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March 1, 2000

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

SUBJECT: WOLF CREEK GENERATING STATION - ISSUANCE OF AMENDMENT RE: MODIFICATION OF IMPROVED TECHNICAL SPECIFICATIONS (TAC NO. MA7792)

Dear Mr. Maynard:

The Commission has issued the enclosed Amendment No. 132 to Facility Operating License No. NPF-42 for the Wolf Creek Generating Station. The amendment consists of changes to the Technical Specifications (TSs) in response to your application dated December 15, 1999 (ET 99-0050).

The amendment modifies the improved TSs that were issued in Amendment No. 123 on March 31, 1999, and implemented on December 18, 1999. The changes expand the region of acceptable reactor coolant pump (RCP) seal injection flow to each RCP in Figure 3.5.5-1 and provided 10 editorial changes to the improved TSs.

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

Sincerely,

/RA/

Jack Donohew, Senior Project Manager, Section 2
Project Directorate IV & Decommissioning
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-482

Enclosures: 1. Amendment No. 132 to NPF-42
2. Safety Evaluation

cc w/encls: See next page

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CONC:					Seal injection flow		Editorial changes				
DATE	2/1/2000		01/24/2000		2/1/00		2/4/00		2/22/00		2/28/00

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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. 132
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 December 15, 1999, 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.

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. 132 , and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated in the license. The Corporation shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. The license amendment is effective as of its date of issuance and shall be implemented within 60 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Stephen Dembek, Chief, Section 2
Project Directorate IV & Decommissioning
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: March 1, 2000

ATTACHMENT TO LICENSE AMENDMENT NO. 132

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.

REMOVE	INSERT
iii	iii
3.3-15	3.3-15
3.3-18	3.3-18
3.3-27	3.3-27
3.3-34	3.3-34
3.3-36	3.3-36
3.3-54	3.3-54
3.5-12	3.5-12
3.7-2	3.7-2
3.7-28	3.7-28
3.7-29	3.7-29
3.7-30	3.7-30
3.7-31	3.7-31
3.8-23	3.8-23

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TABLE OF CONTENTS

Table 3.3.1-1 (page 1 of 6)
Reactor Trip System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE (a)
1. Manual Reactor Trip	1,2	2	B	SR 3.3.1.14	NA
	3(b), 4(b), 5(b)	2	C	SR 3.3.1.14	NA
2. Power Range Neutron Flux					
a. High	1,2	4	D	SR 3.3.1.1 SR 3.3.1.2 SR 3.3.1.7 SR 3.3.1.11 SR 3.3.1.16	≤ 112.3% RTP
b. Low	1(c),2	4	E	SR 3.3.1.1 SR 3.3.1.8 SR 3.3.1.11 SR 3.3.1.16	≤ 28.3% RTP
3. Power Range Neutron Flux Rate					
a. High Positive Rate	1,2	4	E	SR 3.3.1.7 SR 3.3.1.11	≤ 6.3% RTP with time constant ≥ 2 sec
b. High Negative Rate	1,2	4	E	SR 3.3.1.7 SR 3.3.1.11 SR 3.3.1.16	≤6.3% RTP with time constant ≥ 2 sec
4. Intermediate Range Neutron Flux	1(c), 2(d)	2	F,G	SR 3.3.1.1 SR 3.3.1.8 SR 3.3.1.11	≤ 35.3% RTP
5. Source Range Neutron Flux	2(e)	2	I,J	SR 3.3.1.1 SR 3.3.1.8 SR 3.3.1.11	≤ 1.6 E5 cps
	3(b), 4(b), 5(b)	2	J,K	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.11	≤ 1.6 E5 cps

(continued)

(a) The Allowable Value defines the Limiting Safety System Setting. See the Bases for the Trip Setpoints.
(b) With Rod Control System capable of rod withdrawal or one or more rods not fully inserted.
(c) Below the P-10 (Power Range Neutron Flux) interlock.
(d) Above the P-6 (Intermediate Range Neutron Flux) interlock.
(e) Below the P-6 (Intermediate Range Neutron Flux) interlock.

