

August 16, 1994

Docket No. 50-482

DISTRIBUTION:

Mr. Neil S. Carns  
President and Chief Executive Officer  
Wolf Creek Nuclear Operating Corporation  
Post Office Box 411  
Burlington, Kansas 66839

Docket File	E Peyton
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LYandell, RIV	ACRS (10)
WReckley	OPA
RBarrett	

Dear Mr. Carns:

SUBJECT: WOLF CREEK GENERATING STATION - AMENDMENT NO. 78 TO FACILITY  
OPERATING LICENSE NO. NPF-42 (TAC NO. M89367)

The Commission has issued the enclosed Amendment No. 78 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 April 19, 1994.

The amendment revises TS Table 3.6-1, "Containment Isolation Valves," by deleting reference to two (2) valves. The TS change reflects a planned modification which removes the essential service water (ESW) containment air cooler return line isolation valve bypass valves and associated piping. The amendment shall be implemented prior to startup from the seventh refueling outage which is scheduled to begin in September 1994.

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,

ORIGINAL SIGNED BY:

William D. Reckley, Project Manager  
Project Directorate IV-2  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 78 to NPF-42
2. Safety Evaluation

cc w/enclosures:  
See next page

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OFFICE	PDIV-2/LA	PDIV-2/PM	NRR:SCSB	OGC	PDIV-2/D
NAME	E Peyton	WRockley:ye	RBarrett	E Hollen	TQuay
DATE	8/13/94	8/13/94	8/14/94	8/19/94	8/15/94

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Sincerely,

ORIGINAL SIGNED BY:

William D. Reckley, Project Manager  
Project Directorate IV-2  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation

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NAME	EPeyton	WR <sup>WDR</sup> Reckley:ye	RBarrett	EHollen	TQuay
DATE	8/13/94	8/13/94	8/14/94	8/19/94	8/15/94

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

August 16, 1994

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Mr. Neil S. Carns  
President and Chief Executive Officer  
Wolf Creek Nuclear Operating Corporation  
Post Office Box 411  
Burlington, Kansas 66839

Dear Mr. Carns:

SUBJECT: WOLF CREEK GENERATING STATION - AMENDMENT NO. 78 TO FACILITY  
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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,

A handwritten signature in cursive script that reads "William D. Reckley".

William D. Reckley, Project Manager  
Project Directorate IV-2  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 78 to NPF-42
2. Safety Evaluation

cc w/enclosures:  
See next page

Mr. Neil S. Carns

- 2 -

cc w/enclosures:

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Resident Inspectors Office  
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Steedman, Missouri 65077-1302



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. 78  
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 April 19, 1994, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

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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. 78, 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 prior to startup from the seventh refueling outage.

FOR THE NUCLEAR REGULATORY COMMISSION



Theodore R. Quay, Director  
Project Directorate IV-2  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: August 16, 1994

ATTACHMENT TO LICENSE AMENDMENT NO. 78

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

3/4 6-24  
3/4 6-25

INSERT

3/4 6-24  
3/4 6-25

TABLE 3.6-1 (Continued)

CONTAINMENT ISOLATION VALVES

<u>PENETRATIONS</u>	<u>VALVE NUMBER</u>	<u>FUNCTION</u>	<u>TYPE LEAK TEST REQUIRED</u>	<u>MAXIMUM ISOLATION TIME (Seconds)</u>
4. Containment Purge Isolation (active) - (Continued)				
V-160	GT HZ-11***	CTMT Mini-Purge Exh Inside CTMT Iso	C	3
V-160	GT HZ-12***	CTMT Mini-Purge Exh Outside CTMT Iso	C	3
5. Containment Purge Isolation (passive)				
V-161	GT HZ-6***	CTMT S/D Purge Supply Outside CTMT Iso	C	10
V-161	GT HZ-7***	CTMT S/D Purge Supply Inside CTMT Iso	C	10
V-160	GT HZ-8***	CTMT S/D Purge Exh Inside CTMT Iso	C	10
V-160	GT HZ-9***	CTMT S/D Purge Exh Outside CTMT Iso	C	10
6. Remote Manual				
P-41	BB HV-8351A	RCP A Seal Water Supply	C	N.A.
P-22	BB HV-8351B	RCP B Seal Water Supply	C	N.A.
P-39	BB HV-8351C	RCP C Seal Water Supply	C	N.A.
P-40	BB HV 8351D	RCP D Seal Water Supply	C	N.A.
P-79	BB PV-8702A	RCS Hot Leg 1 to RHR Pump A Suction	A	N.A.

