



**New York Power
Authority**

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

INSERVICE INSPECTION PROGRAM
RELIEF REQUESTS

for the

2nd TEN-YEAR INTERVAL CLOSEOUT

NEW YORK POWER AUTHORITY
James A. FitzPatrick Nuclear Power Plant
Docket No. 50-333

9707230082 970715
PDR ADOCK 05000333
G PDR

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SUMMARY LISTING

Introduction

Class 1 Components

1	Code Category B-A	Pressure Retaining Welds in Reactor Vessel
2	Code Category B-D	Full Penetration Welds of Nozzles in Vessels-Inspection Program B
3	Code Category B-F	Pressure Retaining Dissimilar Metal Welds
4	Code Category B-G-1	Pressure Retaining Bolting Greater than 2 in. In Diameter
5		This section has been removed.
6	Code Category B-H	Integral Attachments for Vessels
7	Code Category B-J	Pressure Retaining Welds in Piping
8	Code Category B-K-1	Integral Attachments for Piping, Pumps, and Valves
9	Code Category B-L-2	Pump Casings
10	Code Category B-M-2	Valve Bodies > 4" Nominal Pipe Size
11	Code Category B-O	Pressure Retaining Welds in Control Rod Housings

Class 2 Components

12	Code Category C-A	Pressure Retaining Welds in Pressure Vessels
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15	Code Category C-C	Integral Attachments for Vessels, Piping, Pumps and Valves
16	Code Category C-F/C-G	Pressure Retaining Welds in Piping, Pumps and Valves in Systems Which Circulate Reactor Coolant
17	Code Category C-G	Pressure Retaining Welds in Piping, Pumps and Valves in Systems Which Circulate Other Than Reactor Coolant
18	{Code Category C-H {Code Category D-A/ D-B/D-C	All Pressure Retaining Components
19	ASME Section XI	Pressure Retaining Boundary IWE/IWL Containment Repair & Replacement Rule

ENCLOSURE SUMMARY

ENCLOSURE 1	5 Pages
ENCLOSURE 1A	BLANK
ENCLOSURE 2	1 Page
ENCLOSURE 3	7 Pages
ENCLOSURE 4	BLANK
ENCLOSURE 4A	BLANK
ENCLOSURE 5	THIS SECTION HAS BEEN REMOVED.
ENCLOSURE 6	5 Pages
ENCLOSURE 7	1 Page
ENCLOSURE 7A	1 Page
ENCLOSURE 8	1 Page
ENCLOSURE 8A	BLANK
ENCLOSURE 9	BLANK
ENCLOSURE 10	BLANK
ENCLOSURE 11	3 Pages
ENCLOSURE 12	2 Pages
ENCLOSURE 12A	1 Page
ENCLOSURE 13	1 Page
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ENCLOSURE 15	1 Page
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INTRODUCTION

These Relief Requests are being submitted as part of the close-out for the 2nd Ten-Year Interval which was performed in accordance with the ASME Section XI Code Edition 1980 up to and including Winter Addenda 1981. The requests for relief enclosed are submitted pursuant to 10 CFR 50.55a (a)(3)(i), 10 CFR 50.55a (a)(3)(ii), 10 CFR 50.55a (g)(5)(iii) and/or in accordance with an approved Relief Request as stipulated in a Safety-Evaluation (SE) by the Office of Nuclear Reactor Regulation. The requests, along with their specific regulatory basis, are described in detail along with supporting technical discussion, documentation and referenced SE. Included in the Tables and Enclosures are welds examined during the 2nd Ten-Year Interval (7/85 - 9/97) whose inspections have **not** met the code required coverage as defined in Code Case N-460, Alternative Examination Coverage for Class 1 and Class 2 Welds, along with sketches and/or drawings that depict the limiting condition. Also included are relief requests for pressure testing which are submitted for pressure tests that were not performed during the 2nd period of the 2nd Ten-Year Interval. There are two requests for relief for (1) ASME Code Category B-K-1, Attachment Welds, Item No. B10.10 and (2) ASME Code Category B-G-1, RPV Flange Ligaments, Item No. B6.40, that do not meet Program B, 3rd period requirements and a resubmittal for relief which supersedes the initial request from the containment inspection rule ASME Section XI, 1992 Edition and Addenda, Subsection IWE/IWL, Repair/Replacement activities.

CLASS 1 COMPONENTS

Code Category B-A: Pressure Retaining Welds in Reactor Vessel

Item No. B1.20 RPV Bottom Head Welds
Item No. B1.21 Circumferential
Item No. B1.22 Meridional

Item No. B1.21 Circumferential

Relief is requested in accordance with the provisions of 10 CFR 50.55a (a)(3)(iii) from the full Code-required extent of volumetric examination for the following circumferential welds in the Reactor Vessel Bottom Head listed in Table 1. This relief is also submitted in accordance with the NRC's review of 2nd Ten-Year Inservice Inspection Program and Requests for Relief, Dated October 27, 1987, Docket No. 50-333, Relief Request (R14).

Examination Requirements

ASME Section XI, 1980 Edition through Winter 1981 Addenda, requires 100% volumetric examination of the weld plus $\frac{1}{2}t$ of the adjacent base metal on each side of the weld crown.

Basis for Relief

Inspections of the Code-required accessible length of one weld was conducted on the RPV Bottom Head Circumferential Welds with limitations based on restricted access. Access to the area is limited to four 18" diameter manways 90° apart in the vessel support skirt. In addition, the one hundred and thirty-seven (137) control rod drives and forty-three (43) in-core monitor instrumentation penetrations present extensive interference. The positioning and spacing of these components prevent an inspector from physically being able to reach them and allows access to a very limited portion the welds. There is also interference from the vessel support skirt which is welded to the bottom head on the lower portion of weld VC-BH-1-2. This combined with the curvature of the bottom head and the Bio-shield wall narrowing in this area precludes access. Permanent vessel insulation and limited storage space for those insulation panels which require removal is extremely limited because of the small size of the manways.

Proposed Alternative Examinations

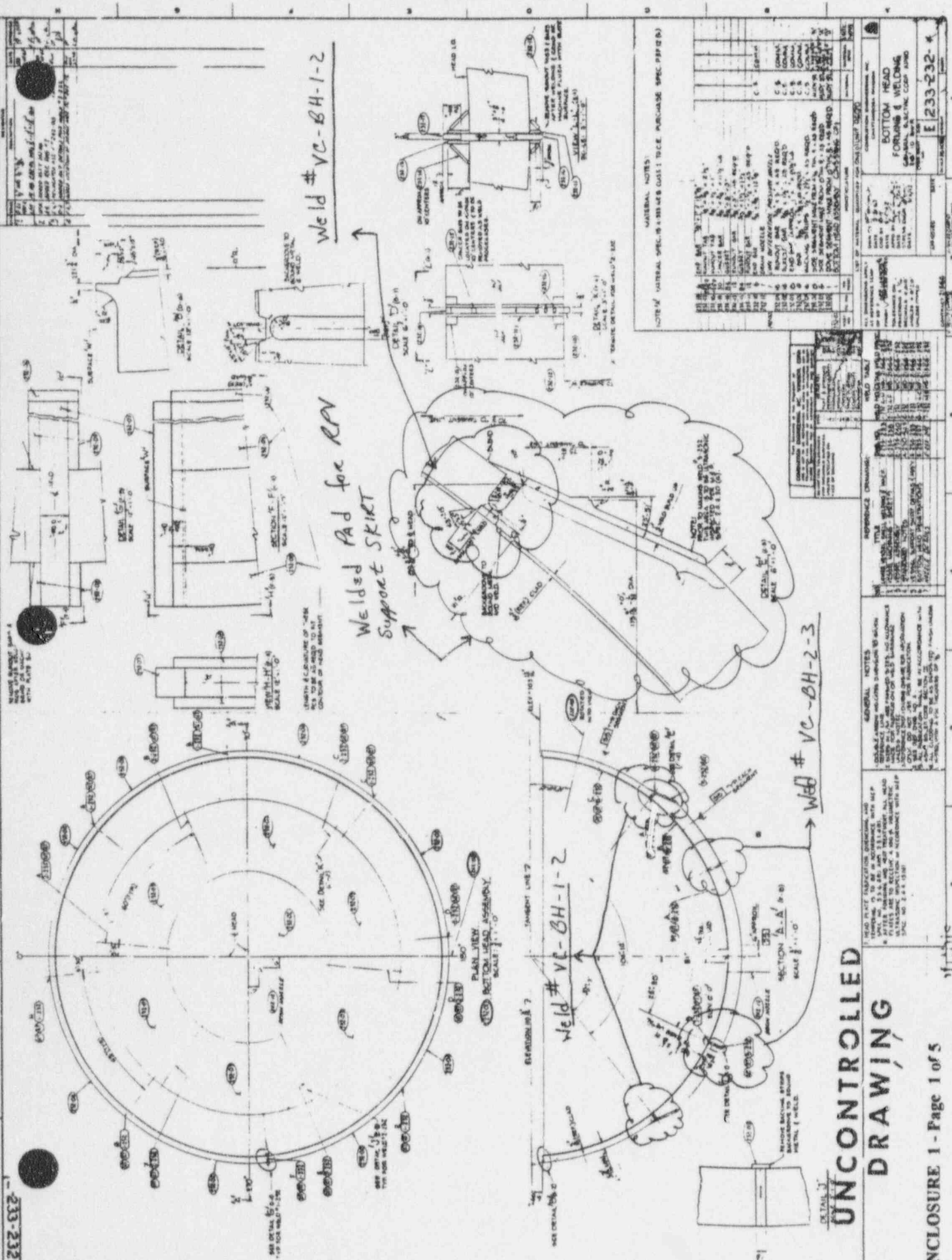
1. No additional volumetric examinations will be performed. The RPV welds have been examined to the maximum extent practical from the outside surface.
2. A visual examination (VT-2) is performed in conjunction with the pressure testing conducted on these components every refuel outage (with no evidence of leakage detected) in accordance with IWA-5000 and IWB-5000, which provides reasonable assurance of component integrity.

RPV Pressure Retaining Welds addressed by this Relief Request are listed in Table 1. Drawings highlighting component design, configuration of interferences, and limitations associated with the examinations are included in Enclosure 1.

Table 1

Code Category B-A / Item No. B1.21				
Component ID	System	Extent Examined	Limitation	Remarks
VC-BH-1-2	RPV Bottom Head	117"	Restricted Access	
VC-PH-2-3	RPV Bottom Head	None	Inaccessible	

ENCLOSURE 1



GENERAL NOTES:

1. MATERIAL SPEC. IS AS SHOWN ON Dwg. 1. TO CE. PURCHASE SPEC. PER Dwg. 1.

2. TENSILE DETAIL FOR WELD'S END.

3. WELDING PROCEDURE SPECIFICATION (WPS) SHALL BE AS SHOWN ON Dwg. 1.

4. WELDING SHALL BE ACCORDANCE WITH ASME SECTION VIII, DIV. 1.

5. WELDING SHALL BE ACCORDANCE WITH ASME SECTION VIII, DIV. 1.

6. WELDING SHALL BE ACCORDANCE WITH ASME SECTION VIII, DIV. 1.

7. WELDING SHALL BE ACCORDANCE WITH ASME SECTION VIII, DIV. 1.

8. WELDING SHALL BE ACCORDANCE WITH ASME SECTION VIII, DIV. 1.

9. WELDING SHALL BE ACCORDANCE WITH ASME SECTION VIII, DIV. 1.

10. WELDING SHALL BE ACCORDANCE WITH ASME SECTION VIII, DIV. 1.

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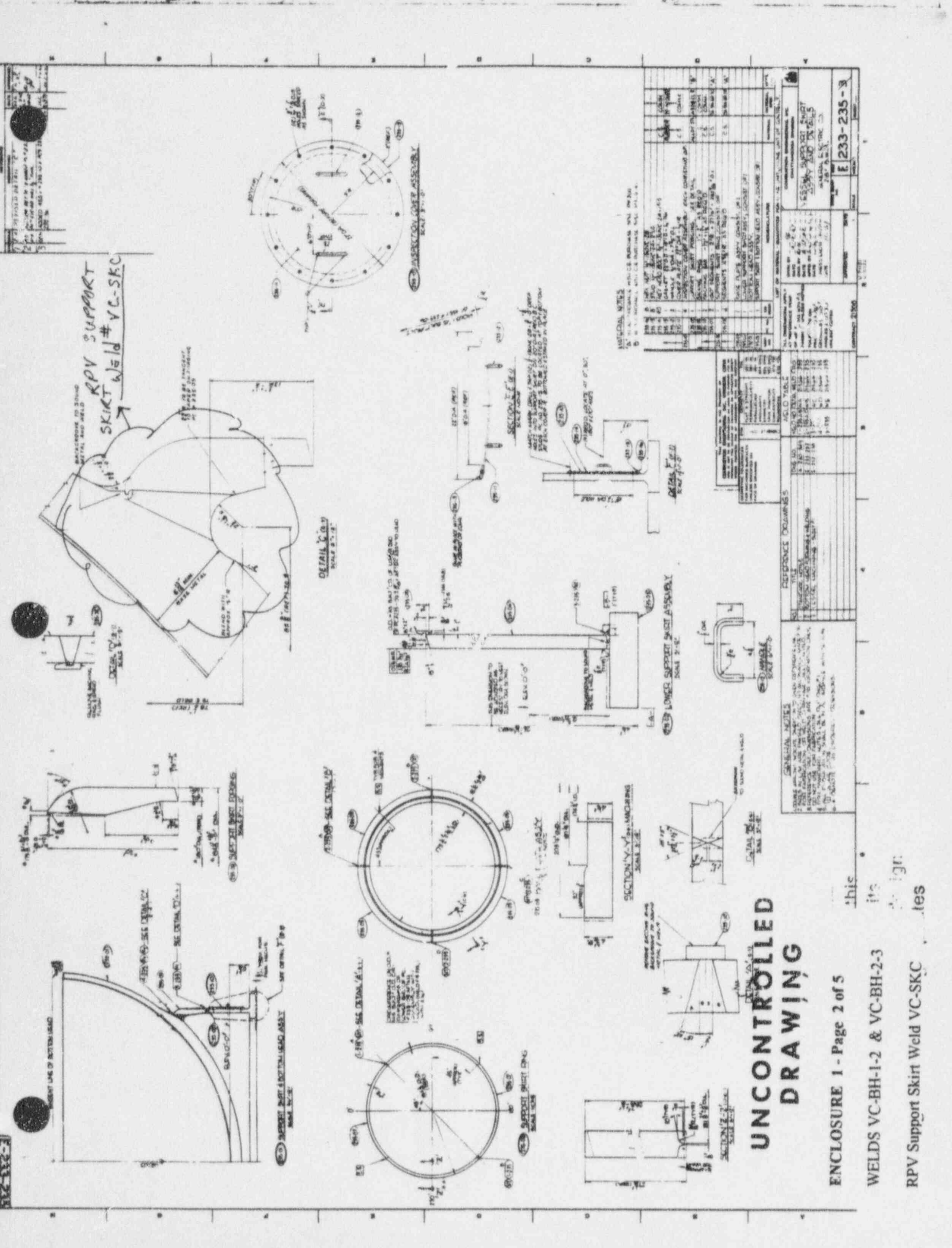
UNCONTROLLED DRAWING

ENCLOSURE 1 - Page 1 of 5

WELDS VC-BH-1-2 & VC-BH-2-3

RPV Bottom Heads

designates



UNCONTROLLED DRAWING

ENCLOSURE 1 - Page 2 of 5

WELDS VC-BH-1-2 & VC-BH-2-3

RPV Support Skirt Weld VC-SKC

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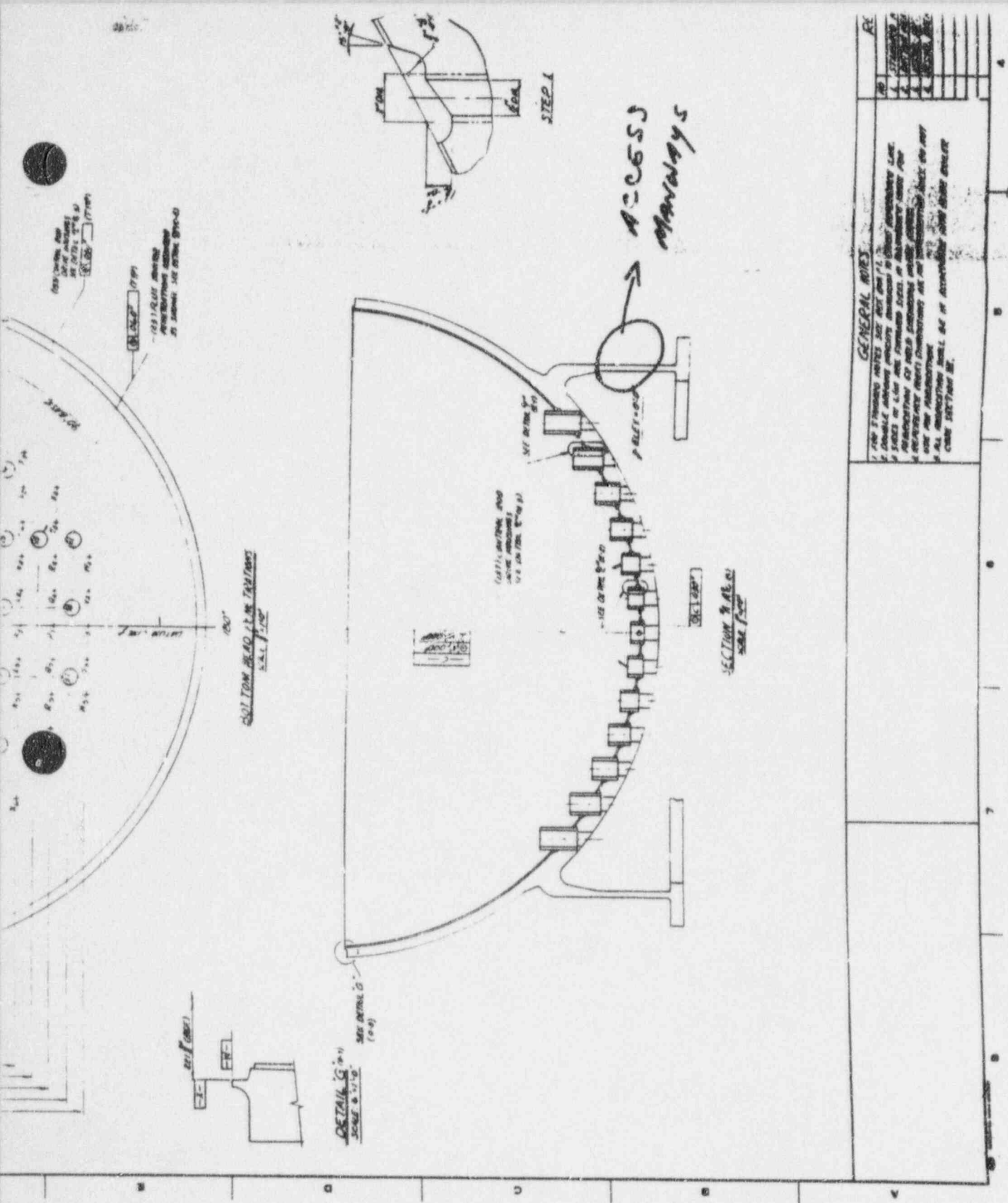
GENERAL NOTES
 1. ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED ARE IN INCHES.
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 10. ALL DIMENSIONS TO CENTER UNLESS OTHERWISE SPECIFIED.

NO.	REVISION	DATE	BY	CHKD.
1	ISSUED FOR FABRICATION	10/1/78	J. J. [unclear]	[unclear]
2	REVISED TO SHOW METAL AND WELD	10/1/78	J. J. [unclear]	[unclear]

REFERENCE DRAWINGS
 VC-BH-1-2
 VC-BH-2-3
 VC-SKC

GENERAL NOTES
 THIS DRAWING IS UNCONTROLLED
 IT IS THE RESPONSIBILITY OF THE USER
 TO VERIFY THE DRAWING IS THE LATEST
 EDITION AND TO CHECK FOR ANY
 CHANGES TO THE DRAWING
 BEFORE FABRICATION OR CONSTRUCTION
 OF THE DRAWING.

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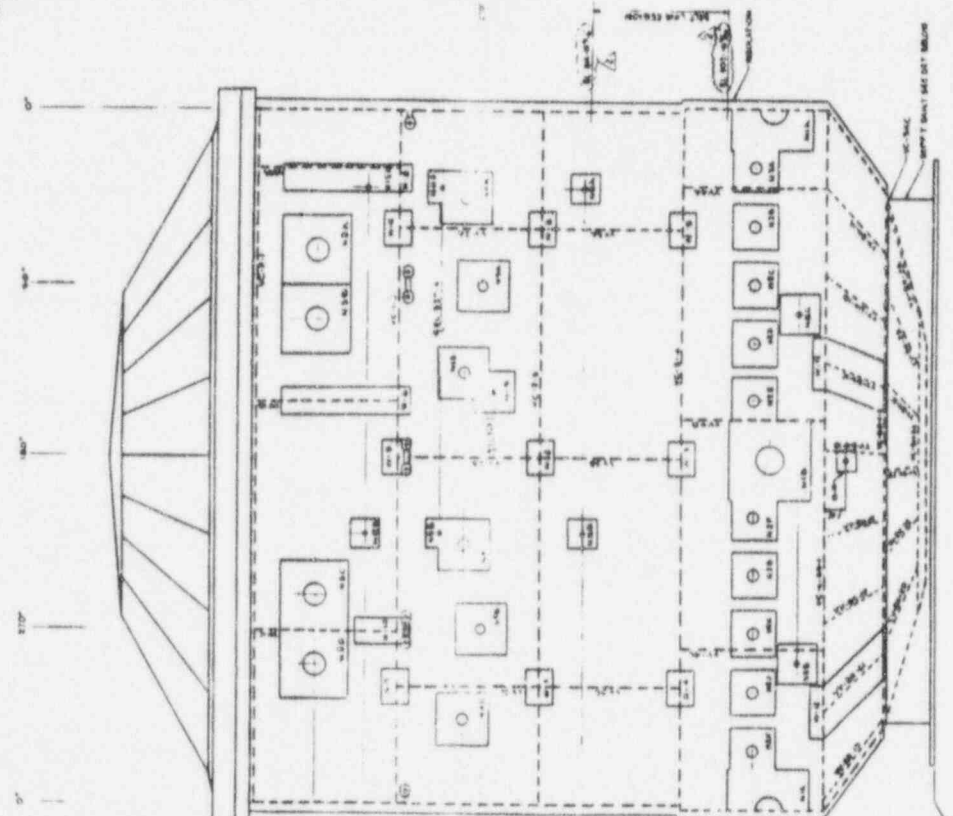
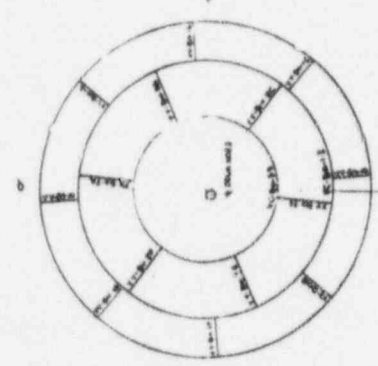
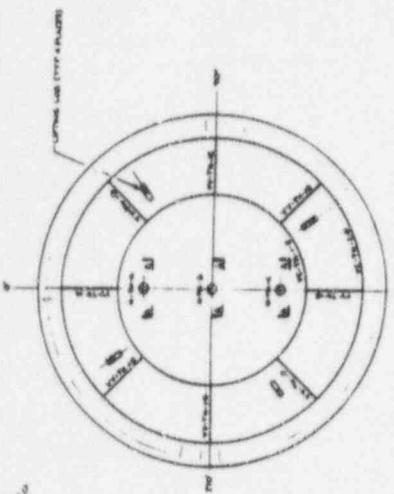
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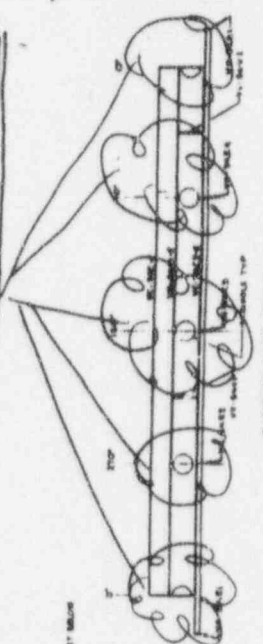
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27966-C-200-100

UNCONTROLLED
DRAWINGS
DATE MAR 20 1997



ACCESS MAINWAYS
TO RPV BOTTOM HEAD



WELD INSULATION REGIONAL CHART

WELD ID	WELD TYPE	WELD CLASS	WELD SIZE	WELD LOCATION
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WELD INSULATION REGIONAL CHART

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VESSEL SEGMENT WELDS

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SHIFT SEGMENT WELDS

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WELDED ATTACHMENTS

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REACTOR VESSEL WELDED ATTACHMENTS

WELD ID	WELD TYPE	WELD CLASS	WELD SIZE	WELD LOCATION
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REACTOR VESSEL WELDED ATTACHMENTS

WELD ID	WELD TYPE	WELD CLASS	WELD SIZE	WELD LOCATION
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Item No. B1.22 RPV Bottom Head Meridional Welds

Relief is requested in accordance with the provisions of 10 CFR 50.55a (a)(3)(iii) from the full Code-required extent of volumetric examination for the following RPV Bottom Head Meridional Welds listed in Table 1A. This relief is also submitted in accordance with the NRC's Safety Evaluation (SE) of the 2nd Ten-Year Inservice Inspection Program, Dated October 27, 1987, Docket No. 50-333 Relief Request (R14). In accordance with Relief Request (R14) of the 2nd Ten-Year Interval, the Authority is outlining the extent of examinations conducted on RPV Bottom Head Meridional Welds. The extent of examination as required by the referencing code section has been met in its entirety. Table 1A details the extent of examinations conducted

Proposed Alternative Examinations

1. None
2. Inspection of the Code-required accessible length of one weld (Note 1) has been achieved and fully satisfies the extent of examination in accordance with ASME Section XI, 1980 Edition up to and including Winter Addenda 1981. Components addressed by this Relief Request are in compliance with Relief Request (R14) and listed in Table 1A.

Table 1A

Code Category B-A / Item No. B1.22 - Meridional Welds					
Component ID	System	Extent Examined	Total Length	Limitation	Remarks
VV-BH-1A	RPV Bottom Head	36" (1)	69"	Restricted Access	Ref. Dwg. 5.01-82D
VV-BH-1B	RPV Bottom Head	34" (1)	69"	Restricted Access	Ref. Dwg. 5.01-82D
VV-BH-1C	RPV Bottom Head	None	69"	Restricted Access	Ref. Dwg. 5.01-82D
VV-BH-1D	RPV Bottom Head	None	69"	Restricted Access	Ref. Dwg. 5.01-82D
VV-BH-1E	RPV Bottom Head	None	69"	Restricted Access	Ref. Dwg. 5.01-82D
VV-BH-1F	RPV Bottom Head	None	69"	Restricted Access	Ref. Dwg. 5.01-82D
VV-BH-1G	RPV Bottom Head	None	69"	Restricted Access	Ref. Dwg. 5.01-82D
VV-BH-1H	RPV Bottom Head	None	69"	Restricted Access	Ref. Dwg. 5.01-82D

Code Category B-A / Item No. B1.22 - Meridional Welds					
Component ID	System	Extent Examined	Total Length	Limitation	Remarks
VV-BH-2A	RPV Bottom Head	None	54"	Inaccessible	Ref. Dwg. 5.01-82D
VV-BH-2B	RPV Bottom Head	None	54"	Inaccessible	Ref. Dwg. 5.01-82D
VV-BH-2C	RPV Bottom Head	None	54"	Inaccessible	Ref. Dwg. 5.01-82D
VV-BH-2D	RPV Bottom Head	None	54"	Inaccessible	Ref. Dwg. 5.01-82D
VV-BH-2E	RPV Bottom Head	None	54"	Inaccessible	Ref. Dwg. 5.01-82D
VV-BH-2F	RPV Bottom Head	None	54"	Inaccessible	Ref. Dwg. 5.01-82D

NOTE:

- (1) Cumulative total for the extent of examination performed during the 2nd Ten-Year Interval on RPV Bottom Head Meridional Welds is 70" which exceeds the total length (69") of one Meridional weld.

