WOLF CREEK
NUCLEAR OPERATING CORPORATION

Richard A. Muench
President and Chief Executive Officer

APR 15 2004

WM 04-0008

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

Subject: Docket 50-482: Request to Extend the Second 10-year Inservice Inspection (ISI) Interval for Reactor Pressure Vessel Examinations, 10 CFR 50.55a Request I2R-28

Gentlemen:

Pursuant to 10 CFR 50.55a(a)(3)(i), Wolf Creek Nuclear Operating Corporation (WCNOC) hereby requests NRC approval for use of an alternative to the requirements of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (BPV) Code, Section XI, paragraph IWA-2430(d).

Attachment I provides 10 CFR 50.55a Request I2R-28 to the WCNOC Second Interval Inservice Inspection (ISI) Program Plan. This request is applicable to examinations performed on or from the interior of the reactor vessel. The proposed alternative requests an extension to the completion of these examinations to prior to startup from Refueling Outage 15, which is approximately 3 months beyond the Code allowed 1 year extension for Wolf Creek Generating Station's (WCGS) second 10-year ISI interval. WCNOC proposes that completing the subject examinations prior to startup from Refueling Outage 15 maintains an acceptable level of quality and safety as required by 10 CFR 50.55a(a)(3)(i). Attachment II contains a list of commitments.

Planning and scheduling activities for Refueling Outage 14 are currently in progress. WCNOC requests approval of this 10 CFR 50.55a Request by September 3, 2004, to support Refueling Outage 14 planning and scheduling activities and to provide sufficient time for WCNOC to pursue a separate request to extend the examination frequency for the Category B-A and B-D reactor vessel welds based on WCAP-16168, "Risk-Informed Extension of Reactor Vessel In-Service Inspection Interval."

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If you have any questions concerning this matter, please contact me at (620) 364-4112 or Mr. Kevin Moles at (620) 364-4126.

Sincerely,

Richard A. Muench

RAM/rlg

Attachments

cc: J. N. Donohew (NRC), w/a
D. N. Graves (NRC), w/a
B. S. Mallett (NRC), w/a
Senior Resident Inspector (NRC), w/a

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Proposed Alternative
In Accordance with 10 CFR 50.55a(a)(3)(i)
-Alternative Provides Acceptable Level of Quality and Safety-

1. ASME Code Component(s) Affected

The affected component is the Wolf Creek Generating Station (WCGS) reactor vessel (RBB01), specifically the following ASME Boiler and Pressure Vessel (BPV) Code Section XI Examination Categories and Item Numbers covering examinations of the reactor vessel.

Examination Category	Item No.	Description
B-A	B1.11	Circumferential Shell Welds
B-A	B1.12	Longitudinal Shell Welds
B-A	B1.21	Circumferential Head Welds
B-A	B1.22	Meridional Shell Welds
B-A	B1.30	Shell-to-Flange Weld
B-D	B3.90	Nozzle-to-Vessel Welds
B-D	B3.100	Nozzle Inner Radius Areas
B-F	B5.10	Dissimilar Metal Nozzle-to-Safe End Butt Welds
B-J	B9.11	Piping Circumferential Welds (Safe End to Loop Piping)
B-N-2	B13.60	Interior Attachments Beyond Beltline
B-N-3	B13.70	Removable Core Support Structure

(Throughout this request the above examination categories are referred to as "the subject examinations.")

2. Applicable Code Edition and Addenda

The Wolf Creek Nuclear Operating Corporation (WCNOC) Second Interval Inservice Inspection (ISI) Program Plan is prepared to the 1989 Edition of the ASME BPV Code, Section XI.

3. Applicable Code Requirement

IWA-2430(a) requires that the inservice examinations and system pressure tests required by IWB, IWC, IWD, and IWE shall be completed during each of the inspection intervals for the service lifetime of the power unit. The inspections shall be performed in accordance with the schedule of ...Inspection Program B of IWA-2432.

IWA-2430(d) requires that for components inspected under Program B, each of the inspection intervals may be extended or decreased by as much as 1 year. Adjustments shall not cause successive intervals to be altered by more than 1 year from the original pattern of intervals.

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4. Reason for Request

An alternative is requested from the requirement of IWA-2430(d) that an interval extension be no more than 1 year. The end date for the 10-year interval of the WCNOC Second Interval Inservice Inspection Program is September 3, 2005. The current schedule for examination of the reactor vessel is Refueling Outage 14, (currently scheduled to begin April 9, 2005). Extending the current 10-year interval by approximately 3 months longer than the 1 year allowed frequency tolerance to allow time to pursue extension of the reactor vessel examination frequency from 10 year to 20 years for ASME Section XI Examination Category B-A and B-D welds will result in a reduction in examination costs and man-rem exposure. Performance of the subject examinations during Refueling Outage 14 could potentially extend the refueling outage by several days based on the current scope of work. It is expected that performance of the subject examinations during Refueling Outage 15 would not impact the outage duration based on current identified work scope. Additionally, contractor resources to support performance of the subject examinations during Refueling Outage 14 are limited.

