

September 14, 2000

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

SUBJECT: APPROVAL TO IMPLEMENT A PORTION OF THE ASME OMa CODE-1996,
APPENDIX II, CHECK VALVE CONDITION MONITORING PROGRAM FOR
WOLF CREEK GENERATING STATION (TAC NO. MA9749)

Dear Mr. Maynard:

By letter dated August 16, 2000 (ET 00-0031), you requested approval to implement a portion of Appendix II, "Check Valve Condition Monitoring Program," of the American Society of Mechanical Engineers Operation and Maintenance of Nuclear Power Plants Code, 1995 Edition, 1996 Addenda, (i.e., ASME OMa Code-1996) as it applies to selected check valves at Wolf Creek Generating Station (WCGS) in advance of incorporating the ASME OMa Code-1996 in its entirety in accordance with 10 CFR 50.55a(f)(4)(iv), as the code of record for inservice testing (IST) of check valves.

Specifically, you have requested approval to (1) implement the check valve portions of ASME OMa Code-1996, Appendix II, "Check Valve Condition Monitoring Program," with three limitations, for selected IST program check valves by September 29, 2000, prior to the upcoming October 2000 refueling outage (RO) XI, and (2) complete the implementation of these requirements for the remainder of the WCGS IST program check valves by September 1, 2003, prior to RO XIII, with the valves being tested in the RO following the implementation date. The three limitations given in your letter are: (A) valve opening and closing functions must be demonstrated when flow testing or examination methods (nonintrusive, or disassembly and inspection) are used, (B) the initial interval for tests and associated examinations may not exceed two fuel cycles or three years, whichever is longer; any extension of this interval may not exceed one fuel cycle per extension with the maximum interval not to exceed ten years; trending and evaluation of data must be used to reduce or extend the time interval between tests; and (C) if the Appendix II condition monitoring program is discontinued, then the requirements of ITSC 4.5.1 through 4.5.4 shall be implemented. These limitations on Appendix II are required when implementing Appendix II pursuant to 10 CFR 50.55a(b)(3)(iv)(A) through (C).

In your letter, you referenced the staff's letter of November 26, 1997, and stated that the staff approved the use of ASME OMa Code-1996, Subsection ISTC 4.5, including the Mandatory Appendix II, for selected check valves at WCGS in Relief Request 2VR-8. The staff noted in its safety evaluation attached to its November 26, 1997, letter, that its approval was valid until such time as the staff's generic positions were issued through rulemaking which amends 10 CFR 50.55a. At that time you were to follow the ASME guidelines for a check valve condition monitoring program with any limitations specified in the new rule. The new rule was published in the Federal Register on September 22, 1999, and incorporated by reference the 1995 Edition

up to and including the 1996 Addenda to the ASME Operation and Maintenance Code in 10 CFR 50.55a(b)(3).

The significant changes to IST of check valves included in ASME OMa Code-1996 are: (1) correcting certain anomalies in the way exercising of check valves is currently being implemented, and (2) codifying a process for monitoring the valve's operating condition and performance. This integrated two-part improvement to the Code provides interrelated requirements. Section ISTC 4.5.2, "Exercising Requirements," and Section 4.5.4, "Valve Obturator Movement," were changed to require a bidirectional test to improve the detection of valve degradation and failure. The change to Section ISTC 4.5.5, "Condition Monitoring Program," allowed the use of a codified condition monitoring process as an alternative to the exercising and testing requirements of Sections 4.5.1 through 4.5.4. The condition monitoring process is defined in Appendix II of the ASME OMa Code-1996, and allows licensees certain flexibility in establishing the types of test, examination, and preventive maintenance activities and their associated intervals, when justified based on the check valve's performance and operating condition. These ASME Code changes were developed so licensees who elect not to implement the ISTC 4.5.5 alternative condition monitoring program in their IST program would be required to use ISTC 4.5.1 through 4.5.5 as a default set of testing and examination requirements for IST of check valves.

The NRC staff considers the condition monitoring program approach of Appendix II, for check valve IST with the modifications in 10 CFR 50.55a(b)(3)(iv)(A) through (C), to be a significant improvement over present ASME Code requirements for check valves, and has encouraged licensees to implement Appendix II. The use of the ISTC 4.5.5 alternative IST program provides licensees with knowledge of the check valve's operating condition, informed and verified expectations of the valve's performance over extended intervals, and a process to reduce the burden of unnecessary IST of check valves.

The regulations in 10 CFR 50.55a(f)(4)(iv) state, "Inservice tests of pumps and valves may meet the requirements set forth in subsequent editions and addenda that are incorporated by reference in paragraph (b) of this section, and subject to Commission approval. Portions of editions or addenda may be used provided that all related requirements of the respective editions or addenda are met." Thus, licensees who elect to implement Appendix II of ASME OMa Code-1996 must implement the 1996 Code requirements for their IST program check valves. In accordance with this, the NRC stated, in the statement of consideration of the amendment to 10 CFR 50.55a (64 FR 51388), which incorporated by reference ASME OMa Code-1996, that it would "favorably consider a request by a licensee under [Paragraph] 50.55a(f)(4)(iv) to apply Appendix II in advance of incorporating the 1995 Edition with 1996 Addenda of the ASME OM Code as its Code of Record, in this case for IST program check valves, if the licensee's request justifies: (1) The modifications to Appendix II contained in the rule have been satisfied [(i.e., 10 CFR 50.55a(b)(3)(iv)(A) through (C))], and (2) All portions of the 1995 Edition with the 1996 Addenda of the OM Code that apply to check valves are implemented for the remaining check valves not included in the Appendix II program." This would be a two-step implementation of all portions of ASME OMa Code-1996, first, on a selected set of the IST program check valves and, second, within a reasonable time for the remaining check valves.

Based on its review of your letter and the clarifying information provided in the docketed email dated August 23, 2000 (ADAMS Accession No. ML003744150), the staff concludes that you have committed to (1) comply with the required modifications of Appendix II required in 10 CFR 50.55a(b)(3)(iv)(A) through (C), and (2) implement the requirements of ASME OMa Code-1996 on the remaining IST program check valves not initially selected for the Appendix II program in a specified and reasonable time period within the current 10-year IST interval for WCGS. Based on this, the staff finds that you have met the Code and regulatory requirements for implementing the Appendix II program of 10 CFR 50.55a(b)(3)(iv). Therefore, the staff concludes that your request to use the check valve portion of ASME OMa Code-1996, including Appendix II, at WCGS as contained in your commitments (including the implementation schedule) is approved pursuant to 10 CFR 50.55a(f)(4)(iv).

If you have any questions, please contact Jack Donohew at 301-415-1307 or, through the Internet, at jnd@nrc.gov.

Sincerely,

/RA/

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

Docket No. 50-482

cc: See next page

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Corrections
 completed
 JND 9/12/00

* See previous concurrence

ADAMS Accession No. ML003749849

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