ENCLOSURE 1A

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Code Category B-D: Full Penetration Welds of Nozzles in Vessels-Inspection

Item No. B3.90 Nozzle -to-Vessel Welds

Relief is requested in accordance with the provisions of 10 CFR 50.55a (a)(3)(iii) from the full Code-required extent of volumetric examination for the following Full Penetration RPV Nozzle Welds listed in Table 2.

Examination Requirements

ASME Section XI, 1980 Edition through Winter 1981 Addenda, requires 100% volumetric examination of the weld plus $\frac{1}{2}$ the wall thickness of adjacent base metal on each side of the weld.

Basis for Relief

Complete inspection of the Code-required volume is not possible based on restricted access caused by interference from permanent structures such as non-removable vessel insulation, instrumentation lines/penetrations and other nozzles. Detailed measurements of these interferences were taken for the nozzles, which is typical for a given configuration (i.e.: N1(s), N2(s), N4(s), and N5(s)). The examination data detailing restricted access associated with the N-9 nozzle does not have the necessary detail to calculate the exact coverage achieved. In this case an estimate of examination coverage is used, based on the examination data sketch generated during the inspection.

Proposed Alternative Examinations

1. No additional volumetric examinations will be performed. The RPV nozzle welds have been examined to the maximum extent practical from the outside surface.
2. A visual inspection (VT-2) is performed in conjunction with the pressure testing conducted on these components every refuel outage (with no leakage detected) in accordance with IWA-5000 and IWB-5000, which provides reasonable assurance of component integrity.

RPV Nozzle Welds addressed by this Relief Request are listed in Table 2. Drawings, sketches and the calculated volume of coverage in Enclosure 2 illustrate the restricted conditions encountered that limit examination coverage.

Table 2

Code Category B-D / Item No. B3.90				
Component ID	System	Extent Examined	Limitation	Remarks
N-1A	RPV Recirc. Noz.	35 - 50%	Configuration/ Insulation	Typical Configuration for N-1(s)
N-1B	RPV Recirc. Noz.	35 - 50%	Configuration/ Insulation	"
N-2A	RPV Recirc. Noz.	50 - 65%	Configuration/ Insulation	Typical Configuration for N-2(s)
N-2B	RPV Recirc. Noz.	50 - 65%	Configuration/ Insulation	"
N-2C	RPV Recirc. Noz.	50 - 65%	Configuration/ Insulation	"
N-2D	RPV Recirc. Noz.	50 - 65%	Configuration/ Insulation	"
N-2E	RPV Recirc. Noz.	50 - 65%	Configuration/ Insulation	"
N-2F	RPV Recirc. Noz.	50 - 65%	Configuration/ Insulation	"
N-2G	RPV Recirc. Noz.	50 - 65%	Configuration/ Insulation	"
N-2H	RPV Recirc. Noz.	50 - 65%	Configuration/ Insulation	"
N-2J	RPV Recirc. Noz.	50 - 65%	Configuration/ Insulation	"
N-2K	RPV Recirc. Noz.	50 - 65%	Configuration/ Insulation	"
N-3A	MS Noz.	50 - 60%	Configuration	Typical Configuration for N-3(s)
N-3B	MS Noz.	50 - 60%	Configuration	"
N-3C	MS Noz.	50 - 60%	Configuration	"
N-3D	MS Noz.	50 - 60%	Configuration	"
N-4A	RPV FW Noz.	60 - 70%	Configuration/ Insulation	Typical Configuration for N-4(s)
N-4B	RPV FW Noz.	60 - 70%	Configuration/ Insulation	"

Code Category B-D / Item No. B3.90				
N-4C	RPV FW Noz.	60 - 70%	Configuration/ Insulation	"
N-4D	RPV FW Noz.	60 - 70%	Configuration/ Insulation	"
N-5A	RPV CS Noz.	70%	Configuration/ Insulation	"
N-8A	JPI Noz.	60 - 70%	Configuration/ Insulation	Typical Configuration for N8(s)
N-8B	JPI Noz.	60 - 70%	Configuration/ Insulation	
N-5B	RPV CS Noz.	70%	Configuration/ Insulation	"
VN-TH-A	RPV Head Noz.	60 - 70%	Configuration	
VN-TH-B	RPV Head Noz.	60 - 70%	Configuration	
VN-TH-C	RPV Head Noz.	60 - 70%	Configuration	
N-9	RPV CRD Noz.	Est. 60- 70%	Configuration/ Insulation	(1)

NOTE:

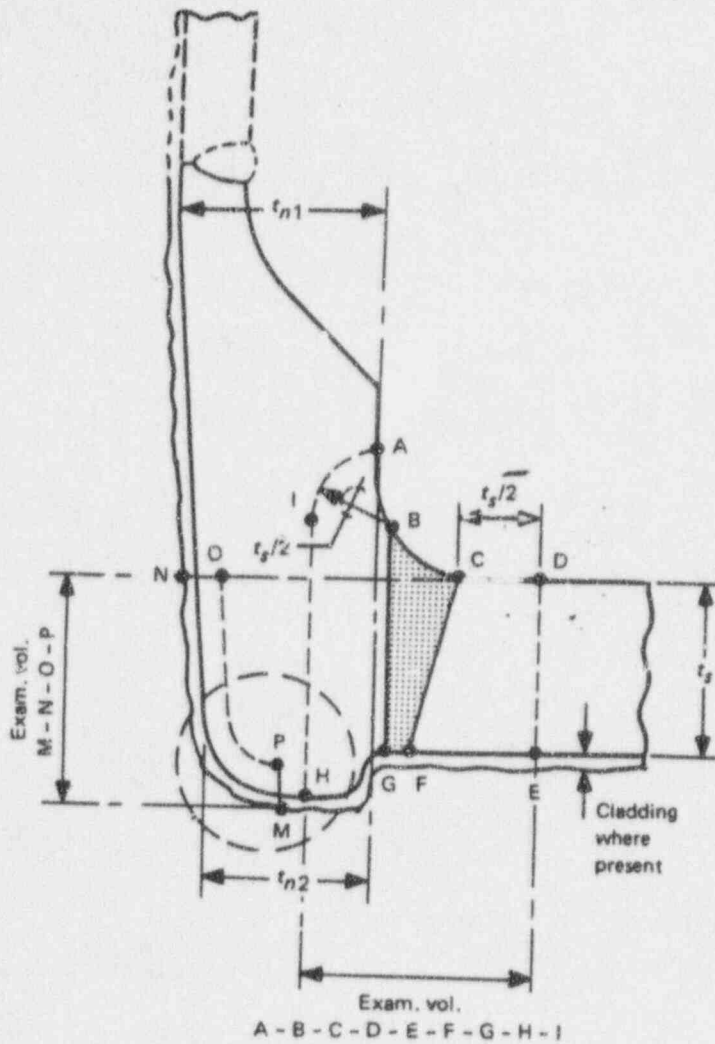
(1) Examination data lacks sufficient surface measures to further qualify the volume examined.

ENCLOSURE 2

Nozzle in Shell or Head

Code Category B-D

Code Required Coverage



Coverage Achieved for a Specific Weld or Component is Designated in
Table 2 - Extent Examined

FIGURE 1

Code Category B-F:

Pressure Retaining Dissimilar Metal Welds

Item No. B5.130

Piping Nominal Pipe Size \geq 4" (Dissimilar Metal Butt Welds)

Item No: B5.130

Piping Nominal Pipe Size \geq 4" (Dissimilar Metal Butt Welds)

Relief is requested in accordance with the provisions of 10 CFR 50.55a (a)(3)(iii) from the full Code-required extent of volumetric examination for the following Pressure Retaining Dissimilar Metal Welds listed in Table 3.

Examination Requirements

ASME Section XI, 1980 Edition through Winter 1981 Addenda, requires the lower $\frac{1}{4}$ " of the weld be examined volumetrically up to and including adjacent base metal $\frac{1}{4}$ " from the weld toe on either side of the weld.

Basis for Relief

Complete inspection of the Code-required volume is not possible based on restricted access due to the component's design. These welds represent the tie in of the RHR system to the Recirculation System on Loops A and B. The configuration of these welds are Valve-to-Valve, and Valve-to-Tee. The configuration of Welds 24-10-143, 24-10-142, 24-10-131, and 24-10-130 are not conducive to conventional ultrasonic examination techniques. This is attributed to dramatic thickness transitions on the outside and inside surfaces. On-going modifications to equipment and ultrasonic techniques currently being used are improving the testing parameters presently utilized to examine these components. Inspections of these components are based on calibration mock-up blocks of the same configuration and materials as the welds. These calibration mock-up blocks are designed with side drilled (SDH), end drilled (EDH) calibration holes along with numerous ID notches located within the heat effective zones, base material, buttered material and the weld. Supplemental liquid penetrant examinations were performed on these components which exceeds those required by Code Category B-F, Table 2500-1. An evaluation of testing results utilizing current ultrasonic technology has deemed these exams as best effort. The inspections conducted on Welds 24-10-132, 24-10-144 both (Elbow-to-Valve) and 10-14-481 are considered limited examinations employing industry acceptable inspection techniques. Weld 24-10-144 does not have a limited exam notation included on the inspection data but is clearly a one-sided exam and therefore is being submitted for relief.

Proposed Alternative Examinations

1. No additional volumetric examinations will be performed on these welds. The components listed in this relief request have been examined to the maximum extent practical.
2. A visual inspection (VT-2) is performed in conjunction with the pressure testing conducted on these components every refuel outage (with no leakage detected) in accordance with IWA-5000 and IWB-5000, which provides reasonable assurance of component integrity.

Drawings and sketches that illustrate the restricted conditions encountered which limit examination coverage are included in Enclosure 3.

Table 3

Code Category B-F /Item No.B5.130				
Component ID	System	Extent Examined	Limitation	Remarks
24-10-142 ⁽¹⁾	RHR	Best Effort Est. 25 - 35%	OD Surface Contour	Tee-to-Valve ⁽²⁾
24-10-143 ⁽¹⁾	RHR	Best Effort Est. 25 - 35%	OD Surface Contour	Valve-to-Valve ⁽²⁾
24-10-144 ⁽¹⁾	RHR	70 - 80%	OD Surface Contour	Valve-to-Elbow ⁽²⁾
24-10-130 ⁽¹⁾	RHR	Best Effort Est. 25 - 35%	OD Surface Contour	Tee-to-Valve ⁽²⁾
24-10-131 ⁽¹⁾	RHR	Best Effort Est. 25 - 35%	OD Surface Contour	Valve-to-Valve ⁽²⁾
24-10-132 ⁽¹⁾	RHR	70 - 80%	OD Surface Contour	Valve-to-Elbow ⁽²⁾
10-14-481 ⁽¹⁾	Core Spray	65 -75%	OD Surface Contour	Pipe-to-Valve Pup Piece Extension

NOTES:

- (1) All welds identified by this note are within the IGSCC Inspection Program
- (2) Sketches depicting OD profiles for welds 24-10-130, 24-10-131 and 24-10-132 are typical for 24-10-142, 24-10-143 and 24-10-144.

ENCLOSURE 3

MSK-3008 MSK-3008

MSK-3008 MSK-3008

MSK-3008 MSK-3008

MSK-3008 MSK-3008

MSK-3008 MSK-3008

MSK-3008 MSK-3008

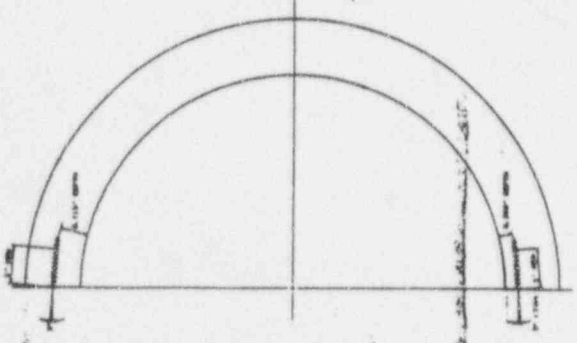
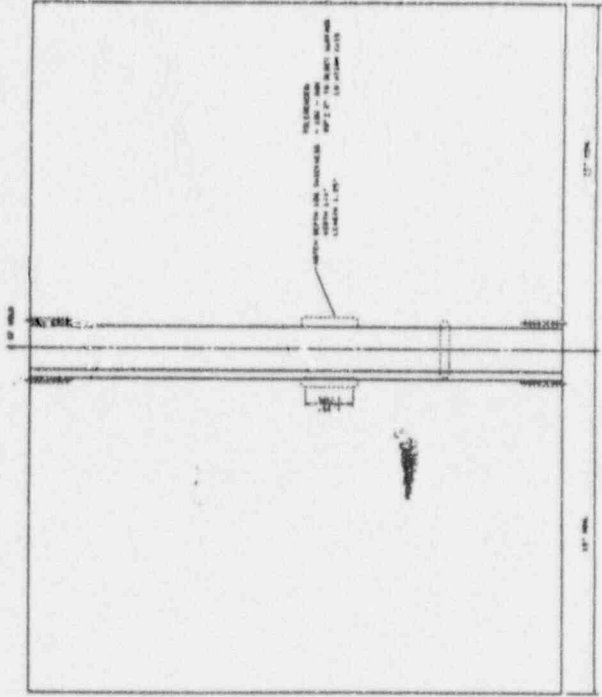
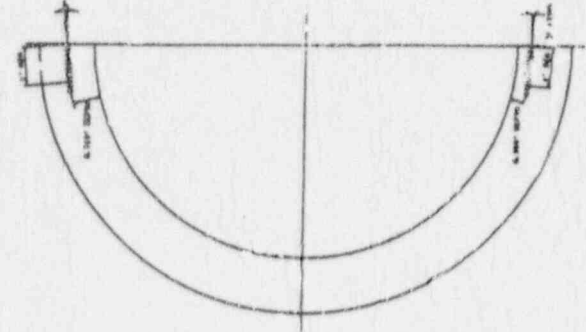
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MSK-3008 MSK-3008

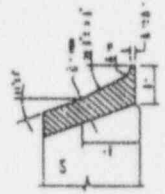
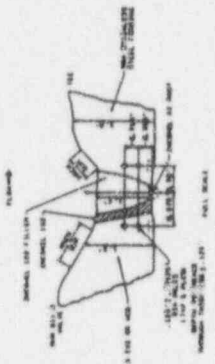
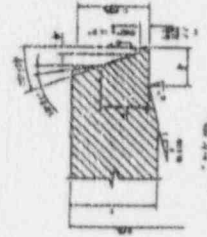
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UNCONTROLLED DRAWING

Calibration Block Drawing for Welds # 24-10-130 & 24-10-142



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ENCLOSURE 3 - Page 1 of 7
Calibration Block Drawing for
Welds # 24-10-130 & 24-10-142

DATE	24-10-130
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CHECKED	MSK-3008
APPROVED	MSK-3008
SCALE	AS SHOWN
SHEET NO.	1 OF 1

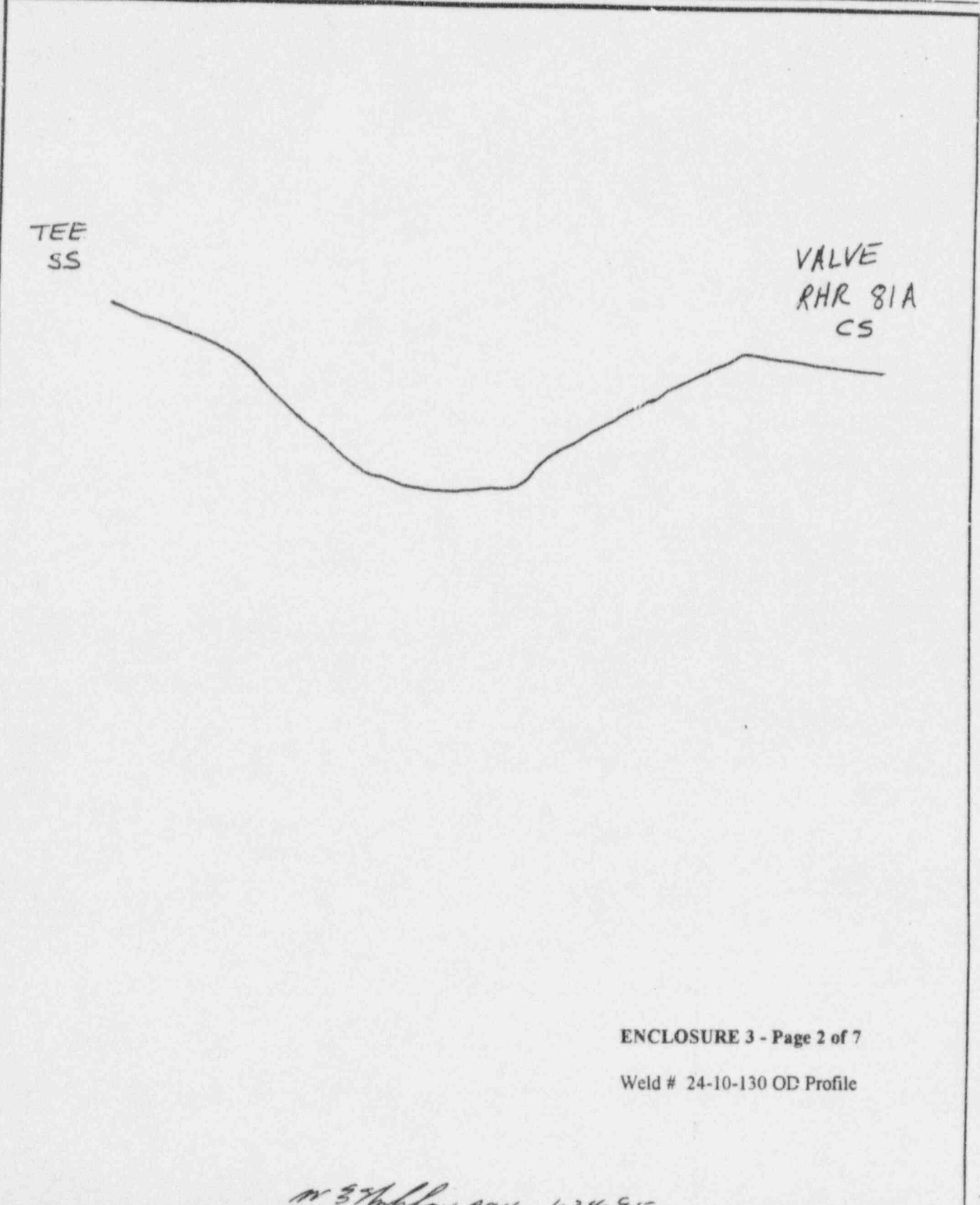
NEW YORK POWER AUTHORITY
JOHN A. FITZGERALD
REACTOR RECOMPENSATION SYSTEM TEE
24" DIA
308-41-038
VALVE TO TEE ORL. B LOCK
UNCLASSIFIED INFORMATION
DATE: 10/24/08 BY: [signature]

Raytheon
Engineers & Constructors

BY Michael Kelders DATE 1/21/95
CHKD. BY MO DATE 1/22/95
CLIENT NYPA

JAF-UT-093 SHEET 2 OF 2
OFS NO. 6100 DEPT. NO. 2542

PROJECT JA FITZPATRICK
SUBJECT 24-10-130 OD PROFILE TAKEN AT (5" CCW)



ENCLOSURE 3 - Page 2 of 7
Weld # 24-10-130 OD Profile

Michael Kelders 1-24-95

UNCONTROLLED DRAWING

MAR 26 1997

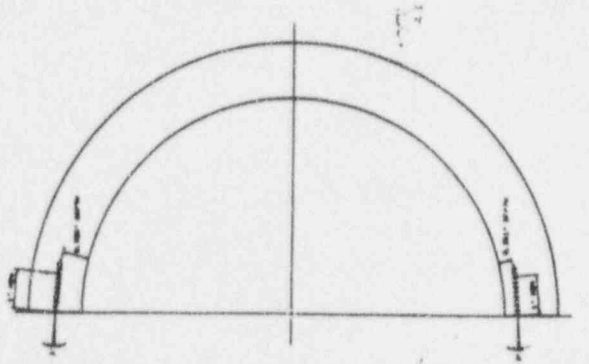
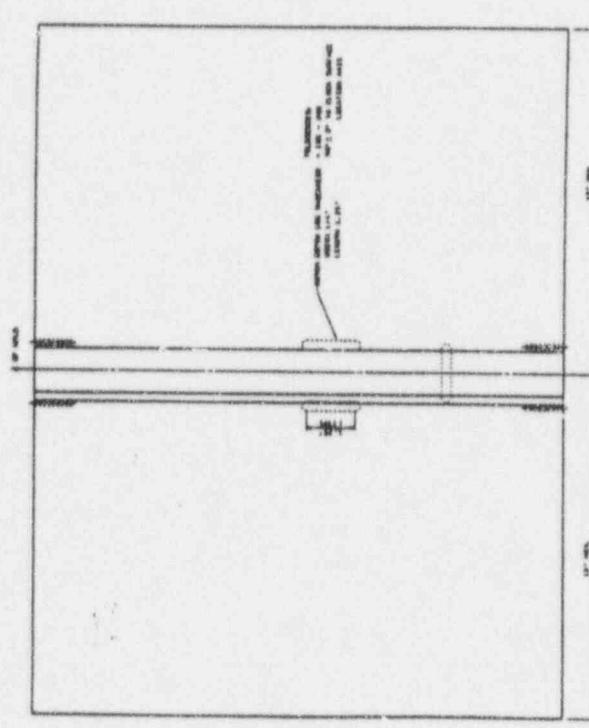
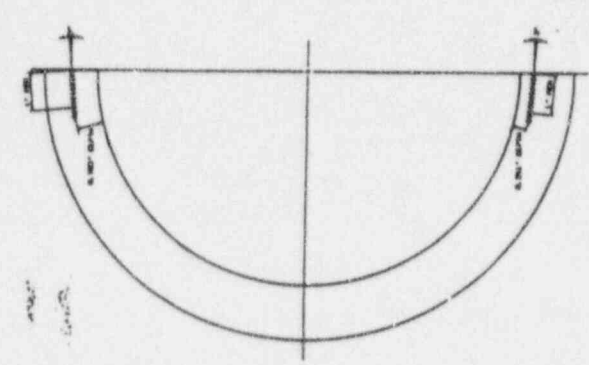
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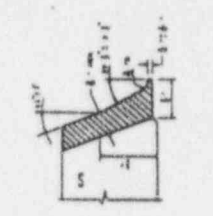
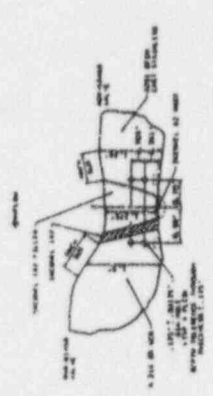
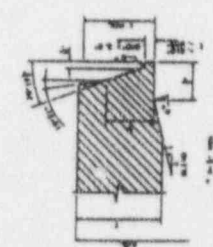
PROJECT NO.	24-10-131 & 24-10-143
DATE	03/26/97
DESIGNED BY	JAMES A. FITZPATRICK
CHECKED BY	
APPROVED BY	
SCALE	AS SHOWN
DRAWN BY	
DATE	
PROJECT NO.	24-10-131 & 24-10-143
DATE	03/26/97
DESIGNED BY	JAMES A. FITZPATRICK
CHECKED BY	
APPROVED BY	
SCALE	AS SHOWN
DRAWN BY	
DATE	

M&K-3100 M&K-3100 M&K-3100 M&K-3100 M&K-3100

Calibration Block Drawing for Welds # 24-10-131 & 24-10-143



NOTE
1. THIS DRAWING IS UNCONTROLLED.
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4. THIS DRAWING IS UNCONTROLLED.
5. THIS DRAWING IS UNCONTROLLED.
6. THIS DRAWING IS UNCONTROLLED.



NEW YORK POWER AUTHORITY	JAMES A. FITZPATRICK
24-10-131	
24-10-143	
SCALE TO THIS CAL. BLOCK	
DATE	
PROJECT NO.	24-10-131 & 24-10-143
DATE	
DESIGNED BY	JAMES A. FITZPATRICK
CHECKED BY	
APPROVED BY	
SCALE	AS SHOWN
DRAWN BY	
DATE	

ENCLOSURE 3 - Page 3 of 7
Calibration Block Drawing for
Welds # 24-10-131 & 24-10-143

Raytheon

Engineers & Constructors

BY *Michael* Robbins DATE 1/21/95

CHKD. BY MO DATE 1/22/95

CLIENT NYPA

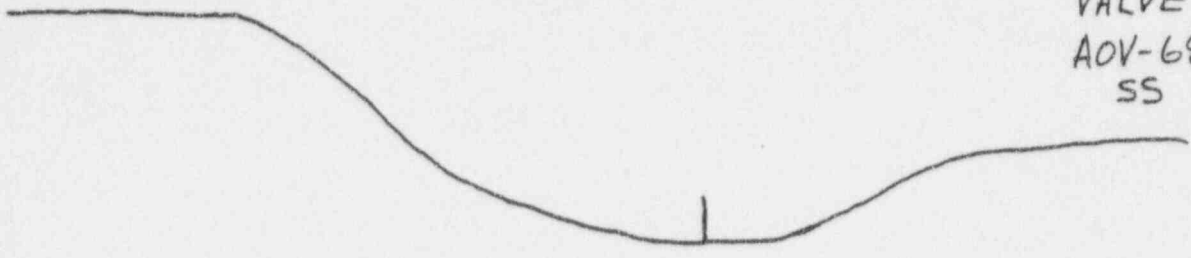
PROJECT JA FITZPATRICK

SUBJECT 24-10-131 PROFILE (OD)

JAF-UT-092 SHEET 2 OF 2
OFS NO. 6100 DEPT. NO. 2542

VALVE
RHR81A
CS

VALVE
AOV-68A
SS



ENCLOSURE 3 - Page 4 of 7

Weld # 24-10-131 Profile (OD)

Michael Robbins 01/24/95

M&K 3009

M&K 3009

M&K 3009

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M&K 3009

M&K 3009

M&K 3009

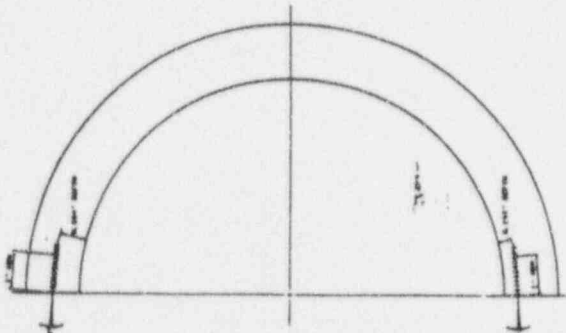
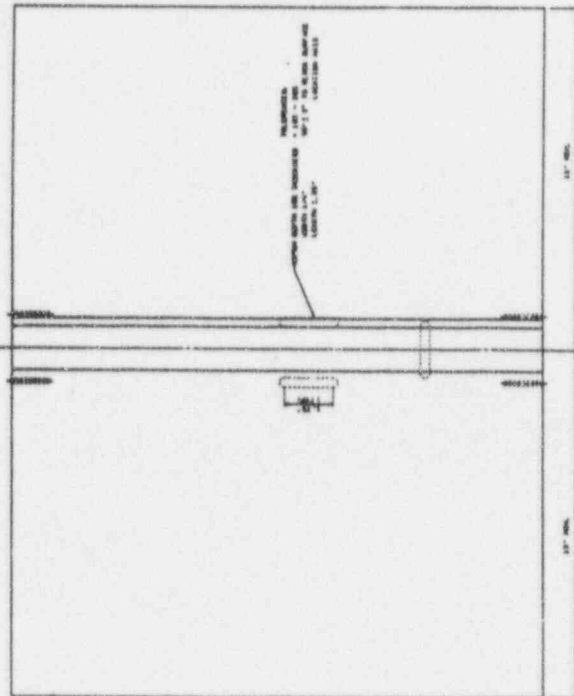
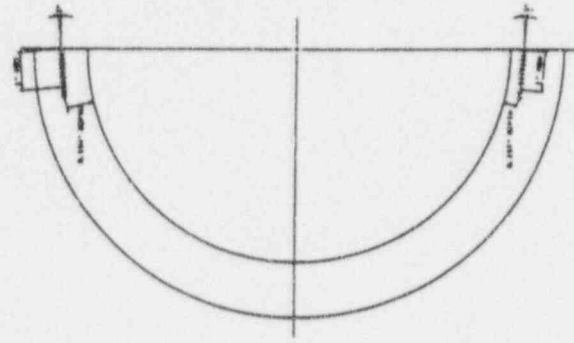
M&K 3009

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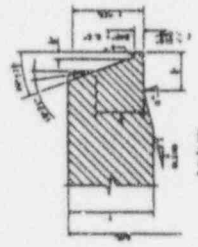
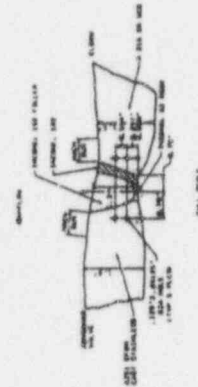
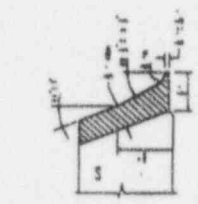
Copy Date MAR 26 1997

UNCONTROLLED DRAWING

Calibration Block Drawing for Welds # 24-10-132 & 24-10-144



NOTE: 1. DIMENSIONS SHOWN ARE FOR INFORMATION ONLY. 2. DIMENSIONS SHOWN ARE FOR INFORMATION ONLY. 3. DIMENSIONS SHOWN ARE FOR INFORMATION ONLY. 4. DIMENSIONS SHOWN ARE FOR INFORMATION ONLY.



