

REPORT NUMBER NIS-1-00009

INSERVICE INSPECTION SUMMARY REPORT
FOR
GRAND GULF NUCLEAR STATION UNIT 1
BALD HILL ROAD
PORT GIBSON, MS. 39150
COMMERCIAL OPERATING DATE: JULY 1, 1985

OWNER/OPERATOR

ENERGY OPERATIONS, INC.

ECHELON ONE

P.O. BOX 31995

JACKSON, MS. 39286-1995

PREPARED BY

EQ Burton

RESP. ENG. (ISI)

REVIEWED BY

AmP

TESTING/INSPECTION
PROGRAMS SUPERVISOR

APPROVED BY

R. Adams

ENG. SUPPORT SUPT.



ENERGY

DOCUMENT COMPLETION DATE

9/2/82



INTRODUCTION

The Inservice Inspections performed between November 27, 1990 and June 9, 1992 were conducted, unless otherwise noted, in accordance with the 1977 Edition of the ASME Boiler and Pressure Vessel code Section XI, through and including the summer of 1979 Addenda, with Relief / Relaxation Paragraphs specified in the Ten Year Plan for Grand Gulf Nuclear Station, (GGNS) Unit 1, (SERI-M-489.1). In addition, the GGNS Unit 1 Inservice Inspection Plan is in compliance with the following Regulatory Guides, IE Bulletins, NUREG, Standard Review Plans, and Code Cases:

Regulatory Guide 1.147, Rev.5	Inservice Inspection Code Case Acceptability ASME Section XI, Division 1
Regulatory Guide 1.130, Rev.1	Ultrasonic Testing of Reactor Vessel Welds during Preservice and Inservice Inspection.
NUREG 0619, Rev.1	BWR Feedwater Nozzle and Control Rod Drive Return Nozzle Cracking.
IE Bulletin No. 79-17, Rev.1	Piping Cracks in Stagnant Borated Water Systems in Power Plants.
IE Bulletin No. 80-07	BWR Jet Pump Assembly Failure.
IE Bulletin No. 80-13	Cracking in Core Spray Spargers.
SRP 3.62	Determination of Break Location and Dynamic Effect Associated with Postulated Rupture of Piping.
Code Case N-307-1	Revised Ultrasonic Examination Volume for Class 1 Bolting Table IWB-2500, Examination Category B-G-1, When Examinations are Conducted from the Centered-Drilled Holes, Section XI, Division 1.

INTRODUCTION (Continued)

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|----------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Code Case N-335 | Rules for Ultrasonic Examination of Similar and Dissimilar Metal Piping Welds |
| Code Case N-343 | Alternative Scope of Examinations of Attachment Welds for Examination Categories B-H, B-K-1, and C-C of ASME Section XI, Division 1. |
| Code Case N-356 | Certification Period for Level III NDE Personnel Section XI, Divisions 1, 2, and 3. |
| Code Case N-426 | Extent of VT-1 Examinations, Category B-G-2 of Table IWB-2500-1 Section XI, Division 1. |
| Code Case N-427 | Code Cases in Inspection Plans Section XI, Division 1. |
| Code Case N-435-1 | Alternative Examination Requirements for Vessels with Wall Thickness 2 in. or Less Section XI, Division 1. |
| Code Case N-460 | Alternative Examination Coverage for Class 1 and 2 Welds Section XI, Division 1. |
| Code Case N-461 | Alternative Rules for Piping Calibration Block Thickness Section XI, Division 1. |
| Generic Letter 88-01 | NRC Position on IGSCC in BWR Austenitic Stainless Steel Piping. |

INTRODUCTION (Continued)

During the course of the examinations, Entergy Operations, Inc. controlled the examination activities through our established programs. Actual examinations were either performed by Entergy Operations Quality Programs Inspectors working to GGNS procedures or contractor inspectors working to GGNS procedures or procedures approved for use by Entergy Operations. Arkwright Mutual Insurance Company served as the authorized inspection agency as defined in IWA-2130. By this arrangement, Arkwright Mutual Insurance Company reviewed the applicable procedures, examined personnel certification records, witnessed selected inspections, and checked for general code compliance as specified by IWA-2120.

This report is being presented as one volume divided into several sections as necessitated by the degree of detail required by IWA-6220. Refer to the table of contents for section titles. Section I contains the NIS-1 form for the Reactor Pressure Vessel and Piping Pressure Boundary Welds, Components, and Component Supports. Section II contains a Class 1, 2, and 3 Code Category Summary. Section III contains drawings / isometrics applicable to the components inspected. Section IV contains a copy of all approved Relief Requests referred to in the NIS-1 form. Section V contains abstracts for ASME Class I and II repairs and replacements performed during the time frame of this report. Section VI of the report contains abstracts for ASME Class III repairs and replacements performed during the time frame of this report; however their submittal to the U. S. Nuclear Regulatory Commission is not required and therefore these abstracts are not attached.

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INSERVICE INSPECTION SUMMARY REPORT

FOR

GRAND GULF NUCLEAR STATION UNIT 1
SECTION 1

(NIS-1 FORM)

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FORM NIS-1 OWNER'S DATA REPORT FOR INSERVICE INSPECTION
As required by the provisions of the ASME Code Rules
NIS-1-00009
Page 2 of 126

1. OWNER: ENERGY OPERATIONS INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF REQUIRED): NA
5. COMMERCIAL SERVICE DATE 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
8. EXAMINATION DATES 11/27/90 to 06/09/92 9. INSPECTION INTERVAL 07/01/85 to 7/01/95
10. ABSTRACT OF EXAMINATIONS INCLUDE A LIST OF EXAMINATIONS AND A STATEMENT CONCERNING STATUS OF WORK REQUIRED FOR THE CURRENT INTERVAL. (SEE SUPPLEMENTAL SHEETS)
11. ABSTRACT OF CONDITIONS NOTED. (SEE SUPPLEMENTAL SHEETS)
12. ABSTRACT OF CORRECTIVE MEASURES RECOMMENDED AND TAKEN. (SEE SUPPLEMENTAL SHEETS)

We certify that the statements made in the report are correct and the examinations and corrective measures taken conform to the rules of the ASME Code, Section XI.

Date 8/26 1992

Signed ENERGY OPERATIONS, INC. by [Signature]
(Owner)

Certificate of Authorization No. (if applicable) NA Expiration Date NA

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of Mississippi and employed by Arkwright Mutual/Mutual Boiler Division of Norwood, Mass. have inspected the components describe in this Owner's Data Report during the period 11/27/90 to 06/09/92 and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Data Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 8/26 1992

[Signature]
Inspector's Signature

Commissions Ms. 400
National Board, State, Province and No.

1: OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31925, JACKSON, MS, 39286-1995
2: PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS, 39150
3: PLANT UNIT: ONE 4: OWNER CERTIFICATE OF AUTHORIZATION (IF REQUIRED) NA
5: COMMERCIAL SERVICE DATE: 07/01/85 6: NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

RESOLUTION OF OPEN ITEMS IDENTIFIED IN NIS-1-00008

CODE CATEGORY B-J

CODE ITEM NUMBER B9.11

ITEM: WELD

<u>I. D. Number</u>	<u>Reported on NIS-1 00008</u>	<u>Resolution</u>
1B21G030W23	Alternate Calibration Blocks Used Ref. QDR# 0259-90	Accept As-Is Ref. QDR# 0259-90, Code Case N-461
1B21G030W36	Alternate Calibration Blocks Used Ref. QDR# 0259-90	Accept As-Is Ref. QDR# 0259-90, Code Case N-461
1B21G026W17	Alternate Calibration Blocks Used Ref. QDR# 0259-90	Accept As-Is Ref. QDR# 0259-90, Code Case N-461

Note: Section XI Credit was taken in Period 2 (NIS-1-00008)

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1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
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-

RESOLUTION OF OPEN ITEMS IDENTIFIED IN NIS-1-00008

CODE CATEGORY C-F

CODE ITEM NUMBER C5.11

ITEM: WELD

1B21G030W19	Alternate Calibration Blocks Used Ref. QDR# 0259-90	Accept As-Is Ref. QDR# 0259-90, Code Case N-461
1B21G030W35	Alternate Calibration Blocks Used Ref. QDR# 0259-90	Accept As-Is Ref. QDR# 0259-90, Code Case N-461
1B21G030W57	Alternate Calibration Blocks Used Ref. QDR# 0259-90	Accept As-Is Ref. QDR# 0259-90, Code Case N-461
1B21G030W43	Alternate Calibration Blocks Used Ref. QDR# 0259-90	Accept As-Is Ref. QDR# 0259-90, Code Case N-461
1B21G030W31	Alternate Calibration Blocks Used Ref. QDR# 0259-90	Accept As-Is Ref. QDR# 0259-90, Code Case N-461
1B21G030W32	Alternate Calibration Blocks Used Ref. QDR# 0259-90	Accept As-Is Ref. QDR# 0259-90, Code Case N-461

Note: Section XI Credit was taken in Period 2 (NIS-1-00008)

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-

RESOLUTION OF OPEN ITEMS IDENTIFIED IN NIS-1-00008

CODE CATEGORY C-F

CODE ITEM NUMBER C5.11

ITEM: WELD

<u>I. D. Number</u>	<u>Reported on NIS-1 00008</u>	<u>Resolution</u>
1B21G030W69	Alternate Calibration Blocks Used Ref. QDR# 0259-90	Accept As-Is Ref. QDR# 0259-90, Code Case N-461
1B21G030D100B-4	Alternate Calibration Blocks Used Ref. QDR# 0259-90	Accept As-Is Ref. QDR# 0259-90, Code Case N-461
1B21G030D100B-5	Alternate Calibration Blocks Used Ref. QDR# 0259-90	Accept As-Is Ref. QDR# 0259-90, Code Case N-461

Note: Section XI Credit was taken in Period 2 (NIS-1-00008)

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-

10. ABSTRACT OF EXAMINATIONS (Reactor Pressure Vessel - RPV)

The following is a summary of the results of Inservice Inspection (ISI) conducted on the Grand Gulf Nuclear Station, Unit 1, Reactor Pressure Vessel (RPV). The summary is itemized by the applicable code categories described in Table IWB-2500-1 of the ASME Section XI, 1977 Edition, with addenda through and including Summer 1979. GGNS is also committed to meeting the requirements of Regulatory Guide 1.150, Rev.1 for Inservice Inspection, although Regulatory Guide 1.150 was not applicable during the GGNS pre-service. The term "Recordable Indications" (Rec. Ind.) refers to geometric and non-geometric indications which had amplitudes (for ultrasonic examination methods) or dimensions (for surface examination methods) exceeding the recording criteria of the examination procedures used. This should not be confused with the term "Reportable Indications" (Rep. Ind.) as defined by Regulatory Guide 1.150.

The term "Rejectable Indications" (Rej. Ind.) refers to indications/exams not meeting the acceptance criteria of Section XI.

When the term "visual exam" is used, it will designate a VT-1, VT-3, or VT-4 is performed.

In addition to the ASME Code requirements, there are certain areas in which augmented examinations were performed. These welds require a more frequent examination as specified by NUREG-0313 (Generic Letter 88-01) or NUREG-0619.

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1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
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-

10. ABSTRACT OF EXAMINATIONS Reactor Pressure Vessel (RPV) Volumetric Exams

Item No. B1.10 Shell Welds

B1.11 Circumferential Welds

<u>CAT.</u>	<u>ITEM</u>	<u>I.D. NUMBER</u>	<u>DRAWING NO.</u>	<u>No. of Rec.</u>	<u>No. of Rep.</u>	<u>RELIEF REQ. NOTES</u>
B-A	Weld	AA Az. 30-0-270	351N80B0007	0	0	N/A
B-A	Weld	AB Az. 30-0-270	351N80B0007	0	0	I-00005
B-A	Weld	AD Az. 240-270-360	351N80B0007	0	0	I-00015

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-

10. ABSTRACT OF EXAMINATIONS Reactor Pressure Vessel (RPV) Volumetric Exams

Item No. B1.10 Shell Welds

B1.12 Longitudinal Welds

<u>CAT.</u>	<u>ITEM</u>	<u>I.D. NUMBER</u>	<u>DRAWING NO.</u>	<u>No. of Rec.</u>	<u>No. of Rep.</u>	<u>RELIEF REQ. NOTES</u>
B-A	Weld	BA	331N80B0007	0	0	I-00015
B-A	Weld	BK	351N80B0007	0	0	I-00015
B-A	Weld	BR	351N80B0007	0	0	I-00015

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 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATIONS Reactor Pressure Vessel (RPV) Volumetric Exams

Item No. B1.20 Head Welds

B1.21 Circumferential Welds

<u>CAT.</u>	<u>ITEM</u>	<u>I.D. NUMBER</u>	<u>DRAWING NO.</u>	<u>Rec.</u>	<u>Rep.</u>	<u>RELIEF REQ.</u> <u>NOTES</u>
B-A	Weld	AA Az. 30-0-270	351N80B0007	0	0	I-00004
B-A	Weld	AH Az. 0-360	351N80B0007	0	0	N/A

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-

10. ABSTRACT OF EXAMINATIONS Reactor Pressure Vessel (RPV) Volumetric Exams
Item No. B1.20 Head Welds

B1.22 Meridional Welds

<u>CAT.</u>	<u>ITEM</u>	<u>I.D. NUMBER</u>	<u>DRAWING NO.</u>	<u>No. of Rec.</u>	<u>No. of Rep.</u>	<u>RELIEF REQ NOTES</u>
B-A	Weld	DM	351N80B0007	0	0	N/A
B-A	Weld	DN	351N80B0007	0	0	N/A
B-A	Weld	DP	351N80B0007	0	0	N/A

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 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
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10. ABSTRACT OF EXAMINATIONS Reactor Pressure Vessel (RPV) Volumetric Exams
Item No. B1.30 Shell-to-Flange Welds

<u>CAT.</u>	<u>ITEM</u>	<u>I.D. NUMBER</u>	<u>DRAWING NO.</u>	<u>No. of Rec.</u>	<u>No. of Rep.</u>	<u>RELIEF REQ NOTES</u>
B-A	Weld	AE Az. 240-270-360	351N80B0007	0	0	I-00015

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 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATIONS Reactor Pressure Vessel (RPV) Volumetric Exams
Item No. B1.40 Head-to-Flange Welds

<u>CAT.</u>	<u>ITEM</u>	<u>I.D. NUMBER</u>	<u>DRAWING NO.</u>	<u>No. of Rec.</u>	<u>No. of Rep.</u>	<u>RELIEF REQ NOTES</u>
B-A	Weld	AG Az. 180-360	351N80B0007	0	0	N/A

10. ABSTRACT OF EXAMINATIONS Reactor Pressure Vessel (RPV) Surface Exam
Item No. B1.40 Head-to-Flange Welds

<u>CAT.</u>	<u>ITEM</u>	<u>I.D. NUMBER</u>	<u>DRAWING NO.</u>	<u>No. of Rec.</u>	<u>No. of Rep.</u>	<u>RELIEF REQ NOTES</u>
B-A	Weld	AG Az. 180-360	351N80B0007	0	0	N/A

FORM NIS-1
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-
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 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATIONS Reactor Pressure Vessel (RPV) Volumetric Exams
Item No. B3.90 Nozzle to Vessel Welds

<u>CAT.</u>	<u>ITEM</u>	<u>I.D. NUMBER</u>	<u>DRAWING NO.</u>	<u>No. of Rec.</u>	<u>No. of Rep.</u>	<u>RELIEF REQ NOTES</u>
B-D	Weld	N1A-KA	351N80B0007	0	0	I-00014
B-D	Weld	N2A-KA	351N80B0007	0	0	I-00014
B-D	Weld	N2K-KA	351N80B0007	0	0	I-00014&15
B-D	Weld	N2M-KA	351N80B0007	0	0	I-00014
B-D	Weld	N2N-KA	351N80B0007	0	0	I-00014
B-D	Weld	N3C-KA	351N80B0007	0	0	I-00014
B-D	Weld	N3D-KA	351N80B0007	1	0	I-00014 11.7
B-D	Weld	N4E-KA	351N80B0007	1	0	I-00014 11.8
B-D	Weld	N4F-KA	351N80B0007	1	0	I-00014&15 11.8

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10. ABSTRACT OF EXAMINATIONS Reactor Pressure Vessel (RPV) Volumetric Exams
Item No. B3.90 Nozzle to Vessel Welds

<u>CAT.</u>	<u>ITEM</u>	<u>I.D. NUMBER</u>	<u>DRAWING NO.</u>	<u>No. of Rec.</u>	<u>No. of Rep.</u>	<u>RELIEF REQ NOTES</u>
B-D	Weld	N5B-KA	351N80F0007	3	0	I-00014 11.10
B-D	Weld	N10-KA	351N80B0007	0	0	I-00014

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10. ABSTRACT OF EXAMINATIONS Reactor Pressure Vessel (RPV) Volumetric Exams
Item No. B3.100 Nozzle Inner Radius Section

<u>CAT.</u>	<u>ITEM</u>	<u>I.D. NUMBER</u>	<u>DRAWING NO.</u>	<u>No. of Rec.</u>	<u>No. of Rep.</u>	<u>RELIEF REQ NOTES</u>
B-D	Weld	N1A-IR	351N80B0007	0	0	I-00013
B-D	Weld	N2A-IR	351N80B0007	0	0	I-00013
B-D	Weld	N2K-IR	351N80B0007	0	0	I-00013
B-D	Weld	N2M-IR	351N80B0007	0	0	I-00013
B-D	Weld	N2N-IR	351N80B0007	0	0	I-00013
B-D	Weld	N3C-IR	351N80B0007	0	0	I-00013
B-D	Weld	N3D-IR	351N80B0007	0	0	I-00013
B-D	Weld	N4E-IR	351N80B0007	0	0	I-00013 8
B-D	Weld	N4F-IR	351N80B0007	0	0	I-00013 8
B-D	Weld	N5B-IR	351N80B0007	0	0	I-00013
B-D	Weld	N10-IR	351N80B0007	0	0	I-00013

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10. ABSTRACT OF EXAMINATIONS Reactor Pressure Vessel (RPV) Volumetric Exams
Item No. B3.100 Nozzle Inner Radius Section

<u>CAT.</u>	<u>ITEM</u>	<u>I.D. NUMBER</u>	<u>DRAWING NO.</u>	<u>No. of Rec.</u>	<u>No. of Rep.</u>	<u>RELIEF REQ NOTES</u>
B-D	Weld	N1B-IR	351N80B0007	0	0	I-00013 11.21, 12.1
B-D	Weld	N2F-IR	351N80B0007	0	0	I-00013 11.21, 12.1
B-D	Weld	N2G-IR	351N80B0007	0	0	I-00013 11.21, 12.1
B-D	Weld	N2H-IR	351N80B0007	0	0	I-00013 11.21, 12.1
B-D	Weld	N2J-IR	351N80B0007	0	0	I-00013 11.21, 12.1
B-D	Weld	N4A-IR	351N80B0007	0	0	I-00013 11.21, 12.1, 8
B-D	Weld	N4B-IR	351N80B0007	0	0	I-00013 11.21, 12.1,
B-D	Weld	N4C-IR	351N80B0007	0	0	I-00013 11.21, 12.1, 8
B-D	Weld	N4D-IR	351N80B0007	0	0	I-00013 11.21, 12.1, 8

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1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATIONS Reactor Pressure Vessel (RPV) Volumetric Exams
Item No. B3.100 Nozzle Inner Radius Section

<u>CAT.</u>	<u>ITEM</u>	<u>I.D. NUMBER</u>	<u>DRAWING NO.</u>	<u>No. of Rec.</u>	<u>No. of Rep.</u>	<u>RELIEF REQ /NOTES</u>
B-D	Weld	N5A-IR	351N80B0007	0	0	I-00013 11.21, 12.1
B-D	Weld	N6B-IR	351N80B0007	0	0	I-00013 11.21, 12.1
B-D	Weld	N6C-IR	351N80B0007	0	0	I-00013 11.21, 12.1

1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULE NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATIONS Reactor Pressure Vessel (RPV) Volumetric Exams
Item No. B5.10 Nozzle to Safe End Welds

<u>CAT.</u>	<u>ITEM</u>	<u>I.D. NUMBER</u>	<u>DRAWING NO.</u>	<u>No. of Rec.</u>	<u>No. of Rep.</u>	<u>RELIEF REQ NOTES</u>
B-F	Weld	N1A-KB	35IN80B0007	5	0	I-00015 11.2
B-F	Weld	N1B-KB	35IN80B0007	8	0	I-00015 11.1, 15
B-F	Weld	N2A-KB	35IN80B0007	7	0	I-00015 11.3
B-F	Weld	N2B-KB	35IN80B0007	4	0	I-00015 11.3, 15
B-F	Weld	N2C-KB	35IN80B0007	4	0	I-00015 11.3, 15
B-F	Weld	N2D-KB	35IN80B0007	5	0	I-00015 11.3
B-F	Weld	N2E-KB	35IN80B0007	3	0	I-00015 11.4, 15
B-F	Weld	N2F-KB	35IN80B0007	5	0	I-00015 11.3, 15
B-F	Weld	N2G-KB	35IN80B0007	4	0	I-00015 11.3, 15
B-F	Weld	N2H-KB	35IN80B0007	3	0	I-00015 11.4, 15

FORM NIS-1
 SUPPLEMENTAL SHEET
 PAGE 19 OF 126

1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATIONS Reactor Pressure Vessel (RPV) Volumetric Exams

Item No. B5.10 Nozzle to Safe End Welds

<u>CAT.</u>	<u>ITEM</u>	<u>I.D. NUMBER</u>	<u>DRAWING NO.</u>	<u>No. of Rec.</u>	<u>No. of Rep.</u>	<u>RELIEF REQ NOTES</u>
B-F	Weld	N2J-KB	35IN80B0007	2	0	I-00015 11.4, 15
B-F	Weld	N2K-KB	35IN80B0007	4	0	I-00015 11.4
B-F	Weld	N2M-KB	35IN80B0007	1	0	I-00015 11.6
B-F	Weld	N2N-KB	35IN80B0007	5	0	I-00015 11.6
B-F	Weld	N3C-KB	35IN80B0007	0	0	I-00015
B-F	Weld	N4A-KB	35IN80B0007	1	0	I-00015 11.4, 8, 15
B-F	Weld	N4B-KB	35IN80B0007	1	0	I-00015 11.9, 8, 15
B-F	Weld	N4C-KB	35IN80B0007	1	0	I-00015 11.9, 8, 15
B-F	Weld	N4D-KB	35IN80B0007	2	0	I-00015 11.4, 8, 15
B-F	Weld	N4E-KB	35IN80B0007	3	0	I-00015 11.4, 8

1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATIONS Reactor Pressure Vessel (RPV) Volumetric Exams

Item No. B5.10 Nozzle to Safe End Welds

<u>CAT.</u>	<u>ITEM</u>	<u>I.D. NUMBER</u>	<u>DRAWING NO.</u>	<u>No. of Rec.</u>	<u>No. of Rep.</u>	<u>RELIEF REQ NOTES</u>
B-F	Weld	N4F-KB	35IN80B0007	3	0	I-00015 11.2, 8
B-F	Weld	N5A-KB	35IN80B0007	0	0	I-00015 15
B-F	Weld	N5A-KC	35IN80B0007	0	0	N/A 15
B-F	Weld	N5B-KB	35IN80B0007	1	0	I-00015 11.6
B-F	Weld	N5B-KC	35IN80B0007	1	0	N/A 11.11
B-F	Weld	N6A-KB	35IN80B0007	1	0	I-00015 11.4, 15
B-F	Weld	N6A-KC	35IN80B0007	2	0	N/A 11.11, 15
B-F	Weld	N6B-KB	35IN80B0007	2	0	I-00015 11.6, 15
B-F	Weld	N6B-KC	35IN80B0007	2	0	N/A 11.11, 15
B-F	Weld	N6C-KB	35IN80B0007	0	0	I-00015 15

1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995 JACKSON, MS. 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATIONS Reactor Pressure Vessel (RPV) Volumetric Exams
Item No. B5.10 Nozzle to Safe End Welds

<u>CAT.</u>	<u>ITEM</u>	<u>I.D. NUMBER</u>	<u>DRAWING NO.</u>	<u>No. of Rec.</u>	<u>No. of Rep.</u>	<u>RELIEF REQ NOTES</u>
B-F	Weld	N6C-KC	35IN80B0007	1	0	N/A 11.11, 15
B-F	Weld	N9A-KB	35IN80B0007	0	0	I-00015 15
B-F	Weld	N9A-KC	35IN80B0007	0	0	N/A 15
B-F	Weld	N9B-KB	35IN80B0007	0	0	I-00015 15
B-F	Weld	N9B-KC	35IN80B0007	0	0	I-00015 15

1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATIONS Reactor Pressure Vessel (RPV) Surface Exams
Item No. B5.10 Nozzle to Safe End Welds

<u>CAT.</u>	<u>ITEM</u>	<u>I.D. NUMBER</u>	<u>DRAWING NO.</u>	<u>No. of Rec.</u>	<u>No. of Rep.</u>	<u>RELIEF REQ NOTES</u>
B-F	Weld	N1A-KB	35IN80B0007	0	0	N/A
B-F	Weld	N2A-KB	35IN80B0007	0	0	N/A
B-F	Weld	N2K-KB	35IN80B0007	1	0	N/A 11.5
B-F	Weld	N2M-KB	35IN80B0007	0	0	N/A
B-F	Weld	N2N-KB	35IN80B0007	0	0	N/A
B-F	Weld	N3C-KB	35IN80B0007	0	0	N/A
B-F	Weld	N4E-KB	35IN80E0007	0	0	N/A
B-F	Weld	N4F-KB	35IN80B0007	0	0	N/A
B-F	Weld	N5B-KB	35IN80B0007	0	0	N/A
B-F	Weld	N5B-KC	35IN80B0007	0	0	N/A
B-F	Weld	N10-KB	35IN80B0007	0	0	N/A

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1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATIONS Reactor Pressure Vessel (RPV) Surface Exams
Item No. B5.10 Nozzle to Safe End Welds

<u>CAT.</u>	<u>ITEM</u>	<u>I.D. NUMBER</u>	<u>DRAWING NO.</u>	<u>No. of Req.</u>	<u>No. of Rep.</u>	<u>RELIEF REQ NOTES</u>
B-F	Weld	N10-KC	35IN80B0007	0	0	N/A

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1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS, 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS, 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATIONS Reactor Pressure Vessel (RPV) Surface Exams

Item No. B6.10

<u>CAT.</u>	<u>ITEM</u>	<u>I.D. NO.</u>	<u>DRAWING NO.</u>	<u>No. of</u> <u>Rec.</u>	<u>No. of</u> <u>Rep.</u>	<u>RELIEF REQ</u> <u>NOTES</u>
B-G-1	Nuts	51 thru 76	35IN80B0007	0	0	N/A

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1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATIONS Reactor Pressure Vessel (RPV) Volumetric Exam
Item No. B6.40 Reactor Vessel Threads in Flange

<u>CAT.</u>	<u>ITEM</u>	<u>I.D. NUMBER</u>	<u>DRAWING NO.</u>	<u>Rec.</u>	<u>Rep.</u>	<u>RELIEF REQ NOTES</u>
B-G-1	Thds. in flange	51-76	35IN80B0007	0	0	I-00019

-
1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATIONS Reactor Pressure Vessel (RPV) Visual Exams

Item No. B6.50 Reactor Vessel Closure Washers

<u>CAT.</u>	<u>ITEM</u>	<u>I.D. NUMBER</u>	<u>DRAWING NO.</u>	<u>No. of Rec.</u>	<u>No. of Rej.</u>	<u>RELIEF REQ NOTES</u>
B-Gr	Washers	51 Thru 76	351N80B0007	0	0	N/A

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1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS, 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS, 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATIONS Reactor Pressure Vessel (RPV) Visual Exams

Item No. B7.10 Reactor Vessel Studs and Nuts

<u>CAT.</u>	<u>ITEM</u>	<u>I.D. NUMBER</u>	<u>DRAWING NO.</u>	<u>No. of Rec.</u>	<u>No. of Rej.</u>	<u>RELIEF REQ NOTES</u>
B-G-2	Studs	N16	351N80B0007	0	0	N/A
VT-1	Nuts					

-
1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATIONS Reactor Pressure Vessel (RPV) Surface Exam
Item No. B8.10 Reactor Vessel Integrally Welded Attachments

<u>CAT.</u>	<u>ITEM</u>	<u>I.D. NUMBER</u>	<u>DRAWING NO.</u>	<u>No. of Rec.</u>	<u>No. of Rep.</u>	<u>RELIEF REQ NOTES</u>
B-H	Weld	CG Az.0 to 360	351N80B0007	0	0	N/A

1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATIONS Reactor Pressure Vessel (RPV) Visual Exams

Item No. B13.10 Reactor Vessel Interior

<u>CAT.</u>	<u>ITEM</u>	<u>I.D. NUMBER</u>	<u>DRAWING NO.</u>	<u>No. of Rec.</u>	<u>No. of Rej.</u>	<u>RELIEF REQ NOTES</u>
B-N-1	Access.	SEE BELOW	351N83B0009	0	0	N/A
VT-3 *	Areas		351N80B0007			13

* The code requires visual examinations (VT-3) on normally accessible areas. The items examined include:

- Top guide hold down bolts
- Guide rod support brackets
- Steam dryer
- Steam separator
- Jet pump assemblies**
- LPCI assemblies
- LPCI flow diverters
- Surveillance sample holders
- Clad patches
- Steam dryer hold down brackets

** Jet Pump Assemblies 21, 22, 23, and 24 were not inspected during this time frame.

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1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATIONS Reactor Pressure Vessel (RPV) Visual Exams

Item No. B13.10 Reactor Vessel Interior Core Spray lines

<u>CAT.</u>	<u>ITEM</u>	<u>I.D. NUMBER</u>	<u>DRAWING NO.</u>	<u>No. of Rec.</u>	<u>No. of Rej.</u>	<u>RELIEF REQ NOTES</u>
B-N-1	Core	Core Spray	351N83B0009	0	0	N/A
VT-3	Spray	Lines	351N80B0007			10

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1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATIONS Reactor Pressure Vessel (RPV) Volumetric Exams

Item No. B13.10 Reactor Vessel Interior Jet Pump Beams

<u>CAT.</u>	<u>ITEM</u>	<u>I.D. NUMBER</u>	<u>DRAWING NO.</u>	<u>No. of Rec.</u>	<u>No. of Rep.</u>	<u>RELIEF REQ NOTES</u>
B-N-1		Jet Pump Beams	351N83B0009	0	0	N/A 11

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1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATIONS Reactor Pressure Vessel (RPV) Visual Exams

Item No. B13.20 Reactor Vessel Interior Attachment Welds

<u>CAT.</u>	<u>ITEM</u>	<u>I.D. NUMBER</u>	<u>DRAWING NO.</u>	<u>No. of Rec.</u>	<u>No. of Rej.</u>	<u>RELIEF REQ NOTES</u>
B-N-2 VT-1 *	Attach. Welds	N/A	351N80B0007	0	0	N/A

* Feedwater sparger brackets only

-
1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 56, PORT GIBSON, MS. 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
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ABSTRACT OF EXAMINATIONS Reactor Pressure Vessel - (RPV) Visual Exams

<u>CAT.</u>	<u>ITEM</u>	<u>I.D. NUMBER</u>	<u>DRAWING NO.</u>	<u>No. of Rec.</u>	<u>No. of Rej.</u>	<u>RELIEF REQ NOTES</u>
F-A VT-3	Support	S-1	351N83B0009	0	0	I-00022

-
1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATION

B13 Reactor Pressure Vessel (Summary)

Total number of volumetric exams performed during this time frame	47
Total number of volumetric exams performed during third period	47
Total number of Volumetric exams required during third period	55
Percentage of third period required exams complete	85.5
Total number of volumetric exams performed during ten years interval	119
Total number of volumetric exams required during ten year interval	125
Percentage of ten year interval required exams complete	95
Total number of surface exams performed during this time frame	15
Total number of surface exams performed during third period	15
Total number of surface exams required during third period	16
Percentage of third period exams complete	95
Total number of surface exams performed during ten year interval	48
Total number of surface exams required during ten year interval	49
Percentage of ten year interval required exams complete	98

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1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995 JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATION

B13 Reactor Pressure Vessel (Summary)

Total number of visual exams performed during this time frame	6
Total number of visual exams performed during third period	6
Total number of visual exams required during third period	9
Percentage of third period required exams complete	66.7
Total number of visual exams performed during ten years interval	23
Total number of visual exams required during ten year interval	26
Percentage of ten year interval required exams complete	88
Total number of exams performed during this time frame	68
Total number of exams performed during third period	68
Total number of exams required during third period	80
Percentage of third period exams complete	85
Total number of exams performed during ten year interval	188
Total number of exams required during ten year interval	200
Percentage of ten year interval required exams complete	94

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1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. **ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)**

The following is an overall summary of the results of Inservice Inspection (ISI) conducted on Grand Gulf Nuclear Station, Unit 1 piping pressure boundary welds, components and supports. The summary is itemized by piping system, subdivided into examination methods and component descriptions.

In addition to the normal ASME Code requirements, there are certain areas in which augmented examinations were performed. These included welds requiring more frequent examinations, as specified by NUREG-0313 (Generic Letter 88-01) and welds referred to as "no break zone welds" (high energy break exclusion areas). Therefore, certain NUREG-0313 welds and "no break zone welds" have been included in this report, if applicable.

The term "Recordable Indications" (Rec. Ind.) refers to geometric and non-geometric indications which had amplitudes (for ultrasonic examination methods) or dimensions (for surface examination methods) exceeding the recording criteria of the examination procedure used.

The term "Rejectable Indications" (Rej. Ind.) refers to indications/exams not meeting the acceptance criteria of Section XI.

When the term "visual exam" is used, it will designate a VT-1, VT-3, or VT-4 is performed.

Most piping classes are designated by a three letter code. The first letter indicates the primary flange pressure rating; the second letter indicates the type of material utilized; the third letter indicates the code to which the piping is designed. For those piping systems where the three letter code is not applicable, the ASME class and general material category will be noted.

FIRST LETTER - PRIMARY PRESSURE RATING

D - 900#
E - 600#
G - 300#
H - 150#

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1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
PLANT UNIT: ONE
 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85
 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

SECOND LETTER - MATERIAL

- A - Alloy Steel
- B - Carbon Steel
- C - Austenitic Stainless Steel

THIRD LETTER - APPLICABLE CODE

- A - ASME Class 1
- B - ASME Class 2
- C - ASME Class 3

1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B21 Feedwater - Volumetric Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec. Ind. Notes Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-J	Weld	1B21G026W16	FW-11-5	DBA	12"	11/164'	0	0
B-J	Weld	1B21G026W10	FW-11-6	DBA	12"	11/164'	0	0
B-J	Weld	1B21G026W26	FW-11-12	DBA	12"	11/164'	2 11.13	0
B-J	Weld	1B21G026W32	FW-11-11	DBA	12"	11/164'	0	0
B-J	Weld	1B21G026W29	FW-11-10	DBA	12"	11/164'	0	0
B-J	Weld	1B21G026W22	FW-11-8	DBA	24"	11/143'	0	0
B-J	Weld	1B21G026-13-11-4	FW-11-8	DBA	12"	11/143'	1 11.14	0
B-J	Weld	1B21G026W30	FW-11-9	DBA	12"	11/145	0	0

1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B21 Feedwater - Surface Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D.</u> <u>Number</u>	<u>Dwg.</u>	<u>Class/</u> <u>Mt'l</u>	<u>Size</u>	<u>Area/</u> <u>Elv.</u>	<u>No. of</u>		<u>No. of</u> <u>Rej.</u> <u>Ind.</u>
							<u>Rec.</u>	<u>Ind.</u>	
B-J	Weld	1B21G026W16	FW-11-5	DBA	12"	11/164'	0	0	0
B-J	Weld	1B21G026W10	FW-11-6	DBA	12"	11/164'	0	0	0
B-J	Weld	1B21G026W26	FW-11-12	DBA	12"	11/164'	0	0	0
B-J	Weld	1B21G026W32	FW-11-11	DBA	12"	11/164'	0	0	0
B-J	Weld	1B21G026W29	FW-11-10	DBA	12"	11/164'	0	0	0
B-J	Weld	1B21G026W22	FW-11-8	DBA	24"	11/143'	0	0	0
B-J	Weld	1B21G026-13-11-4	FW-11-8	DBA	12"	11/143'	0	0	0
B-J	Weld	1B21G026W30	FW-11-9	DBA	12"	11/145'	0	0	0

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1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS, 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS, 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
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10. ABSTRACT OF EXAMINATION

B21 Feedwater (Summary)

Total number of volumetric exams performed during this time frame	8
Total number of volumetric exams performed during third period	8
Total number of Volumetric exams required during third period	18
Percentage of third period required exams complete	44
Total number of volumetric exams performed during ten years interval	45
Total number of volumetric exams required during ten year interval	55
Percentage of ten year interval required exams complete	82
Total number of surface exams performed during this time frame	8
Total number of surface exams performed during third period	8
Total number of surface exams required during third period	21
Percentage of third period exams complete	38
Total number of surface exams performed during ten year interval	48
Total number of surface exams required during ten year interval	61
Percentage of ten year interval required exams complete	77

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1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATION

B21 Feedwater (Summary)

Total number of visual exams performed during this time frame	0
Total number of visual exams perfon during third period	0
Total number of visual exams required during third period	6
Percentage of third period required exams complete	0
Total number of visual exams performed during ten years interval	6
Total number of visual exams required during ten year interval	6
Percentage of ten year interval required exams complete	100
Total number of exams performed during this time frame	8
Total number of exams performed during third period	8
Total number of exams required during third period	39
Percentage of third period exams complete	20
Total number of exams performed during ten year interval	85
Total number of exams required during ten year interval	122
Percentage of ten year interval required exams complete	70

1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B21 Main Steam - Volumetric Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D.</u> <u>Number</u>	<u>Dwg.</u>	<u>Class/</u> <u>Mat'l</u>	<u>Size</u>	<u>Area/</u> <u>Elv.</u>	<u>No. of</u> <u>Rec. Ind.</u> <u>Notes</u> <u>Relf. Req.</u>	<u>No. of</u> <u>Rej.</u> <u>Ind.</u>
B-J	Weld	1B21G001W1	MS-11-7	1	28"	11 176'	0	0
B-J	Weld	1B21GG001W1-L	MS-11-7	1	28"	11 176'	0	0
B-J	Weld	1B21G001W6	MS-11-10	1	28"	11 176'	0	0
B-J	Weld	1B21G001W6-L	MS-11-10	1	28"	11 176'	0	0
B-J	Weld	1B21G9-C1-C	MS-11-8	1	28"	11 151'	0	0
B-J	Weld	1B21G9-C1-D	MS-11-8	1	28"	11 151'	0 16	0
B-J	Weld	1B21G9-C1-E	MS-11-8	1	28"	11 151'	0 16	0
B-J	Weld	1B21G9-C1-F	MS-11-8	1	28"	11 151'	0 16	0

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1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B21 Main Steam - Volumetric Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Incl, Notes Relf. Req.</u>	<u>No. of Rej. Incl.</u>
B-J	Weld	1B21G9-C1-G	MS-11-8	1	28"	11 151'	0 16	0
B-J	Weld	1B21G9-C1-H	MS-11-8	1	28"	11 151'	0 16	0
B-J	Weld	1B21G001W4	MS-11-9	1	28"	11 151'	0 16 I-00010	0
B-J	Weld	1B21G001W5	MS-11-9	1	28"	11 151'	0 14	0
B-J	Weld	1B21G9-C1-B-L-A	MS-11-8	1	28"	11 151'	0 I-00010	0
B-J	Weld	1B21G9-C1-B-L-B	MS-11-8	1	28"	11 151'	0 I-00010	0
B-J	Weld	1B21G11-D1-D	MS-11-11	1	28"	11 151'	0	0
B-J	Weld	1B21G11-D1-E	MS-11-11	1	28"	11 151'	0	0

1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B21 Main Steam - Volumetric Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Incl. Notes Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-J	Weld	B21G001W9	MS-11-12	1	28"	11 151'	0 16 I-00C10	0
B-J	Weld	B21G001W10	MS-11-12	1	28"	11 151'	0 14	0

1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B21 Main Steam - Surface Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Ind, Notes Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-J	Weld	1B21G001W1	MS-11-7	1	28"	11 176'	0	0
B-J	Weld	1B21G001W1-L	MS-11-7	1	28"	11 176'	0	0
B-J	Weld	1B21G001W6	MS-11-10	1	28"	11 176'	0	0
B-J	Weld	1B21G001W6-L	MS-11-10	1	28"	11 176'	0	0
B-J	Weld	1B21G9-C1-C	MS-11-8	1	28"	11 151'	0	0
B-J	Weld	1B21G9-C1-D	MS-11-8	1	28"	11 151'	0	0
B-J	Weld	1B21G9-C1-E	MS-11-8	1	28"	11 151'	0	0
B-J	Weld	1B21G9-C1-F	MS-11-8	1	28"	11 151'	0	0

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1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B21 Main Steam - Surface Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Incl, Notes Relf. Req.</u>	<u>No. of Rej. Incl.</u>
B-J	Weld	1B21G9-C1-G	MS-11-8	1	28"	11 151'	0	0
B-J	Weld	1B21G9-C1-H	MS-11-8	1	28"	11 151'	0	0
B-K-1	Lug	1B21G9-C1-L	MS-11-8	1	Lug	11 151'	0	0
							I-00010	
B-K-1	Lug	1B21G9-C1-M	MS-11-8	1	Lug	11 151'	0	0
							I-00010	
B-K-1	Lug	1B21G9-C1-N	MS-11-8	1	Lug	11 151'	0	0
							I-00010	
B-K-1	Lug	1B21G9-C1-P	MS-11-8	1	Lug	11 151'	0	0
							I-00010	
B-J	Weld	B21G001W4	MS-11-9	1	28"	11 151'	0	0
B-J	Weld	B21G001W5	MS-11-9	1	28"	11 151'	0	0

1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS, 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS, 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B21 Main Steam - Surface Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Incl, Notes Relf. Req.</u>	<u>No. of Rej. Incl.</u>
B-J	Weld	1B21G9-C1-B-L-A	MS-11-8	1	28"	11 151'	0	0
B-J	Weld	1B21G9-C1-B-L-B	MS-11-8	1	28"	11 151'	0	0
B-J	Weld	1B21G11-D1-D	MS-11-11	1	28"	11 151'	0	0
B-J	Weld	1B21G11-D1-E	MS-11-11	1	28"	11 151'	0	0
B-J	Weld	1B21G001W9	MS-11-12	1	28"	11 151'	0	0
B-J	Weld	1B21G001W10	MS-11-12	1	28"	11 151'	0	0

1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS, 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS, 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE): NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B21 Main Steam - Visual Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Ind, Notes Relf. Rec.</u>	<u>No. of Rej. Ind.</u>
F-C VT-3	Hang	Q1B21G002H101A(A)	MS-11-2	1	28"	11 150'	0	0
F-C VT-4	Hang	Q1B21G002H101A(A)	MS-11-2	1	28"	11 150'	0	0
F-C VT-3	Hang	Q1B21G002H101A(B)	MS-11-2	1	28"	11 150'	0	0
F-C VT-4	Hang	Q1B21G002H101A(B)	MS-11-2	1	28"	11 150'	0	0
F-C VT-3	Hang	Q1B21G002H101D(A)	MS-11-11	1	28"	11 150'	0	0
F-C VT-4	Hang	Q1B21G002H101D(A)	MS-11-11	1	28"	11 150'	0	0
F-C VT-3	Hang	Q1B21G002H101D(B)	MS-11-11	1	28"	11 150'	0	0
F-C VT-4	Hang	Q1B21G002H101D(B)	MS-11-11	1	28"	11 150'	0	0

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1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B21 Main Steam - Visual Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Ind, Notes Relf. Req.</u>	<u>No. of Rej. Ind.</u>
F-C VT-3	Hang	Q1B21G153C01	MS-11-13	DBA	2"	11 174'	0	0
F-C VT-3	Hang	Q1B21G153C02	MS-11-13	DBA	2"	11 182'	0 11.20, 12.2	0
F-C VT-4	Hang	Q1B21G153C02	MS-11-13	DBA	2"	11 182'	0 11.20, 12.2	0
F-C VT-3	Hang	Q1B21G152H01	MS-11-14	DBA	2"	11 196'	0	0
F-C VT-4	Hang	Q1B21G152H01	MS-11-14	DBA	2"	11 196'	0	0

-
1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995 JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATION

B21 Main Steam (Summary)

Total number of volumetric exams performed during this time frame	18
Total number of volumetric exams performed during third period	18
Total number of Volumetric exams required during third period	39
Percentage of third period required exams complete	46
Total number of volumetric exams performed during ten years interval	78
Total number of volumetric exams required during ten year interval	94
Percentage of ten year interval required exams complete	77
Total number of surface exams performed during this time frame	22
Total number of surface exams performed during third period	22
Total number of surface exams required during third period	74
Percentage of third period exams complete	30
Total number of surface exams performed during ten year interval	113
Total number of surface exams required during ten year interval	165
Percentage of ten year interval required exams complete	68

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1. OWNER: ENERGY OPERATIONS, INC., ECHELON 5, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATION

B21 Main Steam (Summary)

Total number of visual exams performed during this time frame	13
Total number of visual exams performed during third period	13
Total number of visual exams required during third period	17
Percentage of third period required exams complete	76
Total number of visual exams performed during ten years interval	32
Total number of visual exams required during ten year interval	36
Percentage of ten year interval required exams complete	89
Total number of exams performed during this time frame	53
Total number of exams performed during third period	53
Total number of exams required during third period	120
Percentage of third period exams complete	44
Total number of exams performed during ten year interval	215
Total number of exams required during ten year interval	297
Percentage of ten year interval required exams complete	72

1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B21 Main Steam Drains - Surface Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Ind, Notes Relf. Req.</u>	<u>No. of Req. Ind.</u>
B-J	Weld	1B21G021W3	SD-11-2	DBA	3"	11 141'	0	0
B-J	Weld	1B21G021W4	SD-11-2	DBA	3"	11 141'	0	0
B-J	Weld	1B21G157W6	SD-11-3	DBA	2"	11 146'	0	0
B-J	Weld	1B21G155W8	SD-11-4	DBA	2"	11 146'	0	0
B-J	Weld	1B21G156W9	SD-11-5	DBA	2"	11 146'	0	0

1. OWNER: ENERGY OPERATIONS, INC. ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, FORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B21 Main Steam Drains -Visual Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D.</u> <u>Number</u>	<u>Dwg.</u>	<u>Class/</u> <u>Mat'l</u>	<u>Size</u>	<u>Area/</u> <u>E.L.V.</u>	<u>No. of</u> <u>Rec Ind,</u> <u>Notes</u> <u>Relf. Rec.</u>	<u>No. of</u> <u>Rej.</u> <u>Ind.</u>
F-B VT-3	Hang	Q1B21G156R01	SD-11-5	IBA	2"	11 144'	0	0

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1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATION

B21 Main Steam Drains (Summary)

Total number of volumetric exams performed during this time frame	N/A
Total number of volumetric exams performed during third period	N/A
Total number of Volumetric exams required during third period	N/A
Percentage of third period required exams complete	N/A
Total number of volumetric exams performed during ten years interval	N/A
Total number of volumetric exams required during ten year interval	N/A
Percentage of ten year interval required exams complete	N/A
Total number of surface exams performed during this time frame	5
Total number of surface exams performed during third period	5
Total number of surface exams required during third period	8
Percentage of third period exams complete	62.5
Total number of surface exams performed during ten year interval	16
Total number of surface exams required during ten year interval	19
Percentage of ten year interval required exams complete	84

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1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATION/ BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATION

B21 Main Steam Drains (Summary)

Total number of visual exams performed during this time frame	1
Total number of visual exams performed during third period	1
Total number of visual exams required during third period	1
Percentage of third period required exams complete	100
Total number of visual exams performed during ten years interval	2
Total number of visual exams required during ten year interval	2
Percentage of ten year interval required exams complete	100
Total number of exams performed during this time frame	6
Total number of exams performed during third period	6
Total number of exams required during third period	9
Percentage of third period exams complete	66
Total number of exams performed during ten year interval	18
Total number of exams required during ten year interval	21
Percentage of ten year interval required exams complete	86

1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B21 Main Steam Sodium Pentaborate System (Surface Exams)

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Ind, Notes Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-J	Weld	1B21G163W15	SP-11-1	DCA	1.5"	11 112'	0	0
B-J	Weld	1B21G163W4	SP-11-1	DCA	1.5"	11 112'	0	0

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1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS, 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS, 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATION

B21 Main Steam Sodium Pentaborate System (Summary)

Total number of volumetric exams performed during this time frame	N/A
Total number of volumetric exams performed during third period	N/A
Total number of Volumetric exams required during third period	N/A
Percentage of third period required exams complete	N/A
Total number of volumetric exams performed during ten years interval	N/A
Total number of volumetric exams required during ten year interval	N/A
Percentage of ten year interval required exams complete	N/A
Total number of surface exams performed during this time frame	2
Total number of surface exams performed during third period	2
Total number of surface exams required during third period	2
Percentage of third period exams complete	100
Total number of surface exams performed during ten year interval	5
Total number of surface exams required during ten year interval	5
Percentage of ten year interval required exams complete	100

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1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATION

B21 Main Steam Sodium Pentaborate System (Summary)

Total number of visual exams performed during this time frame	<u>0</u>
Total number of visual exams performed during third period	0
Total number of visual exams required during third period	0
Percentage of third period required exams complete	100
Total number of visual exams performed during ten years interval	2
Total number of visual exams required during ten year interval	2
Percentage of ten year interval required exams complete	100
Total number of exams performed during this time frame	2
Total number of exams performed during third period	2
Total number of exams required during third period	2
Percentage of third period exams complete	100
Total number of exams performed during ten year interval	7
Total number of exams required during ten year interval	7
Percentage of ten year interval required exams complete	100

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1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B21 Main Steam Safety Relief Valves - Visual Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Pec Ind, Notes Relf. Req.</u>	<u>No. of Rej. Ind.</u>
F-C VT-3	Hang	Q1B21G024A02	RV-11-3	GBC	10"	11 146'	0	0
DA-DB VT-3	Att. Weld	Q1B21G024A02	RV-11-3	GBC	10"	11 146'	0	0
DA-DB Vi-3	Att. Weld	Q1B21G024R10	RV-11-3	GBC	10"	11 139'	0	0
DA-DB VT-3	Att. Weld	Q1B21G024F11	RV-11-3	GBC	10"	11 138'	0	0
DA-DB VT-3	Att. Weld	Q1B21G024C01	RV-11-3	GBC	10"	11 130'	0	0
DA-DB VT-3	Att. Weld	Q1B21G024R12	RV-11-3	GBC	10"	11 124'	0	0
DA-DB VT-3	Att. Weld	Q1B21G024H03	RV-11-3	GBC	10"	11 123'	0	0
DA-DB VT-3	Att. Weld	Q1B21G024R14	RV-11-3	GBC	10"	11 118'	0	0

1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (If APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B21 Main Steam Safety Relief Valves - Visual Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Incl, Notes Relf. Req.</u>	<u>No. of Rej. Incl.</u>
DA-DB VT-3	Att. Weld	Q1B21G023A01	RV-11-8	GBC	10"	11 146'	0	0
DA-DB VT-3	Att. Weld	Q1B21G023R03	RV-11-8	GBC	10"	11 137'	0	0
DA-DB VT-3	Att. Weld	Q1B21G023R04	RV-11-8	GBC	10"	11 133'	0	0
DA-DB VT-3	Att. Weld	Q1B21G023R05	RV-11-8	GBC	10"	11 132'	0	0
DA-DB VT-3	Att. Weld	Q1B21G023R06	RV-11-8	GBC	10"	11 130'	0	0
DA-DB VT-3	Att. Weld	Q1B21G023R08	RV-11-8	GBC	10"	11 125'	0	0
DA-DB VT-3	Att. Weld	Q1B21G023R09	RV-11-8	GBC	10"	11 123'	0	0
DA-DB VT-3	Att. Weld	Q1B21G023R10	RV-11-8	GBC	10"	11 123'	0	0

1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B21 Main Steam Safety Relief Valves - Visual Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Ind, Notes Relf. Req.</u>	<u>No. of Rej. Ind.</u>
DA-DB VT-3	Att. Weld	Q1B21G023H01	RV-11-8	GBC	10"	11 131'	0	0
DA-DB VT-3	Att. Weld	Q1B21G022A01	RV-11-9	GBC	10"	11 146'	0	0
DA-DB VT-3	Att. Weld	Q1B21G022R01	RV-11-9	GBC	10"	11 136'	0	0
DA-DB VT-3	Att. Weld	Q1B21G022H01	RV-11-9	GBC	10"	11 135'	0	0
DA-DB VT-3	Att. Weld	Q1B21G022R03	RV-11-9	GBC	10"	11 133'	0	0
DA-DB VT-3	Att. Weld	Q1B21G022H02	RV-11-9	GBC	10"	11 129'	0	0
DA-DB VT-3	Att. Weld	Q1B21G022R05	RV-11-9	GBC	10"	11 125'	0	0
DA-DB VT-3	Att. Weld	Q1B21G022R06	RV-11-9	GBC	10"	11 123'	0	0

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1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS, 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS, 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)
B21 Main Steam Safety Relief Valves - Visual Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Ind, Notes Relf. Req.</u>	<u>No. of Rej. Ind.</u>
DA-DB VT-3	Att. Weld	Q1B21G022R07	RV-11-8	GBC	10"	11 118'	0	0

-
1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 1" P"V ONLY
-

10. ABSTRACT OF EXAMINATION

B21 Main Steam Safety Relief Valves (Summary)

Total number of visual exams performed during this time frame	25
Total number of visual exams performed during third period	25
Total number of visual exams required during third period	28
Percentage of third period required exams complete	89
Total number of visual exams performed during ten years interval	172
Total number of visual exams required during ten year interval	175
Percentage of ten year interval required exams complete	98
Total number of exams performed during this time frame	25
Total number of exams performed during third period	25
Total number of exams required during third period	28
Percentage of third period exams complete	89
Total number of exams performed during ten year interval	172
Total number of exams required during ten year interval	175
Percentage of ten year interval required exams complete	98

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1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS, 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS, 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B33 Reactor Recirculation System - Volumetric Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Ind, Notes Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-J	Weld	1B33G3-A1-A-LA	RR-11-1	1	24"	11 106'	0	0
B-J	Weld	1B33G3-A1-A-LB	RR-11-1	1	24"	11 106'	0	0
B-J	Weld	1B33G001W3	RR-11-1	1	24"	11 106'	0 14	0
B-J	Weld	1B33G001W5	RR-11-2	1	24"	11 106'	0	0
B-J	Weld	1B33G001W6	RR-11-2	1	24"	11 106'	0	0
B-J	Weld	1B33G001W6-L	RR-11-2	1	24"	11 106'	0	0
B-J	Weld	1B33G5-A1-B	RR-11-2	1	4"	11 105	0	0
B-J	Weld	1B33G6-A1-C	RR-11-2	1	4"	11 104	0	0

1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B33 Reactor Recirculation System - Volumetric Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Ind, Notes Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-J	weld	1B33G5-A1-E	RR-11-2	1	4"	11 105'	0 I-00010	0
B-J	Weld	1B33G001W9	RR-11-3	1	24"	11 104'	1 11.11 I-00010	0
B-J	Weld	1B33G7-A1-A-L	RR-11-3	1	24"	11 104'	0	0
B-J	Weld	1B33G8-A1-B	FR-11-3	1	24"	11 107'	0	0
B-J	Weld	1B33G8-A1-B--L	RR-11-3	1	24"	11 107'	0	0
B-C	Weld	1B33G10-A1-D	RR-11-4	1	16"	11 129'	1 11.18	0
B-J	Weld	1B33G10-A1-C	RR-11-4	1	16"	11 129'	1 11.18	0
B-J	Weld	1B33G4-B1-A-1A	RR-11-8	1	24"	11 120'	0	0

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1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B33 Reactor Recirculation System - Volumetric Exams

<u>Cnt.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Incl, Notes Relf. Req.</u>	<u>No. of Rej. Incl.</u>
B-J	Weld	1B33G4-B1-A-LB	RR-11-8	1	24"	11 120'	0	0
B-J	Weld	1B33GG001W26	RR-11-8	1	24"	1 104'	0 14	0
B-J	Weld	1B33G023W37	RR-11-15	DCA	20"	11 115'	0	0
B-J	Weld	1B33G023W116	RR-11-15	DCA	20"	11 112'	0	0
B-J	Weld	1B33G023W117	RR-11-15	DCA	20"	11 115'	0	0
B-J	Weld	1B33G023W38	RR-11-15	DCA	20"	11 117'	0	0
B-J	Weld	1B33G001W28	RR-11-9	1	24"	11 108	0	0
B-J	Weld	1B33G001W29	RR-11-9	1	24"	11 110'	0	0

I-00010
I-00010
I-00010

1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B33 Reactor Recirculation System - Volumetric Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Incl, Notes Relf. Req.</u>	<u>No. of Rej. Incl.</u>
B-J	Weld	1B33G10-B1-C	RR-11-11	1	16"	11 129'	0	0
B-J	Weld	1B33G001-X-CAP-B	RR-11-11	1	24"	11 131'	0	0
B-J	Weld	1B33G10-B1-D	RR-11-11	1	16"	11 129'	1 11.18	0
B-J	Weld	1B33G001W24	RR-11-8	1	24"	11 137'	0	0
B-J	Weld	1B33GG001W24-L	RR-11-8	1	24"	11 137'	0	0
B-J	Weld	1B33GG001W1	RR-11-1	1	24"	11 137'	0	0
B-J	Weld	1B33G001W1-L	RR-11-1	1	24"	11 137'	0	0
B-J	Weld	1B33G001W40	RR-11-12	1	12"	11 137'	0	0

1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B33 Reactor Recirculation System - Volumetric Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Ind, Notes Relf. Req.</u>	<u>No. of Proj. Ind.</u>
B-J	Weld	1B33G11-B206-B-L	RR-11-12	1	12"	11 137'	0	0
B-J	Weld	1B33G001W38	RR-11-12	1	12"	11 137'	0	0
B-J	Weld	1B33G11-B231-B-L	RR-11-12	1	12"	11 137'	0	0
B-J	Weld	1B33G001W36	RR-11-13	1	12"	11 137'	0	0
B-J	Weld	1B33G11-B257-B-L	RR-11-13	1	12"	11 137'	0	0
B-J	Weld	1B33G001W42	RR-11-13	1	12"	11 137'	0	0
B-J	Weld	1B33G11-B282-B-L	RR-11-13	1	12"	11 137'	0	0
B-J	Weld	1B33G001W44	RR-11-14	1	12"	11 137'	0	0

1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)
 B33 Reactor Recirculation System - Volumetric Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D.</u> <u>Number</u>	<u>Dwg.</u>	<u>Class/</u> <u>Mat'l</u>	<u>Size</u>	<u>Area/</u> <u>Elv.</u>	<u>No. of</u> <u>Ret. Ind,</u> <u>Notes</u> <u>Relf. Req.</u>	<u>No. of</u> <u>Rej.</u> <u>Incl.</u>
B-J	Weld	1B33G11-B308-B-L	RR-11-14	1	12"	11 137'	0	0
B-J	Weld	1B33G001W46	RR-11-14	1	12"	11 137'	0	0
B-J	Weld	1B33G11-B333-B-L	RR-11-14	1	12"	11 137'	0	0
B-J	Weld	1B33G2-A1-A-LA	RR-11-1	1	Long.	11 137'	0 11.22, 12.5	0
B-J	Weld	1B33G2-A1-A-LB	RR-11-1	1	Long.	11 137'	0 11.22, 12.5	0
B-J	Weld	1B33G2-A1-B-L	RR-11-1	1	Long.	11 137'	0 11.22, 12.5	0
B-J	Weld	1B33G5-A1-A-LA	RR-11-2	1	Long.	11 175'	0 11.22, 12.5	0
B-J	Weld	1B33G5-A1-A-LB	RR-11-2	1	Long.	11 175'	0 11.22, 12.5	0

1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B33 Reactor Recirculation System - Volumetric Exams

<u>Cat.</u>	<u>Item</u>	<u>I D.</u> <u>Number</u>	<u>Dwg.</u>	<u>Class/</u> <u>Mat'l</u>	<u>Size</u>	<u>Area/</u> <u>Elv.</u>	<u>No. of</u> <u>Rec Ind,</u> <u>Notes</u> <u>Relf. Req.</u>	<u>No. of</u> <u>Rej.</u> <u>Ind.</u>
B-J	Weld	1B33G2-B1-A-LA	RR-11-8	1	Long.	11 137'	0 11.22, 12.5	0
B-J	Weld	1B33G2-B1-A-LB	RR-11-8	1	Long.	11 137'	0 11.22, 12.5	0
B-J	Weld	1B33G5-B1-A-LA	RR-11-9	1	Long.	11 108'	0 11.22, 12.5	0
B-J	Weld	1B33G5-B1-A-LB	RR-11-9	1	Long.	11 108'	0 11.22, 12.5	0
B-J	Weld	1B33G8-A1-A-LA	RR-11-3	1	Long.	11 120'	0 11.22, 12.5	0
B-J	Weld	1B33G8-A1-A-LB	RR-11-3	1	Long.	11 120'	0 11.22, 12.5	0

1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B33 Reactor Recirculation System - Surface Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Ind, Notes Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-J	Weld	1B33G3-A1-A-LA	RR-11-1	1	24"	11 106'	0	0
B-J	Weld	1B33G3-A1-A-LB	RR-11-1	1	24"	11 106'	0	0
B-J	Weld	1B33G001W3	RR-11-1	1	24"	11 106'	0	0
B-K-1	Lug	1B33G3-A1-F	RR-11-1	1	24"	11 120'	0	0
B-K-1	Lug	1B33G3-A1-G	RR-11-1	1	24"	11 120'	0	0
B-K-1	Lug	1B33G3-A1-H	RR-11-1	1	24"	11 120'	0	0
B-K-1	Lug	1B33G3-A1-J	RR-11-1	1	24"	11 120'	0	0
B-J	Weld	1B33G001W5	RR-11-2	1	24"	11 108'	0	0

1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLAN: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B33 Reactor Recirculation System - Surface Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Ind, Notes Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-J	Weld	1B33G001W1	RR-11-1	1	24"	11 137'	0	0
B-J	weld	1B33G001W1-L	RR-11-2	1	24"	11 137'	0	0
B-J	Weld	1B33G001W6	RR-11-2	1	24"	11 110'	0	0
B-J	Weld	1B33G001W6-L	PR-11-2	1	24"	11 110'	0	0
B-J	Weld	1B33G5-A1-B	RR-11-2	1	4"	11 105'	0	0
B-J	Weld	1B33G6-A1-C	RR-11-2	1	4"	11 104'	0	0
B-J	Weld	1B33G5-A1-E	RR-11-2	1	4"	11 105'	0	0
B-J	Weld	1B33G5-A1-F	RR-11-2	1	1.25"	11 104'	0	0

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1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B33 Reactor Recirculation System - Surface Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Incl, Notes Relf. Req.</u>	<u>No. of Rej. Incl.</u>
B-J	Weld	1B33G5-A1-G	RR-11-2	1	1.25"	11 104'	0	0
B-J	Weld	1B33GN141W5	RR-11-2	1	1.25"	11 104'	0	0
B-J	Weld	1B33G001W9	RR-11-3	1	24"	11 104'	0	0
B-J	Weld	1B33G7-A1-A-L	RR-11-3	1	24"	11 104'	0	0
B-J	Weld	1B33G8-A1-B	RR-11-3	1	24"	11 107'	0	0
B-J	Weld	1B33G8-A1-B-L	RR-11-3	1	24"	11 107'	0	0
B-J	Weld	1B33G10-A1-D	RR-11-4	1	16"	11 129'	1 11.19	0
B-J	Weld	1B33G001-CROSS-A	RR-11-4	1	24"	11 131'	0	0

1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B33 Reactor Recirculation System - Surface Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Ind, Notes Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-J	Weld	1B33G10-A1-C	RR-11-4	1	16"	11 129'	0	0
B-J	Weld	1B33G001W24	RR-11-8	1	24"	11 137'	0	0
B-J	Weld	1B33G001W24-L	RR-11-8	1	24"	11 137'	0	0
B-K-1	Lug	1B33G4-B1-H	RR-11-8	1	24"	11 120'	0	0
B-K-1	Lug	1B33G4-B1-J	RR-11-8	1	24"	11 120'	0	0
B-K-1	Lug	1B33G4-B1-K	RR-11-8	1	24"	11 120'	0	0
B-K-1	Lug	1B33G4-B1-L	RR-11-8	1	24"	11 120'	0	0
B-J	Weld	1B33G4-B1-A-LA	RR-11-8	1	24"	11 104'	0	0

1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B33 Reactor Recirculation System - Surface Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Incl, Notes Relf Req.</u>	<u>No. of Rej. Incl.</u>
B-J	Weld	1B33G4-B1-A-1B	RR-11-8	1	24"	11 104'	0	0
B-J	Weld	1B33G001W26	RR-11-8	1	24"	11 104'	0	0
B-J	Weld	1B33G023W37	RR-11-15	DCA	20"	11 115'	0	0
B-J	Weld	1B33G023W116	RR-11-15	DCA	20"	11 112'	0	0
B-J	Weld	1B33G023W117	RR-11-15	DCA	20"	11 115'	0	0
B-J	Weld	1B33G023W38	RR-11-15	DCA	20"	11 117'	0	0
B-J	Weld	1B33G001W26	RR-11-9	1	24"	11 108'	0	0
B-K-1	Lug	1B33C001B-B3 Lug-5	RR-11-9	1	Pump	11 110'	0	0

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1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS, 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS, 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B33 Reactor Recirculation System - Surface Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Incl, Notes Relf. Req.</u>	<u>No. of Rej. Incl.</u>
B-K-1	Lug	1B33C001B-B4 Lug-4	RR-11-09	1	Pump	11 110'	0	0
B-K-1	Lug	1B33C001B-B5 Lug-5	RR-11-09	1	Pump	11 110'	0	0
B-K-1	Lug	1B33C001B-B6 Lug-6	RR-11-09	1	Pump	11 110'	0	0
B-J	Weld	1B33G001W29	RR-11-09	1	24"	11 110'	0	0
B-J	Weld	1B33G10-B1-C	RR-11-11	1	16"	11 129'	0	0
B-J	Weld	1B33G10-B1-D	RR-11-11	1	16"	11 129'	0	0
B-J	Weld	1B33G001W40	RR-11-12	1	12"	11 137'	0	0
B-J	Weld	1B33G11-B206-B-L	RR-11-12	1	12"	11 137'	0	0

1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B33 Reactor Recirculation System - Surface Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Ind, Notes Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-J	W'd	1B33G001W38	RR-11-12	1	12"	11 137'	0	0
B-J	Weld	1B33G11-B231-B-L	RR-11-12	1	12"	11 137'	0	0
B-J	Weld	1B33G001W36	RR-11-13	1	12"	11 137'	0	0
B-J	Weld	1B33G11-B257-B-L	RR-11-13	1	12"	11 137'	0	0
B-J	Weld	1B33G001W42	RR-11-13	1	12"	11 137'	0	0
B-J	Weld	1B33G11-B282-B-L	RR-11-13	1	12"	11 137'	0	0
B-J	Weld	1B33G001W44	RR-11-14	1	12"	11 137'	0	0
B-J	Weld	1B33G11-B308-B-I	RR-11-14	1	12"	11 137'	0	0

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1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B33 Reactor Recirculation System - Surface Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Ind, Notes Relf. Req.</u>	<u>No. of Req. I-I.</u>
B-J	Weld	1B33G001W46	RR-11-14	1	12"	11 137'	0	0
B-J	Weld	1B33G11-B333-B-L	RR-11-14	1	12"	11 137'	0	0
B-J	Weld	1B33G105W14	RR-11-22	DCA	2"	11 101'	0	0
B-J	Weld	1B33G105W16	RR-11-22	DCA	2"	11 101'	0	0
B-J	Weld	1B33G104W17	RR-11-22	DCA	2"	11 101'	0	0
B-G-1	Studs	1B33C001B	RR-11-9	1	Pump	11 106'	0	0

1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE): NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

B33 Reactor Recirculation System - Visual Exams

Cat.	Item	I.D. Number	Dwg.	Class/ Mat'l	Size	Area/ Elv	No. of Rec Ind, Notes Relf. Req.	No. of Rej. Ind.
F-C VT-3	Hang	Q1B33G002H305B	RR-11-8	1	24'	11 118'	0	0
F-C VT-4	Hang	Q1B33G002H305B	RR-11-8	1	24"	11 118'	0	0
F-C VT-3	Hang	Q1B33G002H306B	RR-11-8	1	24"	11 118'	0	0
F-C VT-4	Hang	Q1B33G002H306B	RR-11-8	1	24"	11 118'	0	0
F-C VT-3	Hang	Q1B33G002H304B	RR-11-9	1	24"	11 139'	1 11.20	0
F-C VT-4	Hang	Q1B33G002H304B	RR-11-9	1	24"	11 139'	1 11.20	0
F-C VT-3	Hang	Q1B33G002H354B	RR-11-11	1	16"	11 139'	0	0
F-C VT-4	Hang	Q1B33G002H354B	RR-11-11	1	16"	11 139'	0	0

-
1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS, 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT JEFFERSON, MS, 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATION

B33 Reactor Recirculation System (Summary)

Total number of volumetric exams performed during this time frame	43
Total number of volumetric exams performed during third period	43
Total number of Volumetric exams required during third period	87
Percentage of third period required exams complete	49
Total number of volumetric exams performed during ten years interval	109
Total number of volumetric exams required during ten year interval	153
Percentage of ten year interval required exams complete	71
Total number of surface exams performed during this time frame	61
Total number of surface exams performed during third period	61
Total number of surface exams required during third period	72
Percentage of third period exams complete	85
Total number of surface exams performed during ten year interval	154
Total number of surface exams required during ten year interval	165
Percentage of ten year interval required exams complete	93

-
1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATION

B33 Reactor Recirculation System (Summary)

Total number of visual exams performed during this time frame	8
Total number of visual exams performed during third period	8
Total number of visual exams required during third period	9
Percentage of third period required exams complete	89
Total number of visual exams performed during ten year interval	61
Total number of visual exams required during ten year interval	62
Percentage of ten year interval required exams complete	98
Total number of exams performed during this time frame	112
Total number of exams performed during third period	112
Total number of exams required during third period	168
Percentage of third period exams complete	67
Total number of exams performed during ten year interval	324
Total number of exams required during ten year interval	380
Percentage of ten year interval required exams complete	85

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1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

C11 Control Rod Drive - Visual Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>CRD Location</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Incl, Notes Ref. Req.</u>	<u>No. of Rej. Incl.</u>
B-G-2	Bolting	8375	24-17	1/SS	N/A	11 111'	0 I-00008	0
B-G-2	Bolting	9262	28-17	1/SS	N/A	11 111'	0 I-00008	0
B-G-2	Bolting	8580	24-21	1/SS	N/A	11 111'	1 11.15 I-00008	0
B-G-2	Bolting	8179	16-21	1/SS	N/A	11 111'	0 I-00008	0
B-G-2	Bolting	8131	16-25	1/SS	N/A	11 111'	5 12.8 I-00008	0
B-G-2	Bolting	8483	20-29	1/SS	N/A	11 111'	0 I-00008	0
B-G-2	Bolting	8228	12-29	1/SS	N/A	11 111'	4 12.8 I-00008	0
B-G-2	Bolting	8764	08-33	1/SS	N/A	11 111'	0 I-00008	0

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1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

C11 Control Rod Drive - Visual Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>CRD Location</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Incl, Notes Ref. Req.</u>	<u>No. of Rej. Incl.</u>
B-G-2	Bolting	8670	20-37	1/SS	N/A	11 111'	0 I-00008	0
B-G-2	Bolting	8716	24-45	1/SS	N/A	11 111'	0 I-00008	0
B-G-2	Bolting	8828	32-53	1/SS	N/A	11 111'	3 11.15, 12.8 I-00008	0
B-G-2	Bolting	7716	36-53	1/SS	N/A	11 111'	1 11.15 I-00008	0
B-G-2	Bolting	8868	44-45	1/SS	N/A	11 111'	1 12.8 I-00008	0
B-G-2	Bolting	8694	32-41	1/SS	N/A	11 111'	1 11.15, 12.8 I-00008	0
B-G-2	Bolting	8316	40-37	1/SS	N/A	11 111'	1 11.15 I-00008	0

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1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

C11 Control Rod Drive - Visual Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>CRD Location</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Incl, Notes Relf. Req.</u>	<u>No. of Rej. Incl.</u>
B-G-2	Bolting	8710	44-37	1/SS	N/A	11 111'	0 I-00008	0
B-G-2	Bolting	9589	32-33	1/SS	N/A	11 111'	0 I-00008	0
B-G-2	Bolting	A2048	36-35	1/SS	N/A	11 111'	1 11.16 I-00008	0
B-G-2	Bolting	7592	36-29	1/SS	N/A	11 111'	0 I-00008	0
B-G-2	Bolting	8832	48-29	1/SS	N/A	11 111'	0 I-00008	0
B-G-2	Bolting	8765	52-29	1/SS	N/A	11 111'	1 11.17, 12.8 I-00008	0
B-G-2	Bolting	9457	36-21	1/SS	N/A	11 111'	1 11.15 I-00008	0

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1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

C41 Standby Liquid Control System - Surface Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Ind, Notes Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-J	Weld	1C41G136W514	LC-11-13	DCA	1.5"	11 155'	0	0
B-J	Weld	1C41G136W513	LC-11-13	DCA	1.5"	11 155'	0	0
B-J	Weld	1C41G136W512	LC-11-13	DCA	1.5"	11 155'	0	0
B-J	Weld	1C41G136W511	LC-11-13	DCA	1.5"	11 155'	0	0
B-J	Weld	1C41G36W510	LC-11-13	DCA	1.5"	11 155'	0	0
B-J	Weld	1C41G136W509	LC-11-13	DCA	1.5"	11 152'	0	0
B-J	Weld	1C41G136W508	LC-11-13	DCA	1.5"	11 152'	0	0
B-J	Weld	1C41G136W515	LC-11-13	DCA	1.5"	11 152'	0	0

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2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

C41 Standby Liquid Control System - Surface Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D.</u> <u>Number</u>	<u>Dwg.</u>	<u>Class/</u> <u>Mat'l</u>	<u>Size</u>	<u>Area/</u> <u>Elev.</u>	<u>No. of</u> <u>Rec Ind,</u> <u>Notes</u> <u>Relf. Req.</u>	<u>No. of</u> <u>Rej.</u> <u>I.d.</u>
B-J	Weld	1C41G136W516	LC-11-13	DCA	1.5"	11 152'	0	0
B-J	Weld	1C41G119W504	LC-11-11	DCA	1.5"	11 112'	0	0
B-J	Weld	1C41G119W505	LC-11-11	DCA	1.5"	11 112'	0	0
B-J	Weld	1C41G119W506	LC-11-11	DCA	1.5"	11 112'	0	0
B-J	Weld	1C41G119W13	LC-11-11	DCA	1.5"	11 112'	0	0

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2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS, 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

C41 Standby Liquid Control System - Visual Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Incl, Notes Relf. Req.</u>	<u>No. of Rej. Incl.</u>
F-B VT-3	Hang	Q1C41G136002	LC-11-13	DCA	1.5"	11 155'	0	0
F-B VT-3	Hang	Q1C41G120001	LC-11-08	DCA	1.5"	11 155'	0	0
F-B VT-3	Hang	Q1C41G120002	LC-11-08	DCA	1.5"	11 155'	0	0
F-B VT-4	Hang	Q1C41G120002	LC-11-08	DCA	1.5"	11 155'	0	0

-
1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATION
C41 Standby Liquid Control System (Summary)

Total number of volumetric exams performed during this time frame	N/A
Total number of volumetric exams performed during third period	N/A
Total number of Volumetric exams required during third period	N/A
Percentage of third period required exams complete	N/A
Total number of volumetric exams performed during ten years interval	N/A
Total number of volumetric exams required during ten year interval	N/A
Percentage of ten year interval required exams complete	N/A
Total number of surface exams performed during this time frame	13
Total number of surface exams performed during third period	13
Total number of surface exams required during third period	15
Percentage of third period exams complete	87
Total number of surface exams performed during ten year interval	32
Total number of surface exams required during ten year interval	34
Percentage of ten year interval required exams complete	94

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1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
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10. ABSTRACT OF EXAMINATION

C41 Standby Liquid Control System (Summary)

Total number of visual exams performed during this time frame	3
Total number of visual exams performed during third period	3
Total number of visual exams required during third period	7
Percentage of third period required exams complete	43
Total number of visual exams performed during ten years interval	22
Total number of visual exams required during ten year interval	26
Percentage of ten year interval required exams complete	85
Total number of exams performed during this time frame	16
Total number of exams performed during third period	16
Total number of exams required during third period	22
Percentage of third period exams complete	72
Total number of exams performed during ten year interval	54
Total number of exams required during ten year interval	60
Percentage of ten year interval required exams complete	90

1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995 JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

E12 Residual Heat Removal System - Volumetric Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Ind, Notes Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-J	Weld	1E12G015W98	RR-11-9	DBA	14"	11 140'	0	0
B-J	Weld	1E12G015W18	RR-11-9	DBA	14"	11 140'	0	0
B-J	Weld	1E12G016W16	RR-11-5	DBA	12"	11 162'	0	0
B-J	Weld	1E12G016W14	RR-11-5	DBA	12"	11 150'	0	0
B-J	Weld	1E12G016W13	RR-11-5	DBA	12"	11 148'	0 16	0
B-J	Weld	1E12G016W12	RR-11-5	DBA	12"	11 148'	0	0
B-J	Weld	1E12G016W23	RR-11-6	DBA	12"	11 143'	0	0
B-J	Weld	1E12G016W15	RR-11-5	DBA	12"	11 152'	0	0

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1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

E12 Residual Heat Removal System - Surface Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Incl, Notes Relf. Req.</u>	<u>No. of Rej. Incl.</u>
B-J	Weld	1E12G015W98	RR-11-9	DBA	14"	11 140'	0	0
B-J	Weld	1E12G015W18	RR-11-9	DBA	14"	11 140'	0	0
B-J	Weld	1E12G016W16	RR-11-5	DBA	12"	11 162'	0	0
B-J	Weld	1E12G016W14	RR-11-5	DBA	12"	11 150'	0	0
B-J	Weld	1E12G016W13	RR-11-5	DBA	12"	11 148'	0	0
B-J	Weld	1E12G016W12	RR-11-6	DBA	12"	11 148'	0	0
B-J	Weld	1E12G016W23	RR-11-6	DBA	12"	11 143'	0	0
B-J	Weld	1E12G016W15	RR-11-5	DBA	12"	11 152'	0	0

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 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

E12 Residual Heat Removal System - Visual Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Ind, Notes Relf. Req.</u>	<u>N. of Rej. Ind.</u>
F-C VT-3	Hang	Q1E12G015H12	RR-11-10	DBA	14"	11 143'	0	0
F-C VT-4	Hang	Q1E12G015H12	RR-11-10	DBA	14"	11 143'	0	0

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 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS, 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATION

E12 Residual Heat Removal System (Summary)

Total number of volumetric exams performed during this time frame	8
Total number of volumetric exams performed during third period	8
Total number of Volumetric exams required during third period	53
Percentage of third period required exams complete	15
Total number of volumetric exams performed during ten years interval	72
Total number of volumetric exams required during ten year interval	118
Percentage of ten year interval required exams complete	61
Total number of surface exams performed during this time frame	8
Total number of surface exams performed during third period	8
Total number of surf exams required during third period	84
Percentage of third period exams complete	09
Total number of surface exams performed during ten year interval	125
Total number of surface exams required during ten year interval	199
Percentage of ten year interval required exams complete	63

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1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS, 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS, 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATION

E12 Residual Heat Removal (Summary)

Total number of visual exams performed during this time frame	2
Total number of visual exams performed during third period	2
Total number of visual exams required during third period	55
Percentage of third period required exams complete	03
Total number of visual exams performed during ten years interval	92
Total number of visual exams required during ten year interval	158
Percentage of ten year interval required exams complete	58
Total number of exams performed during this time frame	18
Total number of exams performed during third period	18
Total number of exams required during third period	192
Percentage of third period exams complete	09
Total number of exams performed during ten year interval	289
Total number of exams required during ten year interval	475
Percentage of ten year interval required exams complete	61

1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS, 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS, 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

E21 Low Pressure Core Spray - Volumetric Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Ind, Notes Ref. Req.</u>	<u>No. of Rej. Ind.</u>
B-J	Weld	1E21G002W10	LP-11-3	DBA	14"	11 153'	0	0

E21 Low Pressure Core Spray - Surface Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Ind, Notes Ref. Req.</u>	<u>No. of Rej. Ind.</u>
B-J	Weld	1E21G002W10	LP-11-3	DBA	14"	11 153'	0	0

-
1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATION

E21 Low Pressure Core Spray (Summary)

Total number of volumetric exams performed during this time frame	1
Total number of volumetric exams performed during third period	1
Total number of Volumetric exams required during third period	6
Percentage of third period required exams complete	17
Total number of volumetric exams performed during ten years interval	6
Total number of volumetric exams required during ten year interval	11
Percentage of ten year interval required exams complete	55
Total number of surface exams performed during this time frame	1
Total number of surface exams performed during third period	1
Total number of surface exams required during third period	15
Percentage of third period exams complete	06
Total number of surface exams performed during ten year interval	22
Total number of surface exams required during ten year interval	35
Percentage of ten year interval required exams complete	63

-
1. OWNER: FENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS, 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS, 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATION

E21 Low Pressure Core Spray (Summary)

Total number of visual exams performed during this time frame	0
Total number of visual exams performed during third period	0
Total number of visual exams required during third period	0
Percentage of third period required exams complete	N/A
Total number of visual exams performed during ten years interval	11
Total number of visual exams required during ten year interval	11
Percentage of ten year interval required exams complete	100
Total number of exams performed during this time frame	2
Total number of exams performed during third period	2
Total number of exams required during third period	21
Percentage of third period exams complete	09
Total number of exams performed during ten year interval	39
Total number of exams required during ten year interval	57
Percentage of ten year interval required exams complete	68

1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, POB 1 GIBSON, MS. 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

E22 High Pressure Core Spray - Volumetric Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Ind, Notes Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-J	Weld	E22G003W11	HP-11-1	DBA	12"	11 157'	0	0

E22 High Pressure Core Spray - Surface Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Ind, Notes Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-J	Weld	1E22G003W11	HP-11-1	DBA	12"	11 157'	0	0
B-J	Weld	1E22G003W28	HP-11-1	DBA	3"	11 155'	0	0
B-J	Weld	1E22G003W30	HP-11-1	DBA	3"	11 155'	0	0
B-J	Weld	1E22G003W31	HP-11-1	DBA	3"	11 155'	0	0

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2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)
 E22 High Pressure Core Spray - Visual Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Ind, Notes Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-G-2 VT-1	Bolts	1E22F004	HP-8-1	1	12"	11 125'	0	0

-
1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 755, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATION

E22 High Pressure Core Spray (Summary)

Total number of volumetric exams performed during this time frame	1
Total number of volumetric exams performed during third period	1
Total number of Volumetric exams required during third period	4
Percentage of third period required exams complete	25
Total number of volumetric exams performed during ten years interval	14
Total number of volumetric exams required during ten year interval	17
Percentage of ten year interval required exams complete	85
Total number of surface exams performed during this time frame	4
Total number of surface exams performed during third period	4
Total number of surface exams required during third period	15
Percentage of third period exams complete	27
Total number of surface exams performed during ten year interval	26
Total number of surface exams required during ten year interval	36
Percentage of ten year interval required exams complete	72

-
1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS, 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS, 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATION

E22 High Pressure Core Spray (Summary)

Total number of visual exams performed during this time frame	2
Total number of visual exams performed during third period	2
Total number of visual exams required during third period	9
Percentage of third period required exams complete	22
Total number of visual exams performed during ten years interval	10
Total number of visual exams required during ten year interval	19
Percentage of ten year interval required exams complete	53
Total number of exams performed during this time frame	7
Total number of exams performed during third period	7
Total number of exams required during third period	28
Percentage of third period exams complete	25
Total number of exams performed during ten year interval	50
Total number of exams required during ten year interval	70
Percentage of ten year interval required exams complete	71

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2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

E51 Reactor Core Isolation Cooling- Visual Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Incl, Notes Relf. Req.</u>	<u>No. of Rej. Incl.</u>
F-B VT-3	Hang	Q1E51G001H06	RI-11-6	DEA	6"	11 145'	0	0
F-C VT-3	Hang	Q1E51G001H07	RI-11-5	DEA	10"	11 178'	0	0
F-C VT-4	Hang	Q1E51G001H07	RI-11-5	DEA	10"	11 178"	0	0
F-C VT-3	Hang	Q1E51G001H09	RI-11-4	DEA	6"	11 193'	0	0
F-C VT-4	Hang	Q1E51G001H09	RI-11-4	DEA	6"	11 193'	0	0
F-C VT-3	Hang	Q1E51G004H07	RI-11-1	DEA	10"	11 167'	0	0
F-C VT-4	Hang	Q1E51G004H07	RI-11-1	DEA	10"	11 167'	0	0
B-G-2 VT-1	Bolting	Flange between W85 & 16-11-1	RI-11-4	DEA	6"	11 192'	0	0

1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

E51 Reactor Core Isolation Cooling- Visual Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Ind, Notes Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-G-2 VT-1	Bolting	Flange between W58 & 35-11-1	RI-11-5	DBA	6"	11 185'	0	0

-
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5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATION

E51 Reactor Core Isolation Cooling (Summary)

Total number of volumetric exams performed during this time frame	0
Total number of volumetric exams performed during third period	0
Total number of Volumetric exams required during third period	11
Percentage of third period required exams complete	0
Total number of volumetric exams performed during ten years interval	48
Total number of volumetric exams required during ten year interval	81
Percentage of ten year interval required exams complete	59
Total number of surface exams performed during this time frame	0
Total number of surface exams performed during third period	0
Total number of surface exams required during third period	23
Percentage of third period exams complete	0
Total number of surface exams performed during ten year interval	63
Total number of surface exams required during ten year interval	87
Percentage of ten year interval required exams complete	72

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 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATION

E51 Reactor Core Isolation Cooling (Summary)

Total number of visual exams performed during this time frame	9
Total number of visual exams performed during third period	9
Total number of visual exams required during third period	18
Percentage of third period required exams complete	50
Total number of visual exams performed during ten years interval	24
Total number of visual exams required during ten year interval	40
Percentage of ten year interval required exams complete	60
Total number of exams performed during this time frame	9
Total number of exams performed during third period	9
Total number of exams required during third period	81
Percentage of third period exams complete	11
Total number of exams performed during ten year interval	135
Total number of exams required during ten year interval	208
Percentage of ten year interval required exams complete	67

FORM NIS-1
 SUPPLEMENTAL SHEET
 PAGE 106 OF 126

1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)

P41 Standby Service Water System - Visual Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Lng.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Ind, Notes Relf. Req.</u>	<u>No. of Rej. Ind.</u>
DA, DB ,DC VT-3	Hang	Q1P41G004C36	WS-9-05	HBC	8"	9 181'	0	0
DA, DB ,DC VT-3	Hang	Q1P41G014C05	WS-YD-11	HBC	24"	YD 126'	0 14, 11.23	0
F-B VT-3	Hang	Q1P41G014C05	WS-YD-11	HBC	24"	YD 126'	0	0
DA, DB ,DC VT-3	Hang	QSP41G013C05	WS-YD-10	HBC	20"	YD 123'	0	0
F-B VT-3	Hang	QSP41G013C05	WS-YD-10	HBC	20"	YD 123'	0	0
DA, DB ,DC VT-3	Hang	QSP41G013C03	WS-YD-10	HBC	20"	YD 123'	0	0
F-B VT-3	Hang	QSP41G021R02	WS-YD-12	HBC	3"	YD 120'	0 11.25, 12.7	0
F-B VT-3	Hang	Q2P41G014C10	WS-YD-11	HBC	24"	YD 126'	0	0

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3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

10. ABSTRACT OF EXAMINATION (Piping Welds, Components and Supports)
 P41 Standby Service Water System - Visual Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Ind, Notes Relf. Req.</u>	<u>No. of Ref. Time</u>
DA, DB ,DC VT-3	Hang	Q2P41G014C10	WS-YD-11	HBC	24"	YD 126'	0 14, 11.23	0
F-B VT-3	Hang	Q2P41G014C07	WS-YD-11	HBC	24"	YD 126'	0 12.6	0
F-B VT-3	Hang	Q2P41G014C08	WS-YD-11	HBC	24"	YD 126'	0	0
F-B VT-3	Hang	Q2P41G014R02	WS-YD-11	HBC	24"	YD 123'	0	0
F-B VT-3	Hang	Q2P41G013R01	WS-YD-09	HBC	24"	YD 125	0 11.24, 12.9	0
F-B VT-3	Hang	Q1P41G002R05	WS-8-5	HBC	20"	8 107'	0	0

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2. PLANT: GRAND GULE NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATION

P41 Standby Service Water (Summary)

Total number of visual exams performed during this time frame	14
Total number of visual exams performed during third period	14
Total number of visual exams required during third period	56
Percentage of third period required exams complete	9
Total number of visual exams performed during ten year interval	113
Total number of visual exams required during ten year interval	258
Percentage of ten year interval required exams complete	44
Total number of exams performed during this time frame	14
Total number of exams performed during third period	14
Total number of exams required during third period	156
Percentage of third period exams complete	9
Total number of exams performed during ten year interval	113
Total number of exams required during ten year interval	258
Percentage of ten year interval required exams complete	44

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1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
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 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATION (Class I Valves)

CLASS I VALVES

A. CODE REQUIREMENTS

The internal surfaces of ASME Class I valves larger than 4 inches NPS shall be visually inspected once each ten year interval in accordance with ASME Section XI, Table IWB-2500-1, Examination Category B-M-1, Item B12.40.

