

WOLF CREEK

NUCLEAR OPERATING CORPORATION

Otto L. Maynard
Chairman, President and
Chief Executive Officer

January 23, 1997

WM 97-0006

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Station P1-137
Washington, D. C. 20555

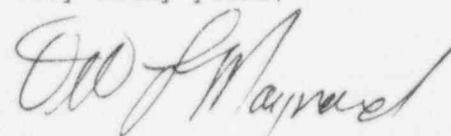
Reference: 1) Letter WM 95-0129, dated August 30, 1995, from
N. S. Carns, WCNOG, to USNRC
2) Letter dated November 25, 1996, from USNRC,
to N. S. Carns, WCNOG
Subject: Docket No. 50-482: Response to Request for Additional
Information, Second 10-Year Interval Inservice
Inspection Program Plan and Associated Requests for
Relief

Gentlemen:

Reference 1 transmitted the Wolf Creek Generating Station, Second 10-Year Interval Inservice Inspection Program Plan. Reference 2 requested additional information to support review of Reference 1. This letter transmits the Wolf Creek Nuclear Operating Corporation (WCNOG) response to Reference 2. The Attachment contains the details of WCNOG's response.

If you should have any questions regarding this request, please contact me at (316) 364-8831, extension 4100, or Mr. Richard D. Flannigan at extension 4500.

Very truly yours,



Otto L. Maynard

9701290368 970123
PDR ADOCK 05000482
Q PDR

NSC/jad

Attachment

cc: M. T. Anderson (INEL Research Center), w/a
L. J. Callan (NRC), w/a
W. D. Johnson (NRC), w/a
J. F. Ringwald (NRC), w/a
J. C. Storie (NRC), w/a

A0477/1

290066

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

The following information is provided in response to the Request for Additional Information on the Second 10-Year Interval Inservice Inspection Program Plan and Associated Requests for Relief, dated November 25, 1996.

Request Item A.

Requests I2R-01, I2R-03, I2R-04, I2R-05, I2R-06, I2R-07, I2R-08, and I2R-18, were submitted pursuant to 10 CFR 50.55a(a)(3)(ii). However, the bases for these requests mention "acceptable levels of quality and safety" and "examinations performed to the extent practical." It is unclear as to which paragraph of 10 CFR 50.55a these requests should be evaluated against. Provide appropriate references to the Code of Federal Regulations and clarify the supporting bases for the subject requests.

Response Item A.

All of the above listed Relief Requests, with the exception of I2R-01, have been revised to reflect the correct paragraph of 10 CFR 50.55a and supporting information. These revised Relief Requests are included as part of this submittal. Each request is discussed individually below.

I2R-01: This request reflects the incorrect paragraph of 10 CFR 50.55a. Relief Request I2R-01 is submitted pursuant to 10 CFR 50.55a(a)(3)(i). All of the supporting information correctly supports the basis for a proposed alternative; therefore, no revision is included in this response.

I2R-03: This request should be requested pursuant to 10 CFR 50.55a(g)(5)(iii) on the basis that compliance with the specified requirements is impractical. Relief Request I2R-03 has been revised to reflect the correct paragraph of 10 CFR 50.55a and to clarify the supporting bases of impracticality. In addition, the information submitted in response to the Request for Additional Information dated March 6, 1996 is also reflected in the submittal of the revised request.

I2R-04: This request should be requested pursuant to 10 CFR 50.55a(g)(5)(iii) on the basis that compliance with the specified requirements is impractical. Relief Request I2R-04 has been revised to reflect the correct paragraph of 10 CFR 50.55a and to clarify the supporting bases of impracticality. In addition, the information submitted in response to the Request for Additional Information dated March 6, 1996 is also reflected in the submittal of the revised request.

I2R-05: This request should be requested pursuant to 10 CFR 50.55a(g)(5)(iii) on the basis that compliance with the specified requirements is impractical. Relief Request I2R-05 has been revised to reflect the correct paragraph of 10 CFR 50.55a and to clarify the supporting bases of impracticality. In addition, the information submitted in response to the Request for Additional Information dated March 6, 1996 is also reflected in the submittal of the revised request.

I2R-06: This request should be requested pursuant to 10 CFR 50.55a(g)(5)(iii) on the basis that compliance with the specified requirements is impractical. Relief Request I2R-06 has been revised to reflect the correct paragraph of 10 CFR 50.55a and to clarify the supporting bases of impracticality.

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

I2R-07: This request should be requested pursuant to 10 CFR 50.55a(g)(5)(iii) on the basis that compliance with the specified requirements is impractical. Relief Request I2R-07 has been revised to reflect the correct paragraph of 10 CFR 50.55a and to clarify the supporting bases of impracticality.

I2R-08: This request should be requested pursuant to 10 CFR 50.55a(g)(5)(iii) on the basis that compliance with the specified requirements is impractical. Relief Request I2R-08 has been revised to reflect the correct paragraph of 10 CFR 50.55a and to clarify the supporting bases of impracticality.

I2R-18: This request should be requested pursuant to 10 CFR 50.55a(g)(5)(iii) on the basis that compliance with the specified requirements is impractical. Relief Request I2R-18 has been revised to reflect the correct paragraph of 10 CFR 50.55a and to clarify the supporting bases of impracticality.

Request Item B.

Requests I2R-14, I2R-19, and I2R-20, were submitted without reference to a section of the Code of Federal Regulations. Without these references, the subject requests cannot be evaluated. Provide appropriate references to the Code of Federal Regulations and clarify the supporting bases for the subject requests.

Response Item B.

I2R-14: This request should be requested pursuant to 10 CFR 50.55a(g)(5)(iii) on the basis that compliance with the specified requirements is impractical. A revision to Relief Request I2R-14 is included in this submittal to not only identify the applicable paragraph of 10 CFR 50.55a but to clarify the supporting bases for impracticality.

I2R-19: This request should be requested pursuant to 10 CFR 50.55a(a)(3)(i) on the basis that the proposed alternative would provide an acceptable level of quality and safety. A revision is not included in this submittal because the version previously submitted adequately supports the bases for an acceptable alternative.

I2R-20: This request should be requested pursuant to 10 CFR 50.55a(a)(3)(i) on the basis that the proposed alternative would provide an acceptable level of quality and safety. A revision is not included in this submittal because the version previously submitted adequately supports the bases for an acceptable alternative.

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

RELIEF REQUEST I2R-03
(Page 1 of 3)

COMPONENT IDENTIFICATION

Code Class:	1
References:	IWB-2500, Table IWB-2500-1
Examination Category:	B-A
Item Number:	B1.30
Description:	Limited Volumetric Examination of the Reactor Vessel Shell-to-Flange Weld
Component Number:	RV-101-121
Drawing Number:	ISI-RBB01 Sheet 1

CODE REQUIREMENT

Table IWB-2500-1, Examination Category B-A, Item Number B1.30 requires a 100% volumetric examination of the Reactor Vessel Shell-to-Flange weld as detailed in Figure IWB-2500-4.