ENCLOSURE 3 - Page 5 of 7
Calibration Block Drawing for
Welds # 24-10-132 & 24-10-144

Table with columns for revision, date, and description.

NEW YORK POWER AUTHORITY
JAMES A. FITZPATRICK
24" DIA
90°-45°-45° A & B ELBOW
VALVE TO ELBOW CAL. BLOCK

Raytheon

Engineers & Constructors

BY Michael Robbins DATE 1/21/95

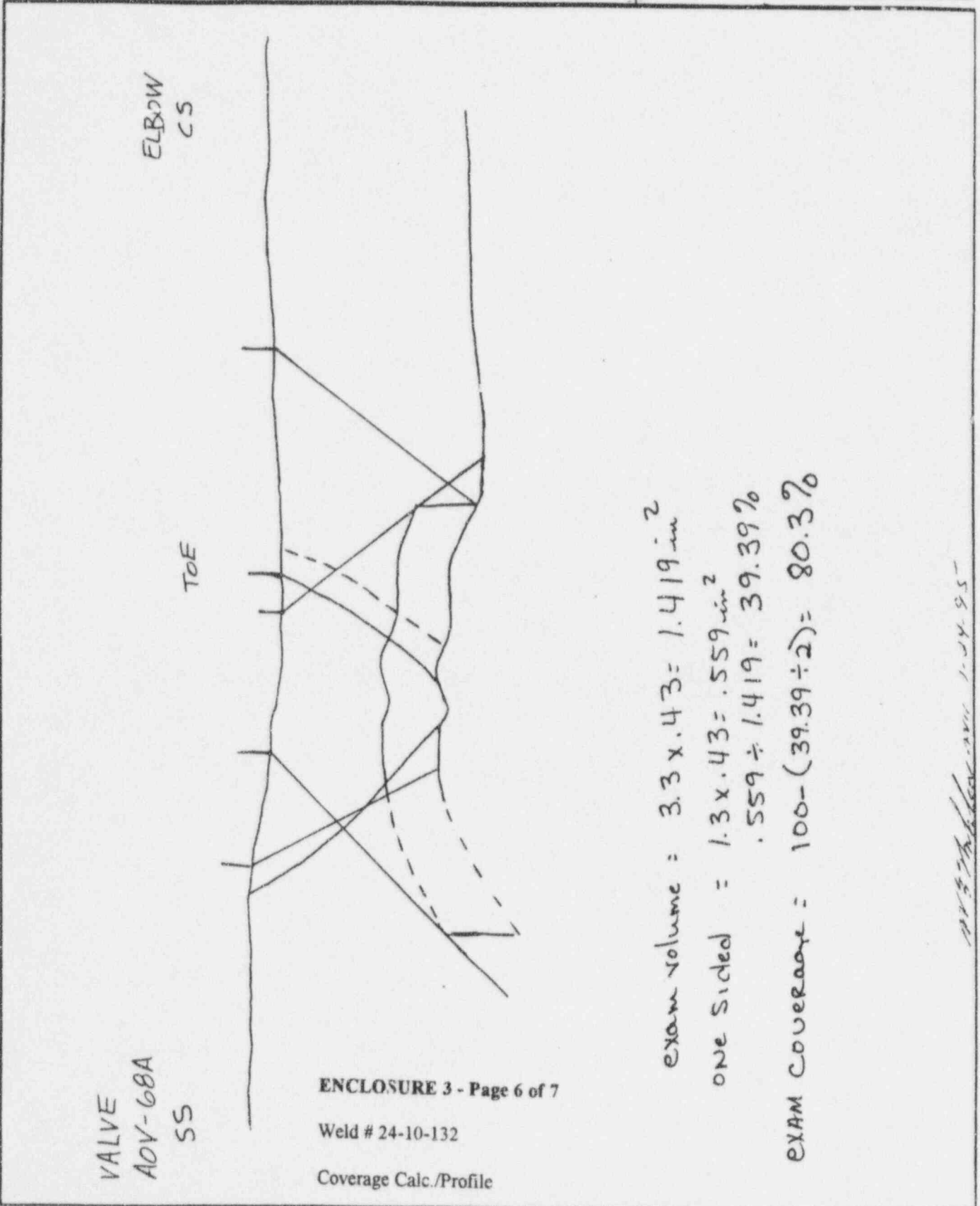
CHKD. BY MO DATE 1/22/95

CLIENT NYPA

JAF-UT-091 SHEET 4 OF 4
OFS NO. 6100 DEPT. NO. 2542

PROJECT JA FITZPATRICK

SUBJECT 24-10-132 EXAM COVERAGE



$$\begin{aligned} \text{exam volume} &= 3.3 \times .43 = 1.419 \text{ in}^2 \\ \text{one sided} &= 1.3 \times .43 = .559 \text{ in}^2 \\ & .559 \div 1.419 = 39.39\% \\ \text{EXAM COVERAGE} &= 100 - (39.39 \div 2) = 80.3\% \end{aligned}$$

VALVE
ADV-68A
SS

ELBOW
CS

TOE

ENCLOSURE 3 - Page 6 of 7

Weld # 24-10-132

Coverage Calc./Profile

1/23/95 Michael Robbins

Engineers & Constructors

BY M. ORINUELA, IV DATE 1/14/95

JAF-UT-055B

SHEET 4 OF 4

CHKD. BY N/A DATE N/A

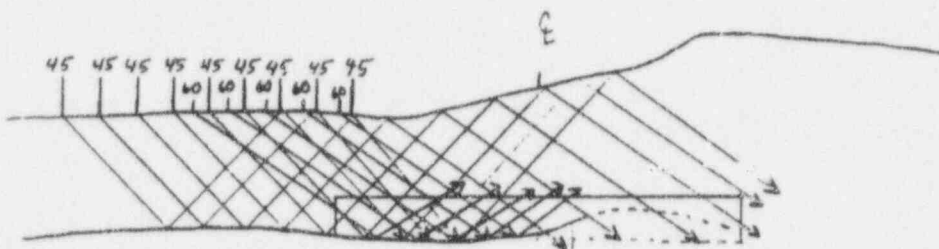
OFS NO. 10100

DEPT. NO. 2542

CLIENT NYPA

PROJECT J. A. FITZPATRICK

SUBJECT WELD # 10-14-481



$$\text{AREA EXAMINED IN 1 DIRECTION ONLY} = \left[\frac{0.23'' \times 0.3''}{2} \right] + (0.23'' \times 0.94'') = 0.251 \text{ in}^2$$

$$\text{TOTAL TO BE EXAMINED} = 0.23'' \times 2.2'' = 0.506 \text{ in}^2$$

$$\text{AREA EXAMINED IN 2 DIRECTIONS} = 0.506 - 0.251 = 0.255 \text{ in}^2$$

$$\frac{\left[0.255'' + \left(\frac{0.251''}{2} \right) \right]}{0.506''} \times 100\% = 75.2\% \text{ COVERAGE.}$$

M. Orinuela, IV
1/14/95

ENCLOSURE 3 - Page 7 of 7

Weld # 10-14-481

Coverage Calc. & Profile

M. Orinuela, IV 1-20-95

Code Category B-G-1: Pressure Retaining Bolting, Greater than 2 in. In Diameter

Item No. B6.40

Threads in Flange

Item No. B6.190

Flange Surface, when connection disassembled

Item No. B6.40

RPV Threads in Flange

Examination Requirements

The Code requirement for examination of RPV Threads in Flange is 100% volumetric inspection each Interval when the connections are disassembled.

Relief Request

The Authority is requesting relief from the twenty-two (22) RPV Threads in Flange examinations not examined during the 2nd Ten-Year Interval accordance with the provisions of 10 CFR 50.55a (a)(3)(ii).

Basis for Relief

During the closeout review of JAF's 2nd Ten-Year Inservice Inspection Interval for Code Category B-G-1, Item No. B6.40, RPV Threads in Flange, a total of thirty (30) examinations were performed out of a total population of fifty-two (52). The inspection requirement to examine 100% of the RPV Threads in Flange was not met in its entirety due to an administrative oversight and a Code interpretational discrepancy.

Industry experience has not identified a degradation mechanism or failure associated with the RPV Threads in Flange. The Authority does not consider taking the unit off line and removing the RPV Head for the sole purpose of examining the twenty-two (22) RPV Threads in Flange as providing an increase in the level of quality and safety already achieved by the examinations performed.

Proposed Alternative Examination

1. The Authority is requesting relief from the twenty-two (22) RPV Threads in Flange examinations for the 2nd Ten-Year Interval and is committing to examine these during the 3rd Interval, 1st period, first refuel outage (RO13). The twenty-two RPV Threads in Flange examinations committed to based on this relief will be performed in addition to the 3rd Ten-Year ISI Inspections requirements.
2. A visual inspection (VT-2) is performed in conjunction with the pressure testing conducted on these components every refuel outage (with no leakage detected) in accordance with IWA-5000 and IWB-5000, which provides reasonable assurance of component integrity.

Table 4

Code Category B-G-1 / Item No B6.40					
Component ID	System	Description	Examined	Limitation	Relief Requested
1 - thru - 15	RPV	Threads in Flange	Yes	None	No
16 - thru - 37	RPV	Threads in Flange	No	None	Yes
38 - thru - 52	RPV	Threads in Flange	Yes	None	No

ENCLOSURE 4

THIS SECTION IS INTENTIONALLY LEFT BLANK

Item No: B6.190 Flange Surface, when connection disassembled

Relief is requested in accordance with the provisions of 10 CFR 50.55a (a)(3)(ii) from the full Code-required extent of examination for the Flange Surface of components listed in Table 4A.

Examination Requirements

This request for relief is being submitted in accordance with the NRC's Safety Evaluation (SE) of the 2nd Ten-Year Inservice Inspection Program, Dated October 27, 1987, Docket No. 50-333 Relief Request (R5B). Relief Request 5 (R5B) requires inspection of these components when disassembled for maintenance and stipulates relief from examination of specific components not disassembled will be requested at the end of the interval.

Basis for Relief Examination

Components addressed by this Relief Request are listed in Table 4A. The recirculation pump flange surfaces are only accessible when the pumps are disassembled. These pumps were not disassembled during the 2nd Ten-Year Interval. A visual inspection (VT-2), pressure test is conducted on these components every refuel outage in accordance with IWA-5000 and IWB-5000.

Proposed Alternative

1. None
2. The requirements for examination on these components met the approved Relief Request (R5B) for the 2nd Ten -Year ISI Inspection Interval in its entirety. Components addressed in this request for relief are listed in Table 4A.

Table 4A

Code Category B-G-1 / Item No B6.190						
Component ID	System	Pump Type	Disassembled	Examined	Limitation	Relief Request
02-2P-1A	Recirc.	Centrifugal	No	No	Not Accessible	R5B
02-2P-1B	Recirc.	Centrifugal	No	No	Not Accessible	R5B

ENCLOSURE 4A

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SECTION 5

THIS SECTION HAS BEEN REMOVED

Code Category B-H:

Integral Attachments for Vessels

Item No. B8.10

RPV Integral Welded Attachments

Relief is requested in accordance with the provisions of 10 CFR 50.55a (a)(3)(iii) from the full Code-required extent of examination for RPV Integral Welded Attachments listed in Table 6.

Examination Requirements

All RPV Integral Welded Attachments require a 100% volumetric or surface examination once per interval.

Basis for Relief

Complete inspection of the Code-required volume is not possible based on restricted access caused by design. Examination coverage of VC-SKC (vessel skirt weld) includes 100% of the OD surface being examined using the MT method and a supplemental examination using remote visual equipment (VT-1) was performed on 100% of the inside surface. Access to the inside surface of weld VC-SKC is restricted due to the component's design. Drawings of vessel skirt weld VC-SKC are in Enclosure 6 which highlight the inspection surfaces and restricted access caused by design. Examination coverage of Stabilizer-1, 2, 3, and 4 included 35% of these welds being inspected by MT and the remaining 65% being inspected by VT-1. Components addressed by this Relief Request are listed in Table 6. Drawings and sketches that illustrate the restricted conditions encountered that limit access to the Vessel Skirt Weld and Stabilizer Brackets are included in Enclosure 6.

Proposed Alternative

1. No additional volumetric and/or surface examinations will be performed on these welds. The components listed in this relief request have been examined to the maximum extent practical.
2. A visual inspection (VT-2) is performed in conjunction with the pressure testing conducted on these components every refuel outage (with no leakage detected) in accordance with IWA-5000 and IWB-5000, which provides reasonable assurance of component integrity.

Table 6

Code Category B-H / Item No.B8.10				
Component ID	System	Extent Examined	Limitations	Remarks
VC-SKC	RPV	50%	Configuration	(1)
Stabilizer-1	RPV	34%	Configuration	Ref. Enclosure 6
Stabilizer-2	PPV	34%	Configuration	Ref. Enclosure 6
Stabilizer-3	RPV	34%	Configuration	Ref. Enclosure 6
Stabilizer-4	RPV	34%	Configuration	Ref. Enclosure 6

NOTE:

- (1) 100% of outside surface examined using MT only and 100% of inside surface examined using VT only. Reference drawings in Enclosure 6 detailing examination coverage.

ENCLOSURE 6

11 825
MSK 3036

70968-008-001

JAF

11825
MSK 3034

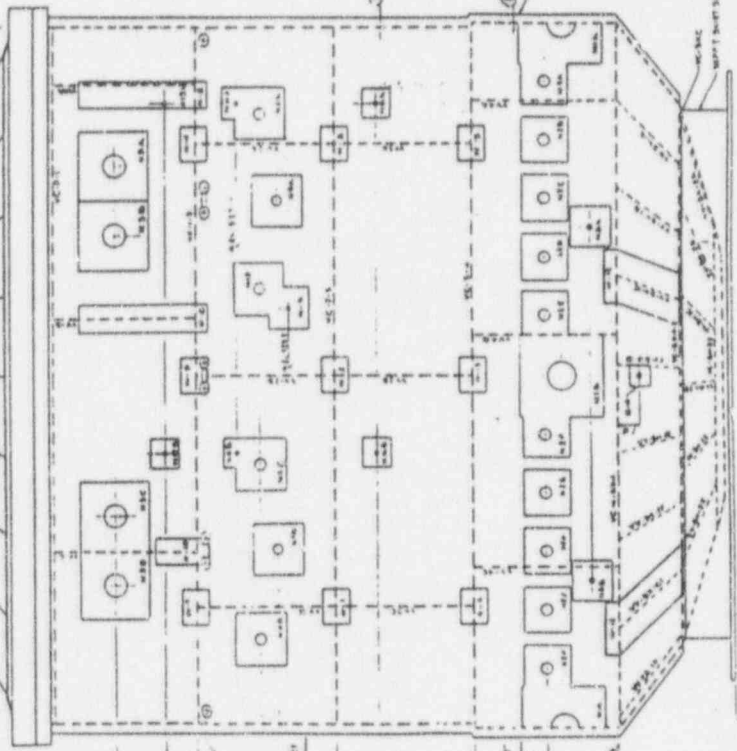
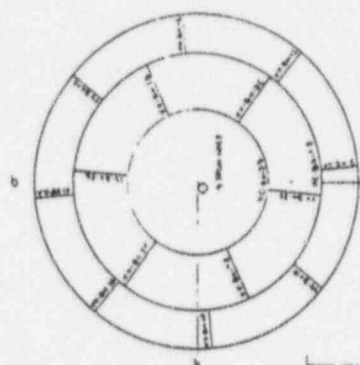
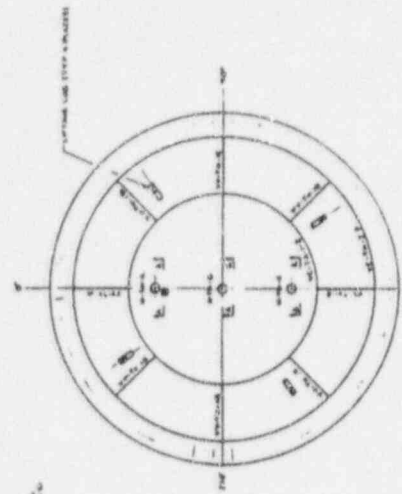
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JAF

UNCONTROLLED DRAWING

Copy Date: 11/17/82

CAUTION — Extended use of this drawing copy may result in its inaccuracy due to subsequent design changes and drawing updates



WELD INDICATION REMOVAL TABLE

WELD NO.	WELD TYPE	WELD SIZE	WELD LOCATION
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WELD INDICATION REMOVAL TABLE

WELD NO.	WELD TYPE	WELD SIZE	WELD LOCATION
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VESSEL SEQUENCE RECORD

WELD NO.	WELD TYPE	WELD SIZE	WELD LOCATION
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WELDED ATTACHMENTS

WELD NO.	WELD TYPE	WELD SIZE	WELD LOCATION
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WELDED ATTACHMENTS

WELD NO.	WELD TYPE	WELD SIZE	WELD LOCATION
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SCALE 1/4" = 1'-0"

REVISIONS

NO.	DATE	DESCRIPTION
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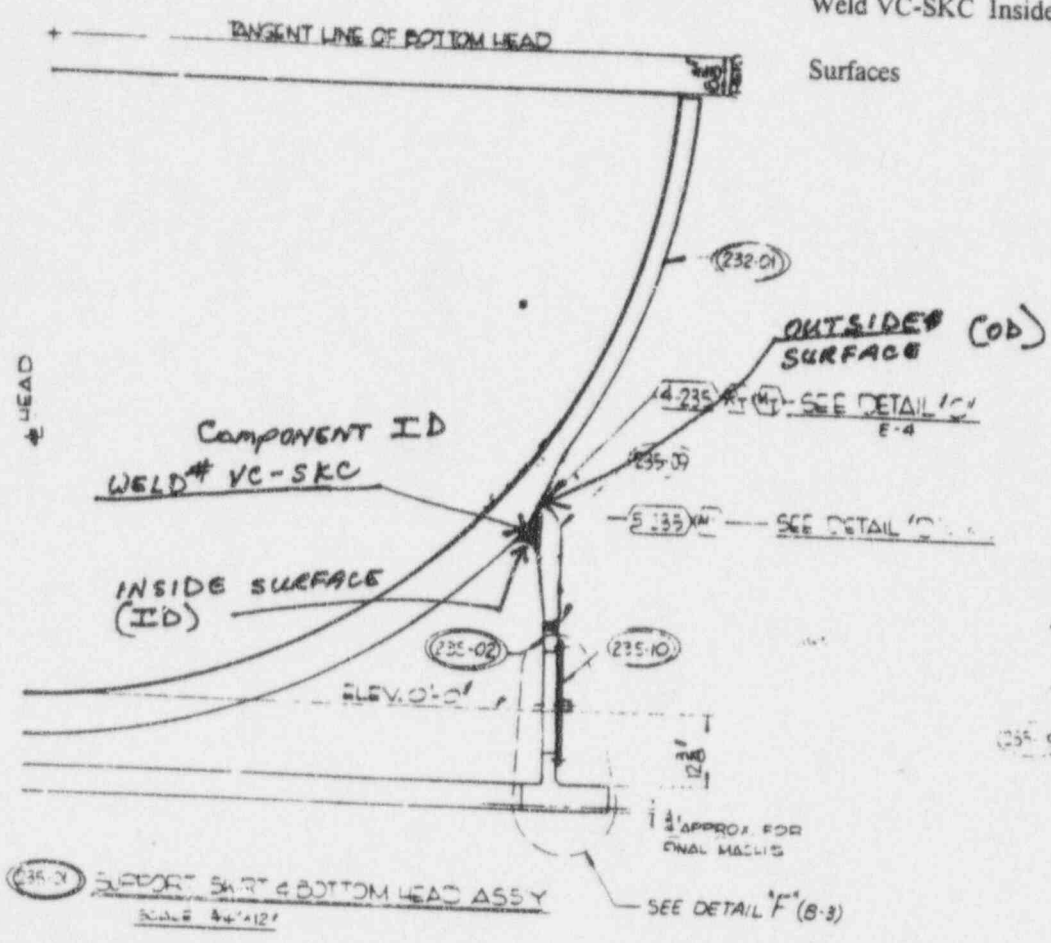
E-233-235

7

ENCLOSURE 6 - Page 3 of 5

Weld VC-SKC Inside (ID)/Outside (OD) Surfaces

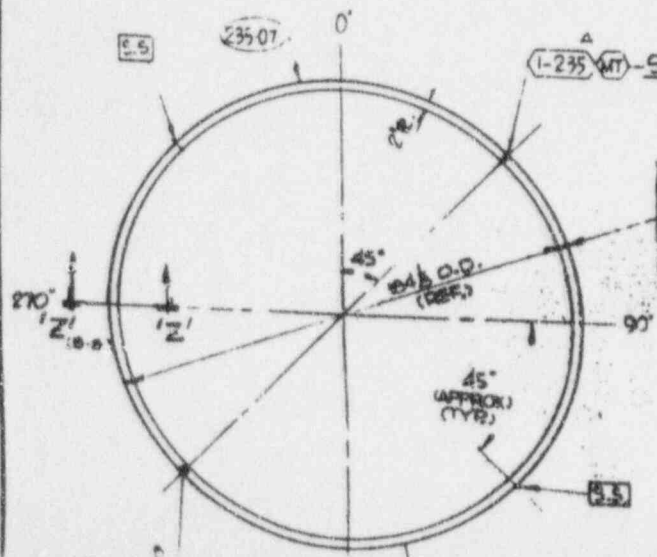
I
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D



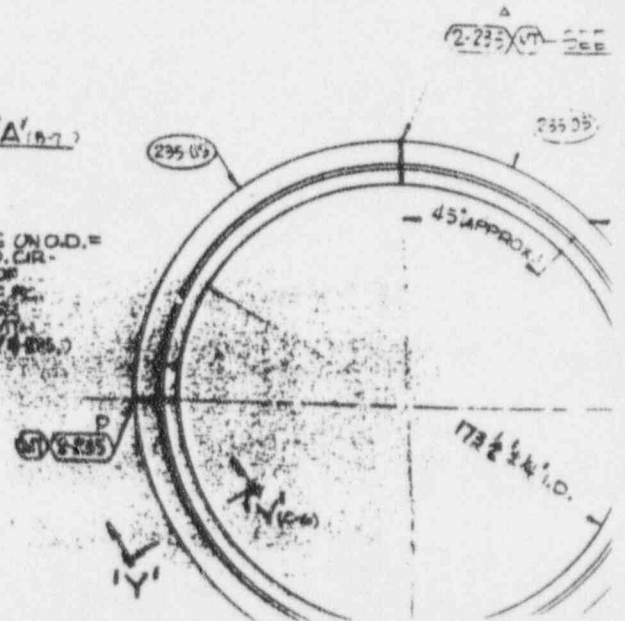
80" DIA. REF.

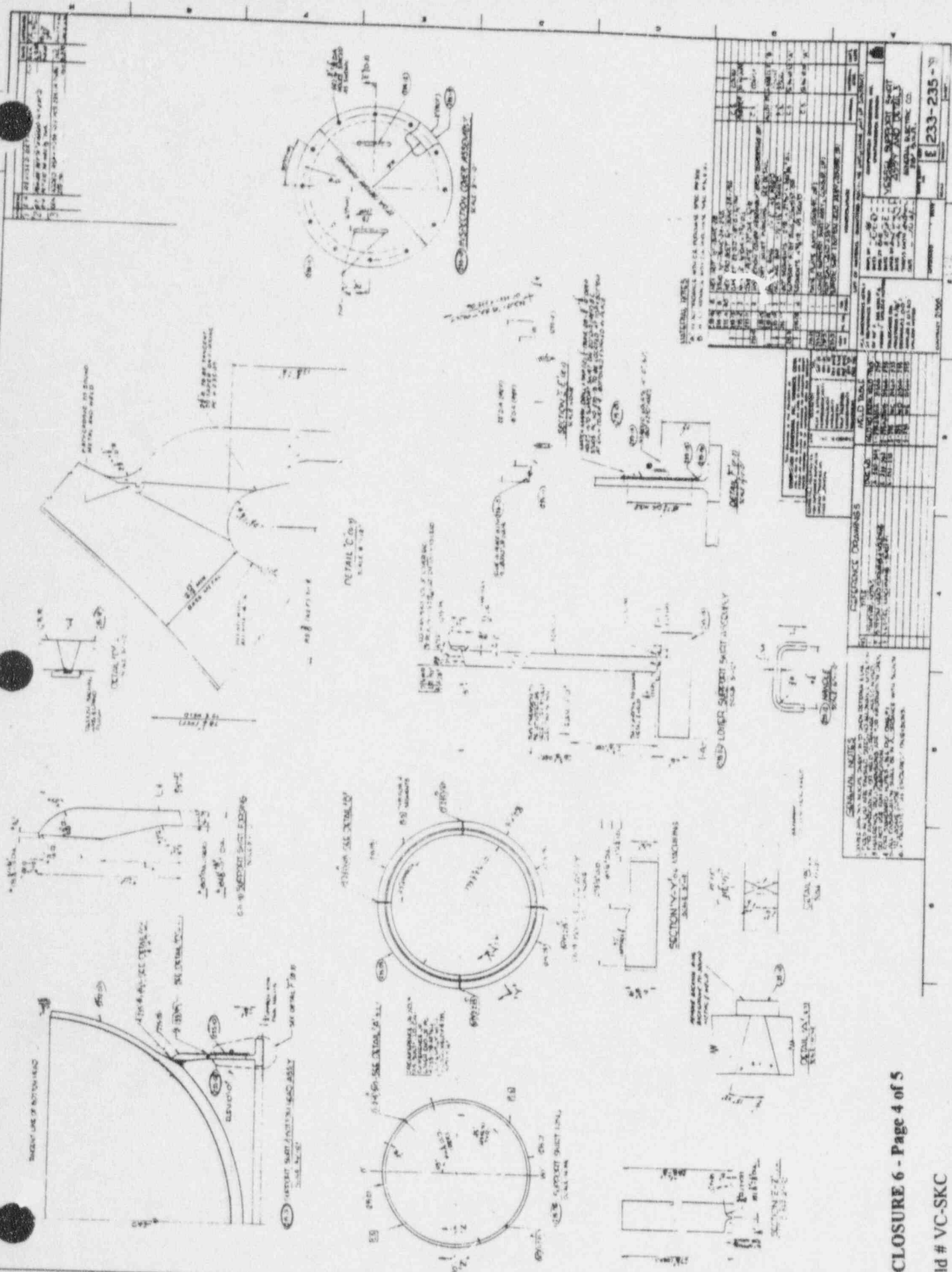
84 1/2" O.D.