B. INSERVICE INSPECTION

Applicable inservice inspections are to be performed in accordance with the requirements of ASME Section XI, 1980 Edition through and including the winter 1980 Addenda. Note 3 of Table IWB-2500-1 Category B-M-2 states, "Examinations are limited to one valve within each group of valves that are of the same construction design, such as globe, gate or check valve, and manufacturing method and that are performing similar functions in the system, such as containment isolation and system overpressure protection." Grand Gulf grouped all Class I valves in accordance with the above criteria from Note 3. Inspection of any one (1) valve in a group will satisfy inspection requirements for that particular group, thus ISI credit will be taken for only one valve per group. Should disassembly be required for plant reasons earlier than the third period, an inspection may be performed at that time to fulfill requirements. The examination is required for the valve body internal surfaces only and doesn't include the internal components of the valve.

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 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATION (Class I Valves) cont.

C. GROUPINGS

There are nine groups of valves at Grand Gulf Nuclear Station. The following is the inspection status of each group:

- Group #1 - Contains two 24" piston check valves. To date, both of the valves have been VT-3 examined and were found acceptable. The requirements of Section XI on Group #1 "B-M-2" have been satisfied.
- Group #2 - Contains four 14" gate valves, one 12" gate valve, one 20" gate valve and two 24" gate valves. To date none of this group have been inspected.
- Group #3 - Contains one 6" swing check valve, one 12" swing check valve, four 14" swing check valves and two 24" swing check valves. To date, the two 24", one 12" valve and one 14" valve have been VT-3 examined and were found acceptable. The requirements of Section XI on Group #3 Category "B-M-2" have been satisfied.
- Group #4 - Contains two 6" globe valves and eight 28" globe valves. To date, one 28" valve has been VT-3 examined and found acceptable. The requirements of Section XI on Group #4 Category "B-M-2" have been satisfied.
- Group #5 - Contains twenty Main Steam relief valves identified by valve location number. Grand Gulf has fifty valves that could be utilized at the twenty locations. To date, twenty-eight of the fifty valves have been VT-3 examined and found acceptable. The requirements of Section XI on Group #5 Category "B-M-2" have been satisfied.

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Group #6 - Contains four 24" gate valves. To date, none have been examined.

Group #6 - Contains four 24" gate valves. To date, none have been examined.

Group #7 - Contains two 24" ball valves. To date, both valves have been VT-3 examined and were found acceptable. The requirements of Section XI on Group #7 Category B-M-2 have been satisfied.

Group #8 - Contains seven 6" gate valves, two 10" gate valves, two 12" gate valves, three 14" gate valves and two 20" gate valves. To date, one 12" gate valve and one 6" have been examined and found acceptable. The requirements of Sections XI for Group #8 Category B-M-2 have been satisfied.

<u>Cat.</u>	<u>Item</u>	<u>I.D. Number</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec Ind, Notes Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-M-2 VT-1	Valve	Q11E22F004	HP-8-1	1	12"	11 125'	0	0
B-M-2 VT-1	Valve	Q1GG33F001	CJ-11-3	1	6"	11 140'	0	0

Group #9 - Contains one 6" piston check valve. To date, it has not been inspected.

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-

10. ABSTRACT OF EXAMINATION (Class I Valves) cont.

CLASS I VALVES (Summary)

Total number of credited visual exams performed this time frame	1
Total number of visual exams required for the Ten Year Interval	9
Total number of visual exams performed for the Ten Year Interval	6
Percentage of Ten Year Interval requirements completed	66.6

-
1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
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-

RESOLUTIONS TO OPEN ITEMS IDENTIFIED IN NIS-1-00008

CODE CATEGORY C-H AND D-A, D-B, D-C

ITEM: All class 2 and 3 pressure retaining components

<u>I. D Number</u>	<u>Reported on NIS-1-00008</u>	<u>Resolution</u>
G41 Fuel Pool Cooling and Cleanup System	Zone P-1068-04 is not complete	The required pressure test have been completed
P41 Standby Service Water System	Zones P-1061-01, P1061-02, P1061-05, and P-1061-06 were not completed	The required pressure test have been completed
P75 Standby Diesel Generator System	Zones P-1070-01, P-1070-02, P-1070-03, 1070-05, and P-1070-06 were not completed	The required pressure test have been completed
P81 HPCS Diesel Generator System	Zones P-1093-01, P1093-02, and P1093-03 were not completed	The required pressure test have been completed

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5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATIONS (SYSTEM PRESSURE TESTING PERIOD 2)

The following is a overall summary of the results of Inservice Inspection (ISI) for System Pressure Testing conducted at Grand Gulf Nuclear Station, Unit 1 for the second (2nd) period indicating the completion of the second period for system pressure testing. The summary is itemized by the applicable Code Categories described in Table IWB-2500-1, IWC-2500-1 and IWD-2500-1 of ASME Section XI, 1977 Edition, with the Addenda through and including Summary of 1979.

This abstract of examinations is itemized by the applicable system and zone numbers providing the number of rejectable and recordable indications for each zone. Provided at the end of this abstract is the total number of rejectable and recordable indications and percent (%) complete for the period. The percent complete reflects the percentage of pressure test zones completed and not footage of pipe.

The term "Pressure Test Zone" refers to the actual system pressure test that placed the applicable portion of the system in the condition required for the VT-2.

The term "Recordable Indication" is defined as leakage reported from a pressure retaining components such as flanges, packing etc... The "Recordable Indications" noted in this report were identified during this inspection time frame.

The term "Rejectable Indication" is defined as leakage reported from a pressure retaining components such as piping through wall leakage etc...

A VT-2 was performed in conjunction with each system pressure test. During the course of the inspections there were only recordable indications found. These indications were either evaluated as acceptable or a Maintenance Work Order (MWO) was issued for corrective action.

-
1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS, 39286-1995
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 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATIONS (SYSTEM PRESSURE TESTING PERIOD 2)

CODE CATEGORY C-H, D-A, D-B AND D-C

This category includes all Class 2 & 3 pressure retaining components.

SYSTEM NUMBER	SYSTEM DESCRIPTION	PRESSURE TEST ZONE	NUMBER OF RECORDABLE INDICATIONS	NUMBER OF REJECTABLE INDICATIONS
G41	Fuel Pool Cooling and Cleanup Sys.	P-1088-04	0	0
P41	Standby Service Water	P-1061-01 P-1061-02 P-1061-05 P-1061-06	0	0
P75	Standby Diesel Generator Sys.	P-1070-01 P-1070-02 P-1070-03 P-1070-05 P-1070-06	0	0
P81	HPCS Diesel Generator Sys.	P-1093-01 P-1093-02 P-1093-03	0	0

CODE CATEGORY C-H, D-A, D-B AND D-C SUMMARY

THE TOTAL % COMPLETE FOR THE SECOND PERIOD IS 100%
THE TOTAL NUMBER OF RECORDABLES IDENTIFIED IS 0
THE TOTAL NUMBER OF REJECTABLES IDENTIFIED IS 0

-
1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATIONS (SYSTEM PRESSURE TESTING PERIOD 3)

The following is a overall summary of the results of Inservice Inspection (ISI) for System Pressure Testing conducted at Grand Gulf Nuclear Station, Unit 1 for the third period. The summary is itemized by the applicable Code Categories described in Table IWB-2500-1, IWC-2500-1 and IWD-2500-1 of ASME Section XI, 1977 Edition, with the Addenda through and including Summary of 1979.

This abstract of examinations is itemized by the applicable system and zone numbers providing the number of rejectable and recordable indications for each zone. Provided at the end of this abstract is the total number of rejectable and recordable indications and percent (%) complete for the period. The percent complete reflects the percentage of pressure test zones completed and not footage of pipe.

The term "Pressure Test Zone" refers to the actual system pressure test that placed the applicable portion of the system in the condition required for the VT-2.

The term "Recordable Indication" is defined as leakage reported from a pressure retaining components such as flanges, packing etc...
The "Recordable Indications" noted in this report were identified during this inspection time frame.

The term "Rejectable Indication" is defined as leakage reported from a pressure retaining components such as piping through wall leakage etc...

A VT-2 was performed in conjunction with each system pressure test. During the course of the inspections there were only recordable indications found. These indications were either evaluated as acceptable or a Maintenance Work Order (MWO) was issued for corrective action.

-
1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
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 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATIONS (SYSTEM PRESSURE TESTING period 3)

CODE CATEGORY B-P (Required after each re-fueling outage)

This category includes all Class 1 pressure retaining components.

SYSTEM NUMBER	SYSTEM DESCRIPTION	PRESSURE TEST ZONE	NUMBER OF RECORDABLE INDICATIONS	NUMBER OF REJECTABLE INDICATIONS
Various	Class 1	N/A	18	0

CODE CATEGORY B-P SUMMARY

THE TOTAL % COMPLETE FOR THE THIRD PERIOD IS 338
THE TOTAL NUMBER OF RECORDABLES IDENTIFIED IS 18
THE TOTAL NUMBER OF REJECTABLES IDENTIFIED IS 0

-
1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATIONS (SYSTEM HYDRO TESTING INTERVAL 1)

The following is a overall summary of the results of Inservice Inspection (ISI) for System Hydrostatic Testing conducted at Grand Gulf Nuclear Station, Unit 1 between November 26, 1990 and June 9, 1992. The summary is itemized by the applicable Code Categories described in Table IWB-2500-1, IWC-2500-1 and IWD-2500-1 of ASME Section XI, 1977 Edition, with the Addenda through and including Summary of 1979.

This abstract of examinations is itemized by the applicable system and hydro numbers providing the number of rejectable and recordable indications for each hydro. Provided at the end of this abstract is the total number of rejectable and recordable indications.

The term "Hydro Number" refers to the actual system hydro test that placed the applicable portion of the system in the condition required for the VT-2.

The term "Recordable Indication" is defined as leakage reported from a pressure retaining components such as flanges, packing etc... The "Recordable Indications" noted in this report were identified during this inspection time frame.

The term "Rejectable Indication" is defined as leakage reported from a pressure retaining components such as piping through wall leakage etc...

A VT-2 was performed in conjunction with each system hydro test. During the course of these inspections there were only recordable indications found. These indications were either evaluated as acceptable or a Maintenance Work Order (MWO) was issued for corrective action.

-
1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995 JACKSON, MS. 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

10. ABSTRACT OF EXAMINATIONS (SYSTEM HYDRO TESTING INTERVAL 1)

CODE CATEGORY C-H, D-A, D-B, D-C

This category includes all Class 2 AND 3 pressure retaining components.

SYSTEM NUMBER	SYSTEM DESCRIPTION	PRESSURE TEST ZONE	NUMBER OF RECORDABLE INDICATIONS	NUMBER OF REJECTABLE INDICATIONS
P41	Standby Service Water	P41-02	4	0

CODE CATEGORY C-H, D-A, D-B AND D-C SUMMARY

THE TOTAL NUMBER OF RECORDABLES IDENTIFIED IS 4
THE TOTAL NUMBER OF REJECTABLES IDENTIFIED IS 0

-
1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
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 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

11. ABSTRACT OF CONDITIONS NOTED

- 11.1 The recordable indications were determined to be non-relevant indications, inside surface geometry, root geometry, and acoustic interface.
- 11.2 The recordable indications were determined to be non-relevant root geometry indications, inside surface geometry, and non-relevant indications.
- 11.3 The recordable indications were determined to be non-relevant indications, inside surface geometry, and acoustic interface.
- 11.4 The recordable indications were determined to be non-relevant indications and inside surface geometry.
- 11.5 The recorded indication was not present on the PSI report but was acceptable per QAI 9.13, Rev. 4, Table 3.
- 11.6 The recordable indications were determined to be non-relevant indications and acoustic interface.
- 11.7 The recordable indication was determined to be Clad Cut-back. Previous data was reviewed prior to resolution.
- 11.8 The recordable indication was determined to be ID bore geometry. The clad cut-back that was previously recorded during the preservice inspection, did not exceed recordable levels.
- 11.9 The recordable indication was determined to be inside surface geometry.
- 11.10 The recordable indication was determined to be ID bore geometry, clad cut-back, and a geometric indication associated with core spray bracket pad build-up. Previous data was reviewed prior to this resolution.

-
1. OWNER: ENTERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS, 39286-1995
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ABSTRACT OF CONDITIONS NOTED (cont.)

- 11.11 The recordable indication(s) was determined to be root geometry and/or non-relevant indication(s).
- 11.12 Non-relevant indications were recorded which include nicks, pits, impressions, and depressions.
- 11.13 The recordable indications were determined to be I.D. geometry.
- 11.14 The recordable indication was geometric in nature and was acceptable.
- 11.15 DMR - 0179-92 recorded damage to the socket area of several cap screws removed from several Control Rod Drive Assemblies. Also, two cap screws from CRD # 8828 have excessive corrosion and are address in MNCR 173-92. The cap screws were replaced during CRD change out.
- 11.16 DMR - 0173-92 recorded damage to the socket area of one cap screw. The cap screw was replaced during CRD change out.
- 11.17 DMR - 0184-92 recorded excessive corrosion on the shank of one cap screw. The cap screw was replaced during CRD change out.
- 11.18 The recordable indication was determined to be counterbore geometry recorded from downstream of weld.
- 11.19 The recordable indication was determined to be acceptable.
- 11.20 The setting on the variable spring can was indeterminate, thread projection in the eye nut for the rod connecting the spring can to pipe clamp could not be verified, lower jam nut on the rod was loose, and the spherical bearing on the clamp end of the adjacent strut was disengaged.
- 11.21 A review of previous examinations identified that an incorrect wedge was utilized during the previous examination. This condition was documented and evaluated in Corrective Action Report 92-08. See 12.1.

-
1. OWNER: ENTEPCO OPERATIONS, INC., ECHELO; ONE, P.O. BOX 31995, JACKSON, MS. 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS. 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 11/21/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

ABSTRACT OF CONDITIONS NOTED (cont.)

- 11.22 The longitudinal weld was not identified in M-489.1 as a required examination. This is documented by QDR-0110-92.
- 11.23 Item #6 (plate to stanchion weld) inaccessible for examination.
- 11.24 Cotter pins missing, debris and corrosion around spherical bearings and washers, and pitting. Also, both end bracket pins were slightly bent and both struts were frozen.
- 11.25 Cotter pins corroded, debris and corrosion on spherical bearings, and stated the strut would not rotate around bearings.

-
1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS, 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS, 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

12. ABSTRACT OF CORRECTIVE MEASURES RECOMMENDED AND ACTION TAKEN

- 12.1. The weld was re-examined using the correct wedge. The evaluation determined that GGNS was still in compliance with the examination percentages required by ASME Section XI, even with the disallowed examinations.
- 12.2. MNCR 0094-92 was dispositioned No Non-conformance Exists. This pipe support is located on 2" DBA-19 which is normally connected to the RPV Head Spray line located on top of the RPV. When the RPV insulation frame was removed from the top of the RPV, a considerable amount of piping supported by this support was not attached at the time of the inspection. Due to this situation, the piping system was not in its design configuration and the inspection performed yielded invalid results. It is not anticipated that these conditions exist during plant operation. These items can be considered a maintenance item for the following reasons: a dislodged spherical bearing (address by Bechtel under NRC I&E Circular 81-05) would not cause a support to fail its intended function, the thread engagement between the rod and the eye could be as little as 25% engaged and still carry the design load, and that the jam nut is a locking device and carries no load. The maintenance items were reworked.
- 12.3. The entire examinations was not completed because of interferences and/or limitation in the area to be examined. The examination was acceptable per code case N-460.
- 12.4. MNCR - 0134-92 documented damage to the threaded portion of the stud. The evaluation determined the degradation was caused by use of a pipe wrench during disassembly and was not service induced.
- 12.5. QDR - 0110-92 identified required exams on longitudinal welds not specified in M-489.1. The required exams were performed.
- 12.6. MNCR - 0082-92 documented corrosion in the area of the jam nut. The MNCR provided an evaluation justifying an "accept-as-is" disposition.

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 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

- 12.7 MNCR - 0077-92 identified the pipe support as having cotter pins corroded, debris and corrosion on spherical bearings, and stated the strut would not rotate around bearings. The non conforming condition could be justified as "accept-as-is", however, due to the replacement of the pipe struts and pins as part of preventive maintenance, the disposition was "rework".
- 12.8 MNCR - 0173-92 documents and evaluates visual indications found on 18 cap screws during the Control Rod Drive change out during RFO5. The indications and minor degradation of the cap screws was determined to be acceptable. A long term resolution of this issue is to be established by NPE prior to RFO6.
- 12.9 MNCR - 0092-92 documented cotter pins missing, debris and corrosion around spherical bearing and washers, and pitting. Also, both end bracket pins were slightly bent and both struts were frozen. The non-conforming condition could be justified as "accept-as-is", however, due to the replacement of the pipe struts and pins as part of preventive maintenance, the disposition was "rework".

-
1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS, 39286-1995
 2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS, 39150
 3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
 5. COMMERCIAL SERVICE DATE: 07/01/35 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)
-

GENERAL REFERENCE NOTES

1. Not required
2. Not required
3. Not required
4. Not required
5. Not required
6. Not required
7. Not required
8. Augmented exam in accordance with NUREG-0619 requirements.
9. Examined in accordance with Generic Letter 88-01.
10. Augmented exam in accordance with I&E Bulletin 80-13.
11. Augmented exam in accordance with I&E Bulletin 80-07.
12. Not required
13. Examinations include the space above and below the reactor core that is made accessible for examination by removal of components during normal refueling outages. See open item 7.
14. Reference SCR 92-0014, exam limitation due to design configuration.
15. Post examination after stress improvement. Section XI credit was taken in Period 1 or 2.
16. Acceptable per Code Case N-460.

1. OWNER: ENERGY OPERATIONS, INC., ECHELON ONE, P.O. BOX 31995, JACKSON, MS, 39286-1995
2. PLANT: GRAND GULF NUCLEAR STATION, P.O. BOX 756, PORT GIBSON, MS, 39150
3. PLANT UNIT: ONE 4. OWNER CERTIFICATE OF AUTHORIZATION (IF APPLICABLE) NA
5. COMMERCIAL SERVICE DATE: 07/01/85 6. NATIONAL BOARD NUMBER FOR UNIT: 13 (RPV ONLY)

SUMMARY OF OPEN ITEMS

This section lists items that were identified during RFO5. The resolution to these open items will be reported in NIS-1-00010.

ITEM NO.	CODE CATEGORY	ID NUMBER	TYPE OF EXAM	DESCRIPTION/EXAM NOT COMPLETED
1	B-J	B21G001W5	VOLUMETRIC	Entire examination volume cannot be examined - SCR 92-0014
2	B-J	B21G001W10	VOLUMETRIC	Entire examination volume cannot be examined - SCR 92-0014
3	B-J	B33G001W3	VOLUMETRIC	Entire examination volume cannot be examined - SCR 92-0014
4	B-J	B33G001W26	VOLUMETRIC	Entire examination volume cannot be examined - SCR 92-0014
5	DA, DB, DC	1P41G014C05	VT-3	Item 6 (plate stanchion to weld) inaccessible for examination
6	DA, DB, DC	2P41G014C10	VT-3	Item 6 (plate stanchion to weld) inaccessible for examination
7.	B-N-1	Accessible Areas	VT-3	Jet pump assemblies 21, 22, 23, and 24

TABLE 1
CLASS 1, 2, AND 3 CODE CATEGORY SUMMARY

<u>Cat</u>	<u>Type of Exam</u>	<u>Total Ex. Per 10 yr. Interval</u>	<u>Total Exams Req'd 1st Per. / % of Total</u>	<u>Total Exams Req'd 2nd Per. / % of Total</u>	<u>Total Exams Req'd 3rd Per. / % of Total</u>	<u>No. of Items Examined This Report Period</u>	<u>% of 3rd. Per. Require.</u>	<u>% of 10 YR. Interval Requirement</u>
B-A	VOLU.	46	16 / 36.4	14 / 30.4	16 / 34.1	13	81.2	93.4
B-A	SURF.	2	0 / 0.0	1 / 50.0	1 / 50.0	1	100.0	100.0
B-D	VOLU.	70	26 / 37.1	22 / 31.4	22 / 31.4	22	100.0	100.0
B-E	VISU.	6	3 / 50.0	2 / 33.3	1 / 16.7	0	0.0	83.3
B-F	VOLU.	40	12 / 30.0	16 / 40.0	12 / 30.0	10	83.3	95.0
B-F	SURF.	30	12 / 40.0	6 / 20.0	12 / 40.0	12	100.0	100.0
B-G-1	VOLU.	16	4 / 25.0	6 / 37.5	6 / 37.6	1	16.7	68.7
B-G-1	SURF.	16	4 / 25.0	6 / 24.2	6 / 46.2	1	16.7	68.7
B-G-1	VISU.	13	3 / 23.1	5 / 46.2	5 / 38.5	1	20.0	69.2
B-G-2	VISU.	15 See Note 1	4 / 27.0	3 / 20.0	8 / 53.3	1	12.5	53.3
B-H	SURF.	1	0 / 0.0	0 / 0.0	1 / 100	1	100.0	100.0

TABLE 1
CLASS 1, 2, AND 3 CODE CATEGORY SUMMARY

<u>Cat</u>	<u>Type of Exam</u>	<u>Total Ex. Per 10 yr. Interval</u>	<u>Total Exams Req'd 1st Per. / % of Total</u>	<u>Total Exams Req'd 2nd Per. / % of Total</u>	<u>Total Exams Req'd 3rd Per. / % of Total</u>	<u>No. of Items Examined This Report Period</u>	<u>% of 3rd. Per. Require.</u>	<u>% of 10 YR. Interval Requirement</u>
B-J	VOLU.	394	95 / 24.1	118 / 30.0	181 / 46.8	79	43.8	74.3
B-J	SURF.	502	113 / 22.5	178 / 35.5	211 / 42.0	1	53.1	80.3
B-K-1	SURF.	63	14 / 22.2	1 / 33.3	28 / 44.4	16	51.1	80.9
B-L-2	VISU.	1 See Note 1	0 / 0.0	0 / 0.0	1 / 100.0	N/A	N/A	100.0
B-M-2	VISU.	9 See Note 1	5 / 55.6	0 / 0.0	4 / 44.4	1	25.0	66.7
B-N-1	VISU.	3	1 / 33.3	1 / 33.3	1 / 33.3	1	100.0	100.0
B-N-2	VISU.	1	0 / 0.0	0 / 0.0	1 / 100.0	1	100.0	100.0
C-A	VOLU.	2	1 / 50.0	0 / 0.0	1 / 50.0	0	0.0	66.6
C-B	VOLU.	4	0 / 0.0	0 / 0.0	4 / 100.0	0	0.0	0.0
C-B	SURF.	4	0 / 0.0	0 / 0.0	4 / 100.0	0	0.0	0.0

TABLE 1
CLASS 1, 2, AND 3 CODE CATEGORY SUMMARY

<u>Cat</u>	<u>Type of Exam</u>	<u>Total Ex. Per 10 yr. Interval</u>	<u>Total Exams Req'd 1st Per. / % of Total</u>	<u>Total Exams Req'd 2nd Per. / % of Total</u>	<u>Total Exams Req'd 3rd Per. / % of Total</u>	<u>No. of Items Examined This Report Period</u>	<u>% of 3rd. Per. Require.</u>	<u>% of 10 YR. Interval Requiremen</u>
C-C	SURF.	33	12 / 36.4	10 / 30.3	11 / 33.3	0	0.0	70
C-D	VOLU.	1	0 / 0.0	0 / 0.0	1 / 100.0	0	0.0	0.0
C-F	VOLU.	227	61 / 26.9	74 / 32.6	92 / 40.5	0	0.0	59.5
C-F	SURF.	291	79 / 27.1	96 / 33.0	116 / 39.9	0	0.0	62.5
C-G	SURF.	45	15 / 33.3	12 / 26.7	18 / 40.0	0	0.0	60.0
D-B	VISU.	15	5 / 33.3	3 / 20.0	7 / 46.7	0	0.0	53.3
D-C	VISU.	31	9 / 29.0	12 / 38.7	10 / 32.3	0	0.0	67.7
D-A, D-B	VISU.	78	24 / 30.9	27 / 34.6	27 / 34.6	24	88.8	96.1
D-A, D-B, & D-C	VISU.	37	9 / 24.3	10 / 27.0	18 / 48.6	14	77.8	89.2
F-A	VISU.	43	13 / 30.2	13 / 30.2	17 / 38.9	1	5.9	62.8

TABLE 1
CLASS 1, 2, AND 3 CODE CATEGORY SUMMARY

<u>Cat</u>	<u>Type of Exam</u>	<u>Total Ex. Per 10 yr. Interval</u>	<u>Total Exams Req'd 1st Per. / % of Total</u>	<u>Total Exams Req'd 2nd Per. / % of Total</u>	<u>Total Exams Req'd 3rd Per. / % of Total</u>	<u>No. of Items Examined This Report Period</u>	<u>% of 3rd. Per. Require.</u>	<u>% of 10 YR. Interval Require</u>
F-B	VISU.	433	115 / 26.7	117 / 27.1	201 / 46.6	6	3.0	54.8
F-C	VISU.	201	51 / 26.6	61 / 31.8	89 / 46.3	30	33.7	70.6
F-A, F-B	VISU.	20	4 / 20.0	6 / 30.0	10 / 50.0	0	0.0	50.0
F-A, F-C	VISU.	7	0 / 0.0	7 / 100.0	0 / 0.0	0 / 0.0	N/A	100.0
F-A, F-B, & F-C	VISU.	40	7 / 17.5	10 / 20.0	23 / 57.5	0	0.0	42.5
NO BRK ZONE	VOLU.	24	15 / 62.5	9 / 37.5	0 / 0.0	N/A	N/A	100.0
NO BRK ZONE	SURF.	7	0 / 0.0	4 / 57.1	3 / 42.9	0	N/A	100.0
I.E. 80-07	VOLU.	6	2 / 33.3	2 / 33.3	2 / 33.3	2	100.0	100.0
B-N-1 I.E. 80-13	VISU.	6	2 / 33.3	2 / 33.3	2 / 33.3	2	100.0	100.0
B-D 0619	VOLU.	18	6 / 33.3	6 / 33.3	6 / 33.3	6	100.0	100.0

TABLE 1
CLASS 1, 2, AND 3 CODE CATEGORY SUMMARY

<u>Cat</u>	<u>Type of Exam</u>	<u>Total Ex. Per 10 yr. Interval</u>	<u>Total Exams Req'd 1st Per. / % of Total</u>	<u>Total Exams Req'd 2nd Per. / % of Total</u>	<u>Total Exams Req'd 3rd Per. / % of Total</u>	<u>No. of Items Examined This Report Period</u>	<u>% of 3rd. Per. Require.</u>	<u>% of 10 YR. Interval Require</u>
B-D 0619	SURF	18	6 / 33.3	6 / 33.3	6 / 33.3	6	100.0	100.0
B-F 0619	VOLU.	18	6 / 33.3	6 / 33.3	6 / 33.3	6	100.0	100.0
B-F 0619	SURF.	18	6 / 33.3	6 / 33.3	6 / 33.3	6	100.0	100.0
C-F I.E. 79-17	SURF.	3	3 / 100.0	0 / 0.0	0 / 0.0	N/A	N/A	100.0
C-F I.E. 79-17	VISU.	3	3 / 100.0	0 / 0.0	0 / 0.0	N/A	N/A	100.0
<u>TOTAL SUMMARY OF CODE CATEGORY EXAMINATIONS (NUGEG, I.E. BULLETIN, AND NO BREAK ZONE EXAMS NOT INCLUDED)</u>								
SUM.	VOLU.	800	215 / 26.9	250 / 31.2	335 / 41.9	125	37.3	73.7
SUM.	SURF.	987	249 / 25.2	330 / 33.4	408 / 41.3	139	34.1	72.7
SUM.	VISU.	953	253 / 26.5	277 / 29.1	423 / 44.4	80	18.9	64.0
TOTAL SUM.	ALL	2740	717 / 26.2	857 / 31.3	1166 / 42.6	344	29.5	70.0

NOTES

1. The examination of bolting is limited to the bolting for one group Examination Category B-M-2 valve selected for internal examination in accordance with SERI-M-489.1.

INSERVICE INSPECTION SUMMARY REPORT
FOR
GRAND GULF NUCLEAR STATION
SECTION XI
ISOMETRICS

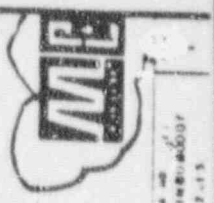
<u>SYSTEM</u>	<u>DRAWING NUMBER</u>
B13 REACTOR VESSEL PRESSURE	35IN80B0007
	35IN83B0009
B21 FEEDWATER	FW-11-5
	FW-11-6
	FW-11-8
	FW-11-9
	FW-11-10
	FW-11-11
	FW-11-12
	FW-11-12
B21 MAINSTEAM	MS-11-2
	MS-11-7
	MS-11-8
	MS-11-9
	MS-11-10
	MS-11-11
	MS-11-12
	MS-11-13
	MS-11-14

ISOMETRICS (CONTINUED)

<u>SYSTEM</u>	<u>DRAWING NUMBER</u>
B21 MAINSTEAM DRAIN	SD-11-2
	SD-11-3
	SD-11-4
	SD-11-5
B21 MAINSTEAM SODIUM PENTABORATE	SP-11-1
B21 MAINSTEAM RELIEF VALVES	RV-11-3
	RV-11-
	RV-11-9
B33 REACTOR RECIRCULATION SYSTEM	RR-11-2
	RR-11-3
	RR-11-4
	RR-11-5
	RR-11-6
	RR-11-8
	RR-11-9
	RR-11-10
	RR-11-11
	RR-11-12
	RR-11-13
	RR-11-15

ISOMETRICS (CONTINUED)

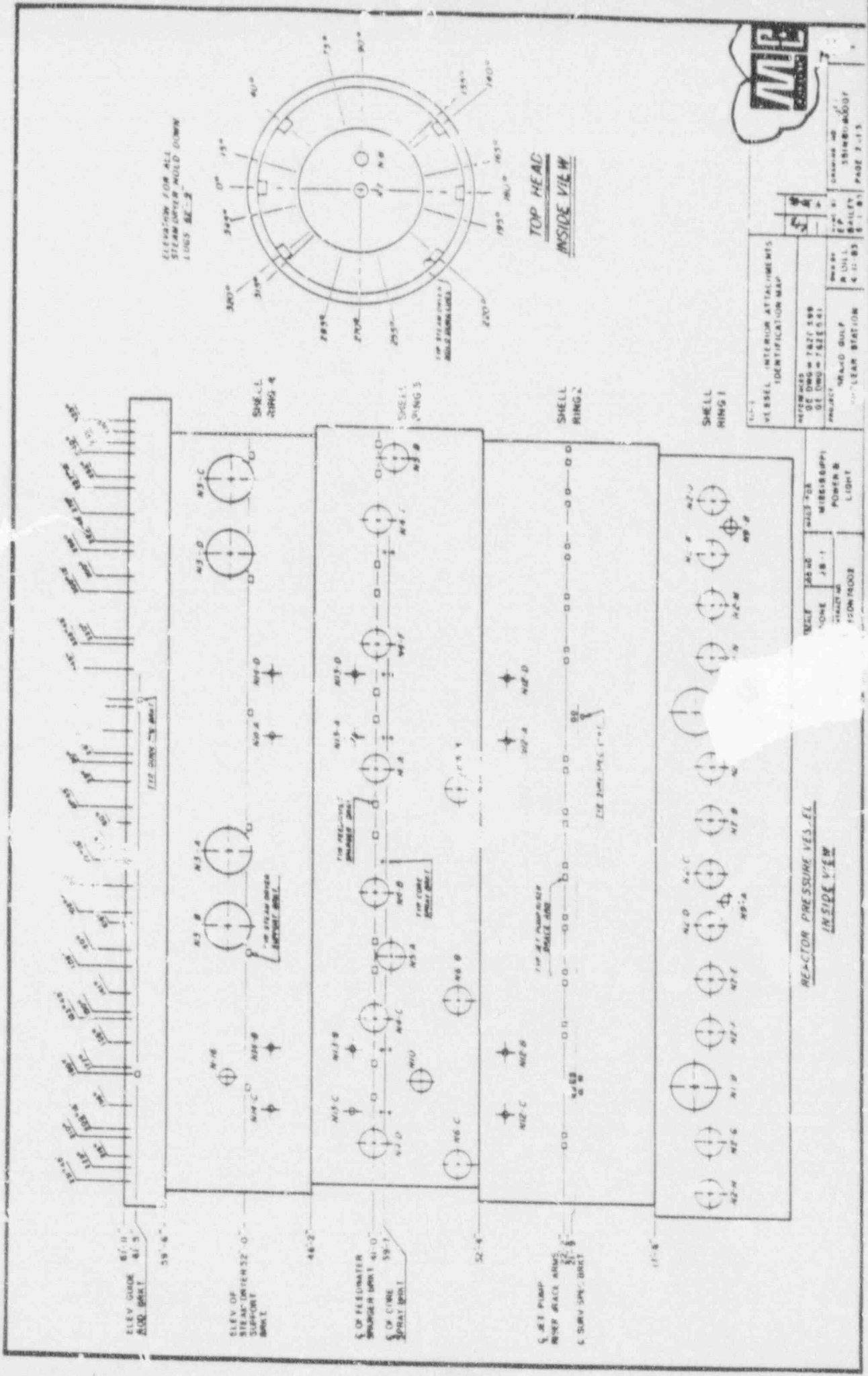
<u>SYSTEM</u>	<u>DRAWING NUMBER</u>
B33 REACTOR RECIRCULATION SYSTEM	RR-11-22
C41 STANDBY LIQUID CONTROL SYSTEM	LC-11-8 LC-11-11 LC-11-13
E21 LOW PRESSURE CORE SPRAY SYSTEM	LP-11-3
E22 HIGH PRESSURE CORE SPRAY SYSTEM	HP-8-1 HP-11-1
E51 REACTOR CORE ISOLATION COOLING SYSTEM	RI-11-1 RI-11-4 RI-11-5 RI-11-6
P41 STANDBY SERVICE WATER	WS-8-5 WS-9-5 WS-YD-9 WS-YD-10 WS-YD-11 WS-YD-12



VESEL INTERIOR ATTACHMENTS IDENTIFICATION MAP

REVISIONS	NO. DATE	BY	REASON
1	7827 599		
2	7827 599		
3	7827 599		

REACTOR PRESSURE VESSEL
INSIDE VIEW



ELEVATION FOR ALL STEAMORIENTED MOLD CORNER LOUIS BE-3

TOP HEAD INSIDE VIEW

CIRCUMFERENCE - WELDS		
IDENT	Y COORDINATE	ELEVATION
AA	90 65	6'-0 5/8"
AB	710 65	17'-6 31/32"
AC	388 64	52'-4 3/32"
AD	551 08	48'-2 3/32"
AE	714 84	59'-6 15/16"

SHELL CIRCUMFERENCE	
RING # 1	842 52
RING # 2	836 00
RING # 3	838 00
RING # 5	844 24

VERTICAL WELDS			
IDENT	RING BEAMS INSPECTED	AZIMUTH	
BA	0 00	0°	0°
BB	286 77 (278 33)	120°	120°
BC	561 55 (568 87)	240°	240°
BD	1121 98 (121 04)	58°	58°
BE	1332 24 (330 56)	142°	142°
BF	1942 80 (940 04)	232°	232°
BG	1735 40 (748 54)	322°	322°
BH	255 73 (255 80)	109°	109°
BI	535 06 (537 41)	228°	228°
BJ	812 38 (819 02)	349°	349°
BK	1116 38 (117 34)	50°	50°
BL	1325 89 (328 55)	140°	140°
BM	1531 39 (538 76)	230°	230°
BN	1744 89 (740 87)	320°	320°

INTERIOR ATTACHMENT WELDS			
LOCATION	BRACKET	ELEVATION	AZIMUTH
RING # 2	SURV SPEC	21'-9"	5°, 171°, 183°
RING # 2	JET PUMP RISER BRACE ARM	22'-2"	263.5°, 77°, 403°, 128°, 134°, 208°, 217°, 237°, 283°, 308°, 334°
RING # 3	CONE SPRAY	38'-1"	15°, 75°, 146°, 193°, 288°, 345°
RING # 3	FEEDWATER SPANNER	41'-0"	55°, 77°, 47°, 62°, 112°, 127°, 170°, 185°, 233°, 247°, 280°, 304°
RING # 4	STEAM DRIVER SUPPORT	52'-0"	5°, 60°, 120°, 180°, 240°, 300°
SHELL FLANGE	GRADE ROD	81'-5"	0°, 180°
TOP HEAD	STEAM DRIVER WELD DOWN LUGS	82'-8"	0°, 40°, 140°, 180°, 220°, 320°

CATA

NOZZLE

IDENT	ELEVATION	AZIMUTH	X COORD	Y COORD	CUTOFF DIA	FUNCTION
N1-A	14'-4 5/8"	0°	0 00	178 30	50 80	RECIRCULATION OUTLET
N1-B	14'-4 7/8"	180°	421 20	172 30	50 80	RECIRCULATION OUTLET
N2-A	14'-11 1/8"	24°15'	81 10	178 30	55 37	RECIRCULATION INLET
N2-B	14'-11 1/8"	51°15'	121 10	178 30	55 37	RECIRCULATION INLET
N2-C	14'-11 1/8"	77°15'	180 80	179 30	55 37	RECIRCULATION INLET
N2-D	14'-11 7/8"	102°45'	240 40	179 30	55 37	RECIRCULATION INLET
N2-E	14'-11 7/8"	126°15'	300 10	179 30	55 37	RECIRCULATION INLET
N2-F	14'-11 7/8"	153°45'	359 70	179 30	55 37	RECIRCULATION INLET
N2-G	14'-11 7/8"	206°15'	428 30	179 30	55 37	RECIRCULATION INLET
N2-H	14'-11 7/8"	237°45'	542 30	179 30	55 37	RECIRCULATION INLET
N2-I	14'-11 7/8"	265°15'	661 30	179 30	55 37	RECIRCULATION INLET
N2-J	14'-11 7/8"	288°45'	881 60	179 30	55 37	RECIRCULATION INLET
N2-K	14'-11 7/8"	308°15'	1028 00	179 30	55 37	RECIRCULATION INLET
N2-L	14'-11 7/8"	333°45'	1180 00	179 30	55 37	RECIRCULATION INLET
N3-A	54'-0"	120°	155 00	648 00	42 87	STEAM OUTLET
N3-B	54'-0"	102°	255 30	648 00	42 87	STEAM OUTLET
N3-C	54'-0"	78°	381 60	648 00	42 87	STEAM OUTLET
N3-D	54'-0"	51°	508 00	648 00	42 87	STEAM OUTLET
N4-A	41'-1 1/2"	50°	879 90	493 25	35 12	FEDWATER
N4-B	41'-1 1/2"	80°	200 25	455 25	35 12	FEDWATER
N4-C	41'-1 1/2"	150°	548 20	455 25	35 12	FEDWATER
N4-D	41'-1 1/2"	210°	888 80	455 25	35 12	FEDWATER
N4-E	41'-1 1/2"	270°	628 20	493 25	35 12	FEDWATER
N4-F	41'-1 1/2"	330°	748 20	493 25	35 12	FEDWATER
N5-A	39'-11 1/4"	120°	279 30	478 18	35 37	CORE SPRAY
N5-B	39'-11 1/4"	240°	568 70	478 18	35 37	CORE SPRAY
N6-A	54'-1 1/4"	3°	50 80	419 00	55 37	RHR / LPCI
N6-B	54'-1 1/4"	141°	528 20	419 00	55 37	RHR / LPCI
N6-C	54'-1 1/4"	219°	509 80	418 00	55 37	RHR / LPCI



SCALE FOR NO TITLE
 NORTH 0°-0' EAST 90°-0'
 SOUTH 180°-0' WEST 270°-0'

SCALE WELD IDENTIFICATION MAP

DATE FOR MISSISSIPPI POWER LIGHT
 DE UNO 742 E 390 NO D 104
 CAB. DRUGS LOADING 2 1000
 PLANT

PROJECT NO. 55-4802000
 SHEET NO. 1
 DRAWN BY
 CHECKED BY
 APPROVED BY

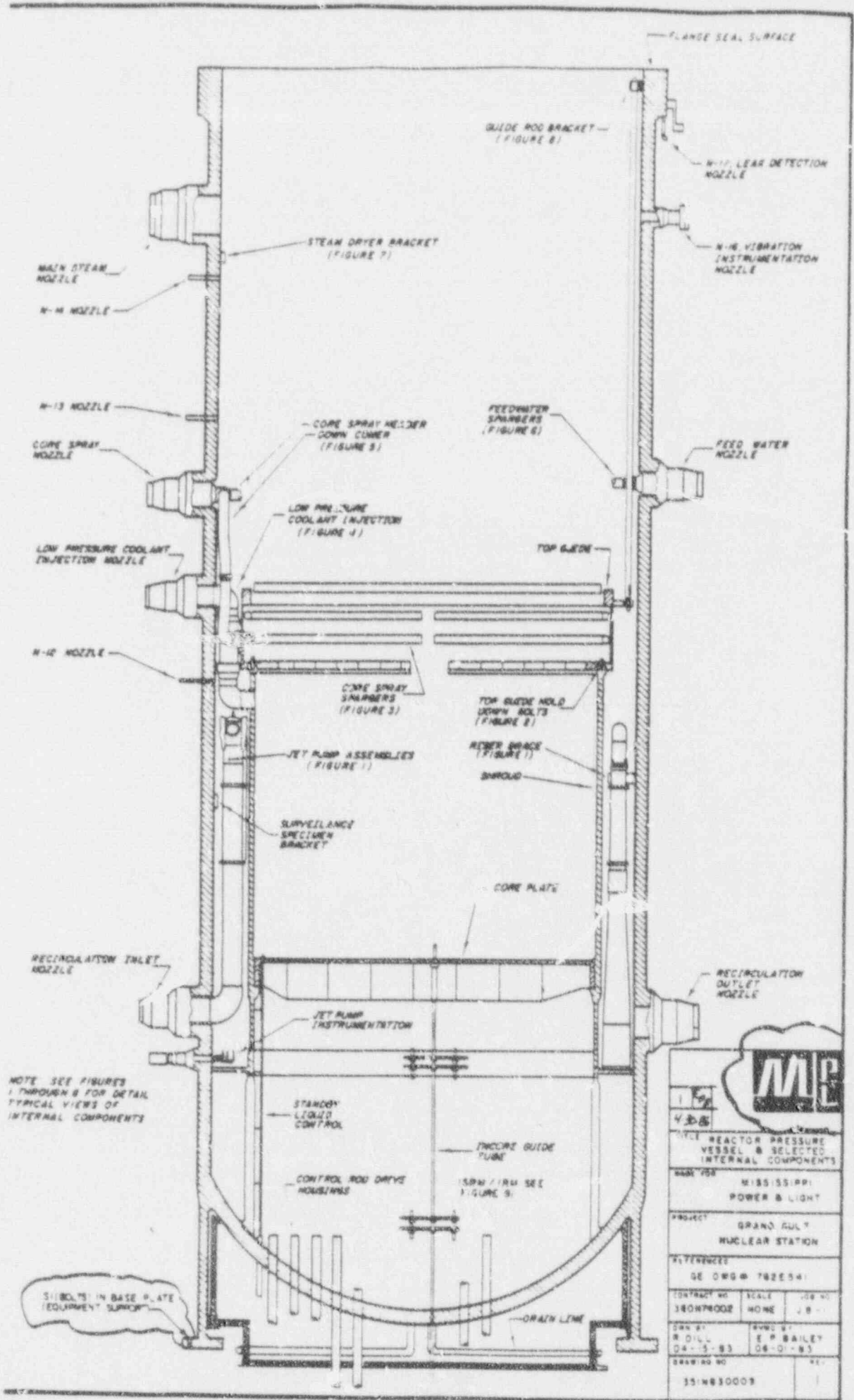
9 217 NOT A PRESSURE RETAINING WELD

NOZZLE IDENTIFICATION MAP

SCALE FOR NOZZLE IDENTIFICATION MAP

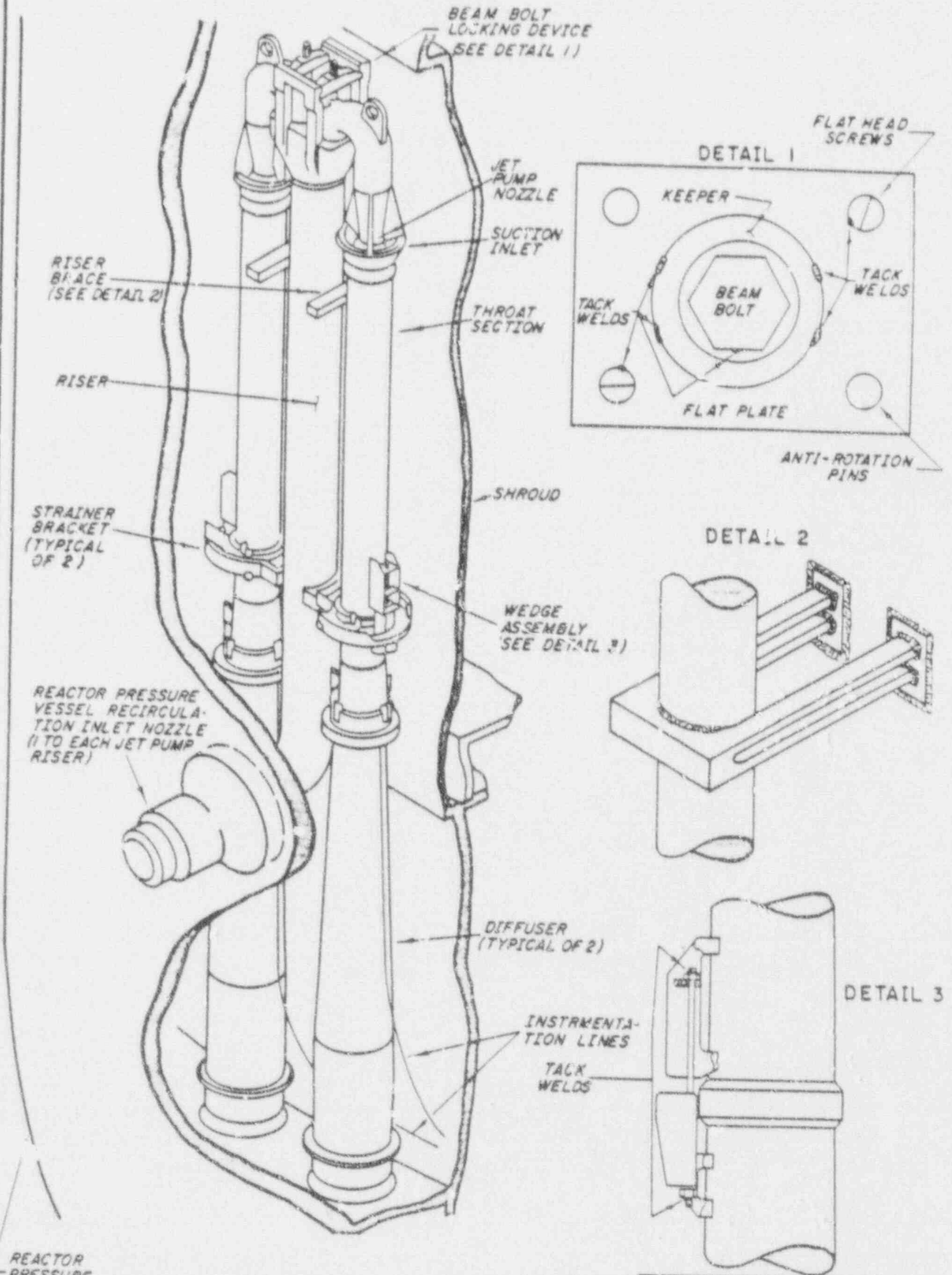
DATE FOR MISSISSIPPI POWER LIGHT
 DE UNO 742 E 390 NO D 104
 CAB. DRUGS LOADING 2 1000
 PLANT

PROJECT NO. 55-4802000
 SHEET NO. 1
 DRAWN BY
 CHECKED BY
 APPROVED BY



		15 435	
		TITLE REACTOR PRESSURE VESSEL & SELECTED INTERNAL COMPONENTS	
MADE FOR		MISSISSIPPI POWER & LIGHT	
PROJECT		GRAND GULF NUCLEAR STATION	
REFERENCES			
GE DRG # 782541			
CONTRACT NO 3807PROZ	SCALE NONE	JOB NO J 8	
DRN BY R DILL 04-15-83	DRWN BY E P BAILEY 04-01-83		
8849.00 NO			
551483000			

JET PUMP ASSEMBLY

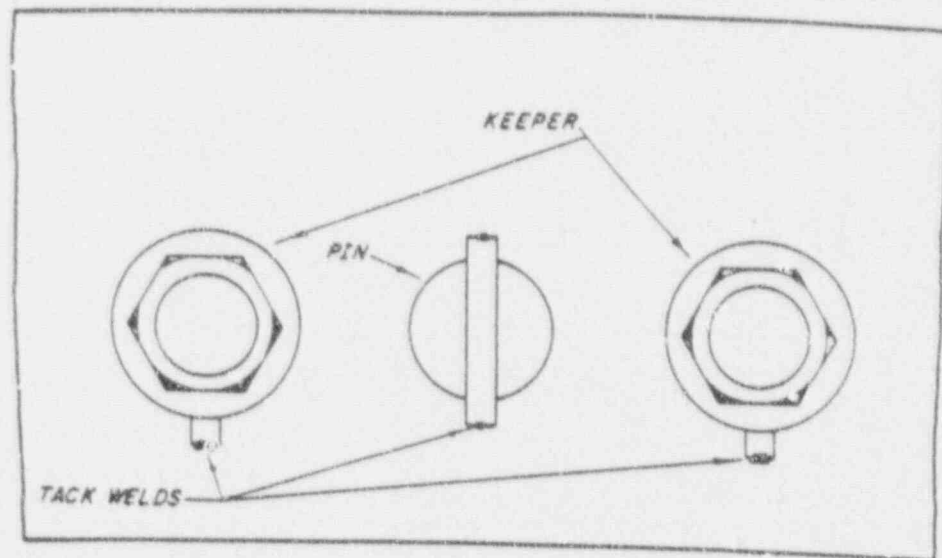


REACTOR PRESSURE VESSEL

FIGURE 1

DWN BY R DILL 4-11-83	RVWD BY EP BAILEY 6-1-83	REF DWG 35IN830009
-----------------------------	--------------------------------	-----------------------

TOP GUIDE HOLD DOWN
BOLTS



TYPICAL VIEW

FIGURE 2

DRN BY	CHKD BY	REF DWG
R DILL	E PBAILEY	351N830009
4-11-83	6-1-83	

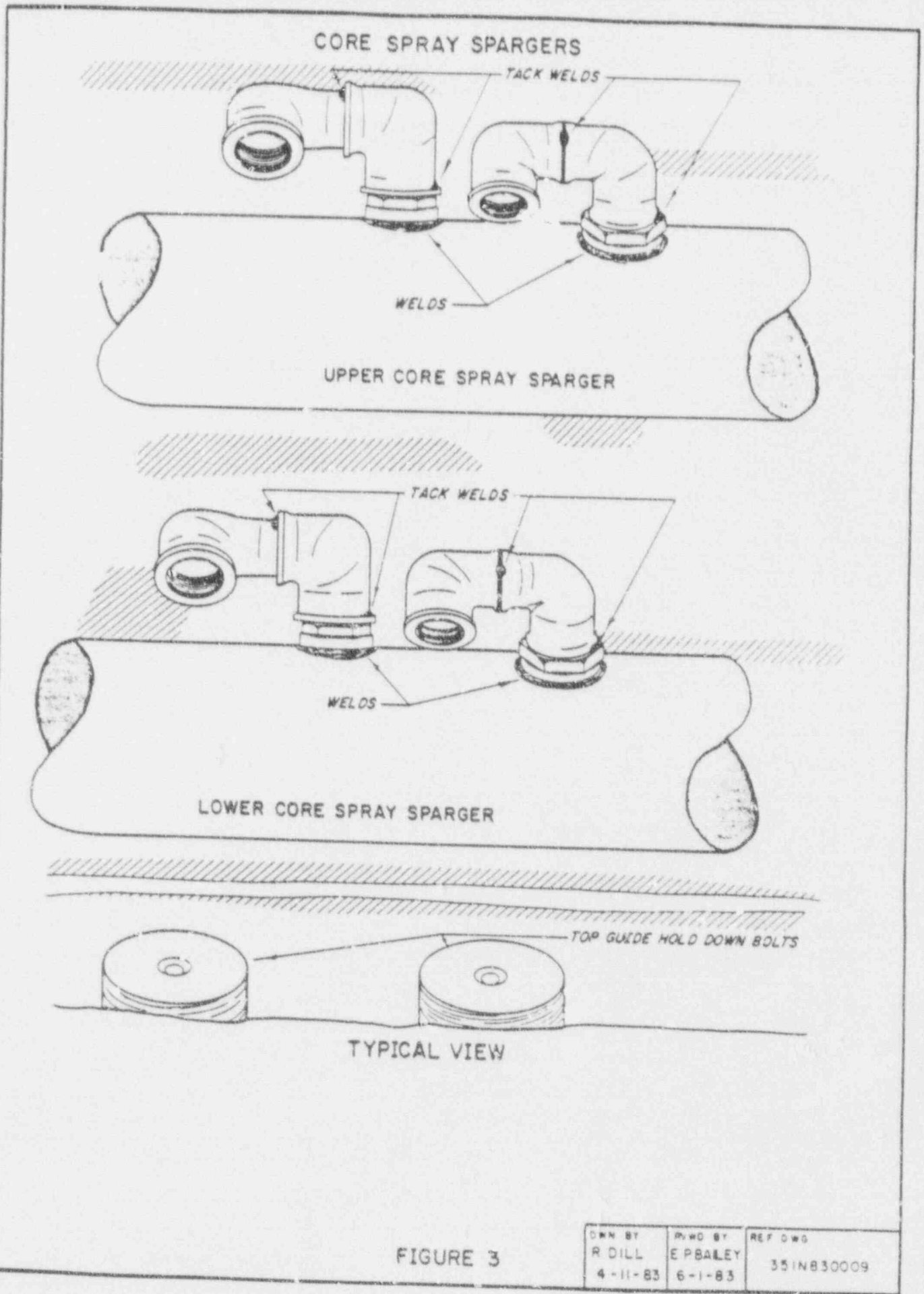


FIGURE 3

DNW BY	INWD BY	REF DWG
R DILL	EPBALEY	351NB30009
4-11-83	6-1-83	

LOW PRESSURE COOLANT INJECTION ASSEMBLY

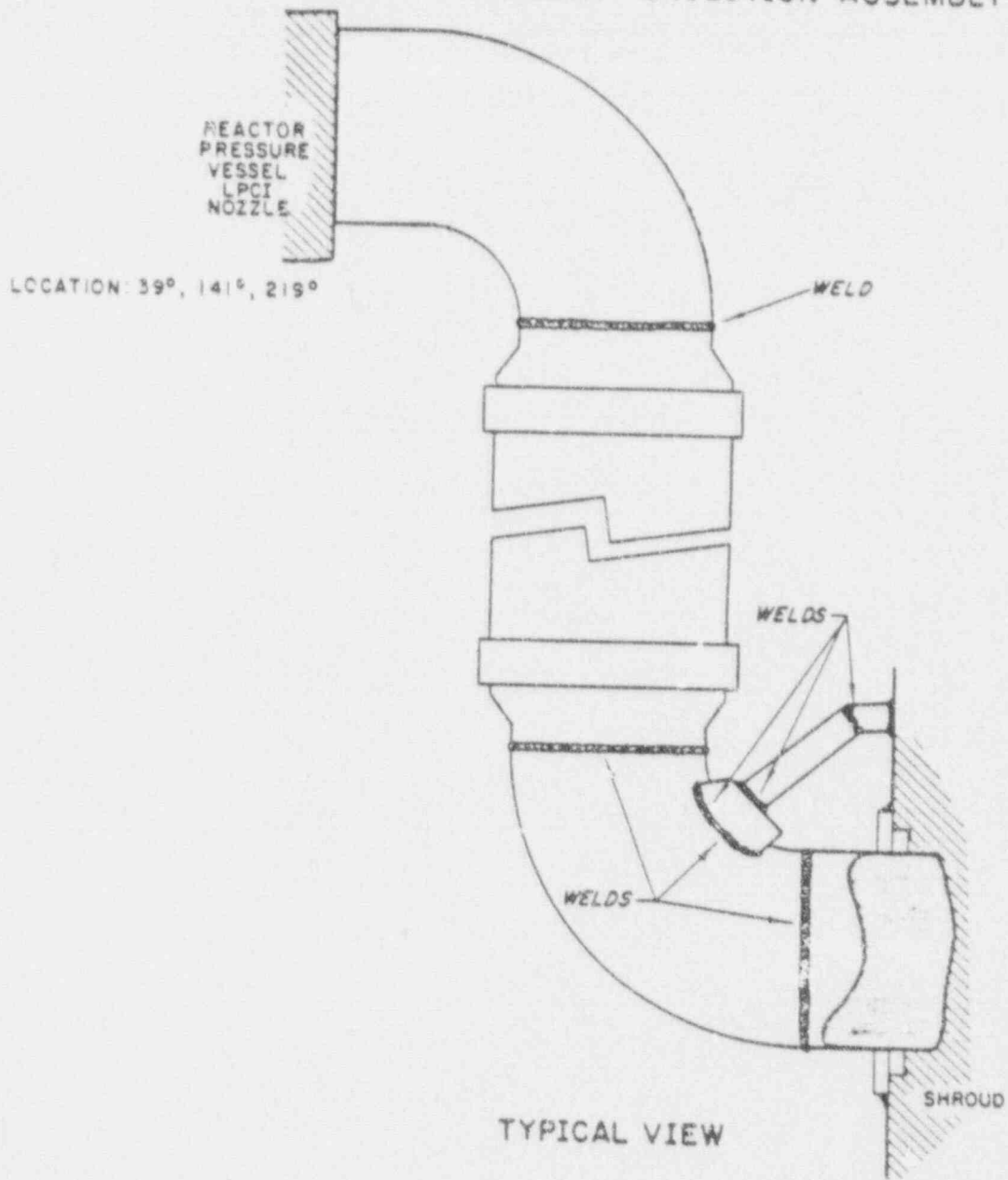
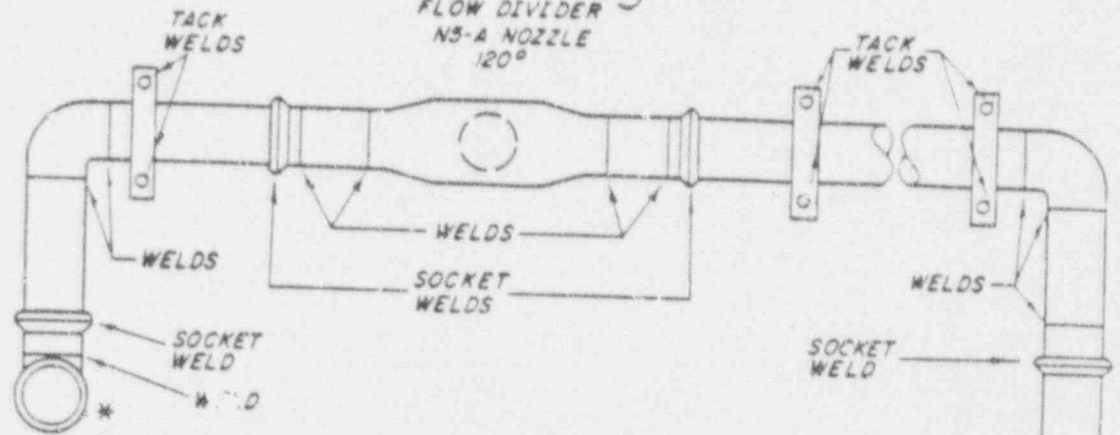


FIGURE 4

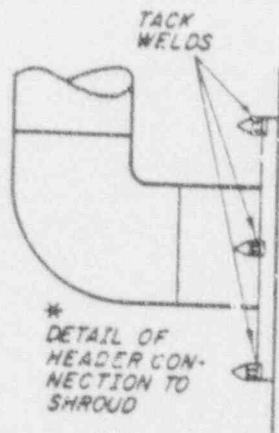
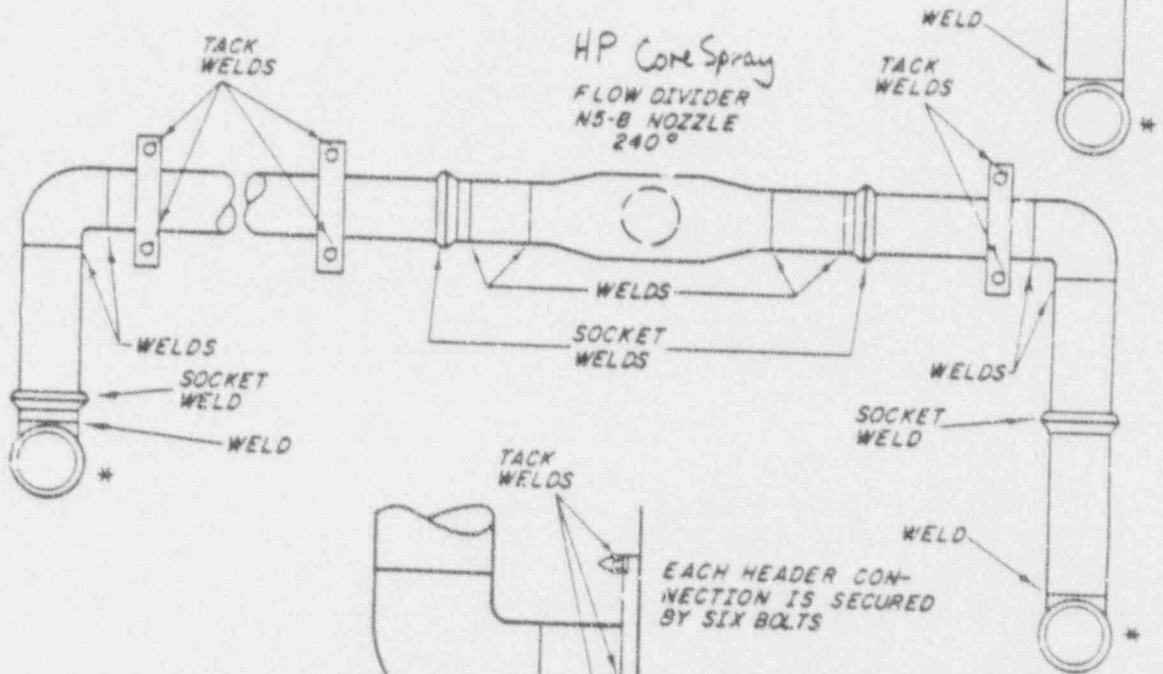
OWN BY	RWVD BY	REF DWG
R DILL	EPBALEY	351N830009
4-11-83	6-1-83	

CORE SPRAY HEADER WELDS

LP Core Spray
FLOW DIVIDER
N5-A NOZZLE
120°



HP Core Spray
FLOW DIVIDER
N5-B NOZZLE
240°



EACH HEADER CONNECTION IS SECURED BY SIX BOLTS

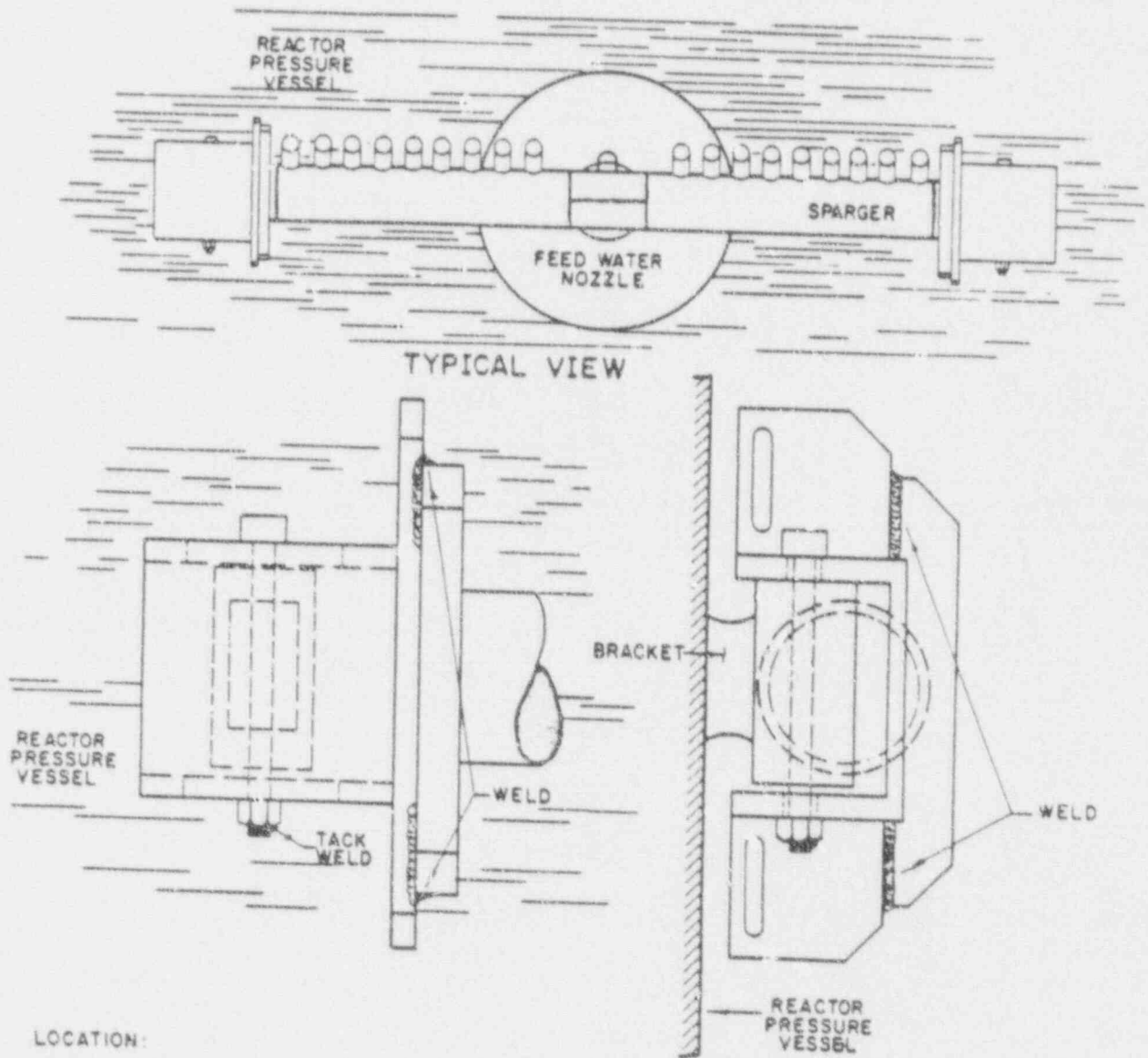
*
DETAIL OF
HEADER CON-
NECTION TO
SHROUD

NOZZLE & LOCATION:
N5-A ; 120°
N5-B ; 240°

FIGURE 5

DWG BY	RVWD BY	REF DWG
R DILL	E PBAILEY	35IN830009
4-11-83	6-1-83	

FEED WATER SPARGER



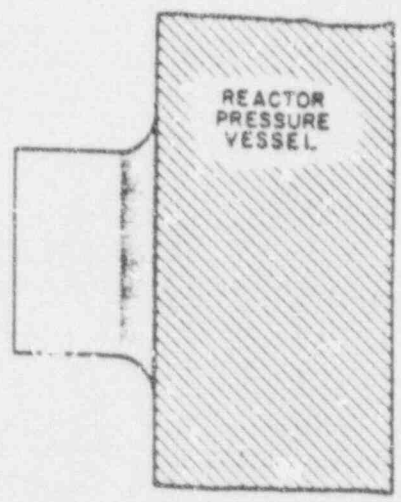
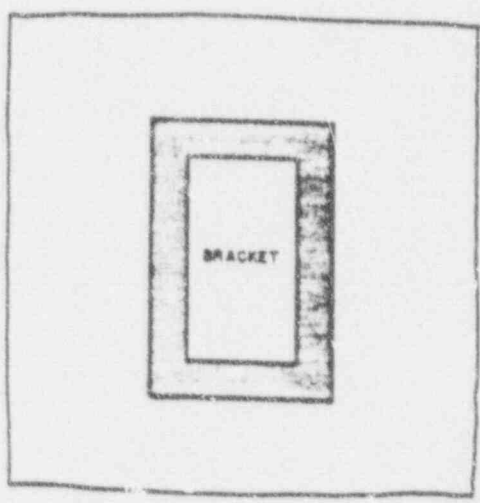
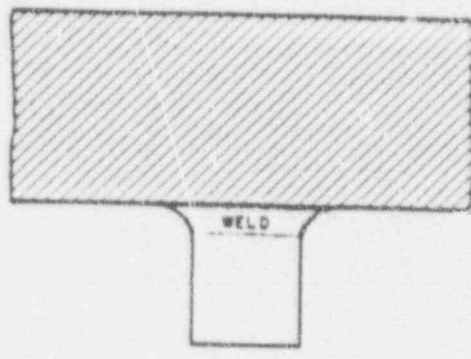
LOCATION:

30°; 90°; 150°
210°; 270°; 330°

FIGURE 6

DWN BY	RVMD BY	REF DWG
R DILL	EPBAILEY	351N830009
4-11-83	6-1-83	

STEAM DRYER
SUPPORT BRACKET
(TYPICAL VIEW)

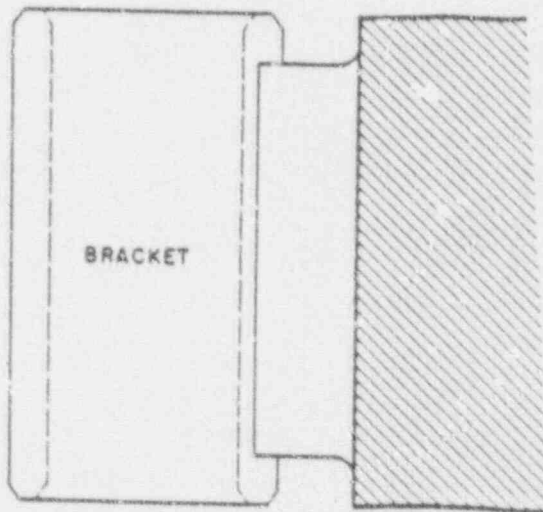
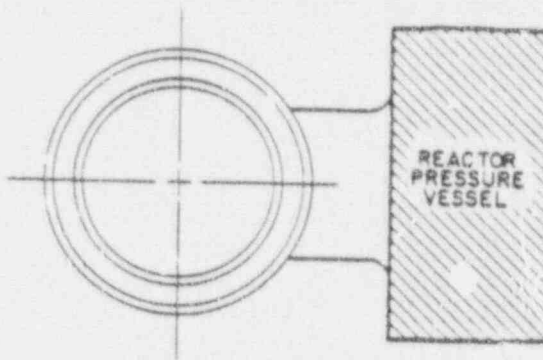


LOCATION:
5°, 60°, 120°
185°, 240°, 300°

FIGURE 7

DWG BY	RVWD BY	REF DWG
R DILL	E BAILEY	35INB30009
4-11-83	6-1-83	

GUIDE ROD SUPPORT BRACKET

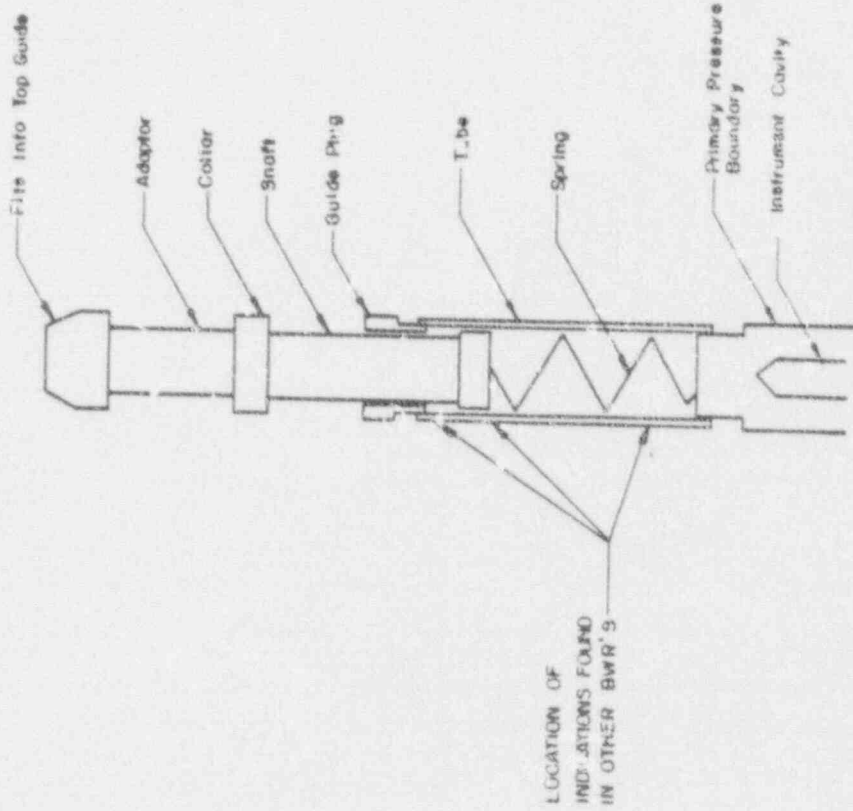


TYPICAL VIEW

LOCATION: 0°; 180°

FIGURE 8

DWN BY	RVWD BY	REF DWG
R DILL	E BAILEY	35IN830009
4-11-83	6-1-83	



SCHEMATIC OF TOP PORTION OF DRY TUBE

FIGURE 9

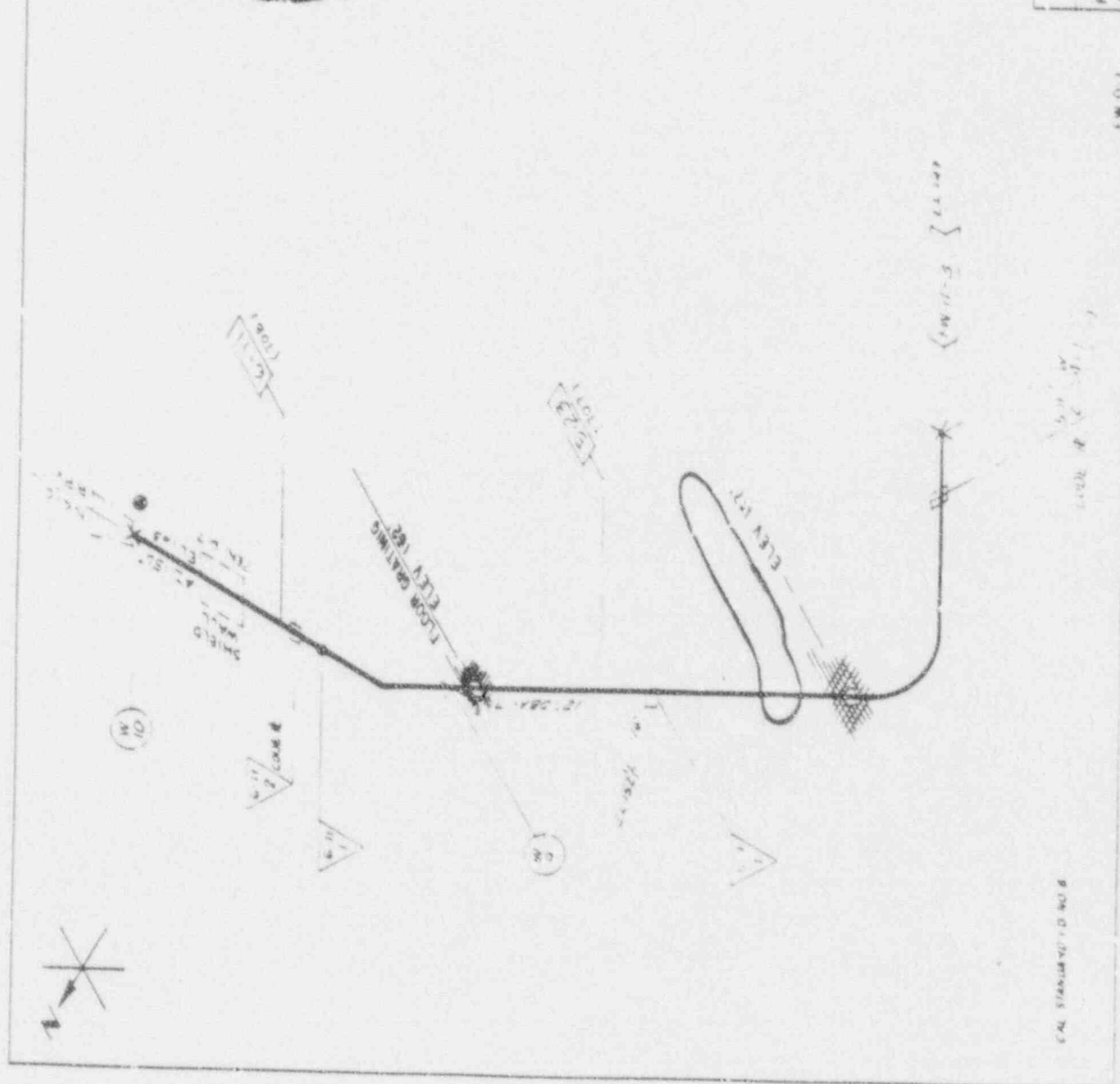
FIGURE 9 ADDED ON REV 1

PROJECT		DATE	BY
MP&L	GG-1 (JOB #)	DATE	BY
MP&L	LOCATION	DATE	BY
MP&L	INSIDE MPV	DATE	BY
MP&L	INSIDE MPV	DATE	BY

MP&L
NPL
GE 511-409
55INB50079

AMPL. NO. 1021 G02L	WELD DESCR.	COOR. CAT.	TYPE BEAM	BEAM TIME PERIOD	ID MARKER CONTR.
W-8	"C"	BJ	UT	NOT CHOSEN	YES
S-11-1	"C"	BJ	UT	NOT CHOSEN	YES
W-10	"D"	BJ	UT	3	YES
W-7	"C"	BJ	PT	NOT CHOSEN	YES
S-11-1	"C"	BJ	PT	NOT CHOSEN	YES
W-10	"D"	BJ	PT	5	YES