BASIS FOR RELIEF

Pursuant to 10 CFR 50.55a(g)(5)(iii), relief is requested on the basis that compliance with the specified requirements is impractical. Conformance with the inservice inspection requirements would necessitate a design modification to the Reactor Pressure Vessel Flange that would allow 100% examination coverage of the subject weld.

Due to the vessel flange taper above the subject weld (inner and outer diameter configuration), 100% examination coverage can not be achieved. Figure 1 represents a drawing (not to scale) of the Flange to Upper Reactor Vessel Shell Weld and the applicable beam directions/angles are listed with the appropriate examination coverage.

The manual examination portion from the flange surface has not been performed for the Second 10-Year Inspection Interval but greater than 90% coverage was attained for the first interval. The amount of coverage for weld metal (WM) interrogation is shown as a separate value to identify the amount of coverage in the volume where a crack would have a higher probability of presence. The limitations described above were included in a request for relief for the first ten year interval at WCGS, and relief was subsequently granted.

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

RELIEF REQUEST I2R-03
(Page 2 of 3)

BASIS FOR RELIEF (continued)

A significant portion of the weld required volume was examined which should provide for detection of significant patterns of degradation. The limited Code examination of the subject weld in conjunction with full Code volumetric examination of other similar welds in the Reactor Pressure Vessel and performance of the periodic visual examination VT-2 provides an acceptable verification of the structural integrity of this pressure retaining weld.

PROPOSED ALTERNATE EXAMINATION

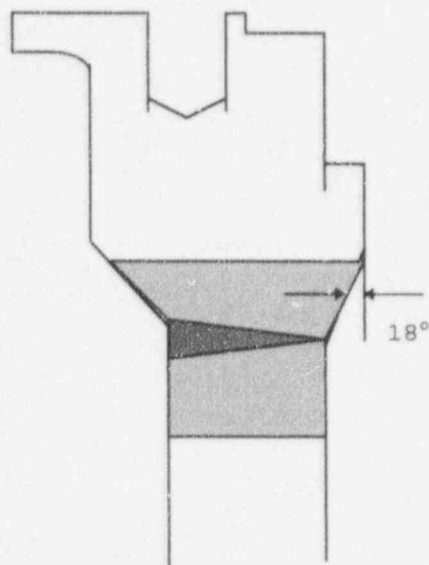
None; the Code required volumetric examination will be completed to the maximum extent practical.

PERIOD FOR WHICH RELIEF IS REQUESTED

Relief is requested for the second inspection interval, September 3, 1995 through September 2, 2005.

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

RELIEF REQUEST I2R-03
(Page 3 of 3)



Composite Coverage

64.8% - 2 angles
46.7% - 2 angles/2 directions
100% - 0° Scan

Coverage Summary

Parallel (2 angles) - 51.3%
Parallel (2 angles/2 directions) - 51.3%

Perpendicular (2 angles) - 78.2%
Perpendicular (2 angles/2 directions) - 42.0%

Zero Degree - 100%

■ Weld RV-101-121 (WM)
■ Examination Volume (EV)

Coverage Breakdown for Parallel Scans

0° - 100%
45° - 97% WM, 51.3% EV(cw), 51.3% EV(ccw)
60° - 97% WM, 51.3% EV(cw), 51.3% EV(ccw)
70° - 100% WM, 65.2% EV(cw), 65.2% EV(ccw)

Coverage Breakdown for Perpendicular Scans

0° - 100%
45° - 58.0% WM(up), 74.8% WM(dn), 48.9% EV(up), 64.5% EV(dn)
60° - 86.9% WM(up), 27.0% WM(dn), 76.8% EV(up), 42.4% EV(dn)
70° - 0% WM(up), 100% WM(dn), 19.1% EV(up), 78.0% EV(dn)

Figure 1
RV-101-121 Scan Limitations

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

RELIEF REQUEST I2R-04
(Page 1 of 4)

COMPONENT IDENTIFICATION

Code Class:	1
References:	IWB-2500, Table IWB-2500-1
Examination Category:	B-A
Item Number:	B1.21
Description:	Limited Volumetric Examination of the Reactor Vessel Closure Head Upper Circumferential Weld
Component Number:	CH-103-101
Drawing Number:	ISI-RBB01 Sheet 1

CODE REQUIREMENT

Table IWB-2500-1, Examination Category B-A, Item Number B1.21 requires a 100% volumetric examination of the Reactor Vessel Closure Head Upper Circumferential Weld as detailed in Figure IWB-2500-3. Figure IWB-2500-3 requires the subject weld plus 1/2t of the base metal to be examined.

BASIS FOR RELIEF

Pursuant to 10 CFR 50.55a(g)(5)(iii), relief is requested on the basis that compliance with the specified requirements is impractical. Conformance with the inservice inspection requirements would necessitate a design modification to the Reactor Pressure Vessel Closure Head to remove obstructions that preclude 100% examination coverage of the subject weld.

Due to the cooling duct ring limiting the required scan path and three lifting lugs obstructing portions of the weld examination volume, the Code required examination cannot be 100% completed. The weld metal can be 100% inspected in one direction by the 45 degree and the 60 degree angle beam, but is limited in the other direction due to the cooling ring. This results in 16.8% of the weld metal not being examined by the 45 degree angle beam and 47.3% not being examined by the 60 degree angle beam. Obstruction by three lifting lugs results in 5.3% of the required examination volume not being examined.

The Reactor Pressure Vessel was designed and fabricated in accordance with the stringent quality controls of ASME Section III; subsequent volumetric and surface examinations as well as pressure testing was performed on this weld with acceptable results. The weld was examined during Preservice Inspections (PSI) and during the first interval inservice inspection (ISI) with no irregularities found. The probability of a flaw occurring and not being detected by the examinations previously performed is small. The limitations described above were included in a request for relief for the first ten year interval at WCGS, and relief was subsequently granted.

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

RELIEF REQUEST I2R-04
(Page 2 of 4)

BASIS FOR RELIEF (Continued)

A significant portion of the weld required volume can be examined which should provide for detection of significant patterns of degradation. Therefore, reasonable assurance of the continued inservice structural integrity of the subject weld is achieved without performing a complete Code examination.

