



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

July 30, 2009

Mr. Rick A. Muench  
President and Chief Executive Officer  
Wolf Creek Nuclear Operating Corporation  
Post Office Box 411  
Burlington, KS 66839

SUBJECT: WOLF CREEK GENERATING STATION - ISSUANCE OF AMENDMENT RE:  
TECHNICAL SPECIFICATION 3.3.2, "ENGINEERED SAFETY FEATURE  
ACTUATION SYSTEM (ESFAS) INSTRUMENTATION" (TAC NO. MD9470)

Dear Mr. Muench:

The U.S. Nuclear Regulatory Commission (the Commission) has issued the enclosed Amendment No. 183 to Renewed 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 August 14, 2008.

The amendment revises Technical Specification (TS) 3.3.2, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation," to extend the Surveillance Frequency on selected ESFAS slave relays from 92 days to 18 months.

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,

*Balwant K Singal*  
Balwant K. Singal, Senior Project Manager  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-482

Enclosures:

1. Amendment No. 183 NPF-42
2. Safety Evaluation

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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 RENEWED FACILITY OPERATING LICENSE

Amendment No. 183  
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) Renewed Facility Operating License No. NPF-42 filed by the Wolf Creek Nuclear Operating Corporation (the Corporation), dated August 14, 2008, 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.

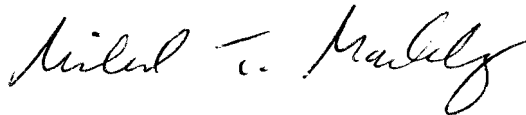
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-42 is hereby amended to read as follows:

- (2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 183, 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 90 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Michael T. Markley, Chief  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Renewed Facility  
Operating License and  
Technical Specifications

Date of Issuance: July 30, 2009

ATTACHMENT TO LICENSE AMENDMENT NO. 183  
RENEWED FACILITY OPERATING LICENSE NO. NPF-42  
DOCKET NO. 50-482

Replace the following pages of the Renewed Facility Operating License No. NPF-42 and Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change. The corresponding overleaf pages are provided to maintain document completeness.

Renewed Facility Operating License

<u>REMOVE</u>	<u>INSERT</u>
4	4

Technical Specifications

<u>REMOVE</u>	<u>INSERT</u>	<u>REMOVE</u>	<u>INSERT</u>
i	i	3.3-44	3.3-43
ii	ii	3.3-45	3.3-44
3.3-29	3.3-29	3.3-46	3.3-45
3.3-30	--	3.3-47	3.3-46
3.3-31	3.3-30	3.3-48	3.3-47
3.3-32	3.3-31	3.3-49	3.3-48
3.3-33	3.3-32	3.3-50	3.3-49
3.3-34	3.3-33	3.3-51	3.3-50
3.3-35	3.3-34	3.3-52	3.3-51
3.3-36	3.3-35	3.3-53	3.3-52
3.3-37	3.3-36	3.3-54	3.3-53
3.3-38	3.3-37	3.3-55	3.3-54
3.3-39	3.3-38	3.3-56	3.3-55
3.3-40	3.3-39	3.3-57	3.3-56
3.3-41	3.3-40	3.3-58	3.3-57
3.3-42	3.3-41	3.3-59	3.3-58
3.3-43	3.3-42		

- (5) The Operating Corporation, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (6) The Operating Corporation, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
- C. This renewed operating license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission, now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:
- (1) Maximum Power Level
- The Operating Corporation is authorized to operate the facility at reactor core power levels not in excess of 3565 megawatts thermal (100% power) in accordance with the conditions specified herein.
- (2) Technical Specifications and Environmental Protection Plan
- The Technical Specifications contained in Appendix A, as revised through Amendment No. 183, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated in the license. The Corporation shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.
- (3) Antitrust Conditions
- Kansas Gas & Electric Company and Kansas City Power & Light Company shall comply with the antitrust conditions delineated in Appendix C to this license.
- (4) Environmental Qualification (Section 3.11, SSER #4, Section 3.11, SSER #5)\*
- Deleted per Amendment No. 141.

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

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SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.3.2.3	<p>-----NOTE----- The continuity check may be excluded. -----</p> <p>Perform ACTUATION LOGIC TEST.</p>	31 days on a STAGGERED TEST BASIS
SR 3.3.2.4	Perform MASTER RELAY TEST.	92 days on a STAGGERED TEST BASIS
SR 3.3.2.5	Perform COT.	184 days
SR 3.3.2.6	Perform SLAVE RELAY TEST.	18 months
SR 3.3.2.7	<p>-----NOTE----- Verification of relay setpoints not required. -----</p> <p>Perform TADOT.</p>	18 months

(continued)



SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.3.2.8	<p>-----NOTE-----            Verification of setpoint not required for manual initiation functions.            -----</p> <p>Perform TADOT.</p>	18 months
SR 3.3.2.9	<p>-----NOTE-----            This Surveillance shall include verification that the time constants are adjusted to the prescribed values.            -----</p> <p>Perform CHANNEL CALIBRATION.</p>	18 months
SR 3.3.2.10	<p>-----NOTE-----            Not required to be performed for the turbine driven AFW pump until 24 hours after SG pressure is <math>\geq 900</math> psig.            -----</p> <p>Verify ESF RESPONSE TIMES are within limits.</p>	18 months on a STAGGERED TEST BASIS
SR 3.3.2.11	<p>-----NOTE-----            Verification of setpoint not required.            -----</p> <p>Perform TADOT.</p>	18 months
SR 3.3.2.12	Perform COT.	31 days

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

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE (a)
1. Safety Injection					
a. Manual Initiation	1,2,3,4	2	B	SR 3.3.2.8	NA
b. 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
c. Containment Pressure - High 1	1,2,3	3	D	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 SR 3.3.2.10	≤ 4.5 psig
d. Pressurizer Pressure - Low	1,2,3 <sup>(b)</sup>	4	D	SR 3.3.2.1 SR 3.3.2.5 SR 3.3.2.9 SR 3.3.2.10	≥ 1820 psig
e. Steam Line Pressure Low	1,2,3 <sup>(b)</sup>	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 <sup>(c)</sup>
2. Containment Spray					
a. Manual Initiation	1,2,3,4	2 per train, 2 trains	B	SR 3.3.2.8	NA
b. 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
c. 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

(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.

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	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 <sup>(i)</sup> , 3 <sup>(i)</sup>	2	F	SR 3.3.2.8	NA
b. Automatic Actuation Logic and Actuation Relays (SSPS)	1,2 <sup>(i)</sup> , 3 <sup>(i)</sup>	2 trains	G	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA
c. Automatic Actuation Logic (MSFIS)	1,2 <sup>(i)</sup> , 3 <sup>(i)</sup>	2 trains	G	SR 3.3.2.6	NA
d. Containment Pressure - High 2	1,2 <sup>(i)</sup> , 3 <sup>(i)</sup>	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)					
e. Steam Line Pressure					
(1) Low	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 <sup>(c)</sup>
(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 <sup>(h)</sup> psi
5. Turbine Trip and Feedwater Isolation					
a. Automatic Actuation Logic and Actuation Relays (SSPS)	1,2(j),3(i)	2 trains	G	SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.6	NA
b. Automatic Actuation Logic (MSFIS)	1,2(k),3(k)	2 trains	G	SR 3.3.2.6	NA
c. 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
d. 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  $\geq 50$  seconds.
- (i) Except when all MSIVs are closed.
- (j) Except when all MFIVs are closed and de-activated; and all MFRVs are closed and de-activated or closed and isolated by a closed manual valve; and all MFRV bypass valves are closed and de-activated, or closed and isolated by a closed manual valve, or isolated by two closed manual valves.
- (k) Except when all MFIVs are closed and de-activated.

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 SR 3.3.2.10	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 3.3.2.10 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 3.3.2.6	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.

3.3 INSTRUMENTATION

3.3.3 Post Accident Monitoring (PAM) Instrumentation

LCO 3.3.3            The PAM instrumentation for each Function in Table 3.3.3-1 shall be OPERABLE.

APPLICABILITY:    MODES 1, 2 and 3.

ACTIONS

-----NOTE-----  
Separate Condition entry is allowed for each Function.  
-----

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more Functions with one required channel inoperable.	A.1 Restore required channel to OPERABLE status.	30 days
B. Required Action and associated Completion Time of Condition A not met.	B.1 Initiate action in accordance with Specification 5.6.8.	Immediately

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. One or more Functions with two or more required channels inoperable.	C.1 Restore all but one channel to OPERABLE status.	7 days
D. Required Action and associated Completion Time of Condition C not met.	D.1 Enter the Condition referenced in Table 3.3.3-1 for the channel.	Immediately
E. As required by Required Action D.1 and referenced in Table 3.3.3-1.	E.1 Be in MODE 3. <u>AND</u> E.2 Be in MODE 4.	6 hours  12 hours
F. As required by Required Action D.1 and referenced in Table 3.3.3-1.	F.1 Initiate action in accordance with Specification 5.6.8.	Immediately



SURVEILLANCE REQUIREMENTS

-----NOTE-----  
 SR 3.3.3.1 and SR 3.3.3.2 apply to each PAM instrumentation Function in Table 3.3.3-1.  
 -----

SURVEILLANCE		FREQUENCY
SR 3.3.3.1	Perform CHANNEL CHECK for each required instrumentation channel that is normally energized.	31 days
SR 3.3.3.2	-----NOTE----- Neutron detectors are excluded from CHANNEL CALIBRATION. ----- Perform CHANNEL CALIBRATION.	18 months