235-9 SUPPORT SKIRT



CIRCUMFERENCE ON O.D. = 145 BUILT O.D. CIRCUMFERENCE OF LOWER END OF SKIRT AFTER ASSEMBLY WITH HEAD (O.D. 84") WITH 1/4"





Raytheon

Engineers & Constructors

BY R.P. Major DATE 1/21/95

JAF-VT-039

SHEET 2 OF 3

CHKD. BY MOR DATE 1/22/95

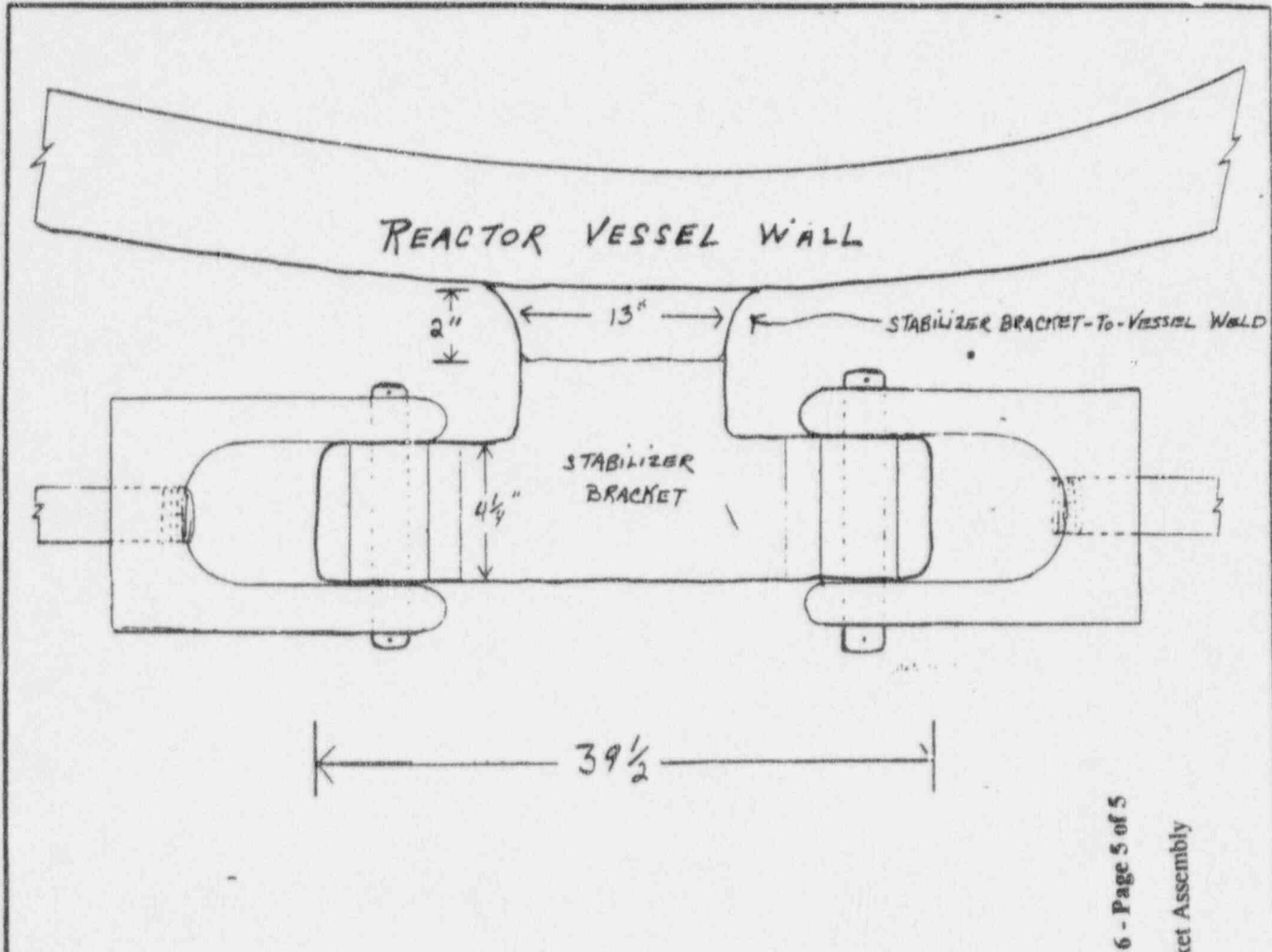
OFS NO. 6100

DEPT. NO. 2542

CLIENT NYPA

PROJECT J. A. FITZPATRICK

SUBJECT STABILIZER BRACKET ASSEMBLY



TOP VIEW
of

STABILIZER BRACKET ASSEMBLY

NOTES

- (1) LOCATION: REACTOR BLDG. DRYWELL AT 4 LOCATIONS: SWEE AZIMUTH 0°, 90°, 180°, 270° ON ELEVATION 331' @
- (2) ACCESSIBILITY: ITEM IS ACCESSIBLE FROM METAL RUNG LADDER LOCATED AT 135° AZ; 10 FEET OF INSULATION NEEDS TO BE REMOVED FOR INSERTION OF BORESCOPE PROBE.
- (3) REFERENCE DWG.: *11825-5.01-23D (ITEM *249-02 AND *249-03)
- (4) THIS SKETCH IS NOT DRAWN TO SCALE.

ENCLOSURE 6 - Page 5 of 5

Stabilizer Bracket Assembly

BY 3/24/95 DATE 1-24-95

Code Category B-J:**Pressure Retaining Welds in Piping**

Item No. B9.10	Nominal Pipe Size \geq 4 in.
Item No. B9.11	Circumferential Welds
Item No. B9.30	Branch Pipe Connection Welds
Item No. B9.31	Nominal Pipe Size \geq 4"

Item No. B9.10	Nominal Pipe Size \geq 4 in.
Item No. B9.11	Circumferential Welds

Relief is requested in accordance with the provisions of 10 CFR 50.55a (a)(3)(iii) from the full Code-required extent of surface and/or volumetric examination for Circumferential Welds listed in Table 7.

Examination Requirement

ASME Section XI, 1980 Edition through Winter 1981 Addenda, requires the lower $\frac{1}{3}$ of the weld examined volumetrically up to and including adjacent base metal $\frac{1}{4}$ " from the weld toe on either side of the weld. Surface examinations requires the weld inspection and includes $\frac{1}{2}$ " on either side of the weld toe.

Basis for Relief

Complete inspection of the Code-required volume for components listed in Table 7 is not possible based on the restricted access caused by component design, support structures, and/or other interferences. Examinations performed on the majority of these components have detailed measurements of limitations, restrictions and interferences, along with the estimated computed volume of inspection coverage. Some examinations performed during the beginning of the inspection interval do not have the detailed measurements necessary to estimate the percentage of exam coverage. Most of the cases in which this occurs, the examiner notes a one-sided exam was performed and others state limited exam. When a one-sided exam is recorded or a limited exam is confirmed as a one-side exam (no other restrictions) through drawing verification, a 50% exam coverage credit is taken. If a limited or restricted exam is noted but not enough information exists to derive a percentage of coverage, it will be so noted.

Proposed Alternative

1. No additional volumetric and/or surface examinations will be performed on these welds. The components listed in this relief request have been examined to the maximum extent practical.
2. A visual inspection (VT-2) is performed in conjunction with the pressure testing conducted on these components every refuel outage (with no leakage detected) in accordance with IWA-5000 and IWB-5000, which provides reasonable assurance of component integrity.

A typical configuration drawing wh. ch illustrates restricted is in Enclosure.

Table 7

Code Category B-J / Item No. B9.11				
Component ID	System	Extent Examined	Limitation	Remarks
12-02-2-26 (2)	Recirc.	50% (1)	OD Surface Contour	Pipe-to-Reducer
22-02-2-28 (2)	Recirc.	50% (1)	OD Surface Contour	Cross-to-Header
22-02-2-29 (2)	Recirc.	50% (1)	OD Surface Contour	Cross-to-Header
28-02-2-31 (2)	Recirc.	50% (1)	OD Surface Contour	Pipe-to-Tee
28-02-2-34 (2)	Recirc.	50% (1)	OD Surface Contour	Elbow-to-Valve
28-02-2-35 (2)	Recirc.	50% (1)	OD Surface Contour	Pipe-to-Valve
28-02-2-37 (2)	Recirc.	50% (1)	OD Surface Contour	Pump-to-Pipe
28-02-2-50 (2)	Recirc.	60 -70%	Whip Restraint	Elbow-to-Pipe
28-02-2-54 (2)	Recirc.	50% (1)	OD Surface Contour	Valve-to-Pipe
28-02-2-57 (2)	Recirc.	50% (1)	OD Surface Contour	Elbow-to-Pump
12-02-2-84 (2)	Recirc.	50% (1)	OD Surface Contour	Pipe-to-Reducer
22-02-2-86 (2)	Recirc.	63%	OD Surface Contour	Header-to-Cross
22-02-2-87 (2)	Recirc.	63%	OD Surface Contour	Header-to-Cross
28-02-2-89 (2)	Recirc.	50% (1)	OD Surface Contour	Pipe-to-Tee
28-02-2-104 (2)	Recirc.	50% (1)	OD Surface Contour	Pipe-to-Valve
28-02-2-105 (2)	Recirc.	50% (1)	OD Surface Contour	Pump-to-Pipe
28-02-2-109 (2)	Recirc.	50% (1)	OD Surface Contour	Pipe-to-Tee
28-02-2-110 (2)	Recirc.	50% (1)	OD Surface Contour	Tee-to-Pipe
28-02-2-112 (2)	Recirc.	82%	OD Surface Contour	Valve-to-Pipe
N-8A-SE-1 (2)	JPI	50% (1)	OD Surface Contour	Reducer-to-Reducer
N-8B-SE-1 (2)	JPI	62%	OD Surface Contour	Reducer-to-Reducer
N-8A-SE-3 (2)	JPI	68%	Code Plate	Pipe-to-Cap
N-8B-SE-3 (2)	JPI	68%	Code Plate	Pipe-to-Cap
4-02-2-117 (2)	JPI	63%	OD Surface Contour	SE-to-Reducer
6-12-901-1	RWCU (9)	70% (1)	OD Surface Contour	Pipe - Valve

Table 7

Code Category B-J / Item No. B9.11				
Component ID	System	Extent Examined	Limitation	Remarks
6-12-141B-1	RWCU ⁽⁹⁾	50% ⁽¹⁾	OD Surface Contour	Valve-to-Pipe
20-10-120-1	RHR ⁽⁷⁾	50% ⁽¹⁾	OD Surface Contour	Pipe-to-Tee
24-10-149	RHR ⁽⁷⁾	Est. 80%	Welded Support	Pipe-to-Pipe
10-14-471	CS ⁽⁶⁾	Est. 75%	OD Surface Contour	Pipe-to-SE
10-14-492 ⁽²⁾	CS ⁽⁶⁾	Est. 80%	OD Surface Contour	Pipe-to-SE
10-14-493 ⁽²⁾	CS ⁽⁶⁾	Est. 80% ⁽¹⁾	Drain Line	Elbow-to-Elbow
10-23-677	HPCI ⁽⁸⁾	Est. 70-80%	Socket Weld Conn	Elbow-to-Pipe
24-29-543A	MS ⁽⁵⁾	70 - 80%	Instr. Line/ OD Surface Contour	Elbow-to-Pipe
24-29-557	MS ⁽⁵⁾	Est. 65 - 75%	Saddle Weld Obstruction	Pipe-to-Pipe
24-29-572	MS ⁽⁵⁾	75%	Welded Support	Limitation applies to Surf. and Vol. Exams
24-29-605	MS ⁽⁵⁾	75%	Welded Support	Limitation applies to Surf. and Vol. Exams
12-34-402	FW ⁽⁴⁾	50% ⁽³⁾	Air Duct Obstruction	Pipe-to-Pipe

NOTES:

- (1) When a one-sided exam is recorded or a limited exam is confirmed as a one-sided exam, (no other restrictions), through drawing verification a 50% exam coverage credit is taken.
- (2) All welds identified by this note are within the IGSCC Inspection Program
- (3) The limited examination coverage of this weld only applies to the surface inspection full examination coverage was achieved by the volumetric method.
- (4) The total weld population for the Feedwater System under this item number is 76 welds. The total number requiring volumetric and surface examinations is 25% = 19 welds. The total number of volumetric and surface examinations performed on welds within this item number for the 2nd Ten-Year Interval is 34 = 45%.
- (5) The total weld population for the Main Steam System under this item number is 109 welds. The total number requiring volumetric and surface examinations is 25% = 28 welds. The total number of volumetric examinations performed on welds within this item number for the 2nd Ten-Year Interval is 32 = 29%.
- (6) The total weld population for the Core Spray System under this item number is 51 welds. The total number requiring volumetric and surface examinations is 25% = 13 welds. The total number of volumetric and surface examinations performed on welds within this item number for the 2nd Ten-Year Interval is 17 = 33%.
- (7) Total weld population for the RHR System under this item number is 47 welds. The total number requiring volumetric and surface examinations is 25% = 12 welds. The total number of volumetric and surface examinations performed on welds within this item number for the 2nd Ten-Year Interval is 12 = 25%.
- (8) Total weld population for the HPCI System under this item number is 26 welds. The total number requiring volumetric and surface examinations is 25% = 7 welds. The total number of volumetric and surface examinations performed on welds within this item number for the 2nd Ten-Year Interval is 11 = 42%.
- (9) Total weld population for the RWCU System under this item number is 32 welds. The total number requiring volumetric and surface examinations is 25% = 8 welds. The total number of volumetric and surface examinations performed on welds within this item number is 12 = 37%.

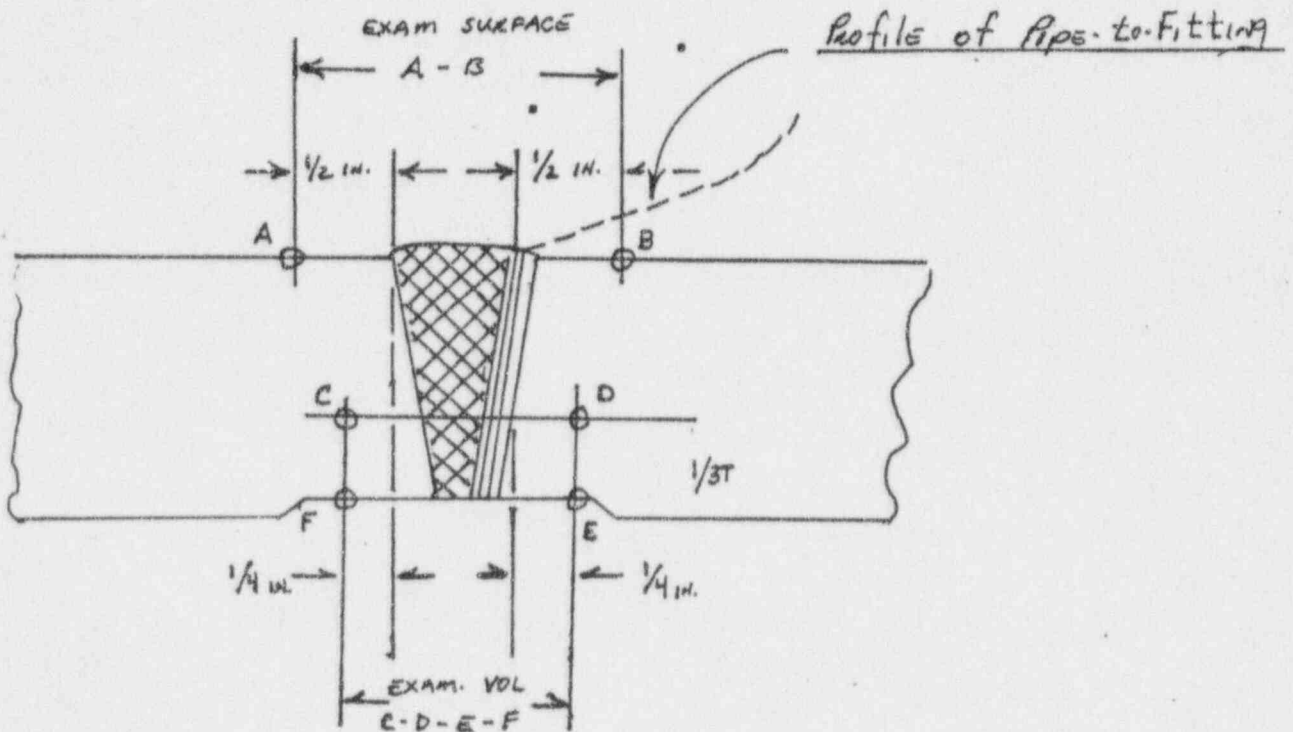
ENCLOSURE 7

Similar and Dissimilar Metal Welds in Components and Piping

Code Category B-F & B-J

NPS Greater Than 4 in.

Code Required Volume (CRV)



Coverage Achieved for a Specific Weld or Component is Designated in
Table 7 - Extent Examined

FIGURE 1

Item No. B9.30
Item No. B9.31

Branch Pipe Connection Welds
Nominal Pipe Size ≥ 4 "

Relief is requested in accordance with the provisions of 10 CFR 50.55a (a)(3)(iii) from the full Code-required extent of volumetric examination for Branch Pipe Connection Welds (Nominal Pipe Size ≥ 4 ").

Examination Requirements

ASME Section XI, 1980 Edition through Winter 1981 Addenda, requires the lower $\frac{1}{4}$ t of the weld examined volumetrically up to and including adjacent base metal $\frac{1}{4}$ " from the weld toe on either side of the weld.

Basis for Relief

Complete inspection of the Code-required volume for components listed in Table 7A is not possible based on restricted access caused by their design. All components in this request for relief are within the IGSCC Inspection Program and have been inspected in accordance with Generic Letter 88-01 by EPRI qualified examiners. Inspection techniques that are qualified through EPRI or PDI for the detection of IGSCC is limited to same side examinations. Techniques have not been developed that can qualify IGSCC detection from the far side of the weld. Components with one-sided access, whether due to configuration and/or OD surface contour, fall into this category. Some examinations performed on these components occurred during the beginning of the inspection interval and do **not** have the detailed measurements necessary to accurately calculate the percentage of exam coverage. When a one-sided exam is recorded or a limited exam is confirmed as a one-sided exam (no other restrictions) through examination data and drawing verification, a 50% exam coverage credit will be taken. If a limited or restricted exam is noted but not enough information exists to derive a percentage of coverage, it will be so noted.

Proposed Alternative

1. No additional volumetric and/or surface examinations will be performed on these welds. The components listed in this relief request have been examined to the maximum extent practical.
2. A visual inspection (VT-2) is performed in conjunction with the pressure testing conducted on these components every refuel outage (with no leakage detected) in accordance with IWA-5000 and IWB-5000, which provides reasonable assurance of component integrity.

Drawings and sketches which illustrate the restricted conditions encountered, (in some cases typical for a given configuration), that limit examination coverage are in Enclosure 7A.

Table 7A

Code Category B-J / Item No. B9.31				
Component ID	System	Extent Examined	Limitation	Remarks
12-02-2-4 (2)	Recirc.	79% (1)	OD Surface Contour	Swplt-to-Pipe
22-02-2-5 (2)	Recirc.	50% (1)	Configuration	Saddle Weld
12-02-2-10 (2)	Recirc.	50% (1)	OD Surface Contour	Swplt-to-Pipe
22-02-2-11 (2)	Recirc.	50% (1)	Configuration	Saddle Weld
22-02-2-16 (2)	Recirc.	50% (1)	Configuration	Saddle Weld
12-02-2-20 (2)	Recirc.	50% (1)	OD Surface Contour	Swplt-to Pipe
28-02-2-55 (2)	Recirc.	50% (1)	One-sided Exam	Branch Connection
12-02-2-61 (2)	Recirc.	50% (1)	One-sided Exam	Branch Connection
22-02-2-62 (2)	Recirc.	50% (1)	Configuration	Saddle Weld (3)
12-02-2-67 (2)	Recirc.	50% (1)	OD Surface Contour	Swplt-to-Pipe
12-02-2-72 (2)	Recirc.	50% (1)	OD Surface Contour	Swplt-to-Pipe
12-02-2-78 (2)	Recirc.	50% (1)	OD Surface Contour	Swplt-to-Pipe
28-02-2-114 (2)	Recirc.	50% (1)	One-sided Exam	Branch Connection (4)

NOTES:

- (1) When a one-sided exam is recorded or a limited exam is confirmed as a one-sided exam, (no other restrictions), through drawing verification, a 50% exam coverage credit is taken.
- (2) All welds identified by this note are within the IGSCC Inspection Program
- (3) Weld 22-02-2-62 has a saddle weld configuration that is typical of 22-02-2-5.
- (4) Weld 28-02-2-114 has a branch connection configuration that is typical of Weld 28-02-2-55.
- (5) Swplt = Sweep-o-let

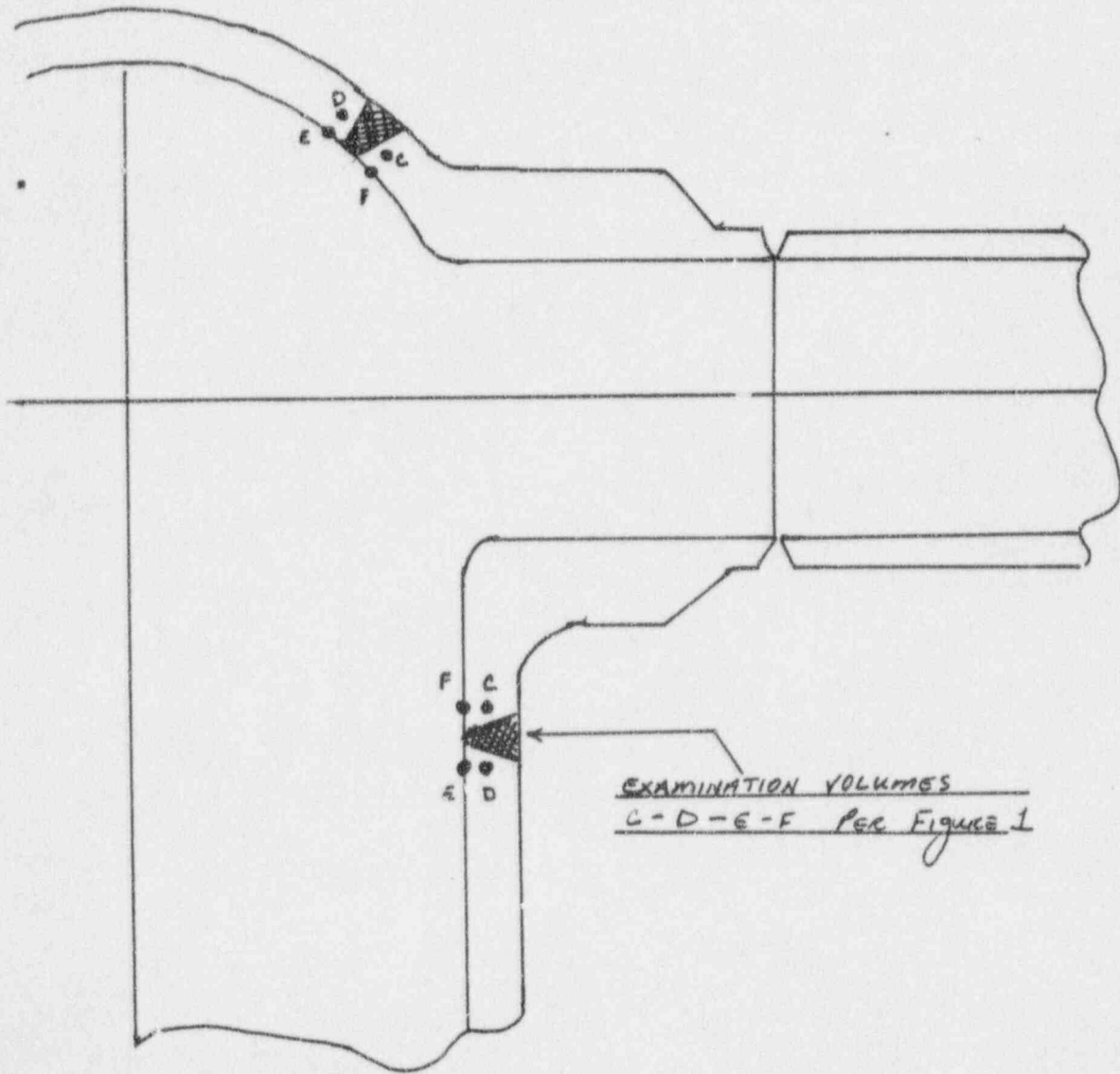
ENCLOSURE 7A

Pipe Branch Connection

Code Category B-J

NPS Greater Than 4 in.

Code Required Volume (CRV)



Coverage Achieved for a Specific Weld or Component is Designated in
Table 7A - Extent Examined

FIGURE 2

Code Category B-K-1: Integral Attachments for Piping, Pumps, and Valves

Item No. B10.10 Piping Integrally Welded Attachments

Relief is requested pursuant to the provisions of 10 CFR 50.55a (a)(3)(I), and 10 CFR 50.55a (a)(3)(ii) from the ASME Boiler and Pressure Vessel Code surface or volumetric examination requirements of eight (8) integrally welded attachments listed in Table 8, and incomplete examination of the Code-required surfaces for components listed in Table 8A.

Examination Requirements

ASME Code Section XI, 1980 Edition through Winter 1981 Addenda requires examinations to include the welded attachment of piping required to be examined by Examination Category B-J, and includes essentially 100% of the weld length, for those attachments whose base material design thickness is 5/8 in. and greater.

Basis For Relief Pursuant to 10 CFR 50.55a (a)(3)(I)

During the review of the JAF 2nd Ten-Year Inservice examinations for Category B-K-1 interval closeout, eight (8) integrally welded piping attachments were not examined out of a total required population of fifty-four (54).

Reactor Recirculation System - Seventeen (17) integrally welded attachments were examined, (accepted by examination for continued service), out of a total population of twenty (20), which provides an overall system percentage completion of 85% for Examination Category B-K-1.

Main Steam System - Twenty-five (25) integrally welded attachments were examined, (accepted by examination for continued service), out of a total population of forty-two (42), which provides an overall system percentage completion of 60% for Examination Category B-K-1.

Overall Status for the Interval - Forty-seven (47) nonexempt integrally welded piping attachments out of a total nonexempt population of fifty-four (54) Category B-K-1 components in all of the Class 1 Systems were examined during JAF 2nd Inservice Inspection Interval, for a total percentage examined of 87%. All other Class 1 systems meet ASME Section XI 1980 Edition, Winter 81 Addenda criteria for Program B requirements in it's entirety.

