

# WOLF CREEK NUCLEAR OPERATING CORPORATION

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U. S. Nuclear Regulatory Commission  
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**Subject:** Docket No. 50-482: Request to Implement a Portion of the 1995 Edition and 1996 Addenda of the American Society of Mechanical Engineers Code for Operation and Maintenance of Nuclear Power Plants Regarding Appendix II, "Check Valve Condition Monitoring Program"

- References:**
- 1) Nuclear Regulatory Commission Final Rule 10 CFR Part 50, "Industry Codes and Standards; Amended Requirements," (64 FR 51370) dated September 22, 1999
  - 2) Letter dated November 26, 1997, from W. H. Bateman, USNRC, to O. L. Maynard, Wolf Creek Generating Station, "Relief Request from the Requirements of ASME Code, Section XI, Wolf Creek Generating Station (TAC NO. M97883)"

**Gentlemen:**

10 CFR 50.55a(f), "Inservice testing requirements," paragraph (4), requires that inservice testing (IST) of certain American Society of Mechanical Engineers (ASME), Boiler and Pressure Vessel (B&PV) Code Class 1, 2, and 3 components be performed in accordance with Section XI, "Rules for Inservice Inspection of Nuclear Plant Components," of the ASME Code and applicable addenda incorporated by reference in paragraph (b) of 10 CFR 50.55a "Codes and Standards." Paragraph (4)(iv) of 10 CFR 50.55a(f) indicates that subsequent editions and addenda of the ASME code that are incorporated by reference in paragraph (b) of 10 CFR 50.55a may be implemented by a licensee subject to NRC approval. Paragraph (4)(iv) further states that portions of editions or addenda may be used provided that all related requirements of the respective editions or addenda are met.

The above referenced final rule publication revised, in part, the IST requirements for check valves. In the final rule, the NRC amended its regulations to incorporate by reference the 1995 Edition and 1996 Addenda of the ASME Code for Operation and Maintenance of Nuclear Power Plants (i.e., OMa - 1996 Code). The rule also permits the use of a check valve monitoring

program (i.e., Appendix II, "Check Valve Condition Monitoring Program," to the OMa - 1996 Code) in lieu of certain provisions of Subsection Inservice Testing Code (ISTC) of the OMa - 1996 Code.

The final rule publication noted that the NRC will favorably consider a request by a licensee under 10 CFR 50.55a(f)(4)(iv), to apply Appendix II for check valves in advance of incorporating the 1995 Edition with the 1996 Addenda of the ASME OM Code as its Code of record, if the licensee commits to the following provisions:

1. The modifications to Appendix II contained in the rule have been satisfied. Those modifications are as follows:
  - A. Valve opening and closing functions must be demonstrated when flow testing or examination methods ( non-intrusive, or disassembly and inspection) are used.
  - B. The initial interval for tests and associated examinations may not exceed two fuel cycles or 3 years, whichever is longer. Any extension of this interval may not exceed one fuel cycle per extension with the maximum interval not to exceed 10 years; trending and evaluation of existing data must be used to reduce or extend the time interval between tests.
  - C. If the Appendix II condition monitoring program is discontinued, then the requirements of ISTC 4.5.1 through 4.5.4 must be implemented.
2. All portions of the 1995 Edition with the 1996 Addenda of the ASME OM Code that apply to check valves are implemented for the remaining check valves not included in the Appendix II program.

The implementation of the 1995 Edition with the 1996 Addenda of the ASME OM Code, including Appendix II, will improve the performance of check valves and will optimize testing, examination, and preventative maintenance. Appendix II properly focuses testing, monitoring, or examination activities on problem valves, and away from valves that exhibit acceptable performance. Condition monitoring, as described in Appendix II, is a new Code approach with a promise of better detection of check valve degradation, improved valve performance, and maintaining reliable component capability over extended intervals, while adjusting test and examination intervals. The modifications to Appendix II contained in the rule provide for a safe and prudent progression of extending test and examination intervals consistent with historical experience and performance expectations. In addition, the modifications to Appendix II noted above allow a licensee to conduct self-compliance inspections and minimize the expenditure of licensee and NRC resources.

