August 30, 2001

Mr. Otto L. Maynard
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: ALLOWABLE VALUES FOR PRESSURIZER PRESSURE (TAC NO. MB1612)

Dear Mr. Maynard:

The Commission has issued the enclosed Amendment No.140 to 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 March 22, 2001 (ET 01-0012).

The amendment (1) decreases the allowable values for Function 8, pressurizer pressure-low and pressurizer pressure-high, in Table 3.3.1-1, "Reactor Trip System Instrumentation," and (2) increases the allowable value for Function 1.d, pressurizer pressure–low for safety injection, in Table 3.3.2-1, "Engineered Safety Feature Actuation System Instrumentation."

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/

Jack Donohew, Senior Project Manager, Section 2
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-482

Enclosures: 1. Amendment No. 140 to NPF-42
2. Safety Evaluation

cc w/encls: See next page

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Wolf Creek Nuclear Operating Corporation
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WOLF CREEK NUCLEAR OPERATING CORPORATION

WOLF CREEK GENERATING STATION

DOCKET NO. 50-482

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 140
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 22, 2001, 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. Technical Specifications

      The Technical Specifications contained in Appendix A, as revised through Amendment No. 140, 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 entry into Mode 3 in the restart from refueling outage 12 scheduled for the Spring 2002.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Stephen Dembek, Chief, Section 2
Project Directorate IV
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: August 30, 2001

ATTACHMENT TO LICENSE AMENDMENT NO. 140

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
3.3-16	3.3-16
3.3-32	3.3-32

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 140 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 22, 2001, Wolf Creek Nuclear Operating Corporation (the licensee) requested changes to the Technical Specifications (TSs, Appendix A to Facility Operating License No. NPF-42) for the Wolf Creek Generating Station (WCGS). The proposed changes would (1) decrease the allowable values for Function 8, pressurizer pressure-low and pressurizer pressure-high, in Table 3.3.1-1, "Reactor Trip System Instrumentation," and (2) increase the allowable value for Function 1.d, pressurizer pressure–low for safety injection, in Table 3.3.2-1, "Engineered Safety Feature Actuation System Instrumentation." The changes are necessary because the licensee will be replacing the existing Tobar pressurizer pressure transmitters with Rosemount transmitters in the next refueling outage.

The additional information provided in discussions with the licensee (ADAMS Accession No. ML011570432 and ML011780677) does not expand the scope of the application as noticed, clarifies the proposed changes given in the application, and does not change the staff's original proposed no significant hazards consideration determination published in the *Federal Register* on May 2, 2001 (66 FR 22035).

2.0 EVALUATION

In its application, the licensee proposed the following changes to the allowable values for reactor trip system (RTS) and engineered safety feature actuation system (ESFAS) instrumentation in Tables 3.3.1-1 and 3.3.2-1:

Function	Table	Current Allowable Value	Proposed Allowable Value
8.a Pressurizer Pressure-Low	3.3.1-1	$\geq$ 1931 psig	$\geq$ 1930 psig
8.b Pressurizer Pressure-High	3.3.1-1	$\leq$ 2400 psig	$\leq$ 2395 psig
1.d Pressurizer Pressure-Low	3.3.2-1	$\geq$ 1815 psig	$\geq$ 1820 psig

The above instrumentation are safety-related because credit is taken for them in the analyses for the mitigation of design basis accidents at WCGS. Because the pressurizer pressure transmitters are to be replaced by transmitters of a different manufacturer having different errors to be accounted for in the uncertainty calculation, the allowable values for the instrumentation in Tables 3.3.1-1 and 3.3.2-1 of the TSs must be corrected. The new Rosemount Model 1154 transmitters will be installed in the next refueling outage scheduled for the Spring of 2002.

2.1 Setpoint Methodology

The licensee stated that the allowable values proposed for TS Tables 3.3.1-1 and 3.3.2-1 account for instrument error, process uncertainties, instrument drift, and calibration accuracy, and are based on the methodologies in Topical Report (TR) 89-001, "WCNOC Safety Analysis Setpoint Methodology for the Reactor Protection System."