\*\*\*The provisions of Specification 3.0.4 are not applicable provided the penetration is isolated by two passive devices.



TABLE 3.6-1 (Continued)

CONTAINMENT ISOLATION VALVES

<u>PENETRATIONS</u>	<u>VALVE NUMBER</u>	<u>FUNCTION</u>	<u>TYPE LEAK TEST REQUIRED</u>	<u>MAXIMUM ISOLATION TIME (Seconds)</u>
6. Remote Manual - (Continued)				
P-52	BB PV-8702B	RCS Hot Leg 4 to RHR Pump B Suction	A	N.A.
P-15	EJ HV-23**	PASS Sump Sample CTMT Iso	C	5
P-15	EJ HV-25**	PASS Sump Sample CTMT Iso	C	5
P-14	EJ HV-24**	PASS Sump Sample CTMT Iso	C	5
P-14	EJ HV-26**	PASS Sump Sample CTMT Iso	C	5
P-71	EF HV-31	ESW Supply To Containment Coolers	C	N.A.
P-28	EF HV-32	ESW Supply To Containment Coolers	C	N.A.
P-71	EF HV-33	ESW Supply To Containment Coolers	C	N.A.
P-28	EF HV-34	ESW Supply To Containment Coolers	C	N.A.
P-73	EF HV-45	ESW Return From Containment Coolers	C	N.A.
P-29	EF HV-46	ESW Return From Containment Coolers	C	N.A.

\*\*The provisions of Specification 3.0.4 are not applicable.

TABLE 3.6-1 (Continued)

CONTAINMENT ISOLATION VALVES

<u>PENETRATIONS</u>	<u>VALVE NUMBER</u>	<u>FUNCTION</u>	<u>TYPE LEAK TEST REQUIRED</u>	<u>MAXIMUM ISOLATION TIME (Seconds)</u>
6. Remote Manual - (Continued)				
P-73	EF HV-49	ESW Return From Containment Coolers	C	N.A.
P-29	EF HV-50	ESW Return From Containment Coolers	C	N.A.
P-74	EG HV-127*	CCW Supply to RCP	C	N.A.
P-75	EG HV-130*	CCW Return From RCP	C	N.A.
P-75	EG HV-131*	CCW Return From RCP	C	N.A.
P-76	EG HV-132*	CCW Return From RCP Thermal Barriers	C	N.A.
P-76	EG HV-133*	CCW Return from RCP Thermal Barrier	C	N.A.
P-79	EJ HV-8701A	RCS Hot Leg 1 to RHR Pump A Suction	A	N.A.
P-52	EJ HV-8701B	RCS Hot Leg 4 to RHR Pump B Suction	A	N.A.
P-82	EJ HV-8809A	RHR Pump A Cold Leg Injection Iso Valve	A	N.A.
P-27	EJ HV-8809B	RHR Pump B Cold Leg Injection Iso Valve	A	N.A.
P-15	EJ HV-8811A	CTMT Recirc Sump to RHR Pump A Suction	A	N.A.

\*These valves were assumed to be closed during the accident analysis, and are normally closed but may be opened on an intermittent basis under administrative control.