Table 3.3.1-1 (page 2 of 6)
Reactor Trip System Instrumentation

	FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE [a]
6.	Overtemperature ΔT	1,2	4	E	SR 3.3.1.1 SR 3.3.1.3 SR 3.3.1.6 SR 3.3.1.7 SR 3.3.1.10 SR 3.3.1.16	Refer to Note 1 (Page 3.3-19)
7.	Overpower ΔT	1,2	4	E	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10 SR 3.3.1.16	Refer to Note 2 (Page 3.3-20)
8.	Pressurizer Pressure					
	a. Low	1[g]	4	M	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10 SR 3.3.1.16	≥ 1931 psig
	b. High	1,2	4	E	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10 SR 3.3.1.16	≤ 2400 psig
9.	Pressurizer Water Level - High	1[g]	3	M	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10	≤ 93.9% of instrument span
10.	Reactor Coolant Flow - Low	1[g]	3 per loop	M	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10 SR 3.3.1.16	≥ 88.9%[m]
11.	Not Used.					
12.	Undervoltage RCPs	1[g]	2/bus	M	SR 3.3.1.9 SR 3.3.1.10 SR 3.3.1.16	≥ 10355 Vac

(continued)

(a) The Allowable Value defines the Limiting Safety System Setting. See the Bases for the Trip Setpoints.
(g) Above the P-7 (Low Power Reactor Trips Block) interlock.
(m) % of design flow - 90,324 gpm.

Table 3.3.1-1 (page 3 of 6)
Reactor Trip System Instrumentation

	FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE (a)
13.	Underfrequency RCPs	1(g)	2/bus	M	SR 3.3.1.9 SR 3.3.1.10 SR 3.3.1.16	≥ 57.1 Hz
14.	Steam Generator (SG) Water Level Low-Low (l)	1,2	4 per gen	E	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.10 SR 3.3.1.16	≥ 22.3% of Narrow Range Instrument Span
15.	Not Used.					
16.	Turbine Trip					
	a. Low Fluid Oil Pressure	1(j)	3	O	SR 3.3.1.10 SR 3.3.1.15	≥ 534.20 psig
	b. Turbine Stop Valve Closure	1(j)	4	P	SR 3.3.1.10 SR 3.3.1.15	≥ 1% open
17.	Safety Injection (SI) Input from Engineered Safety Feature Actuation System (ESFAS)	1,2	2 trains	Q	SR 3.3.1.14	NA
18.	Reactor Trip System Interlocks					
	a. Intermediate Range Neutron Flux, P-6	2(e)	2	S	SR 3.3.1.11 SR 3.3.1.13	≥ 6E-11 amp
	b. Low Power Reactor Trips Block, P-7	1	1 per train	T	SR 3.3.1.5	NA
	c. Power Range Neutron Flux, P-8	1	4	T	SR 3.3.1.11 SR 3.3.1.13	≤ 51.3% RTP

(continued)

(a) The Allowable Value defines the Limiting Safety System Setting. See the Bases for the Trip Setpoints.
(e) Below the P-6 (Intermediate Range Neutron Flux) interlocks.
(g) Above the P-7 (Low Power Reactor Trips Block) interlock.
(l) The applicable MODES for these channels are more restrictive in Table 3.3.2-1. (See Function 6.d.)
(j) Above the P-9 (Power Range Neutron Flux) interlock.

Table 3.3.1-1 (page 4 of 6)
Reactor Trip System Instrumentation

	FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE (a)
18.	(continued)					
	d. Power Range Neutron Flux, P-9	1	4	T	SR 3.3.1.11 SR 3.3.1.13	≤ 53.3% RTP
	e. Power Range Neutron Flux, P-10	1,2	4	S	SR 3.3.1.11 SR 3.3.1.13	≥ 6.7% RTP and ≤ 13.3% RTP
	f. Turbine Impulse Pressure, P-13	1	2	T	SR 3.3.1.10 SR 3.3.1.13	≤ 12.4% turbine power
19.	Reactor Trip Breakers (RTB) (k)	1,2	2 trains	R	SR 3.3.1.4	NA
		3(b), 4(b), 5(b)	2 trains	C	SR 3.3.1.4	NA
20.	Reactor Trip Breaker Undervoltage and Shunt Trip Mechanisms (k)	1,2	1 each per RTB	U	SR 3.3.1.4	NA
		3(b), 4(b), 5(b)	1 each per RTB	C	SR 3.3.1.4	NA
21.	Automatic Trip Logic	1,2	2 trains	Q	SR 3.3.1.5	NA
		3(b), 4(b), 5(b)	2 trains	C	SR 3.3.1.5	NA

(a) The Allowable Value defines the Limiting Safety System Setting. See the Bases for the Trip Setpoints.
(b) With Rod Control System capable of rod withdrawal or one or more rods not fully inserted.
(k) Including any reactor trip bypass breakers that are racked in and closed for bypassing an RTB.

