

July 23, 1997

Mr. Otto L. Maynard
President and Chief Executive Officer
Wolf Creek Nuclear Operating Corporation
Post Office Box 411
Burlington, Kansas 66839

Dear Mr. Maynard:

SUBJECT: WOLF CREEK GENERATING STATION - AMENDMENT NO. 108 TO FACILITY
OPERATING LICENSE NO. NPF-42 (TAC NO. M91899)

The Commission has issued the enclosed Amendment No. 108 to Facility Operating License No. NPF-42 for the Wolf Creek Generating Station. The amendment consists of changes to the Technical Specifications (TS) in response to your application dated February 17, 1997, which superseded the application dated March 24, 1995, that was supplemented by letter dated August 16, 1995.

The amendment revises the TS to move Table 3.6-1, "Containment Isolation Valves" to Wolf Creek Generating Station procedures. In addition, the TS have been modified to remove all references to Table 3.6-1. This change is in accordance with the guidance provided in Generic Letter 91-08, "Removal of Component Lists from Technical Specifications," dated May 6, 1991.

As an administrative action by the NRC, which only involves the format of the license and does not authorize any activities outside the scope of your application, the NRC amended the license to include an Appendix D which lists additional license conditions. Approval of the amendment to include a license condition and the associated Appendix D to the license was agreed to by your staff during a June 26, 1997, teleconference.

A copy of our Safety Evaluation is enclosed. The Notice of Issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,
Original Signed By
James C. Stone, Senior Project Manager
Project Directorate IV-2
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket No. 50-482

Enclosures: 1. Amendment No.108 to NPF-42
2. Safety Evaluation

cc w/encls: See next page

DISTRIBUTION

Docket File OGC, 015B18
PUBLIC WBateman
PDIV-2 Reading GHill (2)
EGAI WBeckner, 011E22
JRoe WJohnson, RIV
JStone ACRS
EPeyton PGwynn, RIV
LHurley, RIV TLH3
CLauron

DOCUMENT NAME: WC91899.AMD

OFC	PDIV-2/INT	PDIV-2	PDIV-2	TSB	OGC
NAME	CLauron	JStone	EPeyton	WBeckner	EMarino
DATE	6/30/97	6/30/97	6/27/97	7/1/97	7/18/97

OFFICIAL RECORD COPY

9708040108 970723
PDR ADDCK 05000482
PDR

ALL CENTER COPY

CP-1

Mr. Otto L. Maynard

- 2 -

July 23, 1997

cc w/encls:

Jay Silberg, Esq.
Shaw, Pittman, Potts & Trowbridge
2300 N Street, NW
Washington, D.C. 20037

Chief Operating Officer
Wolf Creek Nuclear Operating Corporation
P. O. Box 411
Burlington, Kansas 66839

Regional Administrator, Region IV
U.S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

Supervisor Licensing
Wolf Creek Nuclear Operating Corporation
P.O. Box 411
Burlington, Kansas 66839

Senior Resident Inspector
U.S. Nuclear Regulatory Commission
P. O. Box 311
Burlington, Kansas 66839

U.S. Nuclear Regulatory Commission
Resident Inspectors Office
8201 NRC Road
Steedman, Missouri 65077-1032

Chief Engineer
Utilities Division
Kansas Corporation Commission
1500 SW Arrowhead Road
Topeka, Kansas 66604-4027

Office of the Governor
State of Kansas
Topeka, Kansas 66612

Attorney General
Judicial Center
301 S.W. 10th
2nd Floor
Topeka, Kansas 66612

County Clerk
Coffey County Courthouse
Burlington, Kansas 66839

Vick L. Cooper, Chief
Radiation Control Program
Kansas Department of Health
and Environment
Bureau of Air and Radiation
Forbes Field Building 283
Topeka, Kansas 66620



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

WOLF CREEK NUCLEAR OPERATING CORPORATION

WOLF CREEK GENERATING STATION

DOCKET NO. 50-482

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 108
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 the Wolf Creek Nuclear Operating Corporation (the Corporation), dated February 17, 1997, 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.