SIDE BECHTEL INTERFACE WELD



MP&E
 02 24 77
 S. GIBBS
 ATLANTA
 DWG. NO.
 FW-11
 PAGE 1 OF 1

MP&L GG-1 (JB-1)
 SYSTEM AREA
 FEED WTR CMT
 USGP A

REP 180
 M 1328J
 P 1077A

FW-11-3
 22-147

W-10

W-7

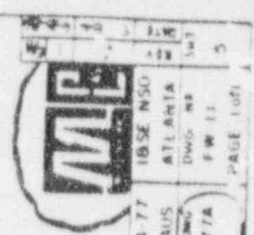
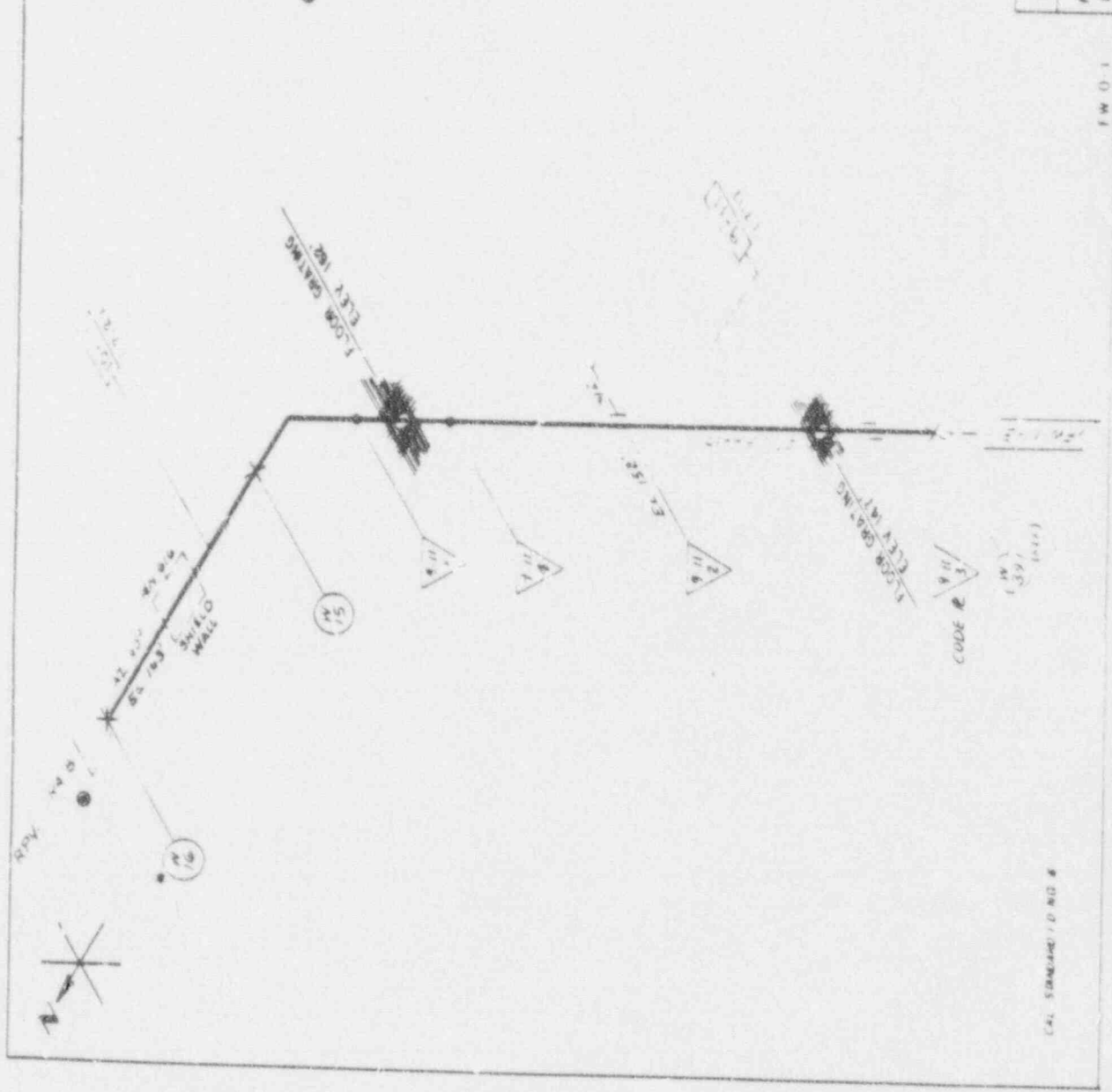
FW-11-3
 22-147

FW-11-3
 22-147

FW-11-3
 22-147

WELD NO BRI SOLE	WELD DESCR	C/POR CAT	TYPE BRAM	BRAM TIME PERIOD	I D MARK COMP
S-0-4	"E"	BJ	UT	NOT CHOSEN	YES
S-1-1	"C"	BJ	UT	NOT CHOSEN	YES
M-1B	"C"	BJ	UT	NOT CHOSEN	YES
M-1B	"D"	BJ	UT	3	YES
S-11-4	"E"	BJ	PT	NOT CHOSEN	YES
S-11-1	"C"	BJ	PT	NOT CHOSEN	YES
M-1B	"C"	BJ	PT	NOT CHOSEN	YES
M-1B	"D"	BJ	PT	3	YES

UP - BECHTEL INTERFACE WELD

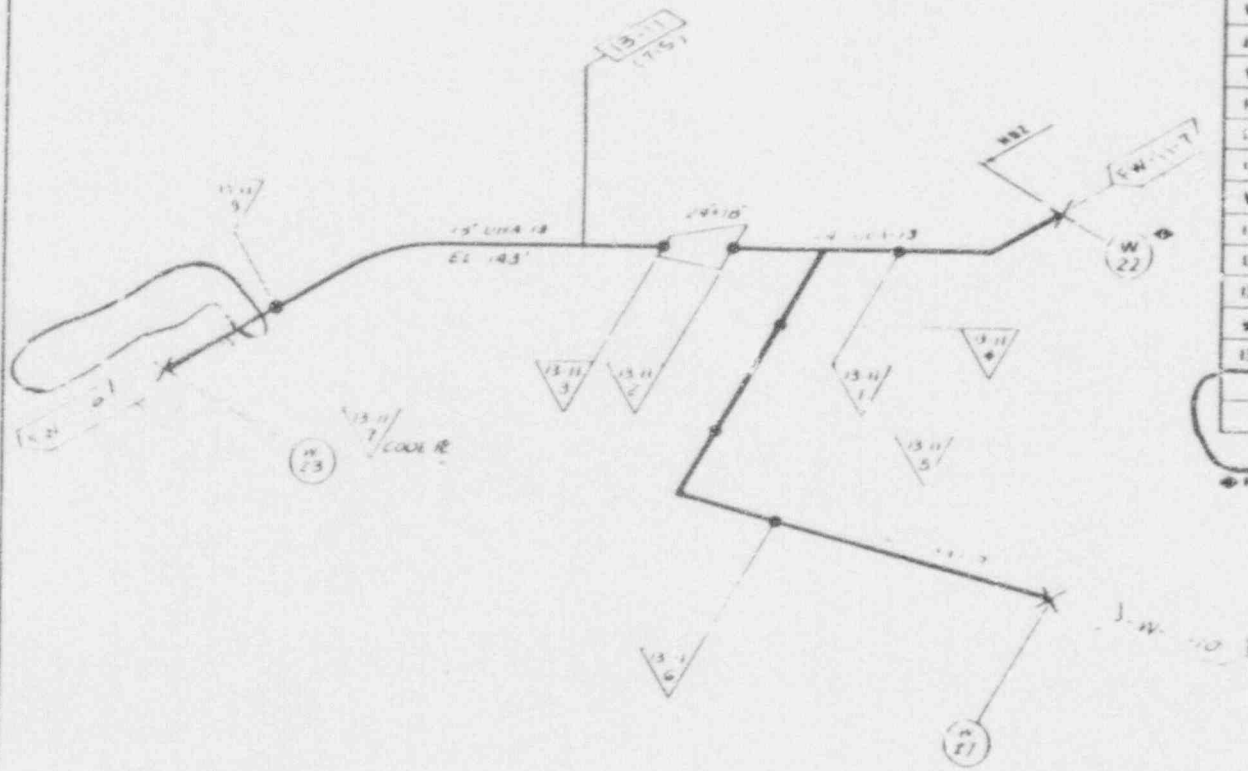
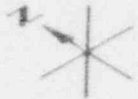


MP&L	G-5-1	(JB-1)	02 24 77	185E NSO
SYSTEM	AREA	REF 130	S GRAUS	ATLANTA
FEED WIR	CTMT	M 1228J	REP'DING	DWG. NO
LOOP A			P-1077A	FW 11

CAL STANDARD / D NO 8

FW 0-1

PAGE 1 OF 5

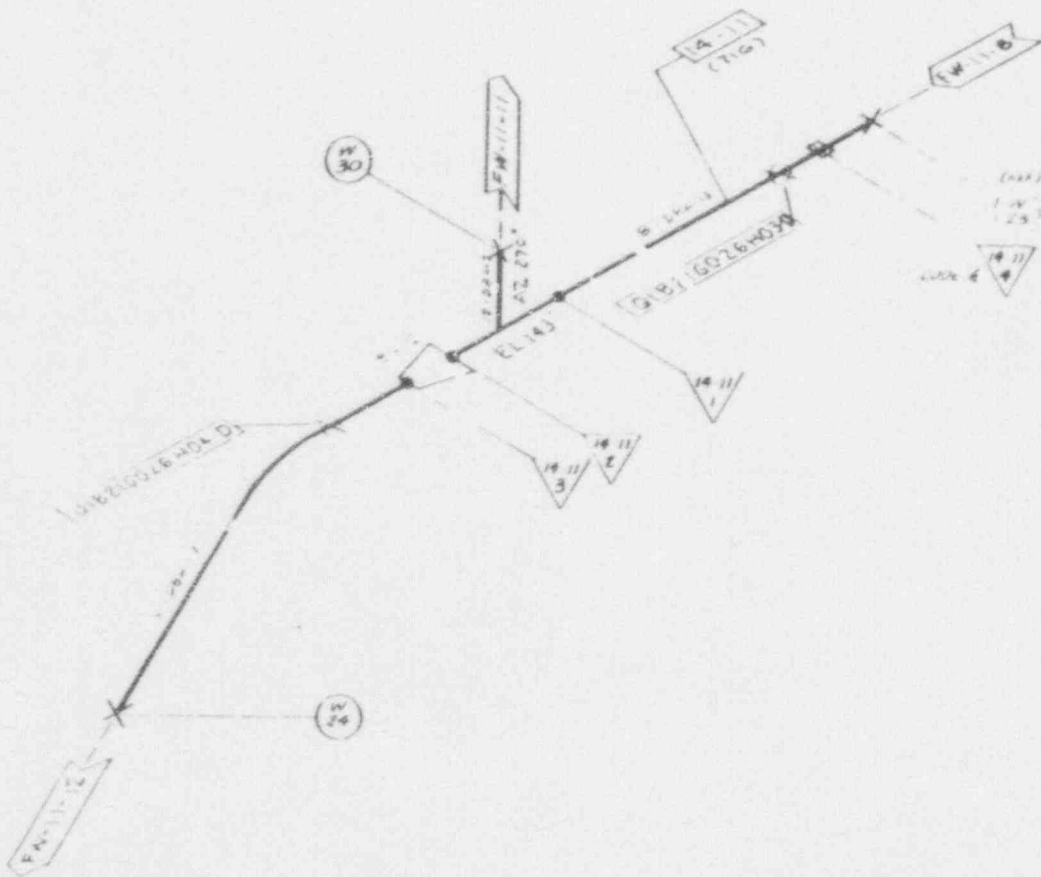


WELD ID	WELD DESCR	CODE CAT	TYPE EXAM	EXAM TIME PERIOD	I D MARK COMP
W-22	"J"	BJ	UT	3	YES
13-II-1	"J"	BJ	UT	NOT CHOSEN	YES
13-II-2	"J"	BJ	UT	NOT CHOSEN	YES
13-II-3	"C"	BJ	UT	NOT CHOSEN	YES
W-23	"E"	BJ	UT	NOT CHOSEN	YES
13-II-4	"C"	BJ	UT	3	YES
13-II-5	"C"	BJ	UT	NOT CHOSEN	YES
13-II-6	"C"	BJ	UT	NOT CHOSEN	YES
W-27	"J"	BJ	UT	NOT CHOSEN	YES
13-II-9	"J"	BJ	UT	NOT CHOSEN	YES
W-22	"J"	BJ	PT	5	YES
13-II-1	"J"	BJ	PT	NOT CHOSEN	YES
13-II-2	"J"	BJ	PT	NOT CHOSEN	YES
13-II-3	"C"	BJ	PT	NOT CHOSEN	YES
W-23	"E"	BJ	PT	NOT CHOSEN	YES
13-II-4	"C"	BJ	PT	5	YES
13-II-5	"C"	BJ	PT	NOT CHOSEN	YES
13-II-6	"C"	BJ	PT	NOT CHOSEN	YES
W-27	"J"	BJ	PT	NOT CHOSEN	YES
13-II-9	"J"	BJ	PT	NOT CHOSEN	YES

NO BREAK ZONE

MPE

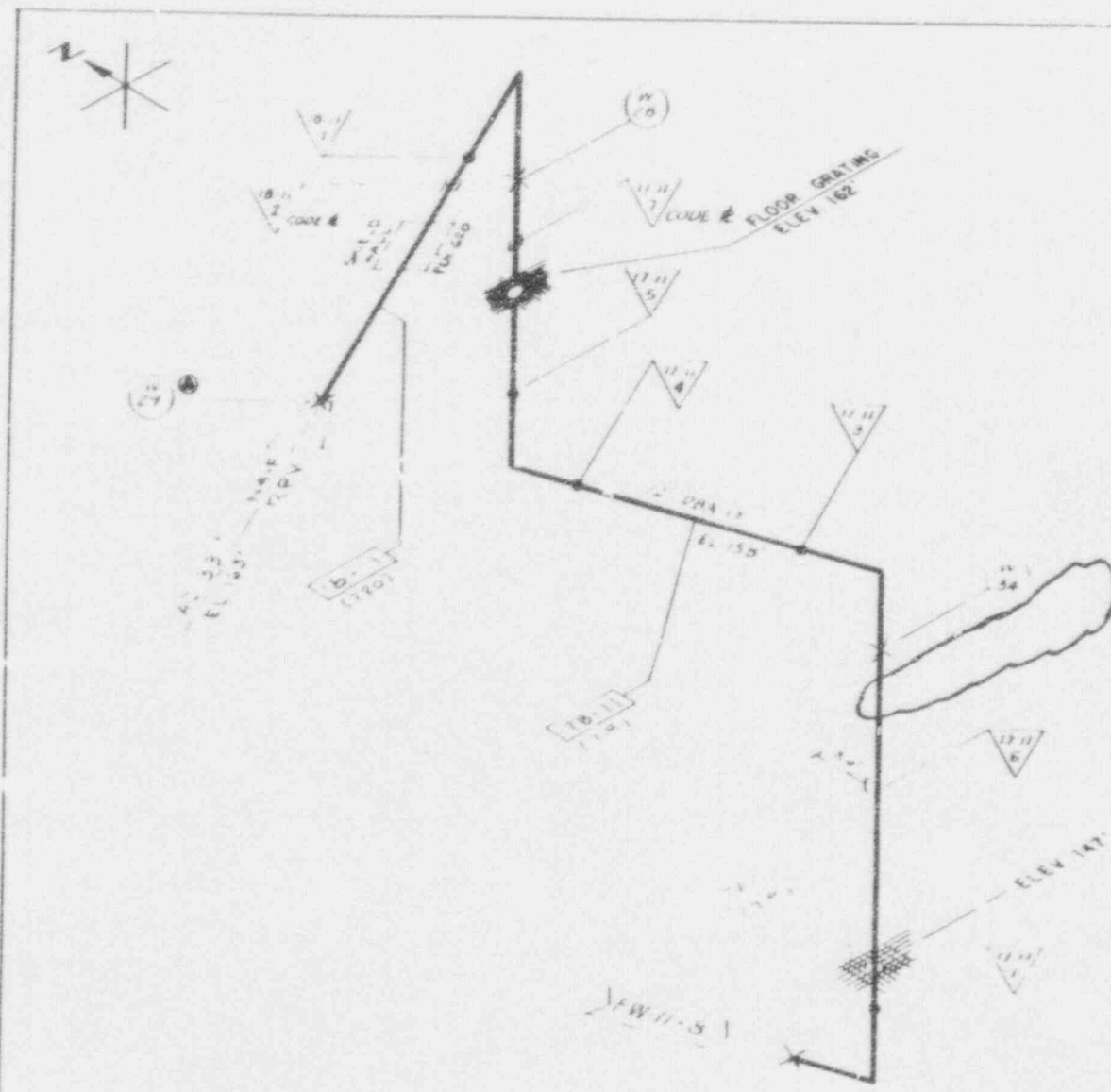
MP&L	GG-1	(JB-1)	DATE 02-25-77	IBSE NSU
SYSTEM	AREA	REF 150	S GRAUS	ATLANTA
FEET WTR	CTMT	M 1578	REF P LONG	DWG NR
LOOP B			P 1077A	FW-11
				PAGE 10/11



MPL NR (BEI) 4026	WELD DESCR	CODE CAT	TYPE EXAM	EXAM TIME PERIOD	ID MARK COMP
14-11-1	"C"	BJ	UT	NOT CHOSEN	YES
W-30	"C"	BJ	UT	3	YES
14-11-2	"J"	BJ	UT	NOT CHOSEN	YES
14-11-3	"C"	BJ	UT	NOT CHOSEN	YES
W-24	"E"	BJ	UT	NOT CHOSEN	YES
14-11-1	"C"	BJ	PT	NOT CHOSEN	YES
W-30	"C"	BJ	MT	3	YES
14-11-2	"J"	BJ	PT	NOT CHOSEN	YES
14-11-3	"C"	BJ	PT	NOT CHOSEN	YES
W-24	"E"	BJ	MT	NOT CHOSEN	YES
H03-D	HANGER	FC	VT 3	2	N/A
H04-D	HANGER	FC	VT 3	NOT CHOSEN	N/A
H03-D	HANGER	FC	VT 4	2	N/A
H04-D	HANGER	FC	VT 4	NOT CHOSEN	N/A

MPBL	GG-1	(JB-1)	Drawn 05-10-77 S. CHAU'S	IBSE NSO
SYSTEM FEED WTR LOOP B	LOCATION CTMT	REP. IBO M 152BJ	DESIGNED P 1077A	ATLANTA W 11 PAGE 1 of 1






MPL NO 1821 C-26	WELD DESCR	CODE CAT	TYPE EXAM	EXAM TIME PERIOD	TO MARK COMP
17-11-1	"C"	BJ	UT	NOT CHOSEN	YES
W 34	"C"	BJ	UT	NOT CHOSEN	YES
17-11-3	"C"	BJ	UT	NOT CHOSEN	YES
17-11-4	"C"	BJ	UT	NOT CHOSEN	YES
17-11-5	"C"	BJ	UT	NOT CHOSEN	YES
W 28	"C"	BJ	UT	NOT CHOSEN	YES
18-11-1	"C"	BJ	UT	NOT CHOSEN	YES
W 29	"D"	BJ	UT	3	YES
17-11-1	"C"	BJ	PT	NOT CHOSEN	YES
W 34	"C"	BJ	PT	NOT CHOSEN	YES
17-11-3	"C"	BJ	PT	NOT CHOSEN	YES
17-11-4	"C"	BJ	PT	NOT CHOSEN	YES
17-11-5	"C"	BJ	PT	NOT CHOSEN	YES
W 28	"C"	BJ	PT	NOT CHOSEN	YES
18-11-1	"C"	BJ	PT	NOT CHOSEN	YES
W 29	"D"	BJ	PT	3	YES

GE-BEHEL INTERFACE WELD

CAL STANDARD I.D. NO 6



MP&L GG-1 (JB-1)

SYSTEM: FEED WITH LOOP B

LOCATION: CTMT

REP: 1821 M 13782

DATE: 05-10-77

BY: S. GRAUS

FOR: P. 1077A

1821 M 13782

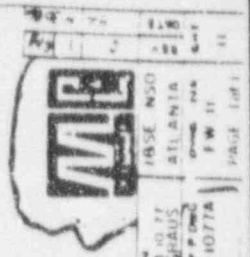
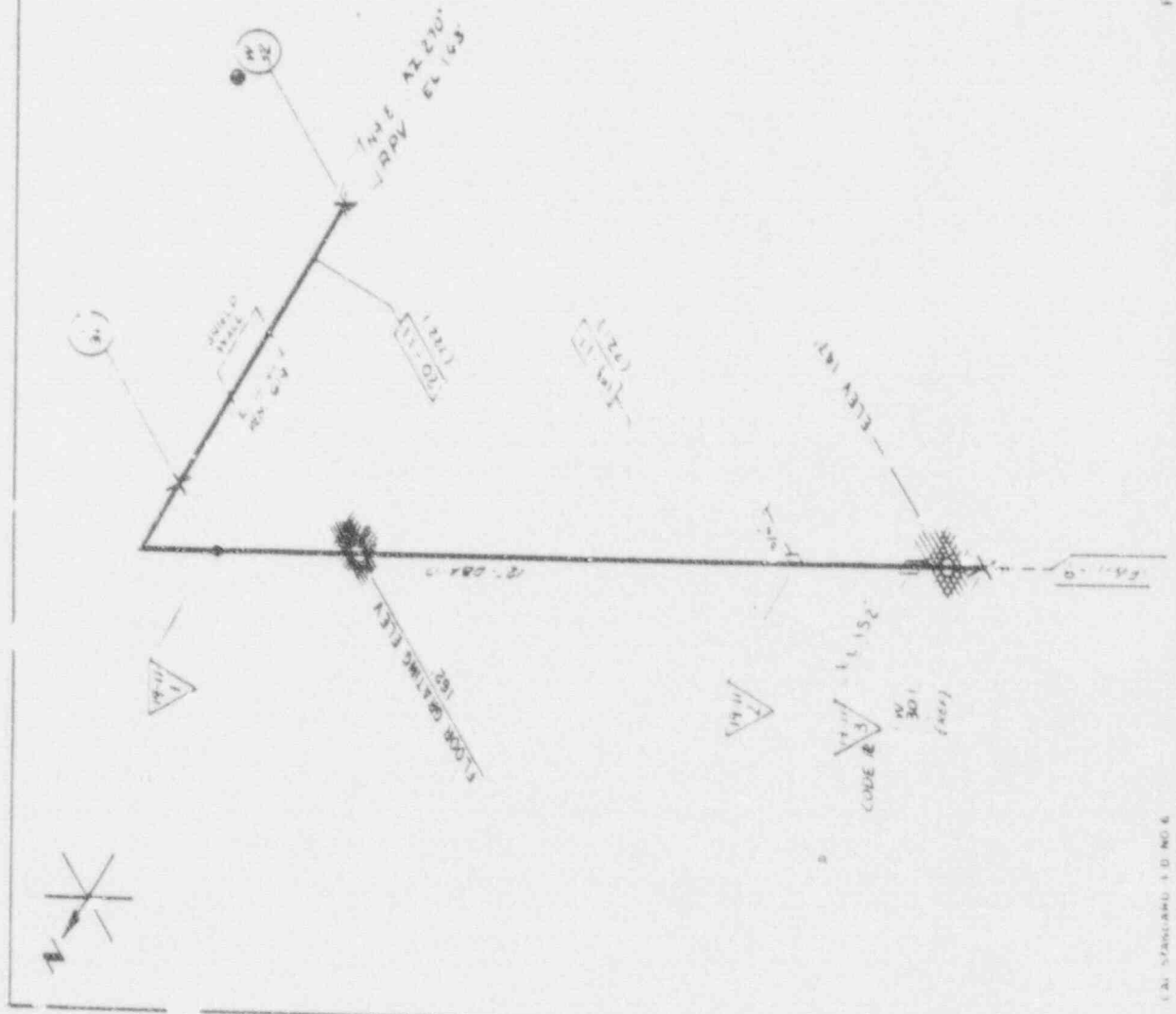
ATLANTA

FW 11

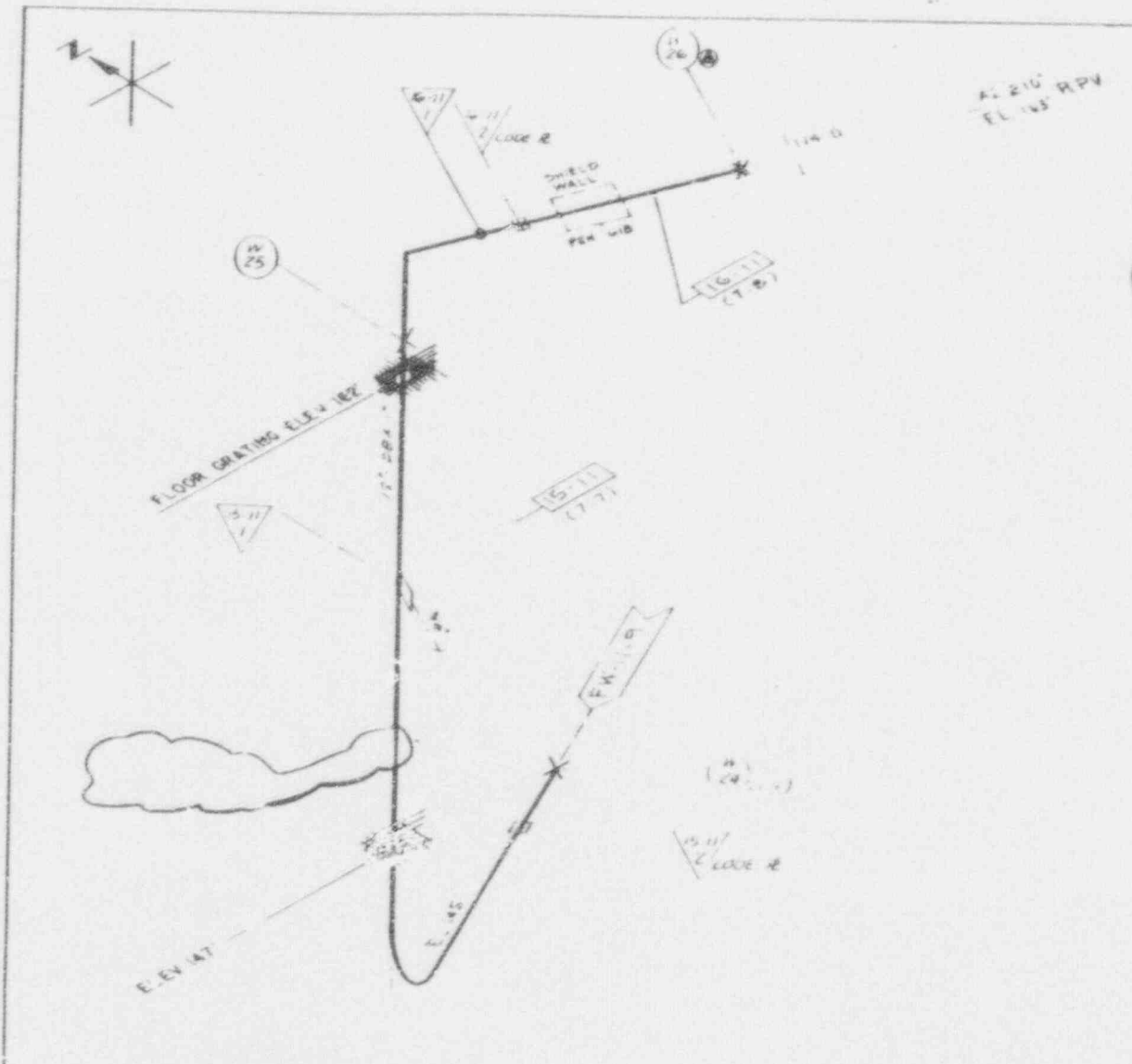
PAGE 10/1

MPBL NO	WELD DESCR	CODE	TYPES	ISSUE TIME PERIOD	I D MARK COMP
19-11-1	"C"	BJ	UT	NOT CHOSEN	YES
W-31	"C"	BJ	UT	NOT CHOSEN	YES
W-32	"D"	BJ	UT	3	YES
19-11-1	"C"	BJ	PT	NOT CHOSEN	YES
W-31	"C"	BJ	MT	NOT CHOSEN	YES
W-32	"D"	BJ	MY	3	YES

EDGE BECHTEL INTERFACE WELD



MPBL	GG-1	(JB-1)
SYSTEM	UNLATT-1	MAP
FIELD WITH	CTMT	MAP
LOG 15		



MPL NO (B31 4026)	WELD DESCR.	CODE CAT	TYPE EXAM	EXAM TIME PERIOD	I D MARK COMP
W-25	"C"	BJ	UT	NOT CHOSEN	YES
16-11-1	"C"	BJ	UT	NOT CHOSEN	YES
W-26	"D"	BJ	UT	3	YES
W-25	"C"	BJ	PT	NOT CHOSEN	YES
16-11-1	"C"	BJ	PT	NOT CHOSEN	YES
W-26	"D"	BJ	PT	3	YES

GE BECHTEL INTERFACE WELD

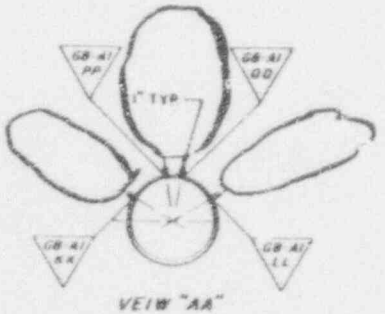
CAL STANDARD 10 NO 6

FW 02

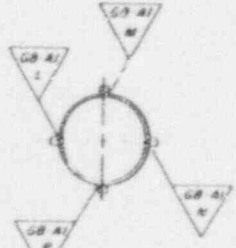
MPBL	GG-1	(JB-1)	OWN 03 10 77 S GRAUS	ISSUE NO ATLANTA
SYSTEM FEED WITH LOOP B	LOCATION CTWT	REF ID 152BJ	REP P DWG P 1077A	OWN NO FW-11
				PAGE 1 of 1



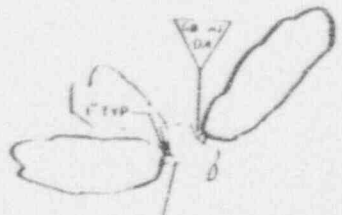
FLOOR GRATING ELEV 146'



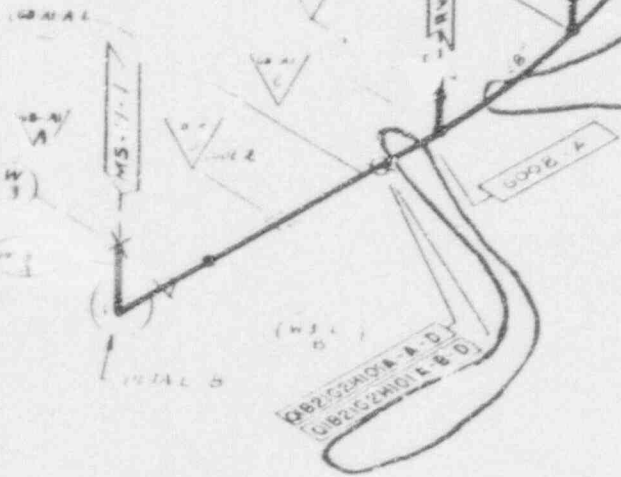
VEIW "AA"



VEIW "CC"



DETAIL B



SEE STANDARD IS NO 19, 20, 47

MPL NO	WELD	CODE	TYPE	EXAM	EXAM TIME	10
IB2+G001	DESCR	CAT	EXAM	PERIOD	MARK	COMP
W-3	"C"	BJ	UT	NOT CHOSEN		YES
W3-LA	"A"	BJ	UT	NOT CHOSEN		YES
W3-LB	"A"	BJ	UT	NOT CHOSEN		YES
GB-AI-A	"C"	BJ	UT	NOT CHOSEN		YES
GB-AI-A-L	"A"	BJ	UT	NOT CHOSEN		YES
GB-AI-C	"N"	BJ	UT	1		YES
GB-AI-K	"C"	BJ	UT	NOT CHOSEN		YES
GB-AI-D	"N"	BJ	UT	1		YES
GB-AI-J	"C"	BJ	UT	NOT CHOSEN		YES
GB-AI-E	"N"	BJ	UT	1		YES
GB-AI-H	"C"	BJ	UT	NOT CHOSEN		YES
GB-AI-F	"N"	BJ	UT	1		YES
GB-AI-G	"C"	BJ	UT	NOT CHOSEN		YES
GB-AI-B	"C"	BJ	UT	NOT CHOSEN		YES
GB-AI-B	"A"	BJ	UT	1, 2 * #		YES
GB-AI-B-LA	"A"	BJ	UT	1, 2 * #		YES
W-3	"C"	BJ	PT	NOT CHOSEN		YES
W3-LA	"A"	BJ	PT	NOT CHOSEN		YES
W3-LB	"A"	BJ	PT	NOT CHOSEN		YES
GB-AI-A	"C"	BJ	PT	NOT CHOSEN		YES
GB-AI-A-L	"A"	BJ	PT	NOT CHOSEN		YES
GB-AI-C	"N"	BJ	PT	1		YES
GB-AI-K	"C"	BJ	PT	NOT CHOSEN		YES
GB-AI-D	"N"	BJ	PT	1		YES
GB-AI-J	"C"	BJ	PT	NOT CHOSEN		YES
GB-AI-E	"N"	BJ	PT	1		YES
GB-AI-H	"C"	BJ	PT	NOT CHOSEN		YES
GB-AI-F	"N"	BJ	PT	1		YES
GB-AI-G	"C"	BJ	PT	NOT CHOSEN		YES
GB-AI-B	"C"	BJ	PT	NOT CHOSEN		YES
GB-AI-B-LB	"A"	BJ	PT	1 * #		YES
GB-AI-B-LA	"A"	BJ	PT	1 * #		YES

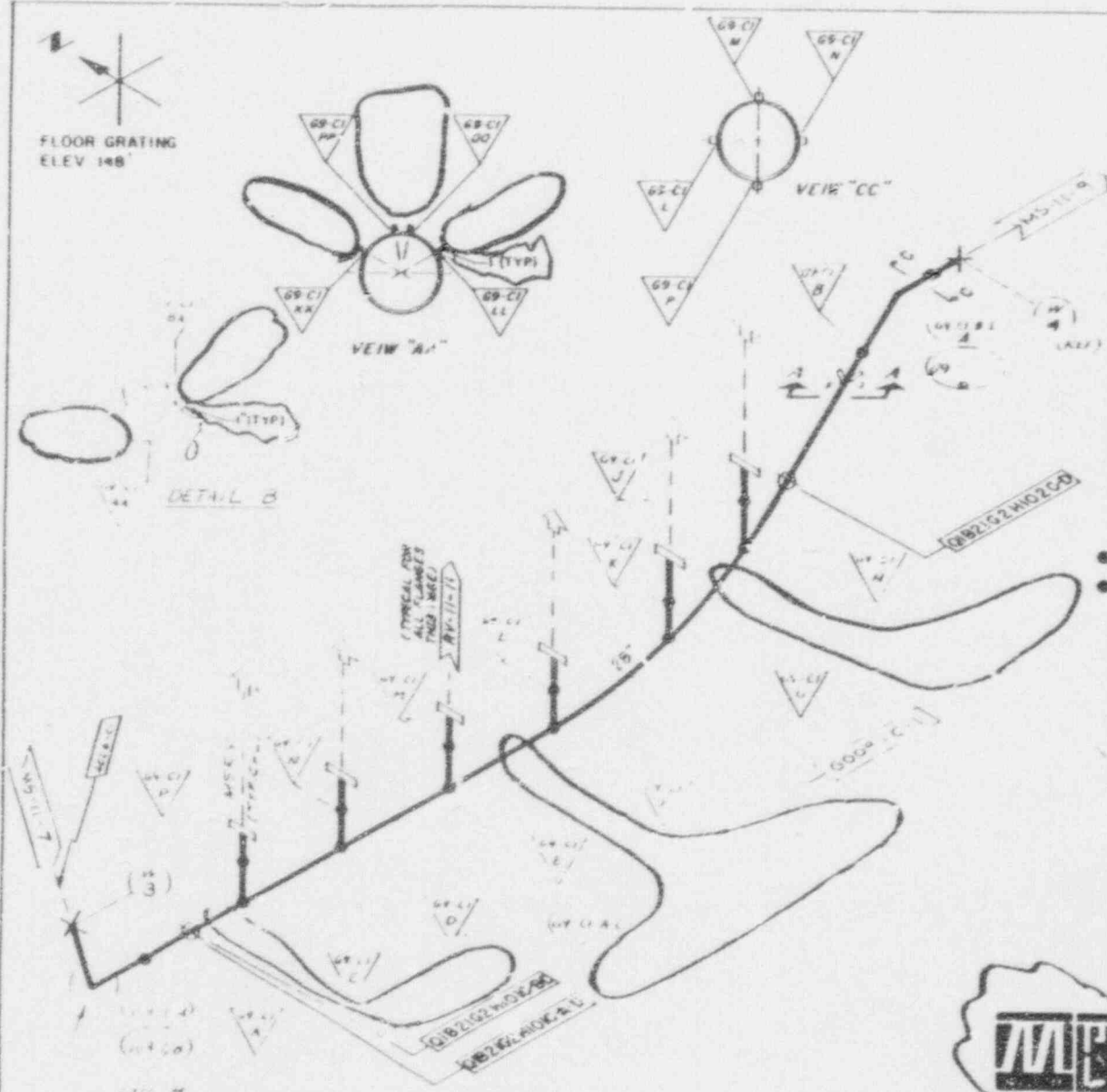
* # ONLY 12" OF LONG SEAM REQ'D
REF WRT 0000



MP&L	GG-1	(JB)	DWG NO 1077A	BASE NSO
SYSTEM	LOCATION	REF GR DWG	REP DWG	ATLANTA
MAN STM	CTMT	762E950	1-1077A	MS II
LOOP A				PAGE 1 of 2

MS 01

FLOOR GRATING
ELEV 148'



MPL NO	WELD DESCR	CODE	TYPE	EXAM TIME PERIOD	10 MARK COMP
1B2IG00					
W 3	"C"	BJ	UT	NOT CHOSEN	YES
W3-L/A	"A"	BJ	UT	NOT CHOSEN	YES
W3-L/B	"A"	BJ	UT	NOT CHOSEN	YES
G9-CI-A	"C"	BJ	UT	NOT CHOSEN	YES
G9-CI-C	"N"	BJ	UT	3	YES
G9-CI-P	"C"	BJ	UT	NOT CHOSEN	YES
G9-CI-D	"N"	BJ	UT	3	YES
G9-CI-N	"C"	BJ	UT	NOT CHOSEN	YES
G9-CI-E	"N"	BJ	UT	3	YES
G9-CI-M	"C"	BJ	UT	NOT CHOSEN	YES
G9-CI-F	"N"	BJ	UT	3	YES
G9-CI-L	"C"	BJ	UT	NOT CHOSEN	YES
G9-CI-G	"N"	BJ	UT	3	YES
G9-CI-K	"C"	BJ	UT	NOT CHOSEN	YES
G9-CI-H	"N"	BJ	UT	3	YES
G9-CI-J	"C"	BJ	UT	NOT CHOSEN	YES
G9-CI-B	"C"	BJ	UT	NOT CHOSEN	YES
G9-CI-L-B	"A"	BJ	UT	1,3 R H	YES
G9-CI-L-A	"A"	BJ	UT	1,3 R H	YES
G9-CI-L	"A"	BJ	UT	NOT CHOSEN	YES
W 3	"C"	BJ	PT	NOT CHOSEN	YES
W3-L/A	"A"	BJ	PT	NOT CHOSEN	YES
W3-L/B	"A"	BJ	PT	NOT CHOSEN	YES
G9-CI-A	"C"	BJ	PT	NOT CHOSEN	YES
G9-CI-C	"N"	BJ	PT	3	YES
G9-CI-P	"C"	BJ	PT	NOT CHOSEN	YES
G9-CI-D	"N"	BJ	PT	3	YES
G9-CI-N	"C"	BJ	PT	NOT CHOSEN	YES
G9-CI-E	"N"	BJ	PT	3	YES
G9-CI-M	"C"	BJ	PT	NOT CHOSEN	YES
G9-CI-F	"N"	BJ	PT	3	YES
G9-CI-I	"C"	BJ	PT	NOT CHOSEN	YES

REFERENCE # 1 0000
* * ONLY 12 OF LONG SEAM NEEDED



MPBL GG-1 (JB-1) ENVD 03 29 77 18 SE NSD
 SYSTEM MAIN STEAM LOCATION CTMT REP 66 DWG 762E950 REP P DWG P 4077A 5 GRAUS ATLANTA
 CAL STANDARD 1 D = 19, 20, 47 MS 0-1 PAGE 1 of 2



WPL NO (B21600)	WELD DESCR	WELD CAT	TYPE FEAR	BEAN TIME PERIOD	'D MARK COMPL
G9-C-C	"N"	BJ	PT	3	YES
G9-C-K	"C"	BJ	PT	NOT CHOSEN	YES
G9-C-H	"N"	BJ	PT	3	YES
G9-C-J	"C"	BJ	PT	NOT CHOSEN	YES
G9-C-B	"C"	BJ	PT	NOT CHOSEN	YES
G9-C-L-B	"A"	BJ	PT	3**	YES
G9-C-L-A	"A"	BJ	PT	3**	YES
G9-C-L-T	"A"	BJ	MT	NOT CHOSEN	YES
H01C-A-D	HANGER	FC	VT 3	2	N/A
H01C-B-D	HANGER	FC	VT 3	2	N/A
H102C-D	HANGER	FC	VT 3	2	N/A
G9-C-L	LUG	BK1	PT	3	N/A
G9-C-M	LUG	BK1	PT	3	N/A
G9-C-N	LUG	BK1	PT	3	N/A
G9-C-P	LUG	BK1	PT	3	N/A
H01C-A-D	HANGER	FC	VT 4	2	N/A
H01C-B-D	HANGER	FC	VT 4	2	N/A
H102C-D	HANGER	FC	VT 4	2	N/A

MIN ONLY 12" OF LONG SEAM WELD

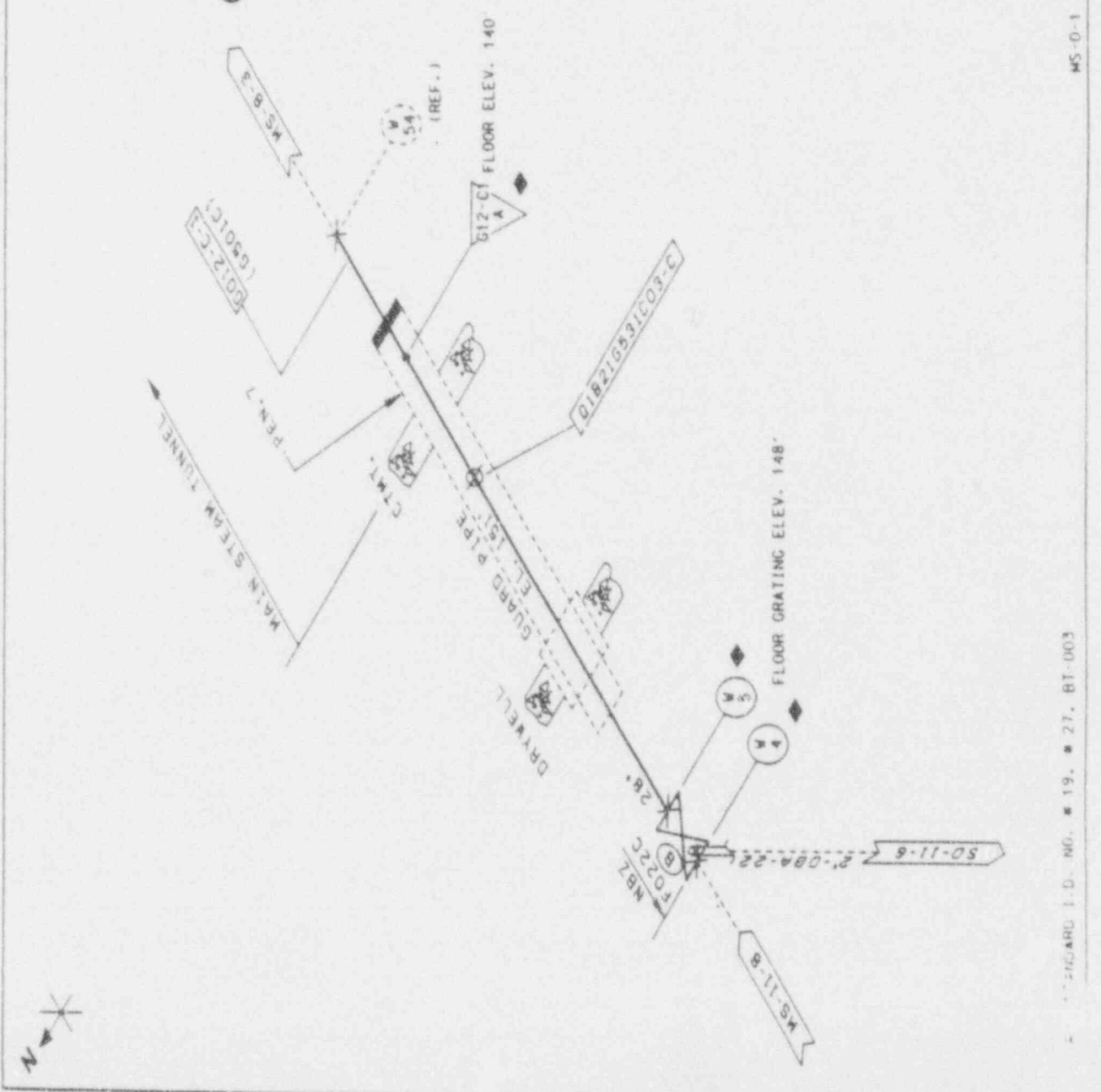


PROJECT: MPBL GG-1 (JB-1)
 SHEET NO: 01 OF 577
 SHEET TITLE: MAIN STEAM LOOP C
 DATE: 7/29/00
 P: 10772
 MS-11
 PAGE 2 OF 2

MPL NO.	WELD DESC.	CODE CAT.	TYPE EXAM.	EXAM. TIME PERIOD	I.D. MARK COMPL.
1B215001					
W-4	*G*	BJ	U.T.	1-3	YES
W-5	*G*	BJ	U.T.	3	YES
G12-C1-A	*E*	BJ	U.T.	3	YES
VALVE F022C	WALTS (118) B-G-1	B-G-1	U.T.	3	YES
W-4	*G*	BJ	M.T.	3	YES
W-5	*G*	BJ	M.T.	3	YES
G12-C1-A	*E*	BJ	P.T.	3	YES
VALVE F022C	WORKING (118) B-G-1	B-G-1	V.T.1	3	N/A
VALVE F022C	INTERNAL B-W-2	B-W-2	V.T.3	3	N/A
CO3-C	HANGER FB	FB	V.T.3	RELIEF RECORDS 00000	N/A

- ⊙ DURING MAINT. INSPECTION OR PERIOD 3
- ⊙ REFERENCE R.R.I. - 00007 (G12-C1-A)
- ⊙ REFERENCE R.R.I. - 00010 (W4)
- ◆ NO BREAK ZONE

DWG. REV	DATE
1	11/17/81
2	03/29/77
3	03/29/77
4	03/29/77
5	03/29/77
6	03/29/77
7	03/29/77
8	03/29/77
9	03/29/77

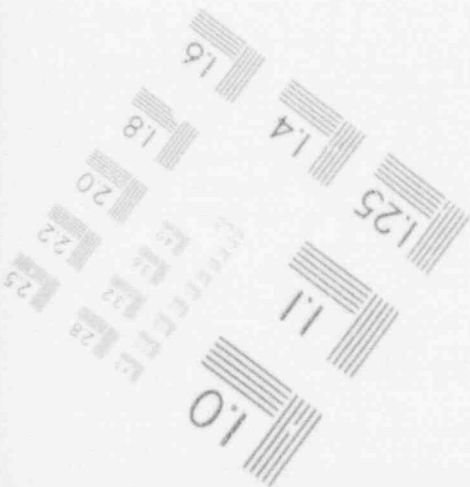
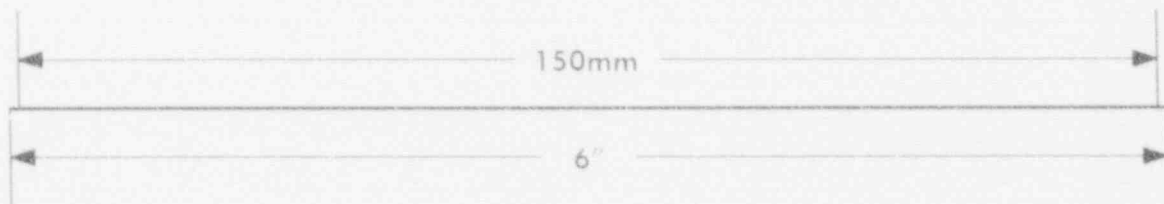
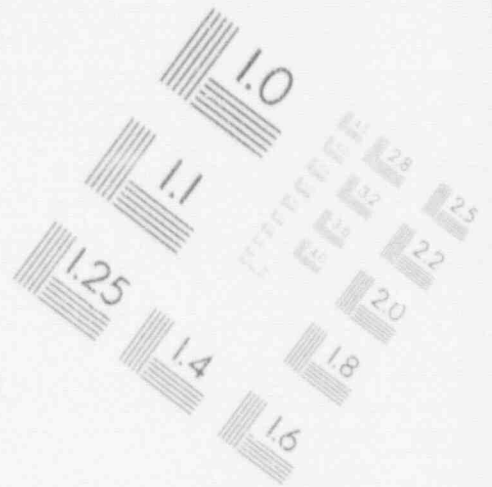


PROJECT	MP B L GG-1 (JB-1)	DWG. REV	1 B SE-N50
SYSTEM	LOCATION	REF. OR DWG	ATLANTA
MAIN STEAM	CTMT	REF. B DWG	DWG NO.
LOOP C		762E950	MS-11
		P-1077A	PAGE 1 OF 1

MS-0-1

2

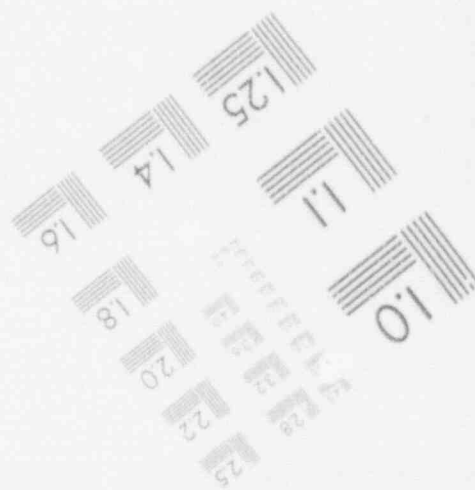
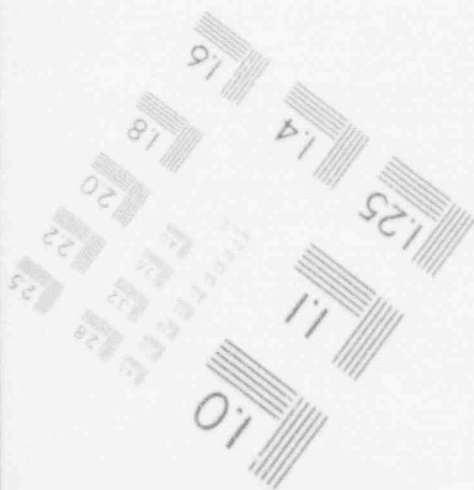
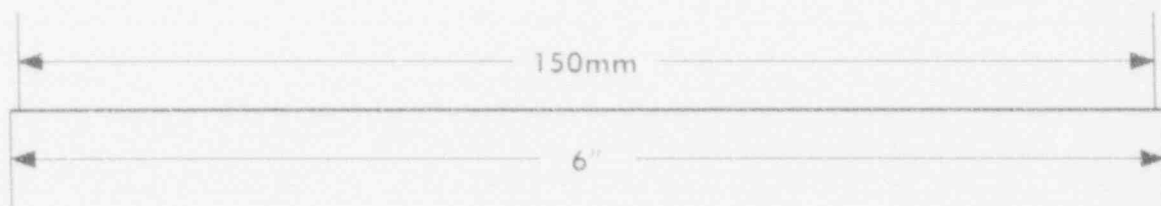
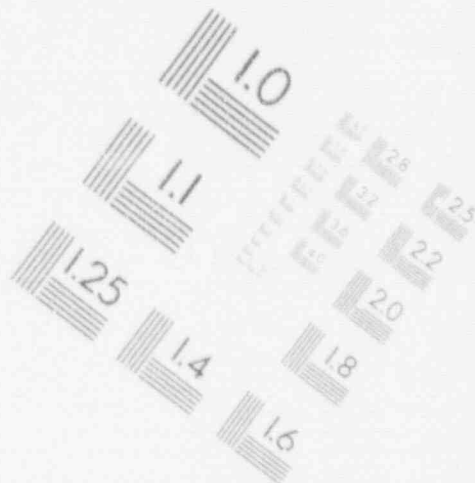
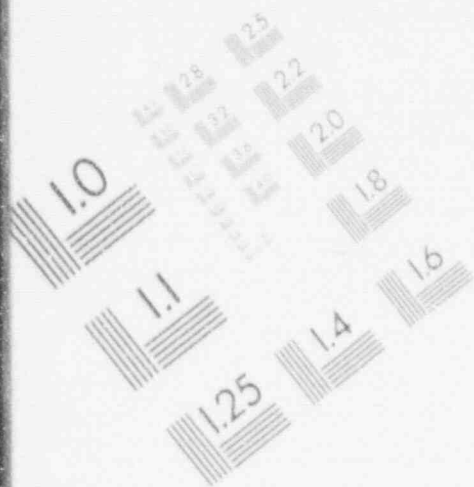
IMAGE EVALUATION TEST TARGET (MT-3)



PHOTOGRAPHIC SCIENCES CORPORATION
770 BASKET ROAD
P.O. BOX 338
WEBSTER, NEW YORK 14580
(716) 265-1600

2

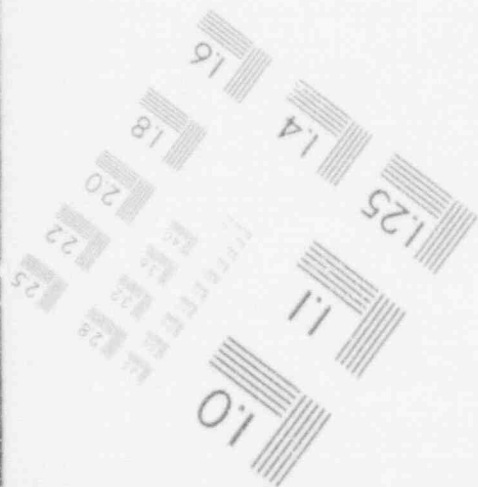
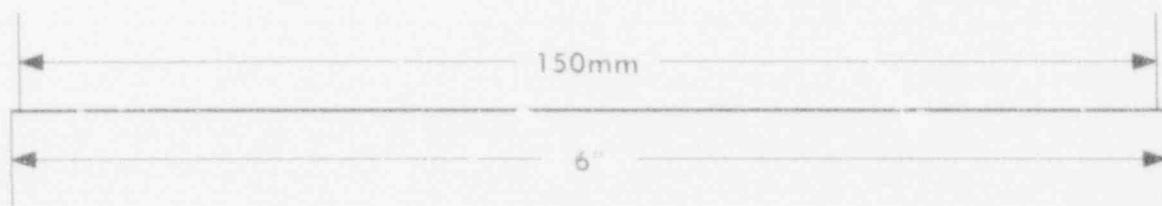
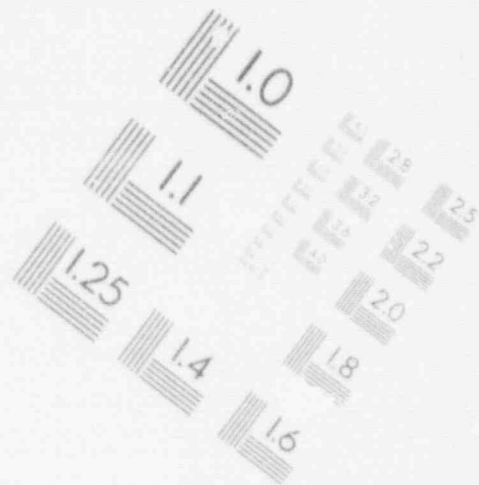
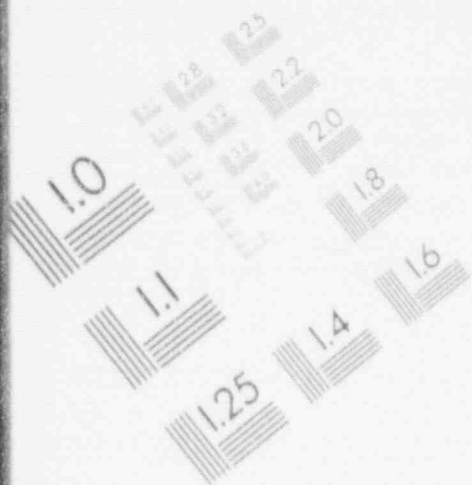
IMAGE EVALUATION TEST TARGET (MT-3)



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770 BASKET ROAD
P.O. BOX 338
WEBSTER, NEW YORK 14580
(716) 265-1600

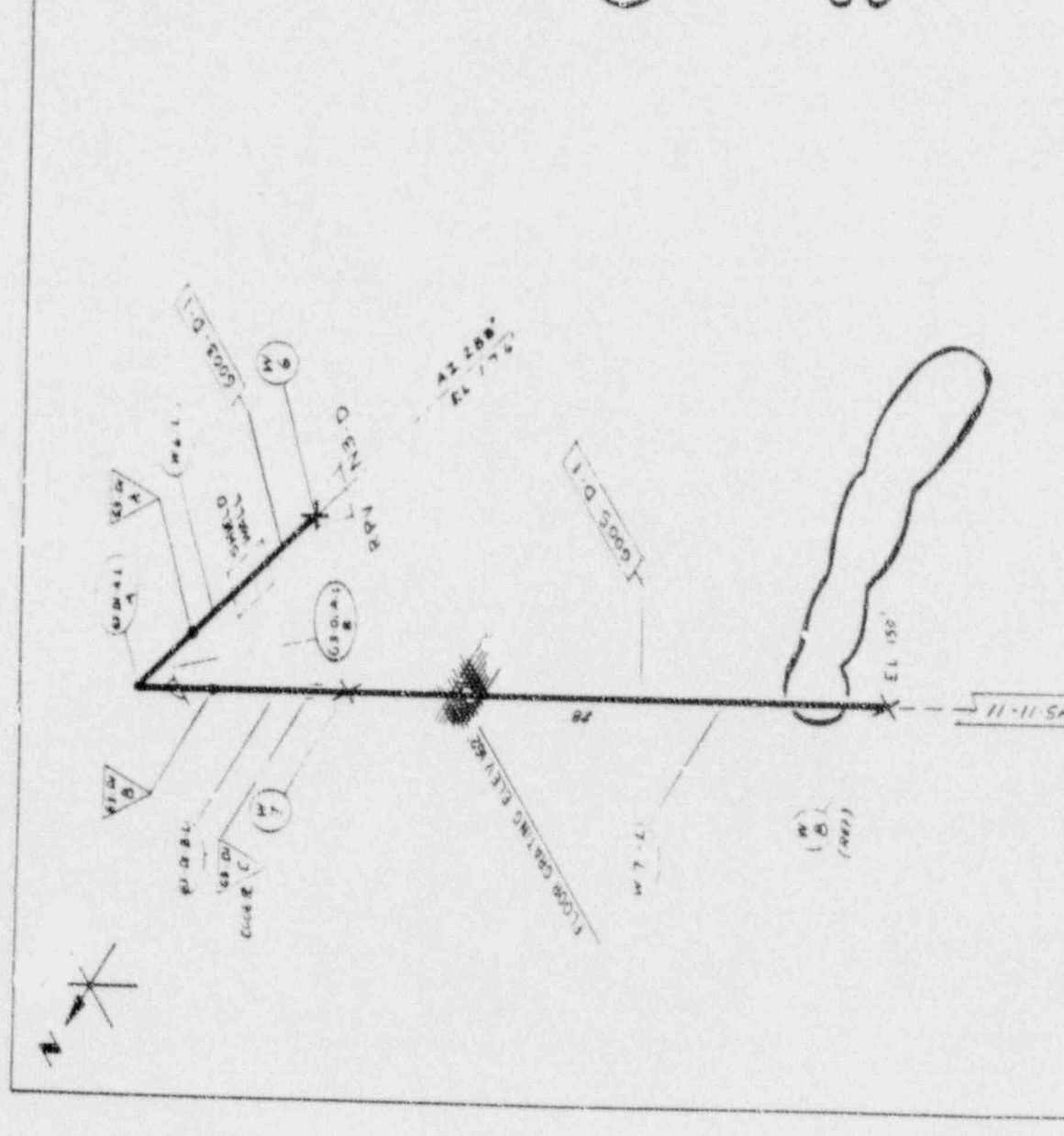
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IMAGE EVALUATION TEST TARGET (MT-3)



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WEBSTER, NEW YORK 14580
(716) 255-1600

MAPL NR	FIELD DESCR	COORD CAT	TYPE BRANA	STEAM TRUNK PERIOD	I.D. MAPL CHOP
W 6	"D"	BJ	UT	3	YES
W 6-L	"A"	BJ	UT	3 **	YES
G3 DA A	"C"	BJ	UT	NOT CHOSEN	YES
G3 DA A-B	"A"	BJ	UT	NOT CHOSEN	YES
G3 DA A-L	"A"	BJ	UT	NOT CHOSEN	YES
G3 DA B	"C"	BJ	UT	NOT CHOSEN	YES
G3 DA B-L	"A"	BJ	UT	NOT CHOSEN	YES
W 7	"E"	BJ	UT	NOT CHOSEN	YES
W 7-L	"A"	BJ	UT	NOT CHOSEN	YES
G 6	"D"	BJ	MT	3	YES
W 6-L	"A"	BJ	MT	3 **	YES
G 3 DA A	"C"	BJ	PT	NOT CHOSEN	YES
G 3 DA A-B	"A"	BJ	PT	NOT CHOSEN	YES
G 3 DA A-L	"A"	BJ	PT	NOT CHOSEN	YES
G 3 DA B	"C"	BJ	PT	NOT CHOSEN	YES
G 3 DA B-L	"A"	BJ	MT	NOT CHOSEN	YES
W 7	"E"	BJ	MT	NOT CHOSEN	YES
W 7-L	"A"	BJ	MT	NOT CHOSEN	YES

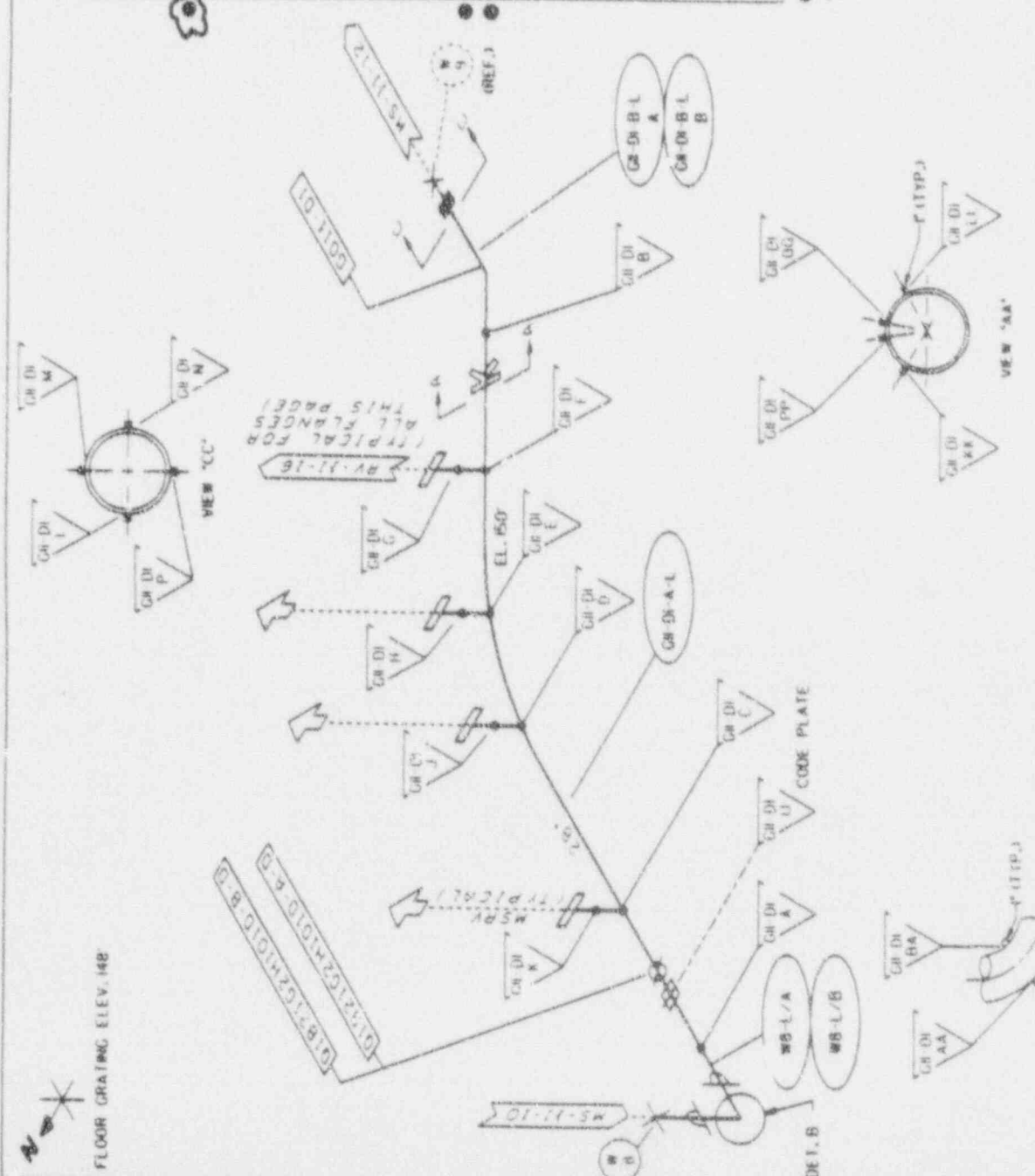


Date: 05.11.77
 S. GRUBS
 P. 10177A
 18 SE NSD
 ATLANTA
 MS II
 PAGE 10F1

MPAL GG-1 (JB-1)
 SYSTEM MAIN STEAM LOOP D
 LOCATION C 1 MT
 7624 NSD
 M.S. 0.2
 CAL STANDARD I.D. 19, 20

WELD NO.	WELD DESCR.	CODE CAT.	TYPE EXAM	EXAM TIME PERIOD	LD. MARK COMP.
WB-B	"C"	BJ	U.T.	NOT CHOSEN	YES
WB-L-A	"A"	BJ	U.T.	NOT CHOSEN	YES
WB-L-B	"A"	BJ	U.T.	NOT CHOSEN	YES
GR-DH-A	"C"	BJ	U.T.	NOT CHOSEN	YES
GR-DH-C	"N"	BJ	U.T.	2	YES
GR-DH-K	"C"	BJ	U.T.	NOT CHOSEN	YES
GR-DH-L	"A"	BJ	U.T.	NOT CHOSEN	YES
GR-DH-D	"N"	BJ	U.T.	3	YES
GR-DH-J	"C"	BJ	U.T.	NOT CHOSEN	YES
GR-DH-E	"N"	BJ	U.T.	3	YES
GR-DH-H	"C"	BJ	U.T.	NOT CHOSEN	YES
GR-DH-F	"N"	BJ	U.T.	2	YES
GR-DH-G	"C"	BJ	U.T.	NOT CHOSEN	YES
GR-DH-B	"C"	BJ	U.T.	NOT CHOSEN	YES
GR-DH-I	"A"	BJ	U.T.	L2 **	YES
GR-DH-A	"A"	BJ	U.T.	L2 **	YES
GR-DH-L	LUG	B**	P.T.	2	N/A
GR-DH-M	LUG	B**	P.T.	2	N/A
GR-DH-N	LUG	B**	P.T.	2	N/A
GR-DH-P	LUG	B**	P.T.	2	N/A

● REFERENCE R.R. 1-0000
 ** ONLY 12" O" LONG. SEAM REED



FLOOR GRATING ELEV. 148

PROJECT	MP & L	GC-1 (JH-B)	DATE	BY	CHKD	DATE
SYSTEM	MAIN STEAM	LOC. 101	16/2/55			
LOC. 101	CL. 101					
CL. 101						

PROJECT: MP & L GC-1 (JH-B)
 SYSTEM: MAIN STEAM
 LOC. 101
 CL. 101
 DATE: 16/2/55
 BY: [Signature]
 CHKD: [Signature]
 DATE: [Signature]



WPL NO.	WELD DESCR.	CODE CAT.	TYPE EXAM.	EXAM TIME PERIOD	LD. MARK COMP.
WB-000					
W-B	"C"	BJ	P.T.	NOT CHOSEN	YES
WB-L-A	"A"	BJ	P.T.	NOT CHOSEN	YES
WB-L-B	"A"	BJ	P.T.	NOT CHOSEN	YES
GR-DI-A	"C"	BJ	P.T.	NOT CHOSEN	YES
GR-DI-C	"N"	BJ	P.T.	2	YES
GR-DI-X	"C"	BJ	P.T.	NOT CHOSEN	YES
GR-DI-A-L	"A"	BJ	M.T.	NOT CHOSEN	YES
GR-DI-D	"M"	BJ	P.T.	3	YES
GR-DI-J	"C"	BJ	P.T.	NOT CHOSEN	YES
GR-DI-E	"M"	BJ	P.	3	YES
GR-DI-H	"C"	BJ	P.	NOT CHOSEN	YES
GR-DI-F	"M"	BJ	P.T.	2	YES
GR-DI-G	"C"	BJ	P.T.	NOT CHOSEN	YES
GR-DI-B	"C"	BJ	P.T.	NOT CHOSEN	YES
GR-DI-L-B	"A"	BJ	P.T.	2+ *	YES
GR-DI-L-A	"A"	BJ	P.T.	2+ *	YES
HROD-B-D	HANGER	FC	V.T.3	3	N/A
HROD-A-D	HANGER	FC	V.T.3	3	N/A
HROD-B-D	HANGER	FC	V.T.4	3	N/A
HROD-A-D	HANGER	FC	V.T.4	3	N/A

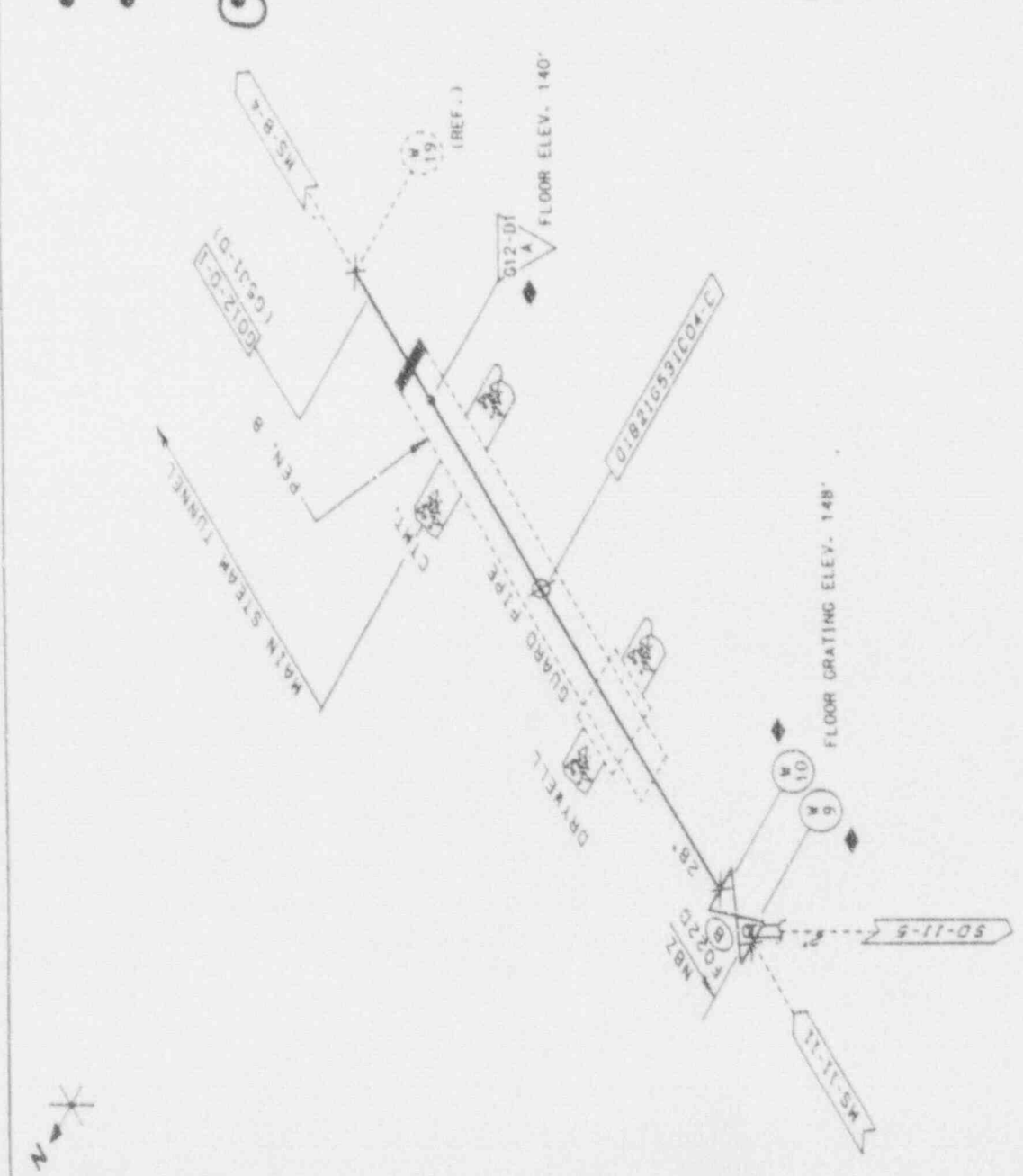
• RET. RB 1-0000
 * * ONLY 12" OF LONG SEAM RECD

DATE
 REV
 NO
 BY

PROJECT MP & L GG-1 (JB-B)	MADE BY G. P. T. S. GRAUS	14 SE NSD ATLANTA	REV 3
SYSTEM MAIN STEAM LOOP-D	LOCATION C1MET.	REF. DWG 762E950	ISSUED NO. B
		REF. P. DWG P 1077A	DATE 12-2

WPL NO.	WELD DESCR.	CODE CAT.	TYPE EXAM.	EXAM. TIME PERIOD	I.D. MARK COMPL.
1B21G001					
W-9	"G"	BJ	U.T.	2, 3	YES
W-10	"G"	BJ	U.T.	3	YES
G12-D1-A	"E"	BJ	U.T.	2	YES
VALV F0220	BO. 15 (18) B-G-1	B-G-1	U.T.	3	YES
W-9	"G"	BJ	M.T.	3	YES
W-10	"G"	BJ	M.T.	3	YES
G12-D1-A	"E"	BJ	P.T.	2	YES
VALV F0220	MULTILING B-G-1	B-G-1	V.T.1	3	N/A
VALV F0220	INTERNAL B-M-2	B-M-2	V.T.3	3	N/A
CO4-C	HANGER FB	FB	V.T.3	RELIEF 1-00008 REBACK 1	N/A

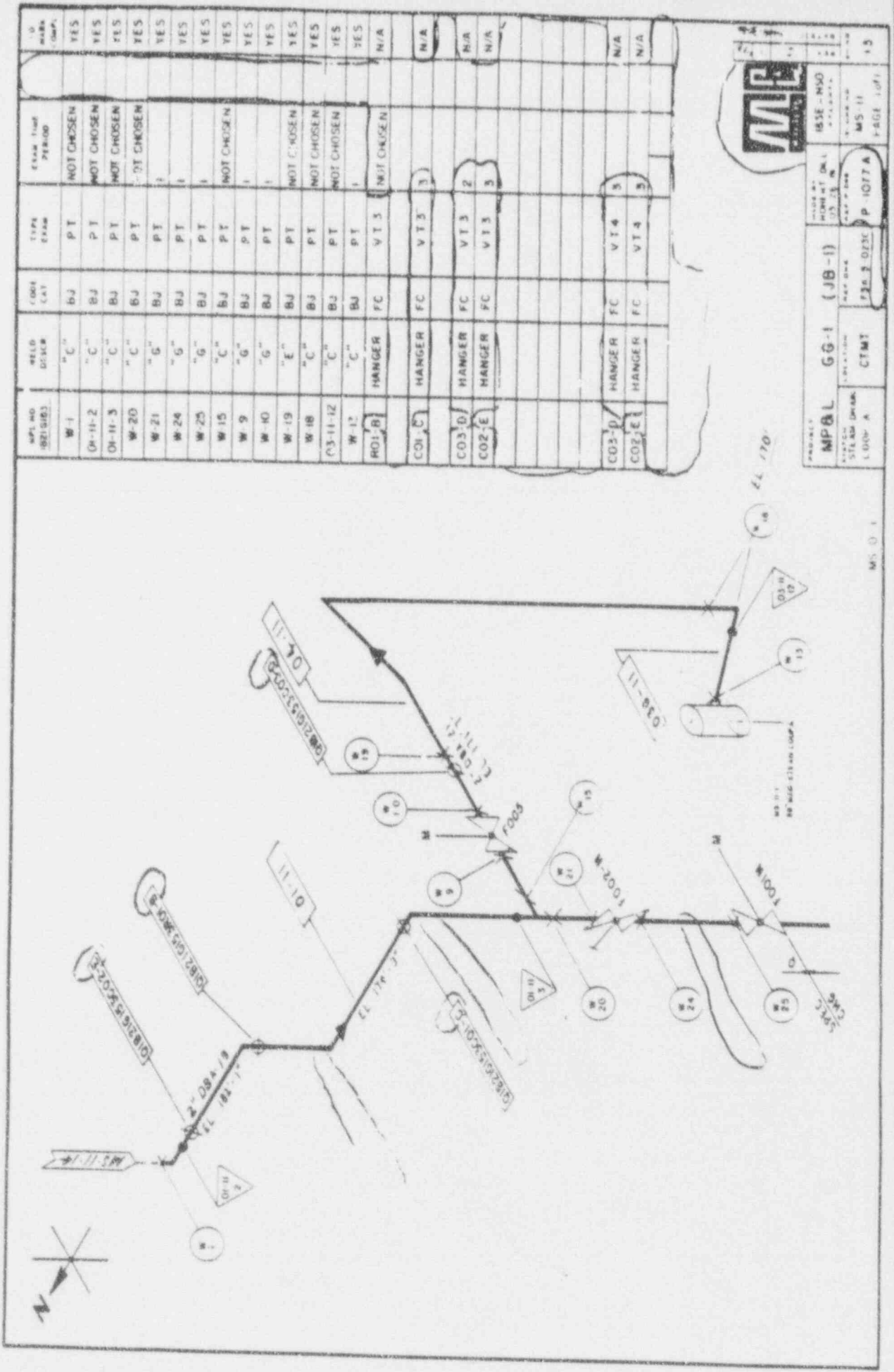
- ⊙ DURING MAINT. INSPECTION OR PERIOD 3
- ⊙ REFERENCE R.R.I.-00007 (G12-D1-A)
- ⊙ NO BREAR ZONE
- ⊙ REFERENCE R.R.I.-00010 (W9)



PROJECT	MP B L	GG-1 (JB-1)	DWG. NO.	REV	I B SE NSO
SYSTEM	LOCATION	REF. DE DWG	05-31-77	2	ALABAMA
LOOP D	C.L.M.T.	762E950	REF P DWG		DWG NO.
			P-1077A		MS-11
					PAGE 1 OF 1

CAL. STANDARD I.D. NO. 19, 27, BT-003

DRW: 1066.01/1B21G001.512
PSE: 11 x 17 9" SIZE



WELD NO. (821083)	WELD DESIG.	CODE CAT.	TYPE EXAM.	EXAM TIME PERIOD	U MARK COMP.
W-1	"C"	BJ	PT	NOT CHOSEN	YES
01-11-2	"C"	BJ	PT	NOT CHOSEN	YES
01-11-3	"C"	BJ	PT	NOT CHOSEN	YES
W-20	"C"	BJ	PT	NOT CHOSEN	YES
W-21	"G"	BJ	PT		YES
W-24	"G"	BJ	PT		YES
W-25	"G"	BJ	PT		YES
W-15	"C"	BJ	PT	NOT CHOSEN	YES
W-9	"G"	BJ	PT		YES
W-10	"G"	BJ	PT		YES
W-19	"E"	BJ	PT	NOT CHOSEN	YES
W-18	"C"	BJ	PT	NOT CHOSEN	YES
03-11-12	"C"	BJ	PT	NOT CHOSEN	YES
W-12	"C"	BJ	PT		YES
RO1-B	HANGER	FC	VT 5	NOT CHOSEN	N/A
CO1-C	HANGER	FC	VT 5		N/A
CO3-D	HANGER	FC	VT 3		N/A
CO2-E	HANGER	FC	VT 3		N/A
CO3-P	HANGER	FC	VT 4		N/A
CO2-E	HANGER	FC	VT 4		N/A

MPE

PROJECT: **MP&L GG-1 (JB-1)**

ISSUED BY: **MSO**

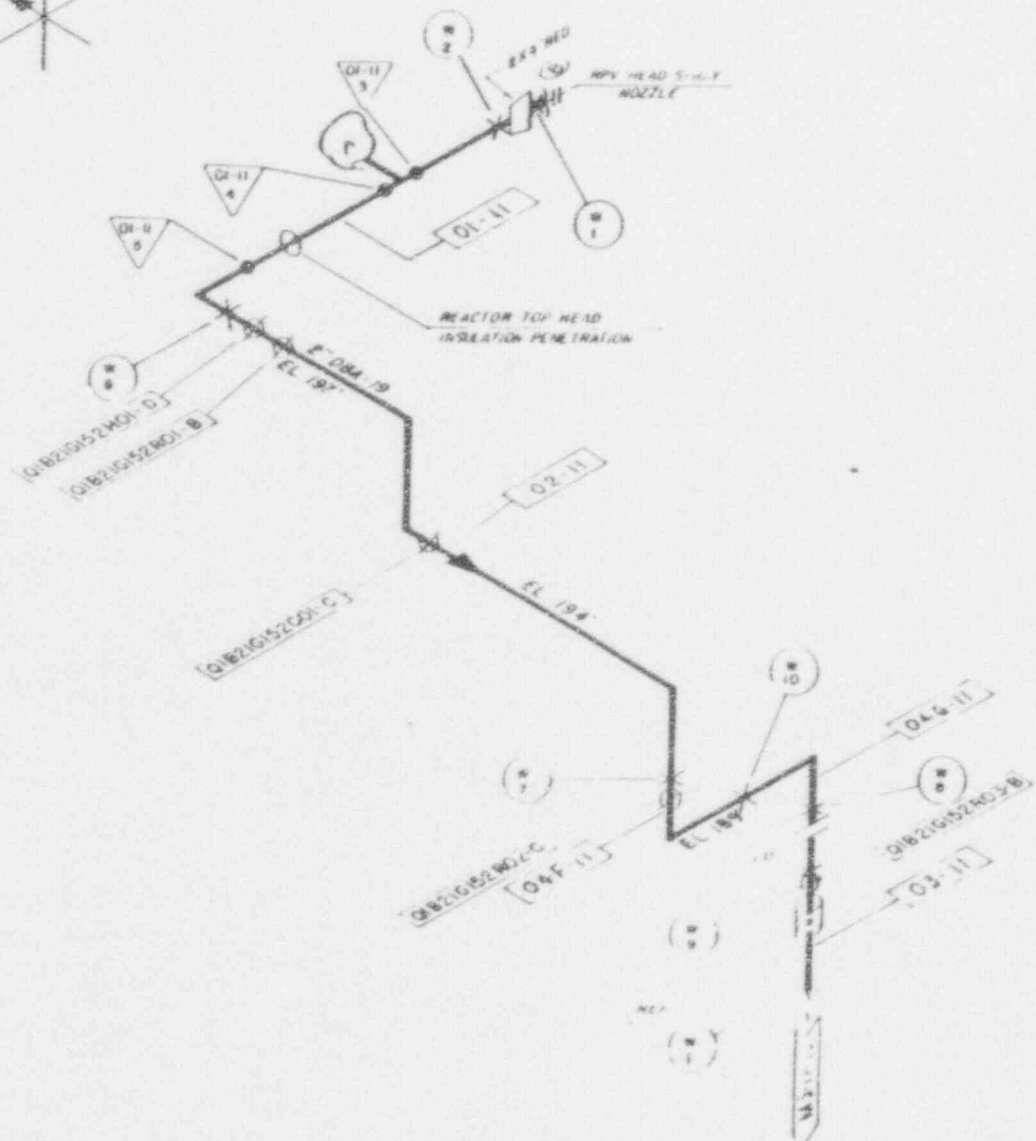
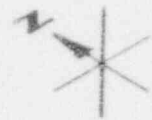
DATE: **05.28.88**

