June 24, 1997

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

SUBJECT: WOLF CREEK GENERATING STATION - AMENDMENT NO.106 TO FACILITY OPERATING LICENSE NO. NPF-42 (TAC NO. M97362)

Dear Mr. Maynard:

The Commission has issued the enclosed Amendment No.106 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of changes to the Technical Specifications (TS) in response to your application dated December 3, 1996, which was superseded by your application dated March 21, 1997, as supplemented by letter dated April 15, 1997. The December 3, 1996, application was superseded because it did not follow the staff's guidance for relaxation of reactor coolant pump flywheel inspections and the April 15, 1997, supplement was required to include the exception for RCP "D".

The amendment revises Technical Specification 6.8.5.b to provide an exception to the examination requirements of Regulatory Guide 1.14, Revision 1, "Reactor Coolant Pump Flywheel Integrity" and delays the inspection of the "D" reactor coolant pump flywheel to the Fall 1997 refueling outage. A typographical error in TS 6.8.5.c is corrected.

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

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

Enclosures: 1. Amendment No.106 to NPF-42
2. Safety Evaluation

cc w/encls: See next page

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*For previous concurrences see attached ORC

DOCUMENT NAME: 97362AMD.WC

OFC	PDIV-2/PM	PDIV-2/LA	OGC*
NAME	JStone:ye	EPeyton	RBachman
DATE	6/18/97	6/16/97	5/20/97

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cc w/encls:
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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. 106
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, 1997, as supplemented by letter dated April 15, 1997, 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. 106 , 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 30 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

James C. Stone

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: June 24, 1997

ATTACHMENT TO LICENSE AMENDMENT NO. 106

FACILITY OPERATING LICENSE NO. NPF-42

DOCKET NO. 50-482

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

REMOVE	INSERT
6-18c	6-18c
--	6-18d

PROCEDURES AND PROGRAMS (Continued)

3. A surveillance program to ensure that the quantity of radioactivity contained in following outdoor liquid radwaste tanks that are not surrounded by liners, dikes, or walls capable of holding the tanks' contents and that do not have tank overflows and surrounding area drains connected to the liquid radwaste system, is less than the amount that would result in concentrations less than the limits of 10 CFR 20, Appendix B, Table II, Column 2, at the nearest potable water supply and the nearest surface water supply in an UNRESTRICTED AREA, in the event of an uncontrolled release of the tank's contents.

   a. Reactor Makeup Water Storage Tank,
   b. Refueling Water Storage Tank,
   c. Condensate Storage Tank, and
   d. Outside Temporary tanks, excluding demineralizer vessels and the liner being used to solidify radioactive waste.

The provisions of Specifications 4.0.2 and 4.0.3 are applicable to the Explosive Gas and Storage Tank Radioactivity Monitoring Program surveillance frequencies.

b. Reactor Coolant Pump Flywheel Inspection Program

Each reactor coolant pump flywheel shall be inspected per the recommendations of Regulatory Position C.4.b of Regulatory Guide 1.14, Revision 1, dated August 1975.* In lieu of Position C.4.b(1) and C.4.b(2), conduct a qualified in-place UT examination over the volume from the inner bore of the flywheel to the circle of one-half the outer radius or conduct a surface examination (MT and/or PT) of exposed surfaces of the removed flywheels once every ten years coinciding with the inservice inspection schedule as required by ASME Section XI.

c. Containment Tendon Surveillance Program

This program provides controls for monitoring tendon performance, including the effectiveness of the tendon corrosion protection medium, to ensure containment structural integrity. The program shall include baseline measurements prior to initial plant operation as well as periodic testing thereafter. The Containment Tendon Surveillance Program, and its inspection frequencies and acceptance criteria, shall be in accordance with Wolf Creek Generating Station position on draft Revision 3 of Regulatory Guide 1.35 dated April 1979.

The provisions of Specifications 4.0.2 and 4.0.3 are applicable to the Containment Tendon Surveillance Program inspection frequencies.

*The volumetric examination and surface examination of the Reactor Coolant Pump "D" motor flywheel for the First 10-Year Inservice Inspection Interval may be delayed one cycle to coincide with the Fall 1997 refueling outage.

PROCEDURES AND PROGRAMS (Continued)

6.9 REPORTING REQUIREMENTS

ROUTINE REPORTS

6.9.1 In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following reports shall be submitted to the Regional Administrator of the NRC Regional Office unless otherwise noted.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 106 TO FACILITY OPERATING LICENSE NO. NPF-42

WOLF CREEK NUCLEAR OPERATING CORPORATION

WOLF CREEK GENERATING STATION

DOCKET NO. 50-482

1.0 INTRODUCTION

By letter dated March 21, 1997, as supplemented by letter dated April 15, 1997, 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 the reactor coolant pump (RCP) flywheel inspection schedule specified in technical specifications (TS) 6.8.5.b and delay the 10-year examination for the "D" RCP. A typographical error in TS 6.8.5.c would also be corrected.