Table 3.3.3-1 (page 1 of 1)  
Post Accident Monitoring Instrumentation

	FUNCTION	REQUIRED CHANNELS	CONDITION REFERENCED FROM REQUIRED ACTION D.1
1.	Neutron Flux	2	E
2.	Reactor Coolant System (RCS) Hot Leg Temperature (Wide Range)	2	E
3.	RCS Cold Leg Temperature (Wide Range)	2	E
4.	RCS Pressure (Wide Range)	2	E
5.	Reactor Vessel Water Level	2	F
6.	Containment Normal Sump Water Level	2	E
7.	Containment Pressure ( Normal Range)	2	E
8.	Steam Line Pressure	2 per steam generator	E
9.	Containment Radiation Level (High Range)	2	F
10.	Not Used		
11.	Pressurizer Water Level	2	E
12.	Steam Generator Water Level (Wide Range)	4	E
13.	Steam Generator Water Level (Narrow Range)	2 per steam generator	E
14.	Core Exit Temperature - Quadrant 1	2(a)	E
15.	Core Exit Temperature - Quadrant 2	2(a)	E
16.	Core Exit Temperature - Quadrant 3	2(a)	E
17.	Core Exit Temperature - Quadrant 4	2(a)	E
18.	Auxiliary Feedwater Flow Rate	4	E
19.	Refueling Water Storage Tank Level	2	E

(a) A channel consists of two core exit thermocouples (CETs).

3.3 INSTRUMENTATION

3.3.4 Remote Shutdown System

LCO 3.3.4 The Remote Shutdown System Functions in Table 3.3.4-1 and the required auxiliary shutdown panel (ASP) controls shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

-----NOTE-----  
Separate Condition entry is allowed for each Function and required ASP control.  
-----

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more required Functions inoperable.  <u>OR</u>  One or more required ASP controls inoperable.	A.1 Restore required Function and required ASP controls to OPERABLE status.	30 days
B. Required Action and associated Completion Time not met.	B.1 Be in MODE 3.	6 hours
	<u>AND</u> B.2 Be in MODE 4.	12 hours

**SURVEILLANCE REQUIREMENTS**

SURVEILLANCE		FREQUENCY
SR 3.3.4.1	Perform CHANNEL CHECK for each required instrumentation channel that is normally energized.	31 days
SR 3.3.4.2	Verify each required auxiliary shutdown panel control circuit and transfer switch is capable of performing the intended function.	18 months
SR 3.3.4.3	<p>-----NOTES-----</p> <ol style="list-style-type: none"> <li>1. Neutron detectors are excluded from CHANNEL CALIBRATION.</li> <li>2. Reactor Trip Breakers and RCP breakers are excluded from CHANNEL CALIBRATION.</li> </ol> <p>-----</p> <p>Perform CHANNEL CALIBRATION for each required instrumentation channel.</p>	18 months

Table 3.3.4-1 (page 1 of 1)  
Remote Shutdown System Functions

FUNCTION	REQUIRED CHANNELS
1. Source Range Neutron Flux <sup>a</sup>	1
2. Reactor Trip Breaker Position	1 per trip breaker
3. Pressurizer Pressure	1
4. RCS Wide Range Pressure	1
5. RCS Hot Leg Temperature	1
6. RCS Cold Leg Temperature	1
7. SG Pressure	1 per SG
8. SG Level	1 per SG
9. AFW Flow Rate	1
10. RCP Breakers	1 per pump
11. AFW Suction Pressure	1
12. Pressurizer Level	1

a. Not required OPERABLE in MODE 1 or in MODE 2 above the P-6 setpoint.

3.3 INSTRUMENTATION

3.3.5 Loss of Power (LOP) Diesel Generator (DG) Start Instrumentation

LCO 3.3.5 Four channels per 4-kV NB bus of the loss of voltage Function and four channels per 4-kV NB bus of the degraded voltage Function shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4,  
When associated DG is required to be OPERABLE by LCO 3.8.2, "AC Sources - Shutdown."

ACTIONS

-----NOTE-----  
Separate Condition entry is allowed for each Function.  
-----

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more Functions with one channel per bus inoperable.	-----NOTE----- The inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels. -----	
	A.1 Place channel in trip.	6 hours
B. One or more Functions with two or more channels per bus inoperable.  <u>OR</u>  Required Action and associated Completion Time of Condition A not met.	B.1 Declare associated load shedder and emergency load sequencer (LSELS) inoperable.	Immediately

**SURVEILLANCE REQUIREMENTS**

SURVEILLANCE		FREQUENCY
SR 3.3.5.1	Not Used.	
SR 3.3.5.2	<p>-----NOTE-----                      Verification of time delays is not required.                      -----</p> <p>Perform TADOT.</p>	31 days
SR 3.3.5.3	<p>Perform CHANNEL CALIBRATION with nominal Trip Setpoint and Allowable Value as follows:</p> <p>a. Loss of voltage Allowable Value <math>\geq 82.5V</math>, 120V bus with a time delay of <math>1.0 + 0.2, -0.5</math> sec.</p> <p>Loss of voltage nominal Trip Setpoint 83V, 120V bus with a time delay of 1.0 sec.</p> <p>b. Degraded voltage Allowable Value <math>\geq 105.9V</math>, 120V bus with a time delay of <math>119 \pm 11.6</math> sec.</p> <p>Degraded voltage nominal Trip Setpoint 106.9V, 120V bus with a time delay of 119 sec.</p>	18 months
SR 3.3.5.4	Verify LOP DG Start ESF RESPONSE TIMES are within limits.	18 months on a STAGGERED TEST BASIS

3.3 INSTRUMENTATION

3.3.6 Containment Purge Isolation Instrumentation

LCO 3.3.6            The Containment Purge Isolation instrumentation for each Function in Table 3.3.6-1 shall be OPERABLE.