SCALE: **P 1077A**

REVISION: **MS-11**

PAGE: **10/1**

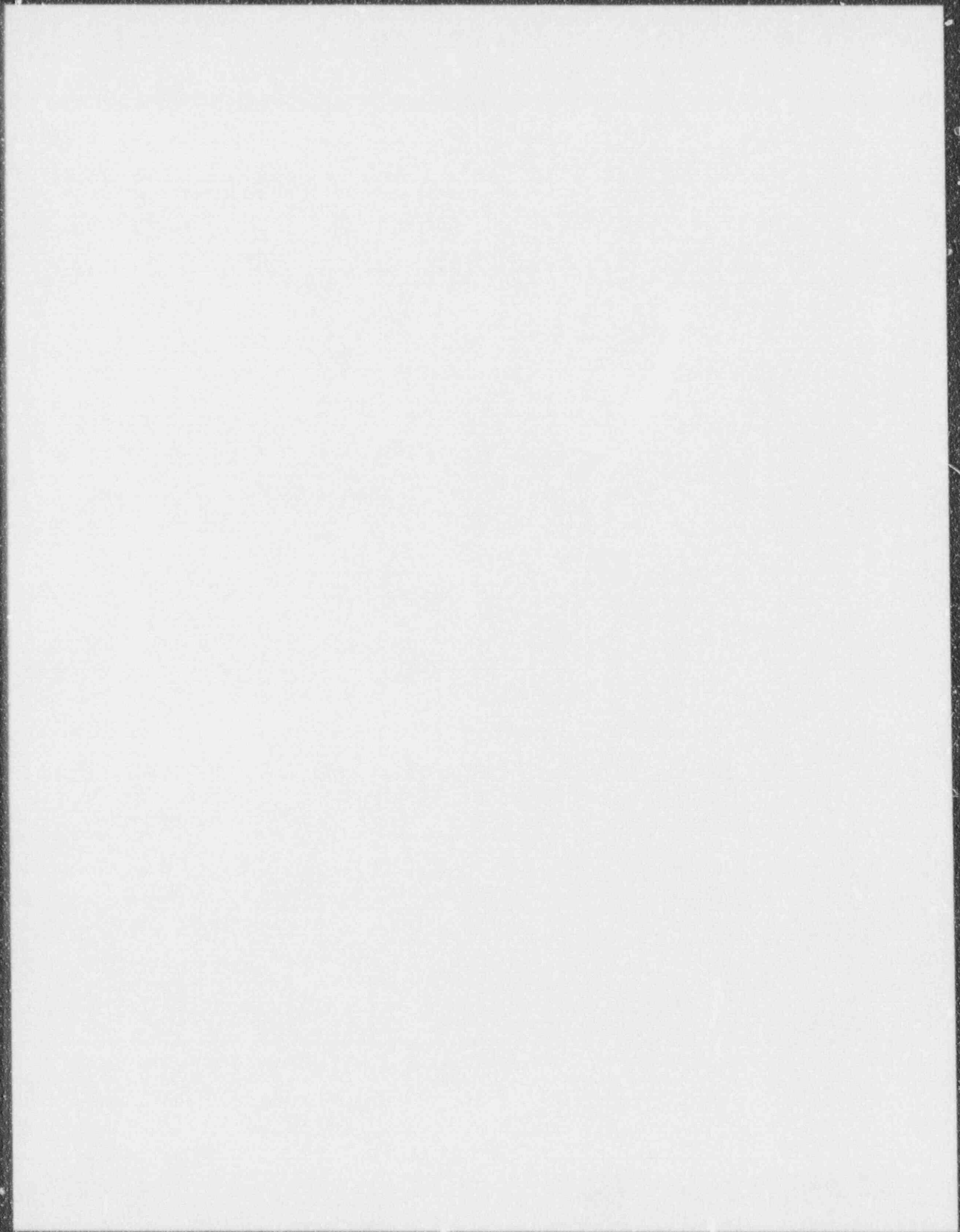
MS-11

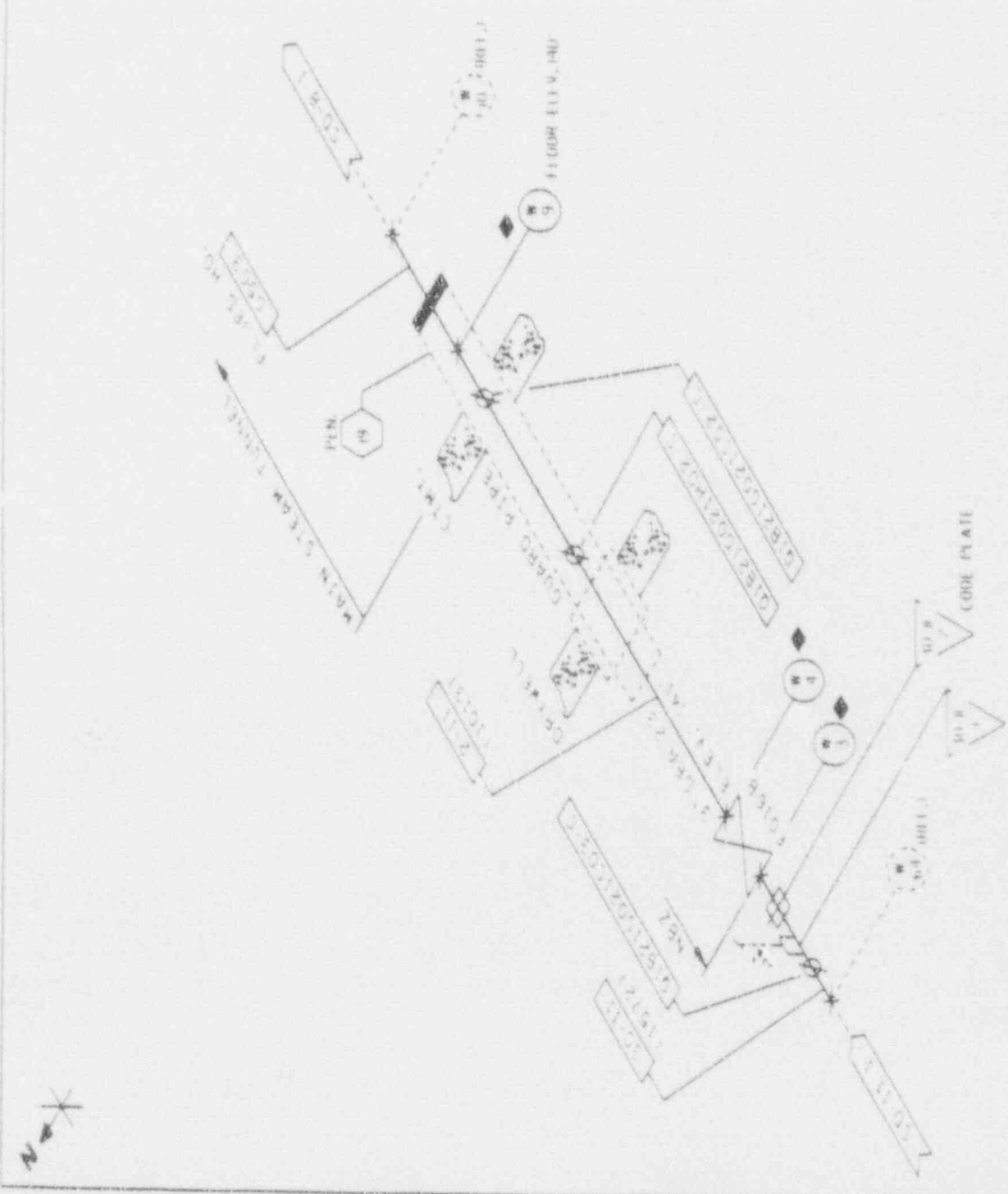


NPL NO	FIELD DESCR	CODE CAT	TYPE EXAM	EXAM TIME PERIOD	I-D MARKS COMPL
W-1	"J"	BJ	PT	1	YES
W-2	"C"	BJ	PT	NOT CHOSEN	YES
OI-II-3	"C"	BJ	PT	NOT CHOSEN	YES
OI-II-4	"C"	BJ	PT	NOT CHOSEN	YES
OI-II-5	"C"	BJ	PT	NOT CHOSEN	YES
W-6	"C"	BJ	PT	NOT CHOSEN	YES
W-7	"C"	BJ	PT	NOT CHOSEN	YES
W-10	"C"	BJ	PT	NOT CHOSEN	YES
W-8	"C"	BJ	PT	NOT CHOSEN	YES
W-9	"E"	BJ	PT	NOT CHOSEN	YES
HOI-D	HANGER	FC	VT 3	3	N/A
ROI-B	HANGER	FB	VT 3	NOT CHOSEN	N/A
COI-C	HANGER	FB	VT 3	1	N/A
RO2-C	HANGER	FB	VT 3	2	N/A
RO3-B	HANGER	FB	VT 3	NOT CHOSEN	N/A
FLANGE BOLTING BETWEEN K-1 NOZZLE & W-1	B-G-2	VT 1	1	N/A	N/A
FLANGE BOLTING BETWEEN W-1 & W-2	B-G-2	VT 1	2	N/A	N/A
W-1	"D"	BJ	R 1	1	YES
HOI-D	HANGER	FC	VT4	3	N/A

PROJECT: **MP&L GG-1 (JB-1)**
 DRAWN BY: **MP&L**
 CHECKED BY: **GG-1**
 DATE: **7/31/88**
 SCALE: **AS SHOWN**
 SHEET NO: **14** OF **14**

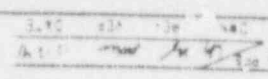






WPI NO.	WELD SYMBOL	CONC. CAT.	TYPE EXAM.	EXAM. TIME PERIOD	U.S. BAZON COMP.
W 3	"U"	BJ	P.T.	3	YES
W 4	"U"	BJ	P.T.	3	YES
W 9	"T"	BJ	P.T.	1	YES
CO7 C	HANGER	FB	V.T.3	WELT WELT WELT : 0000	N/A
CO5 C	HANGER	FB	V.T.3	2	N/A
HO2 C	HANGER	FB	V.T.3	WELT WELT : 0000	N/A

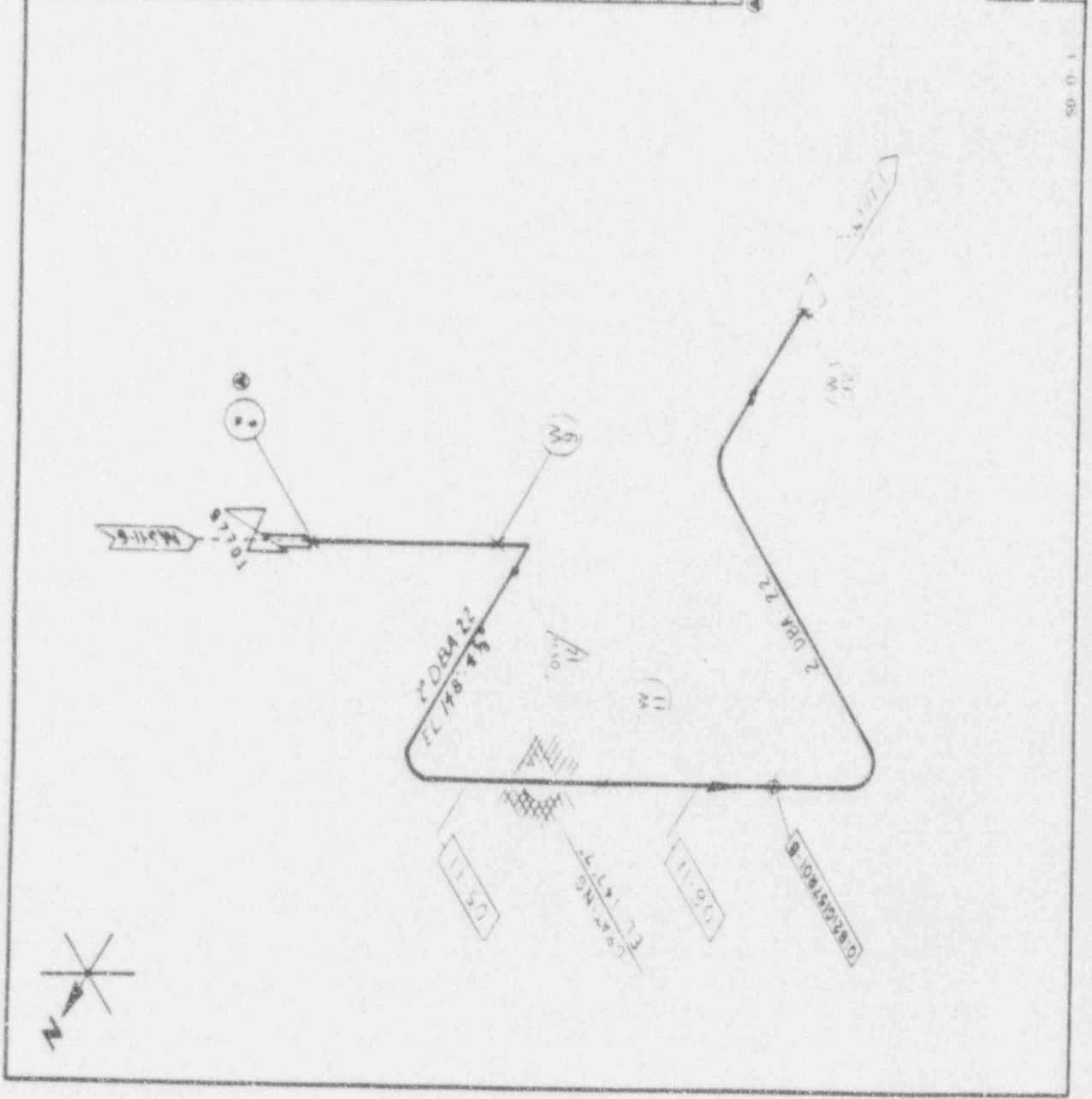
◆ NO BREAK ZONE



PROJECT	NO. 5	DATE	11/15/73
DESIGNER	W. J. H. J.	SCALE	AS SHOWN
CHECKER	M. J. H.	DATE	11/15/73
APPROVED			

WELD NO	WELD DESIG	CODE CAT	TYPE WELD	FRAM TIME PERIOD	I/D MARK DESIG
W-6	"C"	BJ	PT	3	YES
W-9	"C"	BJ	PT	NOT CHOSEN	YES
05-11-12	"C"	BJ	PT	NOT CHOSEN	YES
W-11	"E"	BJ	PT	NOT CHOSEN	YES
ROI-B	HANGER	FB	VT 3	NOT CHOSEN	N/A

GA - BECKETT INTERFACE WELD

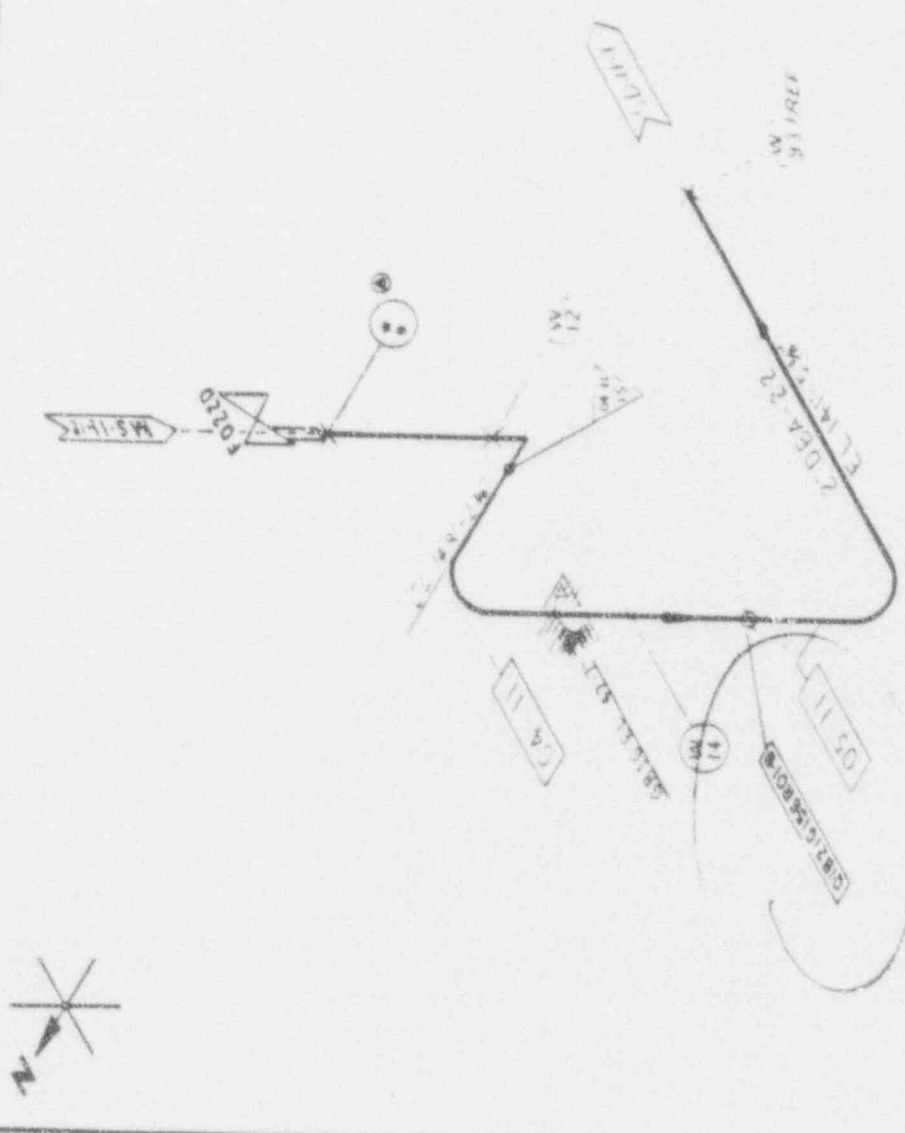


MP&L GG-1 (JB-1)
 DRAWN BY: H. DILLI
 CHECKED BY: J. B. BROWN
 DATE: 12-11-12
 PROJECT: P-1077A
 SHEET NO: 50 OF 51
 OF 1 OF 1

G-156

WELD NO	WELD DESIG	CODE	TYPE	EXAM TIME PERIOD	LO MARK
W-5	"C"	BJ	PT	3	YES
W-12	"C"	BJ	PT	NOT CHOSEN	YES
04-11-15	"C"	BJ	PT	NOT CHOSEN	YES
W-14	"E"	R	PT	NOT CHOSEN	YES
HUI-8	HANGER	FB	VT3	3	N/A

GE BECKETT INTERFACE WELD



MPBL PROJECT: **GG-1 (JB-1)** ISSUE: **ISSUE - NSO**

STEAM DRAIN LOOP 0 CT ME P 1177A

DATE: 11/11/77

DESIGNER: **P. HILTTA**

SCALE: 1" = 10' 0"

DATE: 11/11/77

PROJECT: **MPBL** ISSUE: **ISSUE - NSO**

DATE: 11/11/77

PAGE: **10/1**

SD-0-1

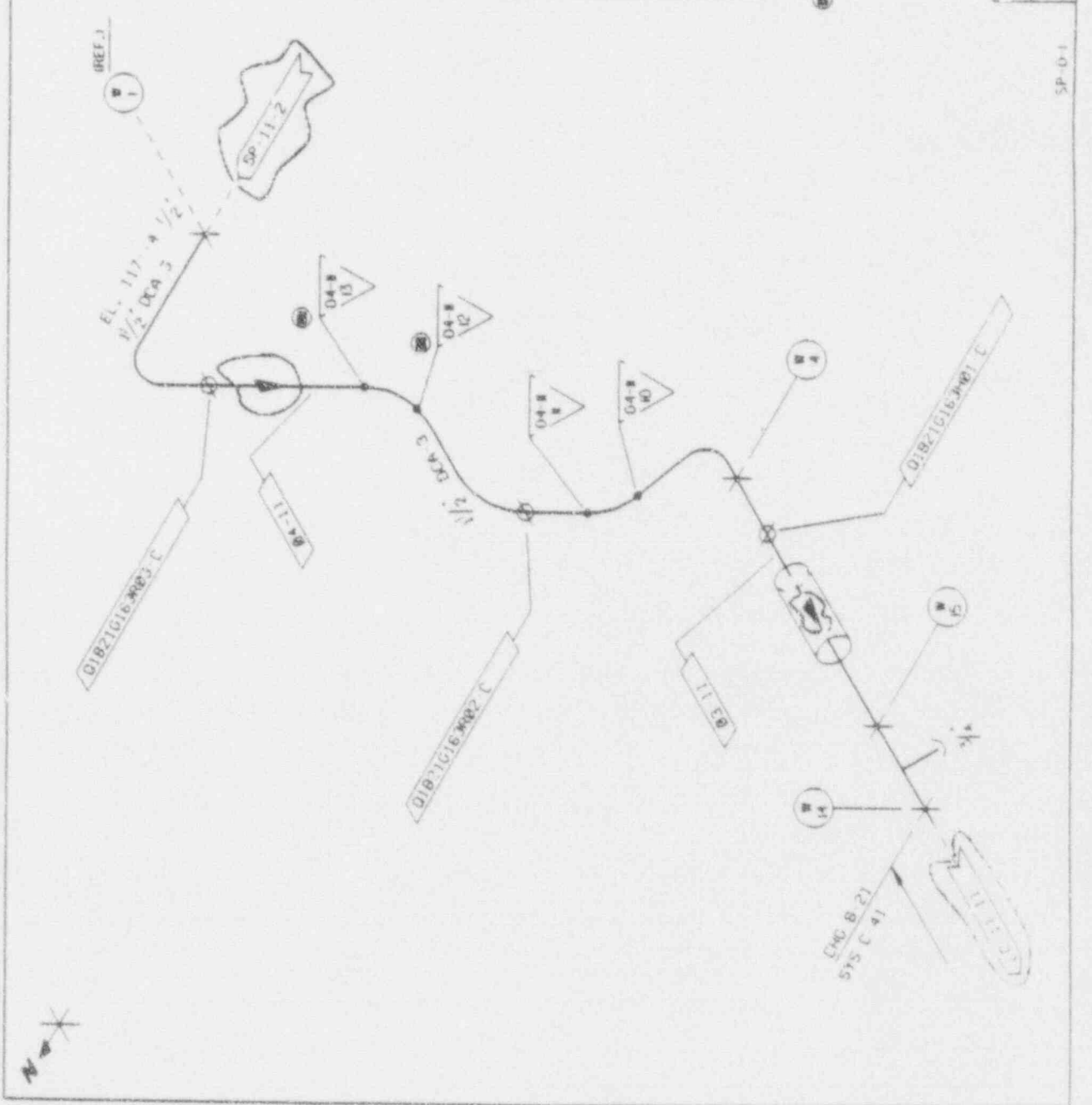
WELD NO.	WELD DISC.	CODE CAT.	TYPE EXAM.	EXAM. TIME PERIOD	L.D. MARKS COMPLY.
W-14	"C"	BJ	P.T.	1	YES
W-15	"C"	BJ	P.T.	3	YES
W-4	"C"	BJ	P.T.	3	YES
04-B-K	"C"	BJ	P.T.	2	YES
04-B-B	"C"	BJ	P.T.	2	YES
RO2-C	HANGER	FC	V.T. 3	1	N/A
RO3-C	HANGER	FB	V.T. 3	1	N/A
RO3-C	HANGER	FB	V.T. 3	NOT CHOSEN	N/A

DATE: 01/10/80
 VER: 2
 REV: 1
 N/A

PROJECT: MP & L G-1 (JB-1)
 SYSTEM: LOCATION
 DRAWING: P-50-01K
 CTMT.

MADE BY: G-1 (JB-1)
 DATE: 01/08/80
 REF: P-50-01K
 P-4077B

1.8 SE-N50
 ALLIANCE
 SYSTEMS INC.
 S.P. #
 PAGE 1 OF 1



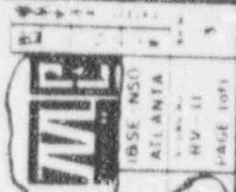
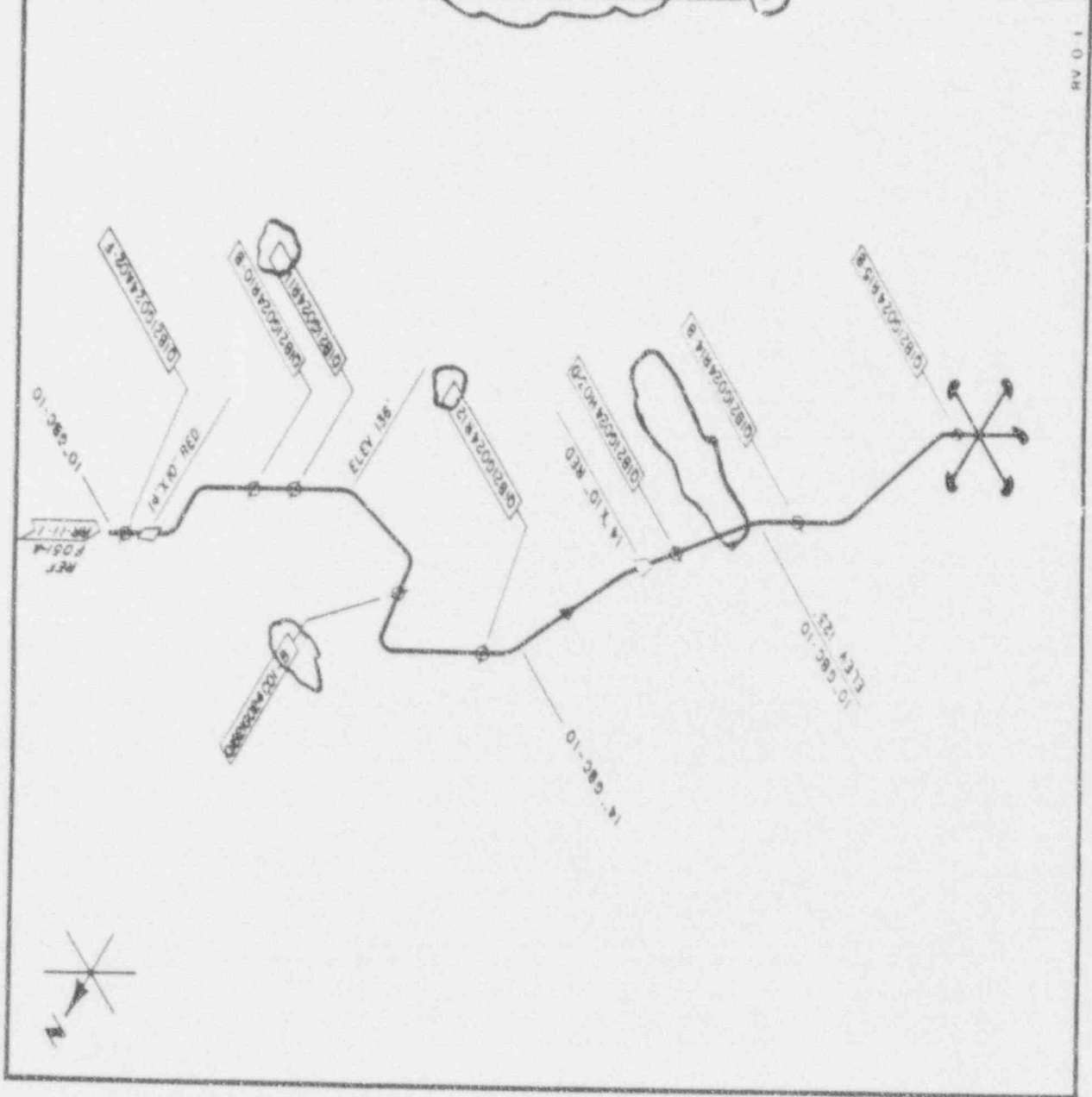
INACCESSIBLE AREAS WITHIN CRD MECHANISMS ARE EXEMPT BY ARTICLE 10B220

SP-0-1

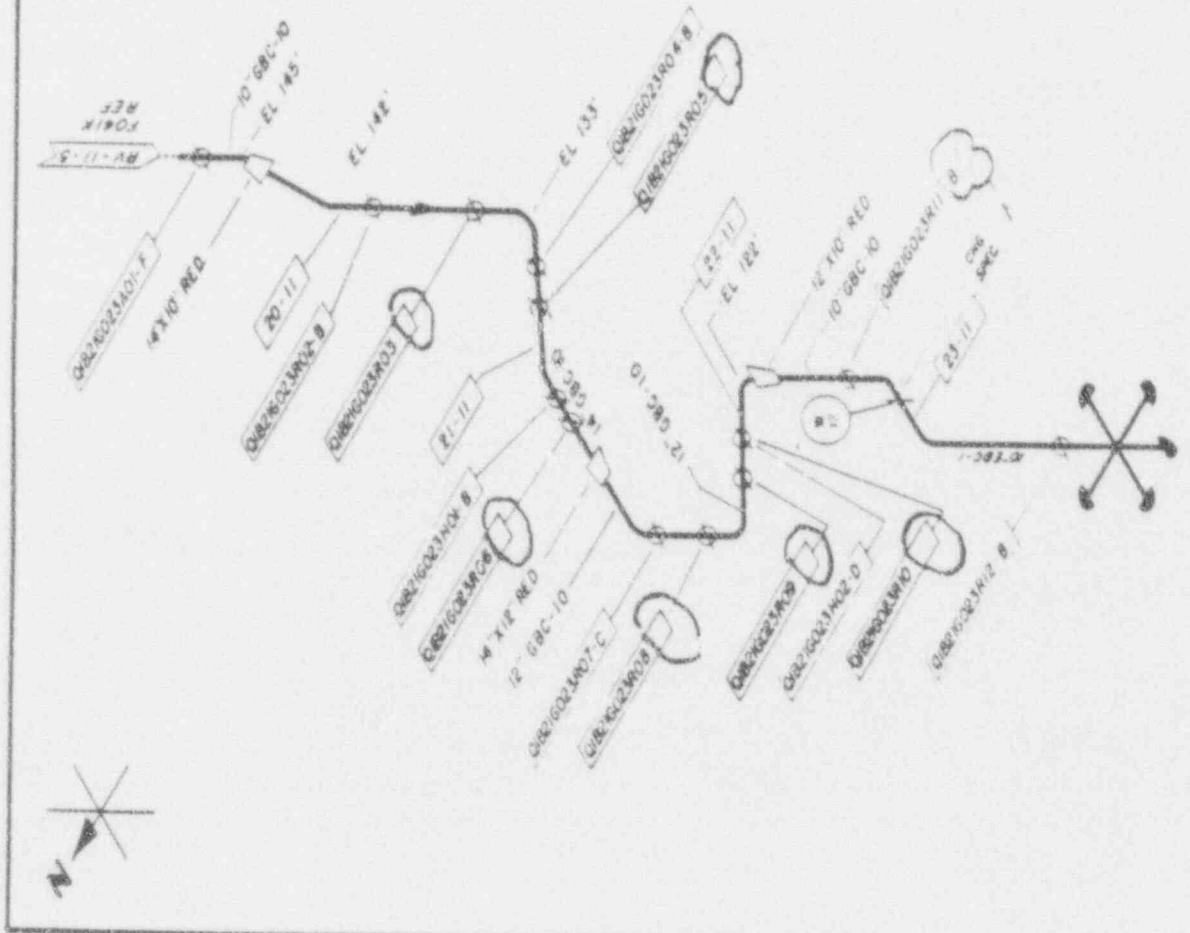
100% OF WORK PROVISION

WELD NO	WELD DESCR	LOC DAT	TYPE BRAN	SIAM TAG	WELD TAG
IB216024					
CO1-B	HANGER FC		VT 3	NOT CHOSEN	N/A
A02-F	HANGER FA		VT 3	5	N/A
R00-B	HANGER FB		VT 3	NOT CHOSEN	N/A
H03-D	HANGER FC		VT 3	2	N/A
R14-B	HANGER FB		VT 3	NOT CHOSEN	N/A
R15-B	HANGER FB		VT 3	NOT CHOSEN	N/A
H03-D	HANGER FC		VT 4	2	N/A
A02-F	WELD EA/DB		VT 3	3	N/A
CO1-B	WELD EM/DB		VT 3	3	N/A
H03-D	WELD EA/DB		VT 3	3	N/A
R10-B	WELD EA/DB		VT 3	3	N/A
R11	WELD EA/DB		VT 3	3	N/A
R12	WELD EA/DB		VT 3	3	N/A
R14-B	WELD EA/DB		VT 3	3	N/A
R15-B	WELD EM/DB		VT 3	3	N/A

ATTACHMENT WELD TO PRESSURE BOUNDARY



PROJECT: MPBL GG-1 (JB-1)
 DATE: 09/14/01
 DRAWN BY: R. LULL
 CHECKED BY: P. ROTFC
 DESIGNED BY: M. J. 285
 CTMT
 MSRV
 L00P-A
 IBSE NSO
 ATLANTA
 HV-11
 PAGE 1071



WEL ID	WELD DESCRIPTION	WELD SIZE	WELD TYPE	WELD CLASS	WELD TYPE	WELD CLASS	WELD CLASS
10216023							
A01-F	WELD	DA/DB	VT 3	3			N/A
H01-B	WELD	DA/DB	VT 3	3			N/A
R04-B	WELD	DA/DB	VT 2	3			N/A
H02-D	WELD	DA/DB	VT 3	2			N/A
R12-B	WELD	DA/DB	VT 3	3			N/A
R03	WELD	DA/DB	VT 3	3			N/A
H11-B	HANGER	FC	VT 3	NOT CHOSEN			N/A
A01-F	HANGER	FA	VT 3	NOT CHOSEN			N/A
R02-B	HANGER	FB	VT 3	NOT CHOSEN			N/A
H01-B	HANGER	FB	VT 3	NOT CHOSEN			N/A
R04-B	HANGER	FB	VT 3	NOT CHOSEN			N/A
H07-C	HANGER	FB	VT 3	NOT CHOSEN			N/A
H02-D	HANGER	FC	VT 3	2			N/A
R12-B	HANGER	FB	VT 3	NOT CHOSEN			N/A
R05	WELD	DA/DB	VT 3				N/A
R06	WELD	DA/DB	VT 3	3			N/A
R08	WELD	DA/DB	VT 3	3			N/A
R09	WELD	DA/DB	VT 3	3			N/A
R10	WELD	DA/DB	VT 3	3			N/A
H02-D	HANGER	FC	VT 4	2			N/A

ATTACHMENT WELD TO PRESSURE BOUNDARY

REV 0.2

PROJECT: MPGL GG-1 (JB-1)

ISSUE: NPS

DATE: 10/17/01

LOCATION: LOOP B

DESIGNED BY: M. J. B. B.

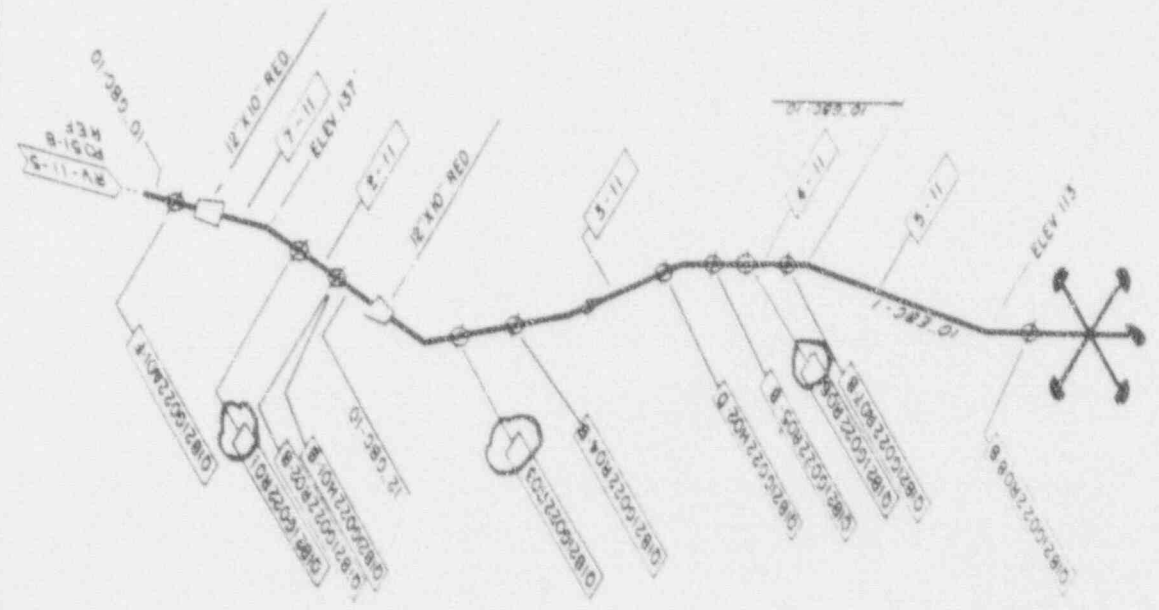
CHECKED BY: P-1077C

REVISION: RV 11

PAGE: 01

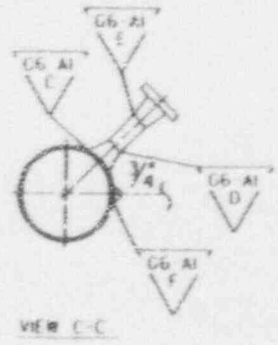
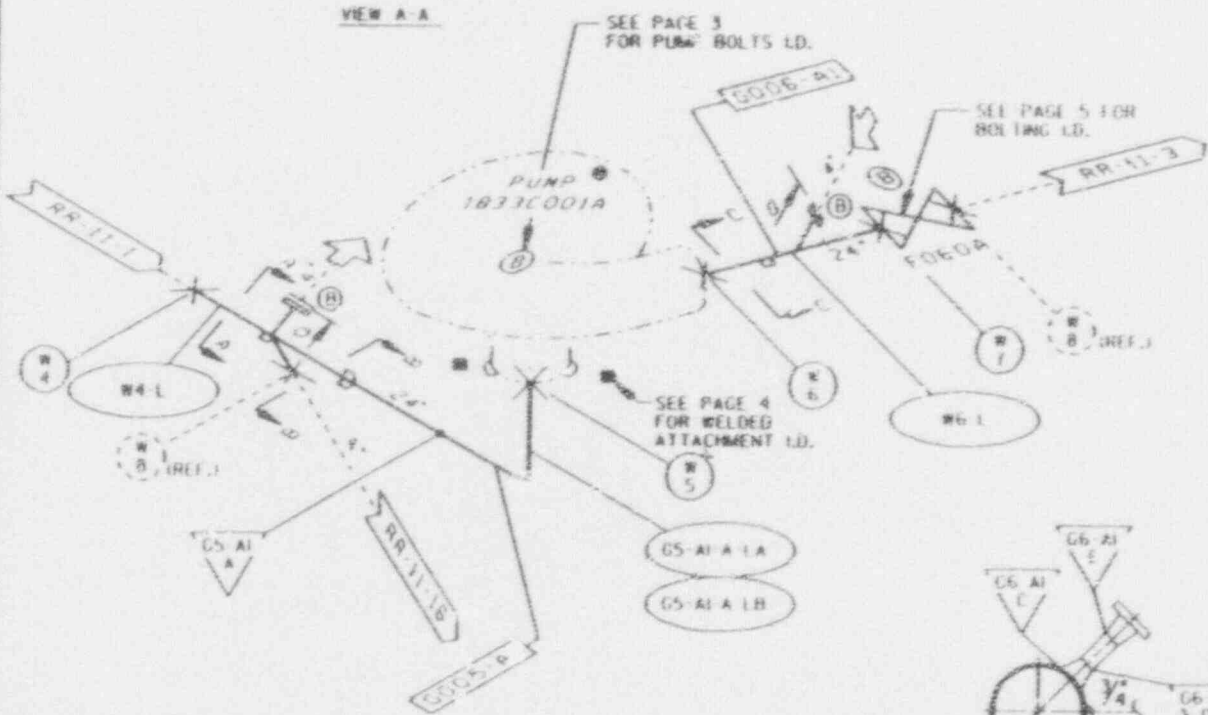
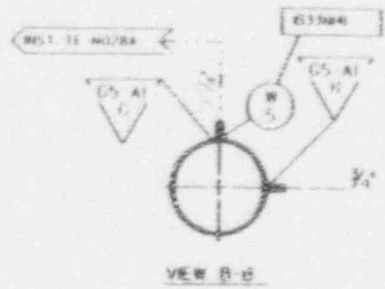
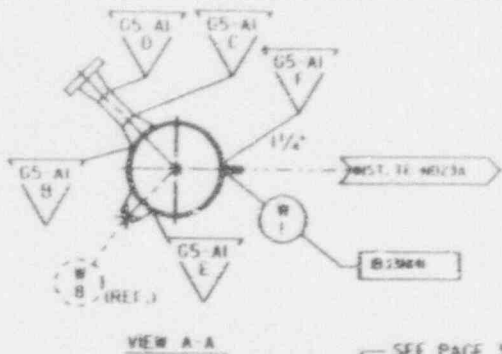
WELD ID	WELD DESCR	WELD CAT	TYPE	FLAM	FLAM TND	IS
182160322						
A01-F	HANGER	FA	VT 3		NOT CHOSEN	N/A
R02-B	HANGER	FB	VT 3		NOT CHOSEN	N/A
H01-B	HANGER	FB	VT 3		NOT CHOSEN	N/A
R04-B	HANGER	FB	VT 3		NOT CHOSEN	N/A
H02-D	HANGER	FC	VT 4		NOT CHOSEN	N/A
R05-B	HANGER	FB	VT 3		NOT CHOSEN	N/A
R07-B	HANGER	FB	VT 3		NOT CHOSEN	N/A
R08-B	HANGER	FB	VT 3		NOT CHOSEN	N/A
H02-D	HANGER	FC	VT 4		NOT CHOSEN	N/A
A01-F	* WELD	DA/DB	VT 3		3	N/A
H01-B	* WELD	DA/DB	VT 3		3	N/A
H02-D	* WELD	DA/DB	VT 3		3	N/A
R05-B	* WELD	DA/DB	VT 3		3	N/A
R07-B	* WELD	DA/DB	VT 3		3	N/A
R08-B	* WELD	DA/DB	VT 3		3	N/A
R01	* WELD	DA/DB	VT 3		3	N/A
R03	* WELD	DA/DB	VT 3		3	N/A
R06	* WELD	DA/DB	VT 3		3	N/A

* ATTACHMENT WELD TO PRESSURE BOUNDARY



PROJECT: 182160322
 DRAWING: MPBFL-GG-1 (JB-1)
 REVISION: M 1528E
 DATE: 10/10/70
 SHEET: 1 OF 1
 SCALE: AS SHOWN
 PROJECT: ATLANTA
 DRAWING: P-1077C
 SHEET: RV-11
 PAGE: 1 OF 1

FLOOR ELEV. 10'



WELD NO.	WELD DESCR.	CODE CAT.	TYPE EXAM.	EXAM TIME PERIOD	USCC CAT.	ID HAND COMP.
W-4	"G"	BJ	U.T.	3	B	YES
W4-L	"A"	BJ	U.T.	**3	A	YES
G5-A1-B	"H"	BJ	U.T.	3	A	YES
G5-A1-C	"H"	BJ	U.T.	NOT CHOSEN	A	YES
G5-A1-D	"C"	BJ	U.T.	NOT CHOSEN	A	YES
G5-A1-E	"H"	BJ	U.T.	3	A	YES
G5-A1-A	"C"	BJ	U.T.	NOT CHOSEN	A	YES
G5-A1-A-LA	"A"	BJ	U.T.	NOT CHOSEN	A	YES
G5-A1-A-LB	"A"	BJ	U.T.	NOT CHOSEN	A	YES
W-5	"K"	BJ	U.T.	3	B	YES
W-6	"K"	BJ	U.T.	3	B	YES
G6-A1-C	"H"	BJ	U.T.	3	A	YES
G6-A1-D	"H"	BJ	U.T.	NOT CHOSEN	A	YES
G6-A1-E	"C"	BJ	U.T.	NOT CHOSEN	A	YES
W6-L	"A"	BJ	U.T.	**3	A	YES
PUMP BOLTS	BOLTS 61	B-G-1	U.T.	(C)		YES
VALVE BOLTS	BOLTS 61	B-G-2	V.T.	(C)		YES
W-4	"G"	BJ	P.T.	3	B	YES
W4-L	"A"	BJ	P.T.	**3	A	YES
G5-A1-B	"H"	BJ	P.T.	3	A	YES
G5-A1-C	"H"	BJ	P.T.	NOT CHOSEN	A	YES
G5-A1-D	"C"	BJ	P.T.	NOT CHOSEN	A	YES
G5-A1-E	"H"	BJ	P.T.	3	A	YES
G5-A1-A	"C"	BJ	P.T.	NOT CHOSEN	A	YES
G5-A1-A-LA	"A"	BJ	P.T.	NOT CHOSEN	A	YES
G5-A1-A-LB	"A"	BJ	P.T.	NOT CHOSEN	A	YES
G5-A1-C	"P"	BJ	P.T.	3		YES
G5-A1-F	"P"	BJ	P.T.	3		YES

* REF. RR-1-00280
 ** ONLY 12" OF LONG. SEAM RECD.
 (C) DURING MAINT. INSPECTION OR PERIOD 3

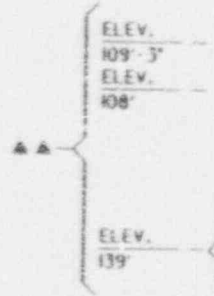
REV	DATE	BY	CHK	APP
LS				
DRN				

PROJECT	MP 8 & CC-1 (JB II)	DRN	05-24-77	DR	SE-NSO
SYSTEM	LOC. 11	REF. Q. DRG	76/2477	REF. P. DRG	ATLANTA
LOC. 11	DRYWELL				DRG. NO.
					RR 9
					PAGE 1 OF 5



WELD NO.	WELD DESCR.	CODE CAT.	TYPE EXAM.	EXAM TIME PERIOD	I.D. MARK COMPL.
033600					
CO0A	BOLTS	B-G-2	V.T.1	⊙	N/A
05.06	LUG	B-R-1	P.T	2	N/A
S3A	SUPPORT	FA/FC	V.T.3	2	N/A
S3B	SUPPORT	FA/FC	V.T.3	2	N/A
S5A	SUPPORT	FA/FC	V.T.3	2	N/A
S5B	SUPPORT	FA/FC	V.T.3	2	N/A
H302A-D	HANGER	FC	V.T.4		N/A
H303A-D	HANGER	FC	V.T.4	NOT CHOSEN	N/A
H303A-D	HANGER	FC	V.T.4	2	N/A
H304A-D	HANGER	FC	V.T.4	1	N/A
S1A	SUPPORT	FA/FC	V.T.3	2	N/A
S1B	SUPPORT	FA/FC	V.T.3	2	N/A
S1C	SUPPORT	FA/FC	V.T.3	2	N/A
S1D	SUPPORT	FA/FC	V.T.3	2	N/A
S2A	SUPPORT	FA/FC	V.T.3	2	N/A
S2B	SUPPORT	FA/FC	V.T.3	2	N/A
S2C	SUPPORT	FA/FC	V.T.3	2	N/A
S4A	SUPPORT	FC	V.T.3	2	N/A
S4B	SUPPORT	FC	V.T.3	2	N/A

WELD NO.	WELD DESCR.	CODE CAT.	TYPE EXAM.	EXAM TIME PERIOD	I.D. MARK COMPL.
033600					
W1	P	BJ	PT	NOT CHOSEN	YES
W5	P	BJ	PT	3	YES



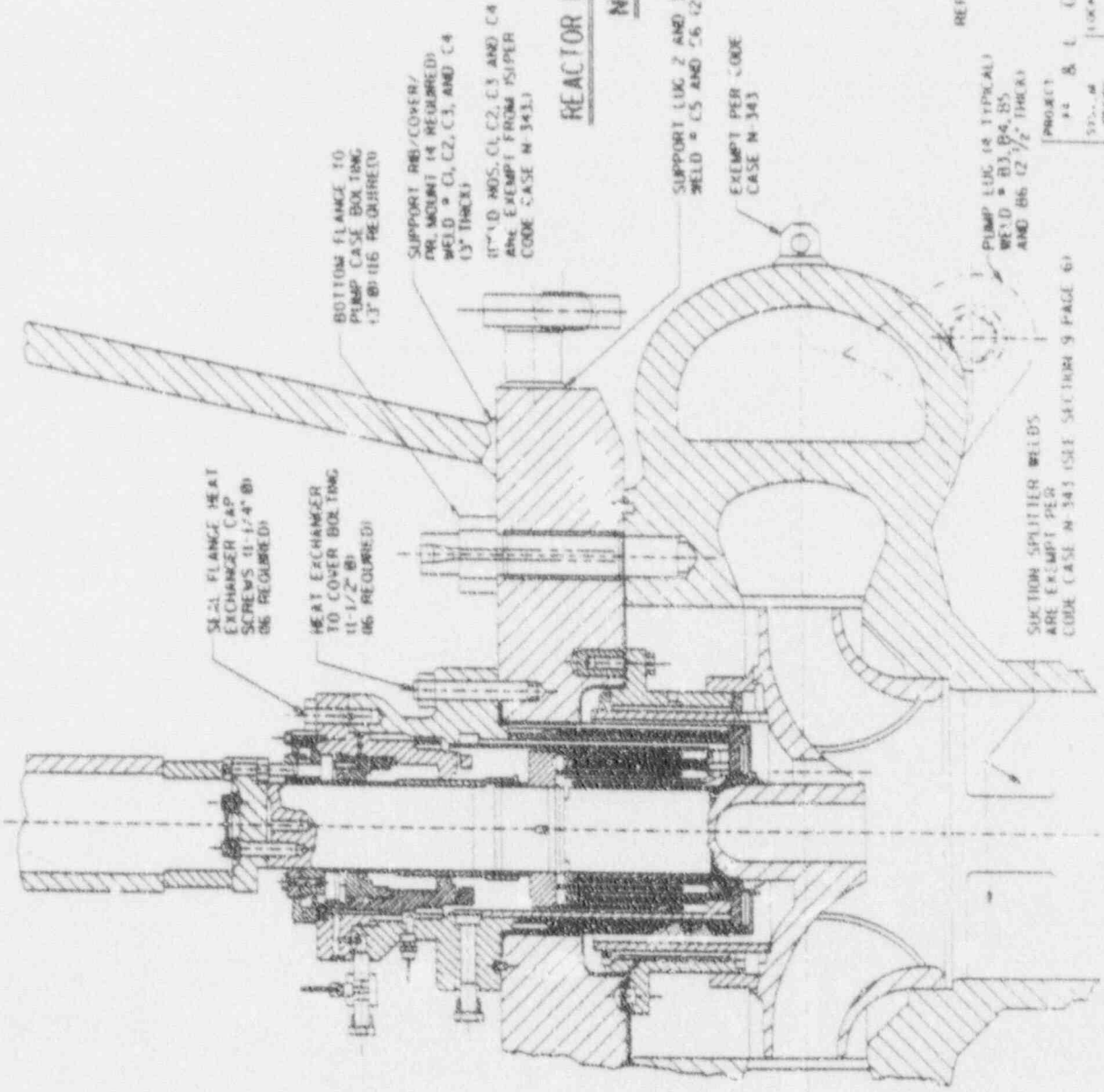
WELD NO.	WELD DESCR.	CODE CAT.	TYPE EXAM.	EXAM TIME PERIOD	ISSCC CAT.	I.D. MARK COMPL.
W-5	"K"	BJ	P.T.	3	B	YES
W-6	"K"	BJ	P.T.	3	B	YES
G6-A1-C	"H"	BJ	P.T.	3	A	YES
G6-A1-D	"H"	BJ	P.T.	NOT CHOSEN	A	YES
G6-A1-E	"C"	BJ	P.T.	NOT CHOSEN	A	YES
W6-L	"A"	BJ	P.T.	3	A	YES
B302A-B	HANGER	FB	V.T.3	NOT CHOSEN		N/A
B303A-B	HANGER	FB	V.T.3	NOT CHOSEN		N/A
H302A-D	HANGER	FC	V.T.3	1		N/A
H303A-D	HANGER	FC	V.T.3	NOT CHOSEN		N/A
H303A-D	HANGER	FC	V.T.3	2		N/A
H304A-D	HANGER	FC	V.T.3	1		N/A
B3,4,5,6	PUMP LUG ATTACH WELD	B-R-1	P.T.	2		N/A
VALVE FORGE PUMP	INTERNAL	B-M-2	V.T.3	⊙ 3		N/A
033600	BOLTING	B-G-1	V.T.1	⊙		N/A
4" DECOR FLANGE	UPSTREAM BOLTS	B-G-2	V.T.1	2		N/A
4" DECOR FLANGE	DOWNSTREAM BOLTS	B-G-2	V.T.1	2		N/A
PUMP	INTERNAL	B-L-2	V.T.1	⊙ 3		N/A

▲ ▲ HANGERS LOCATED ON PUMP
 ⊙ DURING MAINT. INSPECTION OR PERIOD 3

- ONLY 12" OF LONG. SEAM REQ'D
- EQUIP. SUPPORT SEE PAGE 4 AND 6
- SEE PAGE 3 FOR PUMP DETAILS ATTACHMENT WELDS

PROJECT MP & I CC-1 (JOB D)				MADE BY 03-14-77 S. GRAUS		I.B. SE NSO		REV 5
SYSTEM RECORD LOOP A	LOCATION DRYWELL	REV DWG 767577	P 1078A	ATLANTA ISSUING NO. RR 8		SH NO.		
DATE				PAGE 2 OF 8				

PAGE 3 ADDED ON REV. 1



REACTOR RECIRCULATION PUMP
NO. 08B33C001

BOTTOM FLANGE TO
PUMP CASE BOX TING
13" Ø (116 REQUIRED)

SUPPORT RIB/COVER/
DR. MOUNT (4 REQUIRED)
WELD = C1, C2, C3, AND C4
13" THICK

17" ID NOS. C1, C2, C3 AND C4
ARE EXEMPT FROM PSIPER
CODE CASE N-3433

SUPPORT LUG 2 AND 3 (2 REQUIRED)
WELD = C5 AND C6 (2-3/8" THICK)

EXEMPT PER CODE
CASE N-343

PUMP LUG (4 TYPICAL)
WELD = B3, B4, B5
AND B6 (2-1/2" THICK)

SUCTION SPLITTER WELDS
ARE EXEMPT PER
CODE CASE N-343 (SEE SECTION 9 PAGE 6)

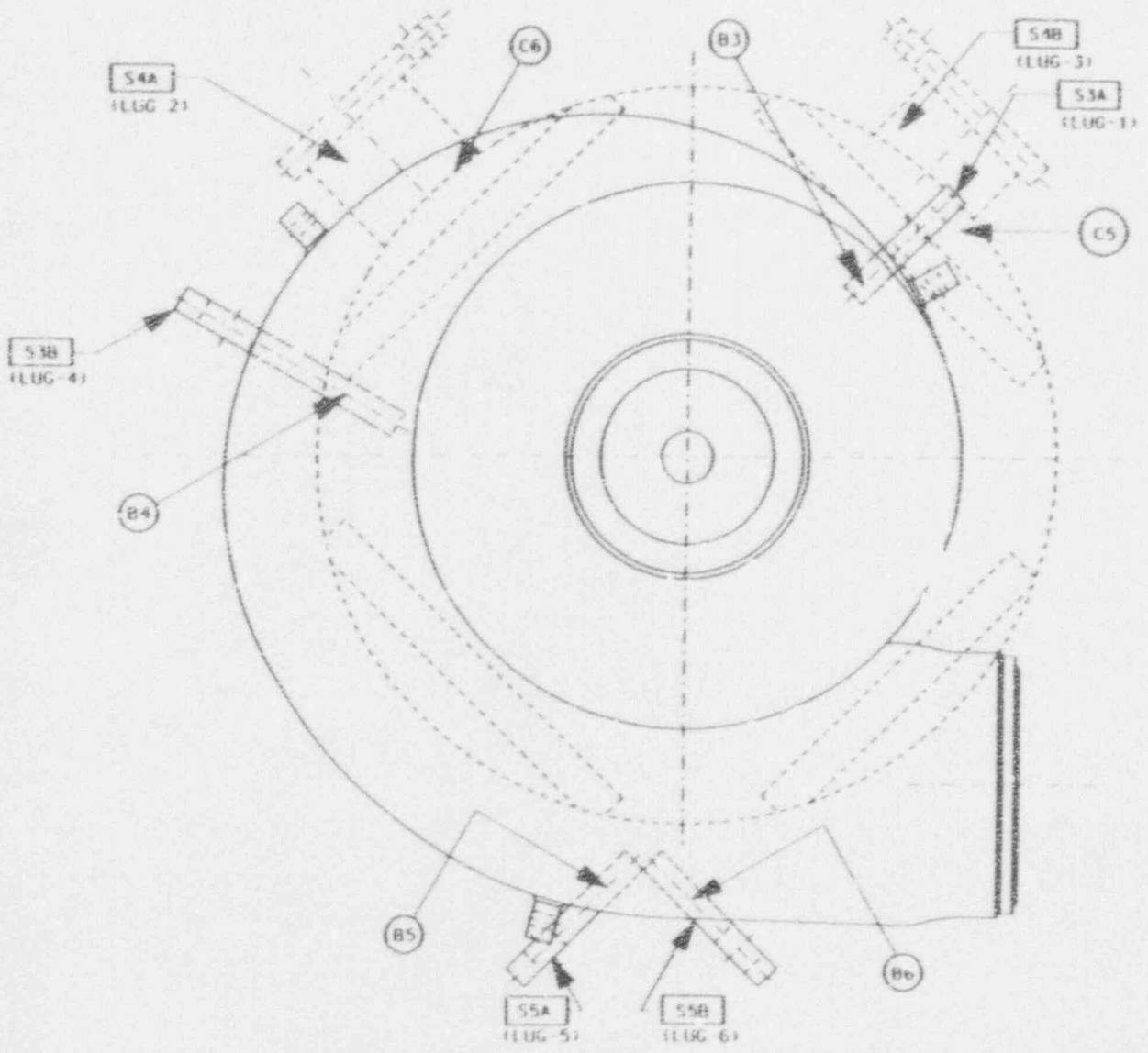
REFERENCE DRAWING:
BYRON JACKSON W 7836

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5	2	10/1/78
5	3	10/1/78
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5	5	10/1/78
5	6	10/1/78
5	7	10/1/78
5	8	10/1/78
5	9	10/1/78
5	10	10/1/78

PROJECT	NO.	REV.	DATE
1	1	1	10/1/78
2	1	1	10/1/78
3	1	1	10/1/78
4	1	1	10/1/78
5	1	1	10/1/78
6	1	1	10/1/78
7	1	1	10/1/78
8	1	1	10/1/78
9	1	1	10/1/78
10	1	1	10/1/78

MAKE BY	DATE	REV.	DATE
BYRON JACKSON	10/1/78	1	10/1/78
BYRON JACKSON	10/1/78	2	10/1/78
BYRON JACKSON	10/1/78	3	10/1/78
BYRON JACKSON	10/1/78	4	10/1/78
BYRON JACKSON	10/1/78	5	10/1/78
BYRON JACKSON	10/1/78	6	10/1/78
BYRON JACKSON	10/1/78	7	10/1/78
BYRON JACKSON	10/1/78	8	10/1/78
BYRON JACKSON	10/1/78	9	10/1/78
BYRON JACKSON	10/1/78	10	10/1/78

REACTOR RECIRCULATION PUMP NO. Q1B33C001
 REFERENCE: (BRYON JACKSON) DRAWING NO. IF-7864

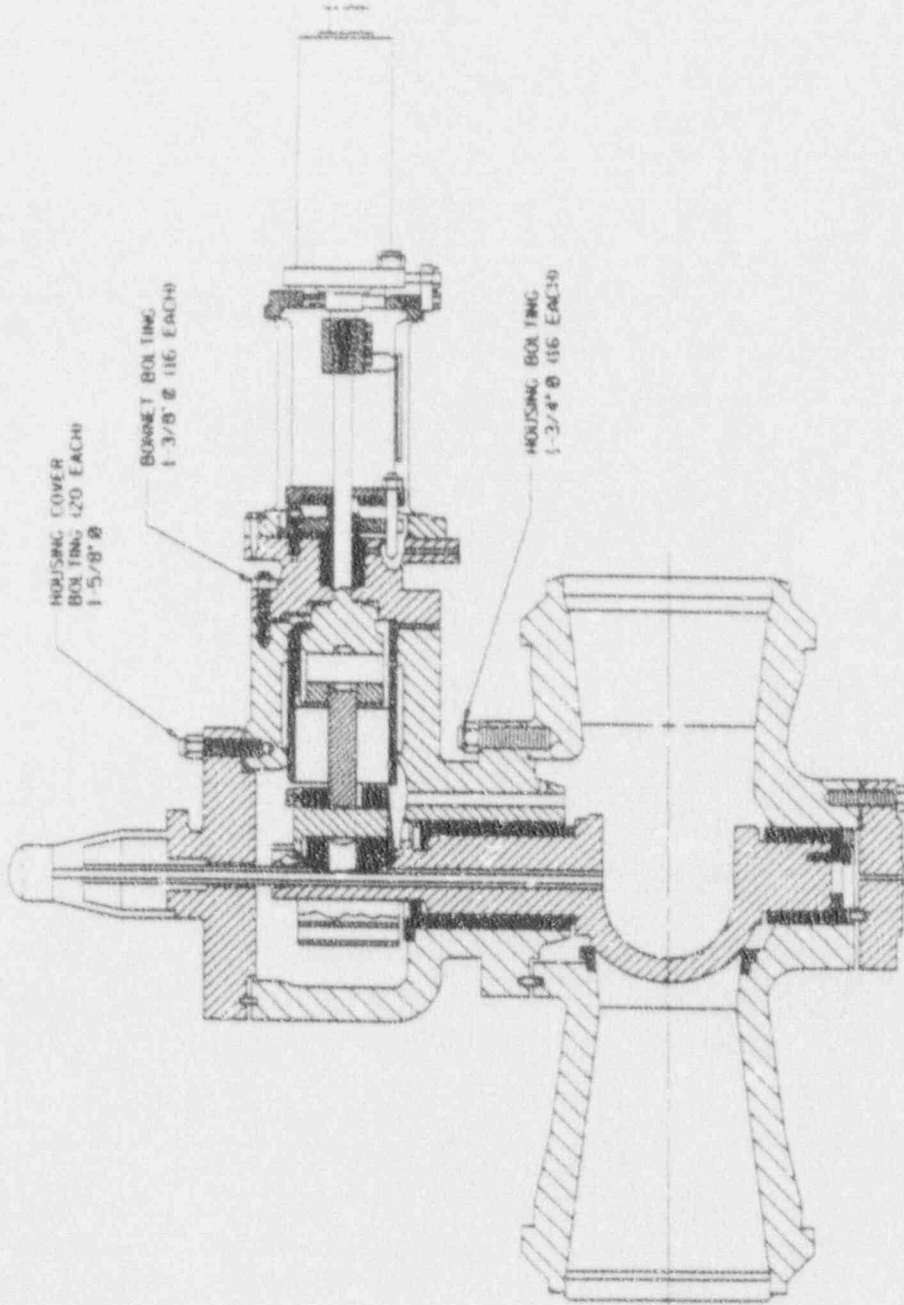


- DESIGNATES AN EQUIPMENT SUPPORT AND REQUIRES A VISUAL (VT-3) EXAM.
- DESIGNATES AN ATTACHMENT WELD TO PUMP AND REQUIRES A SURFACE (PT) EXAM.

PAGE 4 ADDENDUM REV. 1

PROJECT		MADE BY		REV	
MP & L GC-1 (JB-1)		04 03 86		5	
SYSTEM		REF P DWG		EST DWG NO	
RECIRC.		SEE ABOVE		RR 11	
LOOP A		P 1078A		PAGE 5 OF 6	
				DATE	
				DESIGN	
				CHKD	
				APP'D	
				DATE	

PAGE 5, AUGER DRILL



HOUSING COVER
BOLTING 1/2" EACH
1-5/8" Ø

BONNET BOLTING
1-3/8" Ø 116 EACH

HOUSING BOLTING
1-3/4" Ø 116 EACH

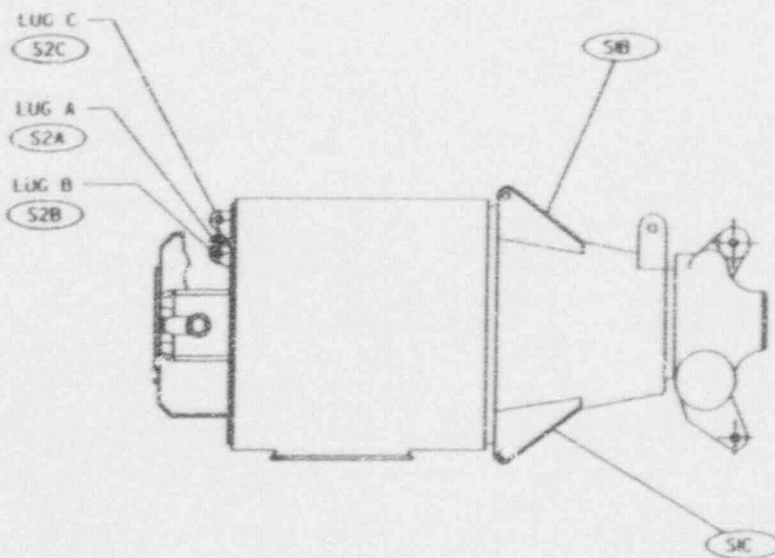
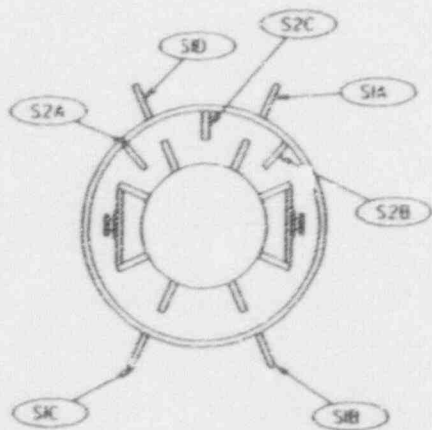
BOTTOM FLANGE
BOLTING 1/8" EACH

RECIRCULATION MAIN FLOW
CONTROL VALVE
NO. 01B35-F060

PROJECT	MP 5, 1	GC-1 (UB 1)
SYSTEM	LOCATION	REF DWG
DRILLING	DRYWELL	SEE ABOVE
LOOP 4		
MADE BY	03 03 86	MPF
JACKSON	REF P DWG	DRIVING NO.
REF P DWG		SR 8
P-1078A		PAGE 3 OF 8

REVISION DRAWING
11/18/86 5/5/8/84

DATE	REV	BY	NO
	5		7



REACTOR RECIRCULATION PUMP
NO. 01B33C001

REFERENCE DRAWING:
GE NO. 762537

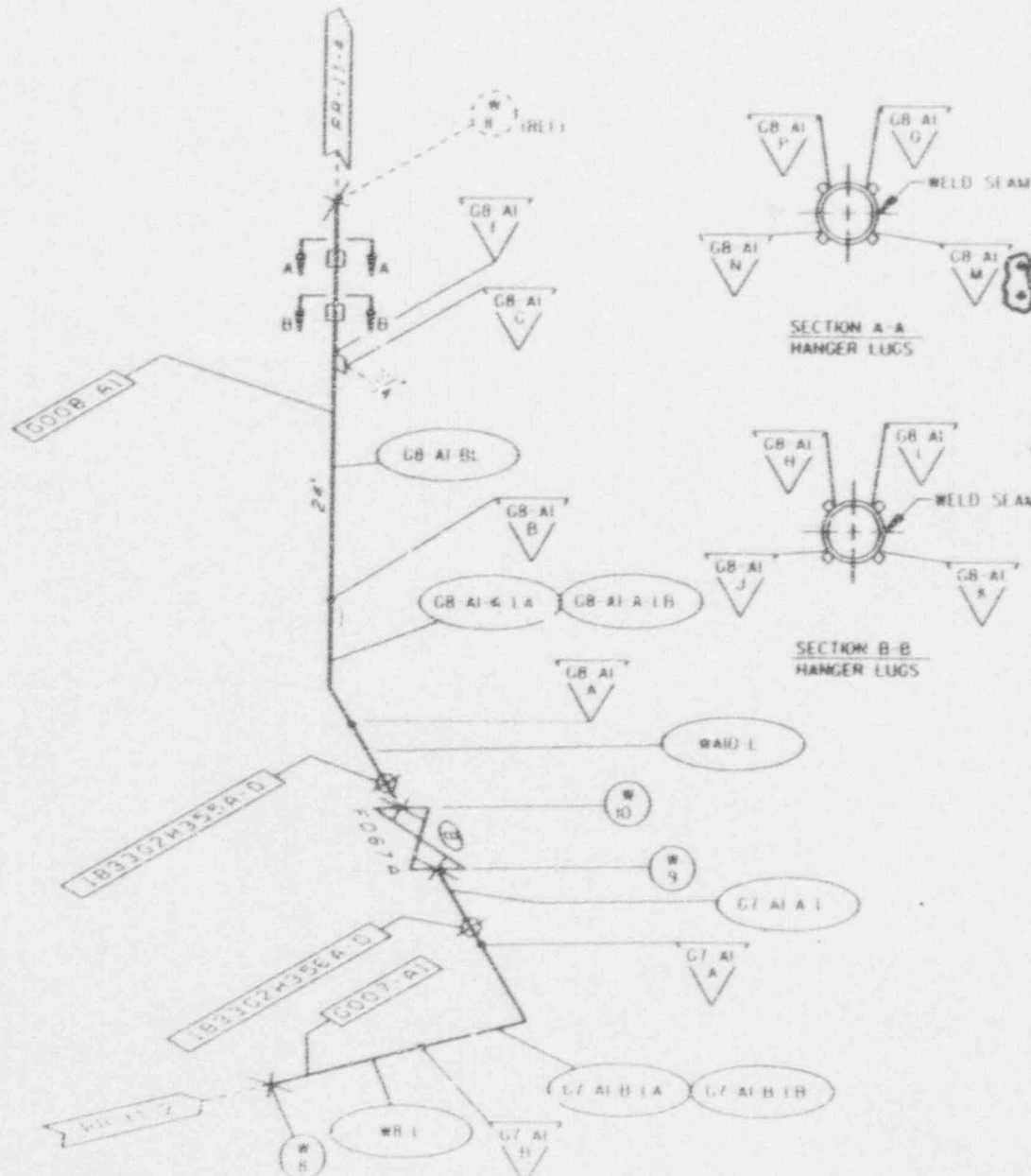
PAGE 6 ADDED ON REV. 1

MADE BY	
REV. 1	
W. ERVES	
DWG NO.	
REV. 1	
PAUL R. SP. 8	

REV. 1	DATE
REV. 2	
REV. 3	
REV. 4	
REV. 5	
REV. 6	
REV. 7	
REV. 8	
REV. 9	
REV. 10	



FLOOR ELEV. 10'



MPL NO	WELD DESCR.	CODE CAT.	TYPE EXAM.	EXAM. TIME PERIOD	DISC. CAT.	ID. MARK COMP.
1833001	W-B	"C"	BJ	U.T.	3	A YES
	WB-L	"A"	BJ	U.T.	3	A YES
	G7-AI-B	"C"	BJ	U.T.	NOT CHOSEN	A YES
	G7-AI-B-1A	"A"	BJ	U.T.	NOT CHOSEN	A YES
	G7-AI-B-1B	"A"	BJ	U.T.	NOT CHOSEN	A YES
	G7-AI-A	"C"	BJ	U.T.	NOT CHOSEN	A YES
	G7-AI-A-L	"A"	BJ	U.T.	3	A YES
	W-9	"C"	BJ	U.T.	3	A YES
	W-10	"C"	BJ	U.T.	3	B YES
	WA10-L	"A"	BJ	U.T.	3	A YES
	GB-AI-A	"C"	BJ	U.T.	NOT CHOSEN	A YES
	GB-AI-A-1A	"A"	BJ	U.T.	NOT CHOSEN	A YES
	GB-AI-A-1B	"A"	BJ	U.T.	NOT CHOSEN	A YES
	GB-AI-B	"C"	BJ	U.T.	3	B YES
	GB-AI-B-L	"A"	BJ	U.T.	3	A YES
	W-B	"C"	BJ	P.T.	3	A YES
	WB-L	"A"	BJ	P.T.	3	A YES
	G7-AI-B	"C"	BJ	P.T.	NOT CHOSEN	A YES
	G7-AI-B-1A	"A"	BJ	P.T.	NOT CHOSEN	A YES
	G7-AI-B-1B	"A"	BJ	P.T.	NOT CHOSEN	A YES
	G7-AI-A	"C"	BJ	P.T.	NOT CHOSEN	A YES
	G7-AI-A-L	"A"	BJ	P.T.	3	A YES
	W-9	"C"	BJ	P.T.	3	A YES
	W-10	"C"	BJ	P.T.	3	B YES
	W-9-L	"A"	BJ	P.T.	3	A YES
	GB-JI-A	"C"	BJ	P.T.	NOT CHOSEN	A YES

* WELD OVERLAY
 ** ONLY 12" OF LONG. SEAM RE'ID
 ○ REF. RR 1-0000

CAL. STANDARD: LB. #42, #42, #2L, #25

RR 01

PROJECT	MP & L CG-1 UB II		DWG	051477	18 SE NSO
SYSTEM	LOCATION	REF. GE. DWG.	S. GRAUS	ATLANTA	REV
RE'ID	DRYWELL	167877	REF. P. DWG.	DWG. NO.	3
GROUP			P. 1078A	RR B	3
				PAGE 1 OF 2	

1833001
 1833002
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WPE NO.	WELD DESCR.	COORD. CAT.	TYPE EXAM.	EXAM. TIME PERIOD	LD. MARK COMP.
H336001					
H355A-1	HANGER	FC	V.T.4	2	N/A
H356A-D	HANGER	FC	V.T.4	1	N/A

WPE NO.	WELD DESCR.	COORD. CAT.	TYPE EXAM.	EXAM. TIME PERIOD	KGSCC CAT.	LD. MARK COMP.
H336001						
GB-A-1A	"A"	BJ	P.T.	NOT CHOSEN	A	YES
GB-A-1B	"A"	BJ	P.T.	NOT CHOSEN	A	YES
GB-A1-B	"C"	BJ	P.T.	3	A	YES
GB-N-B-L	"A"	BJ	P.T.	3	A	YES
H355A-D	HANGER	FC	V.T.3	2		N/A
H356A-D	HANGER	FC	V.T.3	1		N/A
VALVE FOR TA	BOLTS 24"	B-G-2	V.T.1	3		N/A
GB-A1-H	Ø LUGS	B-K-1	P.T.	2		N/A
GB-A1-J	Ø LUGS	B-K-1	P.T.	2		N/A
GB-A1-K	Ø LUGS	B-K-1	P.T.	2		N/A
GB-A1-L	Ø LUGS	B-K-1	P.T.	2		N/A
GB-A1-M	Ø LUGS	B-K-1	P.T.	2		N/A
GB-A1-N	Ø LUGS	B-K-1	P.T.	2		N/A
GB-A1-P	Ø LUGS	B-K-1	P.T.	2		N/A
GB-A1-Q	Ø LUGS	B-K-1	P.T.	2		N/A
VALVE FOR TA	INTERNAL	B-M-2	V.T.3	3		N/A

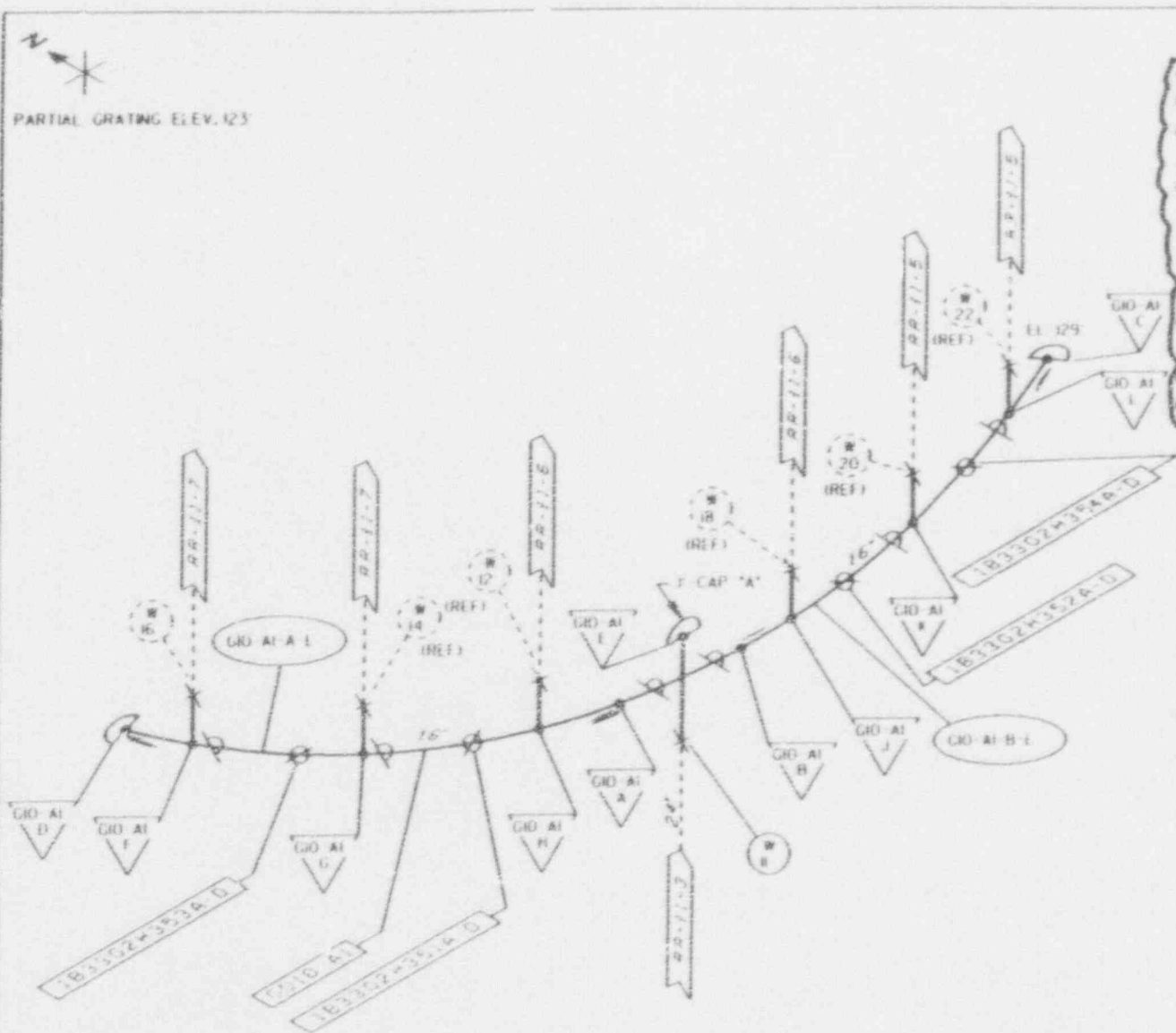
⊙ DURING MAINT. INSPECTION OR PERIOD 3
 ** ONLY 12" OF LONG SEAM REQ'D.

DATE: 11/11/77
 DESIGNED BY: [Signature]
 CHECKED BY: [Signature]
 DRAWN BY: [Signature]

PROJECT	MP & L GG-1 JOB 11	MADE BY	03-14-77	18 SE 4550
SYSTEM	LOCAL/ON	REF. DWG.	S. GRAJUS	ATLANTA
LOOP	DRYWELL	7671977	REF P. DWG	ISIDWG NO.
			P-1078A	REV B
				PAGE 2 OF 2



PARTIAL GRATING ELEV. 123



WELD NO.	WELD DESCR.	COOR CAT.	TYPE EXAM.	EXAM. TIME PERIOD	K/SCC CAT.	10. MARK COMP.
1633000						
GIO-AI-A	"C"	BJ	U.T.	2 *	B	YES
GIO-AI-H	"N"	BJ	U.T.	2	A	YES
GIO-AI-C	"N"	BJ	U.T.	2	A	YES
GIO-AI-A-L	"A"	BJ	U.T.	**2	A	YES
GIO-AI-F	"N"	BJ	U.T.	2	A	YES
GIO-AI-D	"C"	BJ	U.T.	3	B	YES
GIO-AI-E	"C"	BJ	U.T.	NOT CHOSEN	B	YES
<hr/>						
GIO-AI-B	"C"	BJ	U.T.	2 *	B	YES
GIO-AI-J	"N"	BJ	U.T.	2	A	YES
GIO-AI-B-L	"A"	BJ	U.T.	**2	A	YES
GIO-AI-K	"N"	BJ	U.T.	2	A	YES
GIO-AI-L	"N"	BJ	U.T.	2 *	A	YES
GIO-AI-C	"C"	BJ	U.T.	3	B	YES
GIO-AI-A	"C"	BJ	P.T.	2	B	YES
GIO-AI-H	"N"	BJ	P.T.	2	A	YES
GIO-AI-G	"N"	BJ	P.T.	*	A	YES
GIO-AI-A-L	"A"	BJ	P.T.	**2	A	YES
GIO-AI-F	"N"	BJ	P.T.	2 *	A	YES
GIO-AI-D	"C"	BJ	P.T.	3	B	YES
GIO-AI-E	"C"	BJ	P.T.	NOT CHOSEN	B	YES
<hr/>						
GIO-AI-B	"C"	BJ	P.T.	2	B	YES
GIO-AI-J	"N"	BJ	P.T.	2	A	YES
GIO-AI-B-L	"A"	BJ	P.T.	**2	A	YES
GIO-AI-K	"N"	BJ	P.T.	2	A	YES

REF. RR 1-0000

** ONLY 12" ON LONG. SEAM REQ'D

* THESE WELDS REQUIRED TO BE EXAMINED WITHIN FIRST 72 MONTH PERIOD



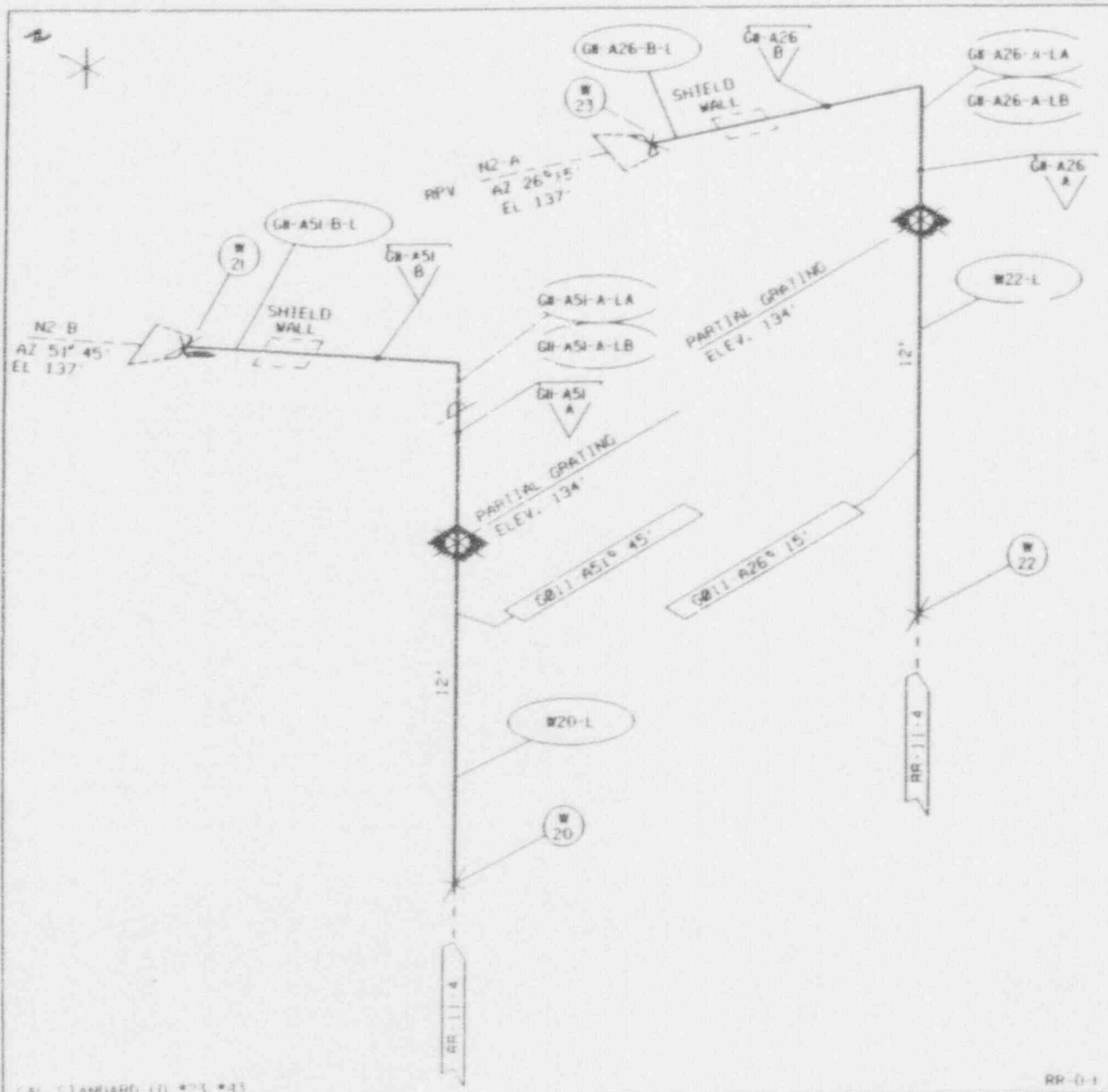
WPL NO.	WELD DESCR.	CODE CAT.	TYPE EXAM.	EXAM. TIME PERIOD	INSPECTION CAT.	IS MAIN COMP.
833600						
G10-A1-L	"N"	BJ	P.T.	2**	A	YES
G10-A1-C	"C"	BJ	P.T.	3	B	YES
H351A-D	HANGER	FC	V.T.3	1		N/A
H353A-D	HANGER	FC	V.T.3	NOT CHOSEN		N/A
H352A-D	HANGER	FC	V.T.3	1		N/A
H354A-D	HANGER	FC	V.T.3	1		N/A
H351A-D	HANGER	FC	V.T.4	1		N/A
H353A-D	HANGER	FC	V.T.4	NOT CHOSEN		N/A
H352A-D	HANGER	FC	V.T.4	1		N/A
H354A-D	HANGER	FC	V.T.4	1		N/A
X-CAP A	BASE MAT.	N/A	U.T.	2	B	YES
CROSS A	BASE MAT.	N/A	P.T.	1,2,3*		N/A

* PT EXAMINE THE CROSS "A" ONCE EACH INSPECTION PERIOD.