PROPOSED ALTERNATE EXAMINATION

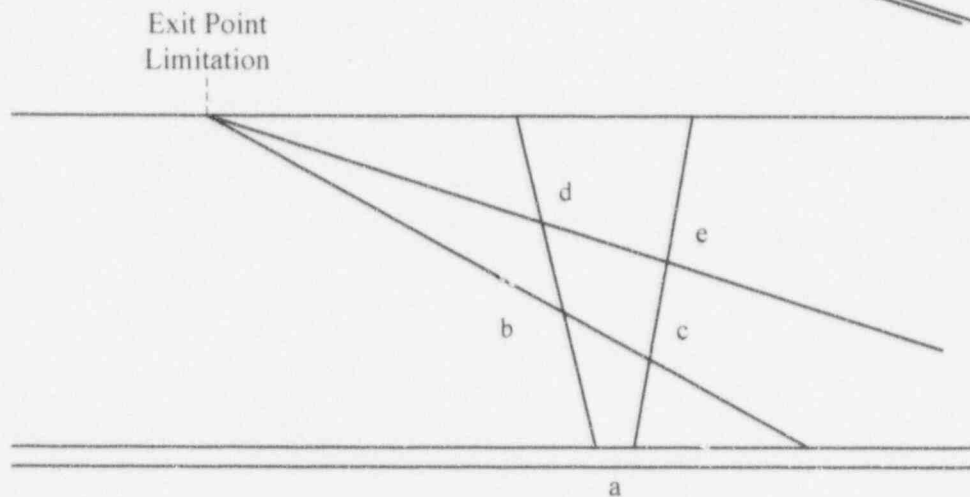
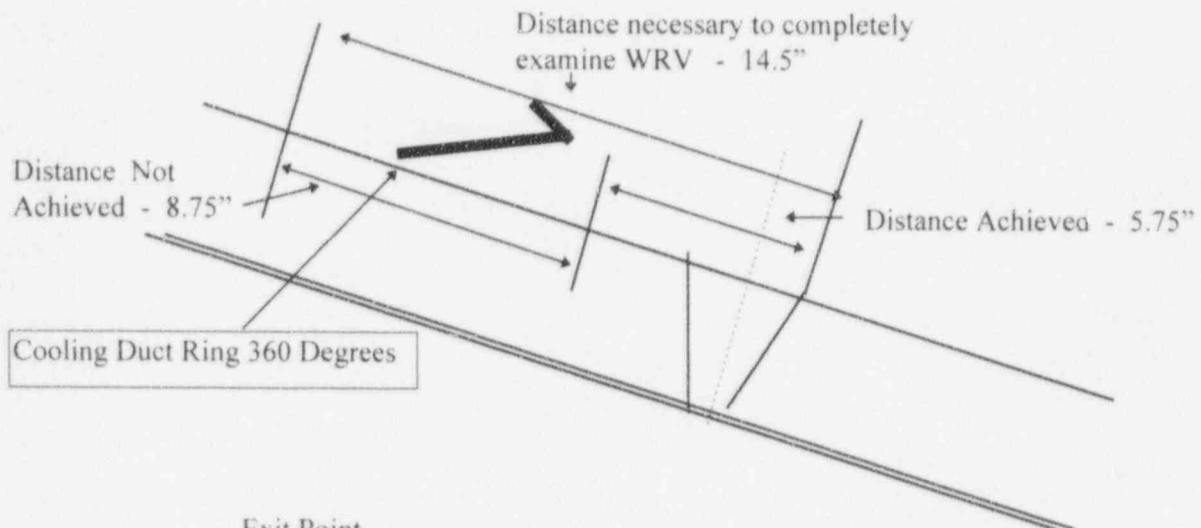
None; the Code required volumetric examination will be completed to the maximum extent practical.

PERIOD FOR WHICH RELIEF IS REQUESTED

Relief is requested for the second inspection interval, September 3, 1995 through September 2, 2005.

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

RELIEF REQUEST I2R-04
(Page 3 of 4)



abc represents portion of weld not examined
in two directions by $45^\circ = 16.8\%$

ade represents portion of weld not examined
in two directions by $60^\circ = 47.3\%$

FIGURE 1
CH-103-101 Scan Limitation
Cooling Ring Limitation

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

RELIEF REQUEST I2R-04
(Page 4 of 4)

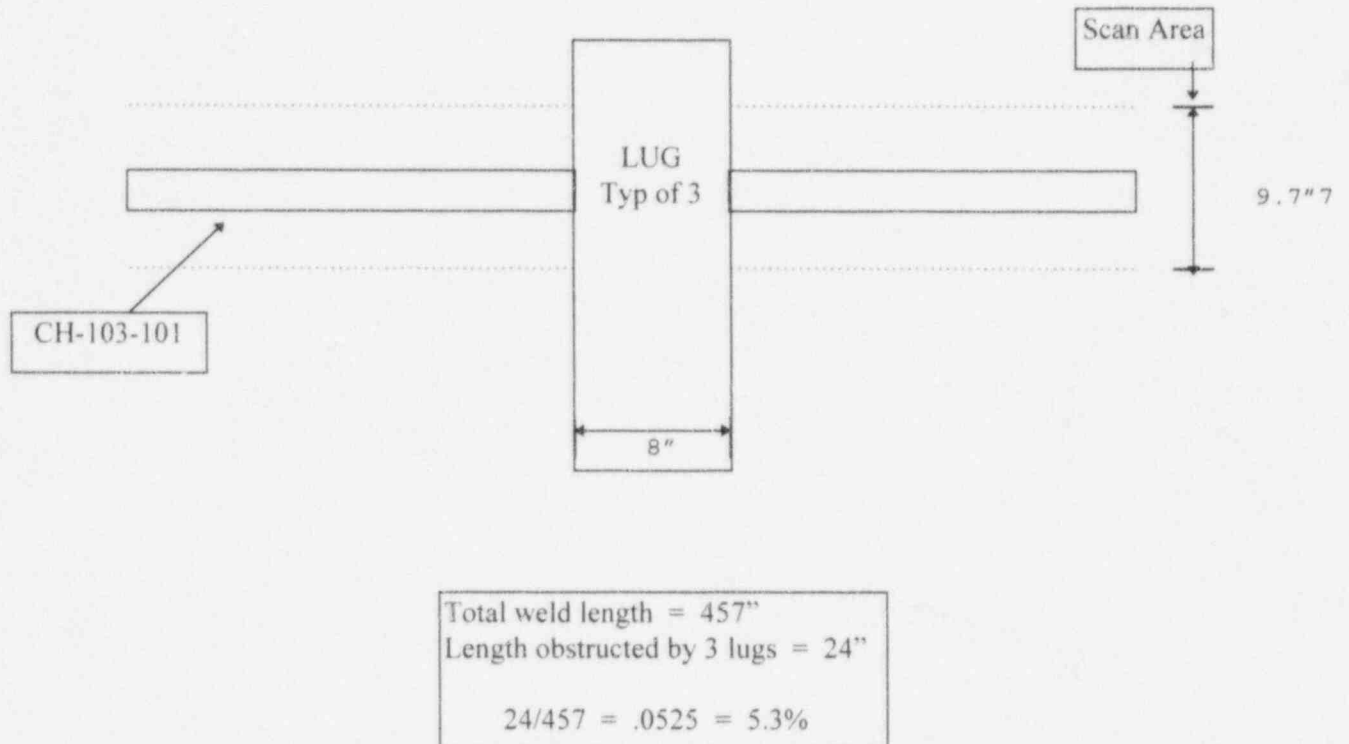


FIGURE 2
CH-103-101 Scan Limitation
(Lug Limitations only)

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

RELIEF REQUEST I2R-05

(Page 1 of 3)

COMPONENT IDENTIFICATION

Code Class:	1
References:	IWB-2500, Table IWB-2500-1
Examination Category:	B-B
Item Number:	B2.40
Description:	Limited Volumetric Examination of the Steam Generator Tubesheet-to-Channel Head Weld
Component Number:	EBB01D-SEAM-1-W
Drawing Number:	SI-EBB01D Sheet 1

CODE REQUIREMENT

Table IWB-2500-1, Examination Category B-B, Item Number B2.40 requires a 100% volumetric examination of Steam Generator Tubesheet-to-Channel Head Welds as detailed in Figure IWB-2500-6.

