May 17, 1995

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

SUBJECT: WOLF CREEK GENERATING STATION - AMENDMENT NO. 86 TO FACILITY OPERATING LICENSE NO. NPF-42 (TAC NO. M91862)

Dear Mr. Carns:

The Commission has issued the enclosed Amendment No. 86 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 March 21, 1995.

The amendment revises TS Surveillance Requirement 4.6.2.1.d, "Containment Spray System," to change the surveillance interval specified for the performance of an air or smoke flow test through the containment spray header from "at least once per 5 years" to "at least once per 10 years."

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

Sincerely, Original Signed By

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

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Docket No. 50-482

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Enclosures: 1. Amendment No. 86 to NPF-42 2. Safety Evaluation

cc w/encls: See next page

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LHurley, RIV	

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DOCUMEN	IT NAME: WC9	1862.AMD	Refor	
OFC	PDIV-2	PDIV-2	SCSB	OGC
NAME	EPeyton	JStone:pk	RBarrett	C. MARCO
DATE	4/10/95	4/12/95	4/(3/95	4/20/95

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# UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

May 17, 1995

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Sincerely,

James a Store

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

Docket No. 50-482

Enclosures: 1. Amendment No. <sup>86</sup> to NPF-42 2. Safety Evaluation

cc w/encls: See next page

### Mr. Neil S. Carns

May 17, 1995

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

Regional Administrator, Region III U.S. Nuclear Regulatory Commission 799 Roosevelt Road Glen Ellyn, Illinois 60137

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

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

Office of the Governor State of Kansas Topeka, Kansas 66612

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

County Clerk Coffey County Courthouse Burlington, Kansas 66839

Public Health Physicist Bureau of Air & Radiation Division of Environment Kansas Department of Health and Environment Forbes Field Building 283 Topeka, Kansas 66620 Director Plant Operations Wolf Creek Nuclear Operating Corporation P. O. Box 411 Burlington, Kansas 66839

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Manager Regulatory Services Wolf Creek Nuclear Operating Corporation P. O. Box 411 Burlington, Kansas 66839

U.S. Nuclear Regulatory Commission Resident Inspectors Office 8201 NRC Road Steedman, Missouri 65077-1302



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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. 86 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 March 21, 1995, 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. <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A, as revised through Amendment No. 86, 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 must be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

ames C. Store

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

Attachment: Changes to the Technical Specifications

Date of Issuance: May 17, 1995

- 2 -

# ATTACHMENT TO LICENSE AMENDMENT NO. 86

## FACILITY OPERATING LICENSE NO. NPF-42

## DOCKET NO. 50-482

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

REMOVE	INSERT
3/4 6-13	3/4 6-13

## CONTAINMENT SYSTEMS

## 3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS

## CONTAINMENT SPRAY SYSTEM

## LIMITING CONDITION FOR OPERATION

**3.6.2.1** Two independent Containment Spray Systems shall be OPERABLE with each Containment Spray System capable of taking suction from the RWST and transferring suction to the containment sump.

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

## ACTION:

With one Containment Spray System inoperable, restore the inoperable Containment Spray System to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours; restore the inoperable Containment Spray System to OPERABLE status within the next 48 hours or be in COLD SHUTDOWN within the following 30 hours.

### SURVEILLANCE REQUIREMENTS

**4.6.2.1** Each Containment Spray System shall be demonstrated OPERABLE:

- a. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position;
- b. By verifying, that on recirculation flow, each pump develops a discharge pressure of greater than or equal to 250 psig when tested pursuant to Specification 4.0.5;
- c. At least once per 18 months during shutdown, by:
  - Verifying that each automatic valve in the flow path actuates to its correct position on a Containment Pressure-High-3 (CSAS) test signal, and
  - 2) Verifying that each spray pump starts automatically on a Containment Pressure-High-3 (CSAS) test signal.
- d. At least once per 10 years by performing an air or smoke flow test through each spray header and verifying each spray nozzle is unobstructed.