APPLICABILITY:    According to Table 3.3.6-1.

ACTIONS

-----NOTE-----  
Separate Condition entry is allowed for each Function.  
-----

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>A. -----NOTE----- Only applicable in MODE 1, 2, 3, or 4. -----</p> <p>One or more Functions with one or more channels or trains inoperable.</p>	<p>A.1            Place and maintain containment purge supply and exhaust valves in closed position.</p>	<p>Immediately</p>

(continued)



ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. -----NOTE----- Only applicable during CORE ALTERATIONS or movement of irradiated fuel assemblies within containment. ----- One or more Functions with one or more channels or trains inoperable.	B.1 Place and maintain containment purge supply and exhaust valves in closed position.	Immediately
	<u>OR</u> B.2 Enter applicable Conditions and Required Actions of LCO 3.9.4, "Containment Penetrations," for containment purge supply and exhaust valves made inoperable by isolation instrumentation.	Immediately

SURVEILLANCE REQUIREMENTS

-----NOTE-----  
 Refer to Table 3.3.6-1 to determine which SRs apply for each Containment Purge Isolation  
 Function.  
 -----

SURVEILLANCE	FREQUENCY
SR 3.3.6.1 Perform CHANNEL CHECK.	12 hours
SR 3.3.6.2 -----NOTE----- The continuity check may be excluded. ----- Perform ACTUATION LOGIC TEST.	31 days on a STAGGERED TEST BASIS

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.3.6.3	Perform COT.	92 days
SR 3.3.6.4	-----NOTE----- Verification of setpoint is not required. -----  Perform TADOT.	18 months
SR 3.3.6.5	Perform CHANNEL CALIBRATION.	18 months
SR 3.3.6.6	Verify Containment Purge Isolation ESF RESPONSE TIMES are within limits.	18 months on a STAGGERED TEST BASIS

Containment Purge Isolation Instrumentation  
3.3.6

Table 3.3.6-1 (page 1 of 1)  
Containment Purge Isolation Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS	SURVEILLANCE REQUIREMENTS	TRIP SETPOINT
1. Manual Initiation	1,2,3,4, (a),(b)	2	SR 3.3.6.4	NA
2. Automatic Actuation Logic and Actuation Relays (BOP ESFAS)	1,2,3,4, (a),(b)	2 trains	SR 3.3.6.2 SR 3.3.6.6	NA
3. Containment Atmosphere - Gaseous Radioactivity	1,2,3,4, (a),(b)	1	SR 3.3.6.1 SR 3.3.6.3 SR 3.3.6.5	(c)
4. Containment Isolation - Phase A	Refer to LCO 3.3.2, "ESFAS Instrumentation," Function 3.a, for all initiation functions and requirements.			

- (a) During CORE ALTERATIONS.
- (b) During movement of irradiated fuel assemblies within containment.
- (c) Trip setpoint concentration value ( $\mu\text{Ci}/\text{cm}^3$ ) is to be established such that the actual submersion rate would not exceed mR/h in the containment building.

3.3 INSTRUMENTATION

3.3.7 Control Room Emergency Ventilation System (CREVS) Actuation Instrumentation

LCO 3.3.7            The CREVS actuation instrumentation for each Function in Table 3.3.7-1 shall be OPERABLE.

APPLICABILITY:    According to Table 3.3.7-1.

ACTIONS

-----NOTE-----  
Separate Condition entry is allowed for each Function.  
-----

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more Functions with one channel or train inoperable.	A.1 Place one CREVS train in Control Room Ventilation Isolation Signal (CRVIS) mode.	7 days

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>B. -----NOTE----- Not applicable to Function 3. -----</p> <p>One or more Functions with two channels or two trains inoperable.</p>	<p>B.1.1 Place one CREVS train in the CRVIS mode.</p> <p><u>AND</u></p>	Immediately
	<p>B.1.2 Enter applicable Conditions and Required Actions of LCO 3.7.10, "Control Room Emergency Ventilation System (CREVS)," for one CREVS train made inoperable by inoperable CREVS actuation instrumentation.</p> <p><u>OR</u></p>	Immediately
	<p>B.2 Place both trains in CRVIS mode.</p>	Immediately
<p>C. Both radiation monitoring channels inoperable.</p>	<p>C.1.1 Enter applicable Conditions and Required Actions of LCO 3.7.10, "Control Room Emergency Ventilation System (CREVS)," for one CREVS train made inoperable by inoperable CREVS actuation instrumentation.</p> <p><u>AND</u></p>	Immediately
	<p>C.1.2 Place one CREVS train in CRVIS mode.</p> <p><u>OR</u></p>	1 hour
	<p>C.2 Place both trains in CRVIS mode.</p>	1 hour