9708040113 970723
PDR ADOCK 05000482
P PDR

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of Facility Operating License No. NPF-42 is hereby amended to read as follows:

2. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 108, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated in the license. The Corporation shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

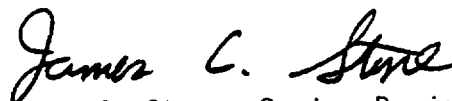
In addition, the license is amended to add paragraph 2.C.(15) to Facility Operating License No. NPF-42 as follows:*

(15) Additional Conditions

The Additional Conditions contained in Appendix D, as revised through Amendment No. 108, are hereby incorporated into this license. Wolf Creek Nuclear Operating Corporation shall operate the facility in accordance with the Additional Conditions.

3. The license amendment is effective as of its date of issuance and shall be implemented within 30 days from the date of issuance. Implementation of the license amendment shall include the relocation of certain technical specifications requirements to the appropriate licensee-controlled document as described in the licensee's application dated February 17, 1997, and evaluated in the staff's safety evaluation attached to this amendment.

FOR THE NUCLEAR REGULATORY COMMISSION



James C. Stone, Senior Project Manager
Project Directorate IV-2
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

- Attachments: 1. Changes to the Technical Specifications
2. Pages 6 and 7 to License
3. Appendix D - Additional Conditions

Date of Issuance: July 23, 1997

*Pages 6 and 7 are attached, for convenience, for the composite license to reflect this change.

ATTACHMENT TO LICENSE AMENDMENT NO. 108

FACILITY OPERATING LICENSE NO. NPF-42

DOCKET NO. 50-482

Replace the following pages of the Appendix A Technical Specifications with the attached pages. The revised pages are identified by Amendment number and contain marginal lines indicating the areas of change. The corresponding overleaf pages are also provided to maintain document completeness.

<u>REMOVE</u>	<u>INSERT</u>
IX	IX
1-2	1-2
3/4 6-1	3/4 6-1
3/4 6-16	3/4 6-16
3/4 6-17	3/4 6-17
3/4 6-18	--
3/4 6-19	--
3/4 6-20	--
3/4 6-21	--
3/4 6-22	--
3/4 6-23	--
3/4 6-24	--
3/4 6-25	--
3/4 6-26	--
3/4 6-27	--
3/4 6-28	--
3/4 6-29	--
3/4 6-30	--
B 3/4 6-4	B 3/4 6-4

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

<u>SECTION</u>	<u>PAGE</u>
3/4.5.2 ECCS SUBSYSTEMS - $T_{avg} \geq 350^{\circ}\text{F}$	3/4 5-3
3/4.5.3 ECCS SUBSYSTEMS - $T_{avg} < 350^{\circ}\text{F}$	3/4 5-7
3/4.5.4 ECCS SUBSYSTEMS - $T_{avg} \leq 200^{\circ}\text{F}$	3/4 5-9
3/4.5.5 REFUELING WATER STORAGE TANK.....	3/4 5-10
 <u>3/4.6 CONTAINMENT SYSTEMS</u>	
3/4.6.1 PRIMARY CONTAINMENT	
Containment Integrity.....	3/4 6-1
Containment Leakage.....	DELETED
Containment Air Locks.....	3/4 6-4
Internal Pressure.....	3/4 6-6
Air Temperature.....	3/4 6-7
Containment Vessel Structural Integrity.....	DELETED
Containment Ventilation System.....	3/4 6-11
 3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS	
Containment Spray System.....	3/4 6-13
Spray Additive System.....	3/4 6-14
Containment Cooling System.....	3/4 6-15
 3/4.6.3 CONTAINMENT ISOLATION VALVES.....	
TABLE 3.6-1	3/4 6-16
	DELETED
 3/4.6.4 COMBUSTIBLE GAS CONTROL	
Hydrogen Analyzers.....	DELETED
Hydrogen Control Systems.....	3/4 6-31
 <u>3/4.7 PLANT SYSTEMS</u>	
3/4.7.1 TURBINE CYCLE	
Safety Valves.....	3/4 7-1