** THESE WELDS REQUIRED TO BE EXAMINED WITHIN FIRST 12 MONTH PERIOD.

PROJECT	MP 8 L EG 1 JB-B	MADE IN	USA	INSPECTION NO.	18 SE NSD
SYSTEM	LOCATION	REF DWG	RES 1	ISSUE NO.	ATLANTA
LOOP A	DRYWELL	7611911	P 101BA	RR 8	SH NO
				PAGE 2 OF 2	DATE

DWG NO. 7611911
 REV. 1
 DATE



WPL NO.	WELD DESER.	CODE CAT.	TYPE EXAM.	EXAM TIME PERIOD	ASCE EAT.	LD. MARK COMPL.
0336001						
W-20	"M"	BJ	U.T.	NOT CHOSEN	A	YES
W-20-L	"A"	BJ	U.T.	NOT CHOSEN	A	YES
GR-A26-A	"C"	BJ	U.T.	NOT CHOSEN	A	YES
GR-A26-A-LA	"A"	BJ	U.T.	NOT CHOSEN	A	YES
GR-A26-A-LB	"A"	BJ	U.T.	NOT CHOSEN	A	YES
GR-A26-B	"C"	BJ	U.T.	NOT CHOSEN	A	YES
GR-A26-B-L	"A"	BJ	U.T.	1**	A	YES
W-21	"D"	BJ	U.T.	1	A	YES
W-22	"M"	BJ	U.T.	NOT CHOSEN	A	YES
W-22-L	"A"	BJ	U.T.	NOT CHOSEN	A	YES
GR-A26-A	"C"	BJ	U.T.	NOT CHOSEN	A	YES
GR-A26-A-LA	"A"	BJ	U.T.	NOT CHOSEN	A	YES
GR-A26-A-LB	"A"	BJ	U.T.	NOT CHOSEN	A	YES
GR-A26-B	"C"	BJ	U.T.	NOT CHOSEN	A	YES
GR-A26-B-L	"A"	BJ	U.T.	1**	A	YES
W-23	"D"	BJ	U.T.	1	A	YES
W-20	"M"	BJ	P.T.	NOT CHOSEN	A	YES
W-20-L	"A"	BJ	P.T.	NOT CHOSEN	A	YES
GR-A26-A	"C"	BJ	P.T.	NOT CHOSEN	A	YES
GR-A26-A-LA	"A"	BJ	P.T.	NOT CHOSEN	A	YES
GR-A26-A-LB	"A"	BJ	P.T.	NOT CHOSEN	A	YES
GR-A26-B	"C"	BJ	P.T.	NOT CHOSEN	A	YES
GR-A26-B-L	"A"	BJ	P.T.	1**	A	YES
W-21	"D"	BJ	P.T.	1	A	YES
W-22	"M"	BJ	P.T.	NOT CHOSEN	A	YES
W-22-L	"A"	BJ	P.T.	NOT CHOSEN	A	YES

** ONLY 12" OF LONG. SEAM REQUIRED
 * WELD OVERLAY

PROJECT	MP & L GG-1 (JB-D)	MADE BY	03/15/77	1& SE NSD	REV
SYSTEM	LOCATION	REF. DE. DWG.	REF. P. DWG.	ATLANTA	SH. NO.
LOOP A	DRYWELL	767E977	P-10784	RR-8	5



NO.	REV.	DATE
1	03/15/77	

WELD NO.	WELD DESCR.	CODE CAT.	TYPE EXAM.	EXAM TIME PERIOD	RESU CAT.	LD. MARK COMP.
1033666						
GB A26-A	"C"	BJ	P.T.	NOT CHOSEN	A	YES
GB A26-A-1A	"A"	BJ	P.T.	NOT CHOSEN	A	YES
GB A26-A-1B	"A"	BJ	P.T.	NOT CHOSEN	A	YES
GB A26-B	"C"	BJ	P.T.	NOT CHOSEN	A	YES
GB A26-B	"A"	BJ	P.T.	1**	A	YES
# 23	"D"	BJ	P.T.	1	A	YES
*** ONLY 12" OF LONG. SEAM RECD						

1.40	0.1A	0.20	0.40
0.10	0.10	0.10	0.10



PROJECT	MP & L (G-1) (E-1)	DATE BY	05/05/77
SYSTEM RECORD	LOG # 100	BY	S. LEWIS
LOOP #	DRYWELL	REF DNG	REF P DNG
		7678977	P-1178A
			P-1178B
			P-1178C
			P-1178D
			P-1178E
			P-1178F
			P-1178G
			P-1178H
			P-1178I
			P-1178J
			P-1178K
			P-1178L
			P-1178M
			P-1178N
			P-1178O
			P-1178P
			P-1178Q
			P-1178R
			P-1178S
			P-1178T
			P-1178U
			P-1178V
			P-1178W
			P-1178X
			P-1178Y
			P-1178Z

RR-0-1

DATE

BY

PROJECT

SYSTEM RECORD

LOOP #

DATE BY

BY

PROJECT

SYSTEM RECORD

LOOP #

DATE BY

BY

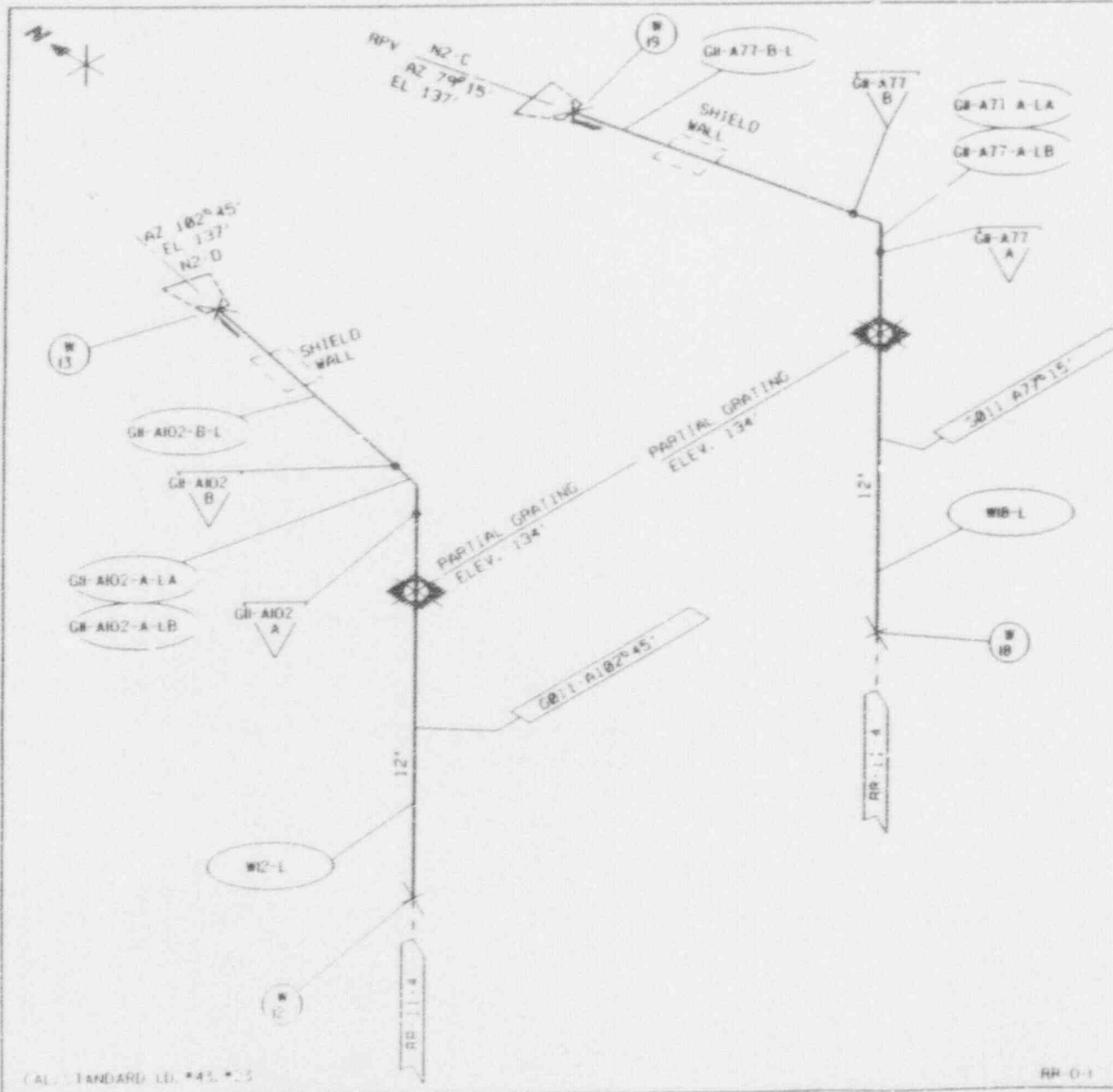
PROJECT

SYSTEM RECORD

LOOP #

DATE BY

BY



WELL NO.	WELD DETAIL	CONCAT.	TYPE EXAM.	ETNA TIME PERIOD	KSLL CAT.	100% MARK COMPL.
W12	"M"	BJ	U.T.	NOT CHOSEN	A	YES
W12-L	"A"	BJ	U.T.	NOT CHOSEN	A	YES
GR-A102-A	"C"	BJ	U.T.	NOT CHOSEN	A	YES
GR-A102-A-LA	"A"	BJ	U.T.	NOT CHOSEN	A	YES
GR-A102-A-LB	"A"	BJ	U.T.	NOT CHOSEN	A	YES
GR-A102-B	"C"	BJ	U.T.	NOT CHOSEN	A	YES
GR-A102-B-L	"A"	BJ	U.T.	100%	A	YES
W13	"D"	BJ	U.T.		A	YES
W18	"M"	BJ	U.T.	NOT CHOSEN	A	YES
W18-L	"A"	BJ	U.T.	NOT CHOSEN	A	YES
GR-A77-A	"C"	BJ	U.T.	NOT CHOSEN	A	YES
GR-A77-A-LA	"A"	BJ	U.T.	NOT CHOSEN	A	YES
GR-A77-A-LB	"A"	BJ	U.T.	NOT CHOSEN	A	YES
GR-A77-B	"C"	BJ	U.T.	NOT CHOSEN	A	YES
GR-A77-B-L	"A"	BJ	U.T.	100%	A	YES
W19	"D"	BJ	U.T.		A	YES
W12	"M"	BJ	P.T.	NOT CHOSEN	A	YES
W12-L	"A"	BJ	P.T.	NOT CHOSEN	A	YES
GR-A102-A	"C"	BJ	P.T.	NOT CHOSEN	A	YES
GR-A102-A-LA	"A"	BJ	P.T.	NOT CHOSEN	A	YES
GR-A102-A-LB	"A"	BJ	P.T.	NOT CHOSEN	A	YES
GR-A102-B	"C"	BJ	P.T.	NOT CHOSEN	A	YES
GR-A102-B-L	"A"	BJ	P.T.	100%	A	YES
W13	"D"	BJ	P.T.		A	YES
W18	"M"	BJ	P.T.	NOT CHOSEN	A	YES
W18-L	"A"	BJ	P.T.	NOT CHOSEN	A	YES
GR-A77-A	"C"	BJ	P.T.	NOT CHOSEN	A	YES

** ONLY 12" OF LONG SEAM REED
 * WELD OVERLAY

CAL. STANDARD LD. #43. #13

RR-01

PROJECT	MP 8 L GC-1 UB-D	DRAWN	05-17-77	18 SE NSU	REV
SYSTEM	DRYWELL	REF GE DWG	3 GRAY	ATLANTA	DATE
RECORD	DRYWELL	REF P DWG	11-K78A	RR-8	NO.
LOOP #				PAGE 1 OF 2	



NO.	REV.	DATE
1		

BY 17" SIZE

WFL NO.	WELD MEMBER	CODE	TYPE EXAM	EXAM TIME PERIOD	ASSET CAT.	UP OR IN COMP.
4335000						
GF A77-A-1A	"A"	BJ	P.T.	NOT CHOSEN	A	YES
GF A77-A-1B	"A"	BJ	P.T.	NOT CHOSEN	A	YES
GF A77-B	"A"	BJ	P.T.	NOT CHOSEN	A	YES
GF A77-B-1	"A"	BJ	P.T.	1-00	A	YES
W-PS	"D"	BJ	P.T.		A	YES
***** ONLY 12" OF LONGS SEAM RECD *****						

BY	DATE	BY	DATE
...



PROJECT	MAP 8	LOC	GG-14B-D	MADE BY	OS-11
SYSTEM	CONCRETE	REF DIMS		DATE	18-5-80
PREP.	EXP:WELL	TS:78,977	P-4570A	BY	...



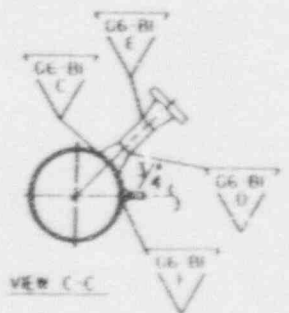
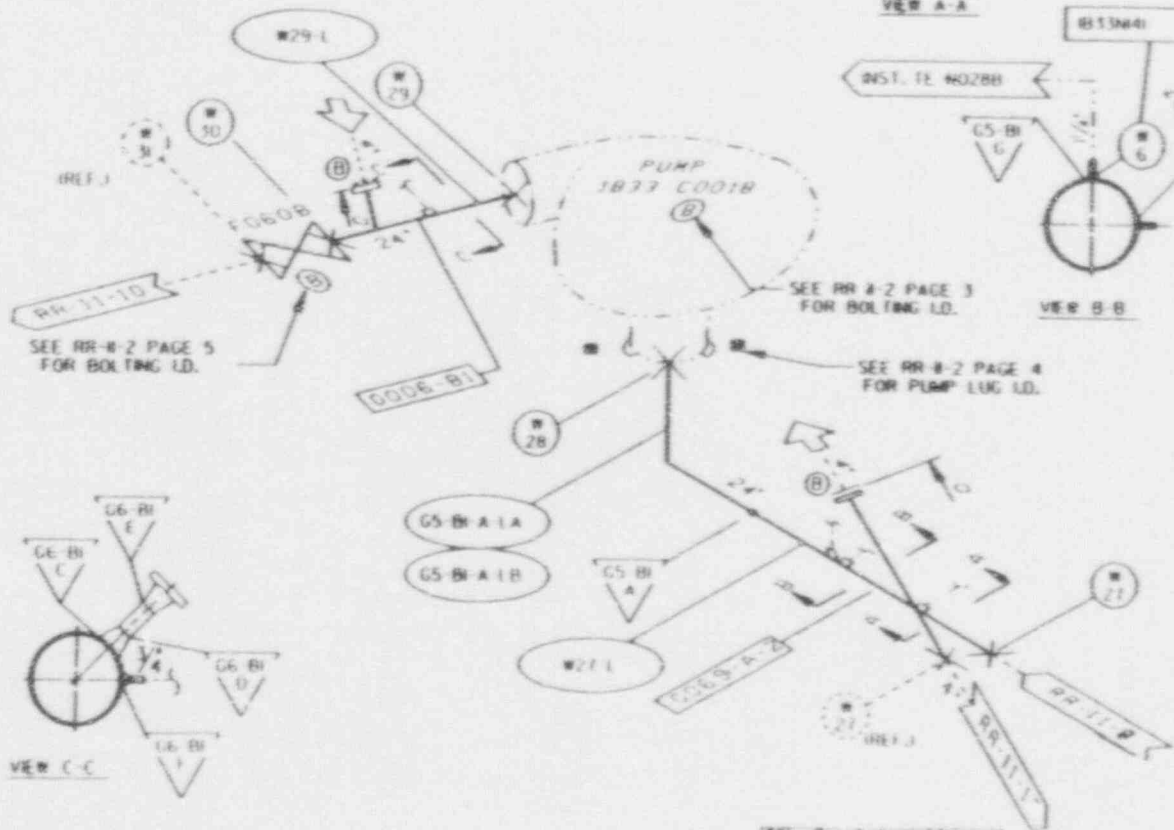
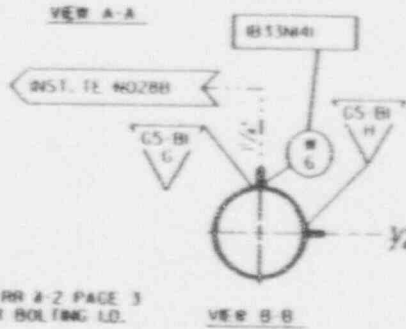
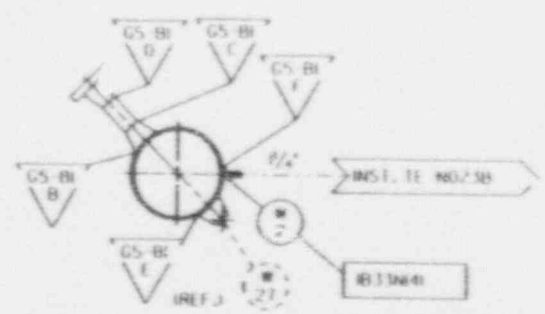
WEL NO.	WELD DESCR.	CODE CAT.	TYPE EXAM.	EXAM TIME PERIOD	USCC CAT.	10. MARK COMP.
0236009	G4-B-C	"C"	BJ	P.T.	NOT CHOSEN	A YES
	G4-B-C-L	"A"	BJ	P.T.	NOT CHOSEN	A YES
	G4-B-B	"C"	BJ	P.T.	NOT CHOSEN	A YES
	G4-B-B-L	"A"	BJ	P.T.	NOT CHOSEN	A YES
	G4-B-A	"C"	BJ	P.T.	NOT CHOSEN	A YES
	G4-B-A-LA	"A"	BJ	P.T.	**3	A YES
	G4-B-A-LB	"A"	BJ	P.T.	**3	A YES
	W-26	"C"	BJ	P.T.	3	A YES
	H306B-D	HANGER	FC	V.T.3	3	N/A
	H305B-D	HANGER	FC	V.T.3	3	N/A
	G4-B-H	Ø LUC	B-K-1	P.T.	3	N/A
	G4-B-J	Ø LUC	B-K-1	P.T.	3	N/A
	G4-B-K	Ø LUC	B-K-1	P.T.	3	N/A
	G4-B-L	Ø LUC	B-K-1	P.T.	3	N/A
	VALVE FQ28	INTERNAL	B-W-2	V.T.3	3	N/A
	H306B-D	HANGER	FC	V.T.4	3	N/A
	H305B-D	HANGER	FC	V.T.4	3	N/A

Go02
|

Go02
|

⊙ DURING MAINT. INSPECTION OR PERIOD 3
 ** ONLY 12" OF LONG SEAM REQ'D
 * WELD OVERLAY

Job No. _____
 Date _____
 By _____
 Title _____
 Scale _____
 Sheet _____ of _____



WEL NO.	WELD DESCR.	CODE CAT.	TYPE EXAM.	EXAM. TIME PERIOD	INSPE. CAT.	10. NAME COMPL.
W-27	"G"	BJ	U.T.	2	B	YES
W-27-L	"A"	BJ	U.T.	** 2	A	YES
G6-B1-C	"H"	BJ	U.T.	2	A	YES
G6-B1-D	"C"	BJ	U.T.	NOT CHOSEN	A	YES
G6-B1-E	"C"	BJ	U.T.	NOT CHOSEN	A	YES
G5-B1-A	"C"	BJ	U.T.	NOT CHOSEN	A	YES
G5-B1-A-1A	"A"	BJ	U.T.	NOT CHOSEN	A	YES
G5-B1-A-1B	"A"	BJ	U.T.	NOT CHOSEN	A	YES
W-28	"F"	BJ	U.T.	3	B	YES
W-29	"F"	BJ	U.T.	3	B	YES
W-29-L	"A"	BJ	U.T.	** 2	A	YES
G5-B1-E	"H"	BJ	U.T.	L2	A	YES
G5-B1-B	"H"	BJ	U.T.	2	A	YES
G5-B1-C	"C"	BJ	U.T.	NOT CHOSEN	A	YES
G5-B1-D	"C"	BJ	U.T.	NOT CHOSEN	A	YES
W-27	"G"	BJ	P.T.	2	B	YES
W-27-L	"A"	BJ	P.T.	** 2	A	YES
G6-B1-C	"H"	BJ	P.T.	2	A	YES
G6-B1-D	"C"	BJ	P.T.	NOT CHOSEN	A	YES
G6-B1-E	"C"	BJ	P.T.	NOT CHOSEN	A	YES
G5-B1-A	"C"	BJ	P.T.	NOT CHOSEN	A	YES
G5-B1-A-1A	"A"	BJ	P.T.	NOT CHOSEN	A	YES
G5-B1-A-1B	"A"	BJ	P.T.	NOT CHOSEN	A	YES
W-28	"F"	BJ	P.T.	3	B	YES
W-29	"F"	BJ	P.T.	3	B	YES
G5-B1-F	"P"	BJ	P.T.	2		YES
G5-B1-G	"P"	BJ	P.T.	2		YES

● REF. RR 1-0000
 ** ONLY 12" OF LONG SEAM REQ'D.

CALL STANDARD LD. *20, *24, *26, *BT 004

REV	DATE	BY	CHK
1	11/11/77	WJH	WJH
2	11/11/77	WJH	WJH
3	11/11/77	WJH	WJH

RR 0 2

PROJECT MP & L CG-1 (JB) B	DATE 03-28-77	DWG. NO. S. GRAUS	REV. NO. 1
SYSTEM REC'D LOOP B	LOCATION DRYWELL	REF. GE. DWG. 76-7477	REF. P. DWG. P-1078A
DRAWN BY WJH		CHECKED BY WJH	



UPL. NO.	WELD DESCR.	CODE CAT.	TYPE EXAM.	EXAM. TIME PERIOD	LD. MARK COMP.
8335008	INTERNAL VALVE PUMP	B-M-2	V.T.3	3	N/A
8335008	INTERNAL PUMP	B-L-2	V.T.3	3	N/A
G-008-B+	PUMP BOLTS	B-G-2	V.T.3	3	N/A
C5.C6+	LIK	B-K-1	P.T.	3	N/A
H302B-D	HANGER	FC	V.T.4	2	N/A
H308B-D	HANGER	FC	V.T.4	NOT CHOSEN	N/A
H304B-D	HANGER	FC	V.T.4	3	N/A
H303B-D	HANGER	FC	V.T.4	NOT CHOSEN	N/A

Elev. 109.4
109.5
109.6

UPL. NO.	WELD DESCR.	CODE CAT.	TYPE EXAM.	EXAM. TIME PERIOD	LD. MARK COMP.
8335008	"K"	BJ	P.T.	2-2	YES
W29-L	"N"	BJ	P.T.	2	YES
G5-B-E	"N"	BJ	P.T.	2	YES
G5-B-B	"N"	BJ	P.T.	2	YES
G5-B-C	"C"	BJ	P.T.	NOT CHOSEN	YES
G5-B-D	"C"	BJ	P.T.	NOT CHOSEN	YES
B302B-B	HANGER	FB	V.T.3	NOT CHOSEN	N/A
B308B-B	HANGER	FB	V.T.3	NOT CHOSEN	N/A
H302B-D	HANGER	FC	V.T.3	2	N/A
H308B-D	HANGER	FC	V.T.3	NOT CHOSEN	N/A
H304B-D	HANGER	FC	V.T.3	3	N/A
H303B-D	HANGER	FC	V.T.3	NOT CHOSEN	N/A
VALVE PUMP	B-G-2	B-G-2	V.T.3	3	N/A
PUMP	B-G-1	B-G-1	U.T.	3	N/A
B335008	PUMP LINKS	B-K-1	P.T.	3	N/A
B335008	PUMP BOLTS	B-G-1	V.T.3	3	N/A
B335008	FLANGE	B-G-2	V.T.3	3	N/A
B335008	BOLTS	B-G-2	V.T.3	3	N/A

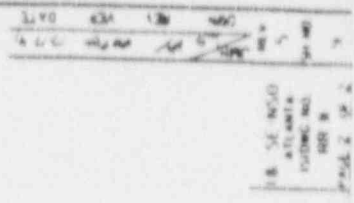
UPL. NO.	WELD DESCR.	CODE CAT.	TYPE EXAM.	EXAM. TIME PERIOD	LD. MARK COMP.
W2	P	BJ	PT	NOT CHOSEN	YES
W6	P	BJ	PT	NOT CHOSEN	YES

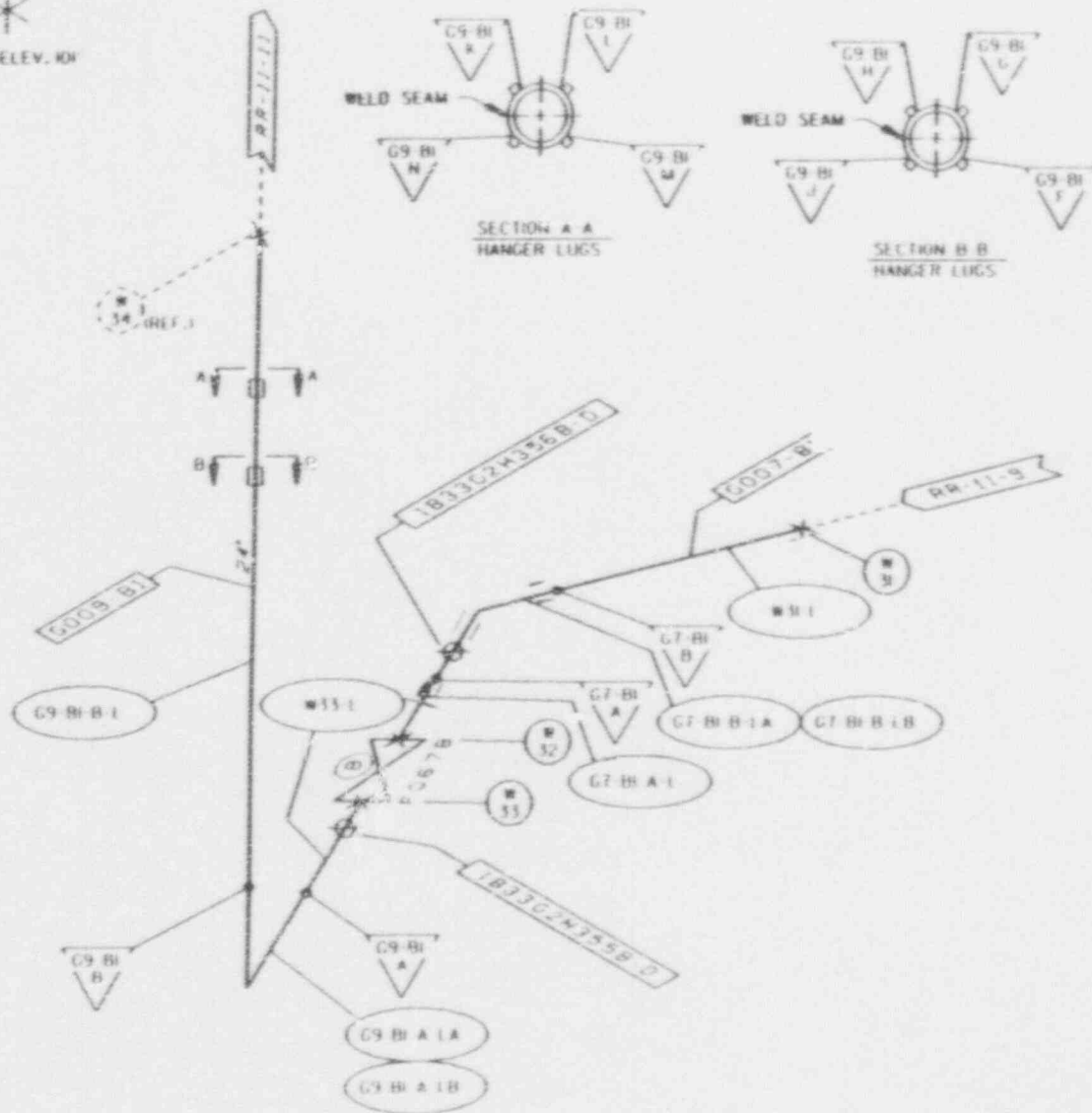
ONLY 12" OF LONG. SEAM RELOD

⊙ DURING MAINT. INSPECTION OR PERIOD 3
 ▲ HANGERS LDC/LD ON PUMP

* SEE RR W-2, PAGE 3 FOR PUMP DETAILS

PROJECT: MP & 1 G-1 (J, B, D)
 SYSTEM: 10000000
 DRAWING: 10000000
 DATE: 10/13/11
 MADE BY: R. DEL
 CHECKED BY: P. DMS
 PROJECT NO.: 10000000
 SHEET NO.: 10000000
 TOTAL SHEETS: 10000000





WPL NO.	WELD DESIG.	CONCAT.	TYPE EXAM.	EXAM. TIME PERIOD	BSCT CAT.	10 NAME COMP.
W33	"C"	BJ	U.T.	2	A	YES
W33-L	"A"	BJ	U.T.	** 2	A	YES
G7-BI-B	"C"	BJ	U.T.	2	A	YES
G7-BI-A LA	"A"	BJ	U.T.	2	A	YES
G7-BI-B LB	"A"	BJ	U.T.	2	A	YES
G7-BI-A	"C"	BJ	U.T.	2	A	YES
G7-BI-A L	"A"	BJ	U.T.	** 2	A	YES
<hr/>						
W33	"C"	BJ	U.T.	2	B	YES
W33-L	"A"	BJ	U.T.	NOT CHOSEN	A	YES
G9-BI-A	"C"	BJ	U.T.	NOT CHOSEN	A	YES
G9-BI-A LA	"A"	BJ	U.T.	NOT CHOSEN	A	YES
G9-BI-A LB	"A"	BJ	U.T.	NOT CHOSEN	A	YES
G9-BI-B	"C"	BJ	U.T.	NOT CHOSEN	B	YES
G9-BI-B L	"A"	BJ	U.T.	** 1	A	YES
W31	"C"	BJ	P.T.	2	A	YES
W31-L	"A"	BJ	P.T.	** 2	A	YES
G7-BI-B	"C"	BJ	P.T.	2	A	YES
G7-BI-B LA	"A"	BJ	P.T.	** 2	A	YES
G7-BI-B LB	"A"	BJ	P.T.	** 2	A	YES
G7-BI-A	"C"	BJ	P.T.	2	A	YES
G7-BI-A L	"A"	BJ	P.T.	** 2	A	YES
<hr/>						
W33	"C"	BJ	P.T.	2	B	YES
W33-L	"A"	BJ	P.T.	NOT CHOSEN	A	YES
G9-BI-A	"C"	BJ	P.T.	NOT CHOSEN	A	YES
G9-BI-A LA	"A"	BJ	P.T.	NOT CHOSEN	A	YES

* WELD OVERLAY
 ** ONLY 12" OF LONG. SEAM REQD.
 ● REF. RR-1-0000

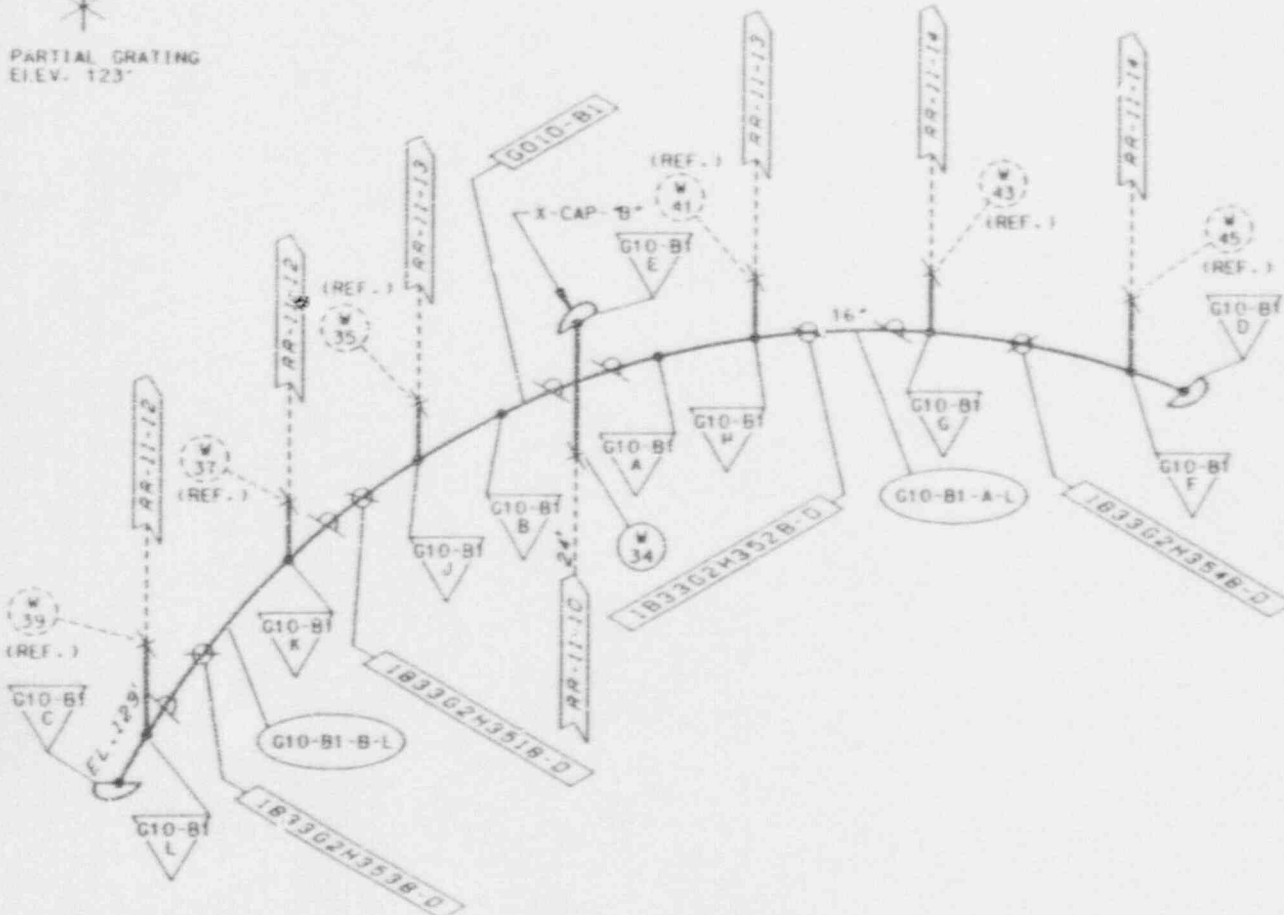
CAL. STANDARD 13, *42, *42, *21, *25

RR-0-2

PROJECT	MP & L GC-1 (JB-B)	DATE	03-23-77
SYSTEM	DRYWELL	REF. P. ENG.	ATLANTA
LOOP	767977	P. 1078A	RR-8
			PHAS. 1 OF 4

DATE
 REV.
 NO.
 BY

PARTIAL GRATING
ELEV. 123'



MPL NO.	WELD DESCR.	CODE CAT.	TYPE EXAM.	EXAM. TIME PERIOD	IGSEC CAT.	I.U. NARR COMPL.
1B330001						
W-34	"C"	BJ	U.T.	1	B	YES
G10-B1-E	"C"	BJ	U.T.	NOT CHOSEN	B	YES
G10-B1-B	"C"	BJ	U.T.	1	B	YES
G10-B1-J	"N"	BJ	U.T.	1	A	YES
G10-B1-K	"N"	BJ	U.T.	1	A	YES
G10-B1-B-L	"A"	BJ	U.T.	** 2	A	YES
G10-B1-L	"N"	BJ	U.T.	1	A	YES
G10-B1-C	"C"	BJ	U.T.	3	B	YES
G10-B1-A	"C"	BJ	U.T.	1	B	YES
G10-B1-H	"N"	BJ	U.T.	1	A	YES
G10-B1-A-L	"A"	BJ	U.T.	** 2	A	YES
G10-B1-G	"N"	BJ	U.T.	1	A	YES
G10-B1-F	"N"	BJ	U.T.	1	A	YES
G10-B1-D	"C"	BJ	U.T.	3	B	YES
W-34	"C"	BJ	P.T.	1	B	YES
G10-B1-E	"C"	BJ	P.T.	NOT CHOSEN	B	YES
G10-B1-B	"C"	BJ	P.T.	1	B	YES
G10-B1-J	"N"	BJ	P.T.	1	A	YES
G10-B1-K	"N"	BJ	P.T.	1	A	YES
G10-B1-B-L	"A"	BJ	P.T.	** 2	A	YES
G10-B1-L	"N"	BJ	P.T.	1	A	YES
G10-B1-C	"C"	BJ	P.T.	3	B	YES
G10-B1-A	"C"	BJ	P.T.	1	B	YES
G10-B1-H	"N"	BJ	P.T.	1	A	YES
G10-B1-A-L	"A"	BJ	P.T.	** 2	A	YES
G10-B1-G	"N"	BJ	P.T.	1	A	YES
G10-B1-F	"N"	BJ	P.T.	1	A	YES

** ONLY 12" OF LONG. SEAM RECD

CAL. STANDARD I.D. #22, #25

RR-0-2

PROJECT	MP B L GG-1 (JB-1)	DWN.	03-23-17	I B SE-NSS
SYSTEM	DRYWELL	REF GE DWG	S. GRAUS	ATLANTA
RECIRC.		REF P DWG	P-107BA	DWG NO.
LOOP B				RR-11
				PAGE 1 OF 2

DATE	
REV	
VER	
REV	
DWN	



WFL NO.	WELD DESCR.	CODE CAT.	TYPE EXHA.	EXAM. TIME PERIOD	ISCC CAT.	I.D. NUMBER COMPL.
18235001						
G10-B1-D	*C*	BJ	P.T.	3	B	YES
H351B-D	HANGER	FC	V.T.-3	NOT CHOSEN		N/A
H353B-D	HANGER	FC	V.T.-3	NOT CHOSEN		N/A
H352B-D	HANGER	FC	V.T.-3	NOT CHOSEN		N/A
H354B-D	HANGER	FC	V.T.-3	3		N/A
H351B-D	HANGER	FC	V.T.-4	NOT CHOSEN		N/A
H353B-D	HANGER	FC	V.T.-4	NOT CHOSEN		N/A
H352B-D	HANGER	FC	V.T.-4	NOT CHOSEN		N/A
H354B-D	HANGER	FC	V.T.-4	3		N/A
X-CAP B	BASE MAT	N/A	U.T.	3	B	N/A

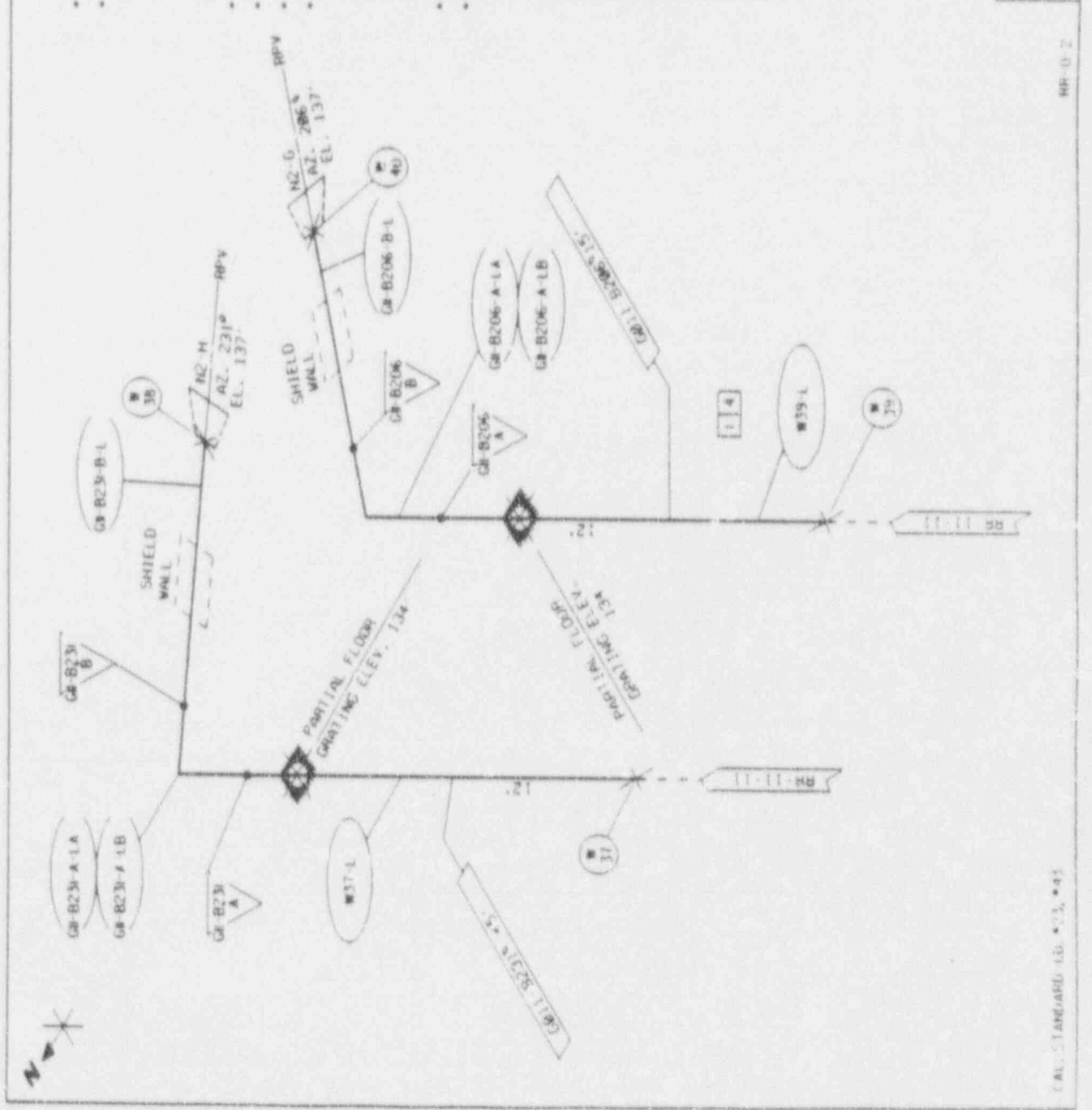


DATE: 2/7/84
 BY: JAB
 NO: 028

PROJECT: MP B L GC-1 (JB-1)
 SYSTEM LOCATION: REF DWG
 LOOP B: DRYWELL 767E977 P-1078A
 MADE BY: 03-22-77
 2. GRAYS
 REF P DWG: 151 DWG NO. 151
 I B SE NSO: REV 3
 A LANKA
 151 DWG NO. 151
 JIB-11
 JIB-11
 PAGE 2 OF 2

WELD NO.	WELD DESCR.	CODE CAT.	TYPE EXAM.	EXAM TIME PERIOD	WELD CAT.	LD. MARK COMP.
W-37	"E"	BJ	U.T.	NOT CHOSEN	A	YES
W-37-L	"A"	BJ	U.T.	NOT CHOSEN	A	YES
GB-823-A	"C"	BJ	U.T.	NOT CHOSEN	A	YES
GB-823-A1A	"A"	BJ	U.T.	NOT CHOSEN	A	YES
GB-823-A1B	"A"	BJ	U.T.	NOT CHOSEN	A	YES
GB-823-B	"C"	BJ	U.T.	NOT CHOSEN	A	YES
GB-823-B1	"A"	BJ	U.T.	**3	A	YES
W-38	"D"	BJ	U.T.	3	A	YES
W-39	"E"	BJ	U.T.	NOT CHOSEN	A	YES
W-39-L	"A"	BJ	U.T.	NOT CHOSEN	A	YES
GB-826-A	"C"	BJ	U.T.	NOT CHOSEN	A	YES
GB-826-A1A	"A"	BJ	U.T.	NOT CHOSEN	A	YES
GB-826-A1B	"A"	BJ	U.T.	NOT CHOSEN	A	YES
GB-826-B	"C"	BJ	U.T.	NOT CHOSEN	A	YES
GB-826-B1	"A"	BJ	U.T.	**3	A	YES
W-40	"D"	BJ	U.T.	3	A	YES
W-37	"E"	BJ	P.T.	NOT CHOSEN	A	YES
W-37-L	"A"	BJ	P.T.	NOT CHOSEN	A	YES
GB-823-A	"C"	BJ	P.T.	NOT CHOSEN	A	YES
GB-823-A1A	"A"	BJ	P.T.	NOT CHOSEN	A	YES
GB-823-A1B	"A"	BJ	P.T.	NOT CHOSEN	A	YES
GB-823-B	"C"	BJ	P.T.	NOT CHOSEN	A	YES
GB-823-B1	"A"	BJ	P.T.	**3	A	YES
W-38	"D"	BJ	P.T.	3	A	YES
W-39	"E"	BJ	P.T.	NOT CHOSEN	A	YES
W-39-L	"A"	BJ	P.T.	NOT CHOSEN	A	YES
GB-826-A	"C"	BJ	P.T.	NOT CHOSEN	A	YES

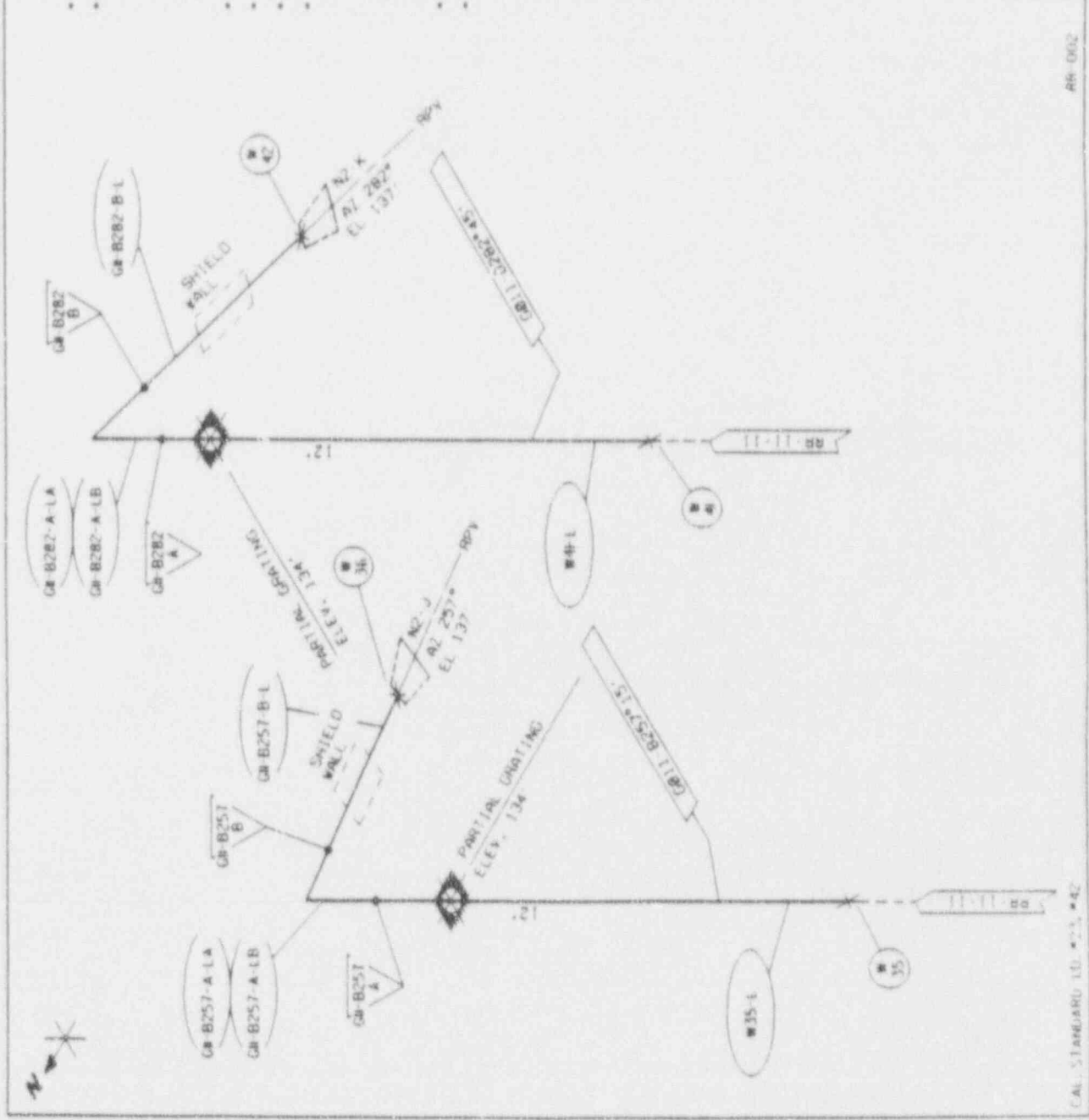
340	331	328	320
464	77	24	29
DATE	ISSUE	BY	CHKD
05-24-77	18-54-NCS	AD	2
SYSTEM	LOC. NO.	REF. NO.	DATE
GG-1-LB-B	GG-1-LB-B	REF. NO.	18-54-NCS
PROJECT	LOOP NO.	DATE	BY
MP-0-1	GG-1-LB-B	18-54-NCS	AD
SYSTEM	LOC. NO.	REF. NO.	DATE
GG-1-LB-B	GG-1-LB-B	REF. NO.	18-54-NCS
PROJECT	LOOP NO.	DATE	BY
MP-0-2	GG-1-LB-B	18-54-NCS	AD



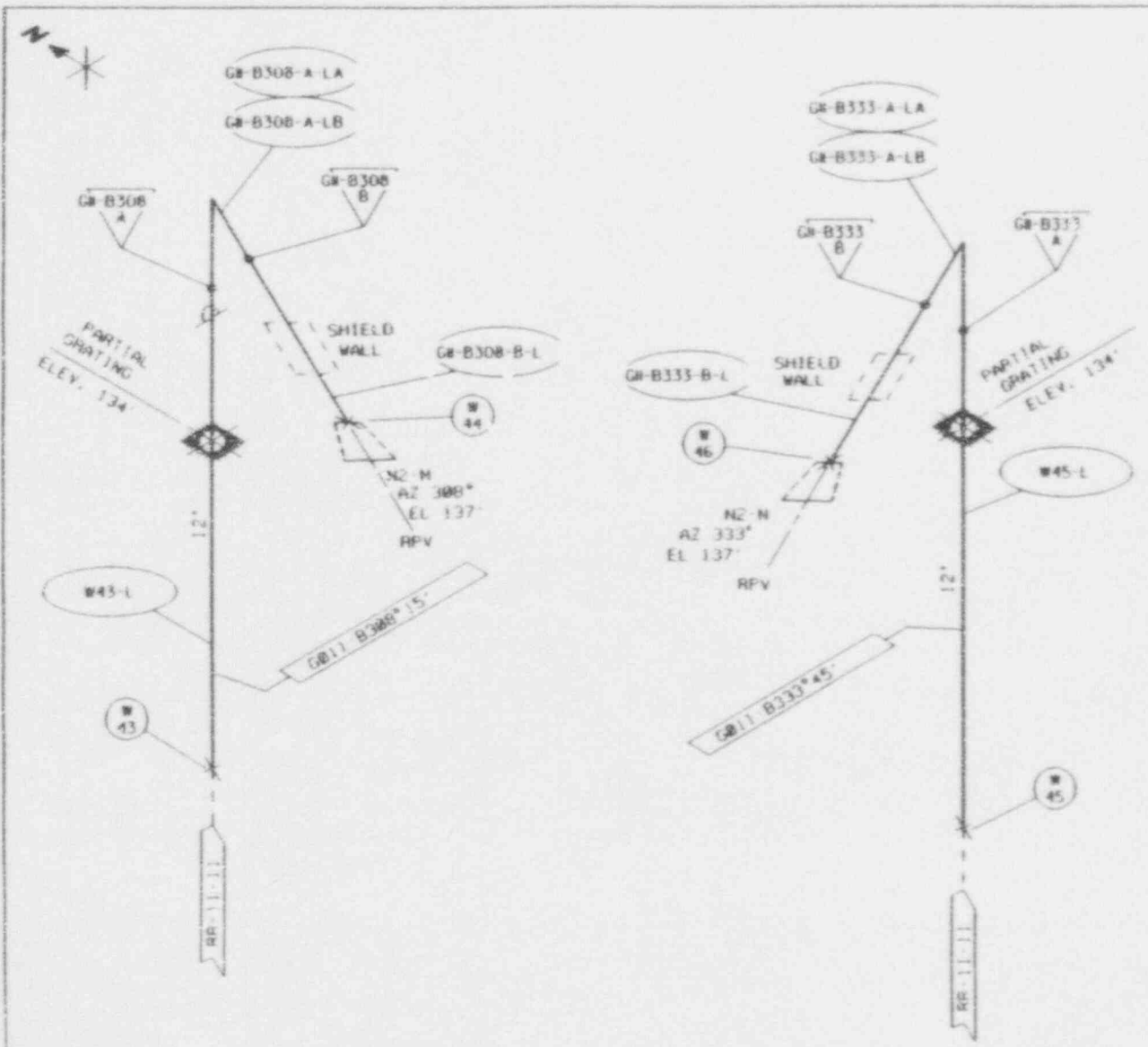
** ONLY 12" OF LONG. SEAM REVD
- WELD OVERLAY

WELD NO.	WELD DESCR.	CODE CAT.	TYPE EXAM.	EXAM TIME PERIOD	WELD DATE	LD. NAME
W-35	"C"	BJ	U.T.	NOT CHOSEN	A	YES
W-35-L	"A"	BJ	U.T.	NOT CHOSEN	A	YES
GR-B257-A	"C"	BJ	U.T.	NOT CHOSEN	A	YES
GR-B257-A-LA	"A"	BJ	U.T.	NOT CHOSEN	A	YES
GR-B257-A-LB	"A"	BJ	U.T.	NOT CHOSEN	A	YES
GR-B257-B	"C"	BJ	U.T.	NOT CHOSEN	A	YES
GR-B257-B-L	"A"	BJ	U.T.	NOT CHOSEN	A	YES
W-36	"D"	BJ	U.T.	**3	A	YES
W-41	"E"	BJ	U.T.	3	A	YES
W-41-L	"A"	BJ	U.T.	NOT CHOSEN	A	YES
GR-B282-A	"C"	BJ	U.T.	NOT CHOSEN	A	YES
GR-B282-A-LA	"A"	BJ	U.T.	NOT CHOSEN	A	YES
GR-B282-A-LB	"A"	BJ	U.T.	NOT CHOSEN	A	YES
GR-B282-B	"C"	BJ	U.T.	NOT CHOSEN	A	YES
GR-B282-B-L	"A"	BJ	U.T.	NOT CHOSEN	A	YES
W-42	"D"	BJ	U.T.	**3	A	YES
W-35-L	"E"	BJ	P.T.	NOT CHOSEN	A	YES
GR-B257-A	"C"	BJ	P.T.	NOT CHOSEN	A	YES
GR-B257-A-LA	"A"	BJ	P.T.	NOT CHOSEN	A	YES
GR-B257-A-LB	"A"	BJ	P.T.	NOT CHOSEN	A	YES
GR-B257-B	"C"	BJ	P.T.	NOT CHOSEN	A	YES
GR-B257-B-L	"A"	BJ	P.T.	NOT CHOSEN	A	YES
W-36	"D"	BJ	P.T.	3	A	YES
W-41	"E"	BJ	P.T.	NOT CHOSEN	A	YES
W-41-L	"A"	BJ	P.T.	NOT CHOSEN	A	YES
GR-B282-A	"C"	BJ	P.T.	NOT CHOSEN	A	YES

** ONLY 12" OF LONG. SEAM RECD
 ** WELD OVERLAY



PROJECT	MAP B L (G.G. + L.B. 1)	DATE	10/24/11
SYSTEM	LOCATION	REF. TO DWG.	REF. P. DWG.
WELD NO.	DRYWELL	76.7E.977	P-40/BA
FORM NO.			FORM 308-A
ISSUE			13



WPL NO.	WELD DESCR.	CODE CAT.	TYPE EXAM.	EXAM. TIME PERIOD	NSCC CAT.	LD. MARK COMPLY.
B336001						
W-43	"E"	BJ	U.T.	NOT CHOSEN	A	YES
W43-L	"A"	BJ	U.T.	NOT CHOSEN	A	YES
GR-B308-A	"C"	BJ	U.T.	NOT CHOSEN	A	YES
GR-B308-A-A	"A"	BJ	U.T.	NOT CHOSEN	A	YES
GR-B308-A-B	"A"	BJ	U.T.	NOT CHOSEN	A	YES
GR-B308-B	"C"	BJ	U.T.	NOT CHOSEN	A	YES
GR-B308-B-A	"A"	BJ	U.T.	++3	A	YES
W-44	"D"	BJ	U.T.	3	A	YES
W-45	"E"	BJ	U.T.	NOT CHOSEN	A	YES
W45-L	"A"	BJ	U.T.	NOT CHOSEN	A	YES
GR-B333-A	"C"	BJ	U.T.	NOT CHOSEN	A	YES
GR-B333-A-A	"A"	BJ	U.T.	NOT CHOSEN	A	YES
GR-B333-A-B	"A"	BJ	U.T.	NOT CHOSEN	A	YES
GR-B333-B	"C"	BJ	U.T.	NOT CHOSEN	A	YES
GR-B333-B-A	"A"	BJ	U.T.	++3	A	YES
W-46	"D"	BJ	U.T.	3	A	YES
W-43	"E"	BJ	P.T.	NOT CHOSEN	A	YES
W43-L	"A"	BJ	P.T.	NOT CHOSEN	A	YES
GR-B308-A	"C"	BJ	P.T.	NOT CHOSEN	A	YES
GR-B308-A-A	"A"	BJ	P.T.	NOT CHOSEN	A	YES
GR-B308-A-B	"A"	BJ	P.T.	NOT CHOSEN	A	YES
GR-B308-B	"C"	BJ	P.T.	NOT CHOSEN	A	YES
GR-B308-B-A	"A"	BJ	P.T.	++3	A	YES
W-44	"D"	BJ	P.T.	3	A	YES
W-45	"E"	BJ	P.T.	NOT CHOSEN	A	YES
W45-L	"A"	BJ	P.T.	NOT CHOSEN	A	YES
GR-B333-A	"C"	BJ	P.T.	NOT CHOSEN	A	YES

** ONLY 12" OF LONG. SEAM RECD
 * WELD OVERLAY

CAL. STANDARD ED. *C.D. *42

RR-D-2

PROJECT NP-8-L CC-1 UJB-B		Date 03-24-77		18 SE-NSS	
SYSTEM RELIC LOOP B		LOCATION DRYNGILL		ATLANTA	
REF GE DWG 767E977		REF P DWG P-4078A		DWG NO. RR-B	
				PAGE 1 OF 2	



DATE	REV.	BY
10/1/77	1	J. L. ...
11/1/77	2	J. L. ...
12/1/77	3	J. L. ...

WFL NO.	WELD DESCR.	CODE CAT.	TYPE EXAM.	EXAM. TIME PERIOD	INSPE CAT.	LD. BASED COMPL.
0225002	"A"	BJ	P.T.	MOT CHOSEN	A	YES
0225003	"A"	BJ	P.T.	MOT CHOSEN	A	YES
0225004	"C"	BJ	P.T.	MOT CHOSEN	A	YES
0225005	"A"	BJ	P.T.	**3	A	YES
0225006	"D"	BJ	P.T.	3	A	YES
*** ONLY 12" OF LONG SEAM RECD ***						

3140	434	130	N80
40	27	100	10



PROJECT: MIP 8 L C.G. (3B) D

MADE BY: 02-24-77

SYSTEM: 02-24-77

LOCATION: REF DRG

WFL NO.: 76, 78, 77

WFL B: P-1078A

DATE: 02-24-77

SCALE: 1/8" = 1'-0"

REVISIONS:

1. 02-24-77

2. 02-24-77

3. 02-24-77

4. 02-24-77

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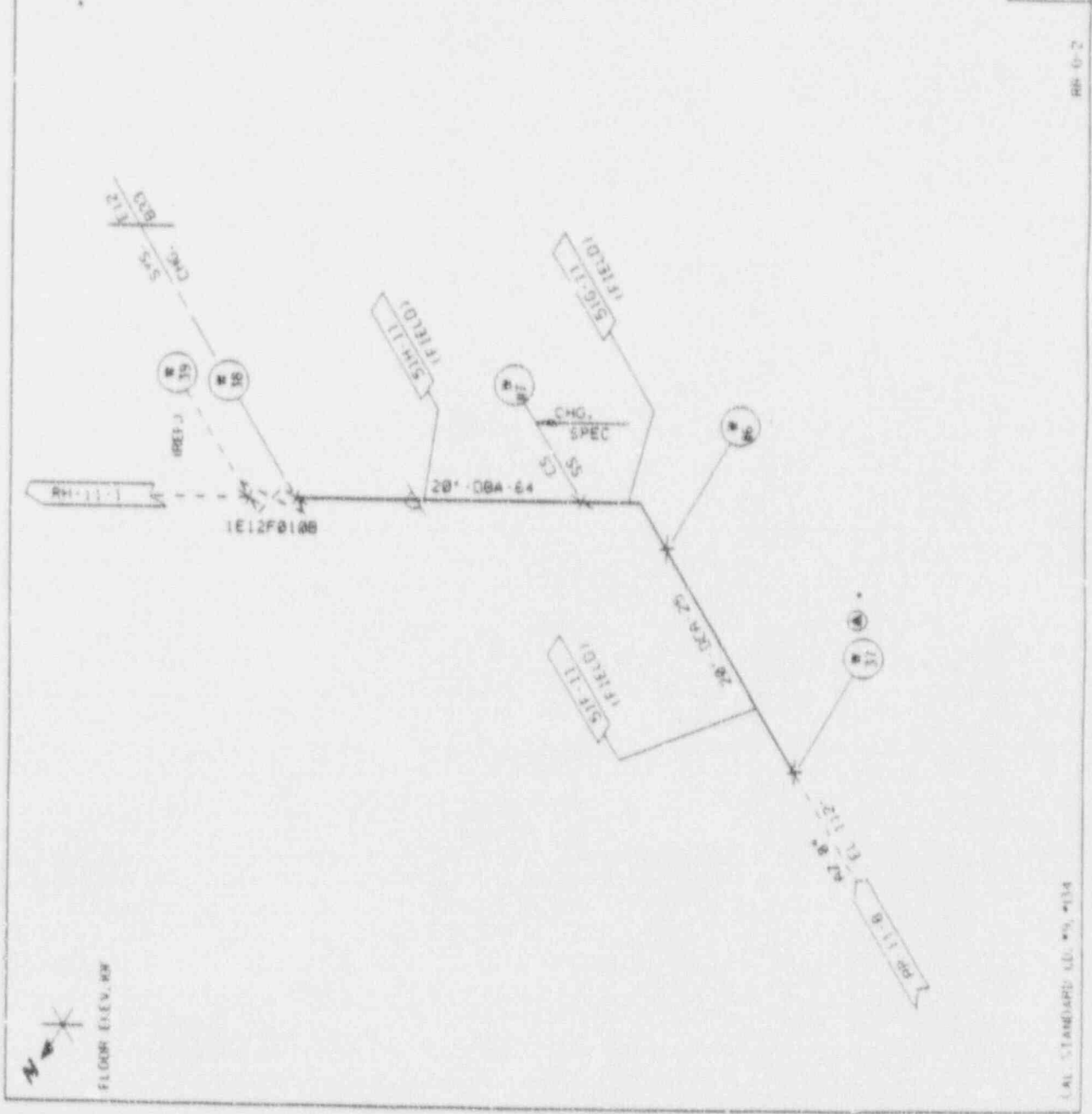
99. 02-24-77

100. 02-24-77



REF. NO.	WELD DESIGN.	CODE CAT.	TYPE EXAM.	EXAM. TIME PERIOD	LD. MARK COMPL.
W-37	"C"	BJ	U.T.	3	YES
W-36	"C"	BJ	U.T.	3	YES
W-37	"C"	BJ	U.T.	3	YES
W-38	"C"	BJ	U.T.	3	YES
W-37	"C"	BJ	P.T.	3	YES
W-36	"C"	BJ	P.T.	3	YES
W-37	"C"	BJ	P.T.	3	YES
W-38	"C"	BJ	M.T.	3	YES

(A) GE - BECHTEL INTERFACE WELD
 * WELD OVERLAY



REV	DATE	BY	CHK
1	7/7	Ull	Ull

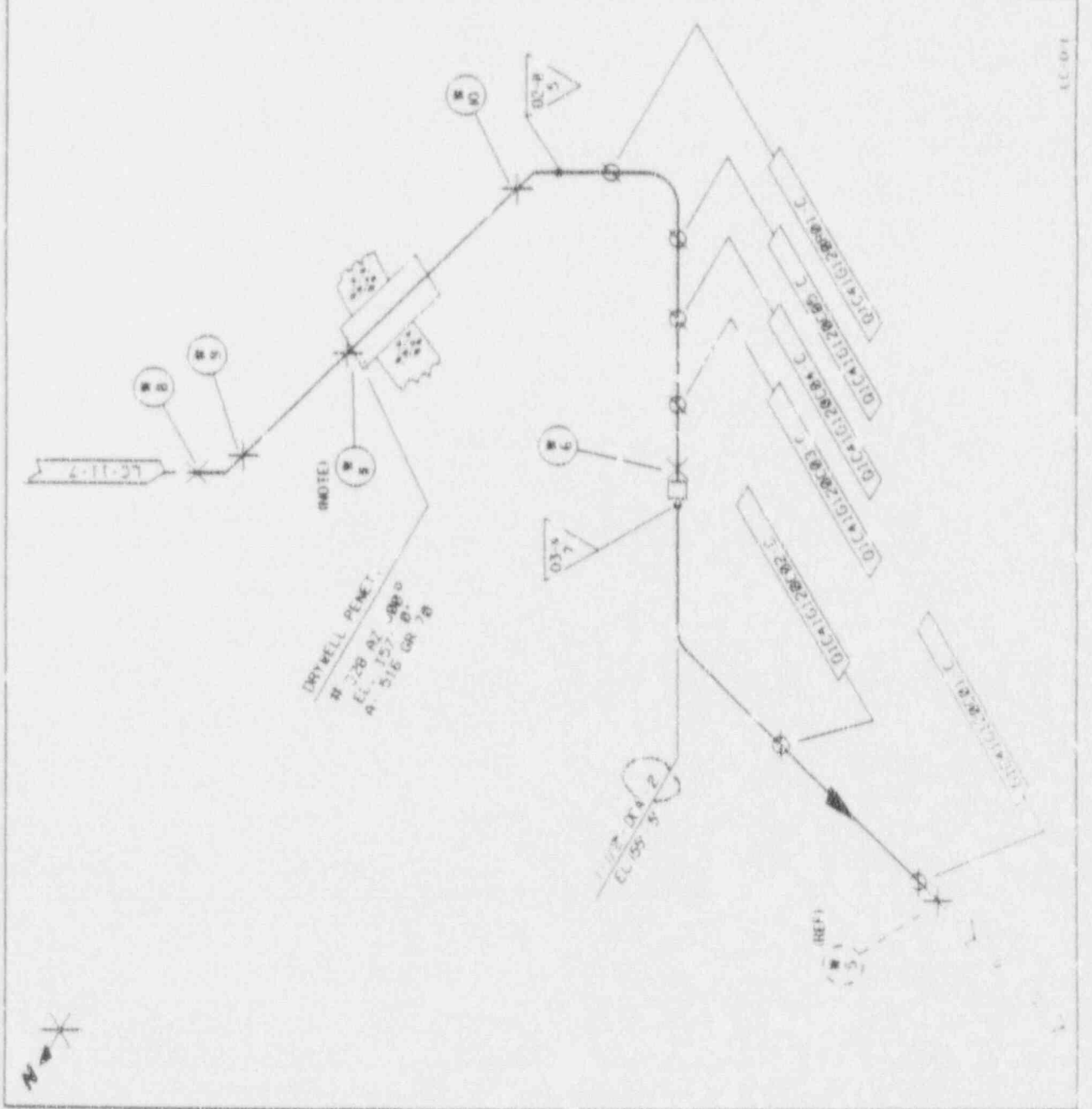


PROJECT	NO. 1	DATE	10-11-77
DESCRIPTION	GE - BECHTEL INTERFACE WELD	SCALE	1" = 100'
LOCATION	FIELD	PROJECT NO.	15-48A
DATE	7/7	REVISED	7/7
BY	Ull	CHK	Ull
APP	Ull	DATE	7/7

WELD NO.	WELD SIZE	WELD CAT.	TYPE EXAM	EXAM TIME PERCENT	EXAM. TIME PERCENT	LD. MARK COMP.
W-8	1"	E*	P.T.	NOT CHOSEN		YES
W-9	1"	G1	P.T.	1		YES
W-10	1"	B1	P.T.	1		YES
OC-8-5	1"	B1	P.T.	NOT CHOSEN		YES
W-6	1"	B1	P.T.	NOT CHOSEN		YES
W-3	1"	B1	P.T.	1		YES
OC-8-7	1"	B1	P.T.	NOT CHOSEN		YES
FOR-C	HANGER	FB	V.T.3	3		N/A
OC-2	HANGER	FB	V.T.3	3		N/A
OC-3	HANGER	FB	V.T.3	NOT CHOSEN		N/A
OC-1	HANGER	FB	V.T.3	NOT CHOSEN		N/A
OC-5	HANGER	FC	V.T.3	1		N/A
RON-C	HANGER	FB	V.T.3	NOT CHOSEN		N/A

DATE	BY	NO.	REV.	DATE	BY	NO.	REV.
10/10/00	JL	1					
10/10/00	JL	2					
10/10/00	JL	3					
10/10/00	JL	4					

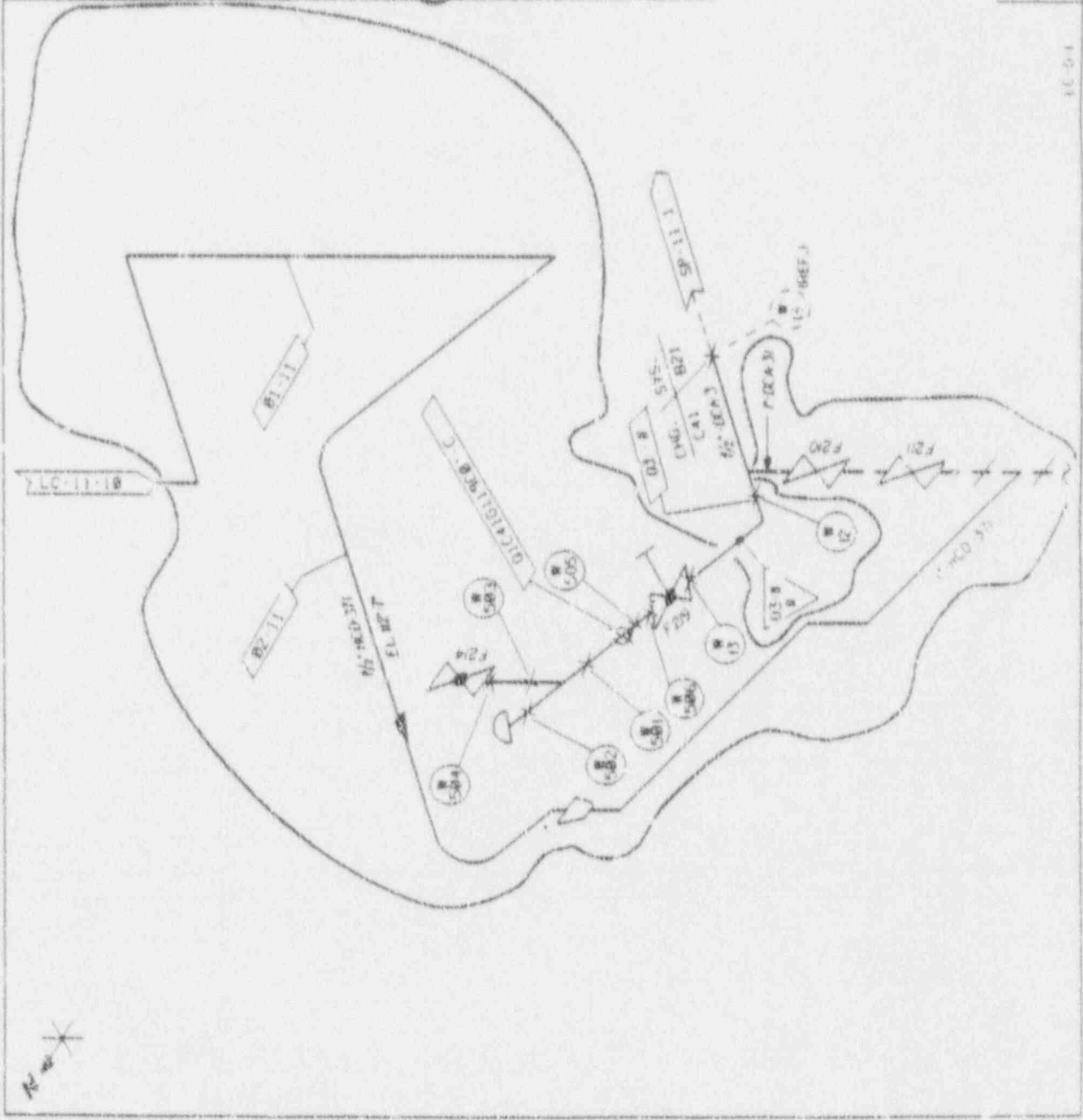
PROJECT: MFG & L. GG-1 (B-B)
 SYSTEM: 1000-1000-1000
 DRAWING: P-1000-1000-1000
 SCALE: 1/8" = 1'-0"



NOTE: W-8 IS A PEN. CLOSURE WELD

1000-1000-1000

DATE: 10/10/00



WFL NO. E. 40199	WFL DESCR.	CODE CAT.	TYPE FORM.	ESTIM. TIME PERIOD	LD. MAJOR COMP.
B-13	"C"	BJ	P.T.	3	YES
B-14	"E"	BJ	P.T.	NOT CHOSEN	YES
B-15	"E"	BJ	P.T.	NOT CHOSEN	YES
B-501	"E"	BJ	P.T.	2	
B-502	"E"	BJ	P.T.	2	
B-503	"E"	BJ	P.T.	2	
B-504	"G"	BJ	P.T.	5	
B-505	"L"	BJ	P.T.	3	
B-506	"E"	BJ	P.T.	3	
CON-C	HANGER	F9	V.I.3	NOT CHOSEN	N/A

3142	83A	130	480
5/20	7/1	2/1	1/1



PROJECT	MP-8-1	CG-1	UB-11
DESIGNED BY	2.013	2.013	2.013
CHECKED BY	2.013	2.013	2.013
DATE	11-8	11-8	11-8
SCALE	1/8" = 1'-0"	1/8" = 1'-0"	1/8" = 1'-0"

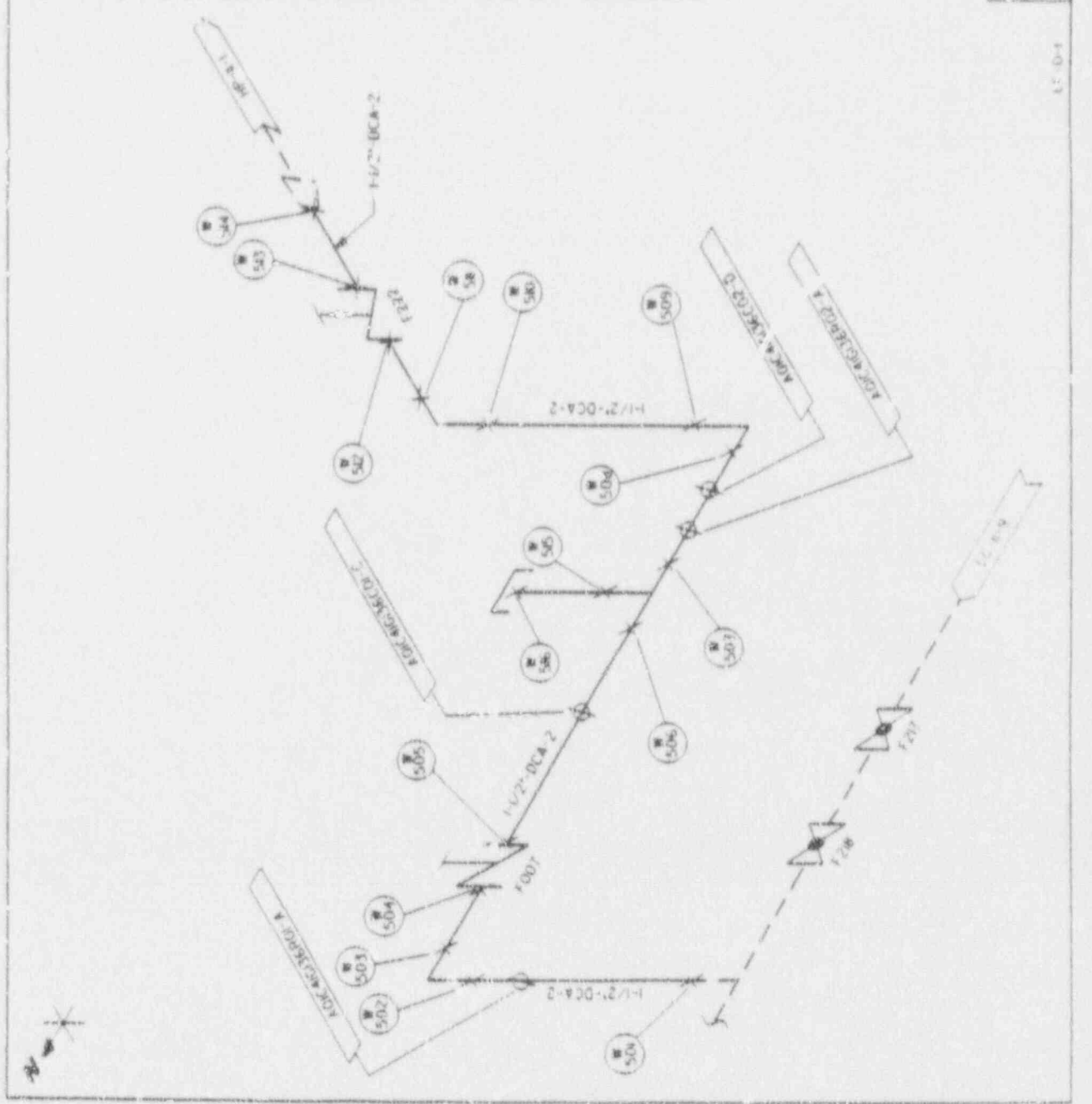
PL-0-1

WELD NO.	WELD DESCR.	CAGE CAT.	TYPE FRAME	LEADS TIME PERIOD	LD. ORDER (DATE)
W-501	"C"	BJ	P.I.	2	
W-502	"C"	BJ	P.I.	2	
W-503	"C"	BJ	P.I.	2	
W-504	"C"	BJ	P.I.	2	
W-505	"C"	BJ	P.I.	2	
W-506	"C"	BJ	P.I.	2	
W-507	"C"	BJ	P.I.	2	
W-508	"C"	BJ	P.I.	3	
W-509	"C"	BJ	P.I.	3	
W-510	"C"	BJ	P.I.	3	
W-511	"C"	BJ	P.I.	3	
W-512	"C"	BJ	P.I.	3	
W-513	"C"	BJ	P.I.	3	
W-514	"C"	BJ	P.I.	3	
W-515	"C"	BJ	P.I.	3	
COL-C	HANGER	FC	V.I.3	2	
COL-D	HANGER	FC	V.I.4	3	