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time for Condition A, B or C not met in MODE 1, 2, 3, or 4.	D .1 Be in MODE 3.	6 hours
	<u>AND</u> D .2 Be in MODE 5.	36 hours
E. Required Action and associated Completion Time for Condition A, B or C not met in MODE 5 or 6, or during movement of irradiated fuel assemblies.	E.1 Suspend CORE ALTERATIONS.	Immediately
	<u>AND</u> E .2 Suspend movement of irradiated fuel assemblies.	Immediately

SURVEILLANCE REQUIREMENTS

-----NOTE-----

Refer to Table 3.3.7-1 to determine which SRs apply for each CREVS Actuation Function.

SURVEILLANCE	FREQUENCY
SR 3.3.7.1 Perform CHANNEL CHECK.	12 hours
SR 3.3.7.2 Perform COT.	92 days

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.3.7.3	<p>-----NOTE----- The continuity check may be excluded. -----</p> <p>Perform ACTUATION LOGIC TEST.</p>	31 days on a STAGGERED TEST BASIS
SR 3.3.7.4	<p>-----NOTE----- Verification of setpoint is not required. -----</p> <p>Perform TADOT.</p>	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 ( $\mu\text{Ci}/\text{cm}^3$ ) is to be established such that the actual submersion dose rate would not exceed 2 mR/hr in the control room.



3.3 INSTRUMENTATION

3.3.8 Emergency Exhaust System (EES) Actuation Instrumentation

LCO 3.3.8 The EES actuation instrumentation for each Function in Table 3.3.8-1 shall be OPERABLE.

APPLICABILITY: According to Table 3.3.8-1.

ACTIONS

-----NOTE-----  
Separate Condition entry is allowed for each Function.  
-----

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more Functions with one channel or train inoperable.	A.1 Place one EES train in the Fuel Building Ventilation Isolation Signal (FBVIS) mode.	7 days

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>B. -----NOTE----- Not applicable to Function 3. -----</p> <p>One or more Functions with two channels or two trains inoperable.</p>	<p>B.1.1 Place one EES train in the FBVIS mode.</p> <p><u>AND</u></p> <p>B.1.2 Enter applicable Conditions and Required Actions of LCO 3.7.13, "Emergency Exhaust System (EES)," for one EES train made inoperable by inoperable EES actuation instrumentation.</p> <p><u>OR</u></p> <p>B.2 Place both trains in the FBVIS mode.</p>	<p>Immediately</p> <p>Immediately</p> <p>Immediately</p>
<p>C. Both radiation monitoring channels inoperable.</p>	<p>C.1.1 Enter the applicable Conditions and Required Actions of LCO 3.7.13, "Emergency Exhaust System (EES)," for one EES train made inoperable by inoperable EES actuation instrumentation.</p> <p><u>AND</u></p> <p>C.1.2 Place one EES train in the FBVIS mode.</p> <p><u>OR</u></p> <p>C.2 Place both EES trains in the FBVIS mode.</p>	<p>Immediately</p> <p>1 hour</p> <p>1 hour</p>

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time for Condition A, B or C not met during movement of irradiated fuel assemblies in the fuel building.	D.1 Suspend movement of irradiated fuel assemblies in the fuel building.	Immediately

SURVEILLANCE REQUIREMENTS

-----NOTE-----  
Refer to Table 3.3.8-1 to determine which SRs apply for each EES Actuation Function.  
-----

SURVEILLANCE		FREQUENCY
SR 3.3.8.1	Perform CHANNEL CHECK.	12 hours
SR 3.3.8.2	Perform COT.	92 days
SR 3.3.8.3	-----NOTE----- The continuity check may be excluded. ----- Perform ACTUATION LOGIC TEST.	31 days on a STAGGERED TEST BASIS

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.3.8.4	<p>-----NOTE-----  Verification of setpoint is not required.  -----  Perform TADOT.</p>	18 months
SR 3.3.8.5	Perform CHANNEL CALIBRATION.	18 months

Table 3.3.8-1 (page 1 of 1)  
EES Actuation Instrumentation

	FUNCTION	APPLICABLE MODES OR SPECIFIED CONDITIONS	REQUIRED CHANNELS	SURVEILLANCE REQUIREMENTS	TRIP SETPOINT
1.	Manual Initiation	(a)	2	SR 3.3.8.4	NA
2.	Automatic Actuation Logic and Actuation Relays (BOP ESFAS)	(a)	2 trains	SR 3.3.8.3	NA
3.	Fuel Building Exhaust Radiation - Gaseous	(a)	2	SR 3.3.8.1 SR 3.3.8.2 SR 3.3.8.5	(b)

(a) During movement of irradiated fuel assemblies in the fuel building.