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

<u>SECTION</u>	<u>PAGE</u>
TABLE 3.7-1 MAXIMUM ALLOWABLE POWER RANGE NEUTRON FLUX HIGH SETPOINT WITH INOPERABLE STEAM LINE SAFETY VALVES DURING FOUR LOOP OPERATION.....	3/4 7-2
TABLE 3.7-2 STEAM LINE SAFETY VALVES PER LOOP.....	3/4 7-3
Auxiliary Feedwater System.....	3/4 7-4
Condensate Storage Tank.....	3/4 7-6
Specific Activity.....	3/4 7-7
TABLE 4.7-1 SECONDARY COOLANT SYSTEM SPECIFIC ACTIVITY SAMPLE AND ANALYSIS PROGRAM.....	3/4 7-8
Main Steam Line Isolation Valves.....	3/4 7-9
Steam Generator Atmospheric Relief Valves	3/4 7-9a
Main Feedwater System	3/4 7-10
3/4.7.2 STEAM GENERATOR PRESSURE/TEMPERATURE LIMITATION.....	DELETED
3/4.7.3 COMPONENT COOLING WATER SYSTEM.....	3/4 7-11
3/4.7.4 ESSENTIAL SERVICE WATER SYSTEM.....	3/4 7-12
3/4.7.5 ULTIMATE HEAT SINK.....	3/4 7-13
3/4.7.6 CONTROL ROOM EMERGENCY VENTILATION SYSTEM.....	3/4 7-14
3/4.7.7 EMERGENCY EXHAUST SYSTEM.....	3/4 7-17
3/4.7.8 SNUBBERS.....	DELETED
TABLE 4.7-2 SNUBBER VISUAL INSPECTION INTERVAL	DELETED
FIGURE 4.7-1 SAMPLING PLAN 2) FOR SNUBBER FUNCTIONAL TEST.....	DELETED
3/4.7.9 SEALED SOURCE CONTAMINATION.....	DELETED

1.0 DEFINITIONS

The defined terms of this section appear in capitalized type and are applicable throughout these Technical Specifications.

ACTION

1.1 ACTION shall be that part of a Technical Specification which prescribes remedial measures required under designated conditions.

ACTUATION LOGIC TEST

1.2 An ACTUATION LOGIC TEST shall be the application of various simulated input combinations in conjunction with each possible interlock logic state and verification of the required logic output. The ACTUATION LOGIC TEST shall include a continuity check, as a minimum, of output devices.

ANALOG CHANNEL OPERATIONAL TEST

1.3 An ANALOG CHANNEL OPERATIONAL TEST shall be the injection of a simulated signal into the channel as close to the sensor as practicable to verify OPERABILITY of alarm, interlock and/or trip functions. The ANALOG CHANNEL OPERATIONAL TEST shall include adjustments, as necessary, of the alarm, interlock and/or Trip Setpoints such that the Setpoints are within the required range and accuracy.

AXIAL FLUX DIFFERENCE

1.4 AXIAL FLUX DIFFERENCE shall be the difference in normalized flux signals between the top and bottom halves of a two section excore neutron detector.

CHANNEL CALIBRATION

1.5 A CHANNEL CALIBRATION shall be the adjustment, as necessary, of the channel such that it responds within the required range and accuracy to known values of input. The CHANNEL CALIBRATION shall encompass the entire channel including the sensors and alarm, interlock and/or trip functions and may be performed by any series of sequential, overlapping, or total channel steps such that the entire channel is calibrated.

CHANNEL CHECK

1.6 A CHANNEL CHECK shall be the qualitative assessment of channel behavior during operation by observation. This determination shall include, where possible, comparison of the channel indication and/or status with other indications and/or status derived from independent instrument channels measuring the same parameter.

DEFINITIONS

CONTAINMENT INTEGRITY

1.7 CONTAINMENT INTEGRITY shall exist when:

- a. All penetrations required to be closed during accident conditions are either:
 - 1) Capable of being closed by an OPERABLE containment automatic isolation valve system, or
 - 2) Closed by manual valves, blind flanges, or deactivated automatic valves secured in their closed positions, except for valves that are open under administrative control as permitted by Specification 3.6.3.
- b. All equipment hatches are closed and sealed,
- c. Each air lock is in compliance with the requirements of Specification 3.6.1.3,
- d. The sealing mechanism associated with each penetration (e.g., welds, bellows, or O-rings) is OPERABLE, and
- e. The containment leakage rates determined by Specification 4.6.1.1.c are within limits.

CONTROLLED LEAKAGE

1.8 CONTROLLED LEAKAGE shall be that seal water flow from the reactor coolant pump seals.

CORE ALTERATION

1.9 CORE ALTERATION shall be the movement or manipulation of any component within the reactor vessel with the vessel head removed and fuel in the vessel. Suspension of CORE ALTERATION shall not preclude completion of movement of a component to a safe conservative position.

