

Dominion Nuclear Connecticut, Inc.  
Millstone Power Station  
Rope Ferry Road  
Waterford, CT 06385



**Dominion™**

MAY 30 2002

Docket No. 50-423  
B18657

RE: 10 CFR 50.55a(g)(5)(iii)  
10 CFR 50.55a(g)(6)(i)

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

Millstone Nuclear Power Station, Unit No. 3  
Relief Requests for the Second Ten Year Interval  
of Inservice Inspection Program

On April 24, 2002,<sup>(1)</sup> Dominion Nuclear Connecticut, Inc. (DNC) received a request for additional information (RAI) from the U. S. Nuclear Regulatory Commission in regards to two proposed relief requests submitted in a letter dated September 27, 2001.<sup>(2)</sup> Attachment 1 of this letter contains the DNC response to the RAI's. Attachment 2 submits revised versions of relief requests IR-2-25 and IR-2-26 which supercede the originals from the September 27, 2001, letter.

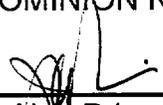
It is requested that Nuclear Regulatory Commission approval be provided by June 30, 2002, to support implementation prior to the next planned refueling outage scheduled in early September 2002.

There are no regulatory commitments contained within this letter.

Should you have any questions regarding this matter, please contact Mr. Ravi G. Joshi at (860) 440-2080.

Very truly yours,

DOMINION NUCLEAR CONNECTICUT, INC.

  
\_\_\_\_\_  
J. Alan Price  
Site Vice President - Millstone

cc: see next page

<sup>(1)</sup> Facsimile from V. Nerses, U. S. Nuclear Regulatory Commission, to R. Joshi, DNC, "Millstone Unit 3, Draft Request for Additional Information (RAI) to be Discussed in an Upcoming Conference Call (TAC No. MB3093)," dated April 24, 2002.

<sup>(2)</sup> Letter from J. Alan Price, DNC, to U. S. Nuclear Regulatory Commission, "Millstone Power Station, Unit No. 3, Relief Requests for the Second Ten Year Interval of Inservice Inspection Program," dated September 27, 2001.

A047

U. S. Nuclear Regulatory Commission  
B18657/Page 2

Attachments: (2)

cc: H. J. Miller, Region 1 Administrator  
V. Nerses, NRC Senior Project Manager, Millstone Unit No. 3  
NRC Senior Resident Inspector, Millstone Unit No. 3

Docket No. 50-423  
B18657

Attachment 1

Millstone Nuclear Power Station, Unit No. 3

Response to Request for Additional Information

Response to Request for Additional Information

Dominion Nuclear Connecticut, Inc. (DNC) received a facsimile dated April 24, 2002,<sup>(1)</sup> from the U. S. Nuclear Regulatory Commission requesting additional information concerning the Millstone Unit No. 3 relief requests for the second ten year interval of the Inservice Inspection Program. The DNC responses to the questions are found below.

Question 1

Relief Request IR-2-25

10 CFR 50.55a(b)(2)(xv)(A) and (B) define new requirements for UT coverage and qualification. To grant relief from these regulations requires an exemption request per 10 CFR 50.12. However, relief is available through the limited examination provided justification exists. Therefore, what are the examination coverages obtained for the demonstrated examinations? How do the limited examinations provide justification for relief?

DNC Response

Relief Request IR-2-25 has been revised to stipulate the actual examination coverage obtained. See revised relief request IR-2-25 in Attachment 2 which supercedes the original and addresses this question. Revision bars are included in the left margin to indicate the changes from the original submitted on September 27, 2001.<sup>(2)</sup>

Question 2

Relief Request IR-2-26

The licensee's proposed relief request is similar to Code Case N-323-1. This code case is listed in Draft Regulatory Guide DG-1112, "ASME Code Cases Not Approved For Use." The staff has accepted surface and UT examinations from the accessible surface. (See safety evaluation for Brown's Ferry Nuclear Station, Units 2 and 3, 2<sup>nd</sup> 10-year ISI interval dated June 19, 200, and Browns Ferry, 3<sup>rd</sup> 10-year interval, relief request 2-ISI-10, Revision 1, dated February 4, 2002)

DNC Response

Relief Request IR-2-26 has been revised to add an ultrasonic examination. See revised relief request IR-2-26 in Attachment 2 which supercedes the original and addresses this question. Revision bars are included in the left margin to indicate the changes from the original submitted on September 27, 2001.