(b) Trip Setpoint concentration value ( $\mu\text{Ci}/\text{cm}^3$ ) is to be established such that the actual submersion dose rate would not exceed 4 mR/hr in the fuel building.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 183 TO

RENEWED 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 August 14, 2008 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML082350072), Wolf Creek Nuclear Operating Corporation (the licensee) proposed a license amendment to change the technical specifications (TSs, Appendix A to Renewed Facility Operating License No. NPF-42) for Wolf Creek Generating Station (WCGS).

The proposed amendment would extend the surveillance test interval (STI) for the slave relays used in the engineered safety feature actuation system (ESFAS) from 92 days to 18 months. The licensee justified its request to extend the STI based on the information contained in the Westinghouse Electric Corporation report, Westinghouse Commercial Atomic Power (WCAP)-13878-P-A, "Reliability Assessment of Potter & Brumfield MDR [Motor-driven Rotary] Series Relays," Revision 2, issued August 2000 (Proprietary).

In its letter dated August 14, 2008, the licensee proposes to make the following changes to the TS:

- Revise the table of contents to reflect the repagination resulting from the proposed change.
- Revise Surveillance Requirement (SR) 3.3.2.6 by deleting the note to the SR and by changing the surveillance test frequency from 92 days to 18 months.
- Delete SRs 3.3.2.13 and 3.3.2.14. In addition, delete the term "continued" on page 3.3-30 and place a double line in the table to indicate the end of the SR table.

- Revise Table 3.3.2-1, "Engineered Safety Feature Actuation System Instrumentation," as follows:
  - Function 1.b., Safety Injection - Automatic Actuation Logic and Actuation Relays: Delete SR 3.3.2.13 as a required surveillance.
  - Function 3.a.(2), Containment Isolation - Phase A Isolation - Automatic Actuation Logic and Actuation Relays: Delete SR 3.3.2.13 as a required surveillance.
  - Function 5.a., Turbine Trip and Feedwater Isolation - Automatic Actuation Logic and Actuation Relays (SSPS): Delete SR 3.3.2.14 as a required surveillance.
  - Function 7.a., Automatic Switchover to Containment Sump - Automatic Actuation Logic and Actuation Relays: Revise SR 3.3.2.13 to SR 3.3.2.6.

## 2.0 REGULATORY EVALUATION

In Section 50.36, "Technical specifications," of Title 10 of the *Code of Federal Regulations* (10 CFR), the U.S. Nuclear Regulatory Commission (NRC) established its regulatory requirements related to the content of TSs. Pursuant to 10 CFR 50.36, TSs are required to include items in the following five specific categories related to station operation: (1) safety limits, limiting safety system settings, and limiting control settings; (2) limiting conditions for operation; (3) SRs; (4) design features; and (5) administrative controls. The rule does not specify the particular requirements to be included in a plant's TSs.

In 10 CFR 50.55a, "Codes and standards," paragraph (h)(2) states the following:

Protection systems. For nuclear power plants with construction permits issued after January 1, 1971, but before May 13, 1999, protection systems must meet the requirements stated in either [Institute of Electrical and Electronic Engineers Standard] IEEE Std. 279, "Criteria for Protection Systems for Nuclear Power Generating Stations," or in IEEE Std. 603-1991, "Criteria for Safety Systems for Nuclear Power Generating Stations," and the correction sheet dated January 30, 1995. For nuclear power plants with construction permits issued before January 1, 1971, protection systems must be consistent with their licensing basis or may meet the requirements of IEEE Std. 603-1991 and the correction sheet dated January 30, 1995.

The licensee meets the requirements of IEEE Std. 279 for WCGS because its construction permit was issued in 1977.

In 10 CFR Part 50, Appendix A, "General Design Criteria for Nuclear Power Plants," the following General Design Criteria (GDC) pertain to the proposed TS changes:

- GDC 20, "Protection system functions," states the following:

The protection system shall be designed (1) to initiate automatically the operation of appropriate systems including the reactivity control systems, to assure that specified acceptable fuel design limits are not exceeded as a result of anticipated operational occurrences and (2) to sense accident conditions and to initiate the operation of systems and components important to safety.
- GDC 21, "Protection system reliability and testability," states the following:

The protection system shall be designed for high functional reliability and inservice testability commensurate with the safety functions to be performed. Redundancy and independence designed into the protection system shall be sufficient to assure that (1) no single failure results in loss of the protection function and (2) removal from service of any component or channel does not result in loss of the required minimum redundancy unless the acceptable reliability of operation of the protective system can be otherwise demonstrated. The protection system shall be designed to permit periodic testing of its functioning when the reactor is in operation, including a capability to test channels independently to determine failures and losses of redundancy that may have occurred.
- GDC 29, "Protection against anticipated operational occurrences," states the following:

The protection and reactivity control systems shall be designed to assure an extremely high probability of accomplishing their safety functions in the event of anticipated operational occurrences.

The licensee will continue to meet the requirements of IEEE Std. 279 and GDCs 20, 21, and 29 because the proposed change does not affect the design capability, function, operation, or testing method of the slave relays.

