

WOLF CREEK

NUCLEAR OPERATING CORPORATION

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ET 97-0002

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Station P1-137
Washington, D. C. 20555

Subject: Docket No. 50-482: Operation and Maintenance Relief
Requests 2VR-7 and 2VR-8

Gentlemen:

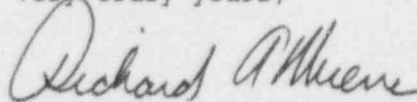
This letter transmits requests for relief from ASME Section XI requirements for Wolf Creek Generating Station in accordance with 10 CFR 50.55a(a)(3)(i). Attachments I and II to this letter provides Relief Requests 2VR-7 and 2VR-8 respectively.

Relief Request 2VR-7 and 2VR-8 concern the ASME Section XI IWV, reference to ASME/ANSI OM-1987 and the ASME/ANSI OMA-1988 Addenda "Operation and Maintenance of Nuclear Power Plants." Relief Request 2VR-7 proposes the use of the alternative method described in ASME Code Case OMN-1, "Alternative Rules for Preservice and Inservice Testing of Certain Electric Motor-Operated Valve Assemblies in Light-Water Reactor Power Plants OM Code-1995, Subsection ISTC," with the limitations described in Attachment I. Relief Request 2VR-8 requests the use of ASME OMA-1996 Subsection ISTC 4.5 including the Mandatory Appendix II, "Check Valve Condition Monitoring Program," with the limitations described in Attachment II.

WCNOC considers these Codes Cases to be an acceptable alternative to the requirements of ASME/ANSI OM-1987 and the ASME/ANSI OMA-1988 Addenda.

If you have any questions regarding this submittal, please contact me at (316) 364-8831, extension 4034, or Mr. Richard D. Flannigan at extension 4500.

Very truly yours,



Richard A. Muench

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Attachment I - Relief Request 2VR-7
Attachment II - Relief Request 2VR-8

cc: L. J. Callan (NRC), w/a
W. D. Johnson (NRC), w/a
J. F. Ringwald (NRC), w/a
J. C. Stone (NRC), w/a

AD471

Relief Request No. 2VR-7

Valve(s):

All Motor Operated Valves

Category:

A or B

Function:

System Dependent.

Test Requirement:

ASME OMA 1988 Part 10 sections 4.1, "Valve Position Verification" and 4.2.1, "Valve Exercising Test"

Basis for Relief:

ASME OMA 1988 Part 10 sections 4.1, "Valve Position Verification" and 4.2.1, "Valve Exercising Test" discusses position verification and exercising requirements for Motor Operated Valves (MOVs). The NRC staff has long recognized the limitations of stroke-time testing as a means of monitoring the operational readiness of MOVs. NUREG-1482, "Guidelines for Inservice Testing Programs at Nuclear Power Plants," section 4.2.3 states that the staff has determined that a testing program established in accordance with the guidance of Generic Letter 89-10, "Safety-Related Motor-Operated Valve Testing and Surveillance," can provide an acceptable level of quality and safety if the licensee has an established program of periodic testing. Generic Letter 96-05, "Partial Bypass of Shutdown Cooling Flow From the Reactor Vessel," identifies ASME OM Code Case OMN-1 "Alternative Rules for Preservice and Inservice Testing of Certain Electric Motor Operated Valve Assemblies in LWR Power Plants", with limitations, as an appropriate means of implementing a periodic MOV design-basis verification testing program as described by Generic Letter 89-10.

Alternative Testing:

MOV testing will comply with the requirements of ASME OM Code Case OMN-1, "Alternative Rules for Preservice and Inservice Testing of Certain Electric Motor-Operated Valve Assemblies in Light-Water Reactor Power Plants OM Code-1995, Subsection ISTC," with the following limitations:

- 1) The potential benefits (such as identification of decreased thrust output and increased thrust requirements) and potential adverse affects (such as accelerated aging or valve damage) will be considered when determining the appropriate testing for each MOV.