TABLE 3.6-1 (Continued)  
CONTAINMENT ISOLATION VALVES

<u>PENETRATIONS</u>	<u>VALVE NUMBER</u>	<u>FUNCTION</u>	<u>TYPE LEAK TEST REQUIRED</u>	<u>MAXIMUM ISOLATION TIME (Seconds)</u>
6. Remote Manual - (Continued)				
P-14	EJ HV-8811B	CTMT Recirc Sump to RHR Pump B Suction	A	N.A.
P-21	EJ HV-8840	RHR Hot Leg Recirc Iso Valve	A	N.A.
P-87	EM HV-8802A*	SI Pump A Disch Hot Leg Iso Valve	A	N.A.
P-48	EM HV-8802B*	SI Pump B Disch Hot Leg Iso Valve	A	N.A.
P-49	EM HV-8835	SI Pumps Disch to Cold Leg Iso Valve	A	N.A.
P-89	EN HV-6	CTMT Spray Pump A Discharge Iso Valve	A	N.A.
P-66	EN HV-12	CTMT Spray Pump B Discharge Iso Valve	A	N.A.
7. Active for SIS				
P-80	BG HV-8105	CVCS Charging Line	C	10
P-88	EM HV-8801A	Boron Injection to RCS Cold Legs	A	N.A.
P-88	EM HV-8801B	Boron Injection to RCS Cold Legs	A	N.A.
8. Hand-Operated and Check Valves				
P-41	BB V-118	RCP A Seal Water Supply	C	N.A.
P-22	BB V-148	RCP B Seal Water Supply	C	N.A.
P-39	BB V-178	RCP C Seal Water Supply	C	N.A.
P-40	BB V-208	RCP D Seal Water Supply	C	N.A.

\*These valves were assumed to be closed during the accident analysis and are normally closed but may be opened on an intermittent basis under administrative control.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 78 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 April 19, 1994, 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. The proposed changes would revise Technical Specification Table 3.6-1, "Containment Isolation Valves," by deleting the reference to two (2) valves. The technical specification change reflects a planned modification which removes the essential service water (ESW) containment air cooler return line isolation valve bypass valves and associated piping.

2.0 BACKGROUND

The Wolf Creek ESW system provides cooling water flow to the containment air coolers in the event of a high energy line break. The flow path to the coolers require containment penetrations for the ESW supply and return lines. Each ESW containment penetration for these lines is provided with isolation valves on each side of the containment wall. The ESW system was originally designed with bypass lines (each with an isolation valve) around the ESW containment isolation valves EF-HV-49 and EF-HV-50 on the return lines from the containment air coolers, outside of containment, to accommodate variations in system load. The original system design required the bypass valves to be open to pass 2000 gpm with the ESW containment isolation valves opening on a safety injection signal to increase the ESW flow to the containment coolers to 4000 gpm.

A license amendment request and supporting analyses were submitted in June 1991 to reduce the required ESW flow to the containment coolers. This reduction in flow to the containment coolers allowed additional post-LOCA ESW flow to other safety related components. The revised requirements for ESW flow to the containment coolers was issued as License Amendment 50 on November 4, 1991. The reduced post-LOCA ESW flow requirements to the containment coolers was such that the bypass lines around the ESW containment isolation valves are no longer required. The normal and post-LOCA flows are equal at approximately 2000 gpm. The planned modification involves the removal of the 10" bypass valves and the installation of backpressure orifices. Control of the ESW flow to the containment coolers will be achieved by the combination of the backpressure orifices and throttling of the 14" ESW

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containment isolation valves. In addition, the modification includes the replacement of the existing carbon steel isolation valves with stainless steel valves to address erosion/corrosion concerns. The proposed amendment is required to support the modification because the bypass isolation valves are currently included in the TS Table 3.6-1 list of containment isolation valves.

### 3.0 EVALUATION

The design objective of the containment isolation system is to allow the normal or emergency passage of fluids through the containment boundary while preserving the ability of the boundary to prevent or limit the escape of fission products during postulated accidents. In the case of the ESW return lines from the containment coolers, the containment isolation function for each ESW train is provided by an isolation valve inside containment, an isolation valve outside containment (EF-HV-49 or EF-HV-50), and a bypass isolation valve for the line around the outside isolation valve. The need for the combination of outside isolation valves and bypass valves to control ESW flow was negated by the reduction in required ESW flow to the containment coolers which was approved in License Amendment 50. The licensee plans to utilize the isolation valve and a backpressure orifice to control ESW flow to the containment coolers and remove the bypass valve and associated piping. The removal of the bypass valve necessitates a TS change because the bypass valves are listed in TS Table 3.6-1, "Containment Isolation Valves."

Following the planned modification to the ESW system removing the bypass isolation valves and associated piping, isolation capability will be maintained by the remaining two containment isolation valves per ESW train. Leak testing of the containment penetrations and associated isolation valves will ensure that they adequately prevent or limit the release of radioactive material from containment in the event of an accident. A net safety improvement may be achieved by the removal of a potential leakage path through the bypass lines and bypass isolation valves. The staff finds the proposed change 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 (59 FR 32239). 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: W. D. Reckley

Date: August 16, 1994