August 7, 2001

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

SUBJECT: WOLF CREEK GENERATING STATION - ISSUANCE OF AMENDMENT RE: REVISION TO TECHNICAL SPECIFICATION 5.5.11, "VENTILATION FILTER TESTING PROGRAM" (TAC NO. MB1610)

Dear Mr. Maynard:

The Commission has issued the enclosed Amendment No. 139 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 22, 2001 (ET 01-0007).

The amendment revises the penetration values in TS 5.5.11.c for the control room emergency ventilation system and the auxiliary/fuel building emergency exhaust system. It also deletes the inequality symbol for the allowable testing temperature.

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. 139 to NPF-42
2. Safety Evaluation

cc w/encls: See next page

August 7, 2001

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

SUBJECT: WOLF CREEK GENERATING STATION - ISSUANCE OF AMENDMENT RE: REVISION TO TECHNICAL SPECIFICATION 5.5.11, " VENTILATION FILTER TESTING PROGRAM" (TAC NO. MB1610)

Dear Mr. Maynard:

The Commission has issued the enclosed Amendment No. 139 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 22, 2001 (ET 01-0007).

The amendment revises the penetration values in TS 5.5.11.c for the control room emergency ventilation system and the auxiliary/fuel building emergency exhaust system. It also deletes the inequality symbol for the allowable testing temperature.

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. 139 to NPF-42
2. Safety Evaluation

cc w/encls: See next page

DISTRIBUTION
PUBLIC
PDIV-2 Reading
RidsNrrDlpmPdiv(SRichards)
RidsNrrPMJDonohew
RidsNrrLAEPeyton
RidsOGCRp
RidsAcrsAcnwMailCenter
WBeckner (RidsNrrDripRtsb)
RidsRgn4MailCenter(WJohnson,LHurley, DBujol)
RidsNrrPMDHolland
GHill (2)
EWeiss

PACKAGE: ML011700283
ACCESSION NO.: LTR: ML011700244 TSPages: ML012210284 Template NRR-058

OFFICE	PDIV-2/PM	PDIV-2/LA	PDIV-2/PM	SPLB/BC	OGC	PDIV-2/SC
NAME	DHolland:am	EPeyton	JDonohew	JHannon	NLO w/corrections RWeisman	SDembek
DATE	7/9/01	8/1/01	8/1/2001	7/10/01	July 23, 2001	8/2/01

OFFICIAL RECORD COPY

cc:

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

Regional Administrator, Region IV
U.S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 1000
Arlington, TX 76011

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

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

Office of the Governor
State of Kansas
Topeka, KS 66612

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

County Clerk
Coffey County Courthouse
Burlington, KS 66839

Vick L. Cooper, Chief
Radiation Control Program, RCP
Kansas Department of Health
and Environment
Bureau of Air and Radiation
Forbes Field Building 283
Topeka, KS 66620

Vice President & Chief Operating Officer
Wolf Creek Nuclear Operating Corporation
P. O. Box 411
Burlington, KS 66839

Superintendent Licensing
Wolf Creek Nuclear Operating Corporation
P.O. Box 411
Burlington, KS 66839

U.S. Nuclear Regulatory Commission
Resident Inspectors Office
8201 NRC Road
Steedman, MO 65077-1032

WOLF CREEK NUCLEAR OPERATING CORPORATION

WOLF CREEK GENERATING STATION

DOCKET NO. 50-482

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 139
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. 139, 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 60 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

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

Attachment: Changes to the Technical Specifications

Date of Issuance: August 7, 2001

ATTACHMENT TO LICENSE AMENDMENT NO. 139

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
5.0-19	5.0-19

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 139 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 (TS, Appendix A to Facility Operating License No. NPF-42) for the Wolf Creek Generating Station (WCGS). The proposed changes would revise the penetration values in TS 5.5.11.c for the control room emergency ventilation system and the auxiliary/fuel building emergency exhaust system from 2 percent to 2.5 percent and from 2 percent to 5 percent, respectively. In addition, the inequality symbol for the temperature specified to conduct the testing would be deleted.

Safety related air-cleaning units are used in the engineered safety feature (ESF) ventilation systems of nuclear power plants. This equipment reduces the potential for increases in onsite and offsite radiological doses as a result of an accident by adsorbing radioactive iodine. Analyses of design basis accidents assume particular safety-related charcoal adsorption efficiencies when calculating onsite (control room operator) and offsite doses. To ensure that the charcoal filters used in these systems will perform in a manner that is consistent with the licensing basis of a facility, most licensees have requirements in their facility TS to periodically test (in a laboratory) samples of charcoal taken from the air-cleaning units.