---

<sup>(1)</sup> Facsimile from V. Nerses, U. S. Nuclear Regulatory Commission, to R. Joshi, DNC, "Millstone Unit 3, Draft Request for Additional Information (RAI) to be Discussed in an Upcoming Conference Call (TAC No. MB3093)," dated April 24, 2002.

<sup>(2)</sup> Letter from J. Alan Price, DNC, to U. S. Nuclear Regulatory Commission, "Millstone Power Station, Unit No. 3, Relief Requests for the Second Ten Year Interval of Inservice Inspection Program," dated September 27, 2001.

Docket No. 50-423  
B18657

Attachment 2

Millstone Nuclear Power Station, Unit No. 3

Revised Relief Requests IR-2-25 and IR-2-26

Relief from Inservice Inspection Requirements

Relief Request: IR-2-25, Rev. 1

Second Ten Year Inspection Interval - Pressure Retaining welds in Austenitic Stainless Steel or High Alloy Piping.

Component Identification:

Code Class: 2

Examination Category: C-F-1

Item Number: C5.10 - Circumferential pipe welds

Austenitic piping welds with single side access subject to ultrasonic examination with Supplement 2 of Appendix VIII to the 1995 Edition with 1996 Addenda of ASME Section XI.

Component Identification Number

The actual weld identification numbers for which relief is requested are listed within the basis for relief.

Code Requirements

10 CFR 50.55a(b)(2)(xv)(A), requires the following examination coverage when applying Supplement 2 to Appendix VIII:

- (1) Piping must be examined in two axial directions and when examination in the circumferential direction is required, the circumferential examination must be performed in two directions, provided access is available.
- (2) Where examination from both sides is not possible, full coverage credit may be claimed from a single side for ferritic welds. Where examination from both sides is not possible on austenitic welds, full coverage credit from a single side may be claimed only after completing a successful single sided Appendix VIII demonstration using flaws on the opposite side of the weld.

10 CFR 50.55a(b)(2)(xvi)(B), requires that examinations performed from one side of a stainless steel pipe weld must be conducted with equipment, procedures, and personnel that have demonstrated proficiency with single side examinations. To demonstrate equivalency to two sided examinations, the demonstration must be performed to the requirements of Appendix VIII as modified by this paragraph and §50.55a(b)(2)(xv)(A).

### Code Relief Request

Pursuant to 10 CFR 50.55a(g)(5)(iii), relief is requested from the 100% volumetric examination coverage requirement for austenitic piping welds with single side access.

### Basis for Relief

The Final Rule to 10CFR 50.55a published September 22, 1999 requires that if access is available, the weld shall be scanned in each of the four directions (parallel and perpendicular to the weld) where required. Coverage credit may be taken for single side exams on ferritic piping. However, for austenitic piping, a procedure must be qualified with flaws on the inaccessible side of the weld. There are currently no Performance Demonstration Initiative (PDI) qualified single side examination procedures that demonstrate equivalency to two-sided examination procedures on austenitic piping welds. Current technology is not capable of reliably detecting or sizing flaws on the far side of an austenitic weld for configurations common to US nuclear applications.

The PDI Program conforms with the Final Rule regarding single side access for piping. PDI Performance Demonstration Qualification Summary (PDQS) certificates for austenitic piping list the limitation that single side examination is performed on a best effort basis. The best effort qualification is provided in place of a complete single side qualification to demonstrate that the examiners qualification and the subsequent weld examination is based on application of the best available technology.

When the examination area is limited to one side of an austenitic weld, examination coverage does not comply with 10 CFR 50.55a(b)(2)(xv)(A) and proficiency demonstrations do not comply with 10 CFR 50.55a(b)(2)(xvi)(B) and full coverage credit may not be claimed.

Based on the configuration limited to single sided access, relief is requested on complying with the 100 percent (100%) required examination coverage for the following piping welds: Note that examination coverage listed is that which was actually obtained during examination with no credit taken for the far side of each weld.

