



Northern States Power Company
Prairie Island Nuclear Generating Plant
1717 Wakonade Dr. East
Welch, Minnesota 55089

October 5, 1995

10 CFR Part 50
Section 50.55a

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

PRAIRIE ISLAND NUCLEAR GENERATING PLANT
Docket Nos. 50-282 License Nos. DPR-42
50-306 DPR-60

Requests for Relief for the 3rd 10-year Interval Inservice Inspection Programs

On August 5, 1994 we submitted for review our third 10-year Inservice Inspection Examination Plan for Unit 1 and, on March 28, 1995, a response to a request for additional information to that plan. On November 15, 1994 we submitted for review our third 10-year Inservice Inspection Examination Plan for Unit 2, and on July 13, 1995, a response to a request for additional information to that plan. The purpose of this letter is to make changes to two relief requests associated with those plans.

Attached are Unit 1 Relief Request No. 6, Revision 1, and Unit 2 Relief Request No. 7, Revision 1, which address documentation requirements for calibration blocks. We had submitted Revision 0 to these requests on April 19, 1995. These requests have been revised to respond to questions from the NRC staff by telecon on August 21, 1995. One of those questions was regarding the percentage of welds on piping components which are fitting to fitting welds. That value is less than 16% for each unit. That number is not discussed in the revised requests.

In this letter we have made no new Nuclear Regulatory Commission commitments. Please contact Jack Leveille (612-388-1121, Ext. 4662) if you have any questions related to this letter.

Jack Leveille
for Roger O Anderson
Director
Licensing and Management Issues

c: (next page)

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c: Regional Administrator - Region III, NRC
Senior Resident Inspector, NRC
NRR Project Manager, NRC
J E Silberg
B W Brown, INEL

Attachments:

- 1) Unit 1: ISI Relief Request No. 6 (Rev. 1), Use of Existing Calibration Blocks (3 pages)
- 2) Unit 2: ISI Relief Request No. 7 (Rev. 1), Use of Existing Calibration Blocks (3 pages)

ISI Relief Request No. 6 (Rev. 1)(Page 1 of 3)

Use of Existing Calibration Blocks

SYSTEM: Various

Class: 1 and 2

| | | | |
|-----------|-------|-------|---------------------------------|
| Category: | B-B | Item: | B 2.11, B 2.12, B 2.40, B 2.51 |
| | B-F | | B 5.10, B 5.40, B 5.70, B 5.130 |
| | B-J | | B 9.11, B 9.12, B 9.31 |
| | C-A | | C 1.10, C 1.20 |
| | C-B | | C 2.32 |
| | C-F-1 | | C 5.11, C 5.12, C 5.21, C 5.22 |
| | C-F-2 | | C 5.51, C 5.52 |

Examination Requirements:

IWA-2232 states that ultrasonic examination shall be conducted in accordance with Appendix I.

Appendix I, I-2100 states that ultrasonic examination of vessel welds greater than 2 inches thick shall be conducted in accordance with Article 4 of Section V as supplemented by Appendix I.

Section V, Article 4, T-441.1.2 outlines the material specification requirements for calibration blocks. T-441.1.2.1 requires calibration blocks to be fabricated from one of the following: (a) nozzle drop out from the component; (b) a component prolongation; (c) material from the same material specification, product form, and heat treatment as one of the materials being joined.

Appendix I, I-2200 states that ultrasonic examination of vessel welds less than or equal to 2 inches thick and all piping welds shall be conducted in accordance with Appendix III, as supplemented by Appendix I.

Appendix III, III-3411 outlines the material specification requirements for calibration blocks. Appendix III, III-3411 requires (a) the calibration blocks for similar metal welds shall be fabricated from one of the same materials specified for the piping being joined by the weld; (b) calibration blocks for

ISI Relief Request No. 6 (Rev. 1)(Page 2 of 3)

Use of Existing Calibration Blocks

dissimilar metal welds to be fabricated from the material specified for the side of the weld from which the examination will be conducted. If the examination will be conducted from both sides, calibration reflectors shall be provided in both materials; (c) Where the examination is to be performed from only one side of the joint, the calibration block material shall be of the same specification as the material on that side of the joint; (d) If material of the same specification is not available, material of similar chemical analysis, tensile properties, and metallurgical structure may be used.

Examination Requirement Not Met

Several of the calibration blocks currently being used lack the documentation necessary to demonstrate compliance with the material specification requirements of Article 4 of Section V and Appendix III.

Several of the calibration blocks currently being used on pipe to fitting or fitting to fitting joints where examination is performed from both sides of the joint are fabricated to pipe material specifications.

Basis for Relief:

Documentation requirements existing at the time of fabrication did not require traceability to the material's chemical or physical certifications. Existing calibration blocks certification is verified through appropriate P-number grouping. The P-number grouping provides adequate assurance that the blocks will establish the proper ultrasonic calibration and sensitivity. Using P-number grouping to choose calibration blocks was allowed by the 1971 ASME B&PV Code Section III, Paragraph IX-3431.

ISI Relief Request No. 6 (Rev. 1)(Page 3 of 3)

Use of Existing Calibration Blocks

Proposed Alternative

Any calibration blocks obtained in the future will be obtained with documentation to demonstrate compliance the material specification requirements of ASME Code Section V Article 4 or Section XI, Appendix III, as applicable.

Existing calibration blocks greater than 1" thick have been verified to require no correction for attenuation differences.

Additionally, when using existing calibration blocks less than 1" thick that lack the appropriate documentation and when an indication is detected, a comparison will be made between the attenuation of the calibration block and the material being examined.

Justification for Granting Relief

It would be impractical to fabricate a new set of calibration blocks in order to satisfy the documentation requirements of the current Code. Existing records, indicate the appropriate P-number grouping, thereby providing adequate assurance that the blocks will establish the proper ultrasonic calibration and sensitivity.

In addition, attenuation comparisons as discussed above give added assurance of adequate examination quality.

Any new calibration block will be obtained with the documentation necessary to demonstrate compliance with the material specification requirements.

Time Period Relief is Requested For

Relief is requested for the Third Ten Year Interval.

Approval Status:

Not yet approved. Submitted Rev 1 October 5, 1995.

ISI Relief Request No. 7 (Rev. 1)(Page 1 of 3)

Use of Existing Calibration Blocks

SYSTEM: Various

Class: 1 and 2

Category: B-B
B-F
B-J
C-A
C-B
C-F-1
C-F-2

Item: B 2.11, B 2.12, B 2.40, B 2.51
B 5.10, B 5.40, B 5.70, B 5.130
B 9.11, B 9.12, B 9.31
C 1.10, C 1.20
C 2.32
C 5.11, C 5.12, C 5.21, C 5.??
C 5.51, C 5.52

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ISI Relief Request No. 7 (Rev. 1)(Page 2 of 3)

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