The ASME B&PVC recognized that the extent of examination for B-K-1 integrally welded attachments by earlier code editions was impractical. To address this issue ASME issued Code Case N-509, which is pending approval by USNRC through Reg. Guide 1.147 Rev. 12. If Code Case N-509 was applied to the two (2) systems above the percentages examined would far exceeds the 10% examination requirements of the Code Case. The extent of examinations performed, coupled with the system pressure tests, will provide an acceptable level of quality and safety.

Proposed Alternative Examinations

None

Basis for Relief of Partial Examinations Pursuant to 10 CFR 50.55a(a)(3)(ii)

Components addressed within this relief are welded attachments that have limitations and restrictions which impede inspection coverage. Drawings and sketches which illustrate the restricted conditions encountered that limit examination coverage are in Enclosure 8.

Proposed Alternative

1. No additional volumetric and/or surface examinations will be performed on these welds. The components listed in Table 8A of this relief request have been examined to the maximum extent practical.
2. A visual inspection (VT-2) is performed in conjunction with the pressure testing conducted on these components every refuel outage (with no leakage detected) in accordance with IWA-5000 and IWB-5000, which provides reasonable assurance of component integrity.

Table 8

Code Category B-K-1/Item No. B10.10		
Component ID	System	Description
24-29-527A	24.0" M S System	Integrally Welded Attachment
24-29-539B	24.0" M S System	Integrally Welded Attachment
24-29-572A	24.0" M S System	Integrally Welded Attachment
24-29-585B	24.0" M S System	Integrally Welded Attachment
24-29-593A	24.0" M S System	Integrally Welded Attachment
28-02-2-51A	28.0" Reactor Recirc. System	Integrally Welded Attachment
28-02-2-31A	28.0" Reactor Recirc. System	Integrally Welded Attachment
28-02-2-89C	28.0" Reactor Recirc. System	Integrally Welded Attachment

Table 8A

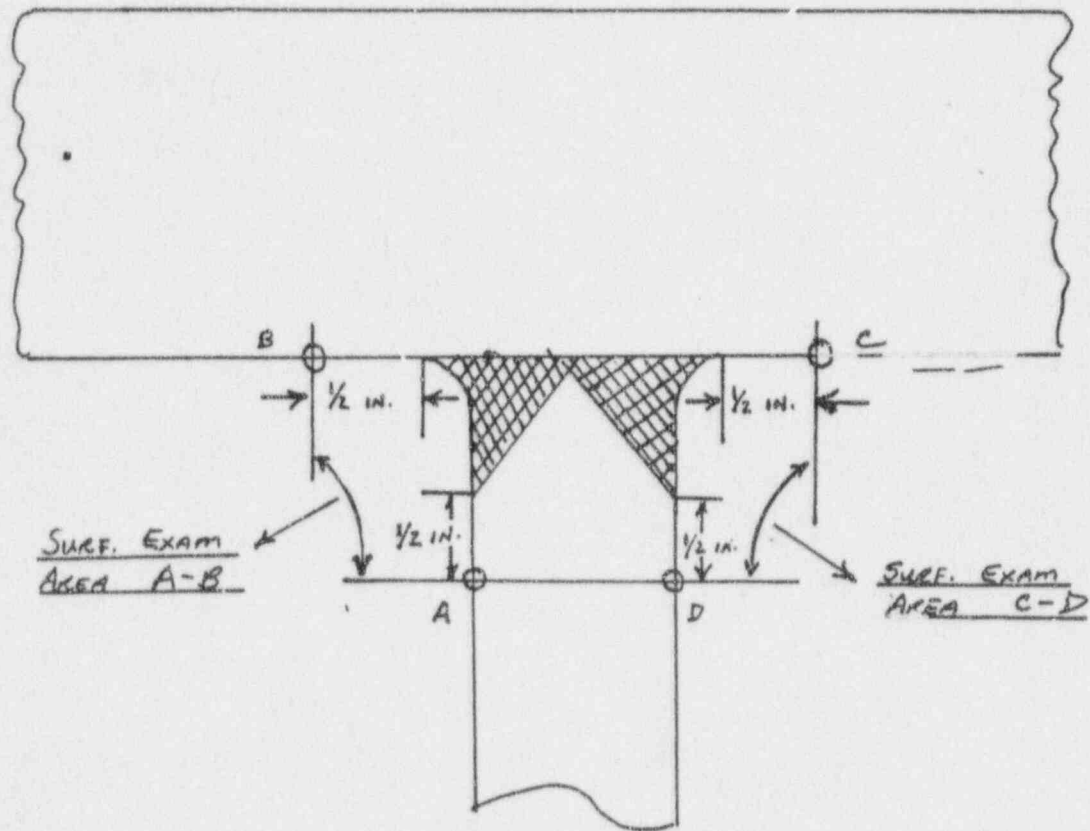
Code Category B-K-1 / B10.10				
Component ID	System	Extent Examined	Limitation	Remarks
28-02-2-31C	Recirc.	60-70%	Support Obstruction	See Enclosure 8
28-02-2-110E	Recirc.	60 - 70%	Support Obstruction	See Enclosure 8
24-29-605B	Main Steam	50-60%	Circ. Weld Interference	See Enclosure 8
24-29-618A	Main Steam	50%	Restricted Access	See Enclosure 8

ENCLOSURE 8

Integral Attachment

Code Category B-K-1

Code Required Coverage



Coverage Achieved for a Specific Weld or Component is Designated in
Table 8 - Extent Examined

FIGURE 1

ENCLOSURE 8A

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Code Category B-L-2: Pump Casings

Item No. B12.20 Internal Surfaces

Relief is requested in accordance with the provisions of 10 CFR 50.55a (a)(3)(ii) from the full Code-required extent of visual examination for Pump Casing Internals for components listed in Table 9.

Examination Requirements

This request for relief is being submitted in accordance with NRC Safety Evaluation (SE) of the 2nd Ten-Year Inservice Inspection Program, Dated October 27, 1987, Docket No. 50-333 approved Relief Request 5 (R5B). Relief Request 5 (R5B) requires visual (VT-3) inspection of internal surfaces of pump casings once per interval when these components are disassembled for maintenance and stipulates that relief from examination of specific components not disassembled will be submitted at the end of the interval.

Basis for Relief Examination

The recirculation pump internal surfaces are only accessible when the pumps are disassembled. These pumps were not disassembled during the 2nd Ten-Year Interval. A visual inspection (VT-2), pressure test is conducted on these components every refuel outage in accordance with IWA-5000 and IWB-5000. This request for relief is being submitted in accordance with JAF's 2nd Ten-Year Interval Inservice Inspection Program approved Relief Request 5 (R5B). Components addressed by this Relief Request are listed in Table 9.

Proposed Alternative

1. None
2. The requirements for examination on these components met the approved Relief Request (R5B) for the 2nd Ten-Year ISI Inspection Interval in its entirety. Components addressed in this request for relief are listed in Table 9.

Table 9

Code Category B-L-2 / Item No. B12.20						
Component ID	System	Pump Type	Function	Disassembled	Examined	Relief Request
02-2P-1A	Recirc.	Centrifugal	Recirculation	No	No	R5B
02-2P-1B	Recirc.	Centrifugal	Recirculation	No	No	R5B

ENCLOSURE 9

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Code Category B-M-2: Valve Bodies > 4" Nominal Pipe Size

Item No. B12.50 Internal Surfaces

Relief is requested in accordance with the provisions of 10 CFR 50.55a(a)(3)(ii) from the full Code-required extent of visual examination for Valve Body Internals listed in Table 10.

Examination Requirements

This request for relief is being submitted in accordance with NRC Safety Evaluation (SE) of the 2nd Ten-Year Inservice Inspection Program, Dated October 27, 1987, Docket No. 50-333 approved Relief Request 5 (R5C). Relief Request 5 (R5C) requires visual (VT-3) inspection of internal surfaces of valve bodies once per interval when these components are disassembled for maintenance and stipulates that a relief from examination of specific components not disassembled will be submitted at the end of the interval.

Basis for Relief

The valve internal surfaces are only accessible when the valves are disassembled. These valves were not disassembled during the 2nd Ten-Year Interval. A visual inspection (VT-2), pressure test is conducted on these components every refuel outage in accordance with IWA-5000 and IWB-5000. This request for relief is being submitted in accordance with JAF's 2nd Ten-Year Interval, Inservice Inspection Program approved Relief Request 5 (R5C). The Authority has elected to implement a conservative inspection criteria for valves. This inspection selection criteria is based not only on type of valve and function but also on which system requires a larger population, (i.e.: gates valves), and an increased frequency of inspection for those valves that are disassembled more than once per interval. This request is being submitted in accordance with the approved NRC Relief Request (R5C) for the 2nd Ten Year Interval. Components addressed by this Relief Request are listed in Table 10.

Proposed Alternative

None

Table 10

Code Category B-M-2 / Item No. B12.50						
Component ID	System	Valve Type	Function	Disassembled	Examined	Relief Request
02MOV-43A	Recirc.	Gate	Isolation	No	No	R5C
02MOV-43B	Recirc.	Gate	Isolation	No	No	R5C
02MOV-53A	Recirc.	Gate	Isolation	No	No	R5C
02MOV-53B	Recirc.	Gate	Isolation	No	No	R5C
13MOV-21	RCIC	Gate	Isolation	No	No	R5C
34FWS-29A	FW	Gate	Isolation	No	No	R5C
34FWS-29B	FW	Gate	Isolation	No	No	R5C

ENCLOSURE 10

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Code Category B-Q: Pressure Retaining Welds in Control Rod Housings

Item No. B14.10: Welds in CRD Housing

Examination Requirements

ASME Section XI requires that 10% of the pressure retaining welds in peripheral CRD Housings are inspected once every interval.

Basis for Relief

Access is limited to four 18" diameter manways 90° apart in the vessel support skirt. In addition, the one-hundred and thirty-seven (137) control rod drives and forty-three (43) in-core monitor instrumentation penetrations present extensive interference. The positioning and spacing of these components prevent an inspector from physically being able to reach beyond the manway openings. Based on design, there are 28 peripheral CRD housings and (12) twelve = 42%, have been inspected. CRD Housing Welds inspected during the 2nd Ten-Year Interval are listed in Table 11 and are illustrated in the drawings of Enclosure 11.

Proposed Alternative

None

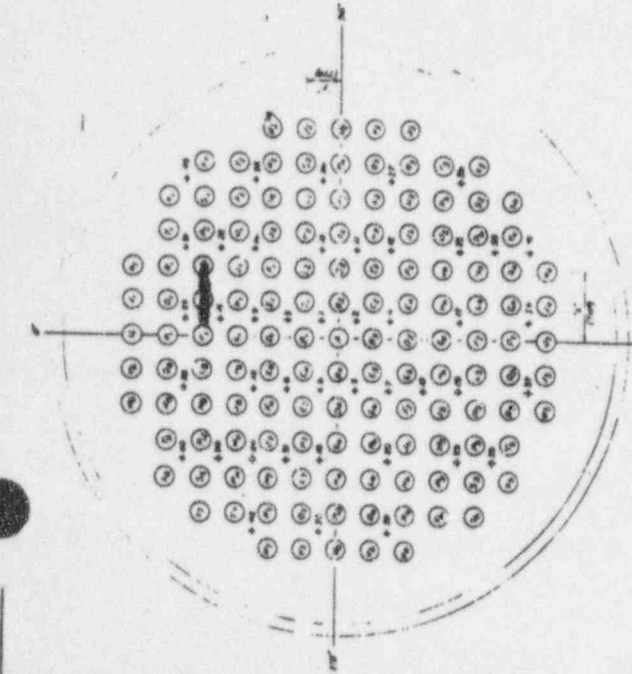
Table 11

Code Category B-O / Item No. B14.10			
RPV Bottom Head Penetrations	CRD No.	RPV & Penetration Reference Drawings	CRD Coordinates Reference Drawing
V8	22-51	MSK-3036 & 5.01-82D	5.01-135D
V1	30-51	MSK-3036 & 5.01-82D	5.01-135D
U4	02-27	MSK-3036 & 5.01-82D	5.01-135D
V2	50-31	MSK-3036 & 5.01-82D	5.01-135D
V3	50-23	MSK-3036 & 5.01-82D	5.01-135D
U3	26-03	MSK-3036 & 5.01-82D	5.01-135D
U1	26-51	MSK-3036 & 5.01-82D	5.01-135D
V7	02-31	MSK-3036 & 5.01-82D	5.01-135D
V6	02-23	MSK-3036 & 5.01-82D	5.01-135D
U2	50-27	MSK-3036 & 5.01-82D	5.01-135D
V4	30-03	MSK-3036 & 5.01-82D	5.01-135D
V5	22-03	MSK-3036 & 5.01-82D	5.01-135D

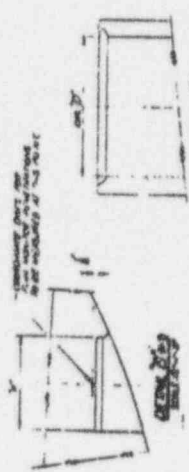
ENCLOSURE 11

11835-011-01

233-264



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JAMES A. FITZPATRICK NUCLEAR POWER PLANT
POWER AUTHORITY OF THE STATE OF NEW YORK
 File No. 11835-011-01
CRD Penetration Layout
 Project No. 11835-011-01
 Date: 10/19/71
 By: [Signature]

Submitted by: [Signature]
 Checked by: [Signature]
 Approved by: [Signature]

STATUS: DESIGN CONSTRUCTION AS-BUILT

STON & WEBSTER ENGR. COOP.
 Date: 10/19/71 By: [Signature]

DATE REC'D
OCT 19 1971
BY: [Signature]

UNCONTROLLED DRAWING
 Copy Date: 4/17/97
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ENCLOSURE 11 - Page 2 of 3

CRD Penetration Layout

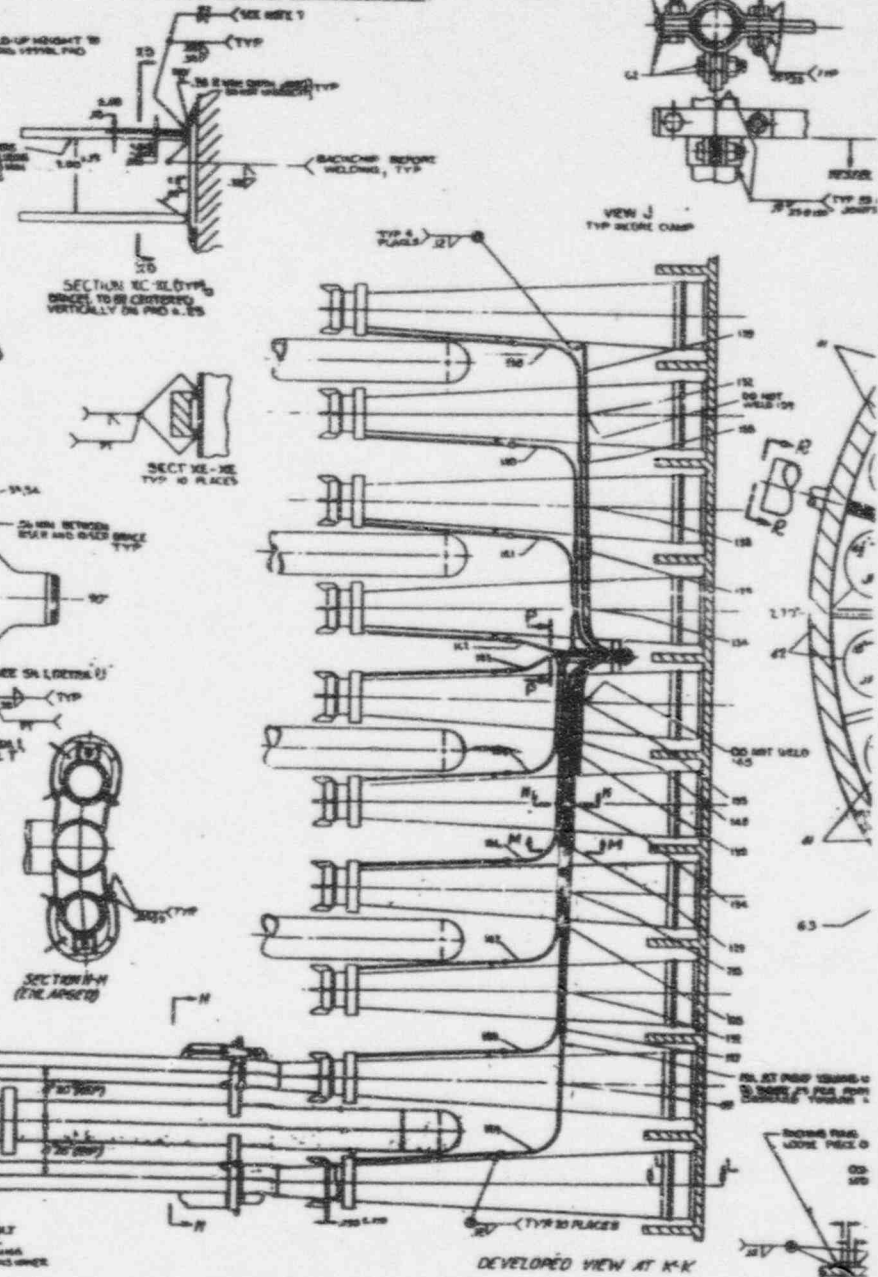
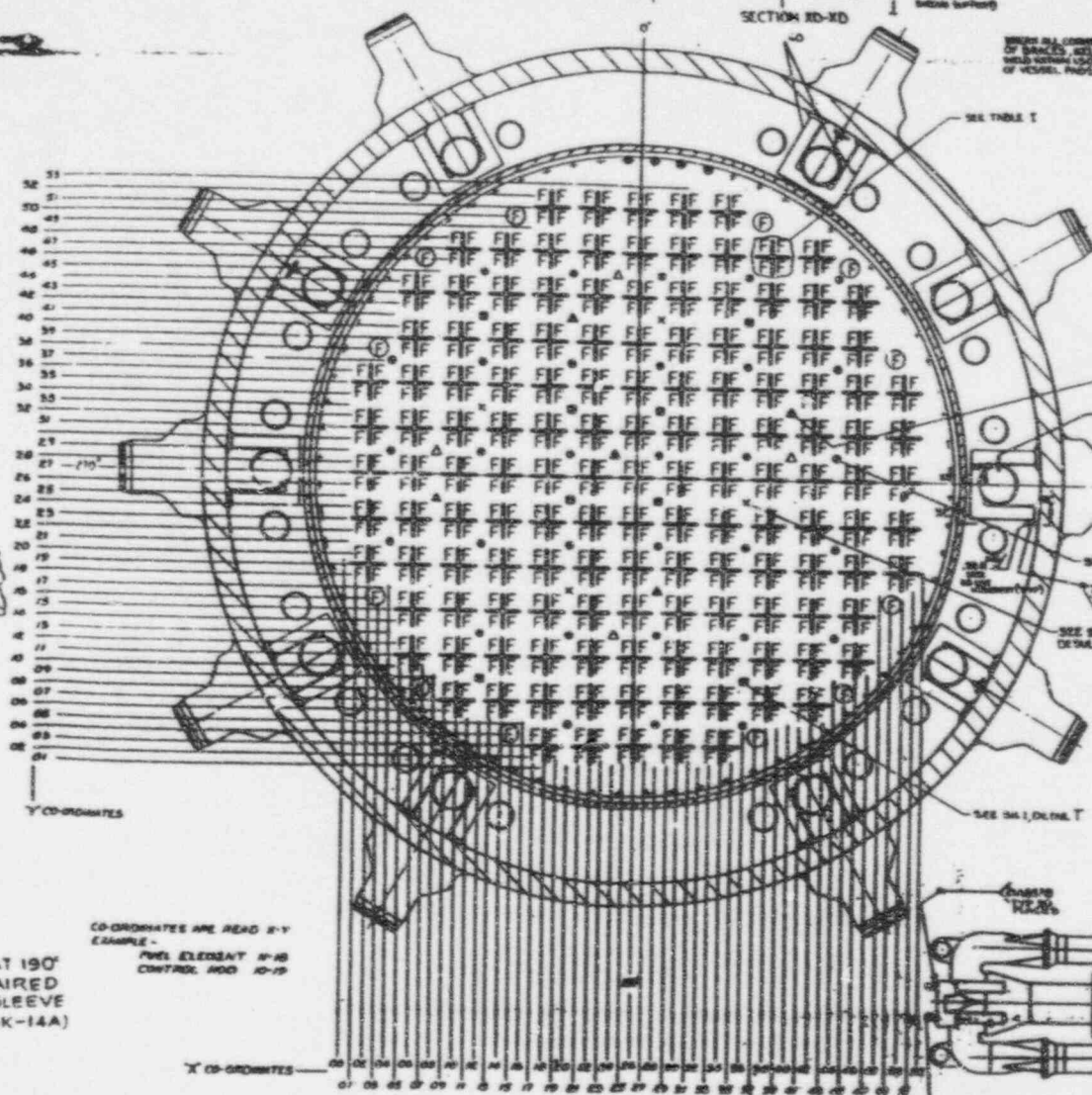
Drawing E 233-264

SECTION 2-1/2\"/>

10
 100% POWER MONITOR
 100% POWER MONITOR
 & DESIGN NEUTRON SOURCE
 & 50% NEUTRON SOURCE
 X SOURCE RANGE MONITOR

TABLE I - SHIMMED FUEL SUPPORT LOCATIONS

POSITION	114	117	118	119	120	121	122	123	124
NO. OF SHIMS	1	1	1	1	1	1	1	1	1
SHIM NO.	100-1	100-2	100-3	100-4	100-5	100-6	100-7	100-8	100-9



CO-ORDINATES ARE READ BY
 EXAMPLE -
 FUEL ELEMENT 10-10
 CONTROL ROD 10-10

100% REPAIRED
 SLEEVE
 (15 DSK-14A)

UNCONTROLLED
 ENCLOSURE 11 - Page 3 of 3
 CRD Penetration Detail

30 X 1

APPROXIMATE COMPRESSION BOLT LOAD 30000 LBS. BOLT SHALL BE TIGHTENED TO 40% OF A193 SPEC. AFTER 72 HRS.

REV.	DESCRIPTION	DATE	BY	APP'D.
1	REV. PER MOD. FI-78-36, CONT. NO. 5-47			

11825-5.01-135D

CLASS 2 COMPONENTS

Code Category C-A: **Pressure Retaining Welds in Pressure Vessels**

Item No. C1.10 **Shell Circumferential Weld (RHR Heat Exchanger)**

Item No. C1.30 **Tubesheet-to-Shell Weld (RHR Heat Exchanger)**

Item No. C1.10 **Shell Circumferential Weld (RHR Heat Exchanger)**

Relief is requested in accordance with the provisions of 10 CFR 50.55a (a)(3)(ii) from the full Code-required extent of volumetric examination for RHR Heat Exchanger Pressure Vessel Circumferential Weld # C3-B listed in Table 12.

Examination Requirements

ASME Section XI requires 100% volumetric examination of this weld once per interval.

Basis For Relief

Complete inspection of the Code-required volume is not possible based on restricted access caused by interference due to the close proximity of the vessel flange bolting and the N4B nozzle. Drawings and sketches which illustrate the restricted conditions encountered that limit examination coverage are included in Enclosure 12.

Examination Alternative

1. No additional volumetric examinations will be performed on these welds. The component listed in this relief request has been examined to the maximum extent practical.
2. A visual inspection (VT-2) was performed during the pressure testing which is conducted on this component every refuel outage (no leakage detected) in accordance with IWA-5000 and IWC-5000, which provides reasonable assurance of component integrity.

Table 12

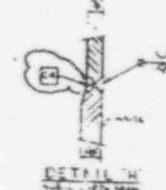
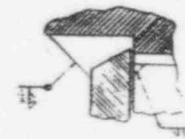
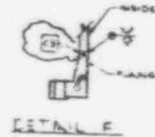
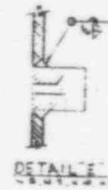
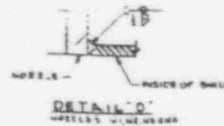
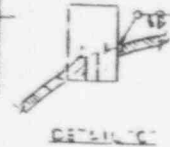
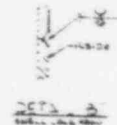
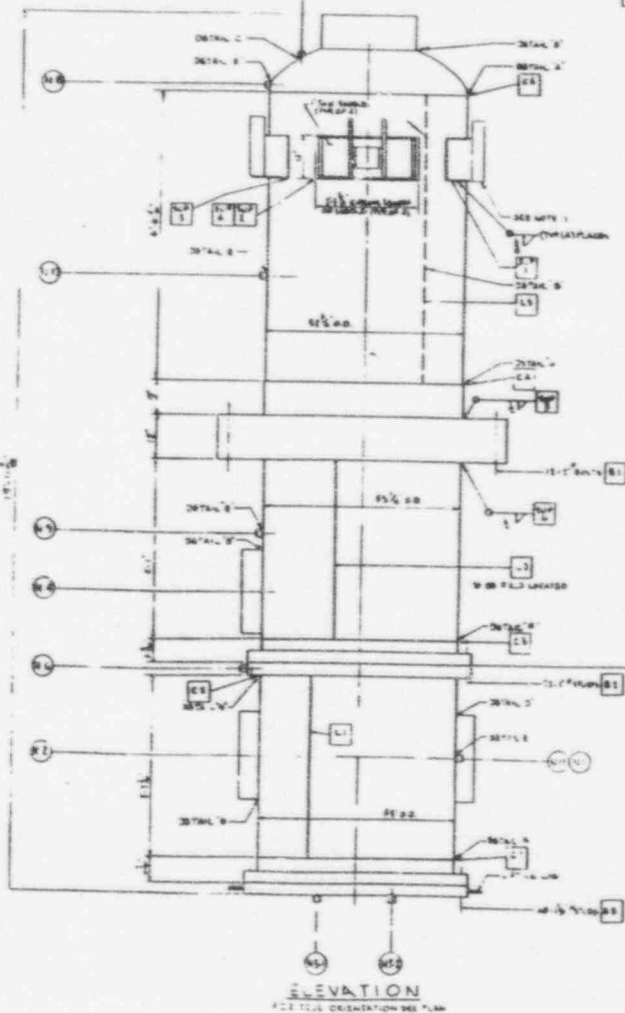
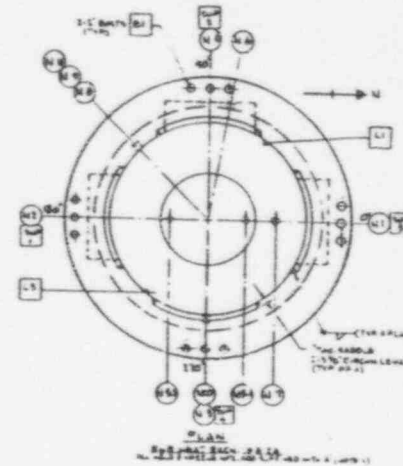
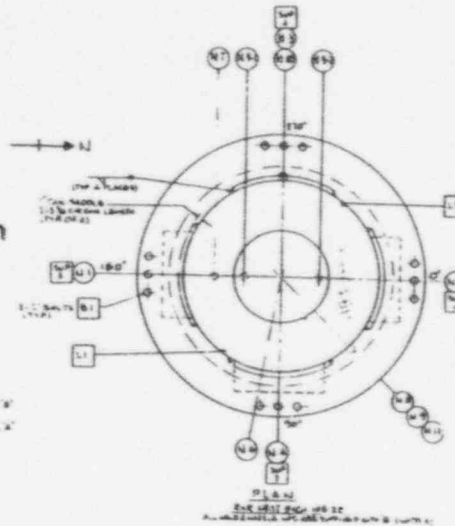
Code Category C-A / Item No. C1.10 (RHR Heat Exchanger)				
Component ID	System	Extent Examined	Limitation	Remarks
C3-B	RHR Ht. Exch. "B"	Est. 70 - 80% ⁽¹⁾	Flange Bolting & Nozzle	See Enclosure 12