CORE OPERATING LIMITS REPORT

1.10 The CORE OPERATING LIMITS REPORT (COLR) is the unit-specific document that provides core operating limits for the current operating reload cycle. These cycle-specific core operating limits shall be determined for each reload cycle in accordance with Specification 6.9.1.9. Plant operation within these operating limits is addressed in individual Specifications.

3/4.6 CONTAINMENT SYSTEMS

3/4.6.1 PRIMARY CONTAINMENT

CONTAINMENT INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.1.1 Primary CONTAINMENT INTEGRITY shall be maintained.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

Without primary CONTAINMENT INTEGRITY, restore CONTAINMENT INTEGRITY within 1 hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.1 Primary CONTAINMENT INTEGRITY shall be demonstrated:

- a. At least once per 31 days by verifying that all penetrations* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in their positions, except for valves that are open under administrative control as permitted by Specification 3.6.3;
- b. By verifying that each containment air lock is in compliance with the requirements of Specification 3.6.1.3;
- c. By performing containment leakage rate testing in accordance with the Containment Leakage Rate Testing Program of Specification 6.8.4.i; and
- d. By verifying containment structural integrity in accordance with the Containment Tendon Surveillance Program of Specification 6.8.5.c.

*Except valves, blind flanges, and deactivated automatic valves which are located inside the containment and are locked, sealed, or otherwise secured in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except that such verification need not be performed more often than once per 92 days.

CONTAINMENT SYSTEMS

CONTAINMENT AIR LOCKS

LIMITING CONDITION FOR OPERATION

3.6.1.3 Each containment air lock shall be OPERABLE with both doors closed except when the air lock is being used for normal transit and exits through the containment, then at least one air lock door shall be closed.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

- a. With one containment air lock door inoperable:
 1. Maintain at least the OPERABLE air lock door closed and either restore the inoperable air lock door to OPERABLE status within 24 hours or lock the OPERABLE air lock door closed,
 2. Operation may then continue until performance of the next required overall air lock leakage test provided that the OPERABLE air lock door is verified to be locked closed at least once per 31 days,
 3. Otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours, and
 4. The provisions of Specification 3.0.4 are not applicable.
- b. With the containment air lock inoperable, except as the result of an inoperable air lock door, maintain at least one air lock door closed; restore the inoperable air lock to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

CONTAINMENT SYSTEMS

CONTAINMENT COOLING SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.2.3 Two independent groups of containment cooling fans shall be OPERABLE with two fan systems to each group.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

- a. With one group of the above required containment cooling fans inoperable and both Containment Spray Systems OPERABLE, restore the inoperable group of cooling fans to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With two groups of the above required containment cooling fans inoperable and both Containment Spray Systems OPERABLE, restore at least one group of cooling fans to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore both above required groups of cooling fans to OPERABLE status within 7 days of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- c. With one group of the above required containment cooling fans inoperable and one Containment Spray System inoperable, restore the inoperable Containment Spray System to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. Restore the inoperable group of containment cooling fans to OPERABLE status within 7 days of initial loss or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.2.3 Each group of containment cooling fans shall be demonstrated OPERABLE:

- a. At least once per 31 days by:
 - 1) Starting each non-operating fan group from the control room, and verifying that each fan group operates for at least 15 minutes.
 - 2) Verifying that each valve (manual, power-operated, or automatic) in the cooling water flow path serving the containment coolers that is not locked, sealed, or otherwise secured in position, is in its correct position.
- b. At least once per 18 months by verifying that on a Safety Injection test signal, the fans start in slow speed or, if operating, shift to slow speed and the cooling water flow rate increases to at least 2000 gpm to each cooler group.

CONTAINMENT SYSTEMS

3/4.6.3 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.3 Each containment isolation valve shall be OPERABLE*.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With one or more containment isolation valve(s) inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open and:

- a. Restore the inoperable valve(s) to OPERABLE status within 4 hours, or
- b. Isolate each affected penetration within 4 hours by use of at least one deactivated automatic valve secured in the isolation position, or
- c. Isolate each affected penetration within 4 hours by use of at least one closed manual valve or blind flange, or
- d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- e. The provisions of Specification 3.0.4 do not apply.

