WOLF CREEK
NUCLEAR OPERATING CORPORATION

Kevin J. Moles
Manager Regulatory Affairs

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RA 03-0104

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Reference: Letter RA 03-0025 dated March 11, 2003, from K. A. Harris, WCNOC to USNRC

Subject: Docket No. 50-482: Supplement to Wolf Creek Generating Station Annual 50.59 Evaluation Report

Gentlemen:

This letter transmits a 50.59 Evaluation that was inadvertently omitted from the Annual 50.59 Evaluation Report for Wolf Creek Generating Station (WCGS) submitted by Reference 1. This omission was documented in the WCGS corrective action program as Performance Improvement Report (PIR) 2003-1807. This letter is being submitted pursuant to 10 CFR 50.59(d)(2). Attachment I provides a summary of the evaluation results. Attachment II provides the WCGS 50.59 Evaluation.

This evaluation was performed during the period from January 1, 2002, to December 31, 2002, and was approved by the WCGS onsite review committee.

There are no commitments contained in this correspondence.

If you have any questions concerning this matter, please contact me at (620) 364-4126, or Ms. Jennifer Yunk at (620) 364-4272.

Very truly yours,

Kevin J. Moles

KJM/rlg

Attachments

cc: J. N. Donohew (NRC), w/a
D. N. Graves (NRC), w/a
T. P. Gwynn (NRC), w/a
Senior Resident Inspector (NRC), w/a

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WOLF CREEK NUCLEAR OPERATING CORPORATION

Wolf Creek Generating Station

Docket No.: 50-482
Facility Operating License No.: NPF-42

50.59 EVALUATION

Reporting Period: January 1, 2002 through December 31, 2002

Supplemental Report

SUMMARY

This report provides a brief description of changes, tests, and experiments performed at Wolf Creek Generation Station (WCGS) and evaluated pursuant to 10 CFR 50.59(c)(1). This report includes a summary of a 50.59 evaluation that was reviewed and found to be acceptable by the WCGS onsite review committee for the period beginning January 1, 2002 and ending December 31, 2002 but was inadvertently omitted from the Annual 50.59 report. This report is submitted in accordance with the requirements of 10 CFR 50.59(d)(2).

On the basis of this evaluation of changes:

- There is less than a minimal increase in the frequency of occurrence of an accident previously evaluated in the Updated Final Safety Analysis Report (USAR).
- There is less than a minimal increase in the likelihood of occurrence of a malfunction of a structure, system, or component (SSC) important to safety previously evaluated in the USAR.
- There is less than a minimal increase in the consequences of an accident previously evaluated in the USAR.
- There is less than a minimal increase in the consequences of a malfunction of an SSC important to safety previously evaluated in the USAR.
- There is no possibility for an accident of a different type than any previously evaluated in the USAR being created.
- There is no possibility for a malfunction of a SSC important to safety with a different result than any previously evaluated in the USAR being created.
- There is no result in a design basis limit for a fission product barrier as described in the USAR being exceeded or altered.
- There is no result in a departure from a method of evaluation described in the USAR used in establishing the design bases or in the safety analyses.

Therefore, the item contained within this report has been determined not to require a license amendment.

Evaluation Number: 59 2001-0023 Revision: 1
Title: Evaluation of Penetration Room Cooler Declared Out of Service

Activity Description:

The Electrical Penetration Room Coolers SGL15A and SGL15B are located in rooms 1409 and 1410 respectively of the Auxiliary Building and are periodically taken out of service for maintenance or testing for varying lengths of time. Typically, only one out of the two coolers would be out of service at the same time. Like any other maintenance activity the impact upon plant safety for this maintenance activity is assessed under 10 CFR 50.65. The equipment is returned to its normal design condition following the maintenance activity.

The inability of these room coolers to perform their support system function needs to be evaluated in regard to its potential impact upon the operability of supported safety related equipment located in the room or adjacent rooms.