BASIS FOR RELIEF

Pursuant to 10 CFR 50.55a(g)(5)(iii), relief is requested on the basis that compliance with the specified requirements is impractical. Conformance with the inservice inspection requirements would necessitate a design modification to the Steam Generator and associated supports to remove obstructions that preclude 100% examination coverage of the subject weld.

Due to the four (4) support legs obstructing 22.4% of the volumetric examination with, at least, an additional 9.3% and 33.4% of the volumetric examination obstructed by the component design, while using the 45° and 60° angle beam, respectively, the Code required examination cannot be completed.

The Steam Generator was designed and fabricated in accordance with the stringent quality controls of ASME Section III; subsequent Preservice and first interval Inservice ultrasonic scans at 0, 45, and 60 degrees revealed no indications. The probability of a flaw occurring and not being found detected by the examinations previously performed is small. The limitations described above were included in a request for relief for the first ten year interval at WCGS, and relief was subsequently granted.

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

RELIEF REQUEST I2R-05

(Page 2 of 3)

BASIS FOR RELIEF (continued)

A significant portion of the weld required volume can be examined which should provide for detection of significant patterns of degradation. Therefore, reasonable assurance of the continued inservice structural integrity of the subject weld is achieved without performing a complete Code examination.

PROPOSED ALTERNATE EXAMINATION

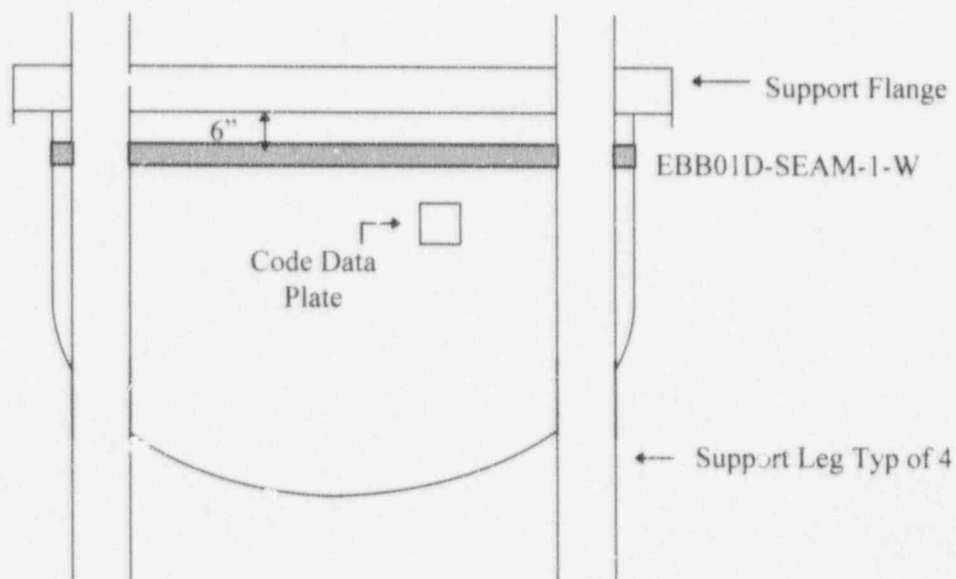
None; the Code required volumetric examination will be completed to the maximum extent practical.

PERIOD FOR WHICH RELIEF IS REQUESTED

Relief is requested for the second inspection interval, September 3, 1995 through September 2, 2005.

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

RELIEF REQUEST I2R-05
(Page 3 of 3)



Support Leg Locations

21\"/>

FIGURE 1
EBB01D-SEAM-1-W Limitations

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

RELIEF REQUEST I2R-06
(Page 1 of 2)

COMPONENT IDENTIFICATION

Code Class: 1
References: IWB-2500, Table IWB-2500-1
Examination Category: B-D
Item Number: B3.110
Description: Limited Volumetric Examination of the Pressurizer
Nozzle-to-Vessel Welds
Component Numbers: TBB03-10B-C-W and TBB03-10B-D-W
Drawing Number: ISI-TBB03 Sheet 1

CODE REQUIREMENT

Table IWB-2500-1, Examination Category B-D, Item Number B3.110 requires a 100% volumetric examination of Pressurizer Nozzle-to-Vessel Welds as detailed in Figure IWB-2500-7.

BASIS FOR RELIEF

Pursuant to 10 CFR 50.55a(g)(5)(iii), relief is requested on the basis that compliance with the specified requirements is impractical. Conformance with the inservice inspection requirements would necessitate a design modification to the Pressurizer Nozzle Welds which would allow 100% examination coverage of the subject weld.

Relief is requested from the Code requirement to volumetrically examine 100% of the subject welds due to the Pressurizer Nozzle weld taper and base metal taper near the nozzle causing transducer to lift off. As a result of this transducer lift off, a portion of the weld required volume (WRV) receives no shear wave examination when using 45° and 60° angle beams. This was observed when examining Nozzle to Vessel Welds TBB03-10B-C-W and TBB03-10B-D-W for the first ten year interval, which relief had been granted. For both welds, 15% of the WRV could not be scanned using a 45° angle beam and 11.5% of the WRV could not be scanned using a 60° angle beam. These same percentages are expected, as a maximum, for the second ten year interval.

Strict ASME Section III quality controls were used when designing, fabricating, and installing these welds. In addition, these welds were examined using ultrasonic equipment, showing only geometrical indications. The probability of a flaw occurring only in one of these areas not being examined is extremely small.

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

RELIEF REQUEST I2R-06
(Page 2 of 2)

BASIS FOR RELIEF (continued)

A significant portion of the weld required volume can be examined which should provide for detection of significant patterns of degradation. Therefore, reasonable assurance of the continued inservice structural integrity of the subject weld is achieved without performing a complete Code examination.

PROPOSED ALTERNATE EXAMINATION

None; the Code required volumetric examination will be completed to the maximum extent practical.

PERIOD FOR WHICH RELIEF IS REQUESTED

Relief is requested for the second inspection interval, September 3, 1995 through September 2, 2005.