ENCLOSURE 12

UNCONTROLLED DRAWING

Copy Date **MAR 31 1997**

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VESSEL WELDS				
WELD	SIZE	CLASS	TYPE	NOTES
L-100	2-0	1-1	SMOOTH	SMOOTH TO 1/8" (SEE 11825)
L-101	2-0	1-1	SMOOTH	SMOOTH TO 1/8" (SEE 11825)
L-102	2-0	1-1	SMOOTH	SMOOTH TO 1/8" (SEE 11825)
L-103	2-0	1-1	SMOOTH	SMOOTH TO 1/8" (SEE 11825)
L-104	2-0	1-1	SMOOTH	SMOOTH TO 1/8" (SEE 11825)
L-105	2-0	1-1	SMOOTH	SMOOTH TO 1/8" (SEE 11825)
L-106	2-0	1-1	SMOOTH	SMOOTH TO 1/8" (SEE 11825)
L-107	2-0	1-1	SMOOTH	SMOOTH TO 1/8" (SEE 11825)
L-108	2-0	1-1	SMOOTH	SMOOTH TO 1/8" (SEE 11825)
L-109	2-0	1-1	SMOOTH	SMOOTH TO 1/8" (SEE 11825)
L-110	2-0	1-1	SMOOTH	SMOOTH TO 1/8" (SEE 11825)

SUPPORT WELDS				
WELD	SIZE	CLASS	TYPE	NOTES
S-1	2-0	1-1	SMOOTH	SMOOTH TO 1/8" (SEE 11825)
S-2	2-0	1-1	SMOOTH	SMOOTH TO 1/8" (SEE 11825)
S-3	2-0	1-1	SMOOTH	SMOOTH TO 1/8" (SEE 11825)
S-4	2-0	1-1	SMOOTH	SMOOTH TO 1/8" (SEE 11825)
S-5	2-0	1-1	SMOOTH	SMOOTH TO 1/8" (SEE 11825)

NOZZLE WELDS				
WELD	SIZE	CLASS	TYPE	NOTES
N-1	2-0	1-1	SMOOTH	SMOOTH TO 1/8" (SEE 11825)
N-2	2-0	1-1	SMOOTH	SMOOTH TO 1/8" (SEE 11825)
N-3	2-0	1-1	SMOOTH	SMOOTH TO 1/8" (SEE 11825)
N-4	2-0	1-1	SMOOTH	SMOOTH TO 1/8" (SEE 11825)
N-5	2-0	1-1	SMOOTH	SMOOTH TO 1/8" (SEE 11825)
N-6	2-0	1-1	SMOOTH	SMOOTH TO 1/8" (SEE 11825)
N-7	2-0	1-1	SMOOTH	SMOOTH TO 1/8" (SEE 11825)
N-8	2-0	1-1	SMOOTH	SMOOTH TO 1/8" (SEE 11825)
N-9	2-0	1-1	SMOOTH	SMOOTH TO 1/8" (SEE 11825)
N-10	2-0	1-1	SMOOTH	SMOOTH TO 1/8" (SEE 11825)

VESSEL BOLTING				
WELD	SIZE	CLASS	TYPE	NOTES
B-1	2-0	1-1	SMOOTH	SMOOTH TO 1/8" (SEE 11825)
B-2	2-0	1-1	SMOOTH	SMOOTH TO 1/8" (SEE 11825)
B-3	2-0	1-1	SMOOTH	SMOOTH TO 1/8" (SEE 11825)

NOTES
 1. ALL WELDS TO BE WELDED IN ACCORDANCE WITH THE WELDING PROCEDURE SPECIFICATION (WPS) FOR THE WELDS TO BE WELDED.
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1	DESIGNED			
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3	CHECKED			
4	APPROVED			

JAMES & FITZPATRICK NUCLEAR POWER PLANT
 I.S.I. - RHR HEAT EXCHANGER
 WELD IDENTIFICATION
 POWER AUTHORITY OF THE STATE OF NEW YORK
 MSK-3037

ENCLOSURE 12 - Page 1 of 2
 RHR Heat Exchanger Weld
 Identification Drawing MSK-3037

BY Robert [unclear] DATE 3-31-90

SHEET 2 OF 2

CHKD. BY CF DATE 4-11-90

OFS NO. _____ DEPT. NO. _____

CLIENT N.Y.P.A.

PROJECT J.A. FITZPATRICK

SUBJECT C3-B RHR Ht. Exch. "B"

Scan limited due to proximity of Flange
bolting and nozzle

Shell

FLANGE

UP ←

STUB NUTS

ENCLOSURE 12 - Page 2 of 2

Weld # C3-B RHR Ht. Exch. "B"

AREA NOT COVERED
BY TWO DIRECTIONAL
COVERAGE FOR 45°

○ Ref.

NOZZLE

VIEW

Facing
East

Shell

Flange

23"

1/2"

c3-B

Item No. C1.30

Tubesheet-to-Shell Weld (RHR Heat Exchanger)

Relief is requested in accordance with the provisions of 10 CFR 50.55a (a)(3)(ii) from the Code-required extent of volumetric examination for Pressure Retaining Welds in Pressure Vessels for the RHR Heat Exchanger Tubesheet-to-Shell Welds # C2-A & C2-B.

Examination Requirements

ASME Section XI requires 100% volumetric examination of this weld once per interval.

Basis for Relief

Relief from the Code-required volume was requested in the initial 2nd Ten-Year Inservice Inspection Program submittal (Reference NRC Safety Evaluation, dated October 27, 1987, Relief Request (R15). The NRC denied this application for relief based on the possibility of disassembly and inspection during the Interval. The RHR Heat Exchangers have not been disassembled during the 2nd Ten-Year Interval and, therefore, the Authority is re-submitting this request for relief from the Code-required extent of examination for the Tubesheet-to-Shell Welds which was a part of the original Inservice Inspection Program's 2nd Ten-Year submittal.

Examination Alternative

1. No additional volumetric examinations will be performed on these welds. The components listed in this relief request have been examined to the maximum extent practical.
2. A visual inspection (VT-2) was performed during the pressure test which is conducted on this component every refuel outage (no leakage detected) in accordance with IWA-5000 and IWC-5000.

TABLE 12A

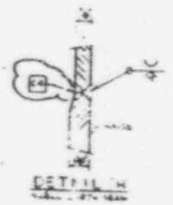
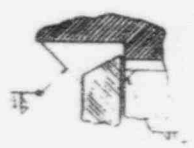
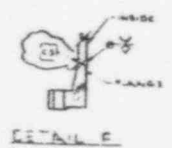
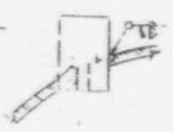
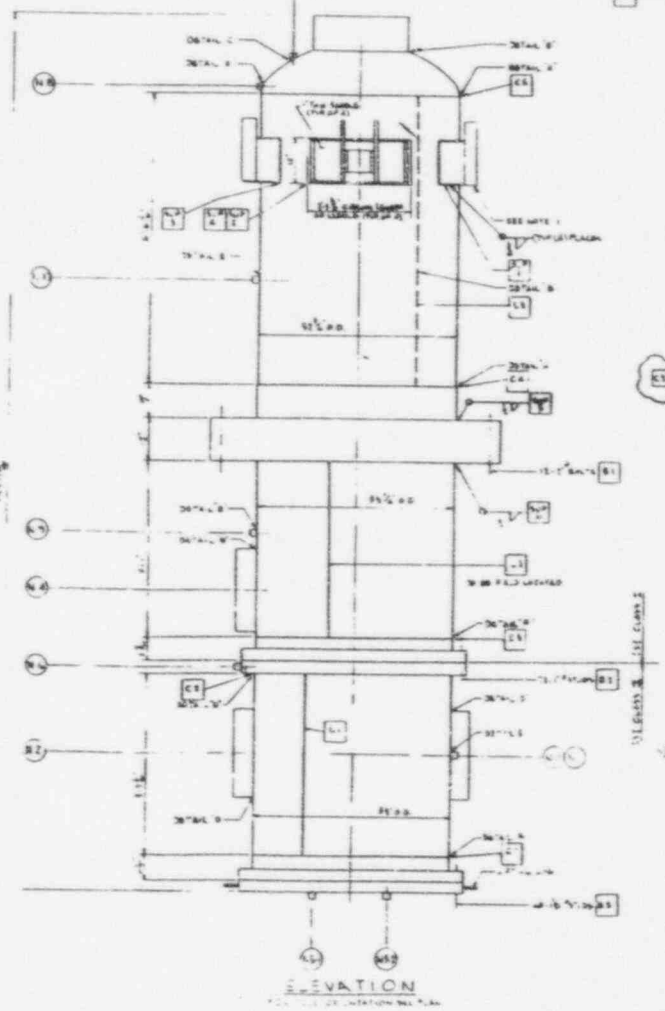
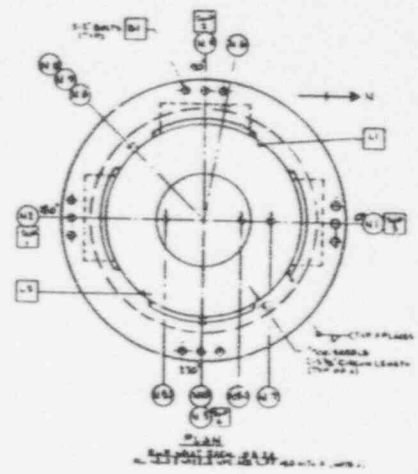
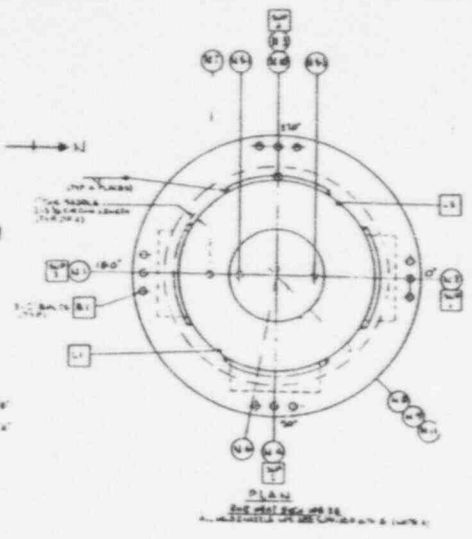
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ENCLOSURE 12A

UNCONTROLLED DRAWING

Copy Date **MAR 31 1997**

CAUTION - Extended use of this drawing copy may result in its inaccuracy due to subsequent design changes and drawing updates



VESSEL WELDS				
WELD NO.	WELD TYPE	WELD SIZE	WELD LOCATION	NOTES
W-100	D-B	1/2"	24" DIA. CLAMP B	
W-101	D-B	1/2"	24" DIA. CLAMP B	
W-102	D-B	1/2"	24" DIA. CLAMP B	
W-103	D-B	1/2"	24" DIA. CLAMP B	
W-104	D-B	1/2"	24" DIA. CLAMP B	
W-105	D-B	1/2"	24" DIA. CLAMP B	
W-106	D-B	1/2"	24" DIA. CLAMP B	
W-107	D-B	1/2"	24" DIA. CLAMP B	
W-108	D-B	1/2"	24" DIA. CLAMP B	
W-109	D-B	1/2"	24" DIA. CLAMP B	
W-110	D-B	1/2"	24" DIA. CLAMP B	

SUPPORT WELDS				
WELD NO.	WELD TYPE	WELD SIZE	WELD LOCATION	NOTES
W-200	D-B	1/2"	24" DIA. CLAMP B	
W-201	D-B	1/2"	24" DIA. CLAMP B	
W-202	D-B	1/2"	24" DIA. CLAMP B	
W-203	D-B	1/2"	24" DIA. CLAMP B	
W-204	D-B	1/2"	24" DIA. CLAMP B	
W-205	D-B	1/2"	24" DIA. CLAMP B	
W-206	D-B	1/2"	24" DIA. CLAMP B	
W-207	D-B	1/2"	24" DIA. CLAMP B	
W-208	D-B	1/2"	24" DIA. CLAMP B	
W-209	D-B	1/2"	24" DIA. CLAMP B	
W-210	D-B	1/2"	24" DIA. CLAMP B	

NOZZLE WELDS				
WELD NO.	WELD TYPE	WELD SIZE	WELD LOCATION	NOTES
W-300	D-B	1/2"	24" DIA. CLAMP B	
W-301	D-B	1/2"	24" DIA. CLAMP B	
W-302	D-B	1/2"	24" DIA. CLAMP B	
W-303	D-B	1/2"	24" DIA. CLAMP B	
W-304	D-B	1/2"	24" DIA. CLAMP B	
W-305	D-B	1/2"	24" DIA. CLAMP B	
W-306	D-B	1/2"	24" DIA. CLAMP B	
W-307	D-B	1/2"	24" DIA. CLAMP B	
W-308	D-B	1/2"	24" DIA. CLAMP B	
W-309	D-B	1/2"	24" DIA. CLAMP B	
W-310	D-B	1/2"	24" DIA. CLAMP B	

VESSEL BOLTING				
BOLT NO.	BOLT TYPE	BOLT SIZE	BOLT LOCATION	NOTES
B-100	A-193	1/2"	24" DIA. CLAMP B	
B-101	A-193	1/2"	24" DIA. CLAMP B	
B-102	A-193	1/2"	24" DIA. CLAMP B	
B-103	A-193	1/2"	24" DIA. CLAMP B	
B-104	A-193	1/2"	24" DIA. CLAMP B	
B-105	A-193	1/2"	24" DIA. CLAMP B	
B-106	A-193	1/2"	24" DIA. CLAMP B	
B-107	A-193	1/2"	24" DIA. CLAMP B	
B-108	A-193	1/2"	24" DIA. CLAMP B	
B-109	A-193	1/2"	24" DIA. CLAMP B	
B-110	A-193	1/2"	24" DIA. CLAMP B	

NOTES

- ALL WELDS TO BE PERFORMED IN ACCORDANCE WITH THE WELDING PROCEDURE SPECIFICATION (WPS) AND QUALIFICATION RECORD (QR) FOR THE WELDS TO BE MADE.
- ALL WELDS TO BE MADE BY A WELDER WHO IS QUALIFIED TO MAKE THE WELDS TO BE MADE.
- ALL WELDS TO BE MADE IN ACCORDANCE WITH THE WELDING PROCEDURE SPECIFICATION (WPS) AND QUALIFICATION RECORD (QR) FOR THE WELDS TO BE MADE.
- ALL WELDS TO BE MADE BY A WELDER WHO IS QUALIFIED TO MAKE THE WELDS TO BE MADE.
- ALL WELDS TO BE MADE IN ACCORDANCE WITH THE WELDING PROCEDURE SPECIFICATION (WPS) AND QUALIFICATION RECORD (QR) FOR THE WELDS TO BE MADE.
- ALL WELDS TO BE MADE BY A WELDER WHO IS QUALIFIED TO MAKE THE WELDS TO BE MADE.
- ALL WELDS TO BE MADE IN ACCORDANCE WITH THE WELDING PROCEDURE SPECIFICATION (WPS) AND QUALIFICATION RECORD (QR) FOR THE WELDS TO BE MADE.
- ALL WELDS TO BE MADE BY A WELDER WHO IS QUALIFIED TO MAKE THE WELDS TO BE MADE.
- ALL WELDS TO BE MADE IN ACCORDANCE WITH THE WELDING PROCEDURE SPECIFICATION (WPS) AND QUALIFICATION RECORD (QR) FOR THE WELDS TO BE MADE.
- ALL WELDS TO BE MADE BY A WELDER WHO IS QUALIFIED TO MAKE THE WELDS TO BE MADE.

DESIGNED BY	DATE	SCALE
CHECKED BY	DATE	SCALE
APPROVED BY	DATE	SCALE
JAMES S. FITZPATRICK NUCLEAR POWER PLANT 24" DIA. HEAT EXCHANGER WELD IDENTIFICATION POWER AUTHORITY OF THE STATE OF NEW YORK MSK-3037		

ENCLOSURE 12A - Page 1 of 1
 RHR Heat Exchanger Weld
 Identification Drawing MSK-3037

Code Category C-A: **Pressure Retaining Welds in Pressure Vessels (SCRAM TANK)**

Item No. C1.20 **Head Welds**

Relief is requested in accordance with the provisions of 10 CFR 50.55a (a)(3)(iii) from the full Code-required extent of volumetric examination for Pressure Retaining Welds in Pressure Vessels for Scram Tank Head Welds listed in Table 13.

Examination Requirements

ASME Section XI requires 100% volumetric examination of this weld once per interval.

Basis for Relief

Complete inspection of the Code-required volume is not possible based on welded appurtenances on the vessel which restrict accessibility. Drawings and sketches which illustrate the restricted conditions encountered that limit examination coverage are included in Enclosure 13.

Examination Alternative

1. No additional volumetric examinations will be performed on these welds. The components listed in this relief request have been examined to the maximum extent practical.
2. A visual inspection (VT-2) was performed during the pressure test which is conducted on this component every refuel outage (no leakage detected) in accordance with IWA-5000 and IWC-5000.

Table 13

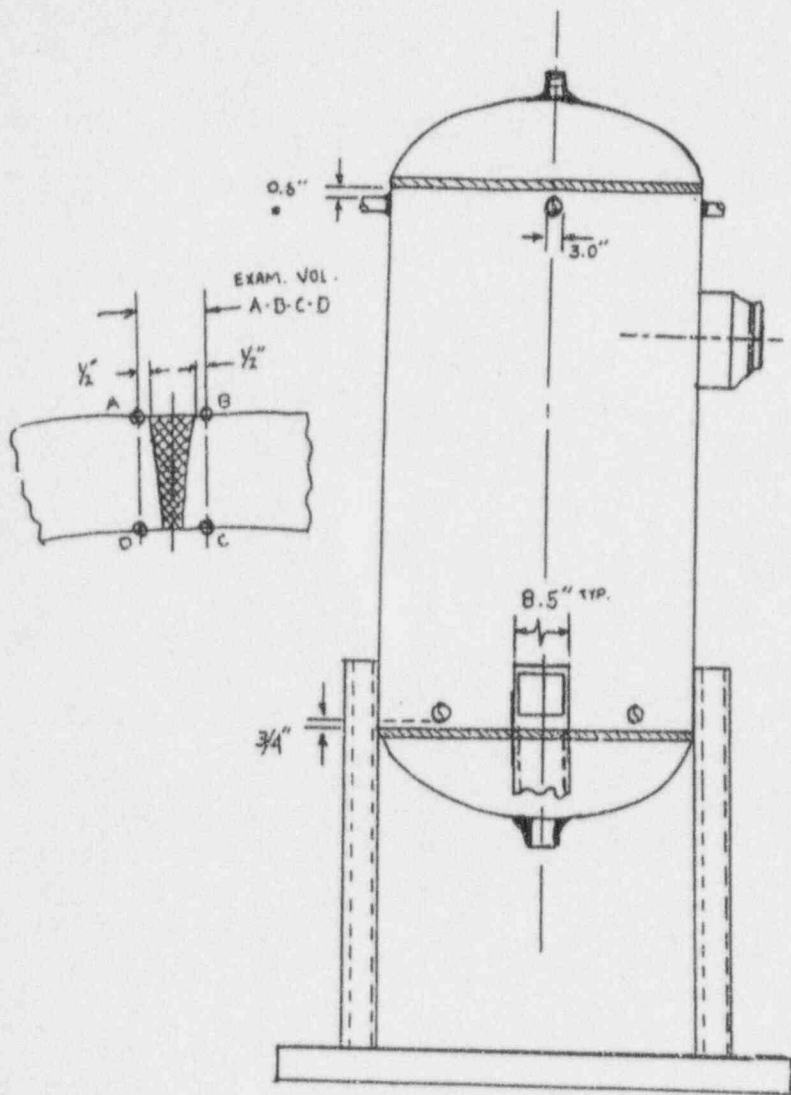
Code Category C-A / C1.20 (Scram Tank)				
Component ID	System	Extent Examined	Limitation	Remarks -
TH1-B	Scram Tank	Est. 80 - 85%	(4) Socket Weld Noz(s)	See Enclosure 13
BH1-B	Scram Tank	Est. 60 - 75%	(4) Support Legs	See Enclosure 13

ENCLOSURE 13

PRESSURE RETAINING WELDS IN PRESSURE VESSELS

EXAMINATION CATEGORY C-A

CODE REQUIRED VOLUME



Coverage Achieved for a Specific Weld or Component is Designated in
Table 13 - Extent Examined

Figure 1

Code Category C-B: Pressure Retaining Nozzle Welds in Vessels
(RHR Heat Exchanger)

Item No. C2.21 Nozzle-to-Shell (or Head) Weld

Relief is requested in accordance with the provisions of 10 CFR 50.55a (a)(3)(iii) from the full Code-required extent of volumetric examination for the RHR Heat Exchanger Nozzle-to-Shell (or Head) Welds listed in Table 14.

Examination Requirements

ASME Section XI requires 100% volumetric and surface examination of this weld once per interval.

Basis for Relief

Complete volumetric inspection of the Code-required volume is not possible based on nozzle design and the proximity of the vessel flange and associated bolting. Inspection data performed on these components include sketches which illustrate the restricted conditions encountered that limit the examination coverage. Full examination coverage for the required surface examination was achieved. Drawings and sketches which illustrate the restricted conditions encountered that limit examination coverage are included in Enclosure 14.

Examination Alternative

1. No additional volumetric or surface examinations will be performed on these welds. The components listed in this relief request have been examined to the maximum extent practical.
2. A visual inspection (VT-2) was performed during the pressure test which is conducted on this component every refuel outage (no leakage detected) in accordance with IWA-5000 and IWC-5000.

Table 14

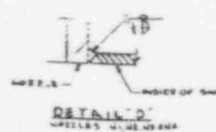
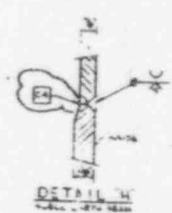
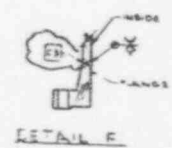
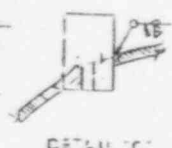
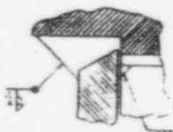
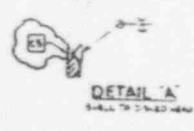
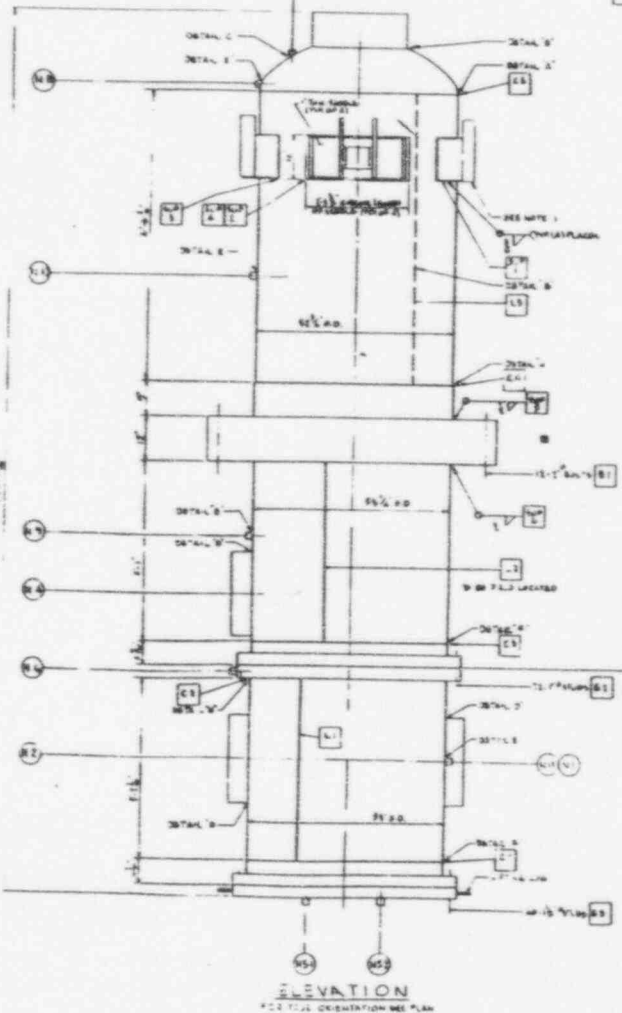
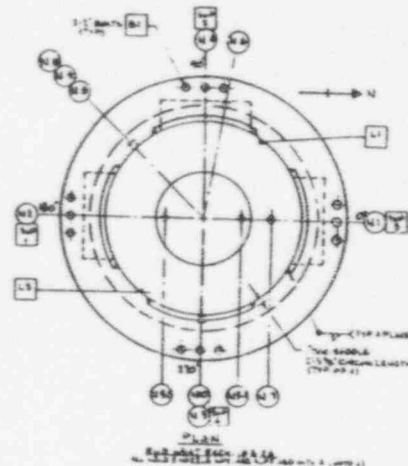
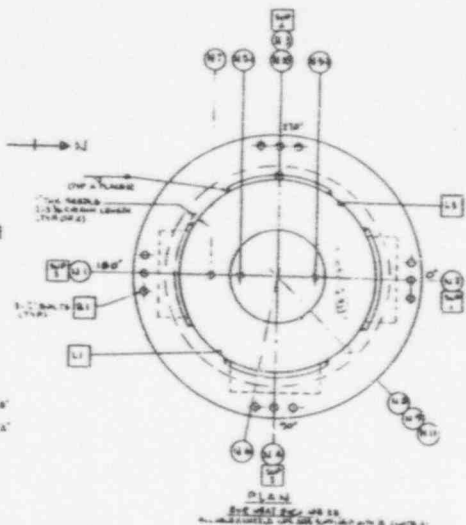
Code Category C-B / Item No. C2.21 (RHR Ht. Exch.)				
Component ID	System	Extent Examined	Limitation	Remarks
N3A	RHR Ht. Exch	Est. 10%	One-sided Configuration	See Enclosure 14
N4A	RHR Ht. Exch	40-50%	One-sided Configuration	See Enclosure 14
N4B	RHR Ht. Exch	40-50%	One-sided Configuration	See Enclosure 14

ENCLOSURE 14

UNCONTROLLED DRAWING

Copy Date **MAR 31 1997**

CAUTION — Extended use of this drawing copy may result in its inaccuracy due to subsequent design changes and drawing updates



VESSEL WELDS				NOTES
LINE	NO.	TYPE	CLASS	
1-10	1-10	SHOULDER TAPER END JOINT	CLASS II	
1-11	1-11	SHOULDER TAPER END JOINT	CLASS II	
1-12	1-12	SHOULDER TAPER END JOINT	CLASS II	
1-13	1-13	SHOULDER TAPER END JOINT	CLASS II	
1-14	1-14	SHOULDER TAPER END JOINT	CLASS II	
1-15	1-15	SHOULDER TAPER END JOINT	CLASS II	
1-16	1-16	SHOULDER TAPER END JOINT	CLASS II	
1-17	1-17	SHOULDER TAPER END JOINT	CLASS II	
1-18	1-18	SHOULDER TAPER END JOINT	CLASS II	
1-19	1-19	SHOULDER TAPER END JOINT	CLASS II	
1-20	1-20	SHOULDER TAPER END JOINT	CLASS II	

SUPPORT WELDS				NOTES
LINE	NO.	TYPE	CLASS	
1-21	1-21	SHOULDER TAPER END JOINT	CLASS II	
1-22	1-22	SHOULDER TAPER END JOINT	CLASS II	
1-23	1-23	SHOULDER TAPER END JOINT	CLASS II	
1-24	1-24	SHOULDER TAPER END JOINT	CLASS II	
1-25	1-25	SHOULDER TAPER END JOINT	CLASS II	
1-26	1-26	SHOULDER TAPER END JOINT	CLASS II	
1-27	1-27	SHOULDER TAPER END JOINT	CLASS II	
1-28	1-28	SHOULDER TAPER END JOINT	CLASS II	
1-29	1-29	SHOULDER TAPER END JOINT	CLASS II	
1-30	1-30	SHOULDER TAPER END JOINT	CLASS II	

NOZZLE WELDS				NOTES
LINE	NO.	TYPE	CLASS	
1-31	1-31	SHOULDER TAPER END JOINT	CLASS II	
1-32	1-32	SHOULDER TAPER END JOINT	CLASS II	
1-33	1-33	SHOULDER TAPER END JOINT	CLASS II	
1-34	1-34	SHOULDER TAPER END JOINT	CLASS II	
1-35	1-35	SHOULDER TAPER END JOINT	CLASS II	
1-36	1-36	SHOULDER TAPER END JOINT	CLASS II	
1-37	1-37	SHOULDER TAPER END JOINT	CLASS II	
1-38	1-38	SHOULDER TAPER END JOINT	CLASS II	
1-39	1-39	SHOULDER TAPER END JOINT	CLASS II	
1-40	1-40	SHOULDER TAPER END JOINT	CLASS II	

VESSEL BOLTING				NOTES
LINE	NO.	TYPE	CLASS	
1-41	1-41	SHOULDER TAPER END JOINT	CLASS II	
1-42	1-42	SHOULDER TAPER END JOINT	CLASS II	
1-43	1-43	SHOULDER TAPER END JOINT	CLASS II	
1-44	1-44	SHOULDER TAPER END JOINT	CLASS II	
1-45	1-45	SHOULDER TAPER END JOINT	CLASS II	
1-46	1-46	SHOULDER TAPER END JOINT	CLASS II	
1-47	1-47	SHOULDER TAPER END JOINT	CLASS II	
1-48	1-48	SHOULDER TAPER END JOINT	CLASS II	
1-49	1-49	SHOULDER TAPER END JOINT	CLASS II	
1-50	1-50	SHOULDER TAPER END JOINT	CLASS II	

NOTES

1. ALL WELDS SHALL BE MADE IN ACCORDANCE WITH THE WELDING PROCEDURE SPECIFICATION (WPS) AND QUALIFICATION RECORD (QR) FOR THE WELDING PROCESS AND MATERIALS TO BE USED.
2. ALL WELDS SHALL BE MADE BY WELDERS WHOSE QUALIFICATIONS HAVE BEEN VERIFIED BY THE WELDING SUPERVISOR AND APPROVED BY THE PROJECT ENGINEER.
3. ALL WELDS SHALL BE MADE IN ACCORDANCE WITH THE WELDING PROCEDURE SPECIFICATION (WPS) AND QUALIFICATION RECORD (QR) FOR THE WELDING PROCESS AND MATERIALS TO BE USED.
4. ALL WELDS SHALL BE MADE IN ACCORDANCE WITH THE WELDING PROCEDURE SPECIFICATION (WPS) AND QUALIFICATION RECORD (QR) FOR THE WELDING PROCESS AND MATERIALS TO BE USED.
5. ALL WELDS SHALL BE MADE IN ACCORDANCE WITH THE WELDING PROCEDURE SPECIFICATION (WPS) AND QUALIFICATION RECORD (QR) FOR THE WELDING PROCESS AND MATERIALS TO BE USED.