Engineering has considered the following compensatory actions in CCP 09816 that may be taken to ensure functionality of all systems potentially supported during a design basis accident (DBA) assuming a loss of availability of the room cooler.
The compensatory actions are:
1) De-energize the room cooler fan motor (required).
2) Open doors and install fans as required (Screened out)

This 50.59 evaluation is performed to address the proposed compensatory measures in item 1. The intent of the 50.59 evaluation is to determine whether the temporary change/compensatory action itself (not the degraded condition) impacts other aspects of the facility or procedures as described in the UFSAR.

50.59 Evaluation:

The activity being evaluated is the compensatory measure taken during the scenario of a maintenance activity on the electrical penetration room coolers located in rooms 1409 and 1410 of the Auxiliary Building and a coincident DBA with the room cooler both inoperable and unavailable to provide any cooling function.
The compensatory actions are:

1. De-energize the room cooler fan motor.
2. Open doors and install fans as required (screened out of the 50.59 review).

<u>Fan Motors</u>
During maintenance activity with the plant in normal operation, the de-energizing of the electrical penetration room cooler fan motor will eliminate the availability of the air mixing function that the fan could provide. It also will eliminate a large equipment heat loading that is imparted on the room by the fan motor. The air mixing function could be beneficial in assuring that uniform room temperatures would exist, as it tends to eliminate hot spots. However, the heat loading added to the room by the fan motor, without the ability to transfer that heat to the cooling coil, could results in an overall adverse impact upon the room environmental conditions. During maintenance activity with the plant in normal operation it is preferable to de-energize the fan motor to eliminate the heat loading from the fan motor any time the cooling coil is not functional. If the cooling coil is functional (i.e. the cooler is available and functioning on service water only) it may be desirable, but not required, to leave the fan motor energized.

During maintenance activity on the room cooler a DBA could occur. During such a DBA the fan motor on the penetration room cooler may also be de-energized. De-energizing the room cooler fan motor during the DBA will eliminate the availability of the air mixing function that the fan could provide. It also will eliminate the large equipment heat loading that is imparted on the room by the fan motor. The air mixing function could be beneficial during a DBA by assuring that uniform room temperatures would exist. However, the heat loading added to the room by the fan motor, without the ability to transfer that heat to the cooling coil, could result in an overall adverse impact upon the room environmental conditions during a DBA. During maintenance activity with the plant in a DBA it is preferable to de-energize the fan motor to eliminate the heat loading from the fan motor any time the cooling coil is not functional. If the cooling coil is functional it may be desirable, but not required, to leave the fan motor energized during a DBA.

The activity of de-energizing the fan motors was evaluated against criterion 1 through 8 and is summarized as follows:

The de-energizing of the fan motor does not introduce the possibility of a change in the frequency of an accident because the de-energizing of the fan motor is not an initiator of any accident and no new failure modes are introduced. Thus, The frequency of accidents will not increase as a result of this activity.

The de-energizing of the fan motor would increase the likelihood of instrument failure at most by only a minimal amount for the modes/conditions for which a transmitter failure is applicable. Thus, the change in likelihood of occurrence should be considered minimal.

The de-energizing of the fan motor does not introduce the possibility of a change in the consequences of an accident because the de-energizing of the fan motor is not an initiator of any accidents and no new failure modes are introduced. Thus, the consequences of an accident will not increase as a result of this activity.

The de-energizing of the fan motor does not introduce the possibility of a change in the consequences of a malfunction because the loss of the fan motor is not an initiator of any malfunctions and no new failure modes are introduced. Thus, the consequences of a malfunction of equipment will not increase as a result of this activity.

Engineering evaluation has demonstrated that equipment important to safety located in the affected rooms is qualified for operation at the worst-case ambient temperature that is expected to occur in the room. Thus, there is no possibility of the creation of an accident of a different type as a result of this activity.

The de-energizing of the fan motor does not introduce the possibility for a malfunction of an SSC with a different result because the activity does not introduce a new failure mode. Thus, there is no possibility for the creation of a malfunction of an SSC with a different result by implementing this activity.

This de-energizing of the fan motors will change an ambient room temperature but does not involve a change to any method of evaluation as defined in USAR. Therefore, the de-energizing of the fan motors does not result in a departure from a method of evaluation described in the UFSAR and used in establishing the design bases or in the safety analyses.