

February 24, 1988

Docket No. 50-482

Mr. Bart D. Withers
President and Chief Executive Officer
Wolf Creek Nuclear Operating Corporation
Post Office Box 411
Burlington, Kansas 66839

Dear Mr. Withers:

DISTRIBUTION:

Docket File	JPartlow
NRC PDR	TBarnhart (4)
Local PDR	Wanda Jones
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EJordan	Plant File
TAlexion	

SUBJECT: WOLF CREEK GENERATING STATION - AMENDMENT NO. TO FACILITY
OPERATING LICENSE NO. NPF-42 (TAC NO. 64479)

The Commission has issued the enclosed Amendment No. 15 to Facility Operating License No. NPF-42 for the Wolf Creek Generating Station. The amendment consists of changes to the Technical Specifications in response to your application dated March 2, 1987 which endorsed and incorporated a common submittal for Wolf Creek generating Station and Callaway Plant that had been submitted by Union Electric Company on Docket No. 50-483 by letter dated February 19, 1987. Your submittal was further supplemented by letters dated April 17 and October 30, 1987 and January 8, 1988.

The amendment revises the License and Technical Specifications in order to remove certain fire protection requirements from the Technical Specifications and place them in plant procedures under the control of the plant's on-site review committee, and place them in the Updated Safety Analysis Report.

A copy of our related Safety Evaluation is enclosed. The notice of issuance will be included in the Commission's next bi-weekly Federal Register notice.

Sincerely,

151
Paul W. O'Connor, Project Manager
Project Directorate - IV
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

Enclosures:

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

cc w/enclosures:
See next page

LTR NAME: AMEND WOLF CREEK

*See previous concurrences:

PD4/LA*	PD4/PM*	OGC*
PNoonan	PO'Connor:sr	
01/26/88	01/26/88	01/28/88

8803030194 880224
PDR ADDCK 05000482
P PDR

PD4/D MC
JCalvo
01/ /88
2/24/88

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LTR NAME: AMEND WOLF CREEK

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01/26/88

PD4/PM
PO'Connor:sr
01/26/88

OGC
01/29/88

PD4/D
JCalvo
01/ /88

2/28/88
conditioned on acceptance of changes made + correction of grammar.

Mr. Bart D. Withers
Wolf Creek Nuclear Operating Corporation

Wolf Creek Generating Station
Unit No. 1

cc:

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

KANSAS GAS & ELECTRIC COMPANY
KANSAS CITY POWER AND LIGHT COMPANY
KANSAS ELECTRIC POWER COOPERATIVE, INC.
WOLF CREEK GENERATING STATION
DOCKET NO. 50-482
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 15
License No. NPF-42

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Wolf Creek Generating Station (the facility) Facility Operating License No. NPF-42 filed by Kansas Gas and Electric Company acting for itself and Kansas City Power and Light Company and Kansas Electric Power Cooperative, Inc., (licensees) dated March 2, 1987 as supplemented April 17 and October 30, 1987 and January 8, 1988, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

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PDR ADOCK 05000482
P PDR

2. Accordingly, Facility Operating License No. NPF-42 is amended as follows:

(A) Change the Technical Specifications as indicated in the attachment to this license amendment, and amend paragraph 2.C.(2) to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 15, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated in the license. KG&E shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(B) Amend paragraph 2.C.(5)(b) to read as follows:

(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) Delete paragraph 2.C.(5)(c).

3. The license amendment is effective upon issuance and shall be implemented upon the licensee's completion of the necessary procedural changes. The licensee will notify the Commission in writing when the necessary procedural changes have been completed.

FOR THE NUCLEAR REGULATORY COMMISSION

Jose A. Calvo

Jose A. Calvo, Director
Project Directorate - IV
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 24, 1988

ATTACHMENT TO LICENSE AMENDMENT NO. 15

FACILITY OPERATING LICENSE NO. NPF-42

DOCKET NO. 50-482

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the enclosed pages. The revised pages are identified by amendment number and contain marginal lines indicating the area of change. The corresponding overleaf pages are also provided to maintain document completeness.

REMOVE PAGES

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3/4 3-76
3/4 7-27 thru
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VII
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XVII
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thru 3-71 pages renumbered)
-

3/4 7-27 (No changes,
page renumbered)
3/4 7-28 (No changes,
page renumbered)
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INSTRUMENTATION

LOOSE-PART DETECTION SYSTEM

LIMITING CONDITION FOR OPERATION

3.3.3.9 The Loose-Part Detection System shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACITON:

- a. With one or more Loose-Part Detection System channels inoperable for more than 30 days, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 10 days outlining the cause of the malfunction and the plans for restoring the channel(s) to OPERABLE status.
- b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.9 Each channel of the Loose-Part Detection System shall be demonstrated OPERABLE by performance of:

- a. A CHANNEL CHECK at least once per 24 hours,
- b. An ANALOG CHANNEL OPERATIONAL TEST except for verification of Setpoint at least once per 31 days, and
- c. A CHANNEL CALIBRATION at least once per 18 months.