<u>Weld Number (Config.)</u>	<u>Examination</u>	<u>Examination Coverage Attained (%)</u>
CHS-31-FW-1 (Pipe-to-Valve)	UT	50
CHS-31-FW-3 (Reducer-to Valve)	UT	37.5
CHS-31-FW-4 (Pipe-to-Valve)	UT	50
CHS-32-1-SW-D (Pipe-to-Elbow)	UT	75
CHS-32-FW-1 (Pipe-to-Valve)	UT	50
CHS-33-1-SW-B (Pipe-to-Flange)	UT	50
CHS-33-FW-1 (Pipe-to-Valve)	UT	50
CHS-33-FW-17 (Pipe-to-Flange)	UT	75
CHS-33-FW-4 (Pipe-to-Valve)	UT	50
SIL-157-FW-3 (Pipe-to-Valve)	UT	50

Note: Weld CHS-32-1-SW-D (Pipe-to-Elbow) configuration would normally allow for a two sided exam. However, the axial scan direction was limited to one side due to interference from an adjacent weld within close proximity to the subject weld.

Weld CHS-33-FW-17 (Pipe to Flange) configuration allowed for circumferential scan on both the pipe and flange side to increase the examination coverage to 75%.

#### Proposed Alternative Examination

- A. The subject weld will receive 100% surface examination in accordance with ASME Section XI (IWB-2500-1).
- B. The subject weld will receive a volumetric examination utilizing the best available techniques, as qualified through the Performance Demonstration Initiative for Supplement 2 with demonstrated best effort for single side examination, from the accessible side of the weld.
- C. Visual examination will be performed during system leakage tests as required by Section XI (IWB-2500-1) and Code Case N-498-1 (approved in the Regulatory Guide 1.147, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1," Revision 12, dated May 1999) .

Based on the above proposed alternatives, DNC believes the proposed alternatives will provide an acceptable level of quality and safety by providing reasonable assurance of structural integrity of the subject welds.

#### Period for Which Relief is Requested

The relief is requested to be effective immediately upon its approval, and to remain in effect during the second ten-year interval for Millstone Unit No. 3, which began on April 23, 1999.

Relief From Inservice Inspection Requirements

Relief Request: IR-2-26, Rev. 1

Second Ten Year Inspection Interval - Integral Attachments for Vessels

Component Identification:

Code Class: 1

Examination Category: B-H

Item Number: B8.20 - Pressurizer Support Skirt to Shell Weld.

Component Identification Number: Weld Number 03-007-SW-X

Code Requirements

A surface examination of essentially 100 percent (100%) of the pressurizer integrally welded attachments shall be conducted in accordance with the 1989 Edition of the ASME Boiler and Pressure Vessel Code, Table IWB-2500-1 as defined by Figure IWB-2500-13.

Code Relief Request

Pursuant to 10CFR50.55a(g)(5)(iii) relief is requested from performing the surface examination on the inaccessible portions of the pressurizer support skirt to vessel shell weld. The inaccessible portion corresponds to the interior surface C-D as shown in Figure IWB-2500-13.

Basis for Relief

Geometric configuration of the support skirt-to-shell weld limits the surface to be examined to the one accessible side, corresponding to examination surface A-B, as shown in Figure IWB-2500-13. The attached sketch shows the interior portion of the subject weld to be inaccessible to a meaningful surface examination. Also, high radiation levels within the support skirt would result in an estimated personnel exposure of an additional 7.2 Rem to complete the scaffolding, insulation removal/replacement, weld preparation and best effort examination.

Based on the geometric configuration with limited access and the radiation hazards, relief is requested on complying with the 100 percent (100%) required surface examination coverage of this weld during the Second Ten-Year Inspection Interval for Millstone Unit 3.

The limitations described above were included in a request for relief (IR-6) during the First Ten Year Inspection Interval which was based on Code Case N-323. Relief was granted by NRC Letter dated September 21, 1988.<sup>(1)</sup>

#### Proposed Alternative Examination

- A The subject weld will receive a surface examination of the accessible exterior weld surface A-B as shown in Figure IWB-2500-13, in accordance with ASME Section XI (IWB-2500-1).
- B. The subject weld will receive a best effort UT examination to achieve the maximum practicable coverage of the required examination volume as depicted in figure IWB-2500-13. This examination will be performed from the outside surface of the skirt attachment.

Based on the surface examination performed on 100% of the exterior weld surface A-B as shown in Figure IWB-2500-13 and a best effort UT examination from the outside surface of the skirt attachment, DNC believes the proposed alternative will provide an acceptable level of quality and safety by providing reasonable assurance of structural integrity of the subject weld.