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
L. One or more required channel(s) inoperable.	L.1 Verify interlock is in required state for existing unit condition. OR L.2.1 Be in MODE 3. AND L.2.2 Be in MODE 4.	1 hour 7 hours 13 hours
M. One channel inoperable.	----------NOTE---------- LCO 3.0.4 is not applicable. ---------- M.1 Place channel in trip. AND M.2 Restore channel to OPERABLE status.	 1 hour During performance of next COT
N. One train inoperable.	----------NOTE---------- One train may be bypassed for up to 2 hours for surveillance testing provided the other train is OPERABLE. ---------- N.1 Be in MODE 3. AND N.2 Be in MODE 4.	 6 hours 12 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
O. One or more channels inoperable.	O.1 Declare associated auxiliary feedwater pump(s) inoperable.	Immediately
P. One or both train(s) inoperable.	P.1 Restore train(s) to OPERABLE status. OR P.2.1 Be in MODE 3. AND P.2.2 Be in MODE 4.	48 hours 54 hours 60 hours

SURVEILLANCE REQUIREMENTS

NOTE
Refer to Table 3.3.2-1 to determine which SRs apply for each ESFAS Function.

SURVEILLANCE		FREQUENCY
SR 3.3.2.1	Perform CHANNEL CHECK.	12 hours
SR 3.3.2.2	Perform ACTUATION LOGIC TEST.	31 days on a STAGGERED TEST BASIS

(continued)

Table 3.3.2-1 (page 2 of 5)
Engineered Safety Feature Actuation System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE (a)
3. Containment Isolation					
a. Phase A Isolation					
(1) Manual Initiation	1,2,3,4	2	B	SR 3.3.2.8	NA
(2) Automatic Actuation Logic and Actuation Relays	1,2,3,4	2 trains	C	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6 SR 3.3.2.13	NA
(3) Safety Injection	Refer to Function 1 (Safety Injection) for all initiation functions and requirements.				
b. Phase B Isolation					
(1) Manual Initiation	1,2,3,4	2 per train, 2 trains	B	SR 3.3.2.8	NA
(2) Automatic Actuation Logic and Actuation Relays	1,2,3,4	2 trains	C	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA
(3) Containment Pressure - High 3	1,2,3	4	E	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 SR 3.3.2.10	≤ 28.3 psig
4. Steam Line Isolation					
a. Manual Initiation	1,2(i), 3(i)	2	F	SR 3.3.2.8	NA
b. Automatic Actuation Logic and Actuation Relays	1,2(i), 3(i)	2 trains	G	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA
c. Containment Pressure - High 2	1,2(i), 3(i)	3	D	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 SR 3.3.2.10	≤ 18.3 psig

(continued)

(a) The Allowable Value defines the Limiting Safety System Setting. See the Bases for the Trip Setpoints.
(i) Except when all MSIVs are closed.

Table 3.3.2-1 (page 3 of 5)
Engineered Safety Feature Actuation System Instrumentation

	FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE [a]
4.	Steam Line Isolation (continued)					
	d. Steam Line Pressure	1,2[i], 3[b][i]	3 per steam line	D	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 SR 3.3.2.10	≥ 571 psig[c]
	(1) Low					
	(2) Negative Rate - High	3[g][i]	3 per steam line	D	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 SR 3.3.2.10	≤ 125[h] psi
5.	Turbine Trip and Feedwater Isolation					
	a. Automatic Actuation Logic and Actuation Relays	1,2[j]	2 trains	H	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6 SR 3.3.2.14	NA
	b. SG Water Level -High High (P-14)	1,2[j]	4 per SG	I	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 SR 3.3.2.10	≤ 79.7% of Narrow Range Instrument Span
	c. Safety Injection	Refer to Function 1 (Safety Injection) for all initiation functions and requirements.				

(continued)

(a) The Allowable Value defines the Limiting Safety System Setting. See the Bases for the Trip Setpoints.
(b) Above the P-11 (Pressurizer Pressure) Interlock and below P-11 unless the Function is blocked.
(c) Time constants used in the lead/lag controller are $t_1 \geq 50$ seconds and $t_2 \leq 5$ seconds.
(g) Below the P-11 (Pressurizer Pressure) Interlock; however, may be blocked below P-11 when safety injection on low steam line pressure is not blocked.
(h) Time constant utilized in the rate/lag controller is ≥ 50 seconds.
(i) Except when all MSIVs are closed.
(j) Except when all MFIVs are closed.