### CONTAINMENT SYSTEMS

#### SPRAY ADDITIVE SYSTEM

### LIMITING CONDITION FOR OPERATION

3.6.2.2 The Spray Additive System shall be OPERABLE with:

- a. A spray additive tank containing a volume of between 4340 and 4540 gallons of between 28 and 31% by weight NaOH solution, and
- b. Two spray additive eductors each capable of adding NaOH solution from the chemical additive tank to a Containment Spray System pump flow.

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

#### ACTION:

With the Spray Additive System inoperable, restore the system to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours; restore the Spray Additive System to OPERABLE status within the next 48 hours or be in COLD SHUTDOWN within the following 30 hours.

#### SURVEILLANCE REQUIREMENTS

- 4.6.2.2 The Spray Additive System shall be demonstrated OPERABLE:
  - At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position;
  - b. At least once per 6 months by:
    - 1) Verifying the contained solution volume in the tank, and
    - Verifying the concentration of the NaOH solution by chemical analysis.
  - c. At least once per 18 months during shutdown, by verifying that each automatic valve in the flow path actuates to its correct position on a Containment Pressure-High-3 (CSAS) test signal; and
  - d. At least once per 5 years by verifying:
    - Each eductor flow rate is greater than or equal to 52 gpm using the RWST as the test source throttled to 17 psig at eductor inlet, and
    - 2) The lines between the spray additive tank and the eductors are not blocked by verifying flow.

WOLF CREEK - UNIT 1



UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

# SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

# RELATED TO AMENDMENT NO. 86 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 March 21, 1995, Wolf Creek Nuclear Operating Corporation (the licensee) requested changes to the Technical Specifications (TS) (Appendix A to Facility Operating License No. NPF-42) for the Wolf Creek Generating Station. The proposed changes would revise Technical Specification Surveillance Requirement 4.6.2.1.d to change the surveillance interval specified for the performance of an air or smoke flow test through the containment spray header from "at least once per 5 years" to "at least once per 10 years."

## 2.0 BACKGROUND

TS Surveillance Requirement 4.6.2.1.d requires that each containment spray system be demonstrated operable at least once per 5 years by performing an air or smoke flow test through each spray header and verifying each spray nozzle is unobstructed. In December 1992, the NRC issued NUREG-1366, "Improvements to Technical Specifications Surveillance Requirements." Section 8.1 of NUREG-1366, "Containment Spray System (PWR)," states that the NRC recommends that the surveillance interval of the air or smoke flow test be extended to 10 years.

## 3.0 EVALUATION

The containment spray system consists of two separate trains of equal capacity, each constructed of stainless steel and each independently capable of meeting system requirements. Each train includes a containment spray pump, spray header and nozzles, spray additive eductor, containment recirculation sump screens, containment spray isolation valve encapsulation tank, valves, and necessary piping, instrumentation, flushing connections, and controls. The nozzles, which are of the hollow cone design, are not subject to clogging by particles less than 7/16-inch in size. Independent electrical power supplies are provided for equipment in each containment spray train. In addition, each train is provided with electrical power from separate emergency diesel generators in the event of a loss of offsite power. The containment spray system is actuated either manually from the control room or on coincidence of two sets out of four containment Hi-3 pressure signals.

NUREG-1366 evaluated the testing of spray nozzles in pressurized water reactors' containment spray systems with stainless steel piping. The conclusion drawn from this evaluation was that the corrosion of stainless steel piping is negligible during the extended surveillance interval. Because the containment spray system is constructed of stainless steel and maintained dry, there is no additional mechanism that could cause blockage of the spray nozzles. Thus, the nozzles in the containment spray system will remain operable during the 10 year surveillance interval.

The licensee has reported that two surveillance air flow tests have been successfully performed at Wolf Creek Generating Station. These flow tests clearly demonstrated that obstructions did not exist for any of the spray nozzles.

Based on the above, the proposed reduced testing of the spray systems' nozzles remains adequate to ensure operability of the nozzles to mitigate the consequences of a design-basis accident. Therefore, 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 surveillance requirements. 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 (60 FR 18631). 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: James Stone

**Date:** May 17, 1995