### 3.0 TECHNICAL EVALUATION

The solid-state protection system (SSPS) performs the design logic for most engineered safety feature (ESF) equipment actuations and provides the status, permissive, and annunciator output signals to the control room. The actuation of ESF components is accomplished through master and slave relays. The SSPS energizes the master relays appropriate for the condition of the unit. Each master relay then energizes one or more slave relays, which then causes the actuation of the end devices. The master and slave relays are tested routinely to ensure their operability.



Surveillance testing can identify relay failures before the relay is required to perform its intended function. However, relay testing has the potential to cause inadvertent ESF equipment actuation. Extending the STI reduces the number of surveillances performed on the relays and thus reduces the potential for unnecessary ESF equipment actuations.

In NRC Generic Letter (GL) 93-05, "Line-Item Technical Specifications Improvements to Reduce Surveillance Requirements for Testing During Power Operation," dated September 27, 1993 (ADAMS Accession No. ML031070342), the NRC documented the results of a study of surveillance testing required by the TSs and recommended that, in certain cases, reducing the amount of testing at power will improve safety, decrease equipment degradation, and relieve licensee burden. Extending the STI for slave relays is consistent with the NRC's recommendation in GL 93-05.

Currently, at WCGS and other Westinghouse plants, slave relays for ESF equipment actuation are tested quarterly with the exception of some relays that the NRC has previously approved to be tested every 18 months. Westinghouse had submitted topical report WCAP-13878-P-A, Revision 2, which the NRC staff accepted by letter dated July 12, 2000 (ADAMS Accession No. ML003731486). (The NRC staff had accepted Revision 1 of WCAP-13878-P-A by letters dated May 31, 1996, and October 26, 1998.)

The licensee's proposed change to extend the STI for slave relays is based on topical report WCAP-13878-P-A. In its letter dated May 31, 1996 (ADAMS Legacy Accession No. 0906110426), the NRC staff identified in its approval of the topical report certain plant-specific information that must be submitted. The licensee provided the following information in its submittal:

- Confirm the applicability of the WCAP-13878-P-A analyses for its plant.

The licensee has identified that the Potter & Brumfield (P&B) MDR slave relay models 4103-1 and 4121-1 are used at WCGS for ESFAS applications that require testing in accordance with the TS. These relays are bounded by WCAP-13878-P-A and have similar environmental conditions as those discussed in the topical report. Therefore, NRC staff concludes that the licensee has adequately demonstrated the applicability of the topical report to WCGS.

- Ensure that its procurement program for P&B MDR is adequate for detecting the types of failures that are discussed in Office for Analysis and Evaluation of Operational Data Special Study Report No. AEOD/S93-06, "Potter & Brumfield Model MDR Rotary Relay Failures," dated September 5, 1990, and Supplement 1 to that report, dated November 27, 1991, as well as in a report from the San Onofre Nuclear Generating Station, dated July 21, 1995, relating to the requirements of 10 CFR Part 21, "Reporting of Defects and Noncompliance."

In its letter dated August 14, 2008, the licensee stated in its submittal that all the P&B MDR relays currently installed at WCGS meet the applicable requirements and that it currently procures the qualified replacement relays from Westinghouse. Moreover, the current manufacturer of MDR relays, Tyco Electronics Corporation, is surveyed periodically under a joint survey program conducted by the Nuclear Utility Procurement

Issues Committee to ensure that standards of control are met in design, procurement, materials, manufacturing process, inspection, test and measurement, and test equipment. Based on the above, the NRC staff concludes that the licensee has adequately addressed its concern about refurbished relays.

- Ensure that all pre-1992 P&B MDR relays operated either in a normally energized mode or at a 20-percent duty cycle have been removed from ESFAS applications.

In its letter dated August 14, 2008, the licensee stated in its submittal that slave relays at WCGS are normally deenergized except for one relay that is normally energized (K637). Also, the licensee has replaced all normally energized or 20-percent duty cycle relays with the post-1992 relays. Based on the above, the NRC staff concludes that the licensee has adequately addressed this item for its application.

- Ensure that the contact loading analysis for the P&B MDR relays has been performed to determine the acceptability of these relays.

The licensee has performed a technical review to determine the adequacy of contact loading of the P&B MDR relays that are subject to TS surveillance and has determined that the slave contacts are adequate for their application. Therefore, the NRC staff concludes that the licensee has adequately addressed the regulatory concerns regarding this matter.

- Reevaluate the adequacy of the extended STI if two or more P&B MDR ESFAS subgroup relays fail in a 12-month period.

The Maintenance Rule program provides the monitoring performance results of the P&B MDR surveillance test results. The Maintenance Rule program implements the requirements of 10 CFR 50.65, "Requirements for monitoring the effectiveness of maintenance at nuclear power plants," and provides instructions for the initiation, analysis, retrieval, trending, and periodic reporting of data-relative performance indicators of plant systems and components. This program also provides guidance to determine the cause for failures to meet performance criteria and for repetitive failures. The functional failure guidance for the ESFAS specifies that a functional failure is any failure that results in a complete loss of train actuation. The performance criteria for the ESFAS is less than or equal to one functional failure of a train of actuation every 18 months. The failure of an MDR slave relay would be considered a functional failure and would result in an evaluation of the failure and of the adequacy of the extended STI. Because the slave-relay testing is done at the 18-month refueling outage, the NRC staff concludes this acceptable.