Table 3.3.2-1 (page 4 of 5)
Engineered Safety Feature Actuation System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE (a)
6. Auxiliary Feedwater					
a. Manual Initiation	1,2,3	1 per pump	O	SR 3.3.2.8	NA
b. Automatic Actuation Logic and Actuation Relays (Solid State Protection System)	1,2,3	2 trains	G	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA
c. Automatic Actuation Logic and Actuation Relays (Balance of Plant ESFAS)	1,2,3	2 trains	N	SR 3.3.2.3	NA
d. SG Water Level Low - Low	1,2,3	4 per SG	D	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 SR 3.3.2.10	≥ 22.3% of Narrow Range Instrument Span
e. Safety Injection	Refer to Function 1 (Safety Injection) for all initiation functions and requirements.				
f. Loss of Offsite Power	1,2,3	2 trains	P	SR 3.3.2.7	NA
g. Trip of all Main Feedwater Pumps	1	2 per pump	J	SR 3.3.2.8	NA
h. Auxiliary Feedwater Pump Suction Transfer on Suction Pressure - Low	1,2,3	3	M	SR 3.3.2.1 SR 3.3.2.9 SR 3.3.2.12	≥ 20.53 psia

(continued)

(a) The Allowable Value defines the Limiting Safety System Setting. See the Bases for the Trip Setpoints.

Table 3.3.2-1 (page 5 of 5)
Engineered Safety Feature Actuation System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE[a]
7. Automatic Switchover to Containment Sump					
a. Automatic Actuation Logic and Actuation Relays	1,2,3,4	2 trains	C	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.13	NA
b. Refueling Water Storage Tank (RWST) Level - Low Low	1,2,3,4	4	K	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 SR 3.3.2.10	≥ 35.5% of instrument span
Coincident with Safety Injection	Refer to Function 1 (Safety Injection) for all initiation functions and requirements.				
8. ESFAS Interlocks					
a. Reactor Trip, P-4	1,2,3	2 per train, 2 trains	F	SR 3.3.2.11	NA
b. Pressurizer Pressure, P-11	1,2,3	3	L	SR 3.3.2.5 SR 3.3.2.9	≤ 1979 psig

(a) The Allowable Value defines the Limiting Safety System Settings. See the Bases for the Trip Setpoints.

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.3.7.3	----------NOTE---------- The continuity check may be excluded. ---------- Perform ACTUATION LOGIC TEST.	31 days on a STAGGERED TEST BASIS
SR 3.3.7.4	----------NOTE---------- Verification of setpoint is not required. ---------- Perform TADOT.	18 months
SR 3.3.7.5	Perform CHANNEL CALIBRATION.	18 months

Table 3.3.7-1 (page 1 of 1)
CREVS Actuation Instrumentation

	FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	SURVEILLANCE REQUIREMENTS	TRIP SETPOINT
1.	Manual Initiation	1, 2, 3, 4, 5, 6, and (a)	2	SR 3.3.7.4	NA
2.	Automatic Actuation Logic and Actuation Relays (BOP ESFAS)	1, 2, 3, 4, 5, 6, and (a)	2 trains	SR 3.3.7.3	NA
3.	Control Room Radiation-Control Room Air Intakes	1, 2, 3, 4, 5, 6, and (a)	2	SR 3.3.7.1 SR 3.3.7.2 SR 3.3.7.5	(b)
4.	Containment Isolation - Phase A	Refer to LCO 3.3.2, "ESFAS Instrumentation," Function 3.a, for all initiation functions and requirements.			

(a) During movement of irradiated fuel assemblies.
(b) Trip Setpoint concentration value ($\mu Ci/cm^3$) is to be established such that the actual submersion dose rate would not exceed 2 mR/hr in the control room.

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR 3.5.5.1	----------NOTE---------- Not required to be performed until 4 hours after the Reactor Coolant System pressure stabilizes at ≥ 2215 psig and ≤ 2255 psig. ----------	
	Verify manual seal injection throttle valves are adjusted to give a flow within the limits of Figure 3.5.5-1.	18 months