SURVEILLANCE REQUIREMENTS

4.6.3.1 Each power-operated or automatic containment isolation valve shall be demonstrated OPERABLE prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by performance of a cycling test, and verification of isolation time.

*Locked or sealed-closed valves may be opened on an intermittent basis under administrative control.

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

4.6.3.2 Each power-operated or automatic containment isolation valve shall be demonstrated OPERABLE during the COLD SHUTDOWN or REFUELING MODE at least once per 18 months by:

- a. Verifying that on a Phase "A" Isolation test signal, each Phase "A" isolation valve actuates to its isolation position;
- b. Verifying that on a Phase "B" Isolation test signal, each Phase "B" isolation valve actuates to its isolation position; and
- c. Verifying that on a Containment Purge Isolation test signal, each purge supply and exhaust isolation valve actuates to its isolation position.

4.6.3.3 The isolation time of each power operated or automatic containment isolation valve shall be determined to be within its limit when tested pursuant to Specification 4.0.5.

CONTAINMENT SYSTEMS

HYDROGEN CONTROL SYSTEMS

LIMITING CONDITION FOR OPERATION

3.6.4.2 A Hydrogen Control System shall be OPERABLE with two independent Hydrogen Recombiner Systems.

APPLICABILITY: MODES 1 and 2

ACTION:

With one of the two independent Hydrogen Recombiner Systems inoperable, restore the inoperable Hydrogen Recombiner System to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 6 hours.

SURVEILLANCE REQUIREMENTS

4.6.4.2 Each Hydrogen Recombiner System shall be demonstrated OPERABLE:

- a. At least once per 6 months by verifying, during a Hydrogen Recombiner System functional test, that the heater air temperature increases to greater than or equal to 1150°F within 5 hours; and
- b. At least once per 18 months by:
 - 1) Performing a CHANNEL CALIBRATION of all hydrogen recombiner system instrumentation and control circuits,
 - 2) Verifying through a visual examination that there is no evidence of abnormal conditions within the hydrogen recombiner system enclosure (i.e., loose wiring or structural connections, deposits of foreign materials, etc.), and
 - 3) Verifying the integrity of all heater electrical circuits by performing a resistance to ground test following the above required functional test. The resistance to ground for any heater phase shall be greater than or equal to 10,000 ohms.

CONTAINMENT SYSTEMS

BASES

3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS

3/4.6.2.1 CONTAINMENT SPRAY SYSTEM

The OPERABILITY of the Containment Spray System ensures that containment depressurization and cooling capability will be available in the event of a LOCA or steam line break. The pressure reduction and resultant lower containment leakage rate are consistent with the assumptions used in the safety analyses.

The Containment Spray System and the Containment Cooling System are redundant to each other in providing post-accident cooling of the containment atmosphere. However, the Containment Spray System also provides a mechanism for removing iodine from the containment atmosphere and therefore the time requirements for restoring an inoperable Spray System to OPERABLE status have been maintained consistent with that assigned other inoperable ESF equipment.

3/4.6.2.2 SPRAY ADDITIVE SYSTEM

The OPERABILITY of the Spray Additive System ensures that sufficient NaOH is added to the containment spray in the event of a LOCA. The limits on NaOH volume and concentration ensure a pH value of between 8.5 and 11.0 for the solution recirculated within containment after a LOCA. This pH band minimizes the evolution of iodine and minimizes the effect of chloride and caustic stress corrosion on mechanical systems and components. The contained solution volume limit includes an allowance for solution not usable because of tank discharge line location or other physical characteristics. The educator flow test of 52 gpm with RWST water is equivalent to 40 gpm NaOH solution. These assumptions are consistent with the iodine removal efficiency assumed in the safety analyses.

3/4.6.2.3 CONTAINMENT COOLING SYSTEM

The OPERABILITY of the Containment Cooling System ensures that: (1) the containment air temperature will be maintained within limits during normal operation, and (2) adequate heat removal capacity is available when operated in conjunction with the Containment Spray Systems during post-LOCA conditions. The required design cooling water flow to the Containment Cooling System is verified by the surveillance testing requirements of Specification 4.6.2.3(b) which is performed at 18 month intervals. The testing requirements of Specification 4.6.2.3(a), performed at 31 day intervals, ensure that the fan units and the cooling water flow paths (supply and return) from the Essential Service Water System headers are OPERABLE.