Based on the above, the NRC staff concludes that WCAP-13878-P-A applies to WCGS, and therefore, can be used as a basis for extending the STI for P&B MDR slave relays. The staff evaluated the following proposed changes to WCGS TS:

- Revise the table of contents to reflect the repagination resulting from the proposed change.

This is an editorial change and does not affect the requirement of the TS. Therefore, the NRC staff concludes this change is acceptable.

- Revise SR 3.3.2.6 by deleting the note to the SR and by changing the surveillance test frequency from 92 days to 18 months.

The note to the SR exempts certain slave relays from the 92-day test interval because they were tested at the 18-month interval. Because the STI for this test is changed from 92 days to 18 months, there is no applicability or need for the note. Also, because the licensee has justified the application of topical report WCAP-13878-P-A to WCGS and cited applicable regulatory precedents for its use, the NRC staff concludes the 18-month STI acceptable.

- Delete SRs 3.3.2.13 and 3.3.2.14. In addition, delete the term “continued” on page 3.3-30 and place a double line in the table to indicate the end of the SR table.

SRs 3.3.2.13 and 3.3.2.14 pertain to the relays that were previously tested at the 18-month interval. Because the changes proposed to SR 3.3.2.6 cover this requirement, there is no need to include redundant test requirements. Therefore, the NRC staff concludes this change is acceptable. The other changes are editorial in nature and do not affect the TS requirements. Therefore, the NRC staff also concludes these changes are acceptable.

- Revise Table 3.3.2-1, “Engineered Safety Feature Actuation System Instrumentation,” as follows:
  - Function 1.b., Safety Injection - Automatic Actuation Logic and Actuation Relays: Delete SR 3.3.2.13 as a required surveillance.
  - Function 3.a.(2), Containment Isolation - Phase A Isolation - Automatic Actuation Logic and Actuation Relays: Delete SR 3.3.2.13 as a required surveillance.
  - Function 5.a., Turbine Trip and Feedwater Isolation - Automatic Actuation Logic and Actuation Relays (SSPS): Delete SR 3.3.2.14 as a required surveillance.
  - Function 7.a., Automatic Switchover to Containment Sump - Automatic Actuation Logic and Actuation Relays: Revise SR 3.3.2.13 to SR 3.3.2.6.

The licensee will delete SRs 3.3.2.13 and 3.3.2.14 from Table 3.3.2-1 and replace them with SR 3.3.2.6. SR 3.3.2.13 or SR 3.3.2.14 has been deleted from these functions, and SR 3.3.2.6 has been added to the last function because all the functions listed above, except for the last function, already include SR 3.3.2.6. Because this change is consistent with topical report WCAP-13878-P-A, the NRC staff concludes the proposed conforming changes are acceptable.

Based on the above, the NRC staff concludes that the proposed changes to the TS are in accordance with the NRC-approved topical report WCAP-13878-P-A and, therefore, 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 the 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 published in the *Federal Register* on October 7, 2008 (73 FR 58679). 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 Contributor: H. Garg

Date: July 30, 2009

July 30, 2009

Mr. Rick A. Muench  
President and Chief Executive Officer  
Wolf Creek Nuclear Operating Corporation  
Post Office Box 411  
Burlington, KS 66839

SUBJECT: WOLF CREEK GENERATING STATION - ISSUANCE OF AMENDMENT RE:  
TECHNICAL SPECIFICATION 3.3.2, "ENGINEERED SAFETY FEATURE  
ACTUATION SYSTEM (ESFAS) INSTRUMENTATION" (TAC NO. MD9470)

Dear Mr. Muench:

The U.S. Nuclear Regulatory Commission (the Commission) has issued the enclosed Amendment No. 183 to Renewed 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 August 14, 2008.

The amendment revises Technical Specification (TS) 3.3.2, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation," to extend the Surveillance Frequency on selected ESFAS slave relays from 92 days to 18 months.

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/

Balwant K. Singal, Senior Project Manager  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-482

Enclosures:

1. Amendment No. 183 NPF-42
2. Safety Evaluation

cc w/encls: Distribution via Listserv

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\*SE input memo

OFFICE	NRR/LPL4/PM	NRR/LPL4/PM	NRR/LPL4/LA	DE/EICB/BC	DIRS/ITSB/BC	OGC	NRR/LPL4/BC	NRR/LPLR/PM
NAME	NDiFrancesco	BSingal	JBurkhardt	WKemper*	RElliott	LBSubin	MMarkley	BSingal
DATE	6/29/09	7/1/09	6/29/09	5/8/09	7/8/09	7/21/09	7/30/09	7/30/09

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