INSTRUMENTATION

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.10 The radioactive liquid effluent monitoring instrumentation channels shown in Table 3.3-12 shall be OPERABLE with their Alarm/Trip Setpoints set to ensure that the limits of Specification 3.11.1.1 are not exceeded. The Alarm/Trip Setpoints of these channels shall be determined and adjusted in accordance with the methodology and parameters in the OFFSITE DOSE CALCULATION MANUAL (ODCM).

APPLICABILITY: At all times.

ACTION:

- a. With a radioactive liquid effluent monitoring instrumentation channel Alarm/Trip Setpoint less conservative than required by the above specification, immediately suspend the release of radioactive liquid effluents monitored by the affected channel, or declare the channel inoperable.
- b. With less than the minimum number of radioactive liquid effluent monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3-12. Restore the inoperable instrumentation to OPERABLE status within the time specified in the ACTION, or explain in the next Semiannual Radioactive Effluent Release Report, pursuant to Specification 6.9.1.7, why this inoperability was not corrected within the time specified.
- c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.10 Each radioactive liquid effluent monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, SOURCE CHECK, CHANNEL CALIBRATION and ANALOG CHANNEL OPERATIONAL TEST at the frequencies shown in Table 4.3-8.

TABLE 3.3-12

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>ACTION</u>
1. Radioactivity Monitors Providing Alarm and Automatic Termination of Release		
a. Liquid Radwaste Discharge Monitor (HB-RE-18)	1	31
b. Steam Generator Blowdown Discharge Monitor (BM-RE-52)	1	32
c. Turbine Building Drain Monitor (LE-RE-59)	1	32
d. Secondary Liquid Waste System Monitor (HF-RE-45)	1	33
2. Flow Rate Measurement Devices		
a. Liquid Radwaste Discharge Line		
1) Waste Monitor Tank A Discharge Line	1	34
2) Waste Monitor Tank B Discharge Line	1	34
b. Steam Generator Blowdown Discharge Line	1	34
c. Secondary Liquid Waste System Discharge Line	1	34

TABLE 3.3-12 (Continued)

ACTION STATEMENTS

ACTION 31 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue for up to 14 days provided that prior to initiating a release:

- a. At least two independent samples are analyzed in accordance with Specification 4.11.1.1.1, and
- b. At least two technically qualified members of the facility staff independently verify the release rate calculations and discharge line valving.

Otherwise, suspend release of radioactive effluents via this pathway.

ACTION 32 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue for up to 30 days provided grab samples are analyzed for principle gamma emitters and I-131 at a lower limit of detection as specified in Table 4.11-1:

- a. At least once per 12 hours when the specific activity of the secondary coolant is greater than 0.01 microCurie/gram DOSE EQUIVALENT I-131, or
- b. At least once per 24 hours when the specific activity of the secondary coolant is less than or equal to 0.01 microCurie/gram DOSE EQUIVALENT I-131.

ACTION 33 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue for up to 30 days provided that prior to initiating a release:

- a. At least two independent samples are analyzed in accordance with Specification 4.11.1.1.1, and
- b. At least two technically qualified members of the facility staff independently verify the release rate calculations and discharge line valving.

Otherwise, suspend release of radioactive effluents via this pathway.

ACTION 34 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue for up to 30 days provided the flow rate is estimated at least once per 4 hours during actual releases. Pump performance curves generated in place may be used to estimate flow.

TABLE 4.3-8

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>SOURCE CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>ANALOG CHANNEL OPERATIONAL TEST</u>
1. Radioactivity Monitors Providing Alarm and Automatic Termination of Release				
a. Liquid Radwaste Discharge Monitor (HB-RE-18)	D	P	R(2)	Q(1)
b. Steam Generator Blowdown Discharge Monitor (BM-RE-52)	D	M	R(2)	Q(1)
c. Turbine Building Drain Monitor (LE-RE-59)	D	M	R(2)	Q(1)
d. Secondary Liquid Waste System Monitor (HF-RE-45)	D	P	R(2)	Q(1)
2. Flow Rate Measurement Devices				
a. Liquid Radwaste Discharge Line	D(3)	N.A.	R	N.A.
b. Steam Generator Blowdown Discharge Line	D(3)	N.A.	R	N.A.
c. Secondary Liquid Waste System Discharge Line	D(3)	N.A.	R	N.A.

