

WOLF CREEK

NUCLEAR OPERATING CORPORATION

Bart D. Withers
President and
Chief Executive Officer

February 26, 1992

WM 92-0030

U. S. Nuclear Regulatory Commission
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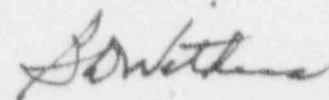
Reference: Letter dated January 27, 1992 from A. B. Beach, NRC to
B. D. Withers, WCNOC
Subject: Docket No. 50-482: Response to Violation 482/9135-01

Gentlemen:

Attached is Wolf Creek Nuclear Operating Corporation's (WCNOC) response to violation 482/9135-01 which was documented in the Reference. Violation 482/9135-01 concerned the failure to comply with Technical Specification 3.1.2.1

If you have any questions concerning this matter, please contact me or Mr. S. G. Wideman of my staff.

Very truly yours,



Bart D. Withers
President and
Chief Executive Officer

BDW/jra

Attachment

cc: A. T. Howell (NRC), w/a
R. D. Martin (NRC), w/a
G. A. Pick (NRC), w/a
W. D. Reckley (NRC), w/a

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Response to Violation 482/9135-01

Violation (482/9135-01): Failure to Comply with Technical Specification 3.1.2.1

Finding:

Technical Specification 3.1.2.1 requires that with the plant in Modes 4, 5, and 6, a boron injection flowpath from either the boric acid storage system or the refueling water storage tank, via a centrifugal charging pump, to the reactor coolant system be OPERABLE. With none of the flowpaths operable, suspend all operations involving CORE ALTERATIONS or positive reactivity changes.

Contrary to the above, on November 19 and again on November 20, 1991, with the plant in Mode 5 and no centrifugal charging pump OPERABLE, licensed operators injected borated water at 2473 and 2040 parts per million (ppm), respectively, into the reactor coolant system. Since the reactor coolant system was at a boron concentration of approximately 2500 ppm, these actions resulted in an addition of positive reactivity.

Reason For Violation:

The November 19, 1991 occurrence resulted from a procedural inadequacy. Procedure SYS BB-110, "Reactor Coolant System Fill and Vent", states that fill water must have a boron concentration greater than or equal to 2400 ppm, or greater than or equal to Reactor Coolant System (RCS) boron concentration and must meet Technical Specification requirements for RCS chemistry limits. The procedure step did not provide guidance for occasions in which boron concentration of the fill water is greater than or equal to 2400 ppm but less than current RCS boron concentration. As a result, the Shift Supervisor believed that it was acceptable to fill the RCS with water from Recycle Holdup Tank (RHUT) A because the boron concentration was greater than the required minimum of 2400 ppm.

Several causes contributed to the November 20, 1991 occurrence. Procedure SYS BG-200, "Reactor Make-Up Control System Operation", states to compute the desired boric acid flow rate for blended flow from nomographs and formulas provided in an attachment to the procedure for the automatic mode of operation. The attachment includes a note which states that blended flow is based on 120 gallon per minute (gpm) automatic makeup and boric acid tank boron concentration of 7000 ppm. Additionally, a subsequent step in the procedure mistakenly indicated that the flow control can be adjusted in automatic mode, if necessary. Following shift turnover, the on-coming Reactor Operator (RO) mistakenly determined that the proper boron concentration could be achieved by adjusting the flow rate with an adjusted boric acid flow and selecting the control system to automatic. Because information concerning the Reactor Makeup Control System default to the 120 gpm setpoint when selected to automatic mode was not reinforced in licensed operator training, the RO was not aware that the flow would default to the 120 gpm setpoint when selected to automatic mode and could not be adjusted to a different flow rate.

Corrective Actions That Have Been Taken And Results Achieved:

On November 21, 1991 upon identification that the Reactor Makeup Control System was in automatic with a flow of 120 gpm, the Reactor Makeup Control System was restored to provide 2540 ppm borated water. It was subsequently determined by Control Room operators that 4800 gallons of water at 2040 ppm boron concentration had been added to the RCS. Both events were identified as resulting in a positive reactivity change and were reported pursuant to, 10 CFR 50.73(a)(2)(i)(B) as conditions prohibited by Technical Specifications in Licensee Event Report 91-025-00.

Corrective Actions That Will Be Taken To Avoid Further Violations:

Procedure SYS BB-110 has been revised to indicate that the boron concentration of the fill water must be greater than or equal to 2400 ppm and greater than or equal to the existing RCS boron concentration. To prevent recurrence of the November 20, 1991 event, information concerning Reactor Makeup Control System default to the 120 gpm setpoint when selected to the automatic mode was added to the licensed operator essential reading. Information concerning these events and Reactor Makeup Control System operation in the automatic mode were incorporated into the licensed operator requalification training program. This information was covered during Requalification Cycle 92-2. These events will be incorporated into the licensed operator initial training program by March 27, 1992. Procedure SYS BG-200 was revised to include a caution reminding Control Room operators of the control system operation when selected to automatic mode and to eliminate the indication that the flow control can be adjusted when in the automatic mode.

In addition to the above corrective action, WCNOC will add a special topic to Requalification Cycle 92-5 which will emphasize these as well as other Technical Specification noncompliance events. This training will increase the operating crews awareness of potential Technical Specification problem areas. This special topic training will be completed by July 6, 1992.

Date When Full Compliance Will Be Achieved:

Full compliance will be achieved by July 6, 1992.