



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV

611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

MAR - 7 1996

Wolf Creek Nuclear Operating Corporation
ATTN: Neil S. Carns, President and
Chief Executive Officer
P.O. Box 411
Burlington, Kansas 66839

SUBJECT: NRC AUGMENTED INSPECTION OF WOLF CREEK (NRC INSPECTION
REPORT 50-482/96-05)

This refers to the Augmented Inspection Team conducted by Mr. C. VanDenburgh and other members of the NRC staff during the period of February 6 through 15, 1996. The team examined the facts surrounding an event at the Wolf Creek Generating Station facility on January 30, 1996, involving a manual reactor trip with the failure of five control rods to fully insert into the core, the operation of the turbine-driven auxiliary feedwater pump in a degraded condition, and the subsequent loss of one train of essential service water system due to frazil icing of the trash racks. At the conclusion of the inspection, a meeting was held to discuss the findings and conclusions of the inspection. That meeting was open to observation by members of the public and was attended by those members of your staff identified in the enclosed inspection report.

The charter for this Augmented Inspection is included in the enclosed inspection report. The findings and conclusions of the Augmented Inspection Team are documented on page 38 in the report. Although the event did not pose a risk to the public health and safety, the team concluded that the event was safety significant, in that ice formation on the essential service water system resulted in a loss of one train of the ultimate heat sink and jeopardized the other. While this situation was serious, it was further aggravated when the continued availability of the turbine-driven auxiliary feedwater pump was jeopardized by a failure of the inboard packing due to inadequate previous maintenance practices.

The findings and conclusions of the Augmented Inspection Team indicate that, although your staff successfully recovered the plant, weaknesses were apparent in both operational performance and the engineering support provided to operations. Specifically, your staff did not recognize the potential for the loss of both trains of the essential service water system (the plant's ultimate heat sink) due to the formation of ice during sustained cold weather conditions. While this lack of recognition was due, in part, to engineering errors in the original design of the system, more recent opportunities to recognize and correct this vulnerability were missed by your engineering staff when they provided a confusing technical specification interpretation in 1991. This interpretation led to the belief that frazil icing of the essential service water system would not occur at the station. Furthermore, the degraded condition of the safety-related, turbine-driven auxiliary feedwater pump involved inadequate engineering guidance.

Operator errors in aligning the essential service water system, and their multiple failures to recognize and correct these errors, further complicated the event. Weaknesses in their communications and ability to self-check, as well as missing emergency procedures in the control room, also unnecessarily complicated the operator's response to the event.

The Augmented Inspection Team also concluded that there was sufficient information obtained by licensed operators to conclude that Train "B" of the essential service water system was degraded at the same time that Train "A" was secured on the morning of January 30, 1996. However, this information was not clearly communicated to the shift supervisor.

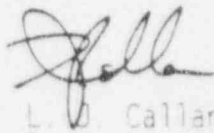
Despite these weaknesses, your staff's actions were effective in returning the plant to a safe, stable shutdown condition. Your staff also took reasonable actions to ensure that qualified personnel were available who were capable of responding to the informational and technical needs of the control room staff, the NRC, the State of Kansas, and Coffey County.

The scope of the Augmented Inspection did not include the identification of any violations of regulatory requirements. Accordingly, any potential enforcement issues will be addressed in future correspondence.

A copy of this letter and the enclosure will be placed in the NRC Public Document Room.

Should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,



L. D. Callan
Regional Administrator

Docket: 50-482
License: NPF-42

Enclosure:
NRC Inspection Report
50-482-96-05 w/attachments

cc w/enclosure:
Wolf Creek Nuclear Operating Corp.
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Wolf Creek Nuclear Operating
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