TABLE 4.3-8 (Continued)

TABLE NOTATIONS

- (1) The ANALOG CHANNEL OPERATIONAL TEST shall also demonstrate that automatic isolation of this pathway and control room alarm annunciation occur as appropriate if any of the following conditions exists:
 - a. Instrument indicates measured levels above the Alarm/Trip Setpoint (isolation and alarm), or
 - b. Circuit failure (alarm only), or
 - c. Instrument indicates a downscale failure (alarm only), or
 - d. Instrument controls not set in operate mode (alarm only).
- (2) The initial CHANNEL CALIBRATION shall be performed using one or more of the reference (gas or liquid and solid) standards certified by the National Bureau of Standards (NBS) or using standards that have been obtained from suppliers that participate in measurement assurance activities with NBS. These standards shall permit calibrating the system over its intended range of energy, measurement range, and establish monitor response to a solid calibration source. For subsequent CHANNEL CALIBRATION, NBS traceable standard (gas, liquid, or solid) may be used; or a gas, liquid, or solid source that has been calibrated by relating it to equipment that was previously (within 30 days) calibrated by the same geometry and type of source standard traceable to NBS.
- (3) CHANNEL CHECK shall consist of verifying indication of flow during periods of release. CHANNEL CHECK shall be made at least once per 24 hours on days on which continuous, periodic, or batch releases are made.

INSTRUMENTATION

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3.11 The radioactive gaseous effluent monitoring instrumentation channels shown in Table 3.3-13 shall be OPERABLE with their Alarm/Trip Setpoints set to ensure that the limits of Specifications 3.11.2.1 and 3.11.2.5 are not exceeded. The Alarm/Trip Setpoints of these channels meeting Specification 3.11.2.1 shall be determined and adjusted in accordance with the methodology and parameters in the ODCM.

APPLICABILITY: As shown in Table 3.3-13.

ACTION:

- a. With a radioactive gaseous effluent monitoring instrumentation channel Alarm/Trip Setpoint less conservative than required by the above specification, immediately suspend the release of radioactive gaseous effluents monitored by the affected channel, or declare the channel inoperable.
- b. With less than the minimum number of radioactive gaseous effluent monitoring instrumentation channels OPERABLE take the ACTION shown in Table 3.3-13. Restore the inoperable instrumentation to OPERABLE status within the time specified in the ACTION, or explain in the next Semiannual Radioactive Effluent Release Report, pursuant to Specification 6.9.1.7, why this inoperability was not corrected within the time specified.
- c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.3.11 Each radioactive gaseous effluent monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, SOURCE CHECK, CHANNEL CALIBRATION and ANALOG CHANNEL OPERATIONAL TEST at the frequencies shown in Table 4.3-9.

TABLE 3.3-13

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABILITY</u>	<u>ACTION</u>
1. WASTE GAS HOLDUP SYSTEM Explosive Gas Monitoring System			
a. Hydrogen Monitor	1/recombiner	**	44
b. Oxygen Monitor	2/recombiner	**	42
2. Unit Vent System			
a. Noble Gas Activity Monitor - Providing Alarm (GT-RE-21)	1	*	40
b. Iodine Sampler	1	*	43
c. Particulate Sampler	1	*	43
d. Flow Rate	N.A.	*	45
e. Sampler Flow Rate Monitor	1	*	39
3. Containment Purge System			
a. Noble Gas Activity Monitor - Providing Alarm and Automatic Termination of Release (GT-RE-22, GT-RE-33)	1	*	41
b. Iodine Sampler	1	*	43
c. Particulate Sampler	1	*	43
d. Flow Rate	N.A.	*	45
e. Sampler Flow Rate Monitor	1	*	39

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TABLE 3.3-13 (Continued)

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABILITY</u>	<u>ACTION</u>
4. Radwaste Building Vent System			
a. Noble Gas Activity Monitor - Providing Alarm and Automatic Termination of Release (GH-RE-10)	1	*	38, 40
b. Iodine Sampler	1	*	43
c. Particulate Sampler	1	*	43
d. Flow Rate	N.A.	*	45
e. Sampler Flow Rate Monitor	1	*	39

TABLE 3.3-13 (Continued)

TABLE NOTATIONS

* At all times.

** During WASTE GAS HOLDUP SYSTEM operation.

ACTION STATEMENTS

- ACTION 38 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, the contents of the tank(s) may be released to the environment for up to 14 days provided that prior to initiating the release:
- a. At least two independent samples of the tank's contents are analyzed, and
 - b. At least two technically qualified members of the facility staff independently verify the release rate calculations and discharge valve lineup.
- Otherwise, suspend release of radioactive effluents via this pathway.
- ACTION 39 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue for up to 30 days provided the flow rate is estimated at least once per 4 hours.
- ACTION 40 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue for up to 30 days provided grab samples are taken at least once per 12 hours and these samples are analyzed for radioactivity within 24 hours.
- ACTION 41 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, immediately suspend PURGING of radioactive effluents via this pathway.
- ACTION 42 - With the Outlet Oxygen Monitor channel inoperable, operation of the system may continue provided grab samples are taken and analyzed at least once per 24 hours. With both oxygen channels or both the inlet oxygen and inlet hydrogen channels inoperable, suspend oxygen supply to the recombiner. Addition of waste gas to the system may continue provided grab samples are taken and analyzed at least once per 4 hours during degassing operations and at least once per 24 hours during other operations.
- ACTION 43 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via the affected pathway may continue for up to 30 days provided samples are continuously collected with auxiliary sample equipment as required in Table 4.11-2.
- ACTION 44 - With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirements, suspend oxygen supply to the recombiner.
- ACTION 45 - Flow rate for this system shall be based on fan status and operating curves or actual measurements.