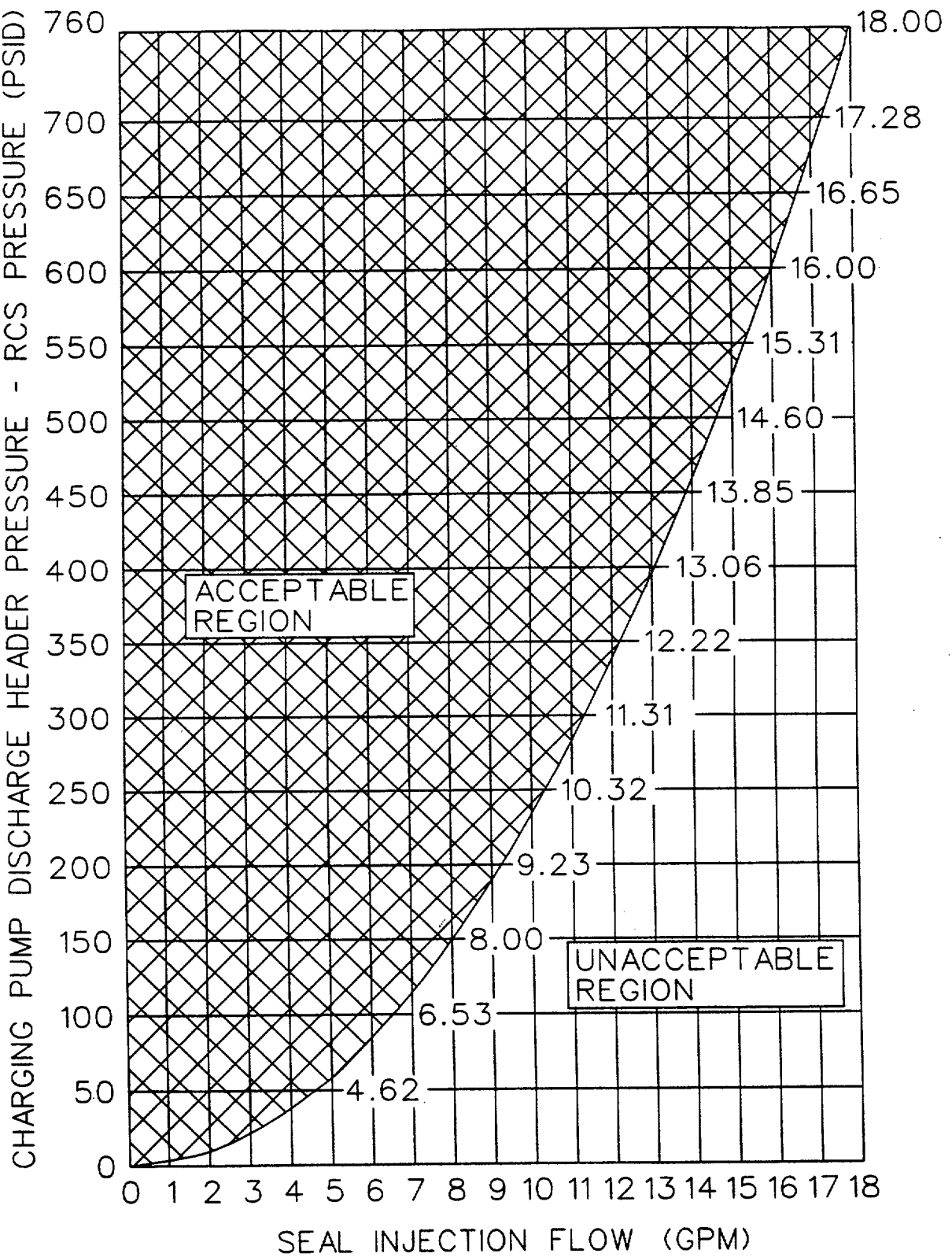

Figure 3.5.5-1 (page 1 of 1)
Seal Injection Flow Limits

3.7 PLANT SYSTEMS

3.7.1 Main Steam Safety Valves (MSSVs)

LCO 3.7.1 Five MSSVs per steam generator shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

NOTE
Separate Condition entry is allowed for each MSSV.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more steam generators with one MSSV inoperable and the Moderator Temperature Coefficient (MTC) zero or negative at all power levels.	A.1 Reduce THERMAL POWER to ≤ 87% RTP.	4 hours
B. One or more steam generators with two or more MSSVs inoperable. OR One or more steam generators with one MSSV inoperable and the MTC positive at any power level.	B.1 Reduce THERMAL POWER to less than or equal to the Maximum Allowable % RTP specified in Table 3.7.1-1 for the number of OPERABLE MSSVs. AND	4 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. (continued)	B.2 ----------NOTE---------- Only required in MODE 1. ---------- Reduce the Power Range Neutron Flux-High reactor trip setpoint to less than or equal to the Maximum Allowable % RTP specified in Table 3.7.1-1 for the number of OPERABLE MSSVs.	36 hours
C Required Action and associated Completion Time not met. OR One or more steam generators with ≥ 4 MSSVs inoperable.	C.1 Be in MODE 3. AND C.2 Be in MODE 4.	6 hours 12 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.7.1.1 ----------NOTE---------- Only required to be performed in MODES 1 and 2. ---------- Verify each required MSSV lift setpoint per Table 3.7.1-2 in accordance with the Inservice Testing Program. Following testing, lift setting shall be within ± 1%.	In accordance with the Inservice Testing Program

3.7 PLANT SYSTEMS

3.7.12 Emergency Core Cooling System (ECCS) Pump Room Exhaust Air Cleanup System (PREACS)

NOT USED

3.7 PLANT SYSTEMS

3.7.13 Emergency Exhaust System (EES)

LCO 3.7.13 Two EES trains shall be OPERABLE.

----------NOTE----------
The auxiliary building or fuel building boundary may be opened intermittently under administrative controls.