In accordance with 10 CFR 50.55a(f)(4)(iv), Wolf Creek Nuclear Operating Corporation (WCNOC) requests approval to implement a portion of the ASME OMa Code-1996, Appendix II, "Check Valve Condition Monitoring Program," as it applies to selected check valves only, in advance of incorporating the 1995 Edition with 1996 Addenda of ASME OM Code, in its entirety, as the code of record for check valves.

Previously approved Wolf Creek Relief Request 2VR-8 (Reference 2) allowed WCNOC to use ASME Code for Operation and Maintenance of Nuclear Power Plants, 1995 Edition with the

1996 Addenda, Subsection ISTC 4.5, including the Mandatory Appendix II, "Check Valve Condition Monitoring Program," with certain limitations. However, Wolf Creek Relief Request 2VR-8 was superseded by the Rule Changes implemented in the fall of 1999. WCNOG requests approval to implement the check valve portion of the ASME OMa Code-1996, Appendix II "Check Valve Condition Monitoring Program," with limitations in 10 CFR 50.55a, for certain check valves in Refueling Outage XI (to be implemented by September 29, 2000, prior to the start of Refueling Outage XI). Implementation of the ASME Code for Operation and Maintenance of Nuclear Power Plants, 1995 Edition with 1996 Addenda of the OM Code, with limitations in 10 CFR 50.55a, will be phased in for the remainder of check valves within the WCNOG IST program. Full implementation will be completed by September 1, 2003 (prior to Refueling Outage XIII). The length of time to complete implementation is necessary given the available resources and extensive evaluation that a number of valves will require to ensure proper implementation of the new requirements.

WCNOG requests an expedited review and approval of this request based upon IST Program changes in progress and to support our Refueling Outage XI check valve test schedule. A summary of Licensing Commitments made in this submittal is provided in the attachment.

If you have any questions concerning this matter, please contact me at (316) 364-4034, or Mr. Tony Harris at (316) 364-4038.

Very truly yours,

  
for Richard A. Muench

RAM/rlr

Attachment

cc: J. N. Donohew (NRC), w/a  
W. D. Johnson (NRC), w/a  
E. W. Merschoff (NRC), w/a  
Senior Resident Inspector (NRC), w/a

**LIST OF COMMITMENTS**

The following table identifies those actions committed to by Wolf Creek Nuclear Operating Corporation (WCNOC) in this document. Any other statements in this submittal are provided for information purposes and are not considered to be commitments. Please direct questions regarding these commitments to Mr. Tony Harris, Manager Regulatory Affairs at Wolf Creek Generating Station, (316) 364-4038.

<b>COMMITMENT</b>	<b>Due Date/Event</b>
<p>Testing for selected check valves in Refueling Outage XI will comply with the requirements of ASME Code for Operation and Maintenance of Nuclear Power Plants, 1995 Edition with the 1996 Addenda, Subsection ISTC 4.5, including the Mandatory Appendix II, "Check Valve Condition Monitoring Program," with the following limitations:</p> <p>(A) Valve opening and closing functions must be demonstrated when flow testing or examination methods (nonintrusive, or disassembly and inspection) are used;</p> <p>(B) The initial interval for tests and associated examinations may not exceed two fuel cycles or 3 years, whichever is longer; any extension of this interval may not exceed one fuel cycle per extension with the maximum interval not to exceed 10 years; trending and evaluation of existing data must be used to reduce or extend the time interval between tests.</p> <p>(C) If the Appendix II condition monitoring program is discontinued, then the requirements of ISTC 4.5.1 through 4.5.4 must be implemented.</p>	September 29, 2000
<p>WCNOC will upgrade testing for the remainder of IST Program check valves to the ASME Code for Operation and Maintenance of Nuclear Power Plants, 1995 Edition with the 1996 Addenda, with the above limitations, prior to Refueling Outage XIII.</p>	September 1, 2003