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Alternative Testing: (continued)

- 2) Where the selected test interval extends beyond 5 years, performance and test experience from previous tests shall be evaluated to justify the periodic verification interval.
- 3) The risk insights determined during Wolf Creek's participation in the Electric Power Research Institute (EPRI) Risk-Based Inservice Testing Pilot Project (ref. EPRI TR-105869) and on-going development of an updated risk-based categorization process based upon ASME Research guidance and Codes as applicable will be used in accordance with the requirements of the ASME OM Code Case OMN-1.

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Valve(s):

All Check Valves

Category:

C

Function:

System Dependent.

Test Requirement:

ASME OMa 1988 Part 10 section 4.3.2, "Exercising Tests for Check Valves"

Basis for Relief:

ASME OMa 1988 Part 10 section 4.3.2, "Exercising Tests for Check Valves" discusses test requirements for check valves that are within the Scope statement of paragraph 1.1. The NRC and ASME have long recognized that the existing ASME Code check valve testing requirements will not typically detect degradation of performance or necessarily a check valve's ability to perform its intended function.

Certain check valves need more attention in order to determine their failure or maintenance patterns. Once these mechanisms have been analyzed, confirmed, and the valve or group of similar valves have had their performance improved, then the same level of attention is no longer needed.

Certain check valves need less attention as they have continuously exhibited acceptable operation every time they have been disassembled and examined or every time they have been non-intrusively tested. Once the reasons for their behavior have been analyzed, and confirmed, then the test, examination, and preventive maintenance activities necessary to maintain the continued acceptable performance can be optimized. Once optimized, the same level of attention is no longer needed.

The above examples demonstrate how the same types of tests and their associated intervals may need to be periodically adjusted based on the valve's performance. The ASME has developed a process that allows the Owner certain flexibility in establishing the types of test, examination, and preventive maintenance activities and their associated intervals.

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Basis for Relief: (cont.):

ASME OMA-1996 Subsection ISTC 4.5 including the Mandatory Appendix II, "Check Valve Condition Monitoring Program," provides the equivalent or improved guidance with respect to the current check valve testing requirements set forth in ASME OMA 1988 Part 10 section 4.3.2, "Exercising Checks for Check Valves." Requirements are given for the implementation of a sample disassembly examination program. ASME OMA 1996 ISTC Mandatory Appendix II provides a methodology to optimize testing, examination, and preventive maintenance activities. Wolf Creek Generating Station (WCGS) has an established Check Valve Reliability Improvement Program that has previously been inspected by the NRC (ref. NRC Inspection Report 50-482/94-14) and evaluated by an industry peer assessment team. The audits demonstrate the acceptability of the WCGS Check Valve Reliability Improvement Program. ASME OMA 1996 Subsection ISTC 4.5 with Mandatory Appendix II is an alternative to the current test requirements that provides an acceptable level of quality and safety.

A maximum test interval based upon current NRC and ASME guidance is specified. The maximum test interval allowed by ASME Code for relief valves is 10 years. The current maximum test interval specified for check valve disassembly is 8 years. The maximum test interval for ASME OMN-1, "Alternative Rules for Preservice and Inservice Testing of Certain Electric Motor-Operated Valve Assemblies in Light-Water Reactor Power Plants OM Code-1995, Subsection ISTC," referenced in Generic Letter 96-05, "Partial Bypass of Shutdown Cooling Flow From the Reactor Vessel," is 10 years. The guidance of Generic Letter 96-05 for maximum test intervals will be used as specified below.

Alternative Testing:

Check valve testing will comply with the requirements of ASME OMA 1996 Subsection ISTC 4.5, including the Mandatory Appendix II with the following limitations:

- 1) Where the most frequently performed appropriate measure (test, examination, or preventive maintenance) interval extends beyond 60 months, performance, examination, maintenance history, and test experience from previous tests shall be evaluated to justify the periodic verification interval.
- 2) In no case shall a test or examination interval exceed 120 months.

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- 3) The risk insights determined during Wolf Creek Nuclear Operating Corporation participation in the EPRI Risk-Based Inservice Testing Pilot Project (ref. EPRI TR-105869) and on-going development of an updated risk-based categorization process based upon ASME Research guidance and Codes as applicable will be used to ensure that the testing, examination, or preventive measures taken are commensurate with each valve's safety significance.