APPLICABILITY: MODES 1, 2, 3, and 4,
During movement of irradiated fuel assemblies in the fuel building.

----------NOTE----------
The SIS mode of operation is required only in MODES 1, 2, 3, and 4. The FBVIS mode of operation is required only during movement of irradiated fuel assemblies in the fuel building.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One EES train inoperable in MODE 1, 2, 3, or 4.	A.1 Restore EES train to OPERABLE status.	7 days
B. Two EES trains inoperable due to inoperable auxiliary building boundary in MODE 1, 2, 3, or 4.	B.1 Restore auxiliary building boundary to OPERABLE status.	24 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION		COMPLETION TIME
C. Required Action and associated Completion Time of Condition A or B not met in MODE 1, 2, 3, or 4. OR Two EES trains inoperable in MODE 1, 2, 3, or 4 for reasons other than Condition B.	C.1	Be in MODE 3.	6 hours
	AND		
	C.2	Be in MODE 5.	36 hours
D. One EES train inoperable during movement of irradiated fuel assemblies in the fuel building.	D.1	Place OPERABLE EES train in operation in FBVIS mode.	Immediately
	OR		
	D.2	Suspend movement of irradiated fuel assemblies in the fuel building.	Immediately
E. Two EES trains inoperable due to inoperable fuel building boundary during movement of irradiated fuel assemblies in the fuel building.	E.1	Restore fuel building boundary to OPERABLE status.	24 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
F. Required Action and associated Completion Time of Condition E not met. OR Two EES trains inoperable during movement of irradiated fuel assemblies in the fuel building for reasons other than Condition E.	F.1 Suspend movement of irradiated fuel assemblies in the fuel building.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.13.1	Operate each EES train for ≥ 10 continuous hours with the heaters operating.	31 days
SR 3.7.13.2	Perform required EES filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with the VFTP
SR 3.7.13.3	Verify each EES train actuates on an actual or simulated actuation signal.	18 months

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.7.13.4	Verify one EES train can maintain a negative pressure ≥ 0.25 inches water gauge with respect to atmospheric pressure in the auxiliary building during the SIS mode of operation.	18 months on a STAGGERED TEST BASIS
SR 3.7.13.5	Verify one EES train can maintain a negative pressure ≥ 0.25 inches water gauge with respect to atmospheric pressure in the fuel building during the FBVIS mode of operation.	18 months on a STAGGERED TEST BASIS

3.7 PLANT SYSTEMS

3.7.14 Penetration Room Exhaust Air Cleanup System (PREACS)

NOT USED

3.8 ELECTRICAL POWER SYSTEMS

3.8.4 DC Sources - Operating

LCO 3.8.4 The Train A and Train B DC electrical power subsystems shall be OPERABLE.

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

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One DC electrical power subsystem inoperable.	A.1 Restore DC electrical power subsystem to OPERABLE status.	2 hours
B. Required Action and associated Completion Time not met.	B.1 Be in MODE 3. AND B.2 Be in MODE 5.	6 hours 36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.4.1	Verify battery terminal voltage is ≥ 128.4 V on float charge.	7 days

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.4.2	Verify no visible corrosion at battery terminals and connectors. OR Verify battery connection resistance is ≤ 150E-6 ohm for inter-cell connections and ≤ 150E-6 ohm for terminal connections.	92 days
SR 3.8.4.3	Verify battery cells, cell plates, and racks show no visual indication of physical damage or abnormal deterioration that could degrade battery performance.	18 months
SR 3.8.4.4	Remove visible terminal corrosion, verify battery cell to cell and terminal connections are clean and tight, and are coated with anti-corrosion material.	18 months
SR 3.8.4.5	Verify battery connection resistance is ≤ 150E-6 ohm for inter-cell connections and ≤ 150E-6 ohm for terminal connections.	18 months
SR 3.8.4.6	Verify each battery charger supplies ≥ 300 amps at ≥ 128.4 V for ≥ 1 hour.	18 months

(continued)

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 132 TO FACILITY OPERATING LICENSE NO. NPF-42

WOLF CREEK NUCLEAR OPERATING CORPORATION

WOLF CREEK GENERATING STATION

DOCKET NO. 50-482

1.0 INTRODUCTION

By application dated December 15, 1999, 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 modify the improved Technical Specifications (TSs) that were issued in Amendment No. 123 on March 31, 1999, and implemented on December 18, 1999.

