

January 12, 1996

Docket No. 50-423  
B15475

Re: 10CFR50.55a(g)

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

Millstone Nuclear Power Station, Unit No. 3  
Inservice Inspection Program  
Request for Relief from ASME Section XI

Northeast Nuclear Energy Company (NNECO) hereby requests relief from the requirements of 10CFR50.55a(g) for performing the required examinations for certain Class 1 components in accordance with ASME Section XI for Millstone Unit No. 3.

Technical Specification 4.0.5 for Millstone Unit No. 3 states that the Inservice Inspection and Testing of the American Society of Mechanical Engineers (ASME) Code Class 1, 2, and 3 components shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel (B&PV) Code and Applicable Addenda as required by 10CFR50.55a(g), except where specific written relief has been granted by the Commission pursuant to 10CFR50.55a(g)(6)(i). Accordingly, pursuant to 10CFR50.55a(g)(5)(iii), NNECO hereby requests relief from performing the inservice surface examination of an inaccessible portion of a weld due to a pipe hanger clamp which prevents 100 percent surface examination of the code required area, and relief from performing the inservice volumetric examinations of the inaccessible portions of several reactor vessel nozzle welds.

IR-20 Integrally Welded Attachment Welds

Access to these attachment welds is limited to three sides due to a pipe hanger clamp which prohibits the 100 percent surface examination of the code required examination area. NNECO requests relief from performing the inservice examination on the inaccessible portions of the exam area base metal located under the pipe clamp. A detailed relief request is provided in Attachment 1.

IR-21 Pressure Retaining Nozzle Welds in Reactor Vessel

Permanent obstructions limit the volumetric examination of the welds and nozzle inner radius areas for several welds. Examination

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scan plans, data sheets and limitation sketches generated during the ten year inservice inspection depict the affected areas. Relief is therefore requested from performing the inservice examination of the inaccessible portions of the subject vessel welds. A detailed relief request is provided in Attachment 2.

IR-22 Pressure Retaining Dissimilar Metal Welds

Volumetric and surface examination of essentially 100 percent of the length of each code class 1 nozzle to safe-end butt weld greater than 4 inches nominal pipe size are required to be conducted in accordance with ASME Section XI. For several steam generator welds, examinations are limited to one side of the weld due to the nozzle outside surface taper which prohibits 100 percent volumetric examination coverage of the code required volume. Relief is requested from performing the inservice volumetric examination of the inaccessible portions of the welds. A detailed relief request is provided in Attachment 3.

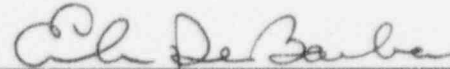
With regard to our schedule for conducting the proposed alternative examinations as discussed in the relief requests, we respectfully request Staff approval of these relief requests prior to the end of 1996. This schedule allows NNECO adequate time to conduct the alternative examinations during the next refueling outage, which is currently scheduled for early 1997.

Other than performing the alternative examinations, there are no commitments contained in this letter.

If you have any questions on the enclosed relief requests, please contact Mr. R. G. Joshi at (203) 440-2080.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY



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E. A. DeBarba  
Vice President

cc: T. T. Martin, Region I Administrator  
V. L. Rooney, NRC Project Manager, Millstone Unit No. 3  
P. D. Swetland, Senior Resident Inspector, Millstone Unit  
Nos. 1, 2, and 3

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Attachment 1

Millstone Nuclear Power Station, Unit No. 3

Inservice Inspection Program  
Request for Relief from ASME Section XI  
IR-20, Integrally Welded Attachment Welds

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Millstone Unit No. 3  
Relief from Inservice Inspection Requirements

Relief Request: IR-20

Integrally welded attachment welds

Component Identification:

Code Class: 1 Examination Category: B-K-1

Code Requirement:

For Millstone Unit No. 3, a surface examination of essentially one hundred percent of the length of each integral attachment weld and a one half inch area on each side of the welds as depicted on Figure IWB-2500-15 shall be conducted in accordance with the ASME B&PV Code 1983 Edition through the Summer 1983 Addenda, Article IWB-2500.

Code Relief Request:

Pursuant to 10CFR50.55a(g)(5)(iii), relief is requested from performing the inservice surface examination of the inaccessible portions of the welds listed in the attached table.

Proposed Alternative Examinations:

Surface examinations on the accessible 83 percent of the required examination area as required by ASME Section XI, IWB-2500 were performed during the fourth refueling outage. In addition, inservice system leakage tests were performed in accordance with Category B-P, IWB-2500-1.

Basis for Requesting Relief:

Access to these attachment welds is essentially limited to three sides, as shown on the attached diagram, due to a hanger clamp which prohibits one hundred percent surface examination coverage of the code required examination area. These welded support lugs are welded on three sides located on vertical pipe risers that transmit the load to variable spring can supports. Relief is therefore requested from performing the inservice examination on the inaccessible portions of the exam area base metal located under the pipe clamp as noted in the attached table.

