

# WOLF CREEK NUCLEAR OPERATING CORPORATION

Richard A. Muench  
Vice President Technical Services

FEB 12 2002

ET 02-0004

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555

**Subject:** Docket 50-482: Inservice Inspection Program Alternative for Limited Examination on Carbon Steel Piping Welds, Relief Request I2R-27

Gentlemen:

In accordance with 10 CFR 50.55a(a)(3)(i), Wolf Creek Nuclear Operating Corporation (WCNOC) hereby requests Nuclear Regulatory Commission (NRC) approval for the use of an alternative to the requirements of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, Inservice Inspection Program.

Attachment I describes Relief Request I2R-27 to the WCNOC Second Interval Inservice Inspection Program Plan. This relief request is applicable to carbon steel piping welds, AE-04-F033, AE-04-F043, and AB-01-F035, which are part of the high-energy line break augmented inspection program. Complete examinations could not be performed on these welds because of the physical geometry of the weld joints.

During Refuel XI, the subject welds were examined to the fullest extent possible. WCNOC proposes that examination of the welds to the fullest extent possible provides an acceptable level of quality and safety as required by 10 CFR 50.55a(a)(3)(i).

WCNOC requests approval of this relief request by January 1, 2003. The approval date was administratively selected to allow for NRC review, but NRC approval by this date is not required to allow continued safe full power operation or to conduct a refueling outage.

Attachment II contains a list of commitments made in this letter.

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If you have any questions concerning this matter, please contact me at (620) 364-4034, or Mr. Tony Harris at (620) 364-4038.

Very truly yours,

A handwritten signature in black ink, appearing to read "R. Muench". The signature is written in a cursive style with a long, sweeping underline that extends below the printed name.

Richard A. Muench

RAM/pb

Attachments

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

## RELIEF REQUEST I2R-27

### **Component Identification:**

Code Class: 2  
Examination Category: Augmented  
Item Number: Updated Safety Analysis Report (USAR)  
Description: Carbon Steel Piping Welds

### **Weld Identification Numbers:**

AE-04-F033 (4" elbow to valve); AE-04-F043 (3" weld-o-let to valve); AB-01-F035 (4" extrusion to pipe)

These welds are part of a group of welds on which WCNOG committed to perform 100 per cent volumetric examination in order to comply with NRC Branch Technical Position MEB 3-1. These welds are located within the "no break zone" associated with high energy piping in containment penetration areas. The "no break zone" is an area where pipe breaks were not postulated due to the stress levels being within limits specified in USAR Section 3.6.2.

### **Examination Requirements:**

The American Society of Mechanical Engineers (ASME) Code, Section XI, 1989 Edition, IWC-2500-7 requires the lower 1/3t extending 0.25 inches beyond the weld crown on each side 360 degrees around the weld. ASME Section XI, 1989 Edition, Appendix III requires scanning for reflectors parallel to the weld seam (perpendicular scan) and for reflectors transverse to the weld seam (parallel scan).

### **Relief Requested:**

Pursuant to 10 CFR 50.55a(a)(3)(i) and 10 CFR 50.55a(g)(6)(i), relief is requested to conduct alternative examinations as described below.

### **Basis for Relief:**

Due to configuration geometry, the code required volume cannot be obtained. The perpendicular scans were completed with 100 per cent coverage on the listed welds. However, the required coverage on the parallel scans cannot be obtained.

Weld AE-04-F033 connects a 4-inch elbow to a 4-inch valve. Due to the configuration of the joint, parallel coverage on 25 per cent of the Weld Required Volume (WRV) on the valve side of the weld cannot be obtained. The shaded area in Figure 1 illustrates the volume that cannot be examined.

Weld AE-04-F043 connects a 3-inch weld-o-let to a 3-inch valve. Due to the configuration of the joint, parallel coverage on 34 per cent of the WRV on the valve side of the weld cannot be obtained. The shaded area in Figure 2 illustrates the volume that cannot be examined.

## **RELIEF REQUEST I2R-27**

Weld AB-01-F035 connects a 4-inch extruded outlet from the 28-inch main steam header to a 4-inch pipe. Due to the configuration of the extrusion, parallel coverage on 26 per cent of the WRV on the extrusion side of the weld cannot be obtained. The shaded area in Figure 3 illustrates the volume that cannot be examined.

To obtain the code required coverage on the subject welds would require re-designing and re-fabricating the piping in which these welds are installed. WCNOG considers this to be impractical.

WCNOG considers that the use of the proposed alternative examinations described below will provide an acceptable level of quality and safety as required by 10 CFR 50.55a(a)(3)(i).

### **Proposed Alternative Examinations:**

- 1) The subject welds have been examined to the fullest extent practical. WCNOG proposes that the completed examinations be considered an acceptable alternative to the augmented inspection requirements.
- 2) Periodic System Leakage Tests per Category C-H, Table IWC-2500-1, provide additional verification of component integrity.

### **Period for which Relief is Requested:**

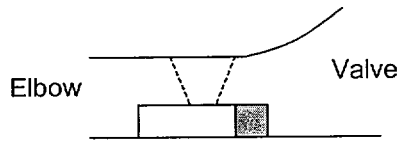
Relief is requested for the second ten-year interval of the WCNOG Inservice Inspection Program. This interval ends in 2005.

### **Implementation Schedule:**

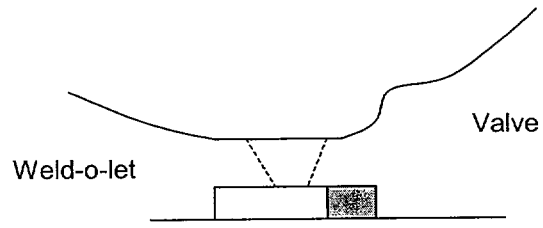
This relief request will be implemented within 60 days of approval.

WCNOG requests approval of this relief request by January 1, 2003.

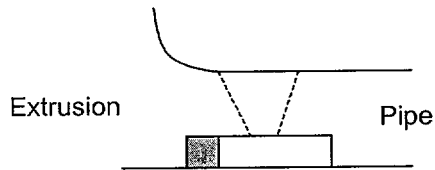
RELIEF REQUEST I2R-27



**FIGURE 1**  
(Not to Scale)



**FIGURE 2**  
(Not to Scale)



**FIGURE 3**  
(Not to Scale)

### 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, (620) 364-4038.

<b>COMMITMENT</b>	<b>Due Date/Event</b>
The relief request will be implemented within 60 days of approval.	Within 60 days of approval of the relief request.