The proposed changes expand the region of acceptable reactor coolant pump (RCP) seal injection flow to each RCP in Figure 3.5.5-1 and provided the following 10 editorial changes: (1) delete the redundant "%" sign in the allowable value for function 4 in Table 3.3.1-1 on reactor trip system instrumentation, (2) delete the extra spacing in the description of function 20 in Table 3.3.1-1, (3) insert periods at the end of the text for Conditions M and N in the actions for limiting condition for operation (LCO) 3.3.2 on engineered safety features actuation system instrumentation (ESFASI), (4) spell "requirements" correctly in function 5.c of Table 3.3.2-1 for ESFASI, (5) delete the invalid "SR 3.3.2.6" from the surveillance requirements column for Function 7.a in Table 3.3.2-1, (6) align the wording "Coincident with Safety Injection" with the title of Function 7.b in Table 3.3.2-1, (7) align the data in the 4 columns of Table 3.3.7-1, CREVS [control room emergency ventilation system] Actuation Instrumentation, for Function 3 with the first line of the title of the function, (8) align the specified completion time in Condition B of the actions for LCO 3.7.1 for main steam safety valves with text for the Required Action B.2, (9) add the acronym "EES" to Emergency Exhaust System in the table of contents and use the acronym in the upper right-hand-corner of the 4 ITS pages for LCO 3.7.13 on the emergency exhaust system, and (10) uncapitalize the word "Associated" in Condition B of the actions for LCO 3.8.4 on DC sources - operating because it should not be capitalized.

The licensee would also add text to the Bases to the applicable safety analyses for the seal injection flow of LCO 3.5.5.

2.0 EVALUATION

2.1 Seal Injection Flow Change

The seal injection flow is provided to the RCP shaft seal assembly to prevent leakage from the reactor coolant system (RCS) through the RCP shaft seals. The shaft seal assembly is discussed in Section 5.4.1 of the Wolf Creek Updated Safety Analysis Report (USAR) on RCPs. The assembly provides a pressure breakdown from slightly above the RCS pressure to ambient pressure. During normal operation, high pressure seal injection flow from the centrifugal charging pumps (CCPs) in the chemical and volume control system (CVCS) enters the RCP to be split between (1) a portion flowing down the RCP shaft through the radial bearings and into the RCS, and (2) the remainder that flows up the shaft through the RCP seals to the volume control tank, reactor coolant drain tank, or the containment sump, but not into the RCS. Only the seal injection flow that does not enter the RCS would not be available during an accident to mitigate the effects of the accident in the RCS; however, no credit is taken for the portion of the seal injection flow that enters the RCS.

The CCPs are part of the emergency core cooling system for the RCS for a loss-of-coolant accident (LOCA). These pumps provide safety injection flow into the RCS during a LOCA to provide cooling water to the core. During a LOCA, the seal injection flow is not isolated to maintain the RCP seals during the accident and, therefore, the seal flow will be diverted from the water available for safety injection into the RCS. To limit the amount of seal injection flow that would be diverted from the injection flow path into the RCS during a LOCA, there are seal injection throttle valves that are verified each refueling outage and set to meet Figure 3.5.5-1, if this is needed. The surveillance requirement (SR) in the TSs is SR 3.5.5.1.

The proposed Figure 3.5.5-1 is based on the safety analysis assumptions to ensure that there is sufficient safety injection flow into the RCS for cooling the core during a LOCA.

The licensee stated that the proposed changes to Figure 3.5.5-1 will extend the bounds of the acceptable range of seal injection flow to encompass the entire range of acceptable seal injection flow. The range of low seal injection flow is extended to zero flow, below the 6.53 gpm in the current figure, even though the normal operating range of seal injection flow is 8 to 13 gpm per RCP. If the flow is less than 6 gpm, procedure OFN BB-005, "RCP Malfunction," will provide the actions needed to restore seal injection flow; however, this low flow rate is not a safety concern because the RCP thermal barriers would provide sufficient cooling to the pump water bearing and shaft seal if there was no seal injection flow.

The upper part of the curve in Figure 3.5.5-1 is also extended to 18 gpm from the 10.33 gpm in the current figure. This is to depict the flow limit at higher differential pressures which potentially could occur at low RCS pressure. The CCP discharge header pressure is essentially constant and a reduction in RCS pressure would result in more seal injection flow than at normal operating pressure for the settings of the seal injection throttle valves. The upper flow limit was expanded to include the flow for the maximum expected differential pressure during a large break LOCA. The upper seal injection flow limit of 18 gpm per RCP remains within the safety analysis assumptions for the large break LOCA.

Because the acceptable seal injection flow limits in the proposed Figure 3.5.5-1 are within the safety analyses for LOCAs at WCGS, including the large break LOCA, the staff concludes that the proposed figure is acceptable.

The licensee's changes to Section 3.5.5 of the Bases for the seal injection flow limit section of the TSs were also reviewed. There were no errors found in the Bases changes.