TABLE 4.3-9

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	SOURCE CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
1. WASTE GAS HOLDUP SYSTEM Explosive Gas Monitoring System					
a. Inlet Hydrogen Monitor	D	N.A.	Q(4)	M	**
b. Outlet Hydrogen Monitor	D	N.A.	Q(4)	M	**
c. Inlet Oxygen Monitor	D	N.A.	Q(5)	M	**
d. Outlet Oxygen Monitor	D	N.A.	Q(6)	M	**
2. Unit Vent System					
a. Noble Gas Activity Monitor- Providing Alarm (GT-RE-21)	D	M	R(3)	Q(2)	*
b. Iodine Sampler	W	N.A.	N.A.	N.A.	*
c. Particulate Sampler	W	N.A.	N.A.	N.A.	*
d. Flow Rate	N.A.	N.A.	R(7)	N.A.	*
e. Sampler Flow Rate Monitor	D	N.A.	R	Q	*
3. Containment Purge System					
a. Noble Gas Activity Monitor - Providing Alarm and Automatic Termination of Release (GT-RE-22, GT-RE-33)	D	P	R(3)	Q(1)	*
b. Iodine Sampler	W	N.A.	N.A.	N.A.	*
c. Particulate Sampler	W	N.A.	N.A.	N.A.	*
d. Flow Rate	N.A.	N.A.	R(7)	N.A.	*
e. Sampler Flow Rate Monitor	D	N.A.	R	N.A.	*

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Amendment No. 15

TABLE 4.3-9 (Continued)

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>SOURCE CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>ANALOG CHANNEL OPERATIONAL TEST</u>	<u>MODES FOR WHICH SURVEILLANCE IS REQUIRED</u>
4. Radwaste Building Vent System					
a. Noble Gas Activity Monitor - Providing Alarm and Automatic Termination of Release (GH-RE-10)	D, P	M, P	R(3)	Q(1)	*
b. Iodine Sampler	W	N.A.	N.A.	N.A.	*
c. Particulate Sampler	W	N.A.	N.A.	N.A.	*
d. Flow Rate	N.A.	N.A.	R(7)	N.A.	*
e. Sampler Flow Rate Monitor	D	N.A.	R	N.A.	*

TABLE 4.3-9 (Continued)

TABLE NOTATIONS

* At all times.

** During WASTE GAS HOLDUP SYSTEM operation.

- (1) The ANALOG CHANNEL OPERATIONAL TEST shall also demonstrate that automatic isolation of this pathway and control room alarm annunciation as appropriate occur if any of the following conditions exists:
 - a. Instrument indicates measured levels above the Alarm/Trip Setpoint (isolation and alarm), or
 - b. Circuit failure (alarm only), or
 - c. Instrument indicates a downscale failure (alarm only) or
 - d. Instrument controls not set in operate mode (alarm only).
- (2) The ANALOG CHANNEL OPERATIONAL TEST shall also demonstrate that control room alarm annunciation occurs if any one or combination of the following conditions exists:
 - a. Instrument indicates measured levels above the Alarm Setpoint
 - b. Circuit failure
 - c. Instrument indicates a downscale failure
 - d. Instrument controls not set in operate mode.
- (3) The initial CHANNEL CALIBRATION shall be performed using one or more of the reference (gas or liquid and solid) standards certified by the National Bureau of Standards (NBS) or using standards that have been obtained from suppliers that participate in measurement assurance activities with NBS. These standards shall permit calibrating the system over its intended range of energy, measurement range, and establish monitor response to a solid calibration source. For subsequent CHANNEL CALIBRATION, NBS traceable standard (gas, liquid, or solid) may be used; or a gas, liquid, or solid source that has been calibrated by relating it to equipment that was previously (within 30 days) calibrated by the same geometry and type of source traceable to NBS.
- (4) The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal:
 - a. One volume percent hydrogen, balance nitrogen, and
 - b. Four volume percent hydrogen, balance nitrogen.

TABLE 4.3-9 (Continued)

TABLE NOTATIONS (Continued)

- (5) The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal:
 - a. One volume percent oxygen, balance nitrogen, and
 - b. Four volume percent oxygen, balance nitrogen.
- (6) The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal:
 - a. 10 ppm by volume oxygen, balance nitrogen, and
 - b. 80 ppm by volume oxygen, balance nitrogen.
- (7) If flow rate is determined by exhaust fan status and fan performance curves, the following surveillance operations shall be performed at least once per 18 months:
 - a. The specific vent flows by direct measurement, or
 - b. The differential pressure across the exhaust fan and vent flow established by the fan's "flow- ΔP " curve, or
 - c. The fan motor horsepower measured and vent flow established by the fan's "flow-horsepower" curve.