The licensee stated that in 1989, it started performing its RTS and ESFAS setpoint calculations. TR 89-001 was developed as a Wolf Creek document to provide the methodology for performing the setpoint analysis. The setpoint methodology in TR 89-001 was developed from Westinghouse methodology that was transmitted to the licensee in a letter from Westinghouse, "Wolf Creek Setpoint Methodology Report," dated August 29, 1984. The TS trip setpoint and allowable values issued with the operating license were based on the letter from Westinghouse. Therefore, the licensee concluded that it can be considered that this methodology was approved with the issuance of the original WCGS Technical Specifications on June 4, 1985, when the plant was licensed to operate.

The licensee addressed the compliance of the setpoint methodology in TR 89-001 with respect to Regulatory Guide 1.105, “Instrument Setpoints,” Revision 1, dated November 1976, in Section 3A and Table 7.1-6 of the Updated Safety Analysis Report (USAR) for WCGS. Based on the compliance described in the USAR, the staff concludes that the use of TR 89-001 is an acceptable means for the licensee to develop the allowable values for RTS and ESFAS instrumentation in TS Tables 3.3.1-1 and 3.3.2-1 for WCGS.

Because an acceptable methodology was used to develop the above proposed allowable values for the pressurizer pressure in TS Tables 3.3.1-1 and 3.3.2-1, the proposed values are acceptable. Therefore, the staff concludes that the proposed amendment is acceptable.

2.2 Response Time for the Replacement Rosemount Transmitter

The licensee stated in its application that the response time for the replacement Rosemount Transmitters is $\leq$ 200 milliseconds. The staff does not have to approve this response time because the definitions of engineered safety feature (ESF) and RTS response time in the TSs states that "In lieu of measurement, response time may be verified for selected components provided that the components and the methodology for verification have been previously reviewed and approved by the NRC."

In Amendment No. 113 dated October 20, 1997, the NRC approved the allocation of sensor response times based on WCAP-13632-P-A, Revision 2, "Elimination of Pressure Sensor Response Time Testing Requirements." WCAP-13632 provides the basis and methodology for

using allocated sensor response times in the overall verification of the channel response time for specific sensors. The licensee stated the vendor-specified response time for the replacement Rosemount transmitters was less than or equal to 200 msec. The staff's safety evaluation (SE) report approving WCAP-13632 stated that an acceptable method for determining the response time is to use the vendor's specified response time for the component. In discussions with the staff, the licensee explained that the replacement transmitters would be response-time tested prior to installation to verify that the response time is less than the vendor-specified response time. Therefore, the licensee will be using an acceptable method to determine the response time to be used for the component and will check the response time specified by the vendor.

The SE associated with Amendment No. 113 states, in part: "First, the staff's SER [(i.e., the Safety Evaluation Report (SER) dated September 5, 1995, that approved the use of WCAP-13632 for Westinghouse plants, such as WCGS)] stated that licensees referencing WCAP-13632 must perform a hydraulic RTT prior to installation of a new transmitter/switch or following refurbishment of the transmitter/switch to determine an initial sensor-specific response time value. In response, the Wolf Creek licensee stated that applicable plant surveillance test procedures stipulate that allocations for pressure sensor response times must be verified by performance of an appropriate RTT prior to placing a sensor in operational service and reverified following maintenance that may adversely affect sensor response time, such as replacing the sensing assembly of a transmitter. When sensor RTT is required, the resultant pressure sensor response times will be documented in the plant procedure data packages. The staff finds this response acceptable as it satisfactorily addresses action item 1 of the staff's SER approving WCAP-13632, Rev. 2." Therefore, the staff concludes that Amendment No. 113 dated October 20, 1997, approved the allocation of sensor response times based on WCAP-13632-P-A, Revision 2. Based on the SER dated September 5, 1995, an acceptable method to determine the response times for replacement transmitters is to use the vendor-supplied response times for the transmitters, and verify it by test prior to installation.

2.3 Implementation Date

The licensee stated in its application that the amendment will be implemented prior to startup from refueling outage 12. This refueling outage is scheduled for the Spring of 2002. The first reactor mode that the instrumentation is required by Table 3.3.2-1 to be operable is Mode 3; therefore, the amendment shall be implemented prior to entry into Mode 3 in the restart from refueling outage 12.

3.0 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.

4.0 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 (66 FR 22035). 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.

5.0 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: Jack Donohew

Date: August 30, 2001