environmental Statement (NUREG-0878) may be purchased at current rates from the National Technical Information Service, Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161, and through the NRC GPO sales program by writing to the U. S. Nuclear Regulatory Commission, Attention: Sales Manager, Washington, D. C. 20555. GPO deposit account holders may call (301) 492-9530.

Dated at Bethesda, Maryland this ^{11th} day of March 1985.

FOR THE NUCLEAR REGULATORY COMMISSION.

12/
B. J. Youngblood, Chief
Licensing Branch No. 1
Division of Licensing

LB#1:DL
MRushbrook:es
01/10/85

LB#1:DL PWOL
PO'Connor
01/7/85

LB#1:DL JH
JStevens
01/8/85

OELD
H. KARMAN
01/24/85

LB#1:DL
BJYoungblood
01/21/85

WITH CHANGES
AS DISCUSSED
WITH PAUL O. CONNOR
1/24/85
[Signature]



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

Docket No. 50-482

AMENDMENT TO INDEMNITY AGREEMENT NO. B-99
AMENDMENT NO. 2

Effective March 11, 1985, Indemnity Agreement No. B-99 between Kansas Gas & Electric Company, Kansas City Power & Light Company, and Kansas Electric Power Cooperative, Inc. and the Nuclear Regulatory Commission dated May 9, 1984, as amended, is hereby further amended as follows:

Item 2.a of the Attachment to the indemnity agreement is deleted in its entirety and the following substituted therefor:

Item 2 - Amount of financial protection

a. \$1,000,000 (From 12:01 a.m., May 9, 1984, to
12 midnight March 10, 1985
inclusive)

\$160,000,000* (From 12:01 a.m., March 11, 1985)

Item 3 of the Attachment to the indemnity agreement is deleted in its entirety and the following substituted therefor:

Item 3 - License number or numbers

SNM-1929 (From 12:01 a.m., May 9, 1984 to
12 midnight March 10, 1985
inclusive)

NPF-32 (From 12:01 a.m., March 11, 1985)

* and, as of August 1, 1977, the amount available as secondary financial protection.

Item 5 of the Attachment to the indemnity agreement is amended by adding the following:

"Nuclear Energy Liability Policy (Facility Form) No. MF-118 issued by Mutual Atomic Energy Liability Underwriters"

FOR THE UNITED STATES NUCLEAR REGULATORY COMMISSION

for *J. Wayne Kerr*
Jerome Saltzman, Assistant Director
State and Licensee Relations
Office of State Programs

Accepted _____, 1984

Accepted _____, 1984

By _____
KANSAS GAS & ELECTRIC COMPANY

By _____
KANSAS CITY POWER & LIGHT COMPANY

Accepted _____, 1984

By _____
KANSAS ELECTRIC POWER COOPERATIVE, INC.

Enclosure 4

ASSESSMENT OF THE EFFECT OF LICENSE DURATION ON MATTERS DISCUSSED

IN THE FINAL ENVIRONMENTAL STATEMENT FOR THE WOLF CREEK PLANT

UNIT 1 (Dated JUNE 1982)

INTRODUCTION

The Final Environmental Statement (FES) for the operation of the Wolf Creek Generating Station, Unit 1 was published in June 1982. At that time it was staff practice to issue operating licenses for a period of 40 years from the date of the construction permit. For Wolf Creek, the CP was issued in May 1977, thus, approximately 30 years of operating life would be available.

By letter dated June 28, 1984, Kansas Gas and Electric Company requested that the operating license for the Wolf Creek Generating Station, Unit 1 have a duration of 40 years from the date of issuance.

DISCUSSION

The staff has reviewed the Wolf Creek FES to determine which aspects considered in the FES are affected by the duration of the operating license. In general, the FES assesses various impacts associated with operation of the facility in terms of annual impacts and balances these against the anticipated annual energy production benefits. Thus, the overall assessment and conclusions would not be dependent on specific operating life. There are, however, three areas in which a specific operating life was assumed:

1. Radiological assessments are based on a 15-year plant midlife.
2. Uranium fuel cycle impacts are based on one initial core load and annual refuelings.
3. Uranium availability is evaluated through 30 years of operation.

These were assessed to determine whether the use of a 40-year operating period rather than a 30-year operating period would significantly affect our assessment concerning these areas.

EVALUATION:

The staff's appraisal of the significance of the use of 40 years of operation rather than 30 as it affects these three areas is presented in the following discussions:

1. Radiological Assessments - The NRC staff calculates dose commitments to the human population residing around nuclear power reactors to assess the impact on people from radioactive material released from these reactors. The annual dose commitment is calculated to be the dose that would be received over a 50-year period following the intake of radioactivity for 1 year under the conditions that would exist 15 years after the plant began operation.

The 15 year period is chosen as representing the midpoint of plant operation and factors into the dose models by allowing for buildup of long life radionuclides in the soil. It affects the estimated doses only for radionuclides ingested by humans that have half-lives greater than a few years. For a plant licensed for 40 years, increasing the buildup period from 15 to 20 years would increase the dose from long term life radionuclides via the ingestion pathways by 33% at most. It would have much less effect on dose from shorter life radionuclides. Table C.6 and C.7 of Appendix C to the FES indicate that the estimated doses via the ingestion pathways are only a fraction of the regulatory design objectives. For example, the ingestion dose to the thyroid of the maximally exposed individual is 2.4, mrem/yr compared to an Appendix I design objective of 15 mrem/yr. Thus, for 2.4, an increase of even as much as 33% in these pathways, the dose would remain within the Appendix I guidelines.

2. Uranium Fuel Cycle Impacts - The impacts of the uranium fuel cycle are based on 30 years of operation of a model LWR. The fuel requirements for the model LWR were assumed to be one initial core load and 29 annual refuelings (approximately 1/3 core). The annual fuel requirement for the model LWR averaged out over a 40-year operating life (1 initial core and 39 refuelings of approximately 1/3 core) would be reduced slightly as compared to the annual fuel requirement averaged for a 30-year operating life.

The net result would be an approximately 1.5% reduction in the annual fuel requirement for the model LWR. This small reduction in fuel requirements would not lead to significant changes in the impacts of the uranium fuel cycle. The staff does not believe that there would be any changes to Wolf Creek FES Table 5.1 (S-3) that would be necessary in order to consider 40 years of operation. If anything, the values in Table 5.1 become more conservative when a 40-year period of operation is considered.

3. Uranium Resources - In Table 6.1 of the Wolf Creek FES, the uranium resource commitment was estimated at 50.00 metric tons of ³⁸U. Uranium availability is based on the cumulative lifetime of 30 years. A 33% increase in operating life (to 40 years) would still be within the projected uranium resources. Cancellation of many reactors since the Wolf Creek FES was issued will result in an off-setting reduction in demand. Furthermore, the increase in operating life assumption to 40-years will reduce the need for replacement generating capacity, including nuclear, at the end of 30 years.

CONCLUSION

The staff has reviewed the Wolf Creek FES and determined that only three of the areas related to its NEPA analysis discussed in the statement were tied directly to a 30-year operating period. We have concluded, based on the reasons discussed in the sections above, that the impacts associated with a 40-year operating license duration are not significantly different from those associated with a 30-year operating license duration and are not significantly different from those assessed in the Wolf Creek FES.