INSTRUMENTATION

3/4.3.4 TURBINE OVERSPEED PROTECTION

LIMITING CONDITION FOR OPERATION

3.3.4 At least one Turbine Overspeed Protection System shall be OPERABLE.

APPLICABILITY: MODES 1, 2,* and 3.*

ACTION:

- a. With one stop valve or one governor valve per high pressure turbine steam line inoperable and/or with one reheat stop valve or one reheat intercept valve per low pressure turbine steam line inoperable, restore the inoperable valve(s) to OPERABLE status within 72 hours, or close at least one valve in the affected steam lines or isolate the turbine from the steam supply within the next 6 hours.
- b. With the above required Turbine Overspeed Protection System otherwise inoperable, within 6 hours isolate the turbine from the steam supply.

SURVEILLANCE REQUIREMENTS

4.3.4.1 The provisions of Specification 4.0.4 are not applicable.

4.3.4.2 The above required Turbine Overspeed Protection System shall be demonstrated OPERABLE:

- a. At least once per 7 days by cycling each of the following valves through at least one complete cycle from the running position:
 - 1) Four high pressure turbine stop valves,
 - 2) Six low pressure turbine reheat stop valves, and
 - 3) Six low pressure turbine reheat intercept valves.
- b. At least once per 31 days by cycling each of the four high pressure main turbine governor valves through at least one complete cycle from the running position;
- c. At least once per 31 days by direct observation of the movement of each of the above valves through one complete cycle from the running position;
- d. At least once per 18 months by performance of a CHANNEL CALIBRATION on the Turbine Overspeed Protection Systems; and
- e. At least once per 40 months by disassembling at least one of each of the above valves and performing a visual and surface inspection of valve seats, disks and stems and verifying no unacceptable flaws or corrosion.

*Not applicable in MODE 2 or 3 with all main steam line isolation valves and associated bypass valves in the the closed position and all other steam flow paths to the turbine isolated.

PLANT SYSTEMS

3/4.7.12 AREA TEMPERATURE MONITORING

LIMITING CONDITION FOR OPERATION

3.7.12 The temperature limit of each area given in Table 3.7-4 shall not be exceeded for more than 8 hours or by more than 30°F.

APPLICABILITY: Whenever the equipment in an affected area is required to be OPERABLE.

ACTION:

- a. With one or more areas exceeding the temperature limit(s) shown in Table 3.7-4 for more than 8 hours, prepare and submit to the Commission within 30 days, pursuant to Specification 6.9.2, a Special Report that provides a record of the cumulative time and the amount by which the temperature in the affected area(s) exceeded the limit(s) and an analysis to demonstrate the continued OPERABILITY of the affected equipment. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.
- b. With one or more areas exceeding the temperature limit(s) shown in Table 3.7-4 by more than 30°F, prepare and submit a Special Report as required by ACTION a. above, and within 4 hours either restore the area(s) to within the temperature limit(s) or declare the equipment in the affected area(s) inoperable.

SURVEILLANCE REQUIREMENTS

4.7.12 The temperature in each of the areas shown in Table 3.7-4 shall be determined to be within its limit at least once per 12 hours.

TABLE 3.7-4

AREA TEMPERATURE MONITORING

<u>AREA</u>	<u>MAXIMUM TEMPERATURE LIMIT (°F)</u>
1. ESW Pump Room A	119
2. ESW Pump Room B	119
3. Auxiliary Feedwater Pump Room A	119
4. Auxiliary Feedwater Pump Room B	119
5. Turbine Driven Auxiliary Feedwater Pump Room	147
6. ESF Switchgear Room I	87
7. ESF Switchgear Room II	87
8. RHR Pump Room A	119
9. RHR Pump Room B	119
10. CTMT Spray Pump Room A	119
11. CTMT Spray Pump Room B	119
12. Safety Injection Pump Room A	119
13. Safety Injection Pump Room B	119
14. Centrifugal Charging Pump Room A	119
15. Centrifugal Charging Pump Room B	119
16. Electrical Penetration Room A	101
17. Electrical Penetration Room B	101
18. Component Cooling Water Room A	119
19. Component Cooling Water Room B	119
20. Diesel Generator Room A	119
21. Diesel Generator Room B	119
22. Control Room	84

INSTRUMENTATION

BASES

3/4.3.3.4 METEOROLOGICAL INSTRUMENTATION

The OPERABILITY of the meteorological instrumentation ensures that sufficient meteorological data is available for estimating potential radiation doses to the public as a result of routine or accidental release of radioactive materials to the atmosphere. This capability is required to evaluate the need for initiating protective measures to protect the health and safety of the public and is consistent with the recommendations of Regulatory Guide 1.23, "Onsite Meteorological Programs," February 1972.

