

August 9, 1989

Docket No. 50-482

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Mr. Bart D. Withers
President and Chief Executive Officer
Wolf Creek Nuclear Operating Corporation
Post Office Box 411
Burlington, Kansas 66839

Dear Mr. Withers:

SUBJECT: WOLF CREEK GENERATING STATION - AMENDMENT NO. 33 TO FACILITY
OPERATING LICENSE NO. NPF-42 (TAC NO. 68269)

The Commission has issued the enclosed Amendment No. 33 to Facility Operating License No. NPF-42 for the Wolf Creek Generating Station. The amendment consists of changes to the Technical Specifications in response to your application dated March 28, 1988.

The amendment revises Technical Specifications 3/4.6.1.2 and 3/4.6.3 related to Containment Leakage and Containment Isolation Valves respectively.

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,

/s/
Douglas V. Pickett, Project Manager
Project Directorate - IV
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 33 to License No. NPF-42
2. Safety Evaluation

cc w/enclosures:
See next page

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DOCUMENT NAME: WC AMENDMENT

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

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Wolf Creek Nuclear Operating Corporation
Post Office Box 411
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Sincerely,

Douglas V. Pickett

Douglas V. Pickett, Project Manager
Project Directorate - IV
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

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cc w/enclosures:
See next page

Mr. Bart D. Withers
Wolf Creek Nuclear Operating Corporation

Wolf Creek Generating Station
Unit No. 1

cc:

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Burlington, Kansas 66839



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

WOLF CREEK NUCLEAR OPERATING CORPORATION

WOLF CREEK GENERATING STATION

DOCKET NO. 50-482

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 33
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 28, 1988, 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. 33 , 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.

FOR THE NUCLEAR REGULATORY COMMISSION


Frederick J. Hebdon, Director
Project Directorate - IV
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: August 9, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 33

FACILITY OPERATING LICENSE NO. NPF-42

DOCKET NO. 50-482

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the enclosed pages. The revised pages are identified by amendment number and contain marginal lines indicating the area of change. The corresponding overleaf pages are also provided to maintain document completeness.

REMOVE PAGES

3/4 6-2

-

3/4 6-16

INSERT PAGES

3/4 6-2

3/4 6-2a

3/4 6-16

3/4.6 CONTAINMENT SYSTEMS

3/4.6.1 PRIMARY CONTAINMENT

CONTAINMENT INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.1.1 Primary CONTAINMENT INTEGRITY shall be maintained.

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

ACTION:

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

SURVEILLANCE REQUIREMENTS

4.6.1.1 Primary CONTAINMENT INTEGRITY shall be demonstrated:

- a. At least once per 31 days by verifying that all penetrations* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in their positions, except as provided in Table 3.6-1 of Specification 3.6.3;
- b. By verifying that each containment air lock is in compliance with the requirements of Specification 3.6.1.3; and
- c. After each closing of each penetration subject to Type B testing, except the containment air locks, if opened following a Type A or B test, by leak rate testing the seal with gas at a pressure not less than P_a , 48 psig, and verifying that when the measured leakage rate for these seals is added to the leakage rates determined pursuant to Specification 4.6.1.2d. for all other Type B and C penetrations, the combined leakage rate is less than $0.60 L_a$.

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

CONTAINMENT SYSTEMS

CONTAINMENT LEAKAGE

LIMITING CONDITION FOR OPERATION

3.6.1.2 Containment leakage rates shall be limited to:

- a. An overall integrated leakage rate of:
 - 1) Less than or equal to L_a , 0.20% by weight of the containment air per 24 hours at P_a , 48 psig, or
 - 2) Less than or equal to L_t , 0.020% by weight of the containment air per 24 hours at P_t , 24 psig.
- b. A combined leakage rate of less than $0.60 L_a$ for all penetrations and valves subject to Type B and C tests, when pressurized to P_a , 48 psig.

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

ACTION:

- a. If Reactor Coolant System temperature is at or below 200°F, with either the measured overall integrated containment leakage rate exceeding $0.75 L_a$ or $0.75 L_t$, as applicable, or the measured combined leakage rate for all penetrations and valves subject to Types B and C tests exceeding $0.60 L_a$, restore the overall integrated leakage rate to less than $0.75 L_a$ or less than L_t , as applicable, and the combined leakage rate for all penetrations subject to Type B and C tests to less than $0.60 L_a$ prior to increasing the Reactor Coolant System temperature above 200°F.
- b. If the Reactor Coolant System temperature is above 200 degrees F, with the measured combined leakage rate for all penetrations and valves subject to Types B and C test exceeding $0.60 L_a$,
 - 1) Restore the combined leakage rate to less than $0.60 L_a$ within 4 hours by one of the following methods:
 - a) Repairing the failed containment isolation component, or
 - b) Isolating the penetration containing the failed component by closing and the deactivating one automatic valve, or
 - c) Isolating the penetration containing the failed component by closing one manual valve, or
 - d) Isolating the penetration containing the failed component by using a blind flange.
 - 2) If the combined leakage rate is not restored to less than $0.60 L_a$ within 4 hours, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

CONTAINMENT SYSTEMS

CONTAINMENT LEAKAGE

SURVEILLANCE REQUIREMENTS

4.6.1.2 The containment leakage rates shall be demonstrated at the following test schedule and shall be determined in conformance with the criteria specified in Appendix J of 10 CFR Part 50 using the methods and provisions of ANSI N45.4-1972:

- a. Three Type A tests (Overall Integrated Containment Leakage Rate) shall be conducted at 40 ± 10 month intervals during shutdown at a pressure not less than either P_a , 48 psig, or P_t , 24 psig, during each 10-year service period. The third test of each set shall be conducted during the shutdown for the 10-year plant inservice inspection;

CONTAINMENT SYSTEMS

CONTAINMENT COOLING SYSTEM

LIMITING CONDITION FOR OPERATION

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

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

ACTION:

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

SURVEILLANCE REQUIREMENTS

- 4.6.2.3 Each group of containment cooling fans shall be demonstrated OPERABLE:
- a. At least once per 31 days by:
 - 1) Starting each non-operating fan group from the control room, and verifying that each fan group operates for at least 15 minutes, and
 - 2) Verifying a cooling water flow rate of greater than or equal to 2200 gpm to each cooler group.
 - b. At least once per 18 months by verifying that on a Safety Injection test signal, the fans start in slow speed or, if operating, shift to slow speed and the cooling water flow rate increases to at least 4000 gpm to each cooler group.

CONTAINMENT SYSTEMS

3/4.6.3 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.3 The containment isolation valves specified in Table 3.6-1 shall be OPERABLE with isolation times* as shown in Table 3.6-1.

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

ACTION:

With one or more of the containment isolation valve(s) specified in Table 3.6-1 inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open and:

- a. Restore the inoperable valve(s) to OPERABLE status within 4 hours, or
- b. Isolate each affected penetration within 4 hours by use of at least one deactivated automatic valve secured in the isolation position, or
- c. Isolate each affected penetration within 4 hours by use of at least one closed manual valve or blind flange, or
- d. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.3.1 The containment isolation valves specified in Table 3.6-1 shall be demonstrated OPERABLE prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by performance of a cycling test, and verification of isolation time.

*For valves with excessive leakage, refer to Technical Specification 3.6.1.2.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 33 TO FACILITY OPERATING LICENSE NO. NPF-42
WOLF CREEK NUCLEAR OPERATING CORPORATION
WOLF CREEK GENERATING STATION
DOCKET NO. 50-482

INTRODUCTION

The Wolf Creek Technical Specifications (TS) were written under the premise that containment integrated leak rate testing (Type A tests) and local leak rate testing of penetrations and valves subject to Type B and C tests would be performed when the plant was shut down in either Modes 5 or 6. Accordingly, TS 3.6.1.2, "Containment Leakage," was written to state that if measured leakage rates exceeded allowable limits, corrective actions must be taken before increasing the reactor coolant system temperature above 200°F (i.e., going beyond Mode 5). More recently, however, licensees (which include Wolf Creek) have found it advantageous to perform local leak rate testing of penetrations and valves while at power. The practice of performing local leak rate testing at power has introduced the possibility of detecting unacceptable overall leakage rates with the reactor coolant system temperature already above 200°F. Such an occurrence would require immediate actions to shut down the facility in accordance with TS 3.0.3.

By letter dated March 28, 1988, the licensee proposed revisions to TS 3.6.1.2 to allow for corrective actions should unacceptable leakage rates be detected when the reactor coolant system temperature exceeds 200°F. Minor modifications to TS 3.6.1.2 proposed by the staff to improve clarity and continuity with the existing TS have been verbally accepted by the licensee and are included in this license amendment. In addition, the licensee proposed revisions to TS 3.6.3 which address leakage concerns on containment isolation valves.

EVALUATION

With respect to proposing revisions to TS 3.6.1.2, "Containment Leakage," the licensee has referenced TS 3.6.3, "Containment Isolation Valves." TS 3.6.3 requires operability of containment isolation valves based on individual closure or stroke times. The Action statement of 3.6.3 states that when a containment isolation valve is inoperable due to unacceptable stroke times, the licensee must either (a) restore the valve to operable status within four hours; (b) isolate the affected penetration within four hours via closing either an automatic valve, a manual valve, or a blind flange; or (c) be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

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The licensee has reasoned that there should be consistency between the Action statements for inoperable containment isolation valves due to unacceptable stroke times and penetrations with excessive leakage. Therefore, the licensee has proposed that penetrations identified as having excessive leakage be either repaired or isolated via a backup isolation device similar to that described in TS 3.6.3.

In addition, the licensee has proposed inserting a footnote in TS 3.6.3 that refers to TS 3.6.1.2 when valves have excessive leakage. This directs the shift supervisor to the proper specification if a containment isolation component has excessive leakage.

Considering that Wolf Creek is conducting local leak rate tests while at power, the staff agrees that revisions to TS 3.6.1.2 are necessary. Since both TS 3.6.1.2 and 3.6.3 deal with inoperable containment isolation valves (3.6.1.2 addresses leakage while 3.6.3 addresses stroke times), it is reasonable to desire consistency in the respective Action statements. The staff finds the proposed revisions appropriate for maintaining high assurance that the containment structure will restrict the release of radioactive materials to the leakage paths assumed in the safety analysis report. Therefore, based on our review, the staff finds the proposed revisions to TS 3.6.1.2 and 3.6.3 acceptable.

ENVIRONMENTAL CONSIDERATION

The amendment involves a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The 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 exposures. 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. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR Section 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.

CONCLUSION

The staff 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, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Date: August 9, 1989

Principal Contributor: Douglas V. Pickett