On June 3, 1999, the NRC issued Generic Letter (GL) 99-02, "Laboratory Testing of Nuclear-Grade Activated Charcoal," alerting licensees that testing nuclear-grade activated charcoal to standards other than American Society for Testing and Materials (ASTM) D3803-1989, "Standard Test Method for Nuclear-Grade Activated Carbon," did not provide assurance for complying with their current licensing basis as it relates to the dose limits of General Design Criteria (GDC) 19, "Control Room," of Appendix A to 10 CFR Part 50 and Subpart A of 10 CFR Part 100. ASTM D3803-1989 provides an accurate and realistic protocol for determining the capabilities of charcoal for ESF ventilation systems. The conditions for testing charcoal in ASTM D3803-1989 are 30.0°C ± 0.4° during pre-equilibration and 30.0°C ± 0.2° during equilibration, challenge and elution.

2.0 EVALUATION

In its application, the licensee proposed changes to item c of TS 5.5.11 on the ventilation filter testing program (VFTP). This is the program that is established to implement the required testing of ESF filter ventilation systems. Item c of the VFTP is the testing of the methyl iodide removal efficiency of the charcoal filters in ESF filter ventilation systems. The licensee proposed to (1) delete the inequality (≤) in front of the allowed test temperature, and (2) increase the allowed methyl iodide penetration values for the control room emergency ventilation system and auxiliary/fuel building emergency exhaust ventilation system.

2.1 Delete Inequality

In the current TS 5.5.11.c, it is stated that the charcoal absorber shall be "tested in accordance with ASTM D3803-1989 at a temperature of ≤ 30ºC ...." The licensee stated that ASTM D3803-1989 requires that the charcoal testing be conducted at 30ºC ± 0.2ºC or at 30°±0.4°C depending on the phase of testing being performed in accordance with ASTM D3803-1989. Therefore, the licensee proposed to remove the inequality from the 30ºC and have the ASTM D3803-1989 standard govern the range of temperatures for the test. The licensee explained that as provided in GL 99-02, testing charcoal at elevated temperatures results in an overestimation of the actual iodine-removal capability of the charcoal. The proposed change to remove the inequality is consistent with the guidance given in GL 99-02.

Because the current wording in TS 5.5.11.c is that the charcoal adsorber shall be tested "in accordance with ASTM D3803-1989," deleting the inequality would require that the testing would be by the ASTM standard because the TSs would not specify other values. For example, the relative humidity for the testing would be the value of 70 percent given in TS 5.5.11.c. Temperature would be the nominal 30°C in TS 5.5.11.c with the error band as given in the ASTM standard because, as stated in TS 5.5.11.c, the testing "shall be in accordance with ASTM D3803-1989." ASTM D3803-1989 provides an accurate and realistic protocol for determining the capabilities of charcoal adsorbers in ESF ventilation systems, including its provisions for temperature error bands, and, therefore, the staff concludes that the deletion of the inequality, so that the testing will be in accordance with the temperature error band in the ASTM standard, is acceptable.

2.2 Increase Methyl Iodide Penetration Values

GL 99-02 states:

> Because ASTM D3803-1989 is a more accurate and demanding test than older tests, addressees [licensees] that upgrade their TS to this new protocol will be able to use a safety factor as low as 2 for determining the acceptance criteria for charcoal filter efficiency ....

In Attachment (2) to the GL, the formula for calculating allowable penetration is given. This is the same formula as is applied to Wolf Creek.

In this regard, the GL stipulates:

> When ASTM D3803-1989 is used with 30°C [86°F] and 95% RH [relative humidity] (or 70% RH with humidity control), the staff will accept the following: Safety Factor ≥2 for systems with or without humidity control .....

The proposed change revises the methyl iodide penetration acceptance value for the control room emergency ventilation system from 2 percent to 2.5 percent, and the penetration acceptance value for the auxiliary/fuel building emergency exhaust system from 2 percent to 5 percent. The allowable penetration value is determined based on the following:

> Allowable Penetration = [100% - methyl iodide efficiency* for charcoal credited in accident analysis]÷ [safety factor]

*This value is the efficiency that was incorporated in the accident analysis which was reviewed and approved by the NRC as part of Amendment No. 61 to the Updated Safety Analysis Report (USAR) (95 percent for the control room emergency ventilation system and 90 percent for the auxiliary/fuel building emergency exhaust system).

The proposed penetration acceptance values of 2.5 percent for the control room emergency ventilation system and 5 percent for the auxiliary/fuel building emergency exhaust system are calculated using the methyl iodide removal efficiencies (95 percent and 90 percent, respectively) credited in the WCGS accident analysis with a safety factor of two. See the calculations below:

System	Accident removal efficiency	Allowable safety factor identified in GL 99-02	Calculation from formula above	Allowable penetration identified in GL 99-02
Containment Room Ventilation	95%	2	2.5% = (100%-95%) ÷ 2	2.5%
Auxiliary/Fuel Building	90%	2	5.0% = (100%-90%) ÷ 2	5%

The proposed penetration values are consistent with a safety factor of two using the equation above. This safety factor of two is acceptable because the charcoal is tested in accordance with ASTM D3803-1989. The licensee has demonstrated that the proposed penetration values are consistent with the safety factor of two. The staff concludes that the proposed change in penetration values is acceptable.

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 relates to changes in recordkeeping, reporting, or administrative procedures or requirements. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10). 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 Contributors: J. Donohew
D. Holland

Date: August 7, 2001