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

RELIEF REQUEST I2R-07

(Page 1 of 4)

COMPONENT IDENTIFICATION

Code Class:	1
References:	IWB-2500, Table IWB-2500-1
Examination Category:	B-D
Item Number:	B3.110
Description:	Limited Volumetric Examination of the Pressurizer Surge Nozzle-to-Bottom Head Weld
Component Number:	TBB03-10A-W
Drawing Number:	ISI-TBB03, Sheet 1

CODE REQUIREMENT

Table IWB-2500-1, Examination Category B-D, Item Number B3.110 requires a 100% volumetric examination of Pressurizer Nozzle-to-Vessel Welds as detailed in Figure IWB-2500-7(b).

BASIS FOR RELIEF

Pursuant to 10 CFR 50.55a(g)(5)(iii), relief is requested on the basis that compliance with the specified requirements is impractical. Conformance with the inservice inspection requirements would necessitate a design modification to the Pressurizer Surge Nozzle and Pressurizer Heaters to remove obstructions that preclude 100% examination coverage of the subject weld.

The Pressurizer shell configuration and the proximity of the heaters results in 35% of the weld required volume not being examined with the 0 degree or with the parallel angle beam scan (See Figure 1). In addition, the weld metal can only be examined in the one direction and the adjacent base metal is not fully examined in one direction with two beam angles (92% complete with 60 degree angle beam and 88.4% complete with 45 degree angle beam, see Figure 2).

Strict ASME Section III quality controls were used when designing, fabricating, and installing this weld. In addition, this weld was volumetrically examined (PSI as well as current ISI), with no irregularities found. The probability of a flaw occurring only in one of these areas not being examined is extremely small. The limitations described above were included in a request for relief for the first ten year interval at WCGS, and relief was subsequently granted.

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

RELIEF REQUEST I2R-07
(Page 2 of 4)

BASIS FOR RELIEF (continued)

A significant portion of the weld required volume can be examined which should provide for detection of significant patterns of degradation. Therefore, reasonable assurance of the continued inservice structural integrity of the subject weld is achieved without performing a complete Code examination.

PROPOSED ALTERNATE EXAMINATION

None; the Code required volumetric examination will be completed to the maximum extent practical.

PERIOD FOR WHICH RELIEF IS REQUESTED

Relief is requested for the second inspection interval, September 3, 1995 through September 2, 2005.

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

RELIEF REQUEST I2R-07

(Page 3 of 4)

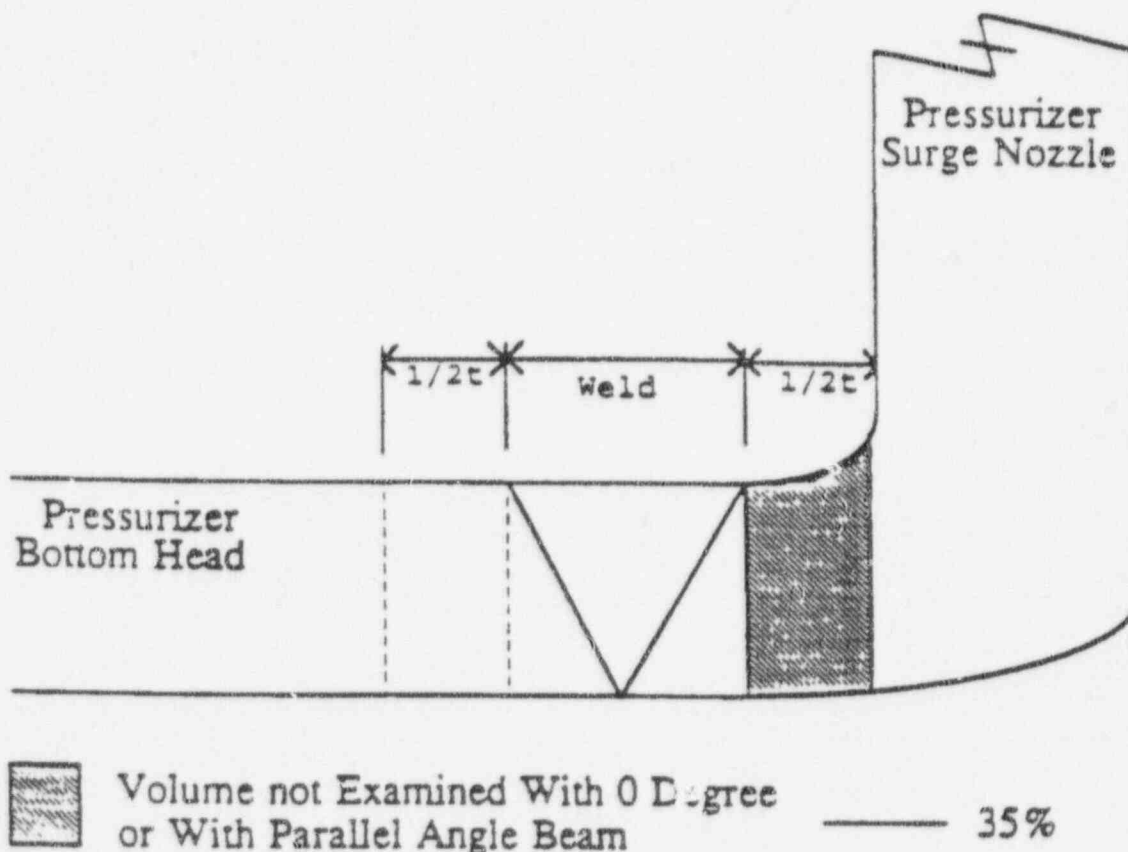
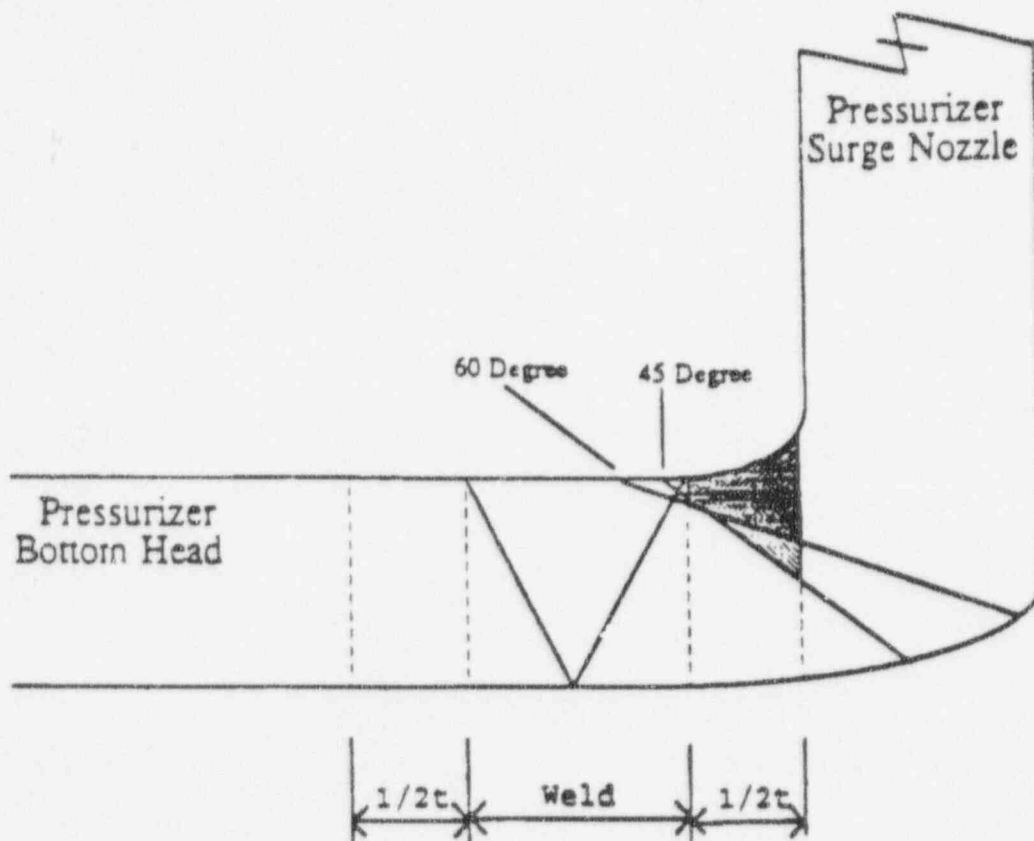