The Containment Cooling System and the Containment Spray System are redundant to each other in providing post accident cooling of the containment atmosphere. As a result of this redundancy in cooling capability, the allowable out-of-service time requirements for the Containment Cooling System have been appropriately adjusted. However, the allowable out-of-service time

CONTAINMENT SYSTEMS

BASES

CONTAINMENT COOLING SYSTEM (Continued)

requirements for the Containment Spray System have been maintained consistent with that assigned other inoperable ESF equipment since the Containment Spray System also provides a mechanism for removing iodine from the containment atmosphere.

3/4.6.3 CONTAINMENT ISOLATION VALVES

The OPERABILITY of the containment isolation valves ensures that the containment atmosphere will be isolated from the outside environment in the event of a release of radioactive material to the containment atmosphere or pressurization of the containment and is consistent with the requirements of GDC54 thru 57 of Appendix A to 10 CFR Part 50. Containment isolation within the time limits specified for those isolation valves designed to close automatically ensures that the release of radioactive material to the environment will be consistent with the assumptions used in the analyses for a LOCA.

The opening of locked or sealed-closed containment isolation valves on an intermittent basis under administrative control includes the following considerations: (1) stationing a dedicated individual, who is in constant communication with the control room, at the valve controls, (2) instructing this individual to close these valves in an accident situation, and (3) assuring that environmental conditions will not preclude access to close the valves and that this action will prevent the release of radioactivity outside the containment.

3/4.6.4 COMBUSTIBLE GAS CONTROL

The OPERABILITY of the equipment and systems required for the control of hydrogen gas ensures that this equipment will be available to maintain the hydrogen concentration within containment below its flammable limit during post-LOCA conditions. Either recombiner unit is capable of controlling the expected hydrogen generation associated with: (1) zirconium-water reactions, (2) radiolytic decomposition of water, and (3) corrosion of metals within containment. Operation of the Emergency Exhaust System with the heaters operating for at least 10 continuous hours in a 31-day period is sufficient to reduce the buildup of moisture on the adsorbers and HEPA filters. These Hydrogen Control Systems are consistent with the recommendations of Regulatory Guide 1.7, "Control of Combustible Gas Concentrations in Containment Following a Loss-of-Coolant Accident," Revision 2, November 1978.

Adequate mixing of the containment atmosphere following a LOCA is ensured by natural circulation without reliance on a hydrogen mixing systems. This mixing action will prevent localized accumulations of hydrogen from exceeding the flammable limit.

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

Prior to restart following the first refueling outage, the Operating Corporation 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.

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

Prior to restart following the first refueling outage, the Operating Corporation shall submit for NRC review and approval a reanalysis for the worst large break LOCA using an approved ECCS evaluation model.

(13) Generic Letter 83-28

The Operating Corporation shall submit responses to and implement the requirements of Generic Letter 83-28 on a schedule which is consistent with that given in their February 29, 1984 and February 6, 1985 letters.

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

The Operating Corporation 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.

(15) Additional Conditions

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

- D. Exemptions from certain requirements of Appendix J to 10 CFR Part 50, and from a portion of the requirements of General Design Criterion 4 of Appendix A to 10 CFR Part 50, are described in the Safety Evaluation Report. These exemptions are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest. Therefore, these exemptions are hereby granted pursuant to 10 CFR 50.12. With the granting of these exemptions the facility will operate, to the extent authorized herein, in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.

- E. The licensee shall fully implement and maintain in effect all provisions of the Commission-approved physical security, guard training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plans, which contain Safeguards Information protected under 10 CFR 73.21, are entitled: "Wolf Creek Generating Station Physical Security Plan," with revisions submitted through August 2, 1988; "Wolf Creek Generating Station Security Training and Qualification Plan," with revisions submitted through August 2, 1988; and "Wolf Creek Generating Station Safeguards Contingency Plan," with revisions submitted through August 2, 1988. Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein.
- 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

"Original Signed By"

Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Attachments/Appendices:

- 1. Attachment 1 - Deleted
- 2. Attachment 2 - Operating Staff Experience Requirements
- 3. Attachment 3 - NUREG-0737, Supplement 1, Requirements
- 4. Appendix A - Technical Specifications (NUREG-1136)
- 5. Appendix B - Environmental Protection Plan
- 6. Appendix C - Antitrust Conditions
- 7. Appendix D - Additional Conditions

Date of Issuance: June 4, 1985

APPENDIX D

ADDITIONAL CONDITIONS

FACILITY OPERATING LICENSE NO. NPF-42

Wolf Creek Nuclear Operating Corporation shall comply with the following conditions on the schedules noted below:

<u>Amendment Number</u>	<u>Additional Condition</u>	<u>Implementation Date</u>
108	The licensee is authorized to relocate certain technical specification requirements to licensee-controlled documents. Implementation of this amendment shall include the relocation of these technical specification requirements to the appropriate documents, as described in the licensee's application dated February 17, 1997, and evaluated in the staff's safety evaluation dated July 23, 1997.	The amendment shall be implemented 30 days from the date of issuance.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 108 TO FACILITY OPERATING LICENSE NO. NPF-42

WOLF CREEK NUCLEAR OPERATING CORPORATION

WOLF CREEK GENERATING STATION

DOCKET NO. 50-482

1.0 INTRODUCTION

By letter dated February 17, 1997, Wolf Creek Nuclear Operating Corporation (the licensee) requested changes to the Technical Specifications (Appendix A to Facility Operating License No. NPF-42) for the Wolf Creek Generating Station (WCGS). The proposed changes would move Technical Specification (TS) Table 3.6-1, "Containment Isolation Valves" to WCGS procedures which are subject to the change control provisions in the Administrative Controls Section of the WCGS TS. The movement of this table would require revision of Definition 1.7, "Containment Integrity," TS 3/4.6.1, "Containment Integrity," and TS 3/4.6.3 "Containment Isolation Valves" to delete reference to Table 3.6-1. These changes are in accordance with the guidance provided in Generic Letter (GL) 91-08, "Removal of Component Lists from Technical Specifications," dated May 6, 1991. Bases Section 3/4.6.3 will also be revised in accordance with the guidance provided in GL 91-08.

2.0 BACKGROUND

Section 182a of the Atomic Energy Act of 1954, as amended (the Act) requires applicants for nuclear power plant operating licenses to include technical specifications as part of the license. The Commission's regulatory requirements related to the content of technical specifications are set forth in 10 CFR 50.36. That regulation requires that the technical specifications include items in five specific categories, including (1) safety limits, limiting safety system settings and limiting control settings; (2) limiting conditions for operation; (3) surveillance requirements; (4) design features; and (5) administrative controls. The regulation does not specify the particular requirements to be included in the technical specifications.

The Commission, however, provided guidance for technical specification contents in its "Final Policy Statement on Technical Specification Improvements for Nuclear Power Reactors," which was published in the Federal Register at 58 FR 39132 (July 22, 1993). The Commission indicated therein that compliance with its Final Policy Statement satisfies Section 182a of the Act. Criteria for the content of technical specifications were subsequently incorporated into 10 CFR 50.36, cf. 60 FR 36953 (July 19, 1995). In particular, the Commission indicated that certain items could be relocated

from the technical specifications to licensee-controlled documents, consistent with the standard enunciated in *Portland General Electric Co.* (Trojan Nuclear Plant), ALAB-531, 9 NRC 263, 273 (1979). In that case, the Atomic Safety and Licensing Appeal Board indicated that "technical specifications are to be reserved for those matters as to which the imposition of rigid conditions or limitations upon reactor operation is deemed necessary to obviate the possibility of an abnormal situation or event giving rise to an immediate threat to the public health and safety."

The four criteria defined by 10 CFR 50.36 for determining whether a particular matter is required to be included in the technical specification limiting conditions for operation, are as follows:

- (1) Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary;
- (2) a process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier;
- (3) a structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier;
- (4) a structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

Existing technical specification requirements which fall within or satisfy any of the above criteria must be retained in the Technical Specifications; those requirements which do not fall within or satisfy these criteria may be relocated to other licensee-controlled documents.

3.0 EVALUATION

The licensee has proposed the removal of Table 3.6-1, "Containment Isolation Valves," from the TS to WCGS plant procedures. With the removal of this Table from the TS, the licensee has proposed the following changes:

- The statement of the Limiting Condition for Operation (LCO) under TS 3.6.3 would include:

Each containment isolation valve shall be OPERABLE.