REV	DATE	BY	CHKD
1	04/11/01
2	04/11/01
3	04/11/01



PROJECT	MP & L GC-1 (R)-D	MADE BY	W. THOMAS
SYSTEM	LOCATION	DATE	04/11/01
CONTRACT	CONTRACT	REVISED	04/11/01
		SCALE	1:1



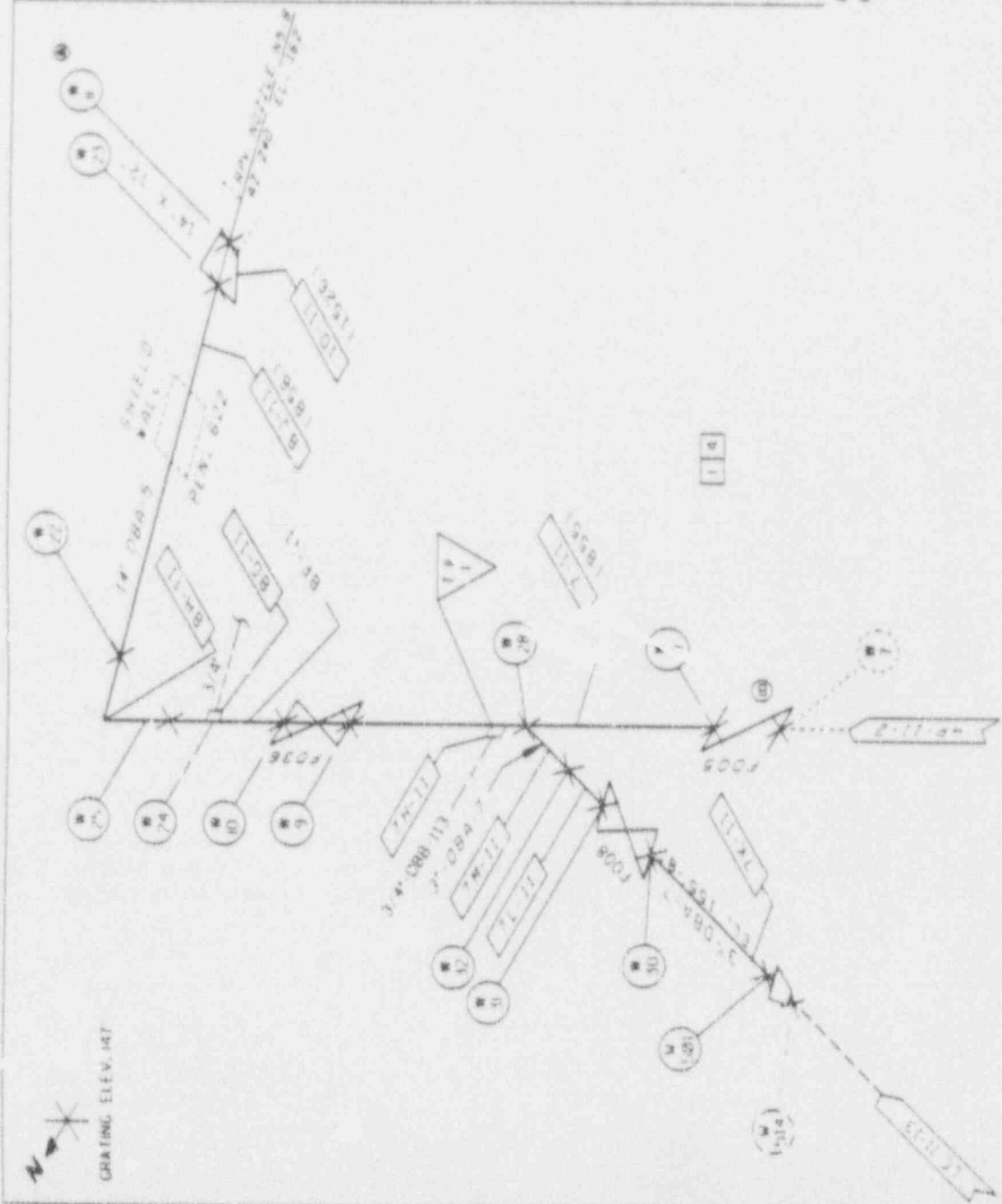
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DATE

SCALE

REV

DATE



WPT. NO.	WELD DESC.	CODE CAT.	TYPE EXAM	EXAM TIME PERIOD	CO. MAIN COMP.
0220003					
008	"C"	BJ	U.T.	1	YES
009	"C"	BJ	U.T.	NOT RECD	YES
010	"C"	BJ	U.T.	1	YES
011	"C"	BJ	U.T.	1	YES
012	"C"	BJ	U.T.	NOT CHOSEN	YES
013	"C"	BJ	U.T.	NOT CHOSEN	YES
014	"C"	BJ	U.T.	NOT CHOSEN	YES
015	"C"	BJ	U.T.	3	YES
016	"C"	BJ	U.T.	NOT CHOSEN	YES
017	"C"	BJ	U.T.	3	YES
018	"C"	BJ	U.T.	3	YES
019	"C"	BJ	U.T.	3	YES
020	"C"	BJ	U.T.	3	YES
021	"C"	BJ	U.T.	3	YES
022	"C"	BJ	U.T.	3	YES
023	"C"	BJ	U.T.	3	YES
024	"C"	BJ	U.T.	3	YES
025	"C"	BJ	U.T.	3	YES
026	"C"	BJ	U.T.	3	YES
027	"C"	BJ	U.T.	3	YES
028	"C"	BJ	U.T.	3	YES
029	"C"	BJ	U.T.	3	YES
030	"C"	BJ	U.T.	3	YES
031	"C"	BJ	U.T.	3	YES
032	"C"	BJ	U.T.	3	YES
033	"C"	BJ	U.T.	3	YES
034	"C"	BJ	U.T.	3	YES
035	"C"	BJ	U.T.	3	YES
036	"C"	BJ	U.T.	3	YES
037	"C"	BJ	U.T.	3	YES
038	"C"	BJ	U.T.	3	YES
039	"C"	BJ	U.T.	3	YES
040	"C"	BJ	U.T.	3	YES
041	"C"	BJ	U.T.	3	YES
042	"C"	BJ	U.T.	3	YES
043	"C"	BJ	U.T.	3	YES
044	"C"	BJ	U.T.	3	YES
045	"C"	BJ	U.T.	3	YES
046	"C"	BJ	U.T.	3	YES
047	"C"	BJ	U.T.	3	YES
048	"C"	BJ	U.T.	3	YES
049	"C"	BJ	U.T.	3	YES
050	"C"	BJ	U.T.	3	YES
051	"C"	BJ	U.T.	3	YES
052	"C"	BJ	U.T.	3	YES
053	"C"	BJ	U.T.	3	YES
054	"C"	BJ	U.T.	3	YES
055	"C"	BJ	U.T.	3	YES
056	"C"	BJ	U.T.	3	YES
057	"C"	BJ	U.T.	3	YES
058	"C"	BJ	U.T.	3	YES
059	"C"	BJ	U.T.	3	YES
060	"C"	BJ	U.T.	3	YES
061	"C"	BJ	U.T.	3	YES
062	"C"	BJ	U.T.	3	YES
063	"C"	BJ	U.T.	3	YES
064	"C"	BJ	U.T.	3	YES
065	"C"	BJ	U.T.	3	YES
066	"C"	BJ	U.T.	3	YES
067	"C"	BJ	U.T.	3	YES
068	"C"	BJ	U.T.	3	YES
069	"C"	BJ	U.T.	3	YES
070	"C"	BJ	U.T.	3	YES
071	"C"	BJ	U.T.	3	YES
072	"C"	BJ	U.T.	3	YES
073	"C"	BJ	U.T.	3	YES
074	"C"	BJ	U.T.	3	YES
075	"C"	BJ	U.T.	3	YES
076	"C"	BJ	U.T.	3	YES
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094	"C"	BJ	U.T.	3	YES
095	"C"	BJ	U.T.	3	YES
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097	"C"	BJ	U.T.	3	YES
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100	"C"	BJ	U.T.	3	YES
101	"C"	BJ	U.T.	3	YES
102	"C"	BJ	U.T.	3	YES
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107	"C"	BJ	U.T.	3	YES
108	"C"	BJ	U.T.	3	YES
109	"C"	BJ	U.T.	3	YES
110	"C"	BJ	U.T.	3	YES
111	"C"	BJ	U.T.	3	YES
112	"C"	BJ	U.T.	3	YES
113	"C"	BJ	U.T.	3	YES
114	"C"	BJ	U.T.	3	YES
115	"C"	BJ	U.T.	3	YES
116	"C"	BJ	U.T.	3	YES
117	"C"	BJ	U.T.	3	YES
118	"C"	BJ	U.T.	3	YES
119	"C"	BJ	U.T.	3	YES
120	"C"	BJ	U.T.	3	YES
121	"C"	BJ	U.T.	3	YES
122	"C"	BJ	U.T.	3	YES
123	"C"	BJ	U.T.	3	YES
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125	"C"	BJ	U.T.	3	YES
126	"C"	BJ	U.T.	3	YES
127	"C"	BJ	U.T.	3	YES
128	"C"	BJ	U.T.	3	YES
129	"C"	BJ	U.T.	3	YES
130	"C"	BJ	U.T.	3	YES
131	"C"	BJ	U.T.	3	YES
132	"C"	BJ	U.T.	3	YES
133	"C"	BJ	U.T.	3	YES
134	"C"	BJ	U.T.	3	YES
135	"C"	BJ	U.T.	3	YES
136	"C"	BJ	U.T.	3	YES
137	"C"	BJ	U.T.	3	YES
138	"C"	BJ	U.T.	3	YES
139	"C"	BJ	U.T.	3	YES
140	"C"	BJ	U.T.	3	YES
141	"C"	BJ	U.T.	3	YES
142	"C"	BJ	U.T.	3	YES
143	"C"	BJ	U.T.	3	YES
144	"C"	BJ	U.T.	3	YES
145	"C"	BJ	U.T.	3	YES
146	"C"	BJ	U.T.	3	YES
147	"C"	BJ	U.T.	3	YES
148	"C"	BJ	U.T.	3	YES
149	"C"	BJ	U.T.	3	YES
150	"C"	BJ	U.T.	3	YES
151	"C"	BJ	U.T.	3	YES
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159	"C"	BJ	U.T.	3	YES
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172	"C"	BJ	U.T.	3	YES
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175	"C"	BJ	U.T.	3	YES
176	"C"	BJ	U.T.	3	YES
177	"C"	BJ	U.T.	3	YES
178	"C"	BJ	U.T.	3	YES
179	"C"	BJ	U.T.	3	YES
180	"C"	BJ	U.T.	3	YES
181	"C"	BJ	U.T.	3	YES
182	"C"	BJ	U.T.	3	YES
183	"C"	BJ	U.T.	3	YES
184	"C"	BJ	U.T.	3	YES
185	"C"	BJ	U.T.	3	YES
186	"C"	BJ	U.T.	3	YES
187	"C"	BJ	U.T.	3	YES
188	"C"	BJ	U.T.	3	YES
189	"C"	BJ	U.T.	3	YES
190	"C"	BJ	U.T.	3	YES
191	"C"	BJ	U.T.	3	YES
192	"C"	BJ	U.T.	3	YES
193	"C"	BJ	U.T.	3	YES
194	"C"	BJ	U.T.	3	YES
195	"C"	BJ	U.T.	3	YES
196	"C"	BJ	U.T.	3	YES
197	"C"	BJ	U.T.	3	YES
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199	"C"	BJ	U.T.	3	YES
200	"C"	BJ	U.T.	3	YES

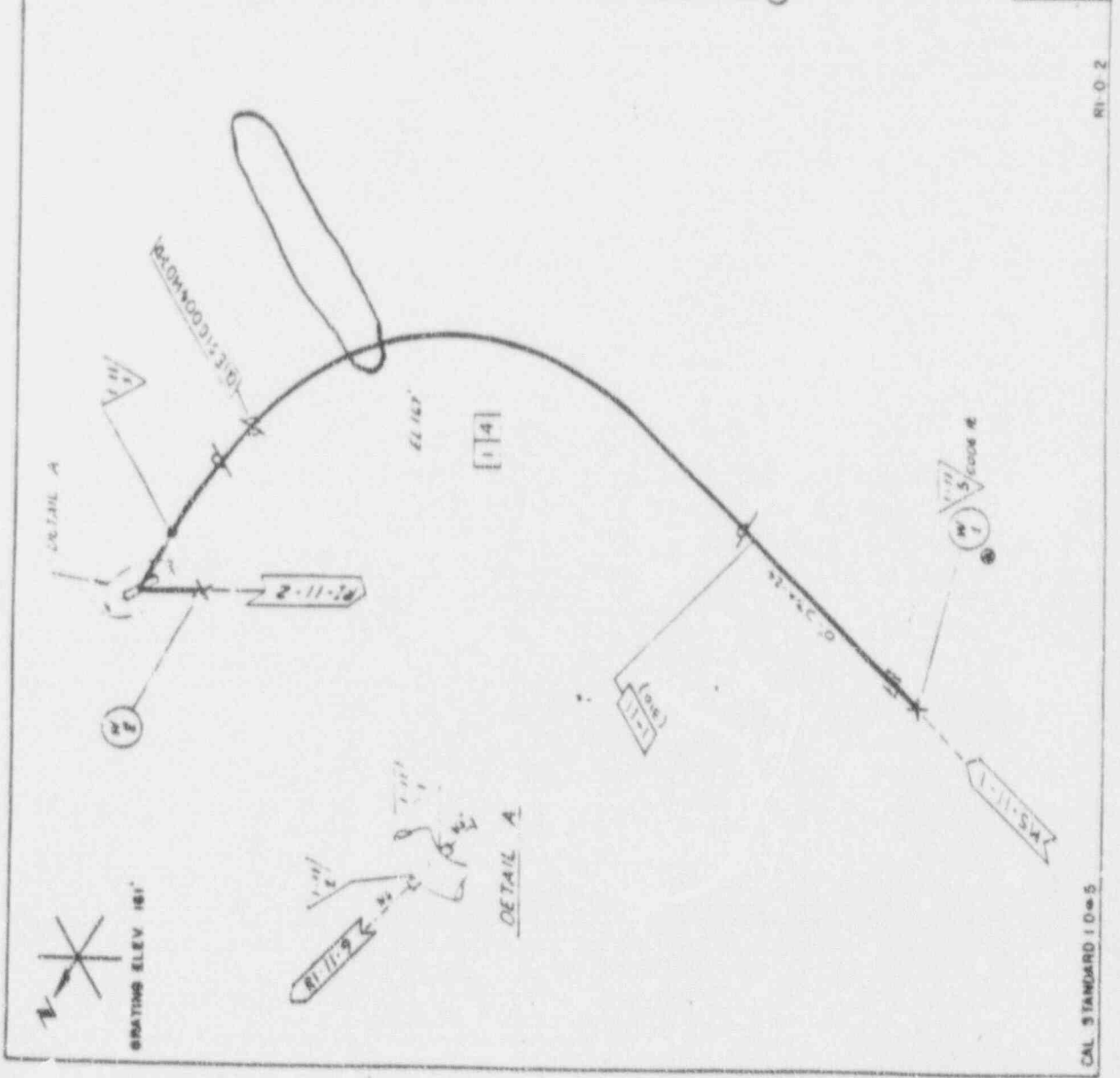
(G) PIPING MAINT. INSPECTION OR PENDING
 (H) GE RECTEL INTERFACE WELD

DATE: 11/11/01
 BY: [Signature]
 TITLE: [Title]

PROJECT: [Project Name]
 UNIT: [Unit Name]
 LOCATION: [Location]
 DRAWING NO.: [Drawing No.]
 SHEET NO.: [Sheet No.]
 SCALE: [Scale]

WELD NO WELD NO	WELD DESCR	CORR CAT	TYPE EXAM	EXAM TIME PERIOD	I.D. MARK CLAMP
W-1	"C"	BJ	UT	1	YES
1-H-3	"C"	BJ	UT	NOT CHOSEN	YES
W-2	"C"	BJ	UT	NOT CHOSEN	YES
W-1	"C"	BJ	MT	1	YES
1-H-3	"C"	BJ	PT	NOT CHOSEN	YES
W-2	"C"	BJ	MT	NOT CHOSEN	YES
HOTD HANGER	FC	VT 3		3	N/A
HOTD HANGER	FC	VT 4		3	N/A

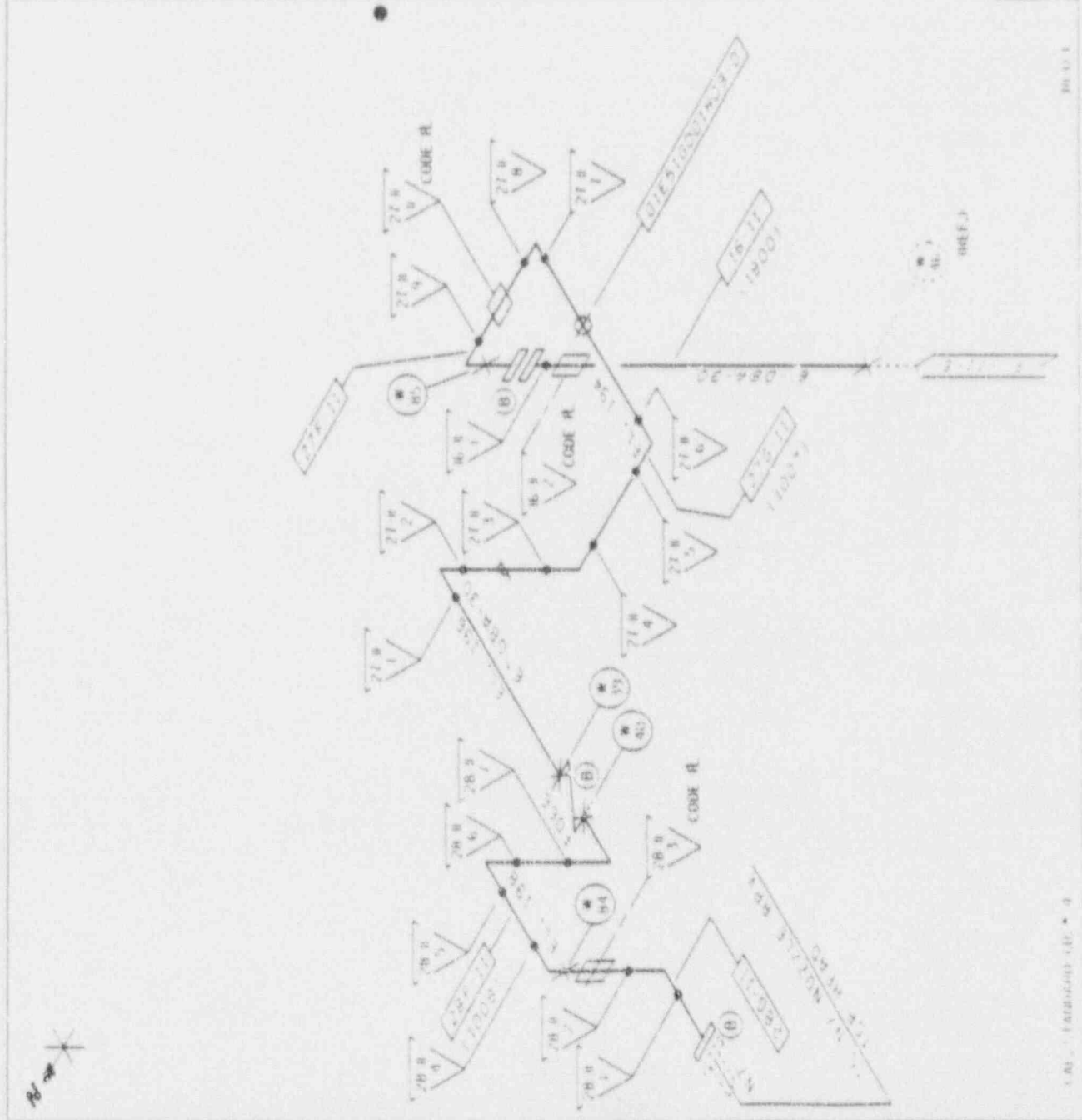
NOTE: "C" = STEEL INTERFACE WELD



MPBL GG-1 (JB-1)	OWNER 3B-77	IBSE NISO
	5 GRAUS	ATLANTA
	WSP # 004	DATE MAY
	P-4083B	RI-11
		SCALE 1/8"

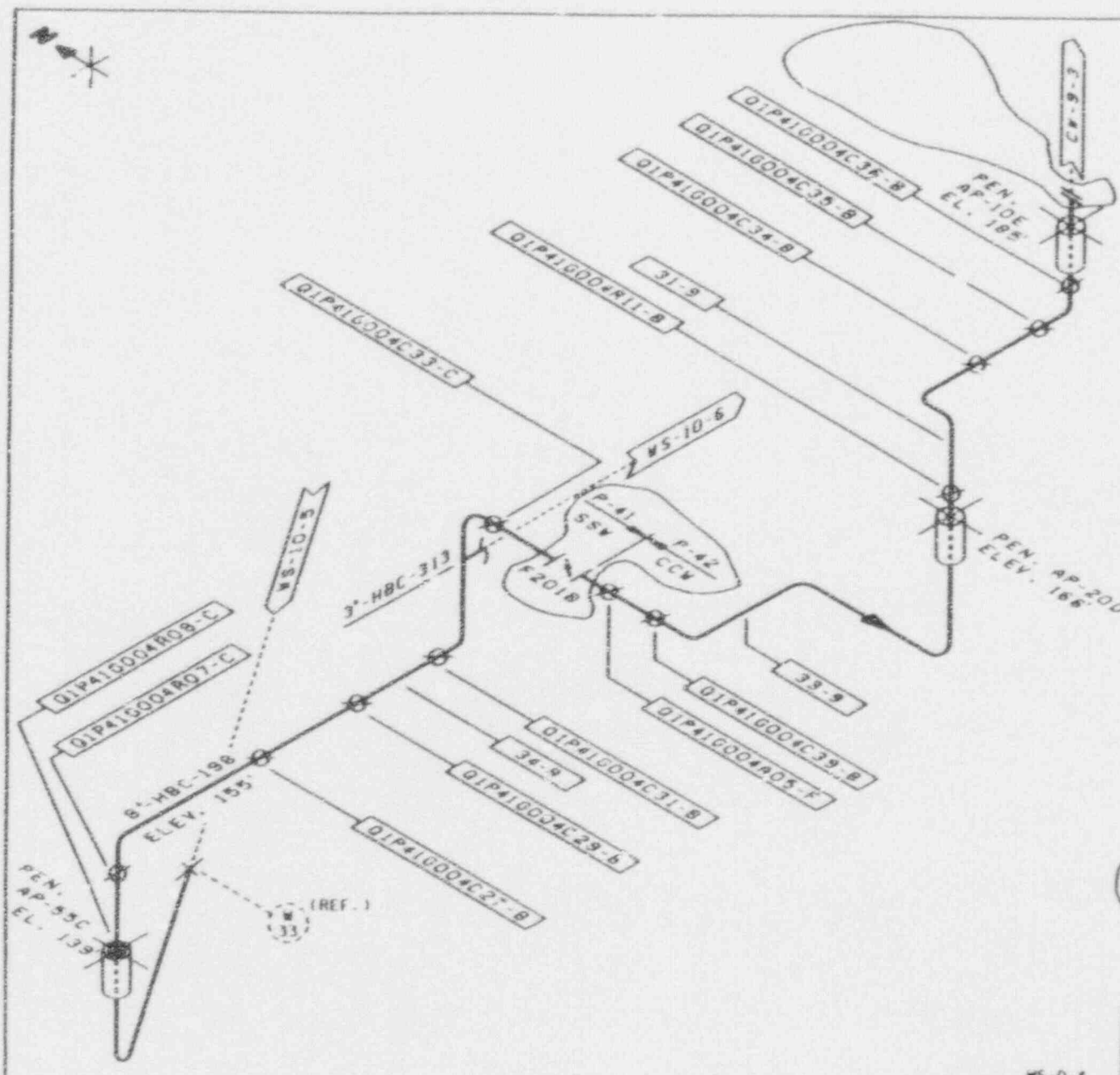
REF. NO.	FIELD DESIGN	CODE C.A.T.	TYPE EXAM.	EXAM. TIME PERIOD	ACCESS STATUS	GR. ACCESS COMP.
45600						
16-0-1	"C"	B.1	B.T.	3		YES
16-0-2	"C"	B.1	"T"	NOT CHOSEN		YES
27-0-9	"C"	B.1		NOT CHOSEN		YES
27-0-8	"C"	B.1	B.T.	NOT CHOSEN		YES
27-0-7	"C"	B.1	B.T.	NOT CHOSEN		YES
27-0-6	"C"	B.1	B.T.	NOT CHOSEN		YES
27-0-5	"C"	B.1	B.T.	NOT CHOSEN		YES
27-0-4	"C"	B.1	B.T.	NOT CHOSEN		YES
27-0-3	"C"	B.1	B.T.	NOT CHOSEN		YES
27-0-2	"C"	B.1	B.T.	NOT CHOSEN		YES
27-0-1	"C"	B.1	B.T.	NOT CHOSEN		YES
39	"C"	B.1	B.T.	3		YES
40	"C"	B.1	B.T.	5,3		YES
28-0-7	"C"	B.1	B.T.	NOT CHOSEN		YES
28-0-6	"C"	B.1	B.T.	NOT CHOSEN		YES
28-0-5	"C"	B.1	B.T.	NOT CHOSEN		YES
28-0-4	"C"	B.1	B.T.	NOT CHOSEN		YES
84	"C"	B.1	B.T.	NOT CHOSEN		YES
28-0-2	"C"	B.1	B.T.	NOT CHOSEN		YES
28-0-1	"C"	B.1	B.T.	NOT CHOSEN		YES

● REFERENCE RR-1-00000



3.47 130 130 130 130
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PROJECT: RR-1-00000
 MAP: A-1
 SCALE: 1:10000
 DATE: 10/1/50
 DRAWN BY: S. GARDNER
 CHECKED BY: P. HANCOCK
 APPROVED BY: P. HANCOCK



NPL NO.	WELD DESCR.	CODE CAT.	TYPE EXAM.	EXAM. TIME PERIOD	I.T. MARK COMPL.
LP410004					
R09-C	HANGER	FB	V.T.3	NOT CHOSEN	N/A
R07-C	HANGER	FB	V.T.3	NOT CHOSEN	N/A
C27-B	HANGER	FB	V.T.3	NOT CHOSEN	N/A
C29-B	HANGER	FB	V.T.3	NOT CHOSEN	N/A
C31-B	HANGER	FB	V.T.3	NOT CHOSEN	N/A
C33-C	HANGER	FB	V.T.3	NOT CHOSEN	N/A
A05-F	HANGER	FA	V.T.3	NOT CHOSEN	N/A
C39-B	HANG	'B	V.T.3	NOT CHOSEN	N/A
R11-B	HANGER	FB	V.T.3	3	N/A
C34-B	HANGER	FB	V.T.3	NOT CHOSEN	N/A
C35-B	HANGER	FB	V.T.3	NOT CHOSEN	N/A
C36-B	HANGER	FB	V.T.3	NOT CHOSEN	N/A
A05-F	WELD	• • •	V.T.3	3	N/A
C36-B	WELD	• • •	V.T.3	3	N/A
C29-B	WELD	• • •	V.T.3	3	N/A
R07-C	WELD	• • •	V.T.3	3	N/A

• ATTACHMENT WELD TO PRESSURE BOUNDARY
 • • DA, DB & DC

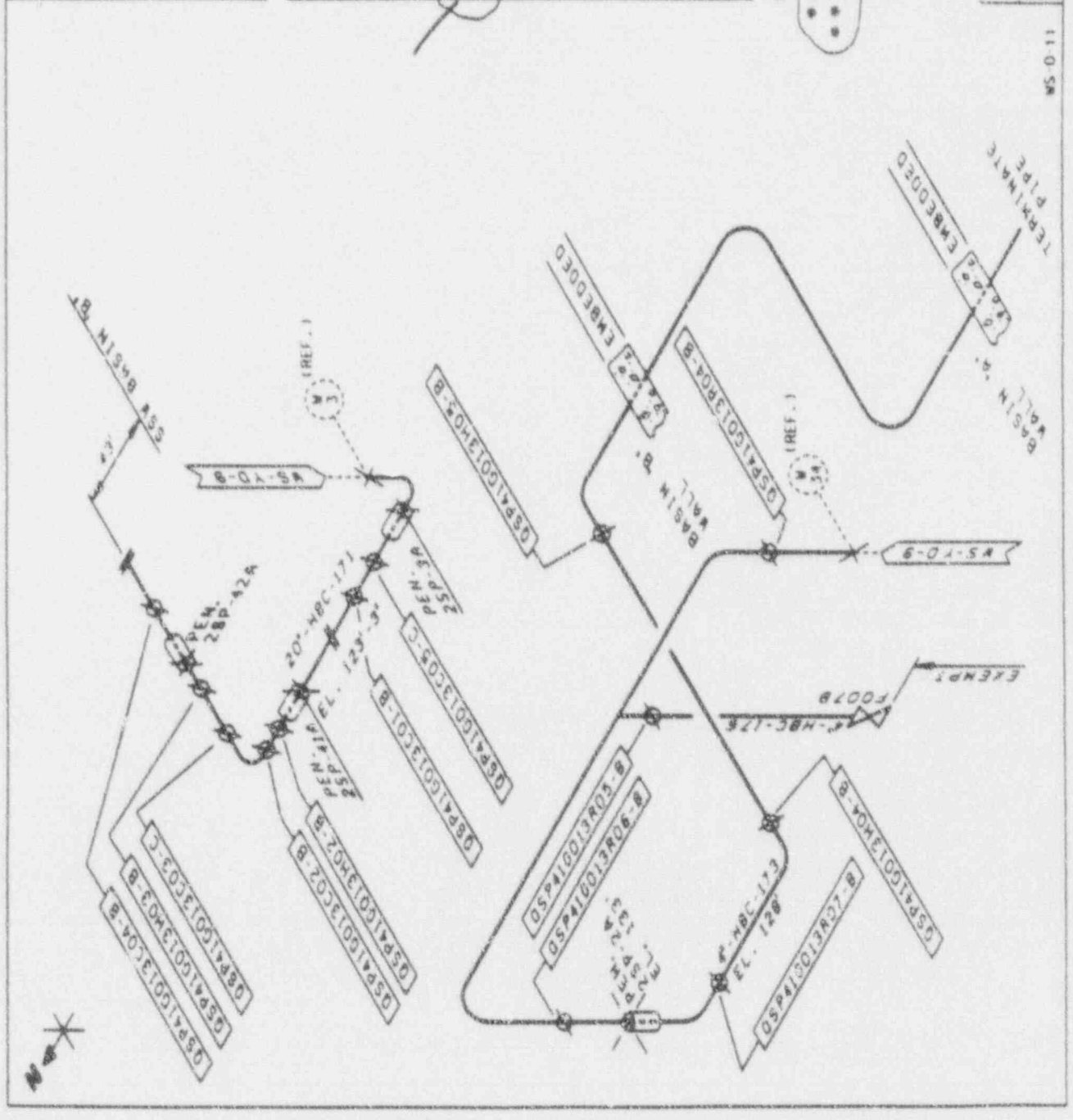
DCP-84/4076

PROJECT	MP & L GG-1 (JB-1)	MADE BY	11-30-01 R. DILL	I & SE NPL'S
LOCATION	REF DWG M 17580	REF P DWG	P-10618	ALABAMA 151 DWG NO WS-9
AUT. IN CH.				PAGE 1 OF 1

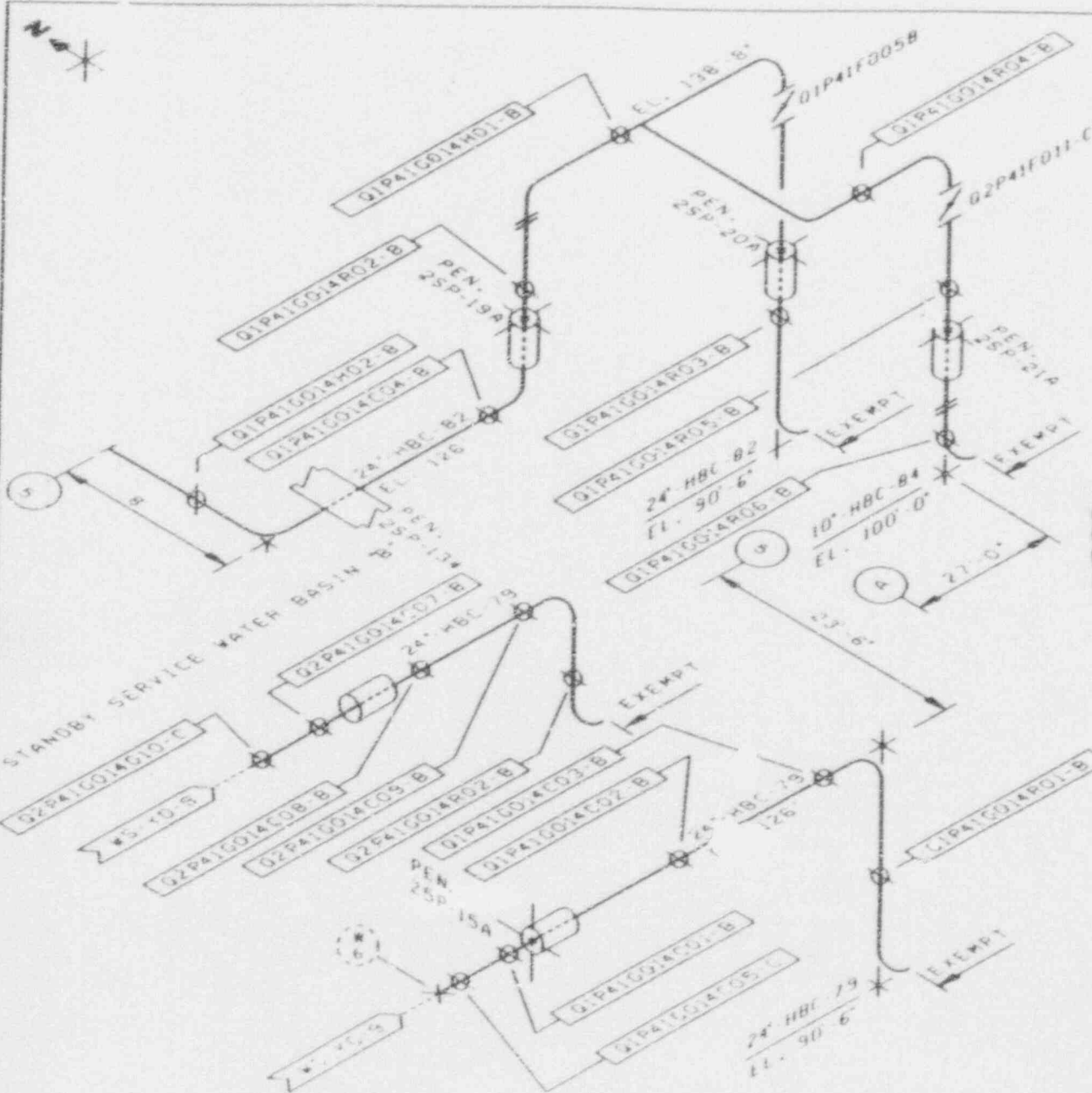
WS-0-4

WFL NO.	WELD DESIGN	COMP. CAT.	TYPE EXAM.	EXAM. TIME PERIOD	I.G. MARK COMPLY
SP41G013					N/A
C04-B	HANGER	FB	V.T.3	NOT CHOSEN	N/A
H03-B	HANGER	FB	V.T.3	2	N/A
C03-C	HANGER	FF	V.T.3	2	N/A
C02-B	HANGER	FB	V.T.3	NOT CHOSEN	N/A
H02-B	HANGER	FB	V.T.3	NOT CHOSEN	N/A
C01-B	HANGER	FB	V.T.3	NOT CHOSEN	N/A
R04-B	HANGER	FB	V.T.3	1	N/A
R06-B	HANGER	FB	V.T.3	NOT CHOSEN	N/A
R07-B	HANGER	FB	V.T.3	NOT CHOSEN	N/A
H04-B	HANGER	FB	V.T.3	NOT CHOSEN	N/A
H05-B	HANGER	FB	V.T.3	NOT CHOSEN	N/A
R05-B	HANGER	FB	V.T.3	NOT CHOSEN	N/A
C05-C	HANGER	FB	V.T.3	3	N/A
C03-C	WELD	FF	V.T.3	3	N/A
C05-C	WELD	FF	V.T.3	3	N/A

PROJECT: MFL B L GG-1 (JB-1)
 LOCATION: REF BANK M 2358K
 YARD: P-1061A
 DRAWN BY: J. B. SE...
 DATE: 01-21-84
 SHEET NO.: 10
 TOTAL SHEETS: 10
 PROJECT NO.: 11 X 11 B 317
 DRAWING NO.: 11 X 11 B 317



WS 0-11



MP# NO. P#1004	WELD DESCR.	CODE CAT.	TYPE EXAM.	EXAM. TIME PERIOD	I.D. MARK COMP.
HO1-B	HANGER	FB	V.T.3	NOT CHOSEN	N/A
HO2-B	HANGER	FB	V.T.3	NOT CHOSEN	N/A
HO4-B	HANGER	FB	V.T.3	NOT CHOSEN	N/A
RO2-B	HANGER	FB	V.T.3	NOT CHOSEN	N/A
CO4-B	HANGER	FB	V.T.3	NOT CHOSEN	N/A
RO3-B	HANGER	FB	V.T.3	NOT CHOSEN	N/A
RO5-B	HANGER	FB	V.T.3	NOT CHOSEN	N/A
RO6-B	HANGER	FB	V.T.3	NOT CHOSEN	N/A
RO1-B	HANGER	FB	V.T.3	NOT CHOSEN	N/A
CO3-B	HANGER	FB	V.T.3	NOT CHOSEN	N/A
CO2-B	HANGER	FB	V.T.3	NOT CHOSEN	N/A
CO1-B	HANGER	FB	V.T.3	NOT CHOSEN	N/A
CO5-C	HANGER	FB	V.T.3	3	N/A
CO5-C	WELD *	**	V.T.3	3	
CO6-C	WELD *	**	V.T.3	3	
CO1-C	HANGER	FB	V.T.3	3	
CO7-B	HANGER	FB	V.T.3	3	slut
CO8-B	HANGER	FB	V.T.3	3	slut
RO2-B	HANGER	FB	V.T.3	3	slut

DCP = 82/5020

* ATTACHMENT WELD TO PRESSURE BOUNDARY
 ** DA, DB AND DC

PROJECT: MP & L CG 1 JB-B

SYSTEM: STANDBY SERV WTR

LOCATION: YARD

REF DWG: M 2358L

DWN BY: G2 J9 84
 R. DRL

REF P DWG: P 1061A

GE-A & ES

IS/DWG NO: WS YD

PAGE: 1 OF 1

DATE: 1/29/84

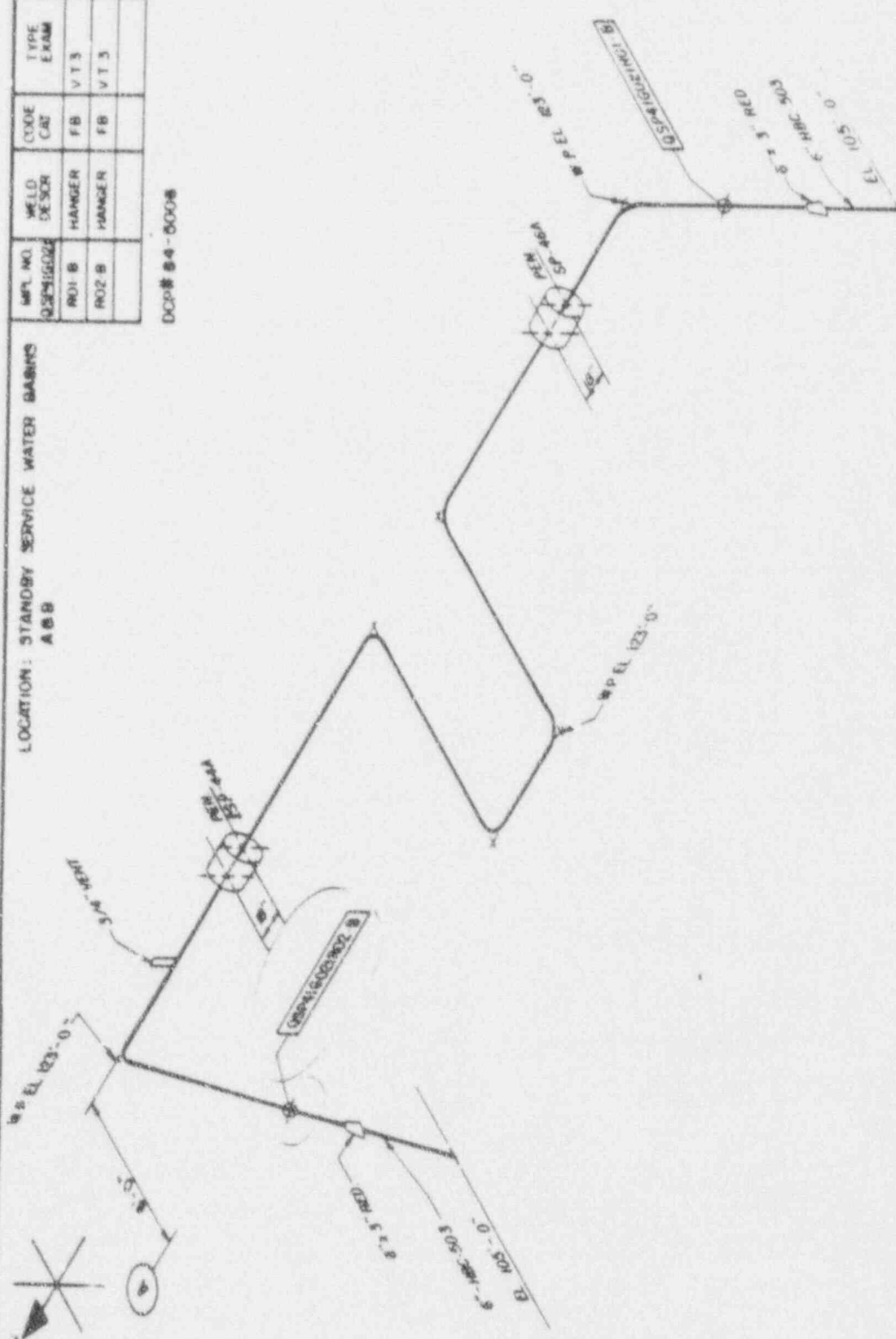
REV: 3

SH NO: 8

LOCATION: STANDBY SERVICE WATER MAINS
A & B

WFL NO.	WELD DESCR	CODE CAT	TYPE EXAM	TYPE EXAM PERIOD	ID MARK COMP.
RO1 B	HANGER	FB	VT3	3	N/A
RO2 B	HANGER	FB	VT3	3	N/A

DCS 84-0008



WS YD-12
WAS ADDED ON REV 1



PROJECT	MP&B	GG-1 (JB-1)	DATE	11/14/12
SYSTEM	STANDBY	WATER	BY	W. J. B.
LOCATION	STANDBY	WATER	DATE	11/14/12
SCALE	AS SHOWN			
REVISION	NO.	DESCRIPTION	DATE	
	1	WS YD-12 WAS ADDED ON REV 1	11/14/12	

INSERVICE INSPECTION SUMMARY REPORT

FOR

GRAND GULF NUCLEAR STATION

SECTION IV

RELIEF REQUEST

RELIEF REQUEST NUMBER

SUBJECT

I-00004 Rev. 2	Reactor Pressure Vessel Seam A-A
I-00005 Rev. 1	Reactor Pressure Vessel Seam A-B
I-00008 Rev. 2	Peripheral CRD's
I-00010 Rev. 4	Limited Ultrasonic Access for Piping Welds
I-00013 Rev. 2	Inservice Inspection RPV Nozzle Inner Radii
I-00014 Rev. 0	Inservice Inspection of Reactor Pressure Nozzle to Shell Welds
I-00015 Rev. 1	Inservice Inspection of Reactor Pressure Vessel Welds
I-00018 Rev. 1	Pressure Testing of Category B-P Pressure Retaining Components
I-00019 Rev. 0	Inservice Inspection of Pressure Vessel Items
I-00022 Rev. J	Inservice Inspection of Reactor Pressure Vessel Support Skirt Surfaces

GRAND GULF NUCLEAR STATION
UNIT 1

REQUEST FOR RELIEF NO. I-00004 REVISION 2

INSERVICE INSPECTION
RPV LOWER HEAD-TO-SHELL WELD A-A

- I. Component: The lower one-half of Unit 1 reactor pressure vessel lower head-to-shell weld A-A.
- II. Code: The Unit 1 reactor pressure vessel was designed and fabricated to ASME Section III, Class 1 requirements. Applicable inservice inspections are to be performed in accordance with the ASME Section XI, 1977 Edition with addenda through and including Summer 1979 Addenda.
- III. Code requirements: The upper portion of this weld is a circumferential shell weld and is required to be volumetrically examined for essentially 100% of the weld length once during the first 10-year inservice inspection interval, in accordance with ASME Section XI, Table IWB-2500-1, Category B-A, Item B1.11. The lower portion of this weld is a circumferential head weld and is thus required to be volumetrically examined for essentially 100% of the weld length, once every 10-year inservice inspection interval, in accordance with ASME Section XI, Table IWB-2500-1, Category B-A, Item B1.21.
- IV. Information to support the determination that the code requirement is impractical: The A-A weld joins the lowest ring of circumferential shell plates on the reactor pressure vessel (RPV) to the RPV bottom head and is located 80.66 inches above vessel zero. The bottom of the core is located at 216.31 inches above vessel zero. The weld is approximately 135.65 inches below the bottom of the core. In addition, the weld is approximately 91.2 inches below the centerlines of the recirculation pump suction nozzles (N1 nozzles) and approximately 98.4 inches below the centerlines of the recirculation pump discharge nozzle (jet pump suction nozzles-N2).
- The upper portion of the A-A weld is a typical circumferential shell weld. Automated ultrasonic examination procedure and equipment have been developed which will permit the required inservice volumetric inspections to be performed remotely. The lower portion of the A-A weld is a circumferential head weld. Due to the curved geometry of this portion of the weld, automated means for ultrasonic examination of this portion of the weld have not been developed; thus, this portion of the weld must be ultrasonically examined by manual procedure.

GRAND GULF NUCLEAR STATION
UNIT 1

REQUEST FOR RELIEF NO. I-00004 REVISION 2

(Continued)

INSERVICE INSPECTION
RPV LOWER HEAD-TO-SHELL WELD A-A

IV. Information to support the determination that the code requirement is impractical:
(continued)

The containment design of Grand Gulf Nuclear Station Unit 1 is designated Mark III. A feature of this design is that an annulus space of approximately 30 inches width exists between the reactor vessel outer circumference and the biological shield wall inner circumference. The examiners must enter this annulus space to perform manual ultrasonic examination of the A-A weld. Contact radiation levels on, and area radiation levels near, the recirculation inlet and outlet nozzles, recorded at other BWR plants during the first three to six years of reactor operation have been in the range of 200 mR/hr to 2000 mR/hr. We anticipate the area radiation levels at the A-A weld to be approximately the same as those near the nozzles due to their proximity to each other, the constricted space in annulus, the proximity to the core, which is treated as an area source, and possible reflection from the metallic insulation on the inner surface of the biological shield wall. For purposes of estimating exposure, we have assumed an area radiation level at the A-A weld of 800 mR/hr at the end of the first 40 month inservice inspection period. The level is expected to increase as the plant ages.

Due to the large amount of weld area required to be examined and the nature of the radiation sources in the area, shielding is not practical. Such shielding would need to shield the entire body, would be heavy and difficult to move and would require significant exposure to erect and move.

Based on the results of the examinations performed during the preservice inspections, it is estimated that 16 man-hours will be required to perform the required manual ultrasonic examinations. This time does not include the time required for personnel to enter and exit the annulus space; however, it does include an allowance for the extra time required by personnel due to wearing protective clothing and for mapping three recordable, but not reportable indications, which were found during preservice inspections.

We estimate that the manual ultrasonic examination of the A-A weld will require approximately 12,800 millirem of personnel exposure. Entry and exit of the annulus region plus support personnel exposure during the examinations is estimated to require an additional 1,700 millirem for a total estimated exposure of 14,500 millirem.



GRAND GULF NUCLEAR STATION
UNIT 1

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REQUEST FOR RELIEF NO. I-00004 REVISION 2

(Continued)

INSERVICE INSPECTION
RPV LOWER HEAD-TO-SHELL WELD A-A

- V. Specific relief requested: Permission is requested to delete all ultrasonic inservice inspections of the lower one-half (Category B-A, Item B1.21 requirement) of the entire circumference of the A-A weld, except as noted under alternate examinations.
- VI. Reasons why relief should be granted: Relief from the ultrasonic inservice inspections of the A-A weld is requested for the following reasons.
1. The upper one-half (Category B-A, Item B1.11) of the A-A weld was examined by remote ultrasonics as a preservice inspection in accordance with ASME Section XI and no recordable indications were found.
 2. The lower one-half (Category B-A, Item B1.21) of the A-A weld was examined by manual ultrasonics as a preservice inspection in accordance with ASME Section XI and a total of three recordable, but not reportable, indications were found. The examination report shows that the indications are outside the heat affected zone of the weld.
 3. The entire reactor pressure vessel was subjected to a hydrostatic pressure test in accordance with ASME Section III.
 4. The upper one-half of the A-A weld will be examined by remote ultrasonics during the first inservice inspection interval in accordance with the requirements of ASME Section XI.
 5. The entire reactor pressure vessel will be subjected to a system leakage test at each refueling outage and to a system hydrostatic test each inservice inspection interval in accordance with the requirements of ASME Section XI.
- VII. Alternate Testing: Instead of examining the entire lower one-half of the A-A weld, we propose to perform manual ultrasonic examinations only of the section of the weld in which the three recordable indications were found (approximately a 12 inch by 12 inch surface area), once per inservice inspection interval. The manual examinations will be performed to the extent possible in consideration with the discussed limitations. With the vessel support skirt being located 6 inches below the A-A seam, the maximum obtainable "W"



GRAND GULF NUCLEAR STATION
UNIT 1

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REQUEST FOR RELIEF NO. I-00004 REVISION 2

(Continued)

INSERVICE INSPECTION

RPV LOWER HEAD-TO-SHELL WELD A-A

VII. Alternate Testing:
(Continued)

dimension is also 6 inches, this prevents both the 60° and 45° T-Scans from examining the total weld volume (see figure 2). The three recordable indications were recorded in the base material of the head utilizing the 0° scan. We will monitor the size of the indications and, if any of the indications appears to be increasing in size, we will evaluate the indications and take appropriate actions, which may include ultrasonic examinations of other sections of the weld. The anticipated exposure for performing the alternative examination would be less than 500 millirem.



GRAND GULF NUCLEAR STATION
UNIT 1

PAGE 4A of 6

REQUEST FOR RELIEF NO. I-00004 REVISION 2
(Continued)

INSERVICE INSPECTION
RPV LOWER HEAD-TO-SHELL WELD A-A

VIII. NRC Discussion
Statements

The following statements, conclusions, recommendations, etc. have been adopted by the NRC and are to be considered part of this request-for-relief's approval:

Since a 12" by 12" patch of the A-A weld can be examined with manual volumetric methods without excessive radiation exposure and since monitoring an additional 12" by 12" patch where no flaws had occurred prior to PSI would give a measure of the condition of the remainder of the weld, we recommend that an additional 12" by 12" patch of the A-A weld be volumetrically examined. The second or reference patch should be at least 90° from the patch containing the flaws.

Therefore, relief is recommended as requested provided:

- (a) The upper portion of the A-A weld is volumetrically examined over 100% of the weld length,
- (b) The manual volumetric examinations, over a 12" by 12" area, of the reportable defects and a reference patch in the lower portion of the A-A weld are performed and evaluated, and
- (c) the Code-required system pressure tests are performed.

The requested relief has been recommended based on the impracticality of conducting manual ultrasonic examinations in radiation fields estimated to exist in the examinations area. If actual radiation fields are lower, for example if the core were removed, more extensive examinations should be conducted.

It is further recommended that improvements in automated ultrasonic inspection technology be monitored and that the entire length of the lower portion of the A-A weld be examined if techniques become available during the 10-year interval.



GRAND GULF NUCLEAR STATION
UNIT 1

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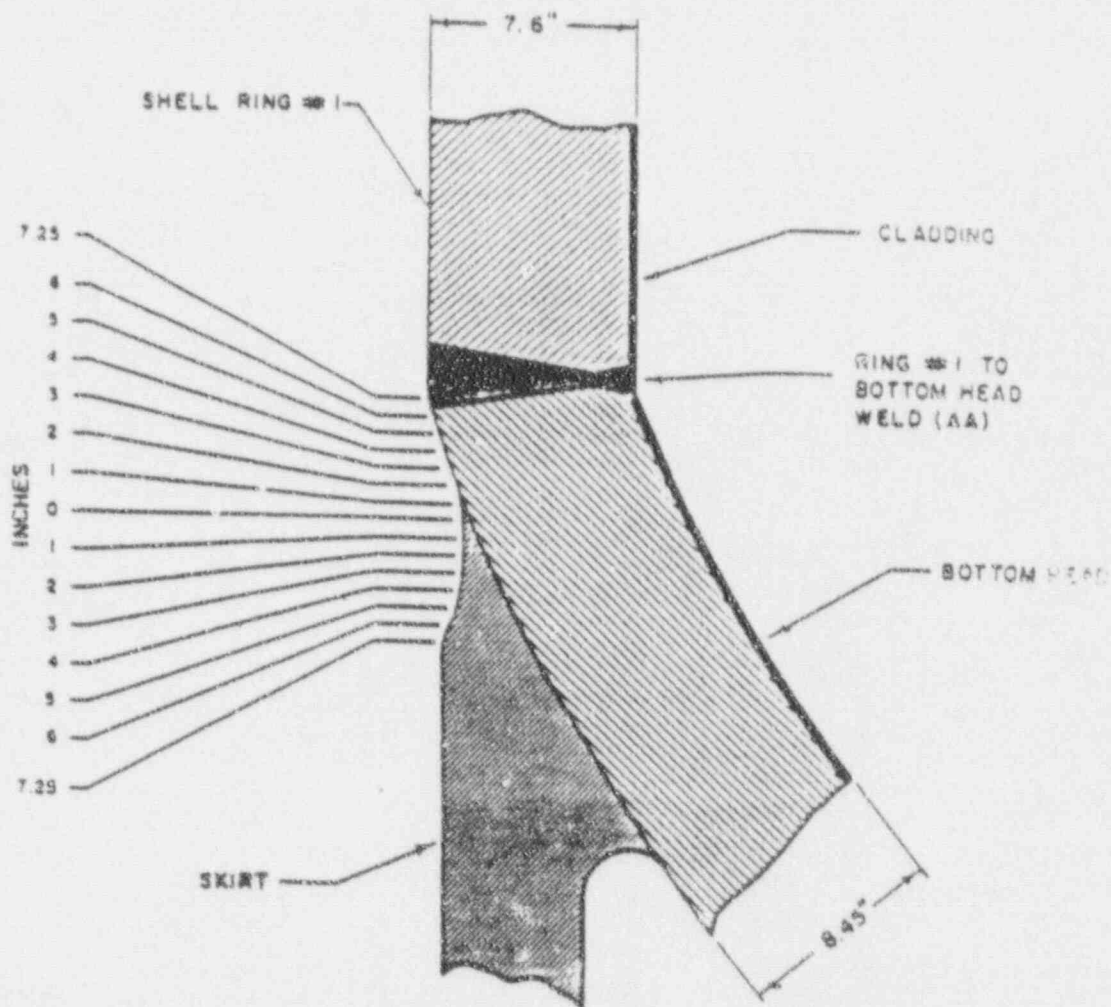
REQUEST FOR RELIEF NO. I-00004 REVISION 2
(Continued)

INSERVICE INSPECTION
RPV LOWER HEAD-TO-SHELL WELD A-A

NRC Discussion
For Revision 2:

The staff concludes that its previous conclusions regarding this relief request have not changed because the manual examination of the lower portion of the weld to the maximum extent possible, considering physical limitations of the vessel skirt, will result in a significant portion of the weld being examined from the lower side and all the weld being examined from the upper side. Any increase in the size of indications of defects would be evaluated and appropriate actions would be taken, which may include more extensive ultrasonic examinations. The staff further concludes that compliance with the specific requirements of Section XI would result in hardship or unusual difficulties without a compensating increase in the level of quality and safety. Therefore, relief is granted as requested.

GRAND GULF UNIT ONE
BOTTOM HEAD TO RING #1



Percentage of Code Required Volume (CRV) that will be examined being planned volumetric methods for Seam AA:

Upper Portion: 100% UT by remote ultrasonics.

Lower Portion: 1.43% UT by Manual ultrasonics due to perservice of three (3) Recordable Indications.

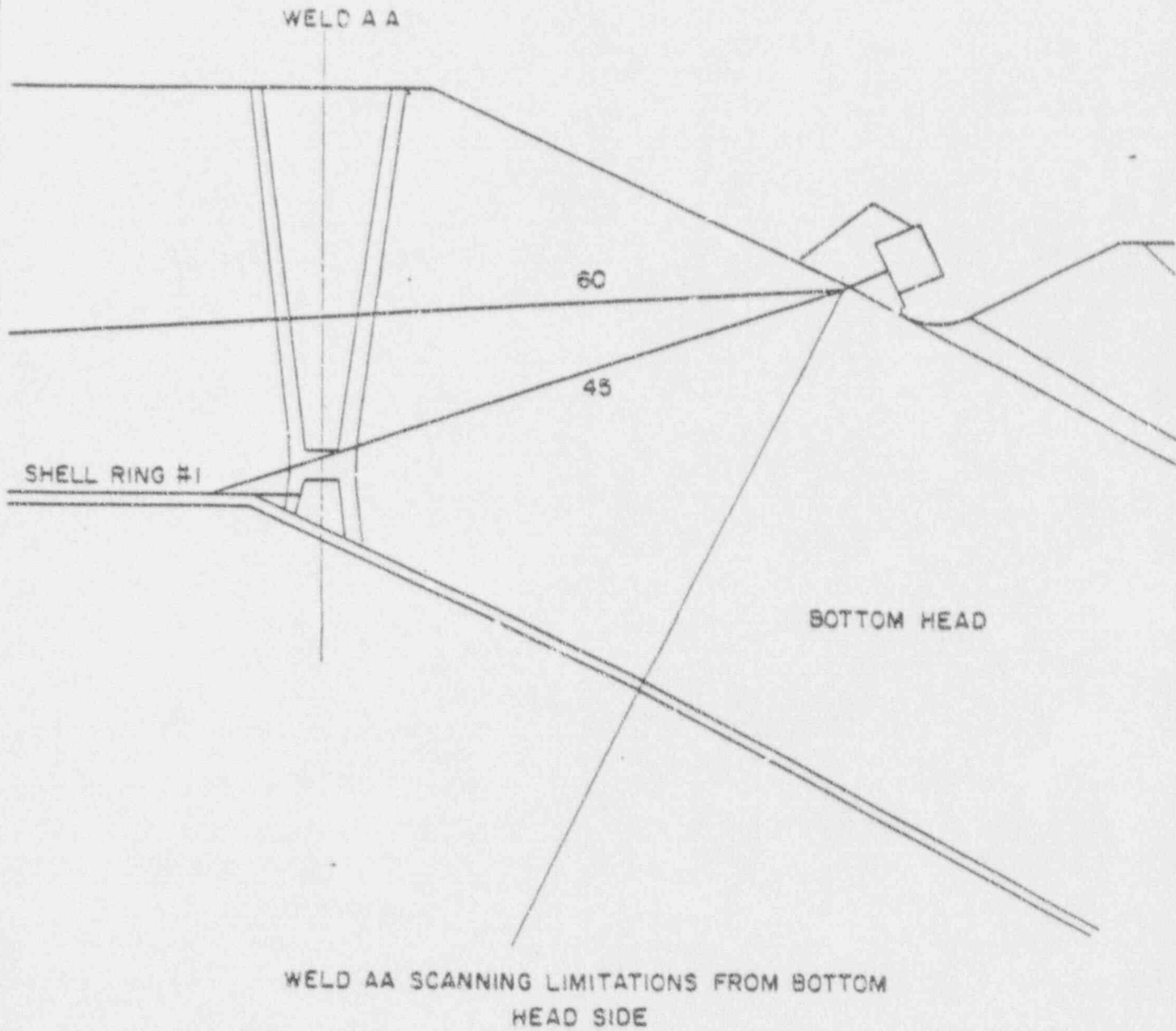


FIGURE 2



GRAND GULF NUCLEAR STATION
UNIT 1

REQUEST FOR RELIEF NO. I-00005

INSERVICE INSPECTION
RPV SEAM WELD A-B LOWER HALF

- I. Component: The lower half of seam weld AB of the Unit 1 reactor pressure vessel (See Sketch #1).
- II. Code: The Unit 1 reactor pressure vessel was designed and fabricated to ASME Section III, Class 1 requirements. Applicable inservice inspections are to be performed in accordance with the ASME Section XI, 1977 Edition with addenda through and including Summer 1979 Addenda.
- III. Code requirements: Weld seam A-B is a circumferential shell weld and its required to be volumetrically examined for essentially 100% of the weld length, once during the first 10 year inservice inspection interval, in accordance with ASME Section XI, Table IWB-2500-1, Category B-A, Item B1.11.
- IV. Information to support the determination that the code requirements are impractical:

The circumferential weld AB joins together ring 1 and ring 2 of the reactor pressure vessel (RPV) and is located 210.66 inches above vessel zero. The bottom of the core is located at 215.31 inches above vessel zero. The weld is approximately 4.65 inches below the bottom of the core. The centerlines of the recirculation pump discharge nozzles (jet pump suction nozzles-N2) and the recirculation pump suction nozzles (N1 nozzles) are located approximately 30.96 inches and 37.92 inches respectively below the weld.

The upper portion of seam AB is a typical circumferential shell weld. An automated ultrasonic examination procedure and equipment have been developed which will permit the required inservice volumetric inspections to be performed remotely.

However, due to the nozzle interference with the automated ultrasonic equipment and the irregular geometry on the lower portion of weld AB, remote examination is not possible. Therefore, this portion of the weld must be examined by the manual procedure.

The containment design of Grand Gulf Nuclear Station Unit 1 is designated Mark III. A feature of this design is an annulus space of approximately 30 inches width which exists between the reactor vessel outer circumference and the biological shield wall inner circumference. The examiners must enter this annulus space to perform the manual ultrasonic examination of weld AB. Since we have no actual radiation



GRAND GULF NUCLEAR STATION
UNIT 1

REQUEST FOR RELIEF NO. I-00005
(Continued)

INSERVICE INSPECTION
RPV SEAM WELD A-B LOWER HALF

IV. Information to support the determination that the Code requirements are impractical:
(Continued)

data from GGNS, we are basing our estimates on data from other plants. The information we received from the other BWR plants indicated that seam AB is located in a radiation field of approximately 8-10 R/hr. This is a conservative estimate for the end of the first fuel cycle (first re-fueling outage). The actual exposures will probably be less; however, the area and contact readings can be expected to rise as the plant ages.

Based on the results of the preservice inspections, it is estimated that 16 man-hours will be required to perform the manual ultrasonic examinations of weld AB. This time also does not include the time required for personnel to enter and exit the annulus space; however, it does include an allowance for the extra time required by personnel due to wearing protective clothing and for mapping four recordable, but not reportable indications, which were found during the preservice examination.

As stated earlier, personnel performing manual ultrasonic examinations on this particular weld will be subject to very high area radiation fields, in the neighborhood of 8-10 R/hr. Even assuming GGNS daily and weekly administrative whole body limits are waived and the inspectors are allowed to accumulate their entire GGNS quarterly administrative limit of 2500 MRem in one dose, personnel stay times in this area would be less than 20 minutes.

We estimate that the manual ultrasonic examination of the AB weld will require approximately 128,000 millirem of exposure per 10-year interval or 42,666 millirem each inspection period. The calculations do not include exposure to support personnel.

Due to the large amount of weld area required to be examined and the nature of the radiation sources in the area, temporary shielding is not practical. Such shielding would need to protect the entire body, would be heavy and difficult to move and would require significant exposure to erect in and remove from the annulus region. If the shielding were worn on the body (lead vests, for example), the extra weight of the shielding would slow personnel entry and exit, thus negating any advantages.



GRAND GULF NUCLEAR STATION
UNIT 1

REQUEST FOR RELIEF NO. I-00005

(Continued)

INSERVICE INSPECTION
RPV SEAM WELD A-B LOWER HALF

- V. Specific relief requested: Permission is requested to delete all ultrasonic inservice inspection on the lower one-half (Category B-A Item B1.11 requirements) of the entire circumference of the AB weld, except as noted under alternate examinations.
- VI. Reasons why relief should be granted: Relief from ultrasonic inservice inspection of weld AB is requested for the following reasons:
1. The entire reactor pressure vessel was subjected to a hydrostatic pressure test in accordance with ASME Section III.
 2. The entire reactor pressure vessel will be subjected to a system leakage test at each refueling outage and to a system hydrostatic test each inservice inspection interval in accordance with the requirements of ASME Section XI.
 3. The upper one-half (Category B-A, Item B1.11) of the AB weld was examined by remote ultrasonics as a preservice inspection in accordance with ASME Section XI and 13 recordable, but not reportable, indications were found.
 4. The lower one-half (Category B-A, Item B1.11) of the AB weld was examined by manual ultrasonics as a preservice inspection in accordance with ASME Section XI and a total of four recordable, but not reportable, indications were found. These indications were laminar reflectors in the base metal and are located outside the heat affected zone of the weld.
 5. Based on the information we received from other BWR plants, we have estimated that the manual ultrasonic examination on weld AB could require as many as 48 examiners.
 6. Weld AB will be examined by remote ultrasonics from the #2 ring side of the weld during the first inservice inspection interval (1st 10 years). It is not practical to perform a remote ultrasonic examination from the #1 ring side of the weld due to nozzle interference. (See attached drawing.) However, a minimum of 70% coverage of the weld will be attained with the 0°, 45°, 60° transducers scanning from the #2 ring. Full coverage is not possible with the remote equipment because of the seam configuration.



GRAND GULF NUCLEAR STATION
UNIT 1

REQUEST FOR RELIEF NO. I-00005

(Continued)

INSERVICE INSPECTION
RPV SEAM WELD A-B LOWER HALF

VII. Alternative testing:

Instead of examining the entire lower one-half of the AB weld, we propose to perform manual ultrasonic examinations only on the section of the weld in which the four recordable indications were found (approximately a 13 inch by 22 inch surface area), once per inservice inspection interval. We will monitor the sizes of the indications and, if any of the indications appear to be increasing in size, we will evaluate the indications and take appropriate action, which may include ultrasonic examinations of other sections of the weld. The anticipated exposure for performing these alternative examinations would be less than 4600 millirem.

VIII. NRC Discussion Statements

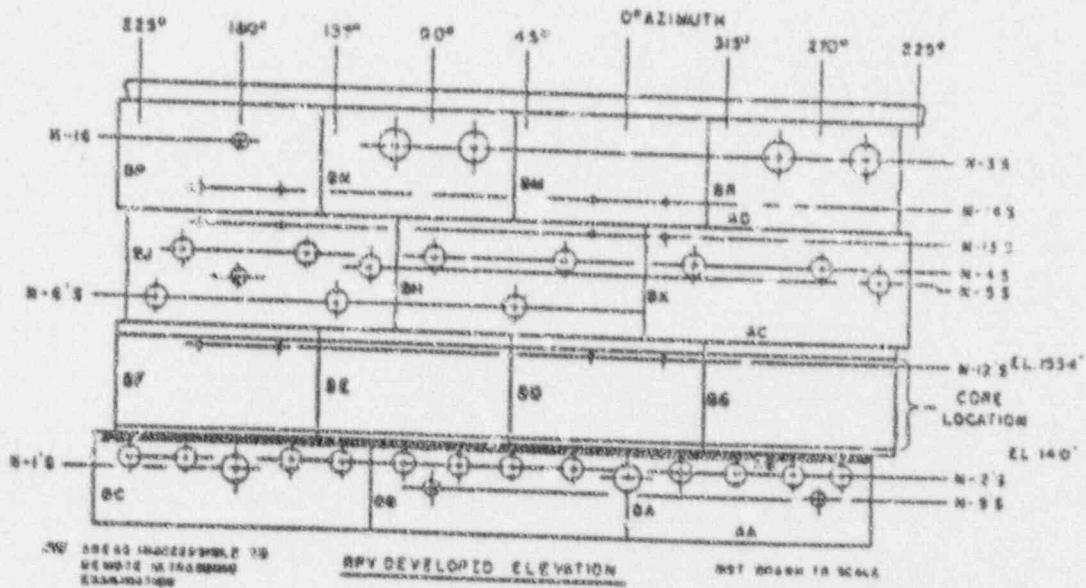
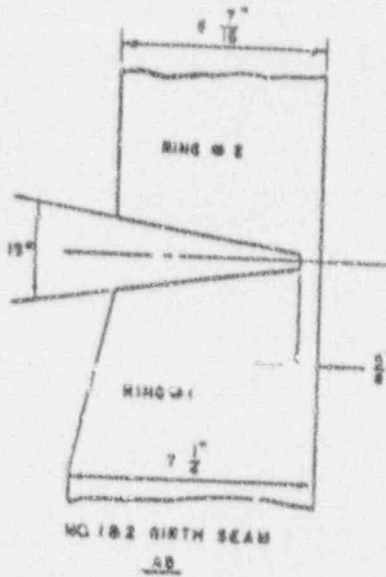
The following statements, conclusions, recommendations, etc. have been adopted by the NRC and are to be considered part of this request-for-relief's approval:

Therefore, relief is recommended as requested provided:

- (a) the upper portion of the A-B weld is volumetrically examined over 100% of the weld length,
- (b) The manual volumetric examinations of the reportable defects in the lower portion of the A-B weld are performed and evaluated, and
- (c) the Code-required system pressure tests are performed.

The requested relief has been recommended based on the impracticality of conducting manual ultrasonic examinations in radiation fields estimated to exist in the examination area. If actual radiation fields are lower, for example if the core were removed, more extensive examinations should be conducted.

It is further recommended that improvements in automated ultrasonic inspection technology be monitored and that the entire length of the lower portion of the A-B weld be examined if techniques become available during the 10-year interval.



Percent of Code Required Volume (CRV) that will be examine using planned volumetric methods for SEAM "AB":

Upper Portion: 100% UT by remote ultrasonics.

Lower Portion: 2.62% UT by manual ultrasonics due to four (4) PSI Recordable Indications.

GRAND GULF NUCLEAR STATION
UNIT 1

RELIEF REQUEST NO. I-00008 REVISION 2

PAGE 1 OF 5

INSERVICE INSPECTION
OF CONTROL ROD DRIVE AND INCORE HOUSING WELDS & FLANGE BOLTING

- I. Component: Peripheral control rod drive housing welds (tube-to-tube, tube-to-flange) and bolting located on CRD housings.
- II. Code: These portions of the CRD and in-core housing were designed and fabricated to the ASME Section III, Class 1 requirements. Applicable inservice inspections are to be performed in accordance with ASME Section XI, 1977 Edition through and including Summer 1979 Addenda.
- III. Code requirements:
1. Welds located in 10% of the peripheral CRD housings require surface examination (dye penetrant) during each ten-year inservice inspection interval in accordance with ASME Section XI, Table IWB-2500-1, Examination Category B-0.
 2. Pressure retaining bolting for the flange-to-flange joints, located on the CRD and incore housings, are required to be visually examined (VT-1) once every ten-year inspection interval in accordance with ASME Section XI, Table IWB-2500-1, Examination Category B-G-2.
- IV. Information to support the determination that the code requirements are impractical: The weld areas and bolting are not accessible for inspection unless the control rod drive (CRD) support structures removed. A 360 degree surface examination cannot be accurately accomplished from the outside, due to interference from the adjacent CRD housings. Inspection of the weld from the

GRAND GULF NUCLEAR STATION
UNIT 1

RELIEF REQUEST NO. I-00008 REVISION 2

PAGE 2 OF 5

INSERVICE INSPECTION
OF CONTROL ROD DRIVE AND INCORE HOUSING WELDS & FLANGE BOLTING

- IV. Information to support the determination that the code requirements are impractical (continued):
- inside of the CRD housing would require that the control rod drive mechanism be removed, which could result in damage to the drive. With removal of the drive, a small amount of reactor water would escape to the CRD cavity area, possibly causing contamination of personnel and equipment. The time frame associated with the CRD support structure removal and CRD mechanism would be approximately six (6) man hours per drive. Dosage received by personnel in this interval cannot justify the inspection process to possibly find a fault which could be discovered by excessive leakage in the drywell sump monitored per Operating License Manual (Technical Specification) limits in effect.
- V. Specific relief requested:
- Permission is requested to exempt from inservice inspection, the peripheral CRD housing welds (tube-to-tube, tube-to-flange), the eight (8) bolts associated with each flange of 193 CRD housings and the four bolts associated with each flange of 58 incore housings.
- VI. Reasons why relief should be granted:
- Request for exemption from inservice inspection should be granted for the following reasons:
1. The peripheral CRD housing welds have been examined by radiography and liquid penetrant methods and have been hydrostatic tested in accordance with ASME Section III code requirements.

GRAND GULF NUCLEAR STATION
UNIT 1

RELIEF REQUEST NO. I-00008 REVISION 2

PAGE 3 OF 5

INSERVICE INSPECTION
OF CONTROL ROD DRIVE AND INCORE HOUSING WELDS & FLANGE BOLTING

- VI. Reason why relief should be granted (continued):
2. All incore and CRD housing bolting has been examined in accordance with the requirements of ASME Section III, which exceed the Section XI (VT-1) visual examination requirements.
 3. The welds and bolting will be subject to a system leakage test (IWB-5221) each refueling outage and a hydrostatic test (IWB-5222) once each ten-year inservice inspection interval per the requirements of ASME Section XI.
 4. If the welds and/or the bolts fail while in operation, the maximum leakage rate, by calculation, will occur at at the peripheral CRD housing tube-to-flange weld. The maximum calculated leak rate is to 681 gpm. By criteria established in Subarticle IWB-1200, "exemptions by make up capacity", the normal make up capability for GGNS is 878 gpm, which exceeds the calculated maximum leakage.
 5. Leak detection is provided with the leakage detection system, with continuous monitoring in the control room.
 6. The CRD housing supports would prevent ejection of the housings in case of total failure of the welds or bolts.

GRAND GULF NUCLEAR STATION
UNIT 1

RELIEF REQUEST NO. I-00008 REVISION 2

PAGE 4 OF 5

INSERVICE INSPECTION
OF CONTROL ROD DRIVE AND INCORE HOUSING WELDS & FLANGE BOLTING

- VI. Reasons why relief should be granted (continued):
7. Removal of the control rod drive support structure would result in hardships with no compensatory increase in the level of quality and safety.
- VII. Alternate testing: None

NOTE: A similar request for relief from preservice inspection requirements was accepted by NRC in GGNs Safety Evaluation Report, Supplement #2.

- VIII. NRC discussion statements:
- The following statements, conclusions, recommendations, etc. have been adopted by the NRC and are to be considered part of this request-for-relief's approval.
- If it becomes necessary to remove the CRD support structure in conjunction with other maintenance activities, it appears prudent to conduct surface examination of the accessible portion of housing welds and visual examination of the bolting. Correspondingly, if a CRD mechanism were removed for other purposes, volumetric examination of the housing welds should be conducted.
- Therefore, relief is recommended as requested provided:

GRAND GULF NUCLEAR STATION
UNIT 1

RELIEF REQUEST NO. I-00008 REVISION 2

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INSERVICE INSPECTION
OF CONTROL ROD DRIVE AND INCORE HOUSING WELDS & FLANGE BOLTING

- (a) the Code-required system pressure and hydrostatic tests are performed as required by the Code and
- (b) the Code-required examinations are performed on the accessible areas if the CRD support structure or CRDs are removed for other maintenance activities.

IX. Implementation
of NRC
discussion:

1. The Code requires 10% of the peripheral CRD housings (5) to be examined in the ten year interval. The total number of housings examined due to accessibility created by maintenance does not need to exceed the required 10%.
2. The Code allows the CRD housing examinations to be deferred until the end of the ten year interval. Correspondingly, examinations performed because of access created by maintenance may be deferred to the last scheduled maintenance activity in the ten year interval. Deferral is only permissible if it is assured that at least the required 10% are examined.
3. All category B-G-2 bolting shall be examined during maintenance activities that require the removal of the bolting. Deferral of the bolting examination is not permissible.

GRAND GULF NUCLEAR STATION
UNIT 1
RELIEF REQUEST I-00010, REVISION 4
PAGE 1 OF 5

INSERVICE EXAMINATION
OF
PRESSURE RETAINING WELDS

M-489.1 CR SCN

NO. 90-0009

PAGE 6 OF 22

- I. Component: Inaccessible portions of ASME Section III, Class 1 and 2 pressure retaining and integral attachment piping welds listed in table 1 (see attached).
- II. Code: These portions of the pressure retaining and integral attachment piping welds were designed and fabricated to ASME Section III, Class 1 and Class 2 requirements. Applicable inservice inspections are to be performed in accordance with the ASME Section XI, 1977 Edition, through and including the Summer 1979 Addenda.
- III. Code Requirements: Class 1 and Class 2 pressure retaining piping welds are required to be volumetrically and surface examined, essentially 100% of the weld, once every ten year interval in accordance with ASME Section XI, Table IWB-2500-1, Category B-J, Table IWC-2500-1, Category C-F. The Class 1 integral attachment welds depicted in table 1 are required to be surface examined once each ten year interval in accordance with ASME Section XI, Table IWB-2500-1, Category B-K-1.
- IV. Information to support the determination that the Code requirements are impractical: Portions of welds that were preservice examined have physical obstructions due to design. Due to this limited accessibility, it is impractical to perform the surface and volumetric examination for 100% of the required examination volume as indicated for the welds listed in Table 1.
- V. Specific Relief Requested: Permission is requested to perform the Code required examinations to the extent described in Table 1.

GRAND GULF NUCLEAR STATION
UNIT 1
RELIEF REQUEST I-00010, REVISION 4
PAGE 2 OF 5

INSERVICE EXAMINATION
OF
PRESSURE RETAINING WELDS

VI. Reasons why relief should be granted: Request for permission to limit the code required examination to the accessible areas should be granted for the following reasons:

1. The inaccessible portions of listed pressure retaining welds were examined by radiography, passed in accordance with ASME Section III, Class 1 and 2 requirements.
2. The inaccessible portions of the pressure retaining and integral attachment welds were surface examined (magnetic particle or liquid penetrant), passed in accordance with ASME III and/or XI, Class 1 and Class 2 requirements.
3. The inaccessible portions of listed piping welds will be subject to a system leakage test after each refueling outage for Class 1, and each inspection period for Class 2 in accordance with ASME Section XI requirements.
4. The inaccessible portions of listed piping welds will be subject to a system hydrostatic test each inspection interval in accordance with ASME Section XI, Class 1 and 2 requirements.
5. Accessible portions of listed welds will be volumetrically and surface examined each inspection interval in accordance with ASME Section XI. Should indications be found, an engineering evaluation will be made to determine if the inaccessible portions of the listed welds have been affected.

W-489.1 CR. SON
NO. 90-0009
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GRAND GULF NUCLEAR STATION
UNIT 1
RELIEF REQUEST I-00010, REVISION 4
PAGE 3 OF 5

INSERVICE EXAMINATION
OF
PRESSURE RETAINING WELDS

VI. Reasons why relief should be granted (continued):

6. Leak detection is provided, by way of the leakage detection system with continuous monitoring, for the RHR, RCIC, MS, RWCU, RECIRC and FW systems.
7. The failure of any one of these pressure retaining piping welds would have no adverse effect on plant safety as there is isolation capability and/or shut down capability as part of the plant design.
8. The calculated maximum piping stresses and usage factor at the integral attachments on the piping, including consideration of the local pipe wall stresses, have been determined in the class 1 stress report and are equal to the following:
 - a) Primary plus secondary (equation 10); 32,775 psi (1.72 S_n),
 - b) usage factor is 0.0442.Circumferential and longitudinal welds in piping with stress levels below 2.4 S_n and usage factors below 0.4 are excluded from ISI examinations, in accordance with Table IWB-2500-1 Category B-J.
9. Examinations at GGNS of category B-J, B-K-1 and C-F welds have not identified any flaws or evidence of service induced degradation.

M-489.1 CR/SCN
NO. 90-0009
PAGE 8 OF 22

GRAND GULF NUCLEAR STATION
UNIT 1
RELIEF REQUEST I-00010, REVISION 4
PAGE 4 OF 5

INSERVICE EXAMINATION
OF
PRESSURE RETAINING WELDS

VII. Alternate testing: All the welds identified in Table 1 will be inspected twice by volumetric or surface examination, as applicable, during the 10 year interval as discussed in GGNS Safety Evaluation Report, Supplement #2.

VIII. NRC discussion statement
(Revision 4):

CR

The following NRC discussion statement provided in response to the Rev. 4 submittal is included for information. "The Staff concludes that based on previous staff evaluations and the extent of volumetric examination performed on Items 72 and 73, pursuant to 10 CFR 50.55a(g)(6)(i), relief should remain granted as requested." (Reference GRNI-92/0086)

The NRC has indicated in their response to the Rev. 4 submittal that the premise for granting relief has not changed. Therefore, the NRC's conditions for the Rev. 3 request-for-relief are still applicable. The following NRC discussion statement provided in response to the Rev. 3 submittal is included for information.

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INSERVICE EXAMINATION
OF
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VIII. NRC discussion
statement

(Revision 4)

(Continued):

CR

"The staff has reviewed the information submitted which supports the licensee's conclusion that the Section XI ASME Code requirements are impractical for the piping welds identified in Table 1 due to inaccessibility of portions of the welds. Compliance to the Code requirements would require the redesign and refabrication of the piping system to eliminate physical obstructions due to pipe supports, pipe fittings, and components. The proposed alternative limited volumetric examinations, along with the Section XI ASME Code surface examinations and the hydrostatic tests, ensure an acceptable level of inservice structural integrity. The licensee concludes, and the staff agrees, that relief should be granted as requested in Relief Request No. I-00010, Revision 3 and the alternative testing imposed." (Reference MAEC-90/0261)

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TABLE 1

ITEM NO	SYSTEM NO	WELD NO	ISO NO	PIPE SIZE	COMPONENT	EXAMINABLE VOLUMETRIC AREA	TYPE SCAN	EXAMINABLE SURFACE AREA	CLASS	WELD TYPE	REASON FOR LIMITATIONS
1	E1c	G014-FW-44	RH-8-8	6"	VALVE TO ELBOW	55%	T	100%	1	CIRC	ELBOW RADIUS
2	B21	G9-C1-B-L/B	MS-11-8	28"	ELBOW SEAM	38%	T	38%	1	LONG	PIPE RESTRAINT
3	E51	G004-8-8-1	RI-8-2	6"	ELBOW TO ELBOW	70%	T	100%	2	CIRC	ELBOW RADIUS
4	B21	G11-D1-B-L/B	MS-11-11	28"	ELBOW SEAM	38%	T	38%	1	LONG	PIPE RESTRAINT
5	B21	G8-A1-8-L/B	MS-11-2	28"	ELBOW SEAM	38%	T	38%	1	LONG	PIPE RESTRAINT
6	B21	G030-FW-23	FW-8-2	24"	VALVE TO PIPE	93%	T	100%	1	CIRC	SOCK-D-LET
7	B21	G030-FW-36	FW-8-4	24"	VALVE TO PIPE	93%	T	100%	1	CIRC	SOCK-C-LET
8	B21	G026-FW-17	FW-11-7	24"	PIPE TO TEE	93%	T	100%	1	CIRC	SOCK-D-LET
9	B21	G001-W4	MS-11-3	28"	VALVE TO PIPE	82%	T	100%	1	CIRC	PIPE RESTRAINT
10	B21	G001-W4	MS-11-9	28"	VALVE TO ELBOW	82%	T	100%	1	CIRC	PIPE RESTRAINT
11	B21	G9-C1-B-L/A	MS-11-8	28"	ELBOW SEAM	38%	T	38%	1	LONG	PIPE RESTRAINT
DELETED											

*Under the rules of IMC-5210(a), this weld is not subject to system hydrostatic testing. Item 4 under "Reason why relief should be granted" does not apply to this weld.

CR

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TABLE 1

ITEM NO	SYSTEM NO	WELD NO	ISO NO	PIPE SIZE	COMPONENT	EXAMINABLE VOLUMETRIC AREA	TYPE SCAN	EXAMINABLE SURFACE AREA	CLASS	WELD TYPE	REASON FOR LIMITATIONS
13	E51	G004-7-8-4	RI-8-1	10"	REDUCER TO TEE	71%	T	100%	2	CIRC	TEE
14	E51	G004-7-8-9	RI-8-1	10"	REDUCER TO TEE	71%	T	100%	2	CIRC	TEE
15	E51	G004-7-8-8	RI-8-1	10"	REDUCER TO TEE	71%	T	100%	2	CIRC	TEE
16	B33	G024-W2	RR-11-19	4"	ELBOW TO TEE	62%	T	100%	1	CIRC	TEE
17	G33	G002-W179	CU-8-7	4"	ELBOW TO FITT.	63%	T	NA	1	CIRC	ELBOW RADIUS
18	B21	G11-01-B-L/A	MS-11-11	28"	ELBOW SEAM	38%	T	38%	1	LONG	PIPE RESTRAINT
19	B21	G001-W9	MS-11-12	28"	VALVE TO PIPE	82%	T	100%	1	CIRC	PIPE RESTRAINT
20	B21	G8-A1-B-L/A	MS-11-2	28"	ELBOW SEAM	38%	T	38%	1	LONG	PIPE RESTRAINT
21	E51	G001-W1	RI-8-12	6"	VALVE TO ELBOW	73%	T	100%	2	CIRC	ELBOW RADIUS
22	E51	G001-W40	RI-11-4	6"	VALVE TO ELBOW	73%	T	100%	1	CIRC	ELBOW RADIUS
23	B33	G001-W5	RR-11-2	24"	ELBOW TO PUMP	73% see note 1	T	100%	1	CIRC	PUMP
24	B33	G001-W6	RR-11-2	24"	PIPE TO PUMP	58% see note 1	T	100%	1	CIRC	PUMP

*Under the rules of IWC-5210(e), this weld is not subject to system hydrostatic testing. Item 4 under "Reasons why relief should be granted" does not apply to this weld.