FIGURE 1
TBB03-10A-W Limitations

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

RELIEF REQUEST I2R-07
(Page 4 of 4)



Volume not Examined by 45 Degree Angle Beam — 3.6%



Volume not Examined by 45 or 60 Degree Angle Beam — 8%

FIGURE 2
TBB03-10A-W Limitations

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

RELIEF REQUEST I2R-08

(Page 1 of 3)

COMPONENT IDENTIFICATION

Code Class:	1
References:	IWB-2500, Table IWB-2500-1
Examination Category:	B-D
Item Number:	B3.120
Description:	Limited Volumetric Examination of the Pressurizer Surge Nozzle Inside Radius Section
Component Number:	TBB03-10A-IR
Drawing Number:	ISI-TBB03, Sheet 1

CODE REQUIREMENT

Table IWB-2500-1, Examination Category B-D, Item Number B3.120 requires a 100% volumetric examination of Pressurizer Nozzle Inner Radius Section as detailed in Figure IWB-2500-7(b).

BASIS FOR RELIEF

Pursuant to 10 CFR 50.55a(g)(5)(iii), relief is requested on the basis that compliance with the specified requirements is impractical. Conformance with the inservice inspection requirements would necessitate a design modification to the Pressurizer Surge Nozzle and Pressurizer Heaters to remove obstructions that preclude 100% examination coverage of the subject weld.

Relief is requested from the Code requirement to volumetrically examine 100% of the subject welds due to the interferences by the Pressurizer heater penetrations and nozzle configuration. As a result, 70% of the required weld volume cannot be inspected, (See Figure 1).

Strict ASME Section III quality controls were used when designing, fabricating, and installing this weld. In addition, this weld was volumetrically examined (PSI as well as current ISI), with no irregularities found. The probability of a flaw occurring only in one of these areas not being examined is extremely small. The limitations described above were included in a request for relief for the first ten year interval at WCGS, and relief was subsequently granted.

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

RELIEF REQUEST I2R-08
(Page 2 of 3)

BASIS FOR RELIEF (continued)

A portion of the weld required volume can be examined. In addition, other pressurizer nozzles are receiving examinations. Therefore, reasonable assurance of the continued inservice structural integrity of the subject weld is achieved without performing a complete Code examination.

PROPOSED ALTERNATE EXAMINATION

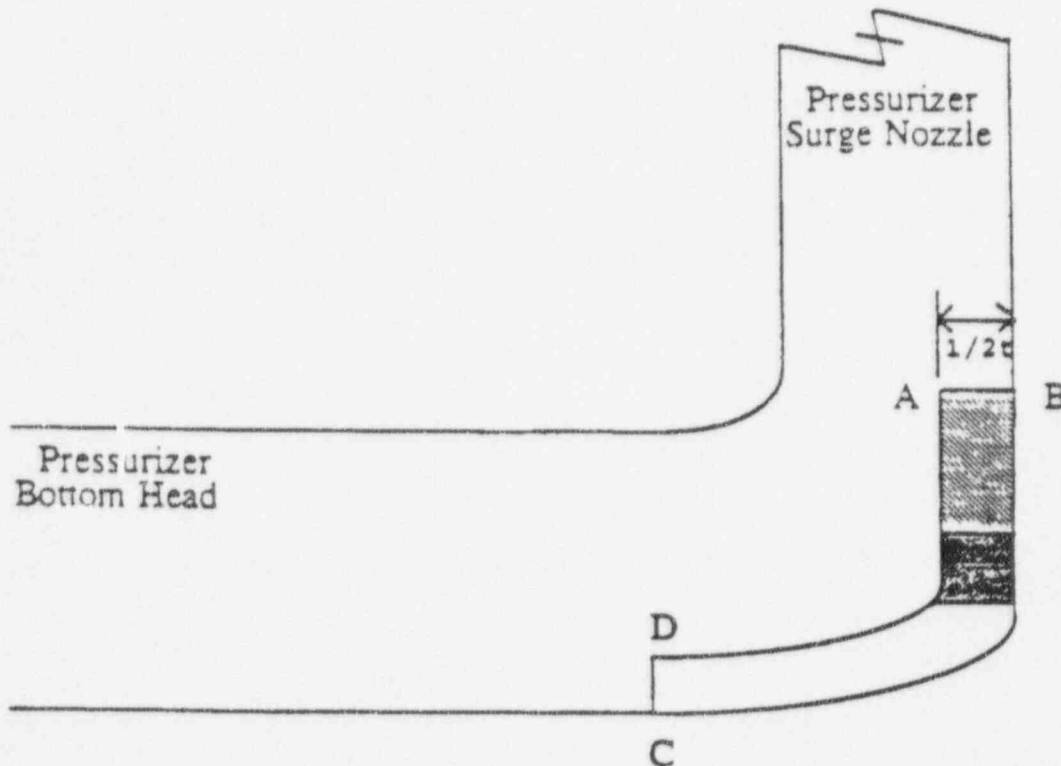
None; the Code required volumetric examination will be completed to the maximum extent practical.




PERIOD FOR WHICH RELIEF IS REQUESTED

Relief is requested for the second inspection interval, September 3, 1995 through September 2, 2005.