2.2 Editorial Changes

In its application, the licensee also proposed editorial changes to the TSs. The editorial changes are listed below, in the order of the corrected TS pages:

- Add the acronym "EES" to Emergency Exhaust System in the table of contents.
- Delete the redundant "%" sign in the allowable value for function 4 in Table 3.3.1-1 on reactor trip system instrumentation.
- Delete the extra spacing in the description of function 20 in Table 3.3.1-1.
- Insert periods at the end of the text for Conditions M and N in the actions for limiting condition for operation (LCO) 3.3.2 on engineered safety features actuation system instrumentation (ESFASI).
- Spell "requirements" correctly in function 5.c of Table 3.3.2-1 for ESFASI.
- Delete the invalid "SR 3.3.2.6" from the surveillance requirements column for Function 7.a in Table 3.3.2-1.
- Align the wording "Coincident with Safety Injection" with the title of Function 7.b in Table 3.3.2-1.
- Align the data in the four columns of Table 3.3.7-1, CREVS [control room emergency ventilation system] Actuation Instrumentation, for Function 3 with the first line of the title of the function.
- Align the specified completion time in Condition B of the actions for LCO 3.7.1 for main steam safety valves with text for the Required Action B.2.
- Use the acronym EES for emergency exhaust system in the upper right-hand-corner of the 4 ITS pages for LCO 3.7.13 on the emergency exhaust system.
- Uncapitalize the word "Associated" in Condition B of the actions for LCO 3.8.4 on DC sources - operating because it should not be capitalized.

There are 11 corrections listed because one of the editorial changes was broken down to two changes because it affected two separate sets of pages (i.e., the table of contents page iii and the TS pages 3.7-28 through 3.7-31).

The licensee's proposed 11 corrections to the TSs are addressed in the attached table. None of these corrections affect any requirements in the TSs. Based on the justifications given in the attached table, the staff concludes that the 11 corrections need to be made in order for the TSs to be correct, and are, therefore, acceptable.

2.3 Conclusion

Based on the previous sections, the staff concludes that the proposed amendment to the TSs is acceptable.

3.0 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.

4.0 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 (65 FR 4292). 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.

5.0 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.

Attachment: Table

Principal Contributor: J. Donohew

Date: March 1, 2000

Table of Licensee Identified Errors in the TSs	
Error Location	Description of and Justification for the Correction
Table of Contents, Page iii	The acronym for "Emergency Exhaust System" for TS Section 3.7.13 is "EES." Adding the acronym is consistent with other TS section having acronyms.
Table 3.3.1-1, Page 3.3-15	There are two "%" signs in the allowable value for the intermediate range neutron flux instrumentation. The second "%" is redundant to the first, and not needed.
Table 3.3.1-1, Page 3.3-18	There is a space between the lines of text for Function 20 in the table. This space is not needed.
Conditions M and N in the actions for LCO 3.3.2, Page 3.3-27	There is no period at the end of the text describing Conditions M and N, whereas there are periods at the end of the text for the other conditions. The missing periods are needed to be consistent with the format for the TSs.
Table 3.3.2-1, Page 3.3-34	The word "requirements" is misspelled in the table for Function 5.c. The letter "r" is added to the word to correctly spell the word in the table.
Table 3.3.2-1, Page 3.3-36	The Surveillance Requirement (SR) 3.3.2.6 is listed under the column on SRs for Function 7.a. This SR should be deleted because the only slave relays for this function (K740 and K741) are relays tested on an 18-month interval in SR 3.3.2.13 that is listed for this function in the table. Also, as stated in the note for SR 3.3.2.6, the SR is not applicable to slave relays K740 and K741. Therefore. SR 3.3.2.6 is deleted because it duplicates SR 3.3.2.13 that is listed and is not applicable to the slave relays for this function.
Table 3.3.2-1, Page 3.3-36	The text "Coincident with Safety Injection" is not properly aligned under the text description for Function 7.b. The text is properly aligned to be consistent with the format for the TSs.
Table 3.3.7-1, Page 3.3-54	The data list in the table for Function 3 is not properly aligned with the text description for the function. The data list is properly aligned to be consistent with the format for the TSs.
Condition B of the actions for LCO 3.7.1, Page 3.7-2	The completion time of 36 hours is not properly aligned with the text of the Required Action B.2. The "36 hours" is properly aligned with the text to be consistent with the format of the TSs.

LCO 3.7.13, Pages 3.7-28 through 3.7-31	The acronym EES should be used in place of the title Emergency Exhaust System in the upper corner of each page. The acronym replaces the title to be consistent with the format of the TSs.
Condition B of the actions for LCO 3.8.4, Page 3.8-23	The word "Associated" in the text for Condition B is improperly capitalized. The word is not capitalized to be consistent with the format of the TSs.