CR

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TABLE 1

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25	B33	G001-W8	RR-11-3	24"	VALVE TO PIPE	50% see note 2	T	100%	1	CIRC	VALVE
26	B33	G001-W28	RR-11-9	24"	ELBOW TO PUMP	62% see note 1	T	100%	1	CIRC	PUMP
27	B33	G001-W29	RR-11-9	24"	PUMP TO PIPE	61% see note 1	T	100%	1	CIRC	PUMP
28	B33	G001-W31	RR-11-10	24"	VALVE TO PIPE	50% see note 1&2	T	100%	1	CIRC	VALVE
29	B33	G5-B1-B	RR-11-9	4"/24"	SWEEP TO PIPE	58% see note 1	T	100%	1	BRANCH	SWEEP-O-LET
30	B33	G5-B1-E	RR-11-9	4"/24"	SWEEP TO PIPE	63% see note 1	T	100%	1	BRANCH	SWEEP-O-LET
31	B33	G023-W37	RR-11-15	20"	TEE TO PIPE	65% see note 1	T	100%	1	CIRC	TEE
32	B33	G024-W8	RR-11-16	4"	PIPE TO SWEEP	50% see note 2	T	100%	1	CIRC	SWEEP-O-LET
33	B33	G024-W27	RR-11-17	4"	PIPE TO SWEEP	50% see note 2	T	100%	1	CIRC	SWEEP-O-LET
34	B33	G10-B1-L	RR-11-11	12"/16"	SWEEP TO PIPE	50% see note 3	P	100%	1	BRANCH	SWEEP-O-LET
35	B33	G10-B1-K	RR-11-11	12"/16"	SWEEP TO PIPE	50% see note 3	P	100%	1	BRANCH	SWEEP-O-LET
36	B33	G10-B1-J	RR-11-11	12"/16"	SWEEP TO PIPE	50% see note 3	P	100%	1	BRANCH	SWEEP-O-LET

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TABLE 1

ITEM NO	SYSTEM NO	WELD NO	ISO NO	PIPE SIZE	COMPONENT	EXAMINABLE VOLUMETRIC AREA	TYPE SCAN	EXAMINABLE SURFACE AREA	CLASS	WELD TYPE	REASON FOR LIMITATIONS
37	B33	G10-B1-H	RR-11-11	12"/16"	SWEEP TO PIPE	50% see note 3	P	100%	I	BRANCH	SWEEP-O-LET
38	B33	G10-B1-G	RR-11-11	12"/16"	SWEEP TO PIPE	50% see note 3	P	100%	I	BRANCH	SWEEP-O-LET
39	B33	G10-B1-F	RR-11-11	12"/16"	SWEEP TO PIPE	50% see note 3	P	100%	I	BRANCH	SWEEP-O-LET
40	B33	G001-W34	RR-11-11	24"	PIPE TO CROSS	50% see note 3	P	100%	I	CIRC	CROSS
41	B33	G10-B1-A	RR-11-11	16"	PIPE TO CROSS	50% see note 3	P	100%	I	CIRC	CROSS
42	B33	G10-B1-B	RR-11-11	16"	PIPE TO CROSS	50% see note 3	P	100%	I	CIRC	CROSS
43	B21	G8-A1-C	MS-11-2	8"/28"	SWEEP TO PIPE	100%	T	98%	I	BRANCH	PIPE SUPPORT
44	B21	G026-W36	FW-11-1	24"	PIPE TO VALVE	95%	T	100%	I	CIRC	PIPE SUPPORT
45	B21	G8-A1-L,M,N,P	MS-11-2	28"	LUGS TO PIPE	N/A	N/A	49%	I	INT ATT	PIPE RESTRAINT
46	B21	G10-B1-L,M,N,P	MS-11-5	28"	LUGS TO PIPE	N/A	N/A	49%	I	INT ATT	PIPE RESTRAINT
47	B21	G9-C1-L,M,N,P	MS-11-8	28"	LUGS TO PIPE	N/A	N/A	49%	I	INT ATT	PIPE RESTRAINT
48	B21	G11-D1-L,M,N,P	MS-11-11	28"	LUGS TO PIPE	N/A	N/A	49%	I	INT ATT	PIPE RESTRAINT

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TABLE 1

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49	B33	G001W27	RR-11-9	24"	PIPE TO VALVE	50% see note 1	T	100%	1	CIRC	VALVE
50	B33	G001W33	RR-11-10	24"	VALVE TO PIPE	50% see note 1	T	100%	1	CIRC	VALVE
51	B33	G10-A1-A	RR-11-4	16"	CROSS TO PIPE	50% see note 3	P	100%	1	CIRC	CROSS
52	B33	G10-A1-B	RR-11-4	16"	CROSS TO PIPE	50% see note 3	P	100%	1	CIRC	CROSS
53	B33	G6-B1-C	RR-11-9	4"/24"	PIPE TO SWEEP	50% see note 1	T	100%	1	BRANCH	SWEEP
54	B33	G10-A1-F	RR-11-4	16"/12"	PIPE TO SWEEP	50% see note 3	P	100%	1	BRANCH	SWEEP
55	B33	G10-A1-G	RR-11-4	16"/12"	PIPE TO SWEEP	50% see note 3	P	100%	1	BRANCH	SWEEP
56	B33	G10-A1-H	RR-11-4	16"/12"	PIPE TO SWEEP	50% see note 3	P	100%	1	BRANCH	SWEEP
57	B33	G10-A1-J	RR-11-4	16"/12"	PIPE TO SWEEP	50% see note 3	P	100%	1	BRANCH	SWEEP
58	B33	G10-A1-K	RR-11-4	16"/12"	PIPE TO SWEEP	50% see note 3	P	100%	1	BRANCH	SWEEP
59	B33	G10-A1-L	RR-11-4	16"/12"	PIPE TO SWEEP	50% see note 3	P	100%	1	BRANCH	SWEEP
60	B33	G001W4	RR-11-2	24"	VALVE TO PIPE	50% see note 1	T	100%	1	CIRC	VALVE

**GRAND GULF NUCLEAR STATION
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**Inservice Inspection Requirements
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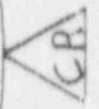
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TABLE 1

ITEM NO	SYSTEM NO	WELD NO	ISO NO	PIPE SIZE	COMPONENT	EXAMINABLE VOLUMETRIC AREA	TYPE SCAN	EXAMINABLE SURFACE AREA	CLASS	WELD TYPE	REASON FOR LIMITATIONS
61	833	G001W9	RR-11-3	24"	PIPE TO VALVE	50% see note 1	T	100%	1	CIRC	VALVE
62	833	G001W10	RR-11-3	24"	VALVE TO PIPE	50% see note 1	T	100%	1	CIRC	VALVE
63	833	G6-A1-C	RR-11-2	4"/24"	PIPE TO SWEEP	50% see note 1	T	100%	1	BRANCH	SWEEP
64	833	G5-A1-E	RR-11-2	4"/24"	PIPE TO SWEEP	50% see note 1	T	100%	1	BRANCH	SWEEP
65	833	G5-A1-B	RR-11-2	4"/24"	PIPE TO SWEEP	50% see note 1	T	100%	1	BRANCH	SWEEP
66	821	G11-D1-C	MS-11-11	28"/10"	PIPE TO SWEEP	57%	T	97%	1	BRANCH	HANGER
67	821	G10-B1-C	MS-11-5	28"/10"	PIPE TO SWEEP	71%	T	100%	1	BRANCH	HANGER
68	821	G10-B1-E	MS-11-5	28"/10"	PIPE TO SWEEP	71%	T	85%	1	BRANCH	HANGER
69	821	G10-B1-F	MS-11-5	28"/10"	PIPE TO SWEEP	78%	T	100%	1	BRANCH	HANGER
70	821	G10-B1-H	MS-11-5	28"/10"	PIPE TO SWEEP	78%	T	100%	1	BRANCH	HANGER
71	821	G10-B1-G	MS-11-5	28"/10"	PIPE TO SWEEP	78%	T	100%	1	BRANCH	HANGER
72*	ES1	G004W18	RI-8-21	6"	VALVE TO PIPE	83.18%	T	100%	2	CIRC	PIPE RESTRAINT

*Under the rules of IMC-5210(a), this weld is not subject to system hydrostatic testing. Item 4 under "Reasons why relief should be granted" does not apply to this weld.



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TABLE 1

ITEM NO	SYSTEM NO	WELD NO	ISO NO	PIPE SIZE	COMPONENT	EXAMINABLE VOLUMETRIC AREA	TYPE SCAR	EXAMINABLE SURFACE AREA	CLASS	WELD TYPE	REASON FOR LIMITATIONS
73	G33	G012W54	CU-11-13	6"	VALVE TO ELBOW	85.59X	T	100K	1	ETRC	ELBOW RADIUS

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LEGEND:

P = SCAN PARALLEL TO THE WELD

T = SCAN TANGENT (PERPENDICULAR) TO THE WELD

NOTES:

1. In addition to the "T" scan limitation, these welds are augmented by the requirements of NUREG 0313 and therefore are examined with a parallel scan that is not required by ASME Section XI. The parallel scan is limited to one side of the weld (50%) due to the fittings being joined by the weld.
2. 100% coverage was obtained in one direction only, using refracted longitudinal wave.
3. The "P" scan is performed for compliance with NUREG 0313, 100% of ASME Section XI coverage is obtained without limitation.



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REQUEST FOR RELIEF NO. I-00013

INSERVICE INSPECTION
RPV NOZZLE INNER RADII

- I. Component: Reactor Pressure Vessel Nozzles As Listed in Table I.
- II. Code The Unit I reactor pressure vessel was designed and fabricated to ASME Section III, Class I Requirements. Applicable inservice inspections are to be performed to ASME Section XI, 1977 Edition with Addenda through and including Summer 1979 Addenda.
- III. Code Requirements: Table IWB 2500-1, Examination Category B-D, Full Penetration Welds of Nozzles in Vessels, items B 3.90 and B 3.100 requires a full thickness volumetric examination of the attaching weld, inner radius, and a portion of the nozzle bore (see Figure 1).
- IV. Information to support the determination that the code requirements are impractical
- The volumetric examinations were performed during preservice utilizing manual techniques with a combination of procedures. There are 35 category B-D nozzle to vessel welds that are required to be examined during the ten year inspection interval. Since the performance of preservice, automated systems for RPV examinations have been developed and are scheduled to be used at GGNS when conditions permit. The use of automated ultrasonic examination systems for reactor inspections helps to minimize man-rem exposure and provide for better data collection and analysis. With the present technology and equipment available for automated nozzle examinations a limitation of volume coverage exists. Due to nozzle geometry, thicknesses and multiple angles associated with the examination, manual scans are required to supplement the automated examination in order to obtain full coverage.
- The supplemental (manual) examinations are estimated to require an average of 6 additional man hours per nozzle (2 men x 3 hours); this does not include support personnel. The examinations would require working from a skip box (man lift) lowered into the annulus between the RPV and biological shield for nozzles in the No. 2 and No. 4 ring regions and from a ladder for nozzles in the No. 1 ring region. In addition, each inner radius examination requires the changing of transducer wedges to facilitate a clockwise and counterclockwise scan thus requiring an additional calibration.



Of the 35 nozzles, 29 are to be examined using automated techniques, and the remaining 6 are to be examined using manual techniques because of their small diameter. The 29 nozzles utilizing automated examinations will require supplemental manual examinations totaling approximately 174 additional man-hours excluding personnel support time. Examination time for the 6 smaller diameter nozzles would be reduced from approximately 6 man hours to 5 man hours for each nozzle.

Examinations performed to the 1977 edition, summer 1979 addenda of ASME Section XI requires extensive manhours to be spent inside the annulus area between the reactor pressure vessel and the biological shield. Fixtures and rigging for lifting and maneuvering the examination personnel are complex and require additional personnel to be located within the drywell to monitor and operate the equipment.

Later editions of ASME Section XI minimized the difficulties of performing a full thickness examination by reducing the required examination volume (see figure 2). The newly defined examination area includes the potential crack initiation sites and minimizes the difficulties associated with examining a full nozzle thickness. Performance of volumetric examinations to the volume specified by IWB 2500-7(b) of the 1983 Edition, Summer 1983 Addenda of ASME Section XI will eliminate the need for supplementing the automated ultrasonic examinations with manual scans and reduce the total time required for performing examinations on those nozzles examined manually, thus reducing man-rem exposure significantly.

V. Specific
Relief Requested:

Permission is requested to allow the use of Figure IWB 2500-7(b) from the 1983 Edition, Summer 1983 Addenda of ASME Section XI for determining code required examination coverage for examination Category B-D weldments.

Since the request is for a portion of the 1983 edition, Summer 1983 Addenda of the ASME Section XI Code, Paragraph IWB 3512 and its referenced paragraphs must also be adopted in order to ensure that all related requirements of the respective edition and addenda are met.

VI. Reasons Why
Relief Should
Be Granted:

Relief from Figure IWB 2500-7 of the 1977 Edition through 1979 Summer Addenda of ASME Section XI is requested for the following reasons:

- i. The area of examination that is omitted by the 1983 Edition, Summer 1983 Addenda of ASME Section XI did not have any recordable indications identified during preservice.



2. The newly defined examination area (see Figure 2) includes those areas that by industry experience have the potential for crack initiation.
3. The Code of Federal Regulations, Title 10, Part 50.55a(g)(4)(iv) allows for the use of subsequent editions and addenda that are incorporated by reference in 10CFR50.55a(b)(2) and subject to the Commission's approval.

As used in 10CFR50.55a(b)(2), references to Section XI of the ASME Boiler and Pressure Vessel Code Refer to Section XI, Division 1, and include editions through the 1983 edition and addenda through the Summer 1983 Addenda, subject to limitations not applicable to this request.

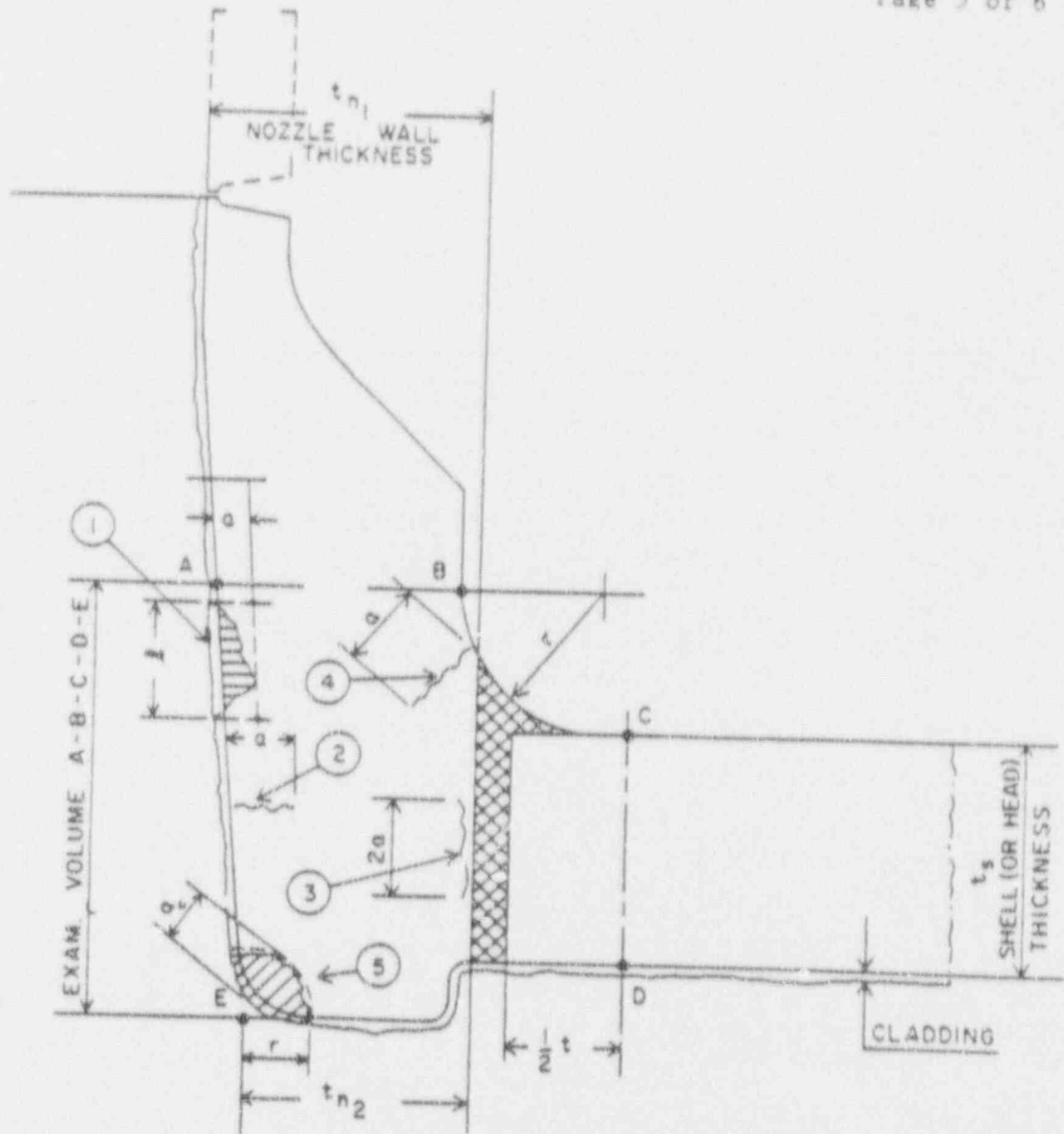
VII. Alternate
Testing:

Since the requested relief meets the requirements contained in an Edition and Addenda of ASME Section XI that is accepted by the Commission, no alternate testing is proposed.



TABLE 1
 RELIEF REQUEST - I-00013

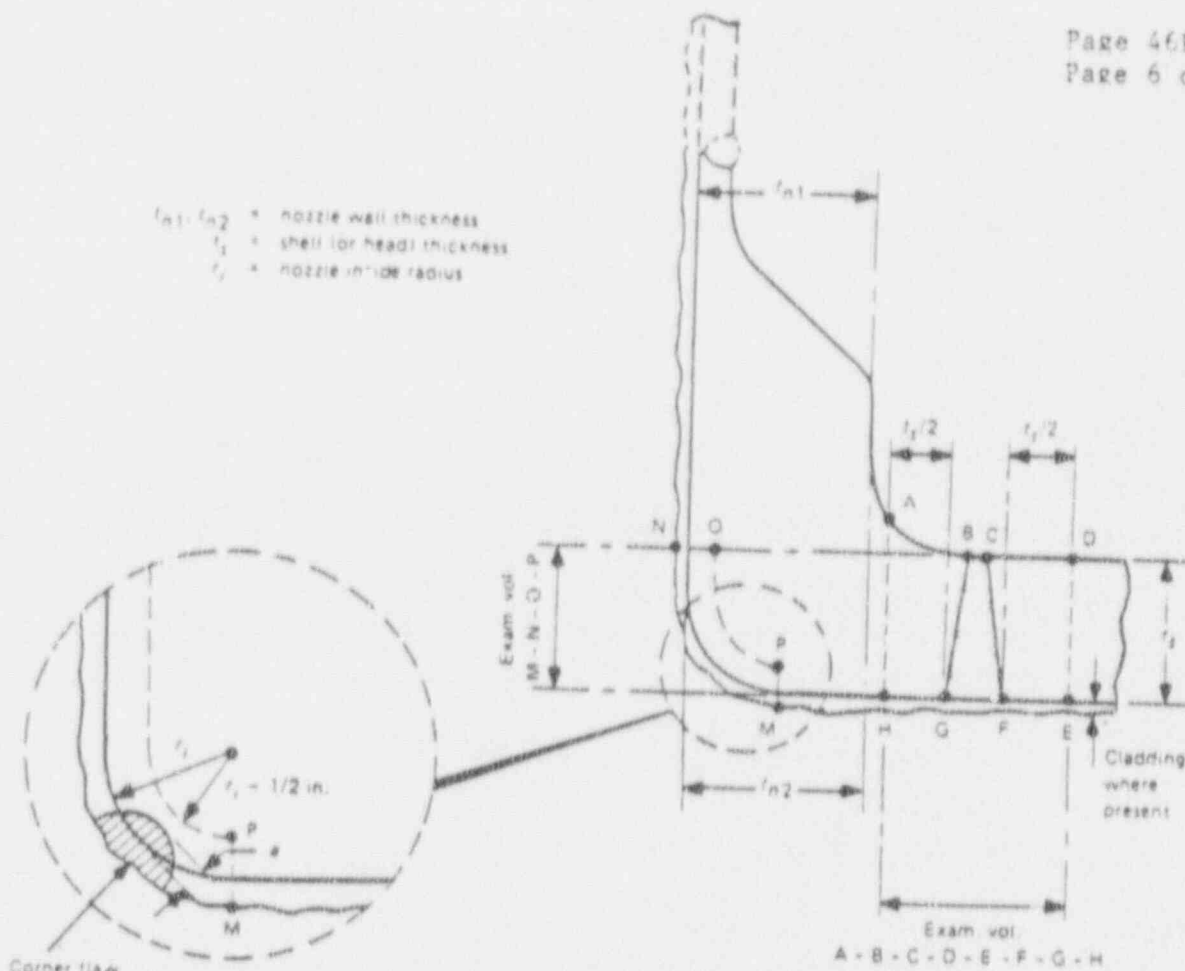
Nozzle No.	Service	Cutout Diameter Inches	Notes
N1-A	Recirculation Outlet	50.80	
N1-B	Recirculation Outlet	50.80	
N2-A	Recirculation Inlet	35.37	
N2-B	Recirculation Inlet	35.37	
N2-C	Recirculation Inlet	35.37	
N2-D	Recirculation Inlet	35.37	
N2-E	Recirculation Inlet	35.37	
N2-F	Recirculation Inlet	35.37	
N2-G	Recirculation Inlet	35.37	
N2-H	Recirculation Inlet	35.37	
N2-J	Recirculation Inlet	35.37	
N2-K	Recirculation Inlet	35.37	
N2-M	Recirculation Inlet	35.37	
N2-N	Recirculation Inlet	35.37	
N3-A	Steam Outlet	52.87	
N3-B	Steam Outlet	52.87	
N3-C	Steam Outlet	52.87	
N3-D	Steam Outlet	52.87	
N4-A	Feedwater	35.12	To Be Supplemented by NUREG 0619
N4-B	Feedwater	35.12	To Be Supplemented by NUREG 0619
N4-C	Feedwater	35.12	To Be Supplemented by NUREG 0619
N4-D	Feedwater	35.12	To Be Supplemented by NUREG 0619
N4-E	Feedwater	35.12	To Be Supplemented by NUREG 0619
N4-F	Feedwater	35.12	To Be Supplemented by NUREG 0619
N5-A	Corespray	35.37	To Be Supplemented by NUREG 0619
N5-B	Corespray	35.37	
N6-A	RHR/LPCI	35.37	
N6-B	RHR/LPCI	35.37	
N6-C	RHR/LPCI	35.37	
N7	RCIC Head Spray	20.50	
N8	Spare	20.50	
N9A	Jet Pump Instr.	17.00	
N9B	Jet Pump Instr.	17.00	
N10	CRD Hyd. Sys.	19.88	
N15	Instr. Vib.	23.94	



NOTE: ALL FLAWS ARE EXAGGERATED
IN SIZE AND SCALE

FIG. IWB-2500-7 NOZZLE-TO-SHELL OR HEAD WELD JOINTS
(Applies to Nozzles With or Without Internal Reinforcement)

FIGURE 1
RELIEF REQUEST
NO. I-00013



EXAMINATION REGION [Note (1)]
 Shell (or head) adjoining region
 Attachment weld region
 Nozzle cylinder region
 Nozzle inside corner region

EXAMINATION VOLUME [Note (2)]
 C-D-E-F
 B-C-F-G
 A-B-G-H
 M-N-O-P

NOTE:
 (1) Examination regions are identified for the purpose of differentiating the acceptance standards in IWB-3512.
 (2) Examination volumes may be determined either by direct measurements on the component or by measurements based on design drawings.

FIG. IWB-250J-7(b) NOZZLE IN SHELL OR HEAD
 (Examination Zones in Flange Type Nozzles Joined by Full Penetration Butt Welds)

FIGURE 2
 RELIEF REQUEST
 NO. I-00013



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INSERVICE INSPECTION OF REACTOR PRESSURE VESSEL
NOZZLE TO SHELL WELDS

- I. Component: Reactor pressure vessel (RPV) to nozzle welds and associated base material, see table 1 for nozzle identification.
- II. Code: The unit 1 reactor pressure vessel was designed and fabricated to ASME Section III, class 1 requirements. Applicable inservice inspections are to be performed in accordance with Regulatory Guide 1.150 Revision 1 and ASME Section XI, 1977 Edition with Addenda through and including Summer 1979. Also, Relief Request No. I-00014 permits the use of ASME Section XI, 1983 Edition with the Summer 1983 Addenda, Figure IWB-2500-7(b) for identifying the Code required examination volume.
- III. Code Requirements: Table IWB 2500-1, Examination Category B-D, Full Penetration Welds of Nozzles in Vessels, items B3.90 and B3.100 requires a volumetric examination of the adjoining weld, base material for 1/2 thickness on each side of the weld, and inner radius (see figure 1).
- IV. Information to support the determination that the code requirements are impractical: Of the 31 nozzles requiring a volumetric examination of the weld and adjoining base material, 25 are examined using automated remote techniques, and the remaining nozzle to vessel welds are examined manually. The automated scanning mechanism presently used at Grand Gulf utilizes two types of scanning packages:



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IV. Information to support the determination that the code requirements are impractical:
(continued)

1. The "T-scan" (shear wave sound beam transverse to the weld axis) transducer package consists of a 0° straight beam, 45° and 60° angle beams. The 45° and 60° angle beam wedges are angulated to produce a sound beam that is perpendicular to the weld centerline at the vessel inner surface. One complete revolution of the nozzle scanner, with the T-scan package will scan for parallel oriented reflectors using a 45° and 60° angle beam, and for planar and laminar reflectors using a 0° straight beam.
2. The "P-scan" (sound beam parallel to the weld axis) transducer package consists of 45° and 60° angle beam wedges. One wedge is pointed in the clockwise direction, and the other is pointed counterclockwise. The 45° and 60° angle beam wedges are angulated to produce a sound beam that is tangent to the weld centerline at the vessel inner surface. Two complete revolutions of the nozzle scanner with the "P-scan" package are performed to scan (from two directions) for transverse oriented reflectors.

The nozzle design of the BWR 6 does not allow for a full volume examination of the weld and associated 1/2T of base material for the following reasons:

1. Due to the short distance from the weld centerline to the nozzle to shell radius, the examination volume can only be scanned from one side (shell side).
2. Also, this short distance prevents extending the scanning arm far enough past the weld towards the nozzle to obtain full coverage of the required volume while scanning from the shell side.



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IV. Information to support the determination that the code requirements are impractical:
(continued)

The six nozzles that require manual examinations also have limitations due to nozzle geometry; the code required volume is more than physically accessible with known manual techniques. Common to both techniques and all nozzles is the limitations due to Near Field effects. Approximately 1/4 inch of material thickness of the vessel outer surface can not be examined (see figures 2 through 6).

Table 1 provides a detailed listing of information that compares code requirements against the examinations that are achievable. In this evaluation, the Code required volume has been subdivided into the areas recognized by Regulatory Guide 1.150 as being the more critical area and additionally, the weld and heat affected zone coverage has been reported separately. Also, table 1 compares the examination coverage that can be obtained (manually) against what is obtained with automated.

Performing supplemental manual examinations of the accessible volumes would provide very limited increases of total volumes examined. The additional volume coverage obtained by supplementing the automated examinations with manual examinations is not justified when compared to the manerex expenditure.

Radiation fields from seven nozzles (3 recirculation, 2 feedwater, 1 core spray, and 1 low pressure core injection) of a 6 year old BWR 5 have been used in evaluating the manerex required to perform supplemental manual examinations. A comparison of the water chemistry between Grand Gulf and the plant where the data was obtained indicates that the radiation levels at Grand Gulf may be higher due to the possibility of additional crud formation. Therefore exposure of examination personnel may also be expected to be greater. The following is an estimate of radiation exposure that an inspection team would receive when performing supplemental manual examinations.



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IV. Information to support the determination that the code requirements are impractical:
(continued)

Estimated time spent in radiation area to perform a supplemental manual examination is approximately 1 hour per nozzle, per team. Radiation dose rate is expected to average approximately 400 mr/hour. Thus to examine seven nozzles (not including mainsteam) during an outage, one member of the examination team would receive 2,800 mr and the other member 700 mr. The total personnel exposure would be 3.5 man rem for the examination team.

To date, there has been no reported occurrence of cracking at nozzle/vessel weld locations and adjacent areas. It has been generally accepted that the nozzle/vessel welds are not the limiting location with respect to structural integrity. Cracking has been found at the feedwater nozzle blend radii and bore region at various domestic and foreign plants. The first cracking reported was discovered at the nozzle blend radii as well as the feedwater spargers and brackets and nozzle bore area. Cladding was present on the cracked nozzle, whereas there is no cladding on the Grand Gulf nozzles. The presence of the cracking was attributed primarily to rapid cycling of hot and cold water, and the presence of cladding. During the inspection which discovered the cracking, which was a liquid penetrant examination, no cracking of the nozzle/weld was observed. This indicated that the feedwater nozzle blend radii was limiting. Since Grand Gulf does not have cladding on the feedwater nozzles, has feedwater flow controller in operation, and triple thermal sleeve, cracking is not expected to occur at the feedwater nozzle blend radii. Therefore, since the nozzle blend radii is more limiting than the nozzle/vessel weld, cracking at the weld is also less likely.



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IV. Information to support the determination that the code requirements are impractical:
(continued)

Since the feedwater nozzle is limiting, the discussions and conclusions to follow are also applicable to all nozzle/vessel welds on the Grand Gulf RPV.

Applied Stress Levels

The only significant loadings that could affect the feedwater nozzle and nozzle/vessel weld area are due to internal pressure and thermal cycling caused by the mixing of hot and cold fluids in the nozzle bore and blend radii regions. However, the rapid thermal cycling effects have significantly decreased near the nozzle/vessel weld, and does not produce any significant thermal cycling. This same thermal cycling was the predominant contributor to the observed cracking at the feedwater nozzle blend radii and bore regions of other plants. In addition, the inner cladding which aided the occurrence of cracking is not present on the Grand Gulf nozzle.

Note that the nozzle/vessel weld location is far enough away from the blend such that stress magnification from the geometric discontinuity has reduced significantly.

Fatigue Crack Initiation/Propagation

The occurrence of fatigue crack initiation and subsequent propagation requires the presence of cyclic loading. As stated above in Applied Stress Levels, the significant loadings come from internal pressure. As stated earlier, the rapid thermal mixing experienced at the feedwater nozzle bore and blend radii has diminished significantly at the nozzle/vessel weld. Therefore, fatigue crack initiation is not likely to occur since the only contributors are pressure stresses and startup/shutdown thermal gradient stresses and these events are limited in number.



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- IV. Information to support the determination that the code requirements are impractical:
(continued)

This is consistent with the results of the feedwater nozzle blend radii UT results at Grand Gulf. Since initiation of flaws is not expected, propagation is not an issue. However, even if a crack is postulated, the predicted crack growth from cycling is small.

Stress Corrosion Cracking Potential

To this date, both experimental and field experience has shown no evidence of SCC initiation in A508 material. SCC is only possible when an initial significant starter crack is present. Without this condition, SCC is not a concern in A508 material. Therefore, for the Grand Gulf nozzle/vessel welds, SCC is not a plausible failure mechanism.

Radiation Embrittlement

The presence of high radiation fluency levels could effect the Nil Ductility Transition Temperature (RT_{NDT}), and therefore cause radiation embrittlement. However, all nozzles are located sufficiently away from the core such that the fluency levels are not high enough to cause material embrittlement. Therefore, radiation embrittlement is not a concern for the Grand Gulf nozzle/vessel welds. This is consistent with assumptions made in prior fracture mechanics evaluations performed for the nozzle blend radii cracking.

Consequences of Postulated Cracking

In the previous sections, a discussion of various aspects concerning the structural integrity of the nozzle/vessel weld has been presented. In this section, additional discussion demonstrating significant safety margin for this location even if an unlikely throughwall crack were to occur.



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IV. Information to support the determination that the code requirements are impractical:
(continued)

As discussed before, the limiting condition with respect to potential to failure is the nozzle bore radii and bore areas. The nozzle/vessel weld area is bounded by any analysis for the bore or blend radii areas. Significant analysis has been performed for the bore and blend radii locations. Therefore, the discussions provided in this section are a summary of the results determined for the limiting cases. It should be emphasized that a basic assumption in the design and licensing of light water systems in the USA is that failure of the reactor pressure vessel need not be postulated as a design basis event.

Allowable Crack Size

The basic requirement of Section XI of the ASME Code is that flaws greater than 10% of the critical flaw size is not permitted. Evaluations of a worst case thermal event in combination with pressure stress have shown that the lower bound fracture toughness of the A508 material is not exceeded even for crack depths approaching the vessel thickness. Since flaw sizes in excess of the wall thickness have no physical significance, it was conservatively assumed that a crack depth equal to the thickness was critical and thus a Section XI allowable crack depth of 10% of wall thickness was established.

Leak Before Break

Regardless of the examination and repair programs in place to ensure that nozzle flaws do not exceed Section XI allowables, it is useful to postulate one or more nozzle flaws becoming very large without being detected in order to determine whether a critical condition could exist and cause rapid crack propagation. As mentioned earlier, the stress intensity factor for a crack at the blend radii never exceeded the lower bound fracture toughness even for a crack equal to the thickness of the vessel.



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IV. Information to support the determination that the code requirements are impractical:
(continued)

Evaluations have been performed for an analogous case of cracking from a hole in a plate. The stress intensity factors as a function of through wall crack length have been calculated. For large cracks (crack tip far away from the nozzle), the only contributing stress is due to pressure. The intersection of the fracture toughness and stress intensity factor prescribes the critical flaw size. The results of these calculations have shown that the critical crack size for each of the two cracks is 29 inches (total length of 58 inches). It is virtually inconceivable that the leakage associated with cracking of this magnitude could escape detection in an operating BWR. Thus a leak before break condition is assured for the vessel, even in the unlikely event that nozzle flaws grow to depths greater than the Section XI allowables, as long as the vessel is at upper shelf temperature. Similar conclusions apply to the upset and emergency conditions with postulated crack lengths of 15 inches (30 inches total) and 11 inches (22 inches total), respectively required before rapid fracture could occur under these conditions.

Although the entire ASME Code prescribed area was not ultrasonically examined, the ultrasonic data obtained can still be used to evaluate the potential for cracking. Figures 2 through 6 show typical areas of examination coverage for the various scanning techniques (table 1 provides specific quantities of coverage). It can be seen that at least one side of the weld and portions thereof are examined. Results of previous examinations revealed no rejectable indications exceeding ASME Section XI criteria. In addition, nozzle blend radii are also examined, and to date no relevant indications have been located. The results of previous UT examinations is consistent with the discussion provided in this request for relief.



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IV. Information to support the determination that the code requirements are impractical:
(continued)

Since no cracking has been found at a nozzle blend radius or at the examined nozzle/vessel area, it is unlikely that indications would be present in the unexamined area between the examined vessel/nozzle weld and the nozzle blend radius. There are no additional considerations at the unexamined area which would make cracking more likely than at the examined nozzle/vessel weld area. Therefore, it is concluded that examined areas of the nozzle/vessel weld area and the nozzle blend radii area are sufficient to identify any flaws that may occur.

V. Specific relief requested:

Permission is requested to perform ultrasonic examination of only those areas accessible with Automated techniques for those 25 nozzle to vessel welds that are examined utilizing automated methods. Also, permission is requested to examine only those areas that are accessible with manual techniques for the six nozzles that require examinations manually.

VI. Reasons why relief should be granted:

Relief as described within should be granted for the following reasons:

1. The entire reactor pressure vessel was subjected to an ASME Section III hydrostatic test after fabrication.
2. The entire reactor pressure vessel will be subjected to system leakage test at each refueling outage and a system hydrostatic test each inspection interval in accordance with the requirements of ASME Section XI.
3. The subject welds were volumetrically examined in accordance with ASME Section III during fabrication.
4. There is no history of service induced flaws in these areas of the reactor pressure vessel other than those of the feedwater nozzles discussed within this request for relief.
5. The areas being examined are the limiting areas of the nozzle to vessel configuration.



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VI. Reasons why relief should be granted continued:

6. The performance of additional manual examinations would require significant expenditures of personnel exposure for a small increase of examined volume.
7. The potential for initiation and propagation of cracking has been discussed assuming both fatigue and stress corrosion cracking mechanisms. It was concluded by the use of limiting analyses results performed for the feedwater nozzle blend radii, that cracking is unlikely at Grand Gulf nozzle/vessel weld locations. In fact, even if it was hypothesized that these postulated cracks went undetected, a crack length of 58 inches was required before rapid crack growth were to occur during normal operation. It is unlikely that cracks of this size would go undetected. Therefore, a significant leak before break margin exists.

VII. Alternate testing: None

VIII. NRC Discussion Statements:

The Licensee should continue to monitor the development of new or improved examination techniques. As improvements in these areas are achieved, the Commission will require that these enhanced techniques made a part of the inservice examination requirements for the components or welds which received a limited examination. It is concluded that a significant percentage of the code-required volumetric examination will be performed and that this examination, in conjunction with the system leakage test at each refueling outage and a system hydrostatic test each inspection interval, will ensure an acceptable level of inservice structural integrity. Compliance with the specific requirements of Section XI would result in hardship or unusual difficulties without a compensating increase in the level of quality and safety. Therefore, relief is granted as requested.

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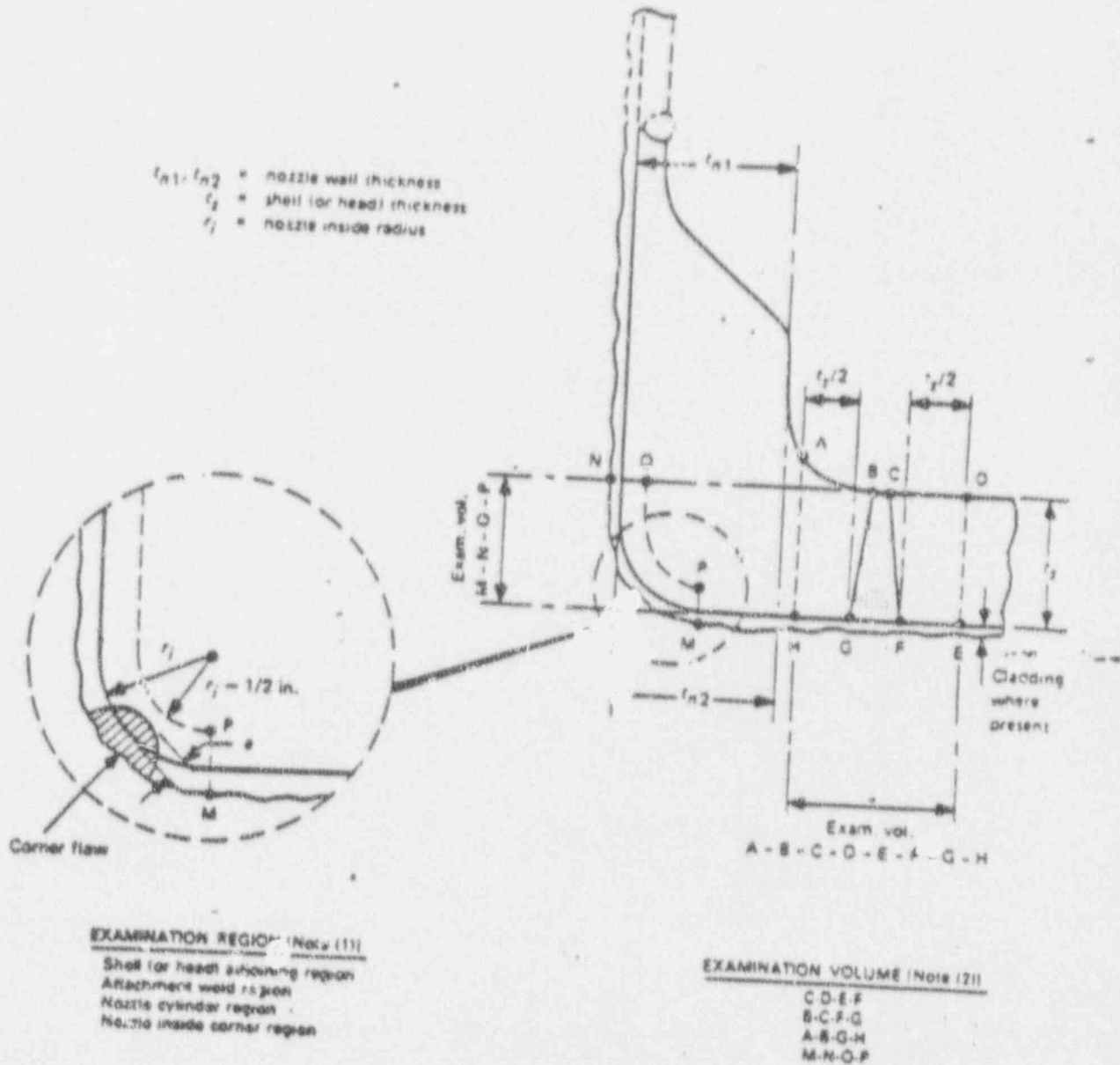


FIGURE 1

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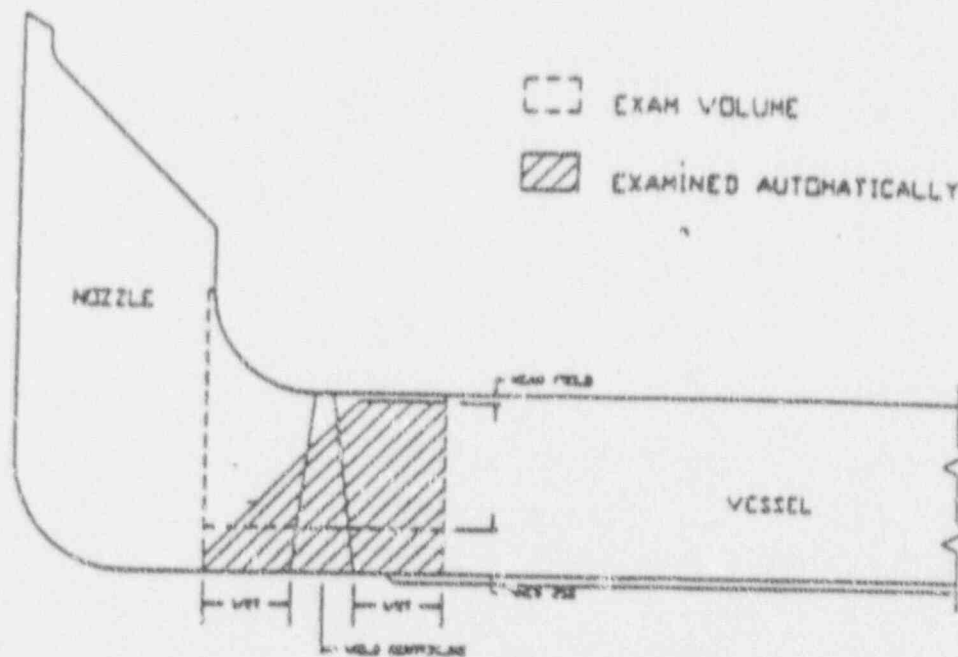


FIGURE 2
Automatic Scan Coverage - 45° Angle Beam (T-Scan)



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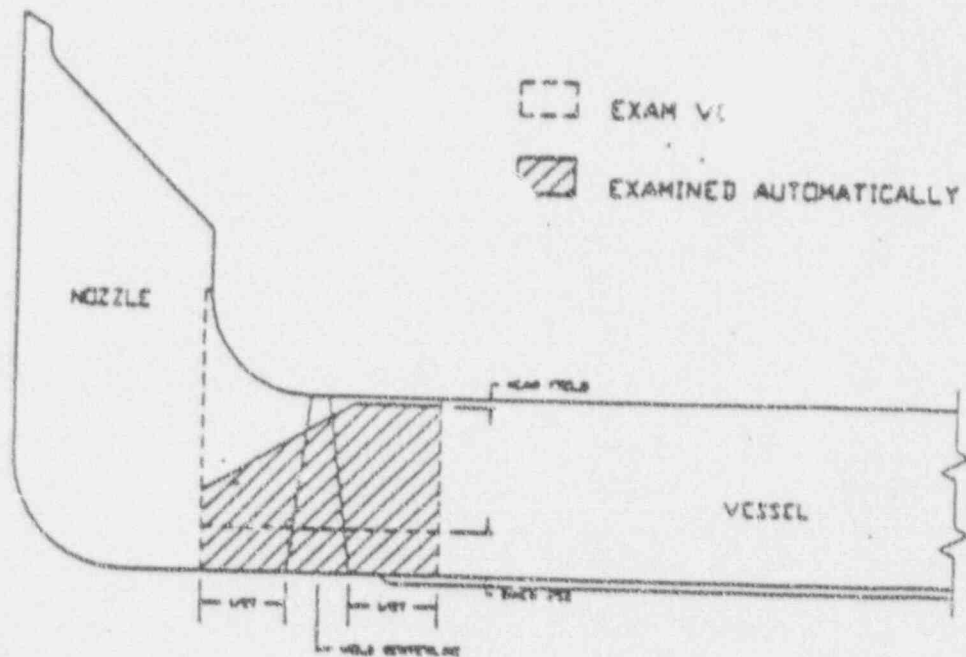


FIGURE 1
Automatic Scan Coverage - 60° Angle Beam (T-Scan)

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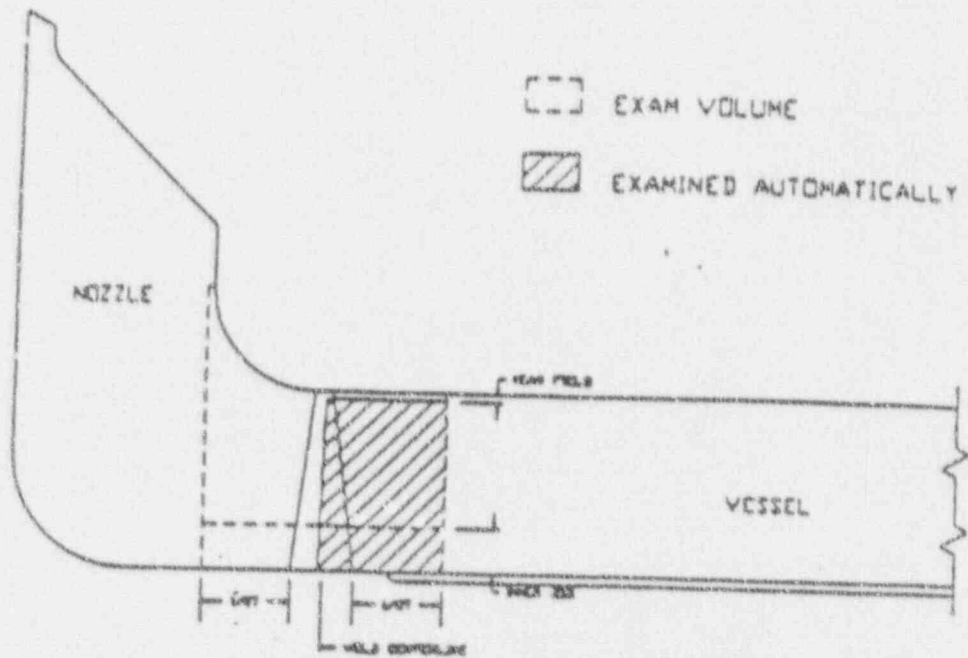


FIGURE 4
Automatic Scan Coverage - 45° Angle Beams (P-Scan)

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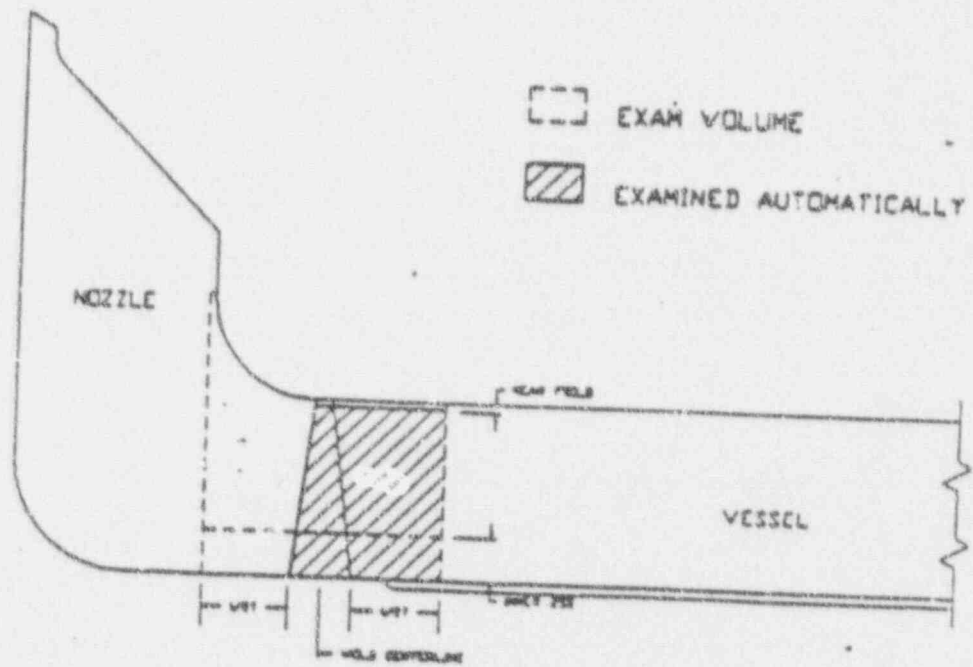


FIGURE 5
Automatic Scan Coverage - 60° Angle Beam (P-Scan)



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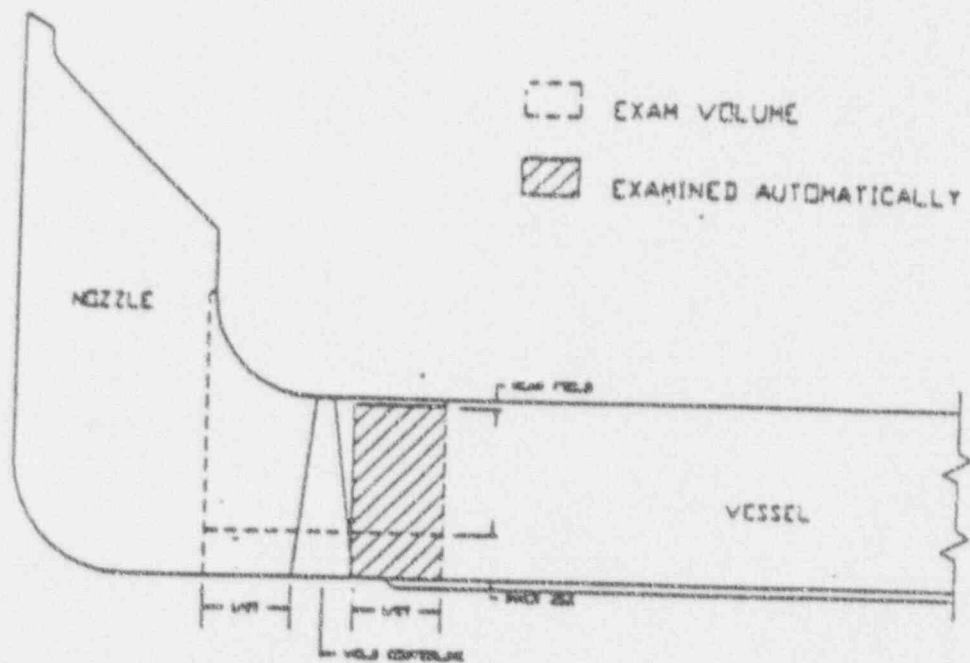


FIGURE 6
Automatic Scan coverage - 0° Straight beam



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TABLE 1 - PAGE 1

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M1(A88) Recirculation Outlet Nozzle (Automatic)

79.70 in² - total code volume
18.37 in² - inner 1/4t code volume
19.40 in² - weld volume + HAZ (1/4")

Type Scan	Accessible Code Volume		Accessible Inner 1/4t Code Volume		Accessible Weld Volume	
	Area (in ²)	% examined	Area (in ²)	% examined	Area (in ²)	% examined
0°	32.78	76.8%	-	-	9.79	14.3%
45° T-scan	59.61	87.5%	18.37	97.9%	14.97	90.2%
60° T-scan	64.74	92.7%	18.37	100.0%	15.05	95.0%
45° P-scan	37.43	83.9%	9.94	85.2%	9.48	35.9%
60° P-scan	41.08	93.6%	11.56	94.9%	13.04	80.5%

M2(A-4) Recirculation Inlet Nozzle (Automatic)

78.75 in² - total code volume
18.37 in² - inner 1/4t code volume
15.40 in² - weld volume + HAZ (1/4")

Type Scan	Accessible Code Volume		Accessible Inner 1/4t Code Volume		Accessible Weld Volume	
	Area (in ²)	% examined	Area (in ²)	% examined	Area (in ²)	% examined
0°	37.59	71.3%	-	-	9.81	4.1%
45° T-scan	59.60	86.5%	18.37	96.8%	15.01	87.3%
60° T-scan	65.15	91.0%	18.37	100.0%	15.18	92.2%
45° P-scan	37.98	92.2%	10.37	92.6%	9.78	72.6%
60° P-scan	48.14	100.0%	11.02	100.0%	13.04	93.6%

Note: Accessible is the volume which can be examined by present manual ultrasonic techniques



RELIEF REQUEST NO. 1-00016

TABLE 1 - PAGE 2

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N3(A-D) Mainstem Nozzle (Automatic)

52.99 in² - total code volume
19.52 in² - inner 1/4t code volume
16.17 in² - weld volume + HAZ (1/4")

Type Scan	Accessible Code Volume		Accessible Inner 1/4t Code Volume		Accessible Weld Volume	
	Area (in ²)	% examined	Area (in ²)	% examined	Area (in ²)	% examined
0°	41.43	75.3%	-	-	10.33	9.7%
45° T-scan	63.30	86.8%	19.52	98.0%	15.70	89.8%
60° T-scan	68.94	92.4%	19.52	100.0%	15.97	92.0%
45° P-scan	39.58	79.3%	10.65	80.3%	10.16	21.7%
60° P-scan	42.53	94.3%	11.71	94.9%	12.68	78.1%

N6(A-F) Feedwater Nozzle (Automatic)

60.16 in² - total code volume
14.08 in² - inner 1/4t code volume
12.70 in² - weld volume + HAZ (1/4")

Type Scan	Accessible Code Volume		Accessible Inner 1/4t Code Volume		Accessible Weld Volume	
	Area (in ²)	% examined	Area (in ²)	% examined	Area (in ²)	% examined
0°	30.14	71.3%	-	-	8.14	6.5%
45° T-scan	45.49	84.0%	14.08	93.8%	12.24	86.6%
60° T-scan	49.53	90.6%	14.08	100.0%	12.26	93.0%
45° P-scan	28.08	95.7%	7.39	94.5%	7.48	82.2%
60° P-scan	31.31	100.0%	8.49	100.0%	10.52	100.0%

Note: Accessible is the volume which can be examined by present manual ultrasonic techniques



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TABLE 1 - PAGE 3

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M5(A&B) Core Spray Nozzle (Automatic)

60.16 in² total code volume
14.08 in² inner 1/4t code volume
12.70 in² weld volume + HAZ (1/4")

Type Scan	Accessible Code Volume		Accessible Inner 1/4t Code Volume		Accessible Weld Volume	
	Area (in ²)	% examined	Area (in ²)	% examined	Area (in ²)	% examined
0°	30.14	74.0%	-	-	8.95	8.9%
45° T-scan	45.67	85.5%	14.08	96.7%	12.30	87.8%
60° T-scan	49.53	91.6%	14.08	100.0%	12.32	94.2%
45° P-scan	28.08	97.8%	7.38	96.1%	8.28	83.3%
60° P-scan	31.91	100.0%	8.61	100.0%	11.42	100.0%

M6(A-C) RHR/LPCI Nozzle (Automatic)

60.16 in² total code volume
14.08 in² inner 1/4t code volume
12.70 in² weld volume + HAZ (1/4")

Type Scan	Accessible Code Volume		Accessible Inner 1/4t Code Volume		Accessible Weld Volume	
	Area (in ²)	% examined	Area (in ²)	% examined	Area (in ²)	% examined
0°	30.14	74.0%	-	-	8.95	8.9%
45° T-scan	45.67	85.5%	14.08	96.7%	12.30	87.8%
60° T-scan	49.53	91.6%	14.08	100.0%	12.32	94.2%
45° P-scan	28.08	97.8%	7.38	96.1%	8.28	83.3%
60° P-scan	31.91	100.0%	8.61	100.0%	11.42	100.0%

Note: Accessible is the volume which can be examined by present manual ultrasonic techniques



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TABLE 1 - PAGE 4

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N740 TOP HEAD COOLING SPRAY AND SPARE NOZZLE (MANUAL)

20.80 in²-total code volume
4.71 in²-inner 1/4t code volume
5.96 in²-weld volume + HAZ (1/4")

Type Scan	Accessible Code Volume		Accessible Inner 1/4t Code Volume		Accessible Weld Volume	
	Area (in ²)	% examined	Area (in ²)	% examined	Area (in ²)	% examined
0°	10.44	100.0%	-	-	5.00	100.0%
45° T-scan	15.75	100.0%	4.71	100.0%	5.66	100.0%
60° T-scan	16.91	100.0%	4.71	100.0%	5.71	100.0%
45° P-scan	10.44	100.0%	3.11	100.0%	4.86	100.0%
60° P-scan	10.44	100.0%	3.11	100.0%	4.86	100.0%

N9(A&B) JET PUMP INSTRUMENT NOZZLE (MANUAL)

78.29 in²-total code volume
18.37 in²-inner 1/4t code volume
15.40 in²-weld volume + HAZ (1/4")

Type Scan	Accessible Code Volume		Accessible Inner 1/4t Code Volume		Accessible Weld Volume	
	Area (in ²)	% examined	Area (in ²)	% examined	Area (in ²)	% examined
0°	37.60	100.0%	-	-	9.66	100.0%
45° T-scan	59.00	100.0%	18.37	100.0%	15.06	100.0%
60° T-scan	64.64	100.0%	18.37	100.0%	15.10	100.0%
45° P-scan	37.60	100.0%	9.74	100.0%	9.64	100.0%
60° P-scan	37.60	100.0%	9.74	100.0%	9.64	100.0%

Note: Accessible is the volume which can be examined by present manual ultrasonic techniques



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N10 CRD RETURN NOZZLE (MANUAL)

63.14 in²-total code volume
14.08 in²-inner 1/4t code volume
12.70 in²-weld volume + HAZ (1/4")

Type Scan	Accessible Code Volume		Accessible Inner 1/4t Code Volume		Accessible Weld Volume	
	Area (in ²)	% examined	Area (in ²)	% examined	Area (in ²)	% examined
0°	30.10	100.0%	-	-	8.40	100.0%
45° T-scan	47.20	100.0%	14.08	100.0%	12.36	100.0%
60° T-scan	51.40	100.0%	14.08	100.0%	12.40	100.0%
45° P-scan	30.10	100.0%	7.68	100.0%	8.40	100.0%
60° P-scan	30.10	100.0%	7.68	100.0%	8.40	100.0%

N16 VIBRATION NOZZLE (MANUAL)

84.46 in²-total code volume
19.52 in²-inner 1/4t code volume
16.17 in²-weld volume + HAZ (1/4")

Type Scan	Accessible Code Volume		Accessible Inner 1/4t Code Volume		Accessible Weld Volume	
	Area (in ²)	% examined	Area (in ²)	% examined	Area (in ²)	% examined
0°	40.00	100.0%	-	-	10.16	100.0%
45° T-scan	63.20	100.0%	19.52	100.0%	15.82	100.0%
60° T-scan	68.40	100.0%	19.52	100.0%	15.86	100.0%
45° P-scan	40.00	100.0%	10.36	100.0%	10.16	100.0%
60° P-scan	40.00	100.0%	10.36	100.0%	10.16	100.0%

Note: Accessible is the volume which can be examined by present manual ultrasonic techniques



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INSERVICE INSPECTION OF REACTOR PRESSURE VESSEL
WELDS

- I. Component: Reactor pressure vessel (RPV) components, welds and associated base material identified in table 1 of this relief request.
- II. Code: The unit 1 reactor pressure vessel was designed and fabricated to ASME Section III, class 1 requirements. Applicable inservice inspections are to be performed in accordance with Regulatory Guide 1.150 Revision 1 and ASME Section XI, 1977 Edition with Addenda through and including Summer 1979. Also, Relief Request No. I-00013 permits the use of ASME Section XI, 1983 Edition with the Summer 1983 Addenda, Figure IWB-2500-7(b) for identifying the Code required examination volume.
- III. Code Requirements: Table IWB 2500-1, Examination Category B-D, B-A and B-F, requires specified volumes to be examined volumetrically at specified periods during the ten year interval. Included in this volume is varying degrees of base material adjacent to each weld that also requires examination.
- IV. Information to support the determination that the code requirements are impractical: Due to geometric configurations of the GGNS Unit 1 reactor, certain code required examination volumes, as depicted in ASME Section XI, cannot be examined to the extent of obtaining full code coverage. Table 1 provides a listing of the affected components and reactor pressure vessel welds with a detailed description of the cause and degree of the limitation.
- Relief Request Number I-00014 provides engineering rationale addressing the limitations associated with the nozzle to vessel welds. The discussions provided prior operating plant experience to justify that no further examinations were necessary and additionally this was justified by recognizing that the feedwater nozzles are the limiting case. Although 100% of the code volumes were not examined for the nozzle to vessel welds, sufficient examination coverage was obtained to detect any potential cracking.



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- IV. Information to support the determination that the code requirements are impractical:
(continued)
- A study of the welds listed in table 1 has shown that these weld locations are also bounded by the feedwater nozzle discussions. The stresses due to any expected loadings and conditions at these locations are bounded by those at the feedwater nozzle locations. Supporting the concept of the bounding is the fact that no indications have been found at any of the partially examined locations. In addition, it should be noted that a partial examination of each weld was obtained which included either all or a portion of the reactor pressure vessel inner surface.
- V. Specific relief requested:
- Permission is requested to perform ultrasonic examinations within the limitations described in table 1 of this relief request.
- VI. Reasons why relief should be granted:
- Relief as described within should be granted for the following reasons:
1. The entire reactor pressure vessel was subjected to an ASME Section III hydrostatic test after fabrication.
 2. The entire reactor pressure vessel will be subjected to system leakage test at each refueling outage and a system hydrostatic test each inspection interval in accordance with the requirements of ASME Section XI.
 3. The subject welds were volumetrically examined in accordance with ASME Section III during fabrication.

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- VI. Reasons why relief should be granted:
4. There is no history of service induced flaws in these areas of the reactor pressure vessel other than those of the feedwater nozzles discussed in Relief Request Number I-00014.
 5. The areas of the reactor pressure vessel being examined are the limiting areas.
 6. The potential for initiation and propagation of cracking has been discussed assuming both fatigue and stress corrosion cracking mechanisms. It was concluded by the use of limiting analyses results performed for the feedwater nozzle blend radii, that cracking is unlikely at Grand Gulf nozzle/vessel weld locations. In fact, even if it was hypothesized that these postulated cracks went undetected, a crack length of 58 inches was required before rapid crack growth were to occur during normal operation. It is unlikely that cracks of this size would go undetected. Therefore, a significant leak before break margin exists.
- VII. Alternate testing: None
- VIII. NRC Discussion Statement:
- For future ISI examinations, the Licensee should continue to monitor the development of new or improved examination techniques. As improvements in these areas are achieved, the Commission will require that these enhanced techniques be made a part of the inservice examination requirements for the components or welds which received a limited examination. The staff concludes that examination to the extent described in this relief request will provide the necessary assurance of structural integrity because the large sample of welds that will be examined is sufficient to detect any significant service-induced degradation. The staff also concludes that compliance with the specific requirements of Section XI would result in hardship or unusual difficulties without a



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VIII. NRC Discussion
Statement
continued:

compensating increase in the level of quality
and safety. Therefore, relief is granted as
requested.



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<u>WELD I.D.</u>	<u>CODE CATEGORY</u>	<u>ITEM NO.</u>	<u>DESCRIPTION OF EXAMINATION LIMITATION</u>
Nozzle N7	B-D	B3.100	The N7 nozzle contains 12 1-3/8" diameter holes drilled and tapped 3-1/4" deep into the nozzle face. These holes prevent primary ultrasonic waves from reaching the bore region of the nozzle inner radius (see figure 1).
Nozzle N8	B-D	B3.100	Same as the N7 nozzle.
Seams; DA, DB, DC, DD	B-A	B1.22	The RPV bottom head is constructed of four side plates and one center plate which are joined by four welds. Following preservice examinations, a total of 255 holes were bored into the bottom head assembly into which the following components were installed: 193 control rod drives, 58 incore tubes, 2 N15 drain lines, 1 N11 and 1 N18 core differential pressure lines. In addition to these, the RPV skirt is welded approximately 6 inches below the seam that attaches the shell to the head and an insulation bracket is mounted approximately 4 to 6 inches below the support skirt to bottom head weld that further restricts access to the four welds. the following portions of each weld is accessible for examination: DA - 44.4%, DB - 44.4%, DC - 17.2%, DD - 17.2%
Seam; AD	B-A	B1.11	The vessel name plate is located at 6" on the vessel, 12 inches above the centerline of weld "AD". The plate has a 7 inch radius, is constructed of 1 inch thick carbon steel and is welded to the number 4 shell ring with a 1/2 inch fillet weld. The location of the plate prevents full weld coverage with the 60° T-Scan (angle beam transverse to the weld axis) from two directions.



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WELD I.D.	CODE CATEGORY	ITEM NO.	DESCRIPTION OF EXAMINATION LIMITATION
Seam; AD continued	B-A	B1.11	The limitations exist for a total of 12 inches, 6 inches each side of code plate centerline (see figure 2).
Seam; AE	B-A	B1.30	The "AE" weld seam joins the number 4 shell ring to the RIV flange. The physical configuration of the flange precludes complete examination coverage of the code required volume. The code volume is examined with limitations from the shell side only, access from the flange side of the weld is totally prohibited (see figures 3 and 4). The following provides the details of the volumes examined compared to the code required volume.

Code Volume: 84.35² inches

Weld Volume: 15.06² inches

Examination Coverage Obtained:

	code volume in ²	% examined	weld volume in ²	% examined
0°	42.47	50.3	12.58	83.5
45°-T	66.56	78.9	14.04	93.2
60°-T	71.48	84.7	14.09	93.5
45°-P	42.47	50.3	12.58	83.5
60°-P	42.47	50.3	12.58	83.5



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WELD I.D.	CODE CATEGORY	ITEM NO.	DESCRIPTION OF EXAMINATION LIMITATION
Nozzles; N4A, N4C N4D, N4F	B-D	B3.90	The N4 nozzles are located on shell ring number 3, 17 inches from the N13 nozzles. The close proximity of the N13 nozzles limits the automated examination to a "W" dimension of 14 inches for approximately 44° of the N4 nozzles circumference. This limitation prevents the 60° T-Scan from examining all of the required code volume (see figure 5). Supplemental manual 60° examinations would obtain coverage of the limited area, however due to the radiation levels encountered at the first refuel outage (3 R/HR) and the fact that the volume not examined by the 60° scan is examined by the 45° T-Scan, 45° and 60° P-Scan and the 0° scan, it is not practical to perform the supplemental examinations.
Nozzles; N2D, N2C N2J, N2K	B-D	B3.90	Examination of 4 recirculation inlet nozzles is limited due to interferences from the two N9 Jet Pump Instrument nozzles located approximately 14 inches from the affected N2's. This portion of the circumference that is not accessible to the automated scanner is examined manually, but the 14 inch limitation prevents complete coverage with the 60° T-Scan (see figure 6).
Nozzles; N9A, N9B	B-D	B3.90	The two N9 nozzles are located between and just below four of the N2 nozzles creating the same limitations for the N9 nozzles as discussed above for the N2's (see figure 7).
Seams; 1B, 1C	B-A	B1.12	The two welds are vertical seams in the number 1 shell ring. After the performance of preservice, cutouts were made into the two vertical seams for installation of two N2 nozzles.



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<u>WELD I.D.</u>	<u>CODE CATEGORY</u>	<u>ITEM NO.</u>	<u>DESCRIPTION OF EXAMINATION LIMITATION</u>
Seams; BB, BC continued	B-A	B1.12	This resulted in partial removal of the vertical seam weld metal and replacement with nozzle to vessel weld metal (code category B-D) as shown in figures 8 and 9. Geometric configuration is such that the nozzle weld and seam welds are one in the same for certain areas. The same limitations that prevents examinations of the nozzle weld from the nozzle side also prevents the examination of the vertical seam from the nozzle side (reference relief request I-00014). The limitation encompasses an area of 15.5 inches above and below the N-2 nozzle centerline. The 0° does examine across the weld and a portion of the base metal on the nozzle side (see figure 10). A portion of the weld and nozzle side base metal was not examined with the 45° and 60° T-Scans from the nozzle side (see figure 9). A portion of the base metal on the nozzle side was also not examined with the 45° and 60° P-Scans (see figure 11).
Seam; BA	B-A	B1.12	A similar condition as described for the "BB" and "BC" seams also exists except that the cutout is for a N1 nozzle and the limitation is for the 45° and 60° P-Scans from the nozzle direction only (see figure 13).
Seams; BI, BJ, BK	B-A	B1.12	The 3 seams are longitudinal welds located on the number 3 shell ring. Due to the location of various nozzles, limitations have been created that prevents the 60° T-Scan from examining the full code volume of the weld metal. The close proximity of the nozzles associated with the geometry prevents an adequate placement of the probe to obtain the code required coverage (see figure 12). The below table provides the restricting nozzle and the linear inches of weld that is subject to the limitation.



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WELD I.D.	CODE CATEGORY	ITEM NO.	DESCRIPTION OF EXAMINATION LIMITATION		
Seams; BH, BJ, BK continued	B-A	B1.12	Weld I.D.	Restricting Nozzle	Inches Limited
			BH	N5A	31
			BJ	N6C, N5B	70
			BK	N13D	18
Nozzle to safe welds: N1A& N1B, N2A thru N2N, N4A thru N4F, N5A&B, N6A, B&C N9A&B	B-F	B5.10	Due to the geometric configuration of the nozzle to safe end assembly, full code coverage cannot be obtained from two directions. Examinations are performed with either shear wave, refracted longitudinal wave or both due to the complex bi and trimetallic structures of the nozzle to safe end assembly. Currently, examinations are performed utilizing automated systems, the coverage of an automated examination is more limiting than that of a manual examination. The coverage report provided in figures 14 through 19 indicates the additional coverage that can be obtained in the event future examinations are performed with manual techniques.		



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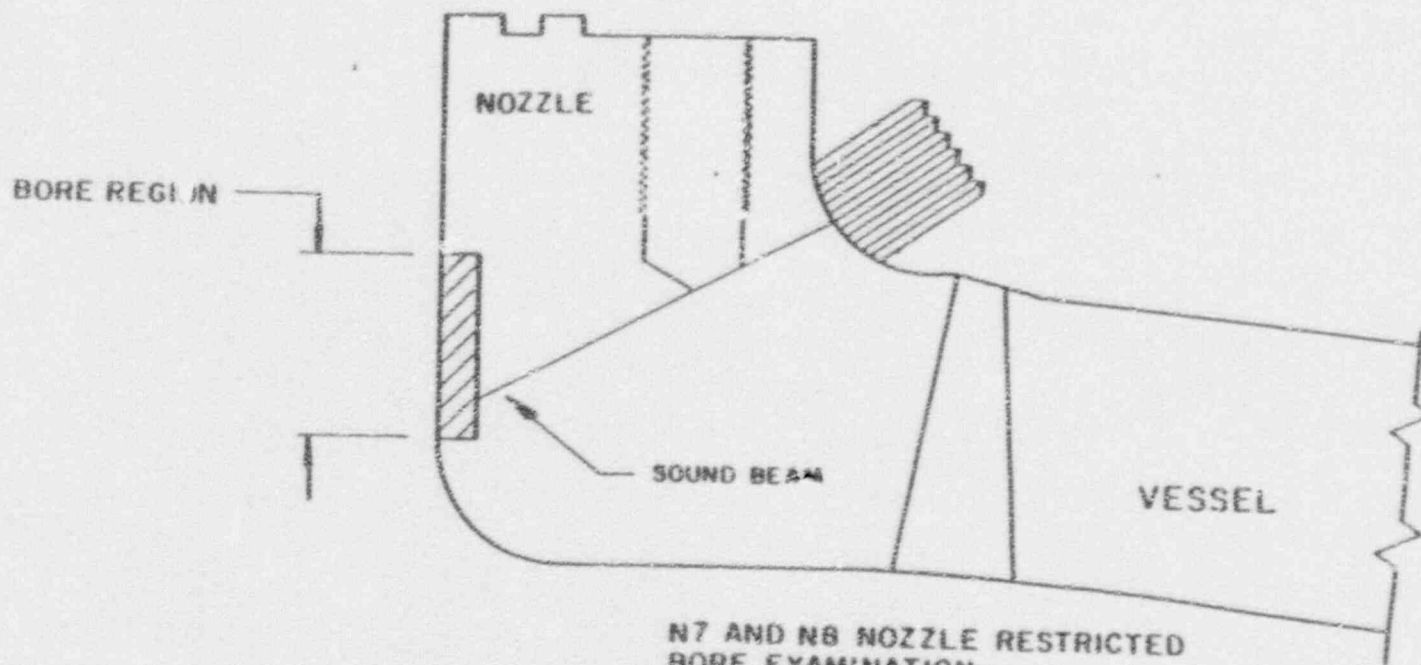
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<u>WELD I.D.</u>	<u>CODE CATEGORY</u>	<u>ITEM NO.</u>	<u>DESCRIPTION OF EXAMINATION LIMITATION</u>
Seams; EM, EN, EP, ER,	B-A	B1.12	These four longitudinal welds are located in shell ring number four and intersect with circumferential weld that joins the shell ring to the vessel flange (seam AE). The vessel flange does not permit full ultrasonic coverage of the code volume when performing the 45° and 60° P-Scans from the flange surface. The P-Scan is performed with the sound beam oriented parallel to the weld axis, and the transducer maneuvered over the entire length of the weld except at the intersection to the AE seam (see figure 20). At a cross sectional view of the weld axis, the code volume is approximately 1,256.5 square inches, the unexamined areas are 52.7 sq. inches or 4.2% for the 60° and 30.1 sq. inches or 2.4% for the 45°. These areas are examined by both the 45° and 60° T-Scan from two directions and a P-Scan from the Shell surface.



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N7 AND N8 NOZZLE RESTRICTED
BORE EXAMINATION

FIGURE 1
SCALE .4"=10"

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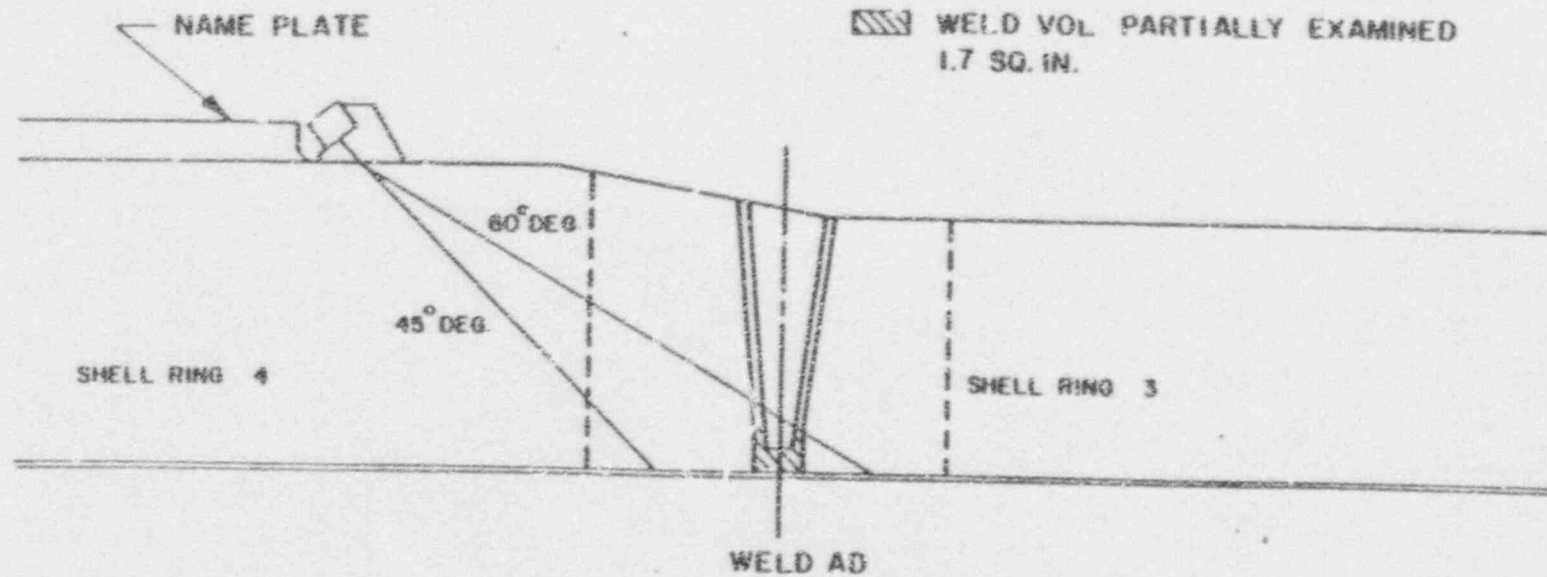


FIGURE 2.

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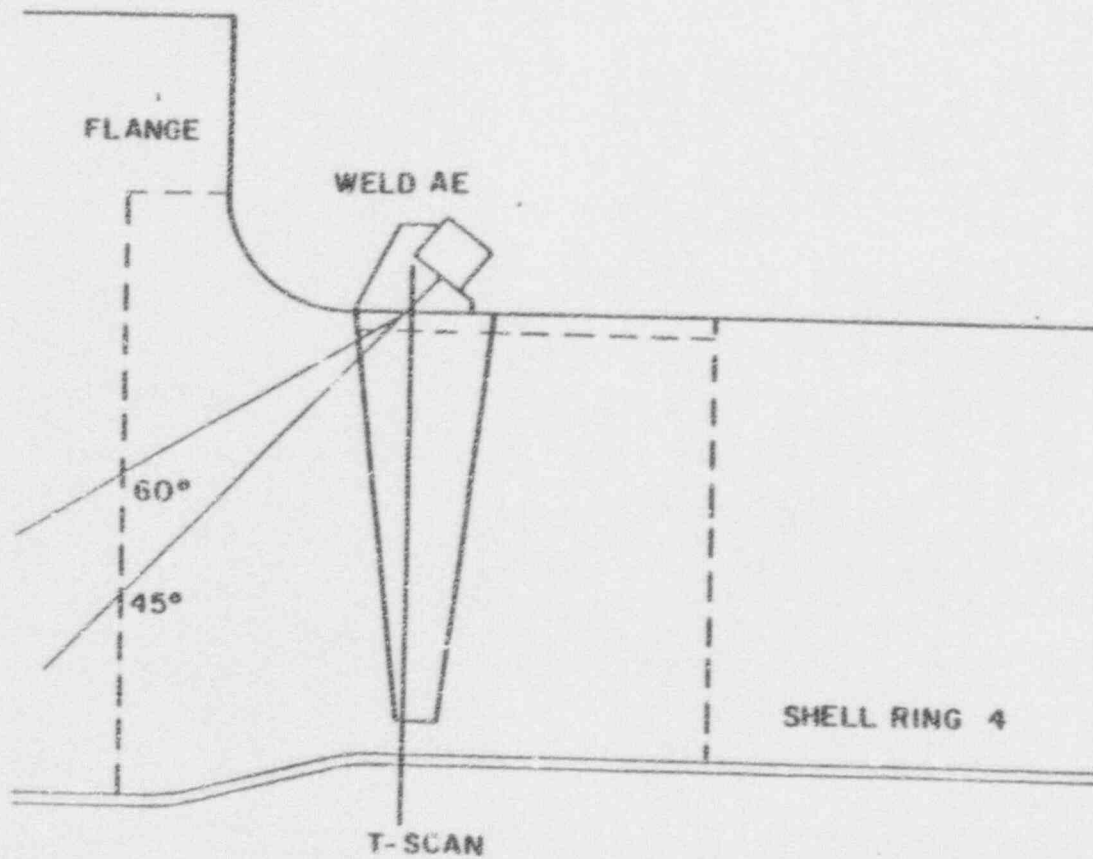


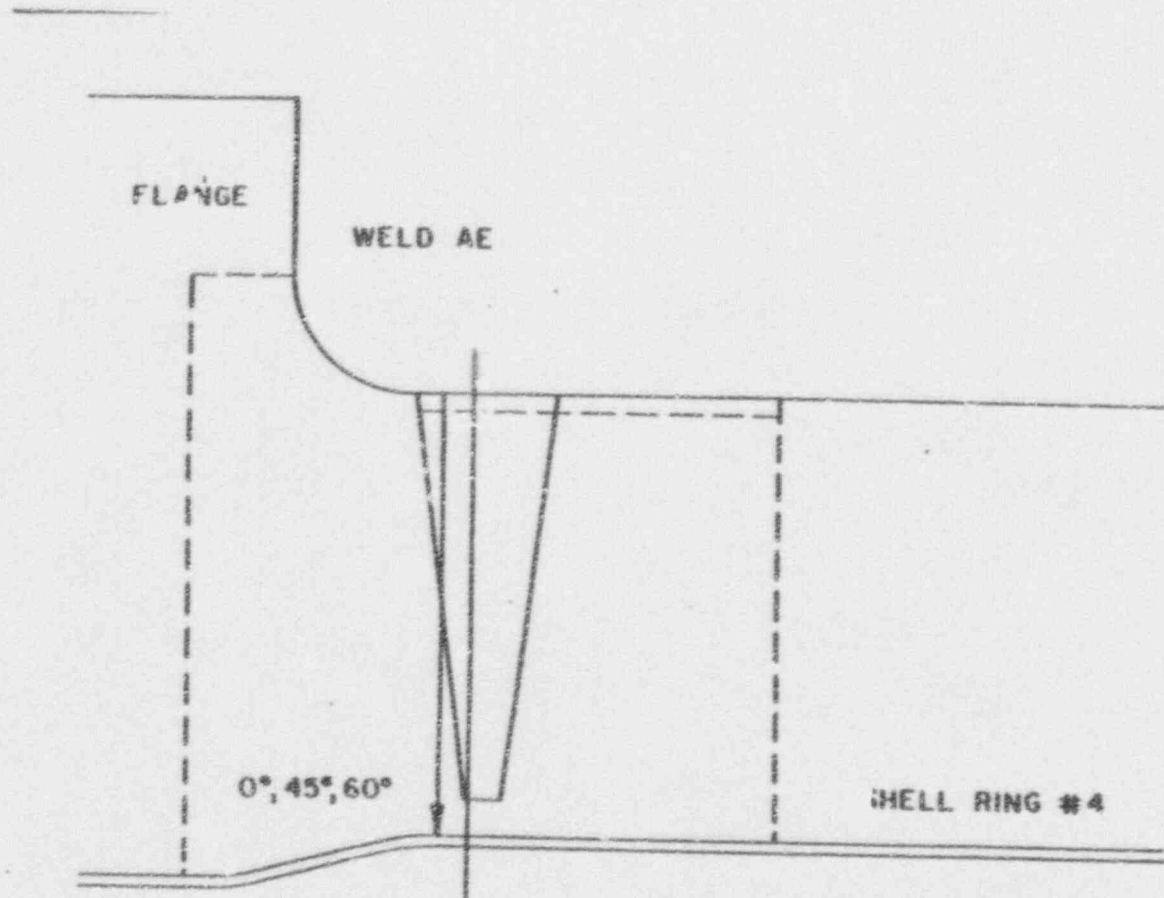
FIGURE 3

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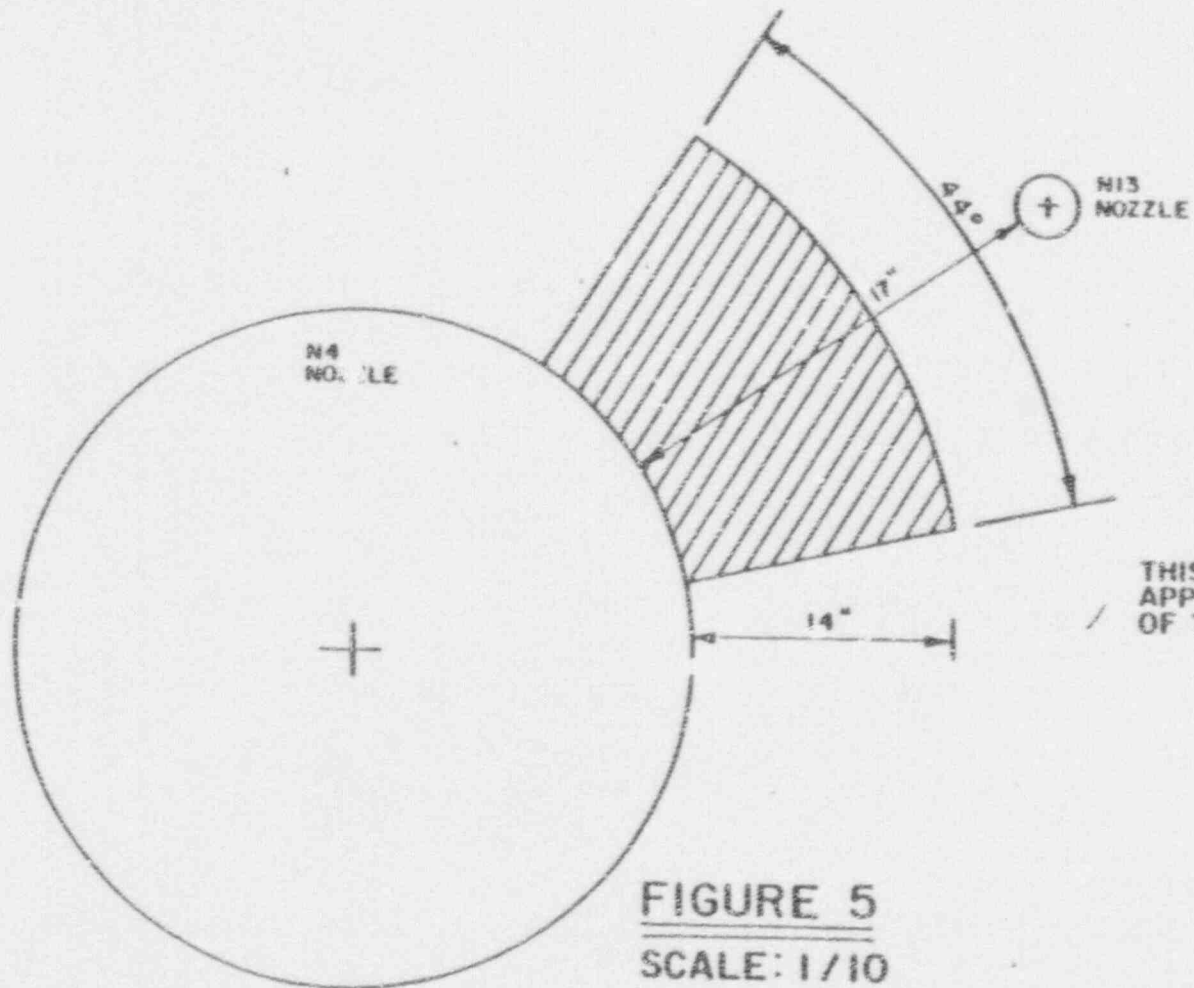
P - SCAN
FIGURE 4.