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

RELIEF REQUEST I2R-08
(Page 3 of 3)



-  Volume not Examined, 360 Degrees — 41%
-  Volume Examined, 360 Degrees — 21%
-  Volume Examined, 86 Degrees Only — 38%
(resulting from 18" gap in heater penetrations)

• • 70% of Total Exam Volume is not Examined

NOTE: Exam Volume is the area of ABCD

FIGURE 1
TBB03-10A-IR Limitations

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

RELIEF REQUEST I2R-14

(Page 1 of 4)

COMPONENT IDENTIFICATION

Code Class:	1
References:	Code Case N-491, Table -2500-1
Examination Category:	F-A
Item Number:	F1.40
Description:	Limited Examination of Reactor Vessel Supports
Component Numbers:	RBB01-01, RBB01-02, RBB01-03, and BB01-04

CODE REQUIREMENT

ASME Section XI, Code Case N-491, Table -2500-1 requires that 100% of Class 1 supports, other than piping, be subject to a visual VT-3 examination once every inspection interval.

BASIS FOR RELIEF

Pursuant to 10 CFR 50.55a(g)(5)(iii), relief is requested on the basis that compliance with the specified requirements is impractical. Conformance with the inservice inspection requirements would necessitate a design modification to the Reactor Pressure Vessel Supports and associated insulation/walkplate. to allow 100% visual examination of the subject weld.

The WCGS Reactor Vessel is supported by two cold leg nozzles and two hot leg nozzles. There is a support assembly at each of these nozzles that consists of a nozzle weld build up, shoe plate, air cooled box, and steel support structure embedded in the primary shield wall. Figure 1 depicts these support assemblies. As shown in the figure, only the nozzle weld build up and shoe plate are completely accessible for a visual VT-3 examination. The majority of the air cooled box and the entire steel support structure are located beneath a steel walk plate and only the top of the air cooled box is directly accessible. An additional 20 to 30 percent of the air cooled box and a very small percentage of the steel support structure would be made accessible if the steel walk plate and insulation were removed.

The Reactor Vessel supports are located in a confined space below the refueling pool permanent seal ring. The area can only be accessed through four seal ring hatches. In addition to difficult access, the radiation in the area is between 1.5 to 2.0 man-rem per hour. It is estimated that the removal and re-installation of the walk plate and insulation in this confined space, combined with the visual VT-3 examination, would result in an exposure of approximately 36 man-rem. Removal of the walk plate and insulation under these conditions to increase the examination of the air cooled box by approximately 20 to 30 percent and a very small percentage of the steel support structure is considered impractical without a commensurate increase in quality or safety. Based on this, relief is requested from the visual VT-3 examination of the air cooled box and steel support structure that is obstructed by the walk plate and insulation. The limitations described above were included in a request for relief for the first ten year interval at WCGS, and relief was subsequently granted.

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

RELIEF REQUEST I2R-14

(Page 2 of 4)

BASIS FOR RELIEF (continued)

A visual examination VT-3, with the walk plate and insulation installed, shall be performed to the extent practical on the accessible NF portions of the Reactor Vessel support assemblies to satisfy the requirements of Code Case N-491, Table -2500-1, Item No. F1.40. If conditions are discovered during this limited visual examination VT-3 that do not meet the acceptance standards of N-491, -3400, the walk plate or insulation will, if necessary, be removed to meet the evaluation requirements of N-491, -3112.2 or -3112.3.

PROPOSED ALTERNATE EXAMINATION

None; the Code required visual examination VT-3 will be completed to the maximum extent practical.

PERIOD FOR WHICH RELIEF IS REQUESTED

Relief is requested for the second inspection interval, September 3, 1995 through September 2, 2005.

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

RELIEF REQUEST I2R-14

(Page 3 of 4)

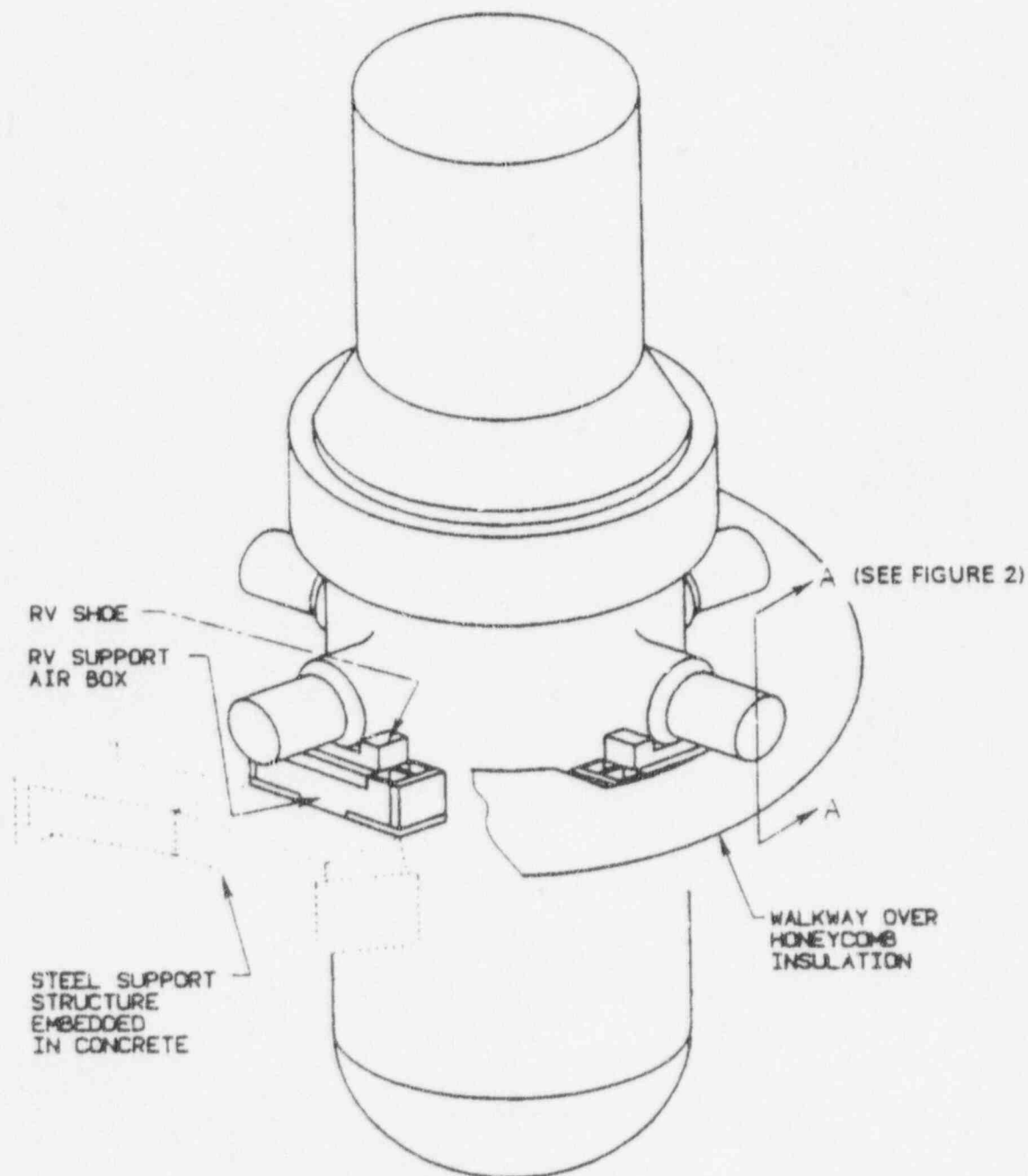


FIGURE 1

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

RELIEF REQUEST I2R-14

(Page 4 of 4)