3/4.3.3.5 REMOTE SHUTDOWN INSTRUMENTATION

The OPERABILITY of the Remote Shutdown System ensures that sufficient capability is available to permit shutdown and maintenance of HOT SHUTDOWN of the facility from locations outside of the control room and that a fire will not preclude achieving safe shutdown. The Remote Shutdown System transfer switches, power circuits, and control circuits are independent of areas where a fire could damage systems normally used to shut down the reactor. This capability is required in the event control room habitability is lost and is consistent with General Design Criteria 3 and 19 and Appendix R of 10 CFR Part 50.

3/4.3.3.6 ACCIDENT MONITORING INSTRUMENTATION

The OPERABILITY of the accident monitoring instrumentation ensures that sufficient information is available on selected plant parameters to monitor and assess these variables following an accident. This capability is consistent with the recommendations of Regulatory Guide 1.97, Revision 2, "Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant Conditions During and Following an Accident," December 1980 and NUREG-0737, "Clarification of TMI Action Plan Requirements," November 1980.

3/4.3.3.7 CHLORINE DETECTION SYSTEMS

The OPERABILITY of the Chlorine Detection System ensures that sufficient capability is available to promptly detect and initiate protective action in the event of an accidental chlorine release. This capability is required to protect control room personnel and is consistent with the recommendations of Regulatory Guide 1.95, "Protection of Nuclear Power Plant Control Room Operators Against an Accidental Chlorine Release," Revision 1, January 1977.

3/4.3.3.8 DELETED

INSTRUMENTATION

BASES

3/4.3.3.9 LOOSE-PART DETECTION INSTRUMENTATION

The OPERABILITY of the loose-part detection instrumentation ensures that sufficient capability is available to detect loose metallic parts in the Reactor Coolant System and avoid or mitigate damage to Reactor Coolant System components. The allowable out-of-service times and Surveillance Requirements are consistent with the recommendations of Regulatory Guide 1.133, "Loose-Part Detection Program for the Primary System of Light-Water-Cooled Reactors," May 1981.

3/4.3.3.10 RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

The radioactive liquid effluent instrumentation is provided to monitor and control, as applicable, the releases of radioactive materials in liquid effluents during actual or potential releases of liquid effluents. The Alarm/Trip Setpoints for these instruments shall be calculated and adjusted in accordance with the methodology and parameters in the ODCM to ensure that the alarm/trip will occur prior to exceeding the limits of 10 CFR Part 20. The OPERABILITY and use of this instrumentation is consistent with the requirements of General Design Criteria 60, 63, and 64 of Appendix A to 10 CFR Part 50.

3/4.3.3.11 RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

The radioactive gaseous effluent instrumentation is provided to monitor and control, as applicable, the releases of radioactive materials in gaseous effluents during actual or potential releases of gaseous effluents. The Alarm/Trip Setpoints for these instruments shall be adjusted to values calculated in accordance with the methodology and parameters in the ODCM to ensure that the alarm/trip will occur prior to exceeding the limits of 10 CFR Part 20. The instrumentation also includes provisions for monitoring (and controlling) the concentrations of potentially explosive gas mixtures in the WASTE GAS HOLDUP SYSTEM. The OPERABILITY and use of this instrumentation is consistent with the requirements of General Design Criteria 60, 63, and 64 of Appendix A to 10 CFR Part 50. The sensitivity of any noble gas activity monitor used to show compliance with the gaseous effluent release requirements of Specification 3.11.2.2 shall be such that concentrations as low as 1×10^{-6} $\mu\text{Ci/cc}$ are measurable.

3/4.3.4 TURBINE OVERSPEED PROTECTION

This specification is provided to ensure that the turbine overspeed protection instrumentation and the turbine speed control valves are OPERABLE and will protect the turbine from excessive overspeed. Although the orientation of the turbine is such that the number of potentially damaging missiles which could impact and damage safety-related components, equipment, or structures is minimal, protection from excessive turbine overspeed is required.

PLANT SYSTEMS

BASES

SEALED SOURCE CONTAMINATION (Continued)

Sealed sources are classified into three groups according to their use, with Surveillance Requirements commensurate with the probability of damage to a source in that group. Those sources which are frequently handled are required to be tested more often than those which are not. Sealed sources which are continuously enclosed within a shielded mechanism (i.e., sealed sources within radiation monitoring or boron measuring devices) are considered to be stored and need not be tested unless they are removed from the shielded mechanism.

3/4.7.10 DELETED

3/4.7.11 DELETED

3/4.7.12 AREA TEMPERATURE MONITORING

The area temperature limitations ensure that safety-related equipment will not be subjected to temperatures in excess of their environmental qualification temperatures. Exposure to excessive temperatures may degrade equipment and can cause a loss of its OPERABILITY. The temperature limits include an allowance for instrument error of $\pm 3^{\circ}\text{F}$.