Millstone Unit No. 3  
 Relief from Inservice Inspection Requirements  
 IR-20, Integrally Welded Attachment Welds

Zone DRWG/P&ID	Exam Cat. & Item No.	System	Component or Weld Identification	Size	Exam	Data Sheet	Configuration/ Limitation
030 25212-20932	B-K-1 B10.10	RCS	RCS-504B-PSSH507 Integral attachment to pipe for 3RHS-1-PSSH507	8.00	LP	93-PT-053	Side under clamp not accessible; 83% of weld examined
030 25212-20932	B-K-1 B10.10	RCS	RCS-504B-PSSH508 Integral attachment to pipe for 3RHS-1-PSSH508	8.00	LP	93-PT-065	Side under clamp not accessible; 83% of weld examined



NORTHEAST UTILITIES SERVICE COMPANY

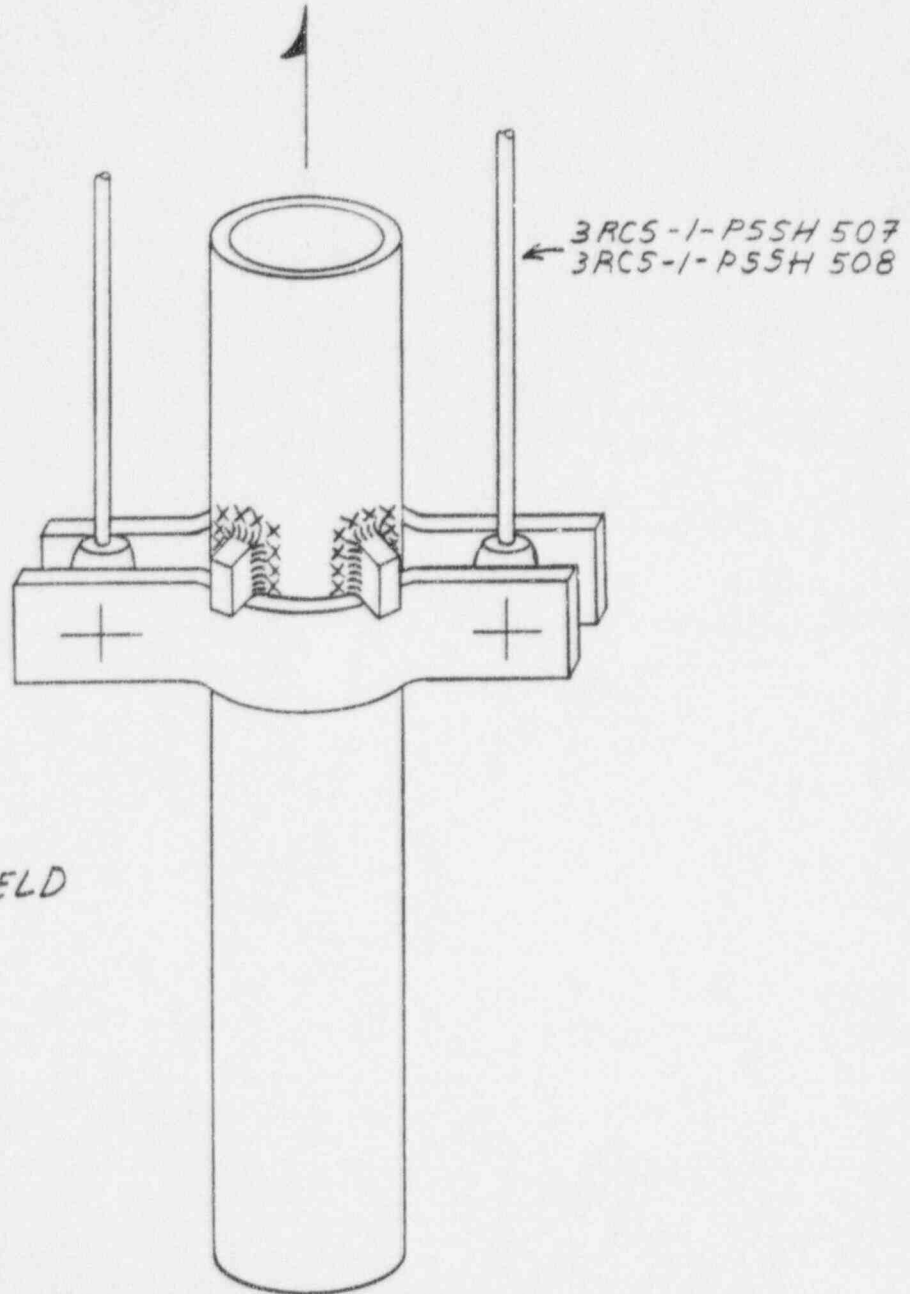
SUBJECT RELIEF REQUEST IR-20

BY RK DATE 9-28-15

CHKD. BY \_\_\_\_\_ DATE \_\_\_\_\_

CALC. NO. \_\_\_\_\_ REV. \_\_\_\_\_

SHEET NO. \_\_\_\_\_ OF \_\_\_\_\_



xxx = 1/2" FROM WELD

DRN BY: R COLOPOULOS

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Attachment 2

Millstone Nuclear Power Station, Unit No. 3

Inservice Inspection Program  
Request for Relief from ASME Section XI  
IR-21, Pressure Retaining Nozzle Welds in Reactor Vessel

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Millstone Unit No. 3  
Relief from Inservice Inspection Requirements

Relief Request: IR-21

Pressure Retaining Nozzle Welds in Reactor Vessel

Component Identification:

Code Class: 1 Examination Category: B-D

Code Requirement:

For Millstone Unit No. 3, a volumetric examination of essentially one hundred percent of the weld length shall be conducted for the following items in accordance with ASME B&PV Code 1983 Edition through the Summer 1983 Addenda, Article IWB-2500:

<u>Item</u>	<u>Description</u>
B3.90	Nozzle to shell welds
B3.100	Nozzle Inner Radius Areas

Code Relief Request:

Pursuant to 10CFR50.55a(g)(5)(iii), relief is requested from performing the inservice volumetric examination of the inaccessible portions of the subject vessel welds listed in the attached table.

Proposed Alternative Examinations:

A volumetric examination on the accessible areas in accordance with ASME Section XI, IWC-2500-1 was performed during the fifth refueling outage. In addition, inservice system leakage tests were performed in accordance with Category C-H, IWB-2500-1.

Basis for Requesting Relief:

Permanent obstructions limited the volumetric examination of the welds and nozzle inner radius areas listed in the attached table. Examination scan plans, data sheets and limitation sketches generated during the ten year ISI on the RVP depict the affected areas. Relief is therefore requested from performing the inservice examination on the inaccessible portions of the volume required as noted in the attached table.



Millstone Unit No. 3  
 Relief from Inservice Inspection Requirements  
 IR-21, Pressure Retaining Nozzle Welds in Reactor Vessel

Zone No.	Weld No.	Exam Area ID	Technique	Beam Angle	Exam Type	Beam Direction	Code Coverage	Limitation
1	107-121A	Outlet nozzle to shell at 22'	Ultrasonic	0 & 45 50/70 45 & 60 0 0	Parallel Transverse Transverse Lamination Planar (weld)	1 Direction 2 Directions 2 Directions N/A N/A Average	100% 38% 28% 100% 34% 60%	Limited exam due to the integral extension
1	105-121A	Inlet nozzle to shell at 67'	Ultrasonic	6 & 45 50/70 45 & 60 0 0	Parallel Transverse Transverse Lamination Planar (weld)	1 Direction 2 Directions 2 Directions N/A N/A Average	100% 89% 76% 100% 87% 90%	Limited exam due to the nozzle geometry

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1	105-121B	Inlet nozzle to shell at 113'	Ultrasonic	6 & 45 50/70 45 & 60 0 0	Parallel Transverse Transverse Lamination Planar (weld)	1 Direction 2 Directions 2 Directions N/A N/A Average	100% 89% 76% 100% 87% 90%	Limited exam due to the nozzle geometry
1	107-121B	Outlet nozzle to shell at 158'	Ultrasonic	6 & 45 50/70 45 & 60 0 0	Parallel Transverse Transverse Lamination Planar (weld)	1 Direction 2 Directions 2 Directions N/A N/A Average	100% 38% 28% 100% 34% 60%	Limited exam due to the integral extension
1	107-121C	Outlet nozzle to shell at 202'	Ultrasonic	0 & 45 50/70 45 & 60 0 0	Parallel Transverse Transverse Lamination Planar (weld)	1 Direction 2 Directions 2 Directions N/A N/A Average	100% 38% 28% 100% 34% 60%	Limited exam due to the integral extension
1	105-121C	Inlet nozzle to shell at 247'	Ultrasonic	6 & 45 50/70 45 & 60 0 0	Parallel Transverse Transverse Lamination Planar (weld)	1 Direction 2 Directions 2 Directions N/A N/A Average	100% 89% 76% 100% 87% 90%	Limited exam due to the nozzle geometry
1	105-121D	Inlet nozzle to shell at 293'	Ultrasonic	6 & 45 50/70 45 & 60 0 0	Parallel Transverse Transverse Lamination Planar (weld)	1 Direction 2 Directions 2 Directions N/A N/A Average	100% 89% 76% 100% 87% 90%	Limited exam due to the integral extension