- The definition of containment integrity (1.7), TS 4.6.1.1a, and TS 4.6.3.1 through 4.6.3.3 would be changed to remove all references to Table 3.6-1.

- The following footnote to LCO 3.6.3 has been proposed:

Locked or sealed closed valves may be opened on an intermittent basis under administrative control.

- The definition of containment integrity and TS 4.6.1.1a would now refer to TS 3.6.3 for the exception that is now contained in a footnote to the LCO rather than Table 3.6-1, as discussed above. With the removal of the reference to Table 3.6-1, the licensee has proposed to state this exception as:

...except for valves that are open under administrative control as permitted by Specification 3.6.3.

- The surveillance requirements of TS 4.6.3.1 through 4.6.3.3 would be revised to state "Each power-operated or automatic containment isolation valve shall ..." rather than stating the requirements in relation to the valves specified in Table 3.6-1.
- In order to model the TS after the guidance in GL 91-08, the following statement has been added as ACTION e to the LCO for TS 3.6.3:

e. The provisions of Specification 3.0.4 do not apply.

The movement of Table 3.6-1 would not alter the limiting conditions for operation, surveillance requirements, or action statements of the TS associated with the containment (i.e., TS 3/4.6.1 "Containment Integrity," and TS 3/4.6.3 "Containment Isolation Valves").

Generic letter 91-08, dated May 6, 1991, provided guidance to licensees on the removal of component lists from plant TS and on the placement of these lists into plant procedures which are subject to the change control provisions specified in the TS. The movement of component lists to plant-controlled documents allows for timely updates of the lists without the formal requirement of a TS amendment.

The removal of Table 3.6-1 from the TS to administratively controlled procedures is editorial in nature and does not result in any physical change to the plant. In accordance with the provisions of GL 91-08, which allow lists removed from the TS to be relocated to controlled documents, Table 3.6-1 will be placed in plant procedures. Any changes to the plant procedures would be performed in accordance with the TS, Section 6, Administrative Controls, which provides a process similar to 10 CFR 50.59. In addition, the Updated Safety Analysis Report (USAR) currently contains a list of containment isolation valves, including valve closure times, in Figure 6.2.4-1 and will be maintained. Thus, any change to the containment isolation valve list would constitute a change to the facility, and would be subject to the provisions of 10 CFR 50.59.

If the licensee determines from the 50.59 process that an unreviewed safety question resulting from a change would exist, due to either (1) an increase in the probability or consequences of accidents or malfunctions of equipment important to safety, (2) the creation of a possibility of an accident or malfunction of a different type than any evaluated previously, or (3) a reduction in the margin of safety, NRC approval via license amendment would be required prior to implementation of the change.

The licensee has proposed TS changes that reflect the information previously located in TS Table 3.6.1 and these changes are consistent with the guidance provided in GL 91-08. In addition, the licensee has provided an updated copy of the Bases Section of TS 3.6.3 that addresses appropriate considerations for opening locked or sealed closed valves on an intermittent basis. Finally, the licensee has confirmed that component lists removed from the TS have been updated to identify all components for which the TS requirements apply. These lists are located in controlled plant procedures and are currently in the USAR, Figure 6.2.4-1.

The Limiting Conditions for Operation (LCO) associated with containment integrity are being retained in the TS. Therefore, the operability requirements for the containment isolation valves has not changed. Only the list of valves is being relocated, which does not meet any of the four criteria to be retained in the TS as defined by 10 CFR 50.36.

On the basis of its review on this matter, the staff finds that the proposed changes to the TS for the Wolf Creek Generating Station are changes that do not alter the requirements set forth in the existing TS. However, the applicability of the operability requirements will extend to all containment isolation valves as noted in this evaluation. These changes will allow the licensee to make corrections and updates to the list of components for which these TS requirements apply under the provisions that control changes to plant procedures as specified in the Administrative Controls Section of the TS. Therefore, the staff finds that the proposed TS changes are acceptable.

4.0 STATE CONSULTATION

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

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no

public comment on such finding (62 FR 19838). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 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.

6.0 CONCLUSION

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

Principal Contributors: J. Stone
C. Lauron

Date: July 23, 1997