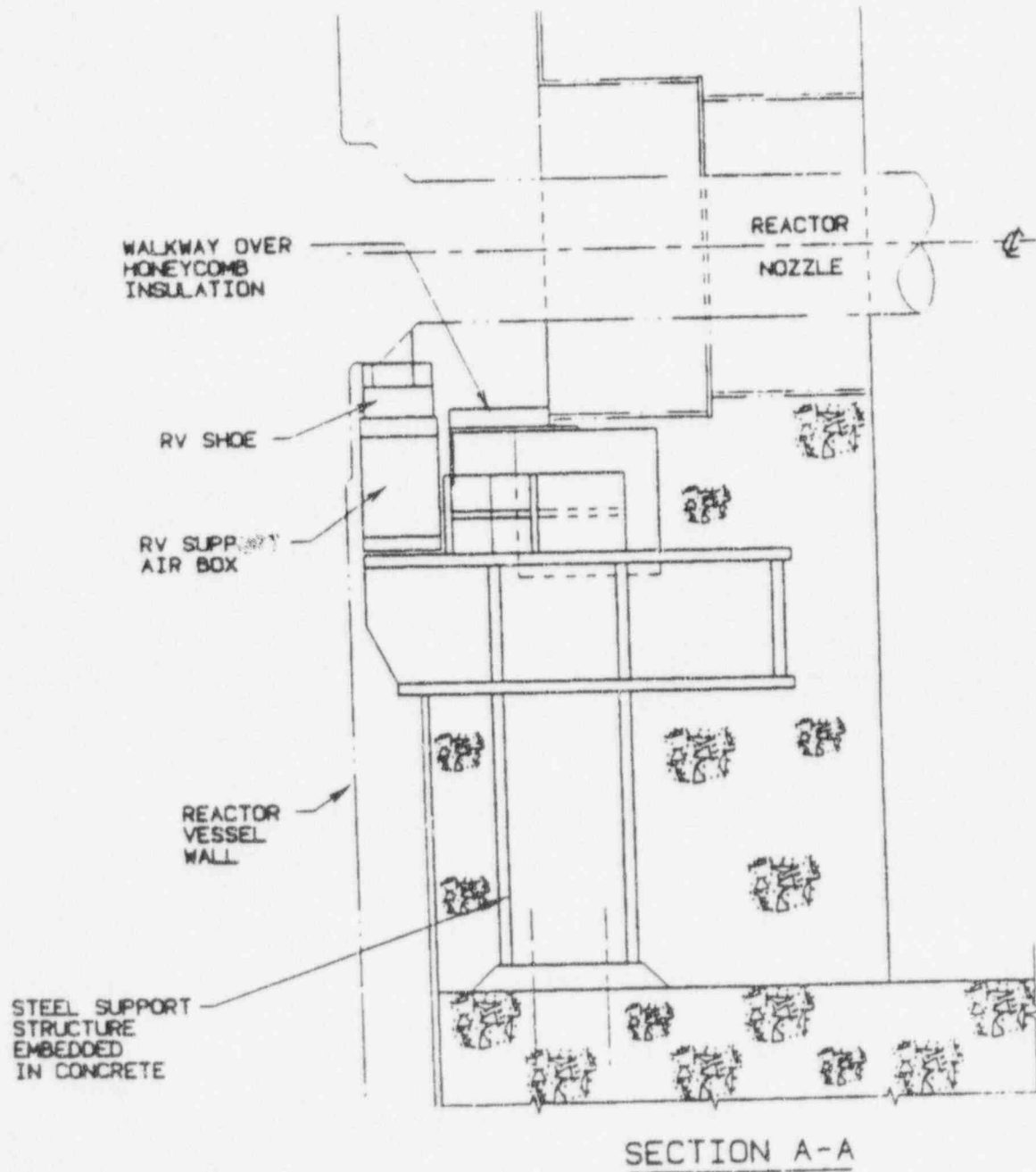


FIGURE 2

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

RELIEF REQUEST I2R-18

(Page 1 of 2)

COMPONENT IDENTIFICATION

Code Class: 1
References: IWB-2500, Table IWB-2500-1
Examination Category: B-J
Item Number: B9.31
Description: Limited Volumetric Examination of Reactor Coolant
System Branch Connection Welds
Component Numbers: BB-01-S101-7, BB-01-S302-3, and BB-01-S402-3
Drawing Numbers: BB-01-01 Sheet 1, BB-01-03 Sheet 1, and BB-01-04
Sheet 1

CODE REQUIREMENT

Table IWB-2500-1, Examination Category B-J, Item Number B9.31 requires a 100% volumetric examination of Piping Branch Connection Welds as detailed in Figure IWB-2500-9.

BASIS FOR RELIEF

Pursuant to 10 CFR 50.55a(g)(5)(iii), relief is requested on the basis that compliance with the specified requirements is impractical. Conformance with the inservice inspection requirements would necessitate a design modification to the Reactor Coolant System loop piping to allow 100% examination of the subject weld.

Volumetric examination of these welds is limited to the pipe side only due to component geometry (pipe branch connection geometry) and metallurgical properties (centrifugally cast stainless steel). Because of the coarse grain material and high attenuative nature of the materials, it is necessary to use a refracted longitudinal sound wave to achieve the best ultrasonic response. This type of wave cannot be extended to provide two beam path direction coverage.

Strict ASME Section III quality controls were used when designing, fabricating, and installing these welds. In addition, these welds are examined using ultrasonic equipment to the fullest extent possible, including examination of 100% of the volume in two beam path directions for reflectors transverse to the weld seam, with no irregularities identified. This fact, in conjunction with the surface examination results and RCS visual examinations VT-2 following each refueling outage, provides confidence that the welds are structurally sound and that the limited exam does not compromise the health and safety of the public.

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

RELIEF REQUEST I2R-18
(Page 2 of 2)

PROPOSED ALTERNATE EXAMINATION

None; the Code required volumetric examination will be completed to the maximum extent practical.

PERIOD FOR WHICH RELIEF IS REQUESTED

Relief is requested for the second inspection interval, September 3, 1995 through September 2, 2005.