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1	107- 121D	Outlet nozzle to shell at 338'	Ultrasonic	6 & 45 50/70 45 & 60 0 0	Parallel Transverse Transverse Lamination Planar (weld)	1 Direction 2 Directions 2 Directions N/A N/A Average	100% 38% 28% 100% 34% 60%	Limited exam due to the integral extension
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Attachment 3

Millstone Nuclear Power Station, Unit No. 3

Inservice Inspection Program  
Request for Relief from ASME Section XI  
IR-22, Pressure Retaining Dissimilar Metal Welds  
of Steam Generators

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Millstone Unit No. 3  
Relief from Inservice Inspection Requirements

Relief Request: IR-22

Pressure Retaining Dissimilar Metal Welds

Component Identification:

Code Class: 1 Examination Category: B-F Item No.: B5.70

Code Requirement:

For Millstone Unit No. 3, a volumetric and surface examination of essentially one hundred percent of the length of each Code Class 1 nozzle to safe-end butt weld greater than four inches nominal pipe size shall be conducted in accordance with ASME B&PV Code 1983 Edition through the Summer 1983 Addenda.

Code Relief Request:

Pursuant to 10CFR50.55a(g)(5)(iii), relief is requested from performing the inservice volumetric examination of the inaccessible portions of the welds listed in the attached table.

Proposed Alternative Examinations:

A volumetric and surface examination of the accessible portions of the welds in accordance with ASME Section XI, IWB-2500-1 was performed during the fifth refueling outage. In addition, inservice system leakage tests were performed in accordance with Category B-P, IWB-2500.

Basis for Requesting Relief:

Examinations are limited to one side of the weld due to the nozzle outside surface taper which prohibits 100 percent volumetric examination coverage of the code required volume (CRV). To meet the requirements of ASME Section XI, the UT beam must pass through the CRV, as depicted in Figure IWB-2500-8, in two opposing directions. Relief is therefore requested from performing the inservice examination as described and limiting the examination as noted in the attached table. The subject weld received volumetric examination on the accessible portions and a 100 percent surface examination in accordance with ASME Section XI requirements. In addition to the ASME code specified techniques, the UT examinations were augmented by special qualified techniques to obtain maximum

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coverage of the highly attenuative static cast stainless steel elbows. Having met these requirements, adequate assurance of the structural integrity of the subject weld is provided.



Millstone Unit No. 3  
 Relief from Inservice Inspection Requirements  
 IR-22, Pressure Retaining Dissimilar Metal Welds

Zone No.	Weld No.	Exam Area ID	Technique	Beam Angle	Exam Type	Beam Direction	Code Coverage	Limitations
12	RCS-LP1-FW-4	Elbow to nozzle	Ultrasonic	45RL 45RL	Parallel Transverse	2 Directions 2 Directions	50% 50%	Limited exam due to the nozzle outside surface taper. Exam performed from elbow side.
12	RCS-LP1-FW-5	Elbow to nozzle	Ultrasonic	45RL 45RL	Parallel Transverse	2 Directions 2 Directions	50% 50%	Limited exam due to the nozzle outside surface taper. Exam performed from elbow side.
13	RCS-LP2-FW-4	Elbow to nozzle	Ultrasonic	45RL 45RL	Parallel Transverse	2 Directions 2 Directions	50% 50%	Limited exam due to the nozzle outside surface taper. Exam performed from elbow side.
13	RCS-LP2-FW-5	Elbow to nozzle	Ultrasonic	45RL 45RL	Parallel Transverse	2 Directions 2 Directions	50% 50%	Limited exam due to the nozzle outside surface taper. Exam performed from elbow side.

14	RCS-LP3-FW-4	Elbow to nozzle	Ultrasonic	45RL 45RL	Parallel Transverse	2 Directions 2 Directions	50% 50%	Limited exam due to the nozzle outside surface taper. Exam performed from elbow side.
14	RCS-LP3-FW-5	Elbow to nozzle	Ultrasonic	45RL 45RL	Parallel Transverse	2 Directions 2 Directions	50% 50%	Limited exam due to the nozzle outside surface taper. Exam performed from elbow side.
15	RCS-LP4-FW-4	Elbow to nozzle	Ultrasonic	45RL 45RL	Parallel Transverse	2 Directions 2 Directions	50% 50%	Limited exam due to the nozzle outside surface taper. RRRExam performed from elbow side.
15	RCS-LP4-FW-5	Elbow to nozzle	Ultrasonic	45RL 45RL	Parallel Transverse	2 Directions 2 Directions	50% 50%	Limited exam due to the nozzle outside surface taper. Exam performed from elbow side.