NO.	REVISION	DATE	BY	CHKD.
1	ISSUED FOR CONSTRUCTION	11/15/94	JAP	JAP
2	REVISED TO REFLECT WELD IDENTIFICATION	11/15/94	JAP	JAP
3	REVISED TO REFLECT WELD IDENTIFICATION	11/15/94	JAP	JAP
4	REVISED TO REFLECT WELD IDENTIFICATION	11/15/94	JAP	JAP
5	REVISED TO REFLECT WELD IDENTIFICATION	11/15/94	JAP	JAP
6	REVISED TO REFLECT WELD IDENTIFICATION	11/15/94	JAP	JAP
7	REVISED TO REFLECT WELD IDENTIFICATION	11/15/94	JAP	JAP
8	REVISED TO REFLECT WELD IDENTIFICATION	11/15/94	JAP	JAP
9	REVISED TO REFLECT WELD IDENTIFICATION	11/15/94	JAP	JAP
10	REVISED TO REFLECT WELD IDENTIFICATION	11/15/94	JAP	JAP

JAMES & FITZPATRICK NUCLEAR POWER PLANT
 I.D.I. - RHR HEAT EXCHANGER
 WELD IDENTIFICATION
 POWER DIVISION OF THE STATE OF NEW YORK

ENCLOSURE 14 - Page 1 of 1
 RHR Ht. Exch.
 Identification Drawing MSK-3037

Code Category C-C: Integral Attachments for Vessels, Piping, Pumps, and Valves

Item No. C3.10 Pressure Vessels (Integrally Welded Attachments)

Item No. C3.20 Piping (Integrally Welded Attachments)

Item No. C3.10 Pressure Vessels (Integrally Welded Attachments)

Relief is requested in accordance with the provisions of 10 CFR 50.55a (a)(3)(ii) from the full Code-required extent of surface examination for the RHR Heat Exchanger Pressure Vessels (Integrally Welded Attachments) listed in Table 15.

Examination Requirements

ASME Section XI requires 100% surface examination of this weld once per interval.

Basis for Relief

Complete inspection of the Code-required surface area utilizing a surface inspection method was not possible based on restricted accessibility due to the interferences of design. These welds are support lugs which are part of the rigid support structure that stabilizes the upper portion of the RHR Heat Exchanger. The lower portion of these lugs are restricted by an attached structural angle member frame which extends beyond the bottom edge of the lugs limiting access to these areas. This limiting condition restricts the access necessary to perform a magnetic particle inspection and the ability to use surface preparation equipment needed to prepare for liquid penetrant testing. In order to obtain full Code examination coverage on these components, it would require removal of the structural angle members and increase radiological exposure which would constitute a hardship and unusual difficulty for the sole purpose of providing access to obtain additional examination coverage. Partial code required coverage was obtained examining components SUP-1A, SUP-2A, SUP-3A, and SUP-4A using magnetic particle, liquid penetrant surface inspection methods and visual examination (VT-1). A visual inspection (VT-2) was performed during the pressure test (no leakage detected) which is conducted on these components every refuel outage in accordance with IWA-5000 and IWC-5000. Drawings and sketches which illustrate the restricted conditions encountered that limit examination coverage are included in Enclosure 15.

Proposed Alternative Examination

1. A supplemental visual inspection (VT-1) was performed on the inaccessible areas (lower portion) of these welds with no adverse or reportable conditions observed.
2. No additional examinations will be performed on these welds. The components listed in this relief request have been examined to the maximum extent practical.

Table 15

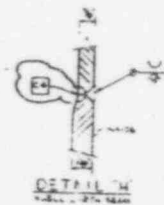
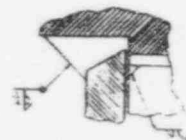
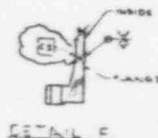
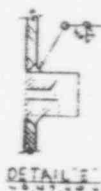
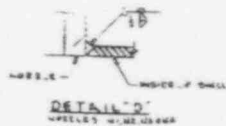
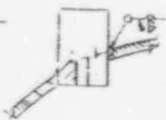
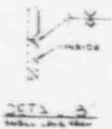
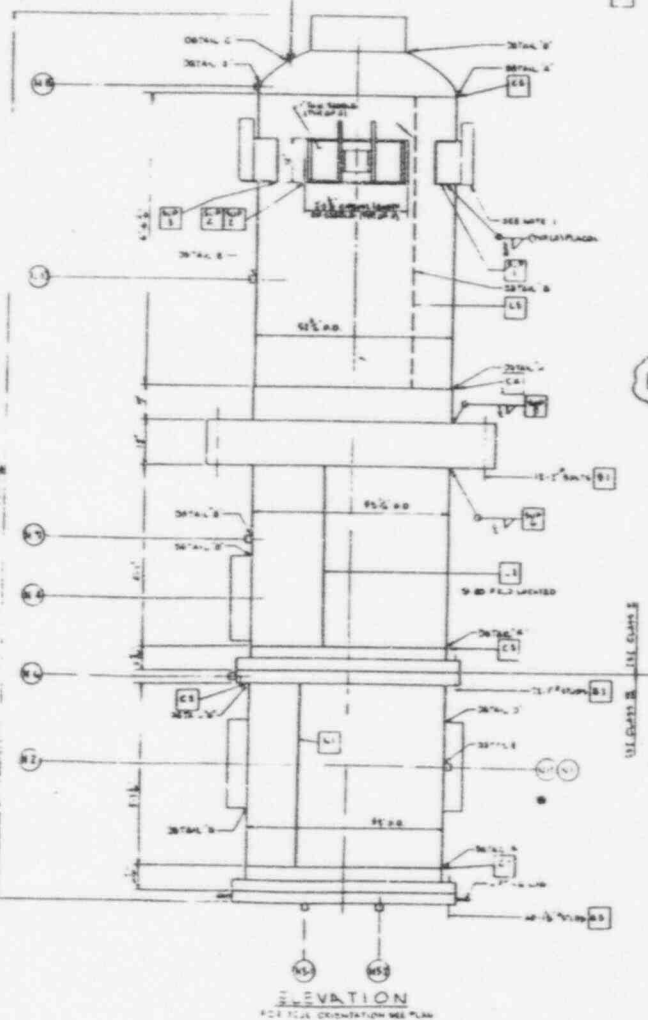
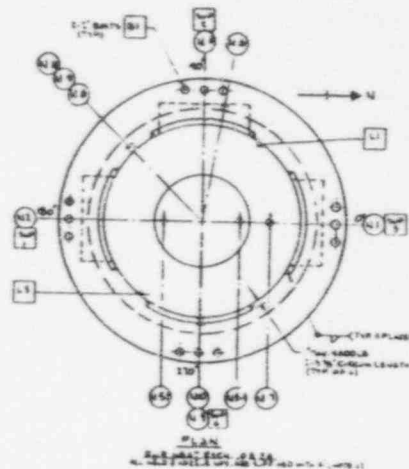
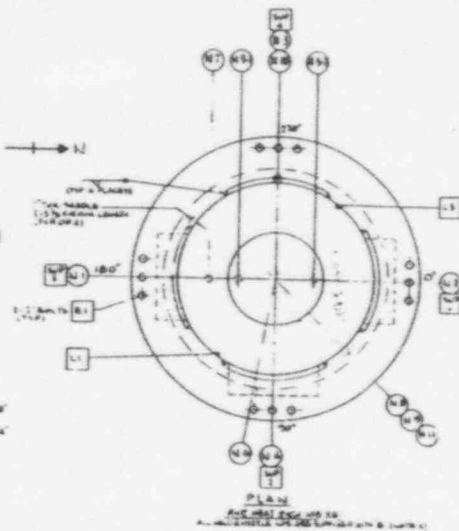
Code Category C-C / Item No. C3.10 (Integrally Welded Attachments)				
Component ID	System	Extent Examined	Limitations	Remarks
SUP-1A	RHR Heat Exchanger	Est. 70%	Whip Restraint Attached to Lug	See Enclosure 15
SUP-2A	RHR Heat Exchanger	Est. 83%	Whip Restraint Attached to Lug	See Enclosure 15
SUP-3A	RHR Heat Exchanger	Est. 81%	Whip Restraint Attached to Lug	See Enclosure 15
SUP-4A	RHR Heat Exchanger	Est. 80%	Whip Restraint Attached to Lug	See Enclosure 15

ENCLOSURE 15

UNCONTROLLED DRAWING

Copy Date MAR 31 1997

CAUTION - Extended use of this drawing copy may result in its inaccuracy due to subsequent design changes and drawing updates



VESSEL WELDS			
WELD	CLASS	TYPE	NOTES
W-100	D-B	1"	SMOOTH TAPER END - 100%
W-101	D-C	1"	SMOOTH TAPER END - 100%
W-102	D-D	1"	SMOOTH TAPER END - 100%
W-103	D-E	1"	SMOOTH TAPER END - 100%
W-104	D-F	1"	SMOOTH TAPER END - 100%
W-105	D-G	1"	SMOOTH TAPER END - 100%
W-106	D-H	1"	SMOOTH TAPER END - 100%
W-107	D-I	1"	SMOOTH TAPER END - 100%
W-108	D-J	1"	SMOOTH TAPER END - 100%
W-109	D-K	1"	SMOOTH TAPER END - 100%
W-110	D-L	1"	SMOOTH TAPER END - 100%

SUPPORT WELDS			
WELD	CLASS	TYPE	NOTES
W-111	D-B	1"	SMOOTH TAPER END - 100%
W-112	D-C	1"	SMOOTH TAPER END - 100%
W-113	D-D	1"	SMOOTH TAPER END - 100%
W-114	D-E	1"	SMOOTH TAPER END - 100%
W-115	D-F	1"	SMOOTH TAPER END - 100%
W-116	D-G	1"	SMOOTH TAPER END - 100%
W-117	D-H	1"	SMOOTH TAPER END - 100%
W-118	D-I	1"	SMOOTH TAPER END - 100%
W-119	D-J	1"	SMOOTH TAPER END - 100%
W-120	D-K	1"	SMOOTH TAPER END - 100%
W-121	D-L	1"	SMOOTH TAPER END - 100%

NOZZLE WELDS			
WELD	CLASS	TYPE	NOTES
W-122	D-B	1"	SMOOTH TAPER END - 100%
W-123	D-C	1"	SMOOTH TAPER END - 100%
W-124	D-D	1"	SMOOTH TAPER END - 100%
W-125	D-E	1"	SMOOTH TAPER END - 100%
W-126	D-F	1"	SMOOTH TAPER END - 100%
W-127	D-G	1"	SMOOTH TAPER END - 100%
W-128	D-H	1"	SMOOTH TAPER END - 100%
W-129	D-I	1"	SMOOTH TAPER END - 100%
W-130	D-J	1"	SMOOTH TAPER END - 100%
W-131	D-K	1"	SMOOTH TAPER END - 100%
W-132	D-L	1"	SMOOTH TAPER END - 100%

VESSEL BOLTING			
BOLT	CLASS	TYPE	NOTES
B-100	D-B	1"	SMOOTH TAPER END - 100%
B-101	D-C	1"	SMOOTH TAPER END - 100%
B-102	D-D	1"	SMOOTH TAPER END - 100%

NOTES
 1. ALL WELDS SHALL BE MADE IN ACCORDANCE WITH THE REQUIREMENTS OF THE ASME CODE FOR UNDESIGNED PRESSURE VESSELS, SECTION VIII, DIVISION 1, PART UG-83, UNLESS OTHERWISE SPECIFIED.
 2. ALL WELDS SHALL BE MADE BY A WELDER QUALIFIED TO THE REQUIREMENTS OF THE ASME CODE FOR UNDESIGNED PRESSURE VESSELS, SECTION VIII, DIVISION 1, PART UG-40, UNLESS OTHERWISE SPECIFIED.
 3. ALL WELDS SHALL BE MADE BY A WELDER QUALIFIED TO THE REQUIREMENTS OF THE ASME CODE FOR UNDESIGNED PRESSURE VESSELS, SECTION VIII, DIVISION 1, PART UG-40, UNLESS OTHERWISE SPECIFIED.

THIS DRAWING IS THE PROPERTY OF THE STATE OF NEW YORK

DATE	BY	CHECKED	APPROVED

JAMES S. FITZPATRICK, INC. ENGINEERING
 151 - RHR HEAT EXCHANGE WELD IDENTIFICATION
 PROJECT NO. MSK-3037

ENCLOSURE 15 - Page 1 of 1
 RHR Heat Exchanger Weld
 Identification Drawing MSK-3037

Item No. C3.20

Piping (Integrally Welded Attachments)

Relief is requested in accordance with the provisions of 10 CFR 50.55a (a)(3)(iii) from the full Code-required extent of surface examination for Piping (Integrally Welded Attachments) listed in Table 15A.

Examination Requirements

ASME Section XI requires 100% of required areas of each welded attachment.

Basis for Relief

Complete inspection of the Code-required surface volume for components listed in Table 15A is not possible based on restricted accessibility caused by interferences due to design limitations and/or support structures encountered when employing the surface inspection methods. Drawings and sketches which illustrate the restricted conditions encountered that limit examination coverage are included in Enclosure 15A.

Proposed Alternative Examinations

1. No additional surface examinations will be performed. These welds have been examined to the maximum extent practical.
2. A visual inspection (VT-2) was performed during the pressure test (no leakage detected) which is conducted on these components every refuel outage in accordance with IWA-5000 and IWC-5000.

Table 15A

Code Category C-C / Item No. C3.20 (Piping: Integrally Welded Attachments)				
Component ID	System	Extent Examined	Limitation	Remarks
12-10-697A	RHR	Approx. 50% ⁽¹⁾	Design	See Enclosure 15A
8-10-862B	RHR	80-90%	Pipe Support	See Enclosure 15A
20-10-889	RHR	Esst. 75%	Pipe Support	See Enclosure 15A
12-14-750A	Core Spray	86%	Concrete Wall	See Enclosure 15A

NOTE:

- (1) An approximate percentage of 50% for Code required coverage of Weld 12-10-697A is being used based on the outside surface being accessible for examination

ENCLOSURE 15A

BY W.H. DATE 1-18-92

SHEET 2 OF 2

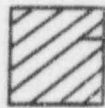
CHKD. BY CL DATE 2-5-92

OFS NO. _____ DEPT. NO. _____

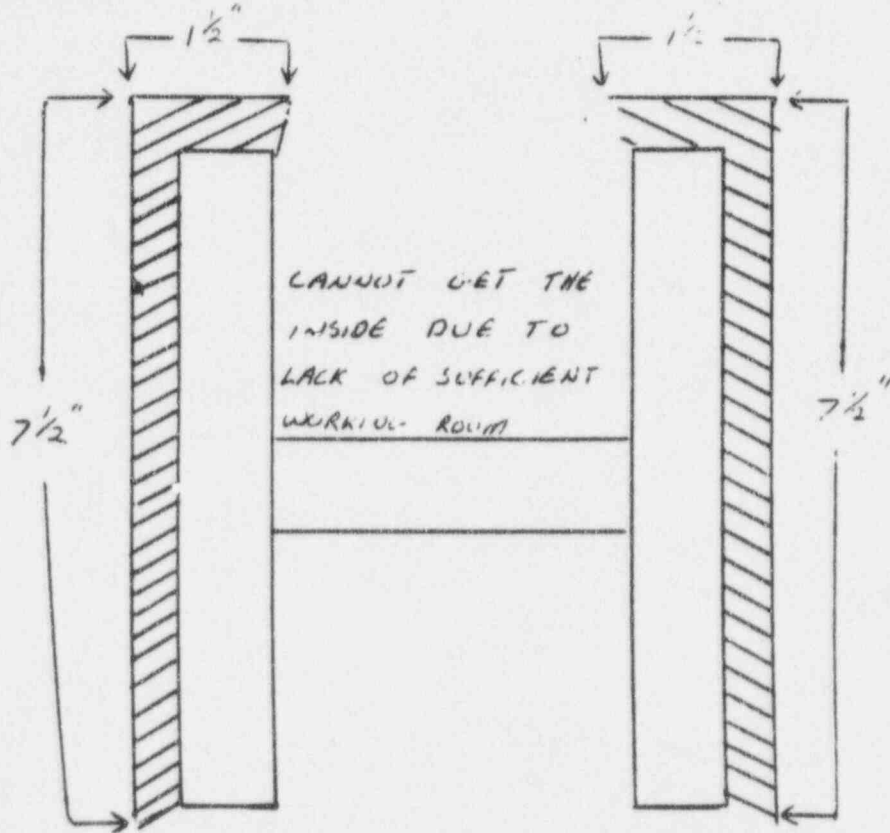
CLIENT NYPA

PROJECT J.A. FITZPATRICK

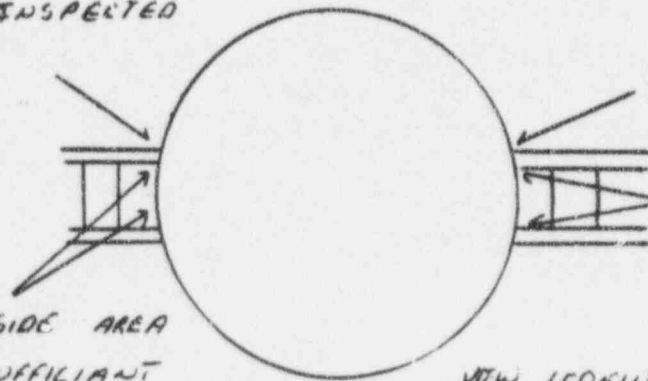
SUBJECT 12-10-697A DWG. # 11825 MSA-3007 REV 7



AREA INSPECTED BY M.T.



* OUTSIDE AREA INSPECTED WITH M.T.



* CANNOT MT INSIDE AREA DUE TO LACK OF SUFFICIENT WORKING ROOM.

VIEW LOOKING DOWN

Handwritten signature/initials

BY S. CROTHERS DATE 1-21-92

SHEET. 2 OF 2

CHKD. BY _____ DATE _____

OFS NO. N/A DEPT. NO. N/A

CLIENT N Y P A

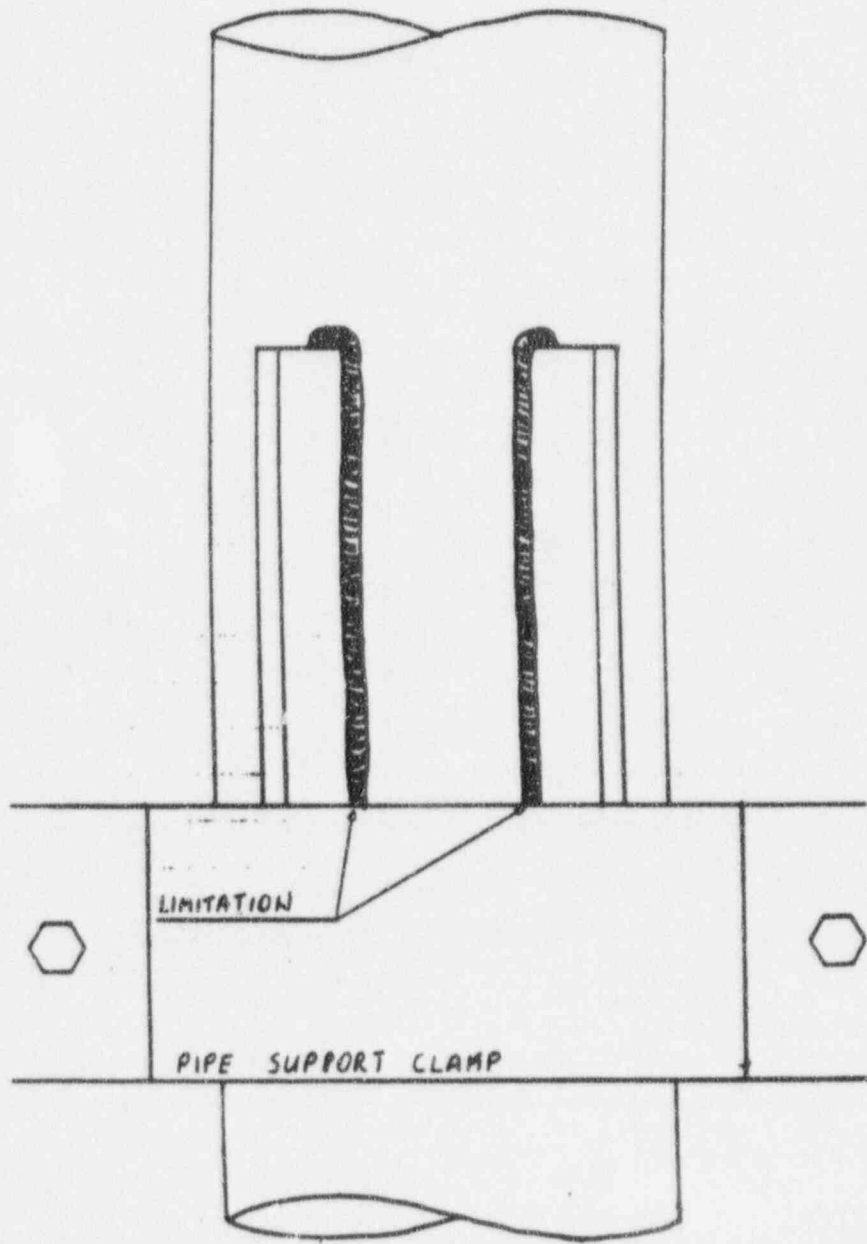
PROJECT J A FITZPATRICK

SUBJECT 8-10-862B

LIMITATION

INTEGRAL ATTACHMENTS ARE
IN CONTACT WITH PIPE SUPPORT

NOTE: THERE ARE FOUR INTEGRAL ATTACHMENTS



LIMITATION

PIPE SUPPORT CLAMP

ENCLOSURE 15A- Page 2 of 5

Weld # 8-10-862B

BY _____ DATE _____
CHKD. BY _____ DATE 4-23-90

SHEET 2 OF _____
DEPT. NO. _____

OFS NO. _____

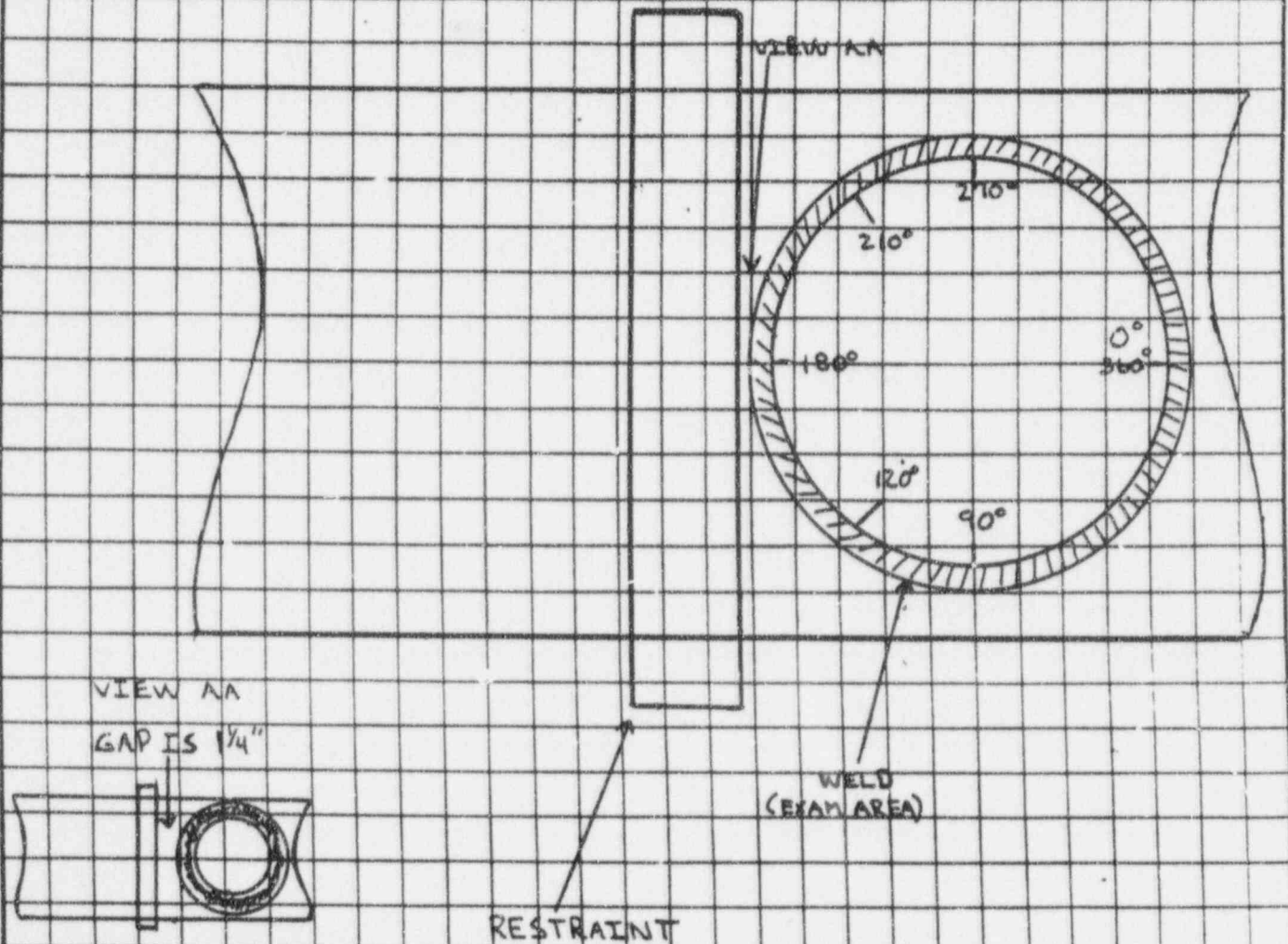
CLIENT _____

PROJECT _____

Weld # 20-10-889

SUBJECT _____

BOTTOM VIEW



DUE TO LOCATION OF RESTRAINT, FULL COVERAGE OF WELD WAS UNACHIEVABLE. AREA NOT COVERED IS 120° TO 210° EQUAL TO 7.1". EXAM WAS LIMITED IN BOTH DIRECTIONS