WCNOC is participating in the Westinghouse Owners Group (WOG) program that provides the technical basis for decreasing the frequency of examination by extending the Section XI Program B inspection interval from the current 10 years to 20 years for ASME Section XI Examination Category B-A and B-D reactor vessel welds and Category B-J reactor vessel nozzle welds. Topical Report WCAP-16168, Revision 0, "Risk-Informed Extension of Reactor Vessel In-Service Inspection Interval," was submitted to the NRC by letter WOG-03-565 on October 31, 2003. The topical report provides the technical basis for decreasing the frequency of examination by extending the Section XI Program B inspection interval from the current 10 years to 20 years for ASME Section XI Examination Category B-A and B-D reactor vessel welds and Category B-J reactor vessel nozzle welds. This topical report followed the approach specified in ASME Code Case N-691, "Application of Risk-Informed Insights to Increase the Inspection Interval for Pressurized Water Reactor Vessels," that provides the requirements for Code users to make use of the generic work to provide the risk-informed insights to increase the inspection interval for pressurized water reactor vessels. Implementation of WCAP-16168 would allow the interval to be increased to 20 years for the examination of Examination Categories B-A and B-D welds in pressurized water reactor vessels and Category B-J welds in the reactor vessel nozzles. Even though the B-J welds interval extension is provided in WCAP-16168, due to the close proximity to the B-F welds, WCNOC will examine the B-J welds concurrently with the B-F welds.

Extending the interval of the WCNOC Second Interval Inservice Inspection Program to prior to startup from Refueling Outage 15 will provide sufficient time for WCNOC to pursue the separate request to extend the Section XI Program B inspection interval for the Category B-A and B-D reactor vessel welds and minimize resources during Refueling Outage 14 without impacting the safety of the plant.

5. Proposed Alternative and Basis for Use

WCNOC proposes extending the completion of the interval for the WCNOC Second Interval Inservice Inspection Program to coincide with the startup from Refueling Outage 15 and performing the subject examinations prior to startup from Refueling Outage 15. However, if WCNOC's planned submittal to use WCAP-16168 results in NRC approval of an extension of

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the Section XI Program B interval for Category B-A and B-D reactor vessel welds, then the interval for performing the Category B-A and B-D examinations would be extended to 20 years between examinations and Category B-A and B-D examinations would be performed in a refueling outage subsequent to Refueling Outage 15. Startup from Refueling Outage 15 is expected to occur in November, 2006. Extending the completion of the interval for the WCNOC Second Interval Inservice Inspection Program to coincide with the startup from Refueling Outage 15 would result in the interval being approximately 3 months longer than the 1 year extension allowed by IWA-2430(d). The WCNOC Third Interval Inservice Inspection Program start date will remain at September 3, 2005. WCNOC will submit the 10 CFR 50.55a Request to extend the Section XI Program B inspection interval for the Category B-A and B-D reactor weld examinations from 10 years to 20 years by September 30, 2004.

The previous 10-year reactor vessel examinations were completed on March 5, 1996. (This was within the 1 year code allowed extension of the first interval end date of September 3, 1995.) By completing the second interval subject examinations in Refueling Outage 15, less than 11 years will have elapsed between the first and second 10-year reactor vessel examinations. Thus, the examinations will actually be performed within the Code intended 10 years plus 1 year allowed frequency tolerance, even though the second inservice inspection interval would be extended approximately 3 months longer than the 1 year allowed frequency tolerance. Therefore, this alternative provides an acceptable level of quality and safety.

Additional Considerations

The Category B-F dissimilar metal welds, which will be inspected during the reactor vessel examination, are required to have any detected flaws sized to an accuracy of 0.125 RMS as specified in ASME Section XI, Appendix VIII Supplement 10. At this time, no inspection vendor within the industry is qualified to the sizing requirements of ASME Section XI, Appendix VIII Supplement 10 for dissimilar metal welds with the configuration and wall thickness of those at WCGS. Deferring the reactor vessel examinations, including the dissimilar metal weld examinations, to Refueling Outage 15 would allow an additional 18 months for industry testing and research to develop a resolution toward the issues regarding examination of dissimilar metal welds.

6. Duration of Proposed Alternative

An alternative is requested to extend the interval of the WCNOC Second Interval Inservice Inspection Program to coincide with the startup from WCGS's Refueling Outage 15, which is expected to be in November, 2006.

7. References

1. Code Case N-691, "Application of Risk-Informed Insights to Increase the Inspection Interval for Pressurized Water Reactor Vessels," November 2003.

2. WCAP-16168-NP, "Risk-Informed Extension of Reactor Vessel In-Service Inspection Interval," October 2003.

LIST OF COMMITMENTS

The following table identifies those actions committed to by Wolf Creek Nuclear Operating Corporation in this document. Any other statements in this submittal are provided for information purposes and are not considered commitments. Please direct questions regarding these commitments to Mr. Kevin Moles, Manager Regulatory Affairs at Wolf Creek Generating Station, (620) 364-4126.

Commitment	Due Date
WCNOC will submit the 10 CFR 50.55a Request to extend the Section XI Program B inspection interval for the Category B-A and B-D reactor weld examinations from 10 years to 20 years by September 30, 2004.	9/30/04