ADMINISTRATIVE CONTROLS

RESPONSIBILITIES (Continued)

- k. Review of changes to the PROCESS CONTROL PROGRAM, the OFFSITE DOSE CALCULATION MANUAL and the Radwaste Treatment Systems, and
- l. Review of any accidental, unplanned, or uncontrolled radioactive release including the preparation of reports covering evaluation, recommendations, and disposition of the corrective action to prevent recurrence and the forwarding of these reports to the Plant Manager and to the Nuclear Safety Review Committee.
- m. Review of the Fire Protection Program and shall submit recommended changes to the Nuclear Safety Review Committee.

6.5.1.7 The PSRC shall:

- a. Recommend in writing to the Plant Manager approval or disapproval of items considered under Specification 6.5.1.6a. through d. and m. above,
- b. Render determinations in writing with regard to whether or not each item considered under Specification 6.5.1.6a. through e. above constitutes an unreviewed safety question, and
- c. Provide written notification within 24 hours to the Vice President Nuclear Operations and the Nuclear Safety Review Committee of disagreement between the PSRC and the Plant Manager; however, the Plant Manager shall have responsibility for resolution of such disagreements pursuant to Specification 6.1.1 above.

RECORDS

6.5.1.8 The PSRC shall maintain written minutes of each PSRC meeting that, at a minimum, document the results of all PSRC activities performed under the responsibility provisions of these Technical Specifications. Copies shall be provided to the Vice President Nuclear Operations and the Nuclear Safety Review Committee.

6.5.2 NUCLEAR SAFETY REVIEW COMMITTEE (NSRC)

FUNCTION

6.5.2.1 The NSRC shall function to provide independent review and audit of designated activities in the areas of:

- a. Nuclear power plant operations,
- b. Nuclear engineering,
- c. Chemistry and radiochemistry,
- d. Metallurgy,
- e. Instrumentation and control,
- f. Radiological safety,

ADMINISTRATIVE CONTROLS

PROCEDURES AND PROGRAMS (Continued)

- e. Process Control Program implementation;
- f. ODCM implementation; and
- g. Quality Assurance Program implementation for effluent and environmental monitoring.
- h. Fire Protection Program implementation.

Major Procedures, supported by appropriate Minor Procedures (such as checkoff lists, operating instructions, data sheets, alarm responses, etc.), shall be provided for the above activities.* A Major Procedure is a procedure which controls safety-related activities, and establishes one or more basic controls, overall responsibilities, authority assignments or administrative and operational ground rules at the Wolf Creek plant. Major Procedures are written to meet the requirements of ANSI N18.7-1976/ANS 3.2 and generally are supported by Minor Procedures which provide delineation of details such as for valve lineups, calibration procedures, operating instructions, data sheets, alarm responses, and other procedures identified as "supporting." Major Procedures require signature approval in all cases by the Plant Manager or a Call Superintendent in his absence. A Minor Procedure is a procedure which controls safety-related activities in support of a Major Procedure. It addresses a specific topic or sub-topic established by its 'parent' Major Procedure, expanding on it by providing working level instructions. Minor Procedures are not permitted to contradict requirements contained in their governing Major Procedure. Minor Procedures require signature approval by the Plant Manager, or a Call Superintendent in his absence, only at Revision '0.'

6.8.2 Approval of Procedures

- a. All Major Procedures of the categories listed in Specification 6.8.1 and modifications to the intent thereof shall be reviewed by the PSRC and approved by the Plant Manager prior to implementation and reviewed periodically as set forth in Administrative Procedures.
- b. Minor Procedures (checkoff lists, operating instructions, data sheets, alarm responses, chemistry and analytical procedures, technical instructions, special and routine maintenance procedures, laboratory manuals, etc.) shall, prior to initial use, be approved by the PSRC or a Subcommittee thereof.
- c. Corporate Emergency Plan implementing procedures shall be reviewed by appropriate corporate and plant personnel and approved by the President and Chief Executive Officer as set forth in General Procedures.

*With the exception of Corporate Emergency Plan implementing procedures. Corporate Emergency Plan implementing procedures shall be provided but shall not be designated as major or minor procedures.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 15 TO FACILITY OPERATING LICENSE NO. NPF-42

KANSAS GAS & ELECTRIC COMPANY

KANSAS CITY POWER AND LIGHT COMPANY

KANSAS ELECTRIC POWER COOPERATIVE, INC.

WOLF CREEK GENERATING STATION

DOCKET NO. 50-482

1.0 INTRODUCTION

In Generic Letter 86-10, the staff recommended that licensees incorporate the approved fire protection program into the Final Safety Evaluation Report (Updated Safety Evaluation Report, (USAR) for Wolf Creek). This program includes the fire protection and post-fire safe shutdown systems necessary to satisfy staff guidelines and requirements, administrative and technical controls and procedures, the fire brigade and fire protection technical staff, and other plant features described in the USAR and staff safety evaluation reports.

Upon completion of this effort, including the certification required by 10 CFR 50.71(e)(2), licensees may then apply for an amendment to the operating license to substitute the standard fire protection license condition delineated in the generic letter. At the same time, licensees may request an amendment to delete the fire protection-related technical specifications which would be considered unnecessary.