INSERVICE INSPECTION
MAGNETIC PARTICLE EXAMINATION REPORT

PROJECT Fitzpatrick 94 Refuel Outage		PROCEDURE JAF-MT-WB1-1	REVISION 2
COMPONENT OR SYSTEM Core Spray Dwg. MSK-3025		THICKNESS .594	TEMP 74°F
METHOD <input checked="" type="checkbox"/> DRY <input type="checkbox"/> WET		MAGNETIZATION TECHNIQUE <input checked="" type="checkbox"/> YOKE <input type="checkbox"/> COIL <input type="checkbox"/> DIRECT CONTACT	
EQUIPMENT MANUFACTURER Magnaflux		MODEL Y6	
SERIAL NO. 192	CURRENT TYPE <input checked="" type="checkbox"/> AC <input type="checkbox"/> DC	AMPERAGE N/A	NO. OF COIL TURNS N/A
PARTICLES MANUFACTURER Magnaflux Batch No 9411063		TYPE 8A	COLOR Red

COMPONENT/WELD	INDICATION		LOCATION OF INDICATION (Use Sketch Sheet if Necessary)	REMARKS
	NONE	LENGTH (INCH)		
Core Spray 12-14-750A	X	N A	N A	N.R.I. (i.e. Acceptable) Note: one area of 10" in length inaccessible due to an obstruction caused by the concrete wall. See attached sktch.
EVALUATION: PT WAS ATTEMPTED ON 10" OF INACCESSIBLE AREA, BUT DUE TO CLOSE PROXIMITY OF WALL, ADEQUATE SURFACE PREP. WASN'T ACHIEVABLE. THEREFORE, SUPPLEMENTAL VT-1 WAS PERFORMED. SEE REPORT # JAF-VT-005.				
TOTAL WELD LENGTH = 72"				
TOTAL EXAMINED = 62" N A				
% COMPLETE = 96.1%				
SEE JAF-ISI-INT-013.				
M.O. <u> </u> Lv. III 12/15/94				

ENCLOSURE 15A- Page 4 of 5

Weld # 12-14-750A

EXAMINER WARREN SOBOLINSKI EXAMINER <i>Warren Sobolinski</i>	LEVEL II	DATE 12-2-94
REVIEWED BY <i>[Signature]</i>	LEVEL I	DATE 12-2-94
<i>[Signature]</i> - Lv. III	REPORT NO. JAF-MT-007	DATE 12/3/94

W. S. Sobolinski 1-3-95

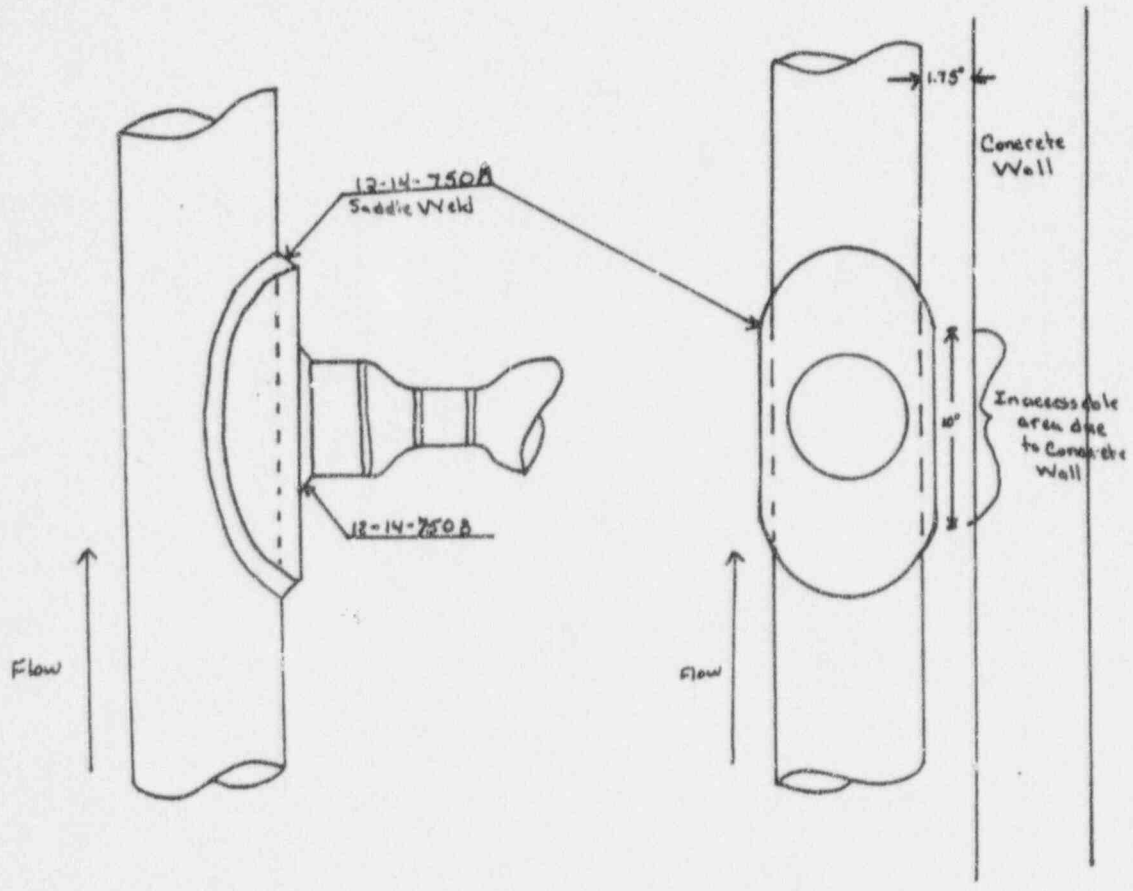
Raytheon
Engineers & Constructors

BY J. Miller DATE 12-2-94
CHKD. BY MO DATE 12/3/94
CLIENT NYPA

JAF-MT-007 SHEET 2 OF 2
OFS NO. 6100 DEPT. NO. 2542

PROJECT Fitzpatrick 94 Refuel Outage
SUBJECT Inaccessible area due to concrete wall

DWG. MSK 3022 MO 12-3-94
Comp. 12-14-750 Core spray
750A



ENCLOSURE 15A- Page 5 of 5

Weld # 12-14-750A

MO 12/3/94

Code Category C-F/CG: Pressure Retaining Welds in Piping, Pumps, and Valves in Systems Which Circulate Reactor Coolant.

Item No. C2.1
Item No. C2.3

Piping (Circumferential Butt Welds)
Piping (Branch Pipe-to-Pipe Weld Joints)

Item No. C2.1 Piping (Circumferential Butt Welds)

Relief is requested in accordance with the provisions of 10 CFR 50.55a (a)(3)(iii) from the full Code-required extent of surface and/or volumetric examination for Circumferential Butt Welds listed in Table 16.

Examination Requirements

ASME Section XI, 1980 Edition through Winter 1981 Addenda, requires the lower 1/4t of the weld examined volumetrically up to and including adjacent base metal 1/4" from the weld toe on either side of the weld. Surface examinations requires the weld inspection and includes 1/2" on either side of the weld toe.

Basis for Relief

Complete inspection of the Code-required volume for components listed in Table 16 is not possible based on restricted access caused by permanent interference such as saddle welds, and integrally welded supports.

Proposed Alternative Examination

1. No additional volumetric examinations will be performed. These welds have been examined to the maximum extent practical.
2. A visual inspection (VT-2) was performed during the pressure test (no leakage detected) which is conducted on these components every refuel outage in accordance with IWA-5000 and IWC-5000.

Table 16

Code Category C-F / Item No. C2.1				
Component ID	System	Extent Examined	Limitation	Remarks
20-10-227	RHR	50-60%	Saddle Weld Interference	Limitation applies to Sur & Vol. Exams
16-10-565	RHR	70-80%	Integrally Welded Attachment	Limitation applies to Sur. Exam Only
16-10-643	RHR	Est. 70-80%	Integrally Welded Attachment	Limitation applies to Sur. Exams Only
16-10-644	RHR	Est. 70-80%	Integrally Welded Attachment	Limitation applies to Sur. Exams Only

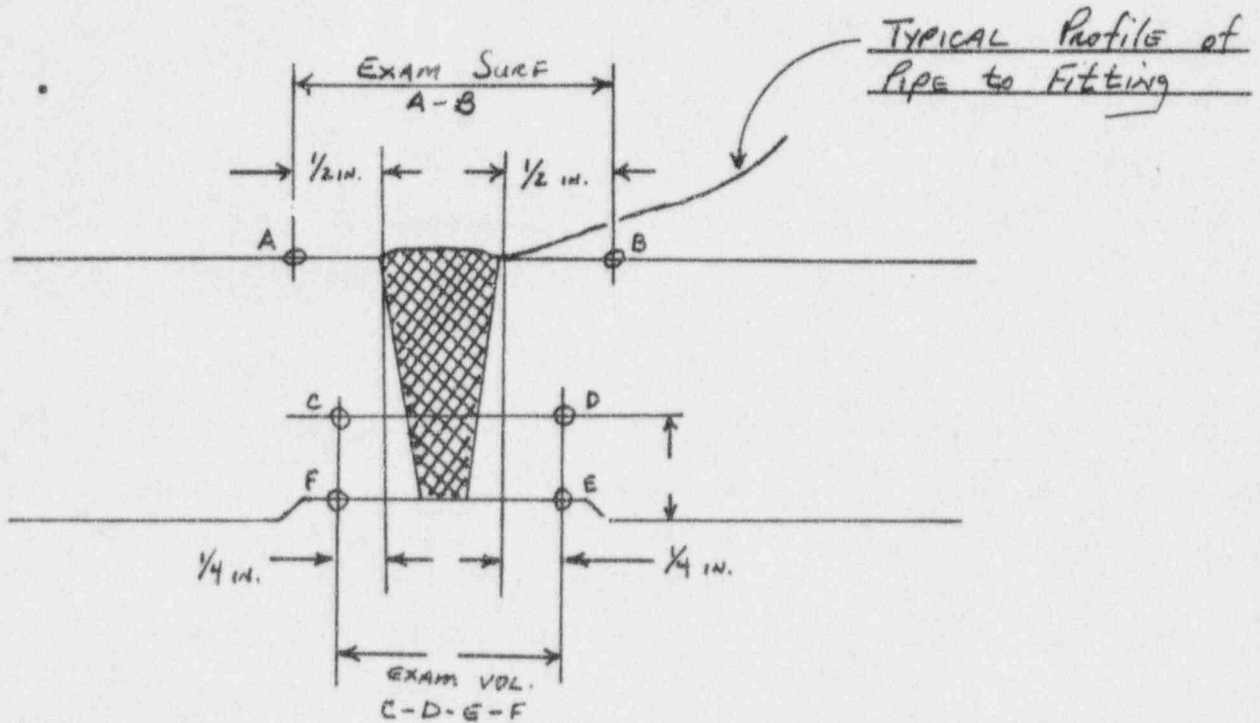
ENCLOSURE 16

Welds in Piping

Code Category C-F & C-G

Greater Than 1/2 in. Thickness

Code Required Coverage



Coverage Achieved for a Specific Weld or Component is Designated in Table 16 - Extent Examined

FIGURE 1

Code Category C-G:

Pressure Retaining Welds in Piping, Pumps and Valves in Systems Which Circulate Other Than Reactor Coolant

Item No. C2.3

Branch Pipe-to-Pipe Weld Joints

Relief is requested in accordance with the provisions of 10 CFR 50.55a (a)(3)(iii) from the full Code-required extent of surface and/or volumetric examination for Branch Pipe-to-Pipe Weld Joints listed in Table 17.

Examination Requirements

ASME Section XI, 1980 Edition through Winter 1981 Addenda, requires the lower 1/3 of the weld examined volumetrically up to and including adjacent base metal 1/4" from the weld toe on either side of the weld. Surface examinations requires the weld inspection and includes 1/2" on either side of the weld toe.

Basis for Relief

Complete inspection of the Code-required volume for components listed in Table 17 is not possible based on restricted accessibility caused by interference from a socket weld drain line connection and an adjacent support structure.

Proposed Alternative Examination

1. No additional volumetric examinations will be performed. These welds have been examined to the maximum extent practical.
2. A visual inspection (VT-2) was performed during the pressure test (no leakage detected) which is conducted on these components every refuel outage in accordance with IWA-5000 and IWC-5000.

Table 17

Code Category C-G / Item No. C2.3				
Component ID	System	Extent Examined	Limitation	Remarks
16-14-709	Core Spray	50% ⁽¹⁾	Adjacent Support Structure	Limitation applies to Surf. Exam Only
14-23-461	HPCI	Est. 80-90%	4" Socket Weld	Limitation applies to Surf. And Vol. Exams

NOTE:

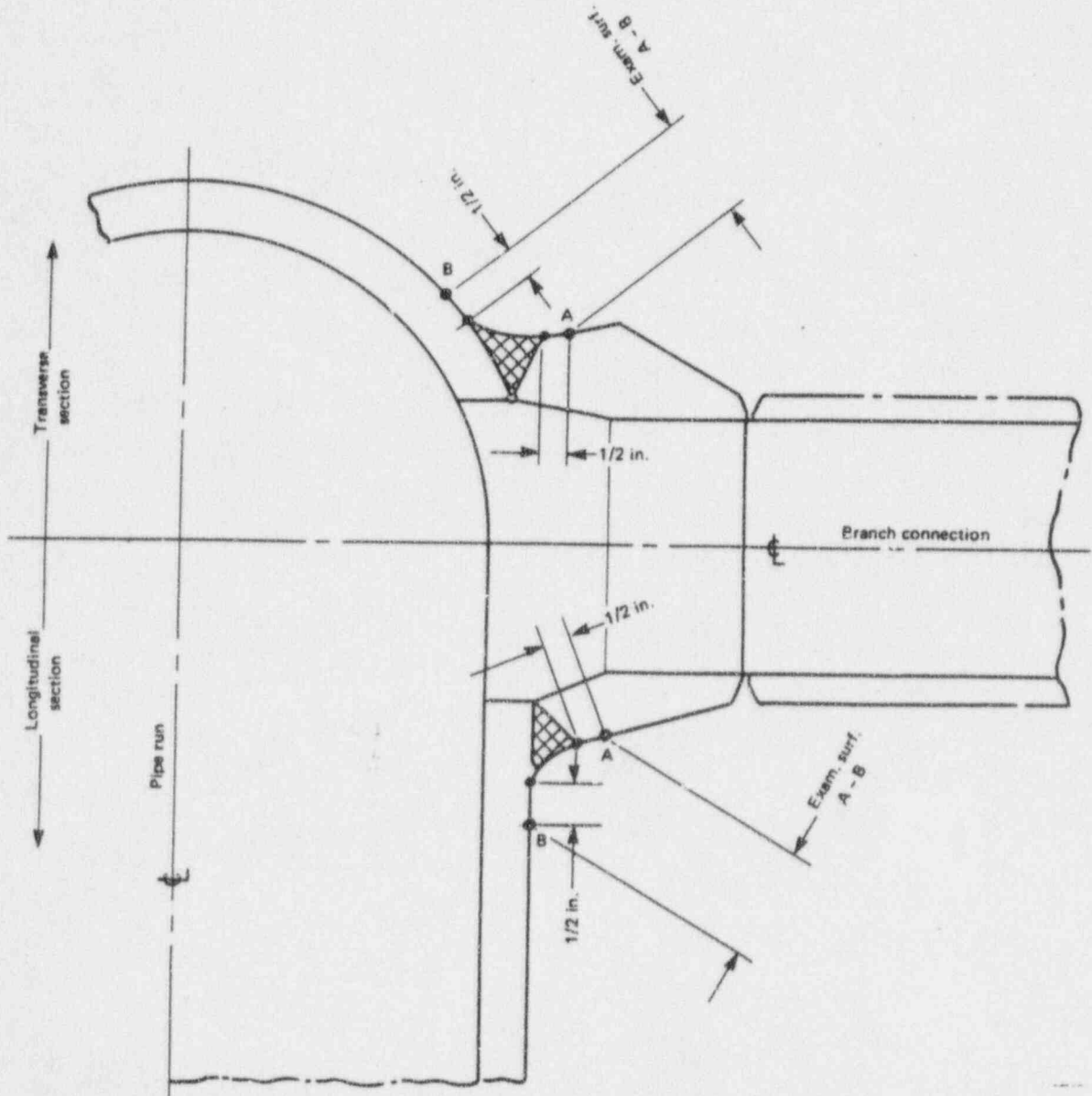
- (1) Credited examination volume of 50% for Weld 16-14-709 is based on a one-sided access inspection. No credit is taken for partial examination coverage on the support structure side of the weld.

ENCLOSURE 17

Branch Connection Welds

Code Category C-F & C-G

Code Required Coverage



Coverage Achieved for a Specific Weld or Component is Designated in
Table 17 - Extent Examined

FIGURE 1

Code Category C-H:

All Pressure Retaining Components

Code Category D-A/ D-B/ D-C:

Pressure Retaining Boundary

Item No(s):

All

Relief is requested from the ASME Section XI Code requirements for Code Category C-H and D-A, D-B and D-C for pressure test surveillances that were not completed during the second period of the 2nd ISI Interval. The NRC was previously notified of this discrepancy via Licensee Event Report 92-022.

Pressure testing of the Standby Liquid Control (ISI Class 2), Emergency Service Water (ISI Class 3) and Fuel Pool Cooling (ISI Class 3) systems was not performed during the first inspection period in accordance with the ASME Code edition applicable to the FitzPatrick plant at that time. The pressure tests used 10-minute hold times, recognized by later editions of the Code, instead of the required four-hour hold time. These tests were completed in the 2nd and 3rd periods of the 2nd Interval as required by Code.

Root causes were completed and documented in the 1992 time frame and all pressure tests except those noted above were completed. An assessment was also completed by an outside consultant in late 1995 to ensure all tests scheduled for the remainder of the interval were completed or being tracked to completion. All required tests for Code Categories B-P, C-H and D-A, D-B and D-C have been completed except those noted above.

In addition, the following programmatic improvements were initiated to ensure that no tests would be missed in the future:

1. A procedure was developed, Plant Standing Order 31B, which defined responsibilities for the ISI Pressure Test Program. This also included improvements in the Post-Work Test Program, currently AP-19.02.
2. A basis document was developed for use by Engineering and Operations personnel which clearly defined the system boundaries for each ISI system. The report # JAF-RPT-MISC-00658 has been revised three times to include guidance for personnel and for the inclusion of various NRC approved relief requests and code cases approved for use in NRC Regulatory Guide 1.147.

In summary, three tests were not completed as required by ASME Section XI Code requirements. Subsequent testing was completed in the 2nd and 3rd periods for these tests. Programmatic improvements have been initiated to prevent recurrence of this event.

Code Category C-H:

Code Category D-A/D-B/D-C:

All Pressure Retaining Components

Pressure Retaining Boundary

Item No(s):

All

Relief is requested from the ASME Section XI Code requirements for Code Category C-H and D-A, D-B and D-C for pressure test surveillances that were not completed during the second period of the 2nd ISI Interval. The NRC was previously notified of this discrepancy via Licensee Event Report 92-022.

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In summary, three tests were not completed as required by ASME Section XI Code requirements. Subsequent testing was completed in the 2nd and 3rd periods for these tests. Programmatic improvements have been initiated to prevent recurrence of this event.

ASME SECTION XI
IWE/IWL Containment Repair & Replacement Rule

The Authority submitted a request for relief from the primary containment repair and replacement provisions in the 1992 Edition of ASME Section XI, Subsection IWE on November 26, 1996 (Reference 1). The NRC issued Information Notice 97-29 (Reference 2) to provide guidance to licensees concerning the content of these relief requests. Subsequently, the NRC requested additional information regarding the JAF relief request (Reference 3). The following information supplements Reference 1 and provides the information requested by Reference 3.

**Supplement to JAF Relief Request Regarding Implementation
Schedule for Containment Repair/Replacement Requirements**

Explanation of Hardship Imposed By Final Rule

The Authority initially requested (Reference 1) the implementation of the repair and replacement provisions of the 1992 Section XI, Subsections IWE and IWL be deferred by one year from September 9, 1996 to September 9, 1997. A relief from the NRC to defer the implementation of the Code provisions would allow the Authority sufficient time to provide appropriate resources to train necessary personnel and implement a containment repair/replacement program.

The JAF ISI program for Class 1, 2, and 3 components and their supports is based on ASME Section XI, 1980 Edition with Addenda through Winter 1981. The classification of systems and their components is based on requirements in 10 CFR 50.55 (a) and Regulatory Guide 1.26. The 1992 Edition including the Addenda IWE-1220 (d) requires that all piping, pumps, and valves that are part of the containment system, or which penetrate or are attached to the containment vessel, be examined in accordance with the rules of IWB or IWC. This would require the portion of piping systems (up to the first isolation on either side of the containment) that penetrates the containment be upgraded to either ISI Class 1 or Class 2 for the purpose of examination for any repair/replacement activities. Implementation of the rule requires: identification and re-classification of the applicable ISI boundaries for engineering, design and planning personnel (drawing development, preparation, and issuance); revision of applicable plant programs and procedures related to maintenance and modification work packages preparation; and review and/or revision of all work packages prior to the start of the Fall 1996 refueling outage to determine the potential impact of the activity relative to repair and replacement rules implemented by the Code in Subsections IWE and IWL. Since the rule became effective on September 9, 1996, enough time was not available to implement these new provisions prior to the start of the Fall 1996 refueling outage.

Similarly, the ISI program defines the VT-1 and VT-3 examinations and includes all factors necessary to qualify the examiners and assure the examinations are performed to the highest quality levels (in accordance with the ASME Section XI, 1980 Edition up to and including the 1981 Winter Addenda and 1980 Edition of SNT-TC-1A). The imposition of 1992 Code requirements (ANSI/ASNT CP-189, 1991 Edition) for containment would necessitate a separate administrative program including procedures, certification tests and record keeping requirements,

which would merely parallel the existing program with no benefit to quality. The existing program is the same as used on the reactor vessel and other Class 1 components, and continues to prove effective. Implementing and maintaining two separate programs for similar inspections is a significant burden at this time to the Authority, and would not provide a compensatory increase in the level of quality and safety.

The Authority understands that the lack of properly qualified inspectors is an industry-wide situation. Although the qualification of the authorized inspector is the responsibility of the authorized inspection agency, the Authority has encouraged Arkwright (the third party inspection agency for FitzPatrick) to obtain any additional qualification that would be required to implement Subsections IWE and IWL. In the interim, the Authority will continue to address any containment repair (or restoration) issues in accordance with its corrective action program. Experienced individuals will be utilized to inspect, evaluate, and perform the required repair/replacement activities.

JAF entered a refueling outage at the end of October 1996. The date of the final rule, and implementation date, for the containment repair/replacement provisions was September 9, 1996. A revision to the FitzPatrick ASME Section XI Repair/Replacement program prior to the outage to incorporate the provisions of the 1992 ASME Section XI, Subsections IWE and IWL would have had a significant negative impact on the outage schedule. A significant diversion of resources would have been required for: reviewing all outage related modifications and maintenance repair/replacement activities and the thousands of associated outage work packages (many were initiated prior to the issuance of the rule change) for potential impact of the planned activities relative to repair and replacement rules implemented by the Code in Subsections IWE/IWL; training of maintenance, engineering and design personnel; training and qualification of NDE personnel; review, preparation and incorporation of a repair/replacement program to the 1992 Code requirements; and review and revision of ISI class boundary documents (drawing development, preparation and issuance). These activities would have required significant resources, but would not have resulted in a compensatory increase in the level of quality and safety.

The Authority has implemented the following actions toward the development and implementation of a containment repair/replacement program in accordance with the provisions of the 1992 Section XI, Subsections IWE/IWL: a responsible individual from the engineering programs group (ISI Containment Coordinator), QA personnel and civil/structural engineers have attended a training class on the subject Code requirements; action items have been generated and assigned to responsible individuals to incorporate the requirements of IWE/IWL into the JAF ISI program, and to develop a containment repair/replacement program by September 1997 which is contingent on the approval of this Relief Request; and a general walkdown and video taping of the inside exposed surfaces of the containment is planned in preparation for the general visual inspection to be performed prior to September 2001, as required under IWE-1231.

Proposed Alternative Requirements

The containment, including its components, containment penetrations and the associated process lines that pass through these penetrations up to the first isolation, are designed to QA Category I

and Seismic Class 1 requirements. A listing of the applicable codes and regulations for the primary containment are listed in FSAR Section 16.7.3.2.2. All repair/replacement (R/R) activities, including those for the containment, are controlled by various administrative and implementation procedures. The following are examples of these procedures:

- A) Modification Control Manual Procedures which control the engineering and design processes of plant modifications, such as:
- MCM-3A, Modification Package Preparation Review and Approval,
 - MCM-4, Nuclear Safety and Environmental Impact Screens and Nuclear Safety Evaluations;
 - MCM-5A, Minor Modification Package Preparation, Review and Approval; and
 - MCM-14A, Type 1 Change (JAF).
- B) Station Administrative Procedures (AP) which establish control on the planning, work control, quality assurance, and implementation of work packages associated with the repair/replacement activities, such as:
- AP-05.14, ASME Section XI Repair/Replacement Program;
 - AP-10.01, Problem Identification and Work Control;
 - AP-10.03, Work Package Planning; and
 - AP-18.01, Quality Assurance Program Implementation at JAF.

These procedures, together with other lower level implementation procedures, ensure any containment related activities meet or exceed the original design criteria. Our QA personnel are also involved with all containment related R/R activities. The examination requirements for containment related repair/replacement activities in many cases are actually more stringent than are required under the provisions of 1992 IWE (VT-1 or VT-3). Therefore, deferral of the implementation date for the repair and replacement provisions of the 1992 ASME Code will not compromise the structural integrity of the containment, and is consistent with maintaining the continued health and safety of the public.

References

1. NYPA letter, W. J. Cahill, Jr. to NRC (JPN-96-050), "Request for Relief From ASME Section XI Code Regarding Implementation Schedule For Containment Repair/Replacement Requirements," dated November 26, 1996.
2. NRC Information Notice 97-29, "Containment Inspection Rule," dated May 30, 1997.
3. NRC letter, Karen R. Cotton to James Knubel, "Request for Additional Information Regarding Relief Request From Implementation of 10 CFR 50.55a Related to Containment Repair/Replacement Requirements - James A. FitzPatrick Nuclear Power Plant (TAC No. M98061), dated June 25, 1997.