2.0 BACKGROUND

The function of RCP in the reactor coolant system (RCS) of a pressurized water reactor (PWR) plant is to maintain an adequate cooling flow rate by circulating a large volume of primary coolant water at high temperature and pressure through the RCS. A concern regarding overspeed of the RCP and its potential for failure led to the issuance of Regulatory Guide (RG) 1.14, "Reactor Coolant Pump Flywheel Integrity" in 1971. Since then, licensees for PWR plants, with very few exceptions, have adopted the guidelines of RG 1.14 to conduct their RCP flywheel examinations. These requirements are normally specified in the individual plant's TS as is the case for Wolf Creek and specify, in part, that (1) an in-place ultrasonic examination of the areas of higher stress concentration at the bore and keyway should be performed at approximately 3-year intervals, and (2) a surface examination of all exposed surfaces and complete ultrasonic volumetric examination should be performed at approximately 10-year intervals.

In Westinghouse Topical Report, WCAP-14535, "Topical Report on Reactor Coolant Pump Flywheel Inspection Elimination," information intended to eliminate examination of the RCP flywheels was provided. The staff reviewed this report as documented in a safety evaluation report (SER) forwarded by a letter from Brian W. Sheron (USNRC) to Mr. Sushil C. Jain dated September 12, 1996, "Acceptance for Referencing of Topical Report WCAP-14535, 'Topical Report on

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Reactor Coolant Pump Flywheel Inspection Elimination'." This SER concluded that a revised inspection schedule was justified for (1) flywheels made of SA 533 B material that do not belong to Group 10 and 15 and for (2) flywheels made of SA 533 B material that belong to these two groups if justified by some additional analyses. To justify a change in the flywheel inspection interval for flywheels not made of SA 533 B material, an assessment must be made using a methodology similar to that in WCAP-14535.

In addition to changing the RCP flywheel inspection schedule as specified in TS 6.8.5.b, the licensee also requested to delay the 10-year examination for the "D" RCP and to correct a typographical error in TS 6.8.5.c.

3.0 EVALUATION

The RCP flywheels at Wolf Creek are fabricated from SA-533 B material and do not belong to Group 10 and 15. As a result, the revised RCP flywheel inspection schedule specified in the September 12, 1996, letter is applicable to Wolf Creek. This revised inspection schedule requires conducting a qualified in-place ultrasonic testing (UT) examination of the volume from the inner bore of the flywheel to the circle of one-half the outer radius or conduct a surface examination (magnetic particle (MT) and/or liquid penetrant (PT)) of exposed surfaces of the removed flywheels once every 10 years.

As a result of a change to the RCP refurbishment schedule, the 10-year examination of the RCP "D" flywheel as specified in RG 1.14 (i.e., the requirement in place prior to this amendment) was not performed prior to the completion of the 10-year inservice inspection interval, including the extension allowed by Section 11 of the American Society of Mechanical Engineers Code (ASME Code). As discussed above, this 10-year inspection involves a surface examination of all exposed surfaces and complete ultrasonic examination. During an NRC inspection conducted in October 1996, the NRC indicated that this exception should have been reviewed and approved by the NRC as a change to the TS. For the RCP "D" flywheel, the licensee would still not meet the inspection requirements specified in TS 6.8.5.b even with the new requirements being proposed with this amendment request. As a result, the licensee has proposed an exception to the currently proposed TS 6.8.5.b examination requirements until the Fall 1997 refueling outage at which time the 10-year volumetric and surface examination will be completed for the RCP "D" flywheel (this 10-year requirement would be per the revised inspection schedule discussed above).

Although the 10-year examination specified in RG 1.14 (which is referenced in the TSs) was not performed, the 3-year examination specified in RG 1.14 was completed as scheduled in September 1994 with no indications identified. This 3-year examination was a volumetric examination of the higher stress areas and was performed from the gage holes to the bore and keyways. The radius of the flywheel is 37.5-inches and the gage holes are 14.5-inches from the center of the flywheel. This 3-year examination, therefore, covered slightly less than

the circle of one-half the outer radius as would be required by the currently proposed revision to TS 6.8.5.b, as discussed above; however, the inspections performed were concentrated on the areas of higher stress concentration at the bore and keyway. To justify delaying the performance of the examination of the RCP "D" flywheel until the Fall 1997 refueling outage, the licensee cited the NRC SER dated September 12, 1996, the low probability of RCP motor flywheel failure as documented in WCAP-14535, and performance of the 3-year examination (as specified in RG 1.14) on the RCP "D" flywheel in September 1994. The staff concludes that the licensee's proposal to delay the 10-year volumetric/surface examination for the RCP "D" flywheel to the Fall 1997 refueling outage is acceptable based on industry inspection results to date and the performance of the 3-year examination specified in RG 1.14 in September 1994.

The licensee also requested to correct a typographical error in TS 6.8.5.c on the Containment Tendon Surveillance Program. Specifically the licensee requested to correct the date of Draft Revision 3 of RG 1.35. The licensee indicated that this regulatory guide was issued in April 1979 rather than April 1989, the date in the TS. The staff finds the proposed change acceptable.

The staff has determined that the proposed revisions to the TSs are acceptable. The revisions include a change to the overall RCP flywheel inspection schedule, a one-time exception to the requirements of the inspection for the RCP "D" flywheel, and correction of a typographical error.

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 (62 FR 27803). 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: K. Karwoski

Date: June 24, 1997