#### Period for Which Relief is Requested

The relief is requested to be effective immediately upon its approval, and to remain in effect during the second ten-year interval for Millstone Unit No. 3, which began on April 23, 1999.

---

<sup>(1)</sup> Nuclear Regulatory Commission letter to Mr. E. J. Mroczka, "Inservice Inspection Relief Request (TAC NO. 65325)," dated September 21, 1988.



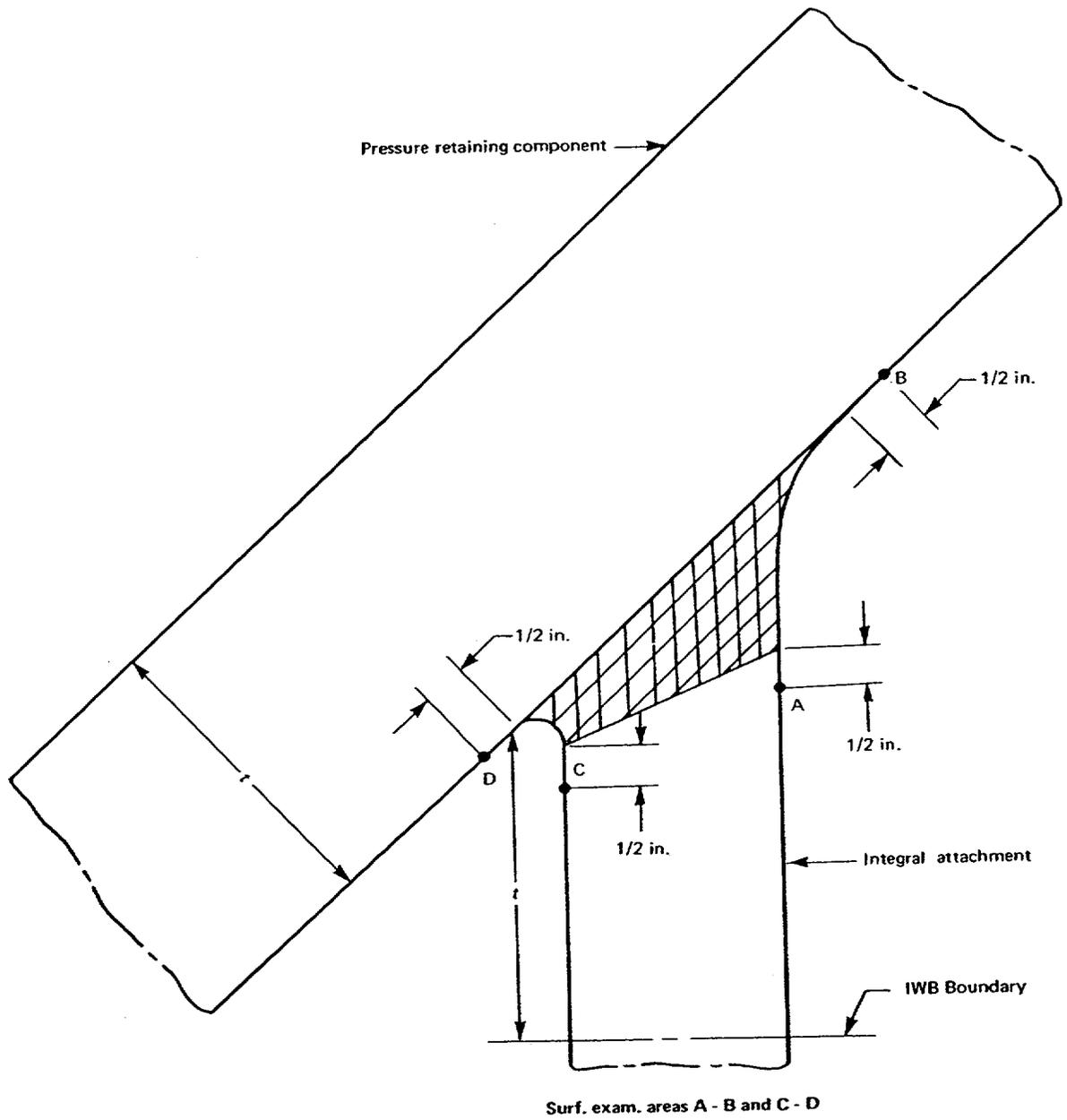


FIG. IWB-2500-13 INTEGRAL ATTACHMENT WELD