By letters dated February 19, March 2 and April 17, 1987, the licensee submitted a request to amend the technical specifications and operating license in accordance with the above-referenced staff guidance. The information in these submittals included proposed USAR revisions. The staff reviewed this information and identified a number of questions/concerns with the licensee's proposals. By letter dated October 30, 1987, the licensee responded to those questions/concerns. The staff's evaluation of this information is as follows:

2.0 DISCUSSION

The licensee proposed to delete the following fire protection technical specifications:

- | | |
|-----------|---------------------------------|
| 3.3.3.8. | Fire Detection Instrumentation, |
| 3.7.10.1. | Fire Suppression Water System, |
| 3.7.10.2. | Spray and/or Sprinkler Systems, |
| 3.7.10.3. | Halon Systems, |
| 3.7.10.4. | Fire Hose Stations, |
| 3.7.11., | Fire Barrier Penetrations. |

The following fire protection technical specification will remain as is:

- 3.3.5. Remote Shutdown Instrumentation
- 6.2.2.a. Site Fire Brigade
- 6.5.2.8.e. and f. Fire Protection Audits

The licensee also proposed to revise Technical specifications 6.5.1.6 and 6.5.1.7, Plant Safety Review Committee (PSRC) responsibilities to provide specific reference to the requirement to review the plant fire protection program and submit recommended changes to the Nuclear Safety Review Committee. Technical Specification 6.8.1, Written Procedure Requirements, is revised to include the Fire Protection Program implementation.

In addition, although not specifically included in the technical specifications, the licensee committed in the October 30, 1987 letter to report significant degradations of fire protection features in accordance with the criteria contained in 10 CFR 50.72, 10 CFR 50.73 and 10 CFR Part 21.

3.0 EVALUATION

The staff had several concerns with the licensee's proposals, which necessitated additional written clarification. The first was that in removing certain technical specifications and relying upon the Fire Protection Program and procedures, the operating restrictions and surveillances for the fire protection features would be changed so as to be less conservative than either the original plant technical specifications or the Standard Technical Specifications. However, staff review of the information submitted in support of the amendment confirms that the operating restrictions and surveillances added to the Fire Protection Program and procedures are equivalent to those which were in the technical specifications. On this basis, the staff's concern has been resolved.

The staff was also concerned that all of the fire protection features which are necessary to satisfy staff fire protection guidelines and requirements and which were encompassed by the original technical specifications might not receive adequate surveillance. While it was initially clear that the licensee intended to carry out surveillance on features protecting safe-shutdown systems, it was not clear that all of the technical specification operating restrictions and surveillances for the relocated fire protection features would be included in the Fire Protection Program and procedures. The licensee responded that their commitments to surveil all fire protection features required to satisfy Appendix A to BTP APCSB 9.5-1 and Appendix R to 10 CFR Part 50 are not being changed in conjunction with the removal of certain fire protection technical specifications. The staff concludes that the scope of fire protection features to receive surveillance has not been reduced. On this basis, the staff's concern has been resolved.

The staff was also concerned that surveillance of all post-fire safe shutdown and alternate shutdown systems would not be conducted as stipulated in Generic Letter 81-12. The licensee has shown to the staff that the existing technical specifications are comprehensive with regard to post-fire shutdown systems and will remain unchanged. On this basis the staff's concern is resolved.

The licensee proposed to delete the shutdown requirement of specification 3.7.10.1 Action b. By letter dated October 30, 1987 the licensee stated that the requirements of specification 3.7.10.1 Action b., will be added to the USAR. The staff considers commitments made in the October 30, 1987 letter to be acceptable.

The staff was concerned that significant degradations of fire protection would not be reported to the staff. The licensee committed to report such degradations as described in the Discussion section above. The staff is currently reviewing the need for additional guidance and requirements concerning the reporting of fire protection deficiencies.

Finally, the staff was concerned that the entire fire protection program would not be included in the USAR. The USAR presently contains information such as the fire hazards analysis, responses to staff questions, fire protection commitments, comparisons of plant design to Appendix A to BTP APCSB, and the methodology for assuring conformance with Appendix R to 10 CFR 50, sections III.G, III.J., III.L. and III.O. The staff evaluated this information and found it acceptable as documented in the SER and in Supplements Nos. 3 and 4. The licensee has revised the USAR to incorporate the fire protection feature operating restrictions and surveillances which have been removed from the technical specifications. This conforms with the guidance issued in Generic Letter 86-10 and therefore is acceptable.

Based on the above evaluation the staff concludes that the licensee's proposed amendment conforms with the guidance issued in Generic Letter 86-10. The staff has also verified that the USAR contains the complete Wolf Creek Fire Protection Program.

4.0 ENVIRONMENTAL CONSIDERATION

The amendment involves a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 or in a surveillance requirement. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposures. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR Section 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

5.0 CONCLUSION

The staff has concluded, based on the considerations discussed above, that:
(1) there is reasonable assurance that the health and safety of the public will

not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Date: February 24, 1988

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