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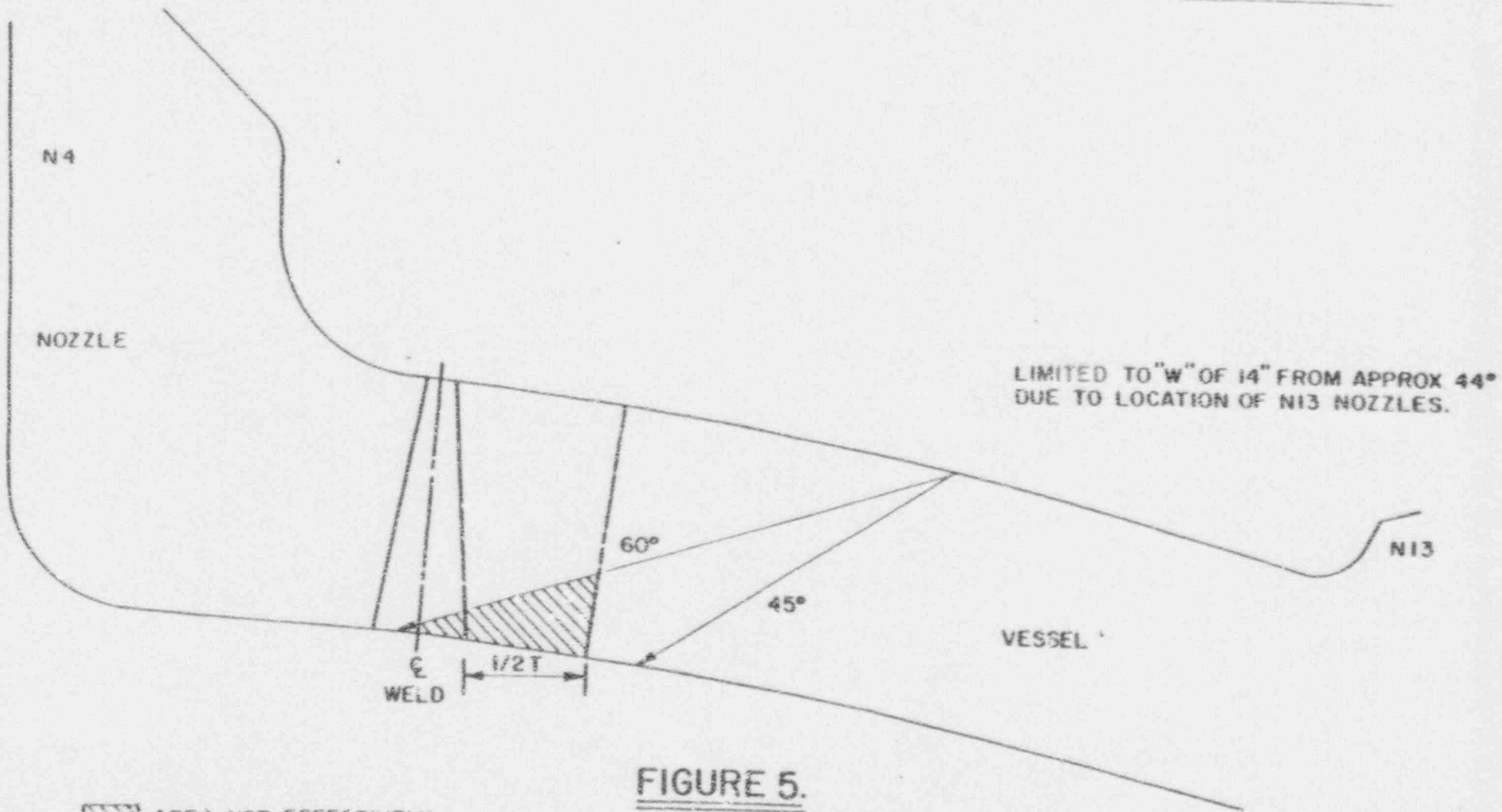


THIS AREA IS LIMITED TO "W" OF 14"
APPROX. 44° DUE TO THE LOCATION
OF THE N13 NOZZLES

FIGURE 5
SCALE: 1/10

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AREA NOT EFFECTIVELY
EXAMINED BY 60° T-SCAN

FIGURE 5.

SCALE 1/4

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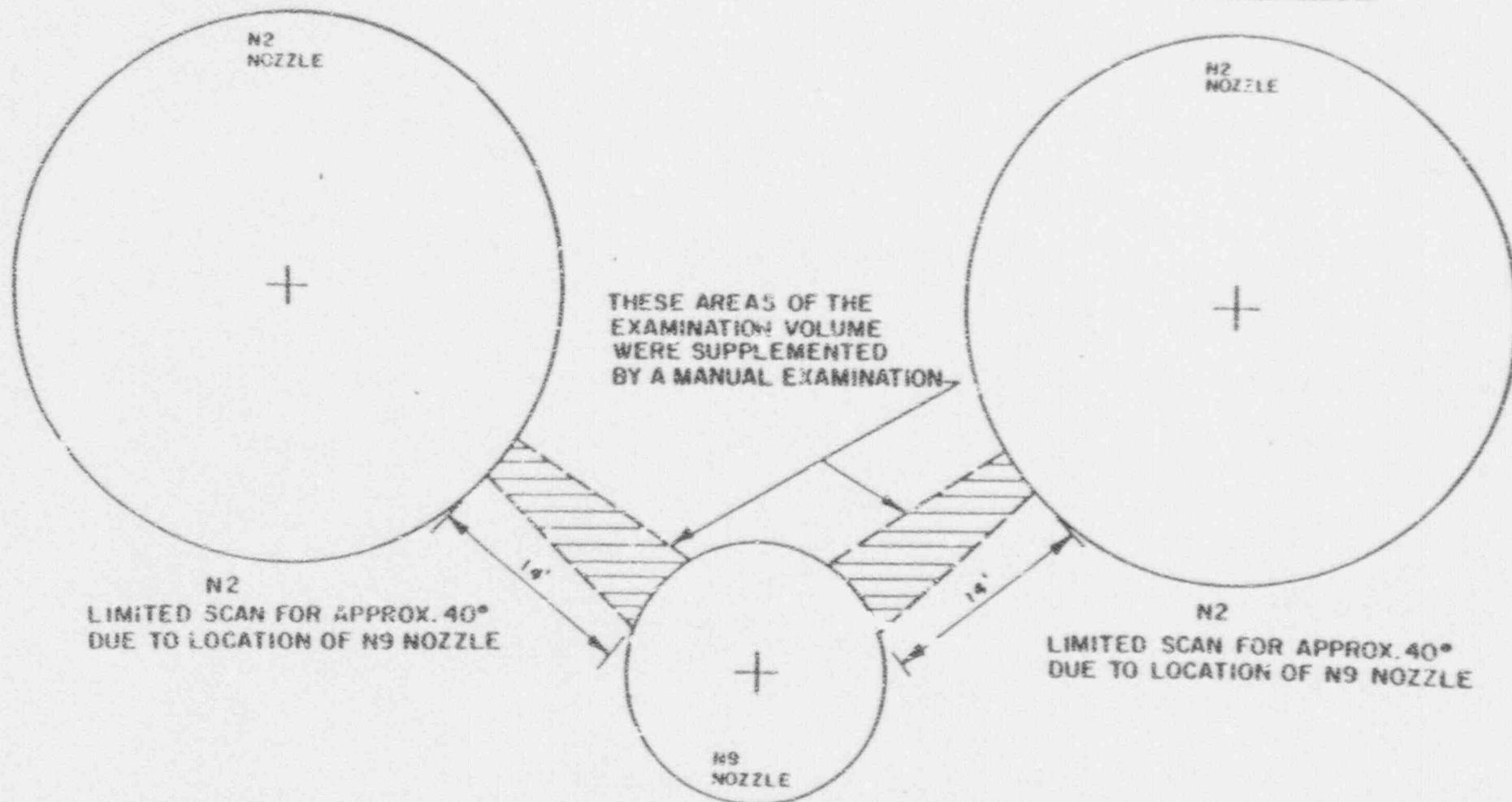


FIGURE 6

SCALE: 1/10

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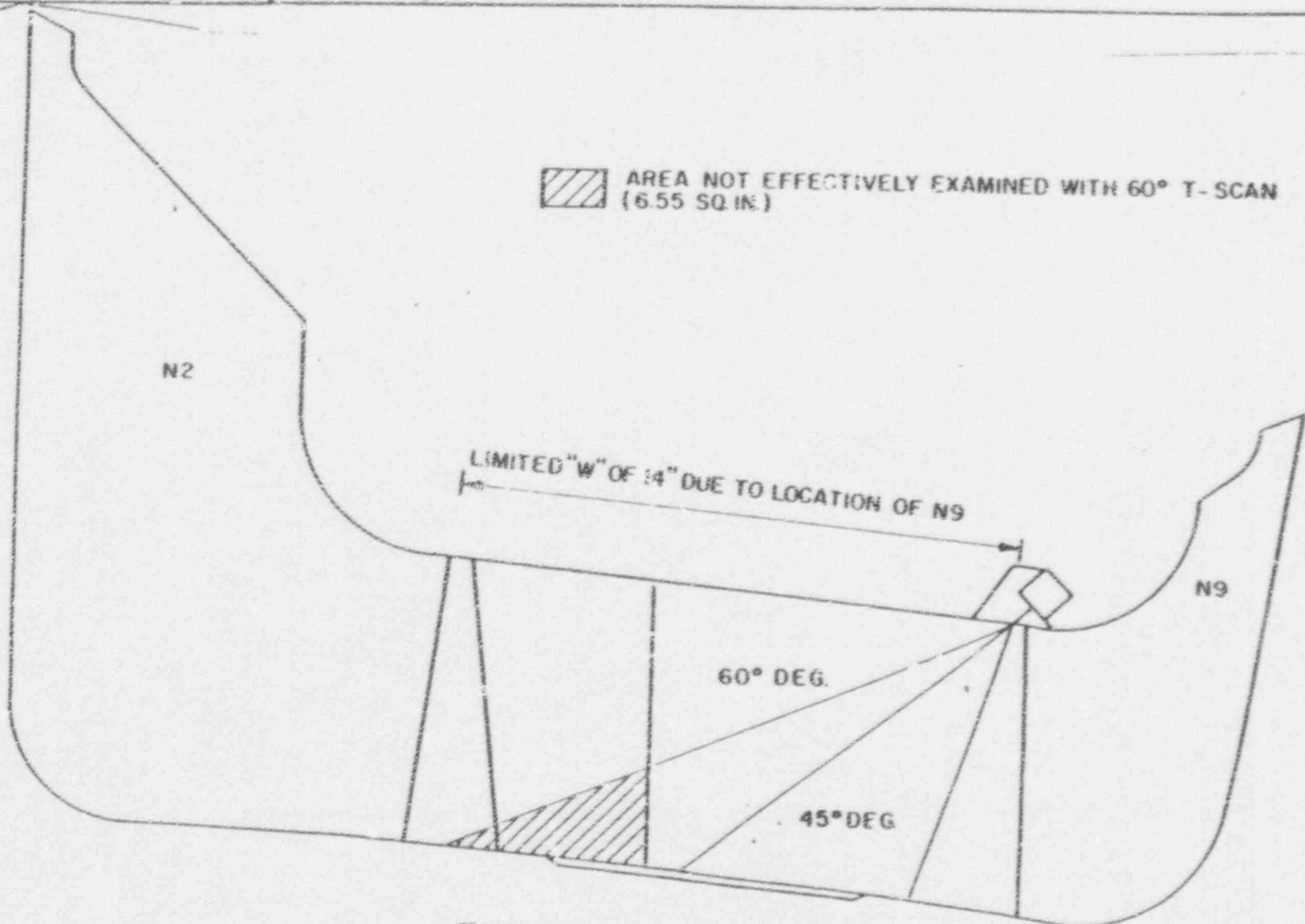


FIGURE 6.

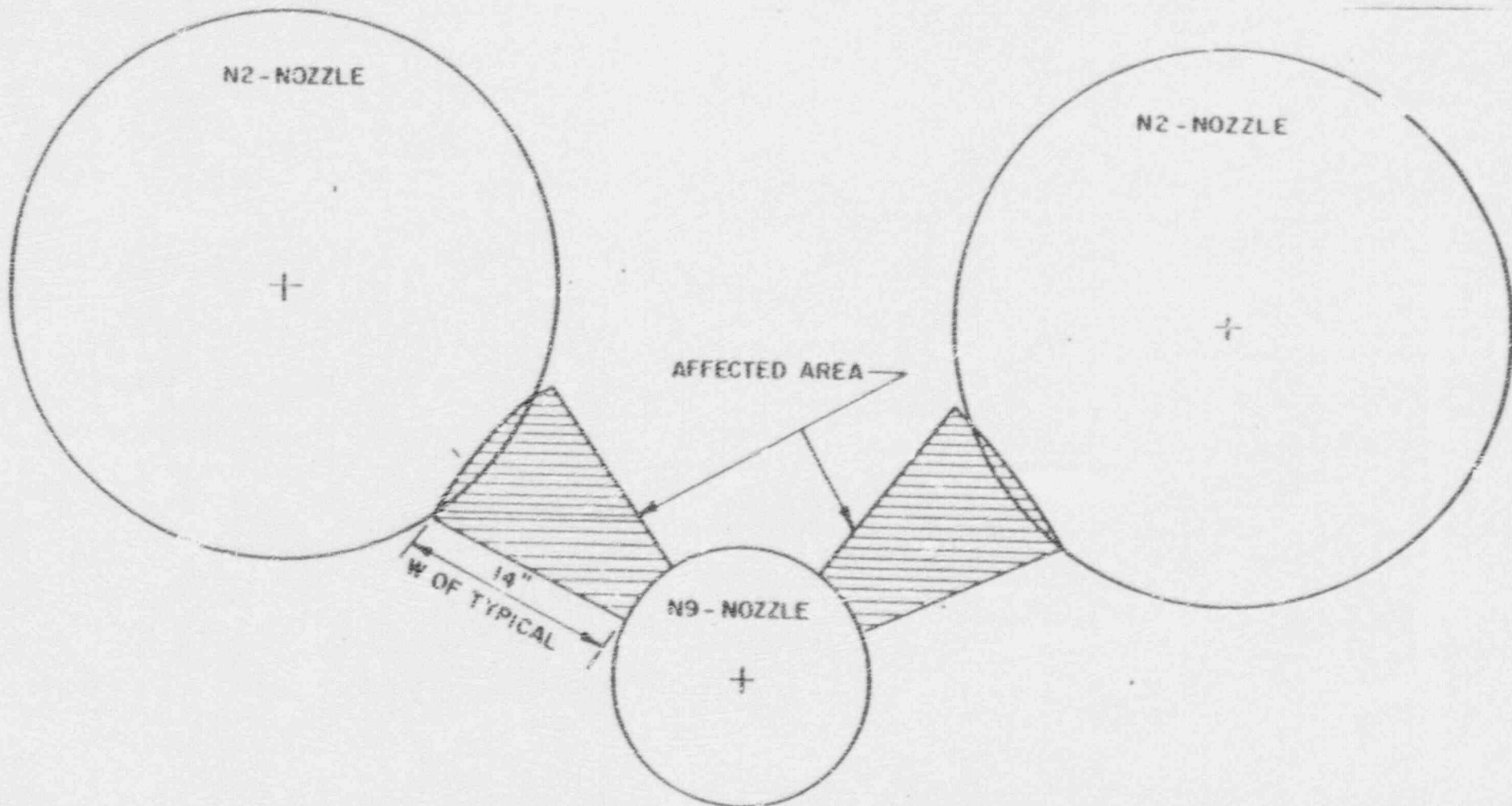


FIGURE 7.

SCALE: 1/10

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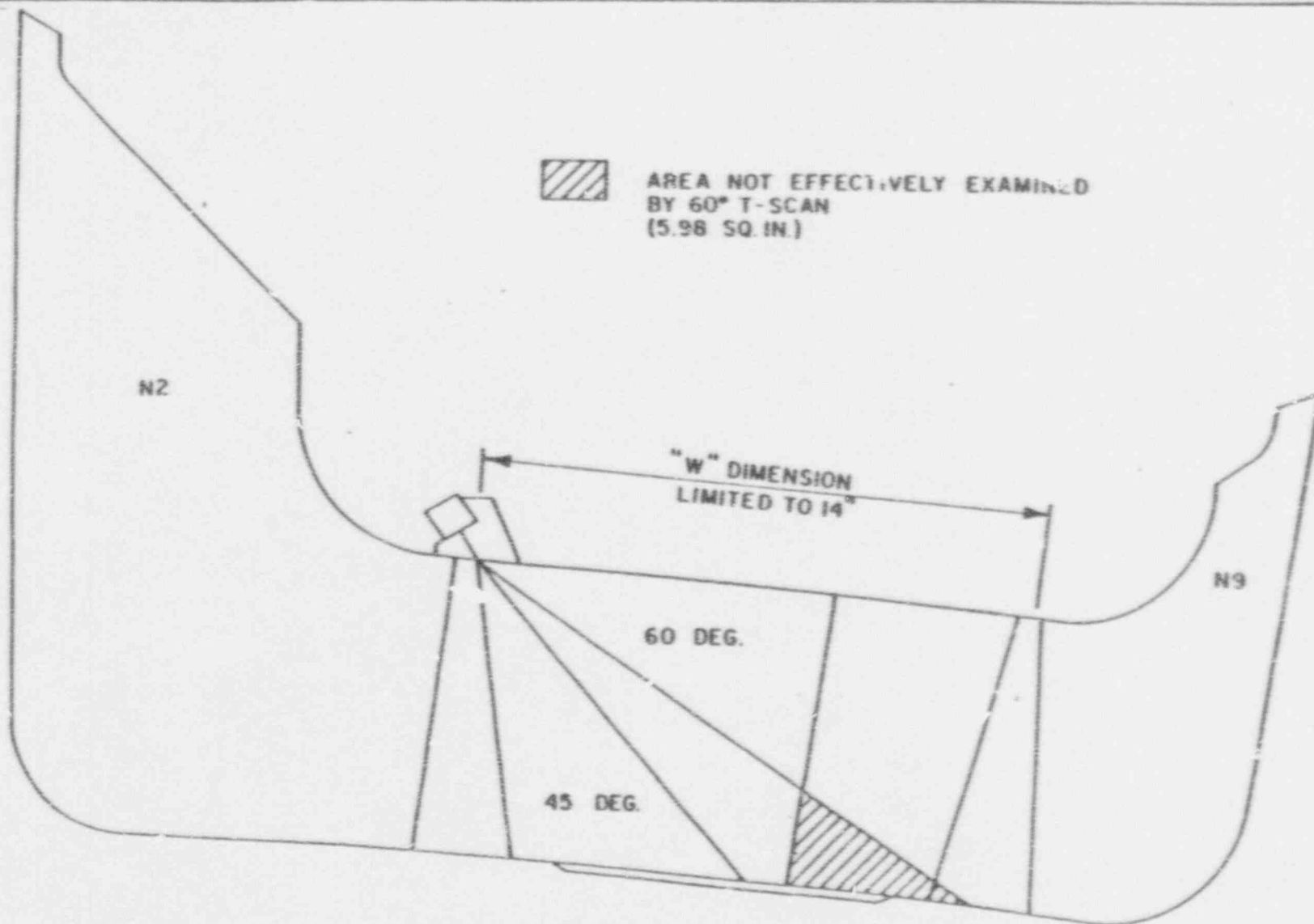


FIGURE 7.

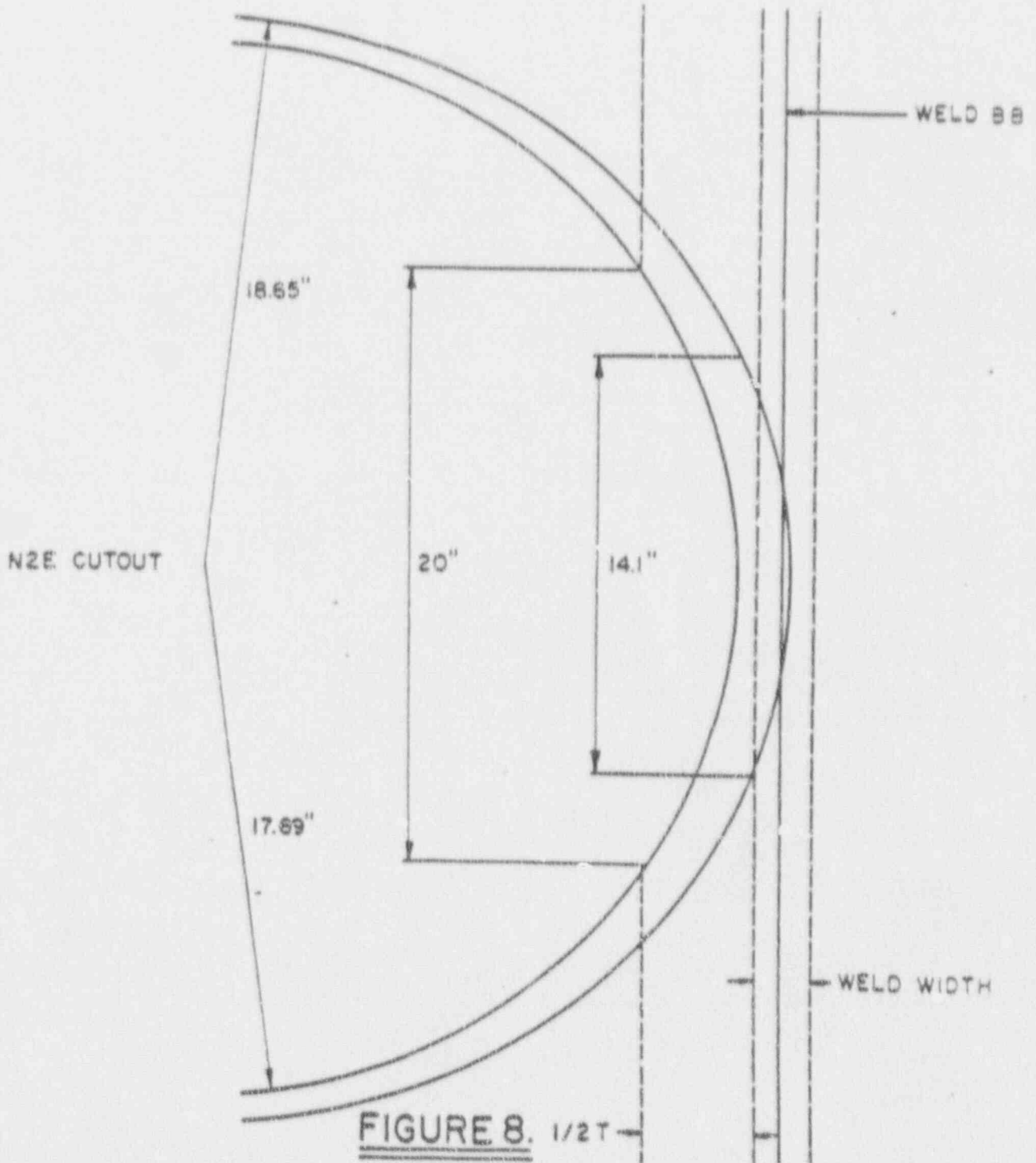


FIGURE 8. 1/2 T

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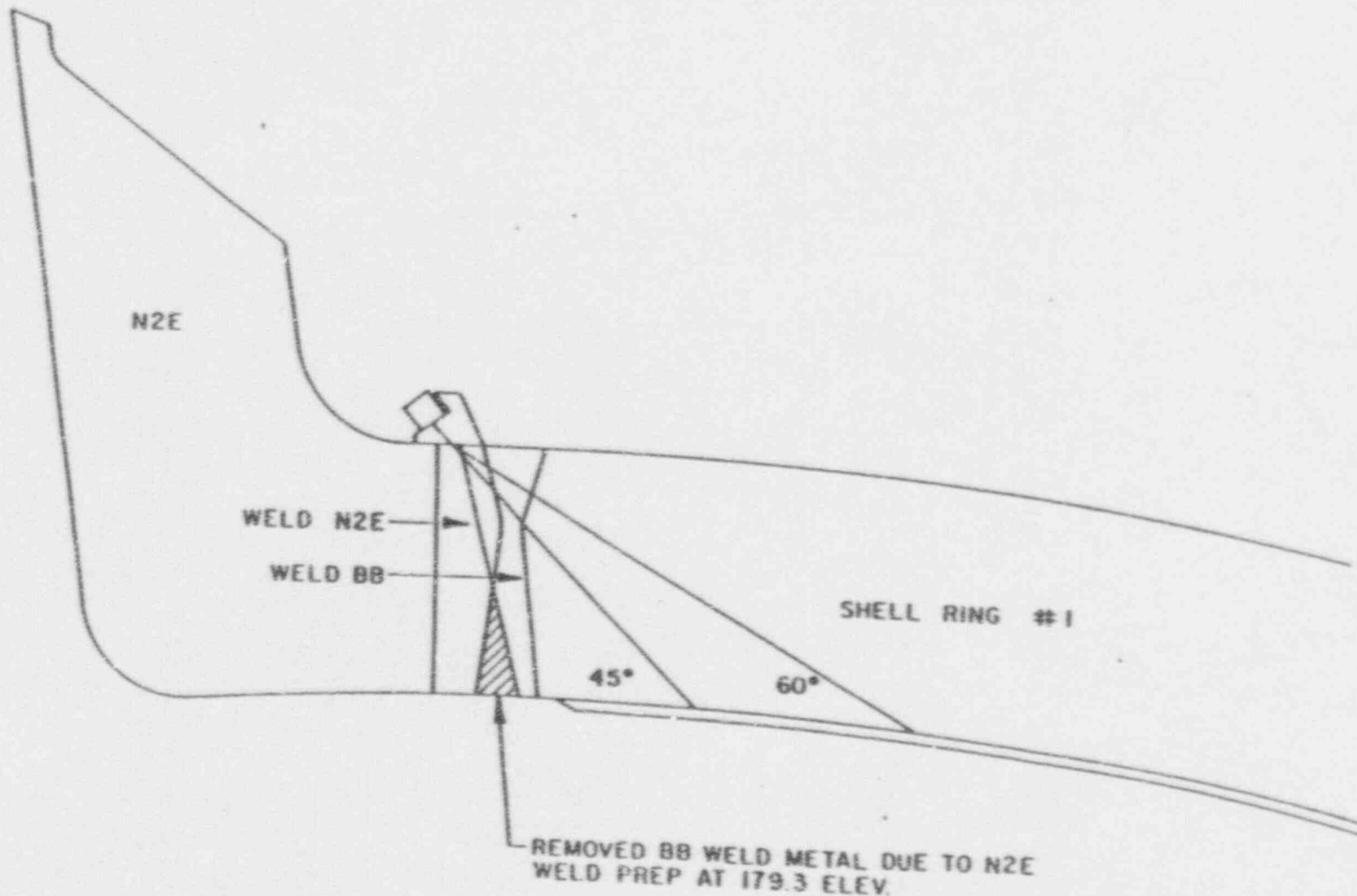


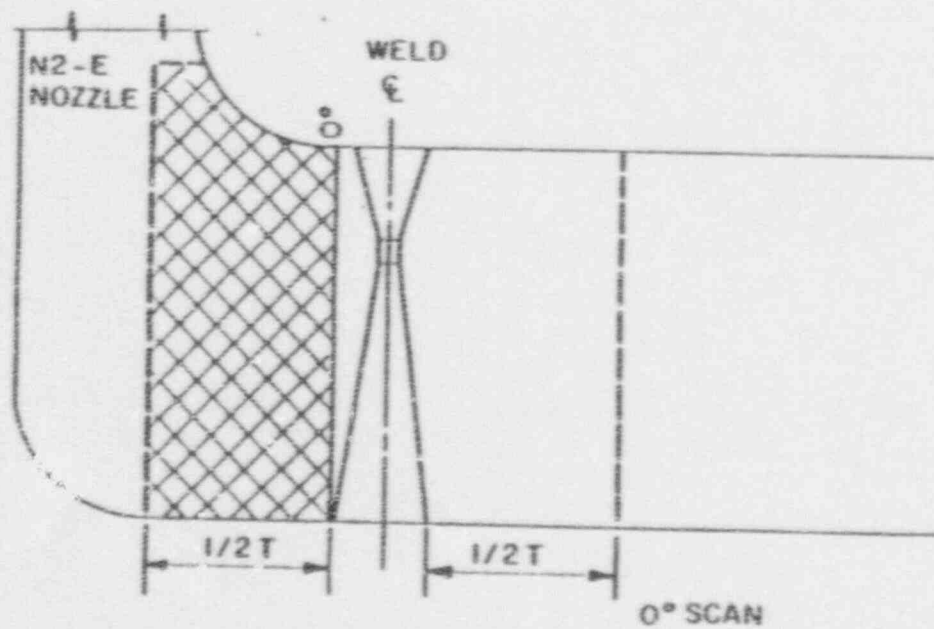
FIGURE 9.

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AREA NOT EXAMINED

FIGURE 10.
SCALE: 1/4

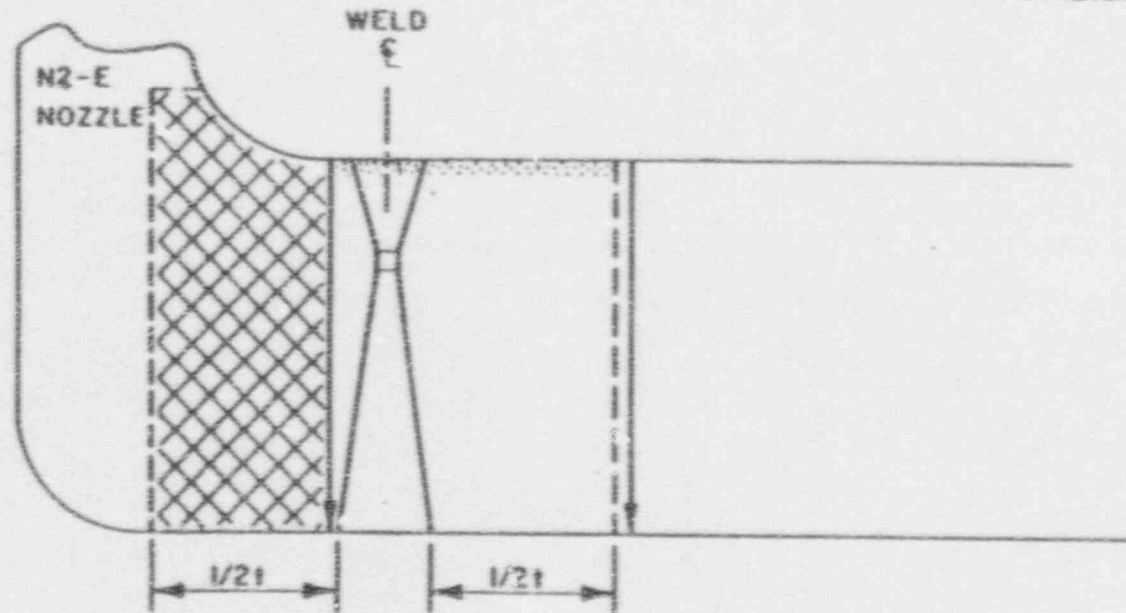
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SCAN PATHS OF BB WELD FOR
P-SCANS UTILIZING 45° & 60°



AREA NOT EXAMINED DUE TO NEAR FIELD EFFECTS.



AREA NOT EXAMINED

FIGURE II.

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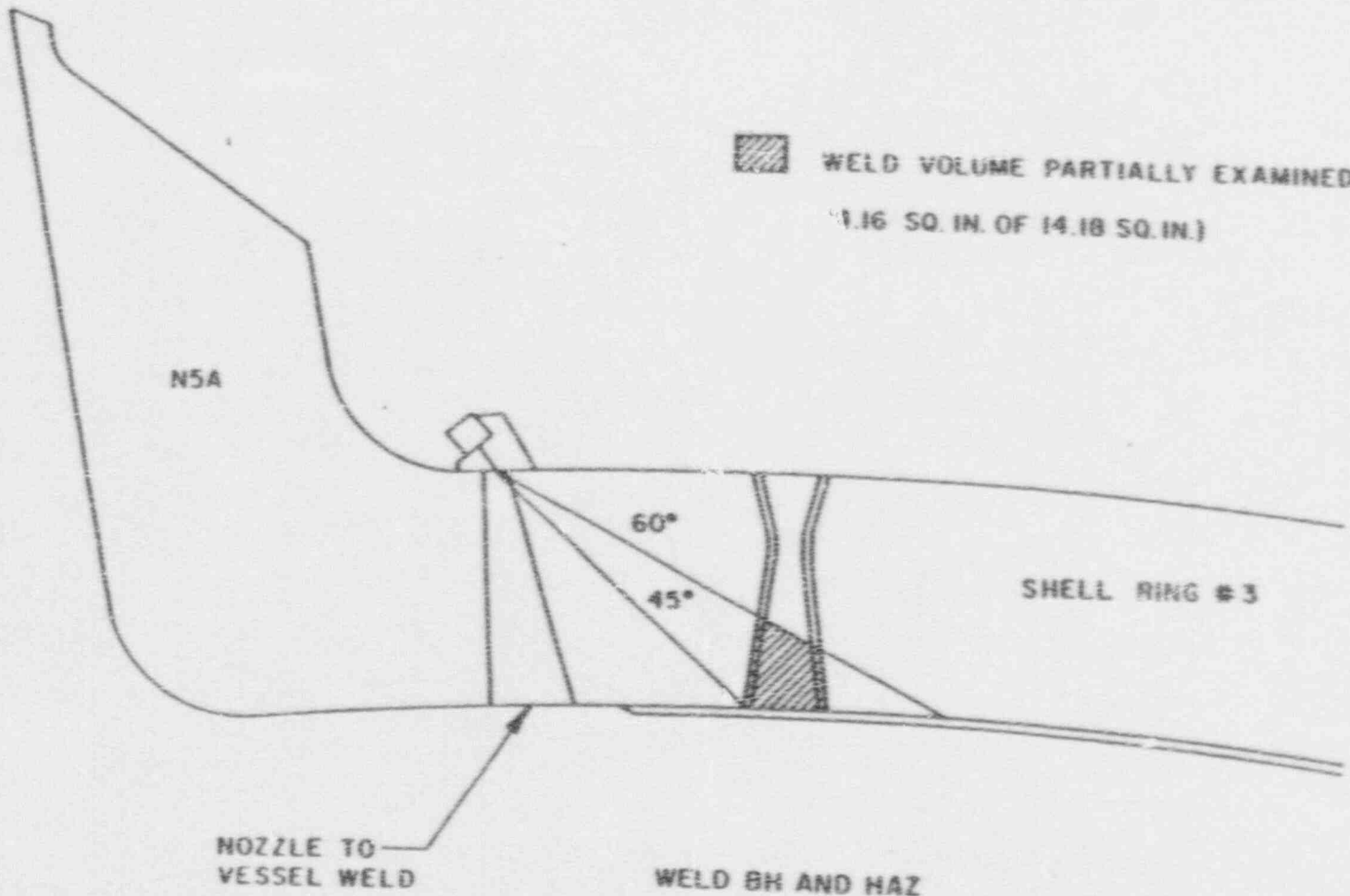
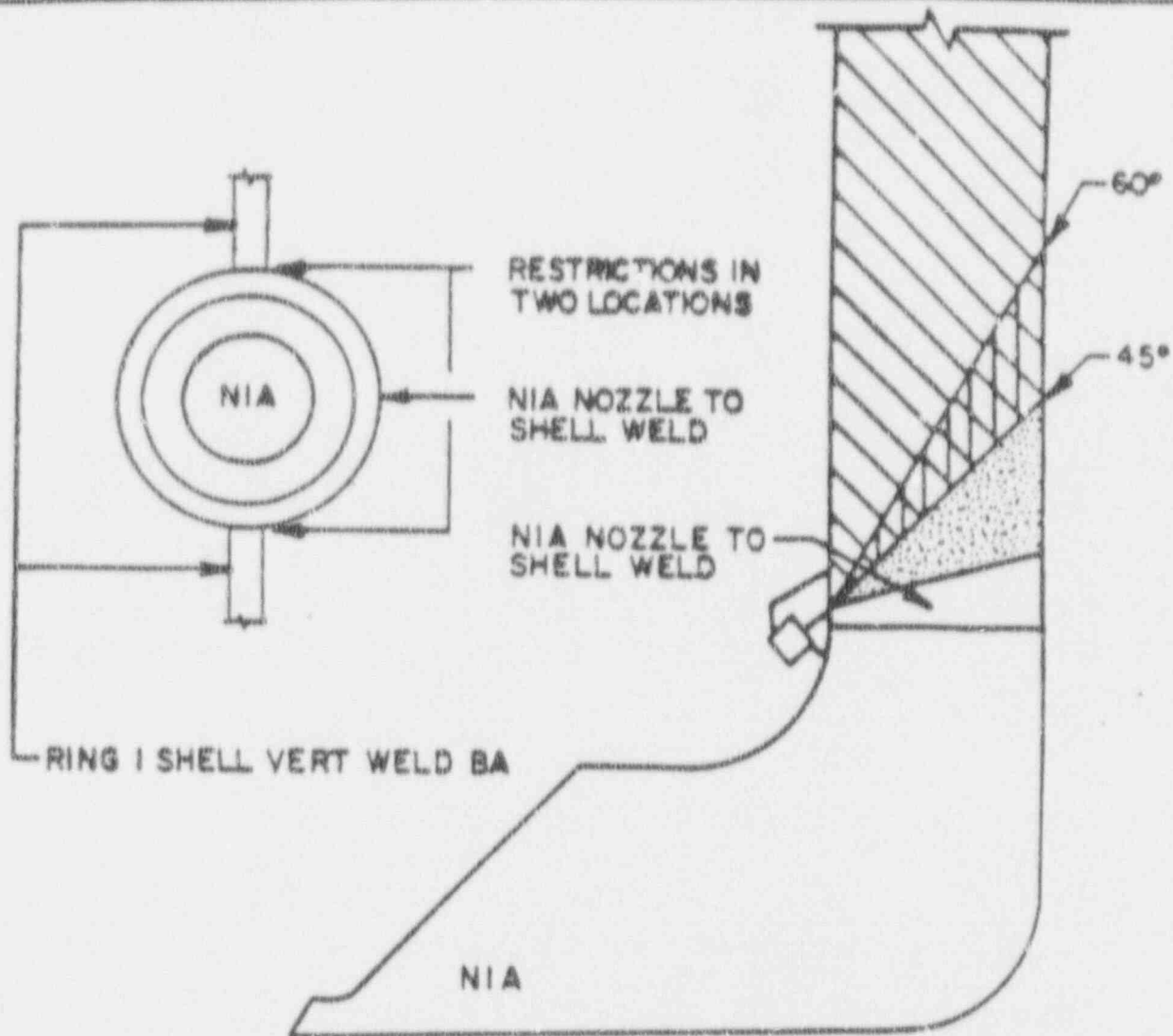


FIGURE 12

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TOTAL VOLUME WELD BA = 840 IN³

WELD BA P-SCAN RESTRICTION DUE TO NIA NOZZLE

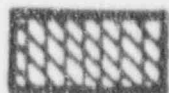
LEGEND



RING I SHELL VERT. WELD BA



AREA NOT EXAMINED WITH 45° OR 60° SOUND WAVE,
APPROX. 39 IN.³ OR 4.6%



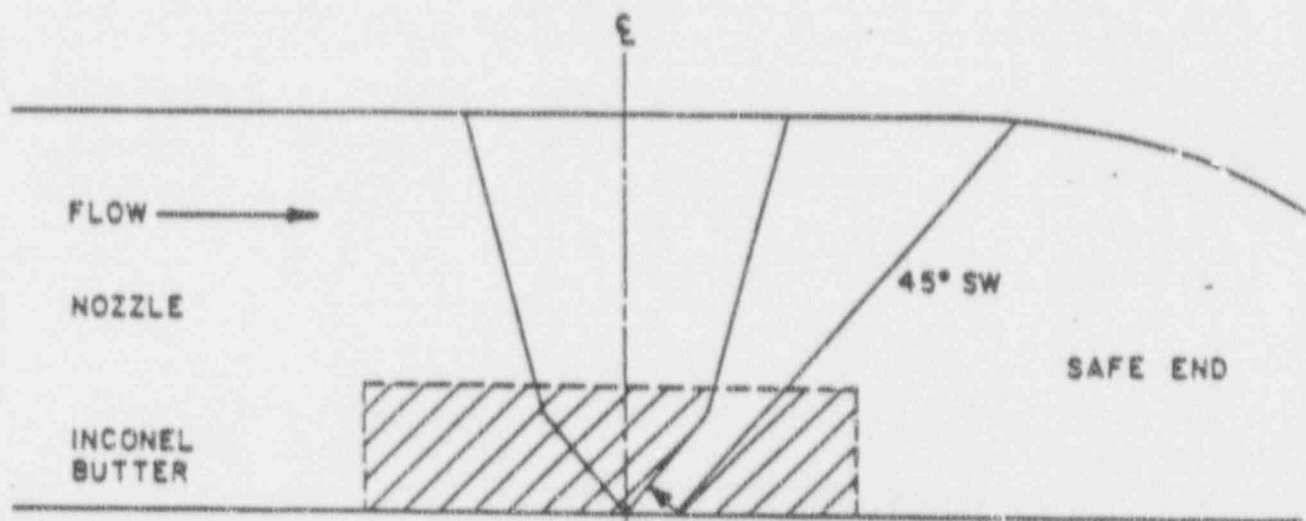
AREA NOT EXAMINED WITH 60° SOUND WAVE, APPROX.
30 IN.³ OR 3.6%

FIGURE 13 REVISION 1



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N1
RECIRCULATION OUTLET NOZZLE TO SAFE END WELD
LIMITATIONS



N1

Total code volume at a cross sectional view is .95 in²

- o Automated techniques utilizing a 45° shear wave obtains two directional coverage of an area equal to .17 in².
- o Also, a 45° and 60° refracted longitudinal (RL) wave is utilized that obtains one directional coverage of the entire code volume scanning from the nozzle side.
- o The cross hatched area received the one directional coverage from the nozzle side, the remaining area was examined from two directions utilizing the shear wave.
- o Manual examinations will provide two directional coverage of the weld and nozzle base material, the available "W" dimension on the safe end side of the weld is insufficient to obtain full coverage of the safe end material.

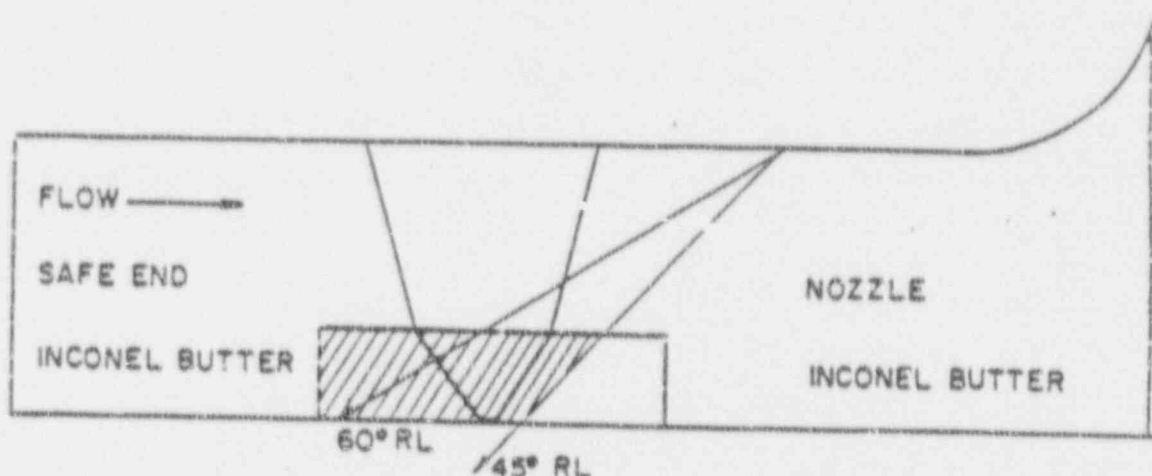
FIGURE 14



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N2
RECIRCULATION INLET NOZZLE TO SAFE END WELD
LIMITATIONS



Total code volume at a cross sectional view is .846 in²

- Automated techniques utilized a 45° and 60° RL wave for the examination of the N2F and N2H to obtain complete code volume coverage from one direction with both angles.
- The remaining N2 nozzles (A,B,C,D,E,G,J,K,M,N) were examined completely from one direction with only the 60° due to excessive noise received with the 45° transducers
- Manual examinations can provide two directional coverage of the area represented by the cross hatching, this would improve total code coverage to .271 in² or 32% for the 60° and .642 in² or 75.6% for the 45°.
- If the presently available 45° transducers are improved to reduce noise levels, future examinations will include the 45° for improved coverage.

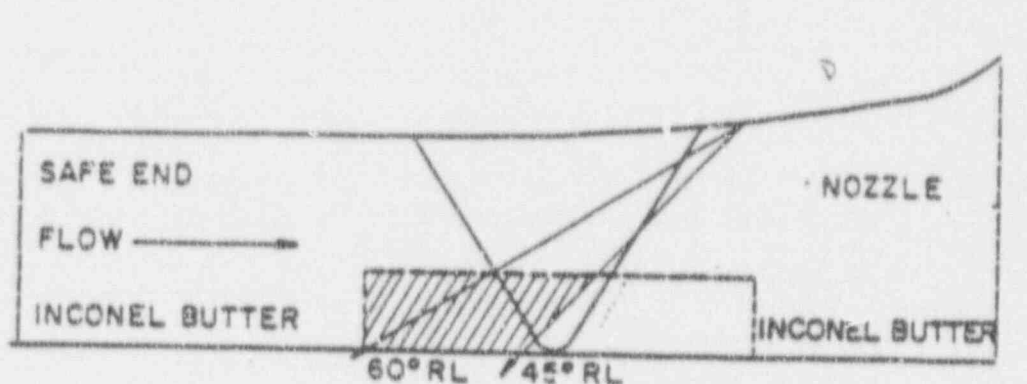
FIGURE 15



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N4
FEED WATER INLET NOZZLE TO SAVE END WELD
LIMITATIONS



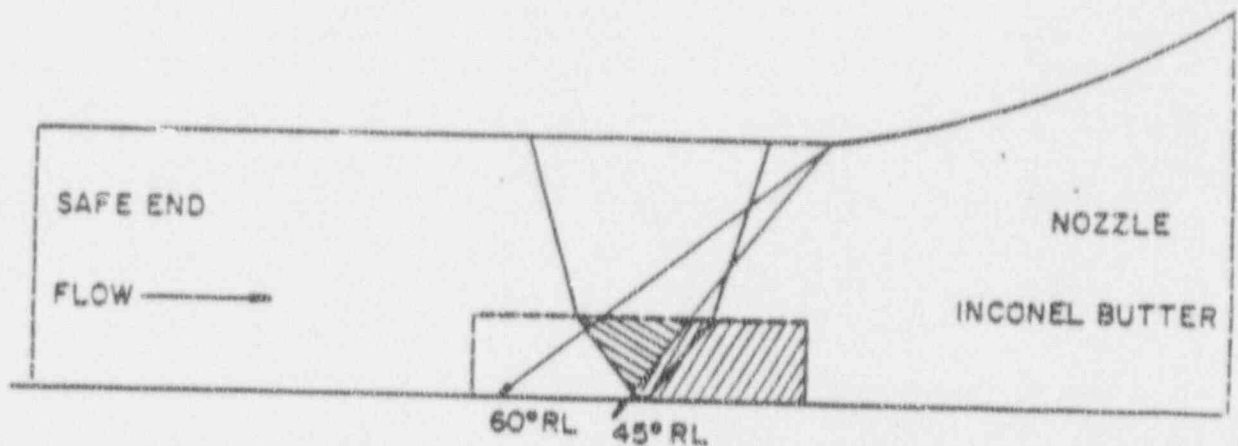
Total code volume at a cross sectional view is .70 in²

- o Automated techniques utilizing a 45° and 60° RL wave obtained coverage of the code volume from one direction only (safe end side).
- o Manual examinations will provide coverage from two directions for the area identified above by the cross hatching, .36 in² or 51.4% of the total code volume.

FIGURE 16

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N3
CORE SPRAY TO SAFE END WELD
LIMITATIONS



Total code volume at a cross sectional view is .72 IN²

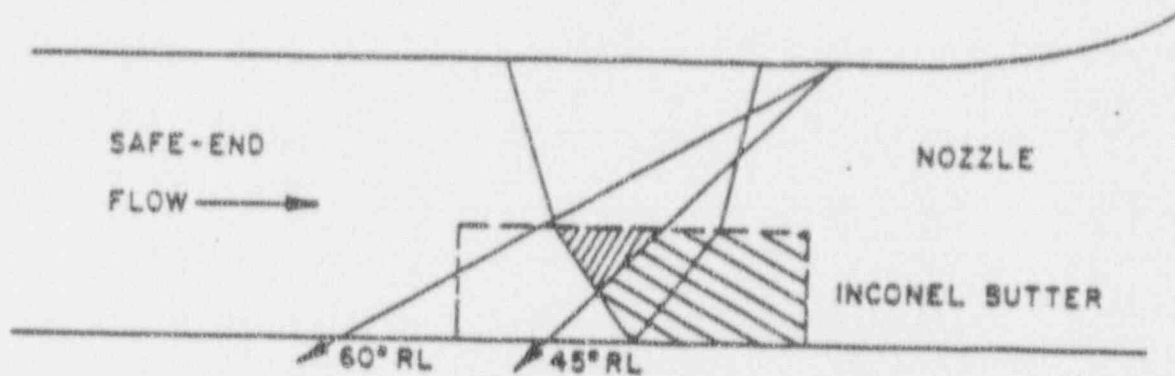
- Automated techniques provides a 45° shear wave from the safe end side obtaining two directional coverage of an area equal to .33 in² or 46.6% of the total code volume.
- Also, a 45° and 60° RL wave examination from the safe end side is performed obtaining one directional coverage of the total code volume. Area receiving examination from one direction only is 53.4% of the code volume.
- Manual examinations with RL wave will increase two directional coverage by 18%.

FIGURE 17



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N6
RESIDUAL HEAT REMOVAL / LOW PRESSURE CORE INJECTION
SAFE END TO NOZZLE WELD
LIMITATIONS



Total code volume at a cross sectional view is $.93 \text{ in}^2$

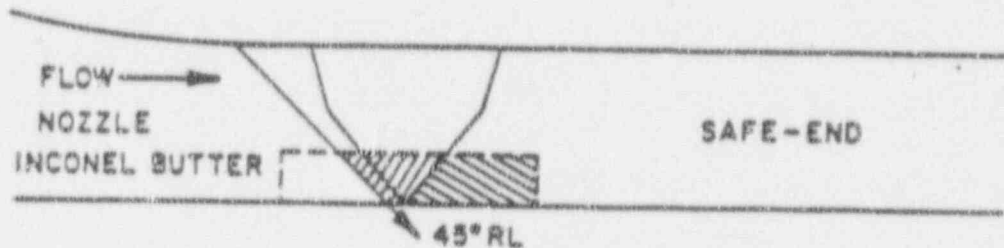
- Automated techniques provides a 45° shear wave examination from the safe end side obtaining two directional coverage of $.34 \text{ in}^2$ or 36.6% of the total code volume.
- Also, 45° and 60° RL wave examinations performed from the safe end side obtains one directional coverage of the total code volume; area receiving one directional coverage only is 63.4% OR $.59 \text{ in}^2$ of the code volume.
- Manual examinations will increase two directional coverage by 9.7% or $.09 \text{ in}^2$.

FIGURE 18



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N9
JET PUMP INSTRUMENTATION NOZZLE TO SAFE END WELD



Total code volume at a cross sectional view is .29 in²

- Automated techniques provides a 45° shear wave examination from the safe end side obtaining two directional coverage of .10 in² or 34.5% of the total code volume.
- Also, 45° and 60° RL wave examinations performed from the safe end side obtains one directional coverage of the total code volume; area receiving one directional coverage only is .19 in² or 65.5% of the total code volume.
- Manual examinations will increase two directional coverage by 27.5% or .08 in².

FIGURE 19

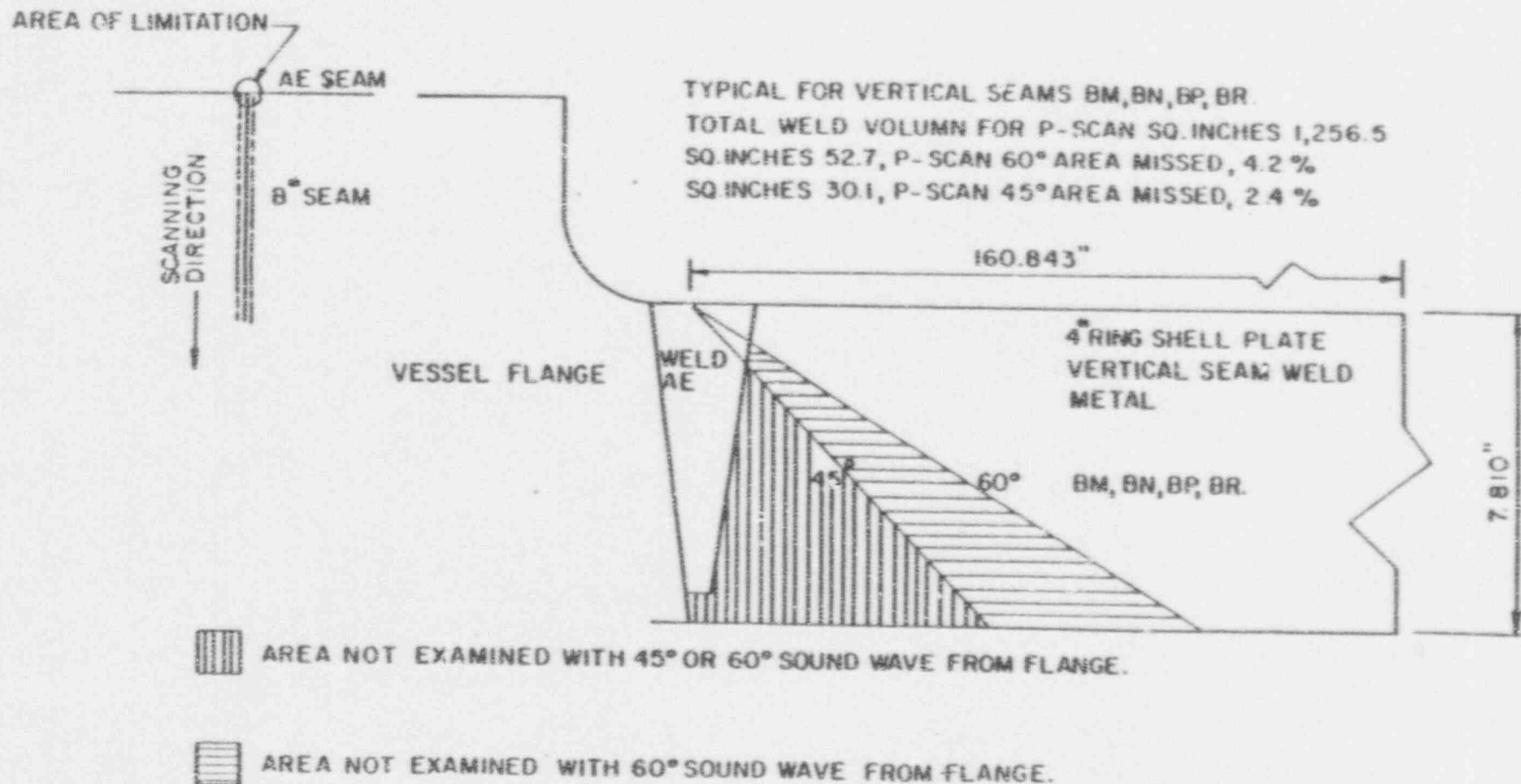


FIGURE 20

REVISION 1

GRAND GULF NUCLEAR STATION
UNIT 1
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PRESSURE TESTING
OF
CATEGORY B-P
PRESSURE RETAINING COMPONENTS

- I. Component: Class 1 pressure retaining components, Examination Category B-P (see table 1).
- II. Code: The pressure retaining components within this category are designed and fabricated to ASME Section III, class 1 requirements. Applicable inservice inspections are performed in accordance with ASME Section XI, 1977 Edition through and including the Summer 1979 Addenda.
- III. Code Requirements: Class 1 pressure retaining components, category B-P, are required to receive a system leakage test (IWB-5221) each refueling outage, and a system hydrostatic test (IWB-5222) each inspection interval.
- IV: Information to support the determination that the code requirements are impractical: ASME Section XI, 1977 Edition, Summer 1979 Addenda, Table IWB-2500-1, category B-P, note 1, requires the test boundary for both the system leakage and the hydrostatic test to include the entire reactor coolant system. This boundary, as defined, requires portions of piping to be pressure tested that are isolated by normally closed valves. To accomplish testing of the isolated piping, extensive efforts are required that may include the installation of mechanical jumpers, initiation of false signals to open valves or the erection of independent water and pressure sources. Later editions of ASME Section XI have redefined the test boundary for the system leakage test.

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PRESSURE TESTING
OF
CATEGORY B-P
PRESSURE RETAINING COMPONENTS

Note 1 of IWB-2500-1, Category B-P has been revised to address only the system leakage test and to redefine the test boundary as:

"The pressure retaining boundary during the system leakage test shall correspond to the reactor coolant system, with all valves in the normal position, which is required for normal reactor operation startup. The VT-2 examination shall, however, extend to and include the second closed valve at the boundary extremity."

V. Specific Relief
Requested:

Permission is requested to perform system leakage testing of the class 1 boundary as described by ASME Section XI, 1983 Edition, Summer 1983 Addenda, Table IWB-2500-1, Category B-P. This request applies only to the system leakage test and not to the hydrostatic test required each interval. Table 1 lists the portions of the systems that are examined by the VT-2 method but excluded from pressurization.

VI. Reasons why relief
should be granted:

Request for altering the class 1 system leakage test boundaries as discussed herein should be granted for the following reasons:

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RELIEF REQUEST I-00018 REVISION 1

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PRESSURE TESTING
OF
CATEGORY B-P
PRESSURE RETAINING COMPONENTS

1. All components excluded from the system leakage test are designed, fabricated, installed and tested to the requirements of ASME Section III, Subsection NB (class 1).
2. The components excluded from the system leakage test are subjected to the system hydrostatic test once each interval.
3. DELETED
4. This request for relief, if approved, would be consistent with the current NRC approved edition of ASME Section XI (1983 Edition, Summer 1983 Addenda).

VII. Alternate Testing:

None

VIII. NRC discussion statement for the approval of revision 1:

10CFR50.55a(g)(4)(iv) permits updating to the examination requirements of subsequent approved editions and addenda of the ASME Code, or portions thereof, which are incorporated by reference in 10 CFR 50.55a(b), subject to the limitations and modifications listed therein and staff approval. The 1983 Edition, Summer 1983 Addenda of the ASME Code is included in 10 CFR 50.55a(b) and none of the limitations and modifications listed therein are applicable to this relief request. Pursuant to 10 CFR 50.55a(g)(4)(iv), the staff

GRAND GULF NUCLEAR STATION
UNIT 1
RELIEF REQUEST I-00018 REVISION 1

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PRESSURE TESTING
OF
CATEGORY B-P
PRESSURE RETAINING COMPONENTS

approves the requested performance of leakage tests in accordance with the examination requirements of the 1983 Edition, Summer 1983 Addenda of the ASME Code. Therefore the licensee's request is granted.

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RELIEF REQUEST I-0001B REVISION 1

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PRESSURE TESTING
OF
CATEGORY B-P
PRESSURE RETAINING COMPONENTS

TABLE 1

<u>ITEM</u>	<u>SYSTEM</u>	<u>LINE CLASS</u>	<u>DESCRIPTION</u>
1	B21	1" DBA-87	LINE DOWNSTREAM OF Q1B21-F136B
2	B21	1" DBA-87	LINE DOWNSTREAM OF Q1B21-F136A
3	B33	2" DCA-24	LINE DOWNSTREAM OF Q1B33-F051A
4	B33	2" DBA-42	LINE DOWNSTREAM OF Q1B33-F029
5	B33	2" DCA-24	LINE DOWNSTREAM OF Q1B33-F051B
6	C41	1 1/2" DCA-3	LINE DOWNSTREAM OF Q1C41-F219
7	C41	3/4" DCA-33	LINE DOWNSTREAM OF Q1C41-F219
8	C41	1" DCA-31	LINE DOWNSTREAM OF Q1C41-F210
9	C41	1 1/2" DCA-2	LINE UPSTREAM OF Q1C41-F222
10	C41	1" DCA-34	LINE UPSTREAM OF Q1C41-F222
11	C41	3/4" DCA-4	LINE UPSTREAM OF Q1C41-F222
12	C41	1" DCA-34	LINE DOWNSTREAM OF Q1C41-F218
13	C41	3/4" DCA-4	LINE DOWNSTREAM OF Q1C41-F026

GRAND GULF NUCLEAR STATION
UNIT 1
RELIEF REQUEST I-00018 REVISION 1

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PRESSURE TESTING
OF
CATEGORY B-P
PRESSURE RETAINING COMPONENTS

TABLE 1

<u>ITEM</u>	<u>SYSTEM</u>	<u>LINE CLASS</u>	<u>DESCRIPTION</u>
14	E12	6" DBA-32	LINE UPSTREAM OF Q1E51-F066
15	E12	1" DBA-80	LINE UPSTREAM OF Q1E51-F066
16	E12	1" DBA-80	LINE DOWNSTREAM OF Q1E12-F344
17	E12	14" DBA-28	LINE UPSTREAM OF Q1E12-F041B
18	E12	1" DBA-81	LINE UPSTREAM OF Q1E12-F041B
19	E12	1" DBA-81	LINE DOWNSTREAM OF Q1E12-F236
20	E12	20" DBA-64	LINE DOWNSTREAM OF Q1E12-F009
21	E12	14" DBA-29	LINE UPSTREAM OF Q1E12-F041A
22	E12	1" DBA-4	LINE DOWNSTREAM OF Q1E12-F223
23	E12	12" DBA-38	LINE UPSTREAM OF Q1E12-F041C
24	E12	1" DBA-79	LINE UPSTREAM OF Q1E12-F041C
25	E12	1" DBA-79	LINE DOWNSTREAM OF Q1E12-F234
26	E21	14" DBA-1	LINE UPSTREAM OF Q1E21-F006

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RELIEF REQUEST I-00018 REVISION 1

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PRESSURE TESTING
OF
CATEGORY B-P
PRESSURE RETAINING COMPONENTS

TABLE 1

<u>ITEM</u>	<u>SYSTEM</u>	<u>LINE CLASS</u>	<u>DESCRIPTION</u>
27	E21	1" DBA-31	LINE UPSTREAM OF Q1E21-F006
28	E21	1" DBA-31	LINE DOWNSTREAM OF Q1E21-F207
29	E22	12" DBA-5	LINE DOWNSTREAM OF Q1E22-F005
30	E22	14" DBA-5	LINE UPSTREAM OF Q1E22-F005
31	E22	1" DBA-78	LINE UPSTREAM OF Q1E22-F005
32	E22	1" DBA-78	LINE DOWNSTREAM OF Q1E22-F218
33	E38	1 1/2" DBA-87	LINE UPSTREAM OF Q1E38-F002A
34	E38	1 1/2" DBA-87	LINE UPSTREAM OF Q1E38-F002B
35	E51	10" DBA-24	LINE DOWNSTREAM OF Q1E51-F063
36	E51	1" DBA-34	LINE DOWNSTREAM OF Q1E51-F076
37	G33	6" DBA-86	LINE DOWNSTREAM OF Q1G33-F250
38	G33	1" DBA-86	LINE DOWNSTREAM OF Q1G33-F241
39	G33	3/4" DBA-82	LINE DOWNSTREAM OF Q1G33-F002

GRAND GULF NUCLEAR STATION
UNIT 1
RELIEF REQUEST NO. I-00019 REVISION 0

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INSERVICE EXAMINATION
OF
REACTOR PRESSURE VESSEL ITEMS

- I. Component: Inaccessible portions of the Reactor Pressure Vessel (RPV) as listed below.
1. Jet Pump Instrument Nozzles (N-9 A&B), safe end to penetration seal welds (see figure 1).
 2. RPV flange stud hole ligament areas (see figure 2).
- II. Code:
1. The Jet Pump Instrument Nozzle assemblies were designed and fabricated to ASME Section III, Class 1 requirements. Applicable inservice inspections are to be performed in accordance with the ASME Section XI, 1977 Edition, through and including the Summer 1979 Addenda, Table IWB-2500, Category B-J.
 2. The RPV flange assembly is designed and fabricated to ASME Section III, Class 1 requirements. Applicable inservice inspections are to be performed in accordance with the ASME Section XI, 1977 Edition, through and including the Summer 1979 Addenda, Table IWB-2500, Category B-G-1.
- III. Code Requirements:
1. ASME Section XI, Table IWB-2500, Category B-J, requires the safe end to penetration seal weld to be volumetrically and surface examined. The examinations are to be performed once each inspection interval.
 2. ASME Section XI, Table IWB-2500, Category B-G-1, requires the threads in the RPV flange stud hole, and one inch of base material around the stud hole, to be volumetrically examined for a depth equal to the diameter of the stud. The examinations are to be performed once each inspection interval.

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UNIT 1
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IV. Information to support the determination that the code requirements are impractical:

1. The welds requiring relief attach the penetration seal to the safe end. The penetration seal is a forged item allowing 14 socket welded connections for each of the two N9 nozzles. The configuration of the penetration seal and the installing weld limits the access required for obtaining full code coverage of the weld and associated base material.

The weld is volumetrically examined from the safe end obtaining 44.7% coverage of the code volume. Examination from the weld and from the penetration seal side of the weld is prohibited due to component configuration and weld geometry (see figure 1).

2. The area of the RPV flange requiring relief is located between the stud hole and the RPV inside diameter (ligament area). The ligament area also contains the sealing surface that makes contact with the RPV head flange. The seal surface is comprised of deposited weld material, and raised approximately 1/2 inch above the flange face creating a geometrical obstruction.

A code volume of 96% is volumetrically examined without interference with the seal surface. The remaining 4% is contained within the restricted area associated with the seal surface (see figure 2).

V. Specific relief requested:

Permission is requested to perform the Code required volumetric examinations to the extent described above and shown in figures 1 and 2.

VI. Reasons why relief should be granted:

Request for permission to limit the code required examination to the accessible areas should be granted for the following reasons:

GRAND GULF NUCLEAR STATION
UNIT 1
RELIEF REQUEST NO. I-00019 REVISION 0

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VI. Reasons why relief
should be granted:
(continued)

1. N9 NOZZLE TO PENETRATION SEAL

- a. The subject welds were installed, radiographed, surface examined and hydrostatically tested to the requirements of ASME Section III, Class 1.
- b. The subject welds are completely surface examined during inservice activities once each inspection interval.
- c. The welds are subject to a system leakage test at completion of each refueling outage and a system hydrostatic test once each inspection interval.
- d. The safe end material is SA 336-F8 (304) stainless steel, and the penetration seal is 304L stainless steel. Due to the geometric configuration of the weld joint, the examination can only be conducted from the safe end side of the joint, and therefore, not obtaining full coverage. The examination is able to obtain 44.7% of the code required volume. The examineable area includes the inside surface of the safe end (304 stainless steel material) including the heat affected zone.

The primary degradation mechanism at this location is intergranular stress corrosion cracking (IGSCC). Fatigue is not a significant factor due to the limited fatigue loading at this location. Therefore, the potential for cracking at this location should

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VI. Reasons why relief
should be granted:
(continued)

consider IGSCC only. The occurrence of IGSCC is caused by the simultaneous presence of three factors; 1) high stress, 2) aggressive environment, and 3) susceptible material. The safe end and penetration seal side of the weld both see essentially the same stress and environmental conditions. However, there is a significant difference in material susceptibility between the 304 SS safe end and the 304L penetration seal. Generic Letter 88-01, NUREG 0313 Revision 2, recognizes 304L type materials as being IGSCC resistant. The 304 portion of the assembly including that side of the weld root is examined from one direction utilizing IGSCC techniques and qualified personnel. In addition, Generic letter 88-01 excludes all piping smaller than 4 inches in nominal diameter. The N9 A&B safe ends are less than four inches in nominal diameter, and therefore, under the rules of the generic letter, the safe ends are not susceptible to IGSCC.

- e. The accessible portions of the subject welds will be volumetrically examined and the complete weld and adjacent base material will be surface examined in accordance with ASME Section XI. Should indications be found, an engineering evaluation will be made to determine if the inaccessible portions of the subject welds have been affected.
- f. Any leakage occurring from the N9 nozzles would be detected by the existing leakage detection system.

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VI. Reasons why relief
should be granted:
(continued)

- g. Mechanical preparation of the weld would allow additional coverage to be obtained by facilitating transducer placement on top of the weld. The efforts necessary for obtaining the improved coverage would require a man rem expenditure of approximately 21.2 whole body and 37.2 for the extremities. The total man rem exposure required to obtain the additional examination coverage is not justified based on the low probability of IGSCC occurrence and the limited fatigue loading at the subject welds.
- h. Examination history at GUNS has not recorded any flaws or evidence of service induced degradation in category B-J welds.
- i. The limited examination of the two N-9 nozzles (A&B) is considered to be sufficient to determine the structural integrity of welded assemblies.

2. RPV FLANGE STUD HOLE

- a. The RPV flange was fabricated as part of the RPV assembly and tested to the requirements of ASME Section III, Class 1.
- b. The RPV, including the flange assembly, is subject to a system leakage test at completion of each refueling outage and a system hydrostatic test once each inspection interval.

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UNIT 1
RELIEF REQUEST NO. I-00019 REVISION 0

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VI. Reasons why relief
should be granted:
(continued)

- c. The entire code volume around the stud hole is examined except for the area associated with the sealing surface. This area is examined for a distance of 1/2 inch from the stud hole before interference from the seal surface is encountered. With the RPV head in place, and fastened with the studs to the RPV shell flange, the seal surface and underlying material is subjected to compressional loads. The material in the vicinity of the threads or adjacent to the stud hole is subjected to shear loading with the head in place. Therefore, the limiting location with respect to applied stress is the material nearest the stud hole threads. Since this limited area is examined, any anticipated flaw initiation will be detected.
- d. The amount of obtained volumetric coverage that includes the bounded area is adequate to ensure structural integrity of the stud hole regions of the RPV flange.

VII. Alternate testing None

VIII. NRC Discussion
Statement :

We conclude from our review of the information submitted that the Section XI Code requirements are impractical for the jet pump instrument nozzle safe end to penetration seal welds and the reactor pressure vessel flange stud hole ligament sections. Compliance to the Code requirements would require redesign and refabrication of the jet pump instrument nozzle welds and the reactor pressure vessel flange to eliminate obstructions to the required examinations. The proposed alternative limited volumetric examination and pressure test, will provide assurance of an acceptable level of structural integrity.

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RELIEF REQUEST NO. I-00019 REVISION 0

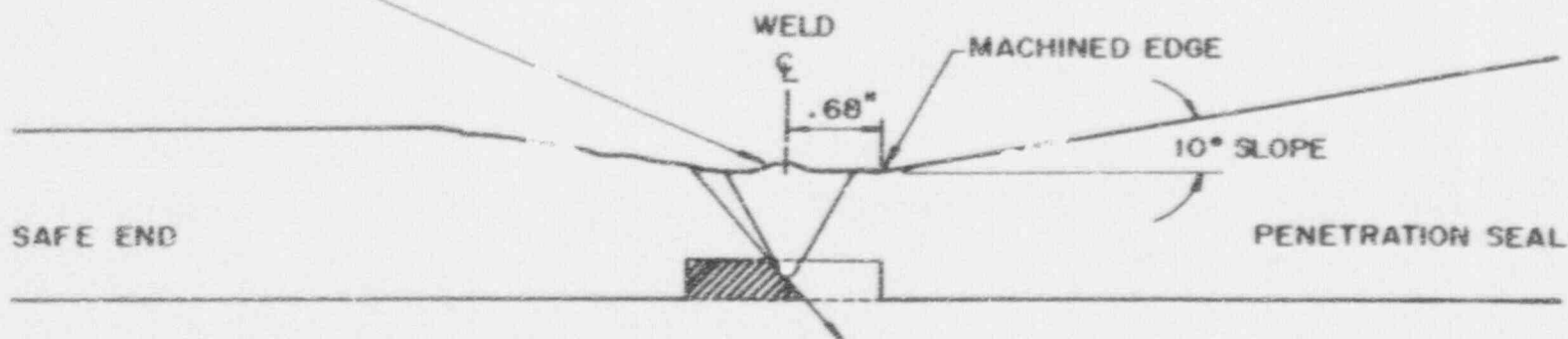
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VIII. NRC discussion
statement
(continued):

The welds will be volumetrically examined to 44.7 per cent and the ligament section in the flange to 96.0 per cent of the Code requirements. Therefore, relief from the Code requirements should be granted as requested in Request No. I-00019, Revision 0.

N9 A & B
SAFE END TO PENETRATION SEAL
44.7% EXAMINED IN ONE DIRECTION

HUMP AT ϵ OF WELD PREVENTS SCANNING
COMPLETELY ACROSS WELD




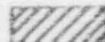
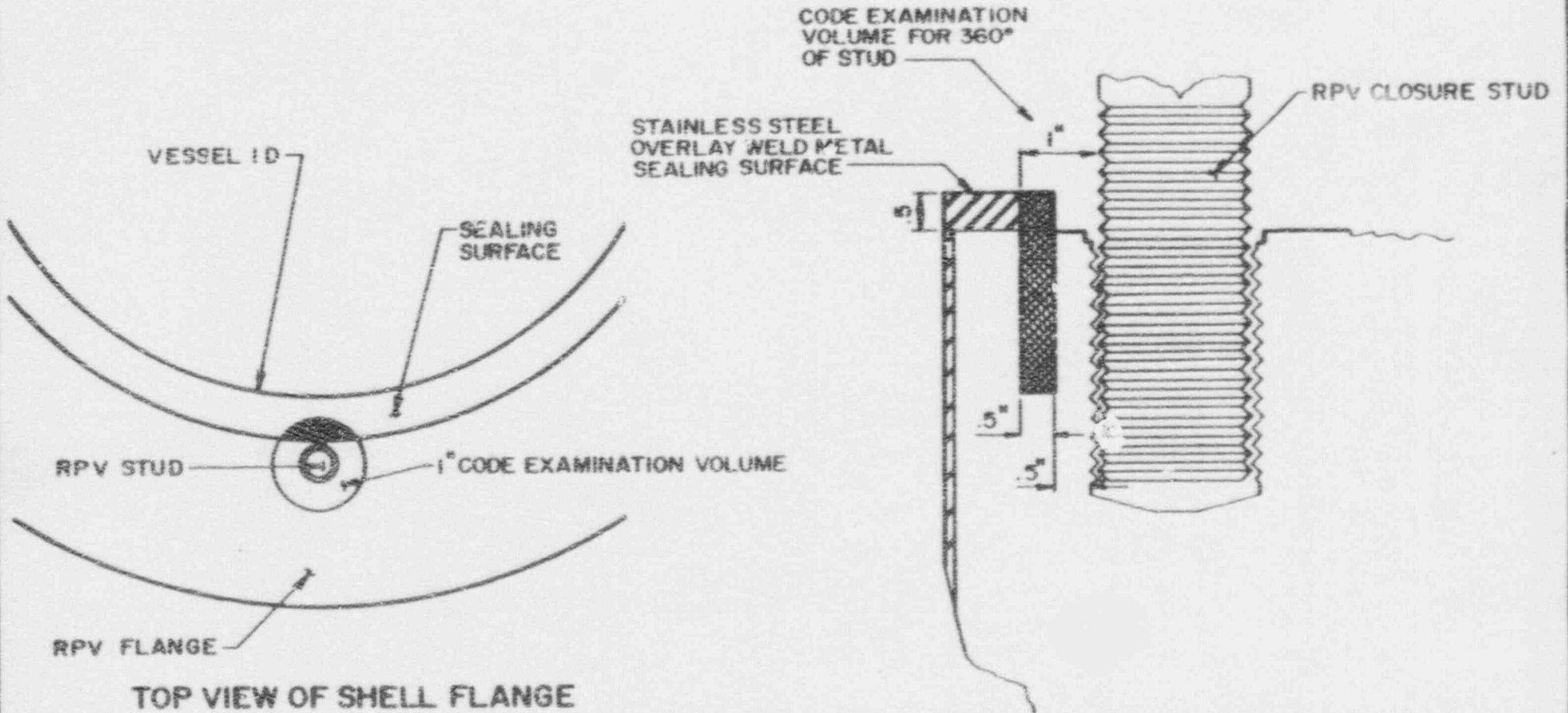
-  CODE VOLUME FOR VOLUMETRIC EXAMINATION = $.228 \text{ IN}^2$
-  EXAMINABLE VOLUME FOR VOLUMETRIC EXAMINATION = $.102 \text{ IN}^2$ or 44.7%

FIGURE 1



UNABLE TO SCAN FULL 1" CIRCLE AROUND STUD HOLE

FIGURE 2

CROSS SECTION VIEW OF RPV FLANGE

CR

GRAND GULF NUCLEAR STATION
UNIT 1
RELIEF REQUEST I-00022, REVISION 0
PAGE 1 OF 6

INSERVICE INSPECTION
OF
REACTOR PRESSURE VESSEL SUPPORT SKIRT SURFACES

- I. Component: Inaccessible surfaces of the Reactor Pressure Vessel (RPV) Support Skirt, ASME Section XI Code Category F-A.
- II. Code: The skirt is designed and fabricated as an integral attachment to the reactor pressure vessel. Additionally, the skirt is designed for and performs the function of an ASME Section III, Subsection NF component support. The reactor pressure vessel is designed, fabricated and certified to the 1971 Edition, Winter 1972 Addenda of ASME Section III, Subsection NB (Class 1).
- III. Code requirements: ASME Section XI, 1977 Edition through the Summer 1979 Addenda, IWF-2500 requires supports of components chosen for examination under IWB, IWC, and IWD to be visually inspected (VT-3) in accordance with Table IWF-2500-1 and IWF-2500-2. The ASME Section XI examination boundary includes both sides of the RPV skirt and extends from the support base plate/building structure connection to within one (1) bottom head thickness from the RPV head (Reference IWF-1300-1).
- IV. Information to support the determination that the Code requirements are impractical: The RPV support skirt is a cylinder that attaches at the RPV bottom head and provides support for the vessel. An annulus area contained within the skirt is located between the bottom head and the base foundation and contains numerous reactor pressure vessel components and their supports and snubbers. The vessel insulation is an all metal reflective type made up of combinations of two basic shapes; flat panels and curved panels. The insulation for the vessel bottom head, along the vessel support skirt, consists of vertical curved panels 3 inches thick joined to form a cylinder.

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NO. 90-0005
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UNIT 1
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INSERVICE INSPECTION
OF

REACTOR PRESSURE VESSEL SUPPORT SKIRT SURFACES

CR

IV. Information to support the determination that the Code requirements are impractical (continued):

Panels extend along the entire inside surface of the support skirt up to the beginning of the blend radius at the support skirt to RPV bottom head attachment weld. There is also a horizontal panel 3 inches thick which connects across the bottom of the cylinder formed by the vertical insulation panels. This panel is penetrated by the control rod drive housings incore housings, core differential pressure nozzle, and drain nozzle.

This insulation is either designed as removable or permanent. The removable insulation is installed with buckles and handles. The permanent insulation is installed with a combination of sheet metal screws, bolts and rivets. The insulation is located such that access for visual examination of the inside diameter (ID) of the support skirt surface and the ID support bolting is completely blocked. Design information indicates that 28 insulation panels are removable:

1. Four panels correspond to four access holes in the support skirt. Removal of these panels allows access to the under-vessel area but exposes essentially no skirt surface for visual examination.

2. Eight panels (four at 180 deg az and four at 0 deg az) provide access to the two RPV drain areas. Removal of these panels exposes approximately 27% of the ID support skirt to building structure bolting and approximately 2% of the ID skirt surface for 90 deg (45 deg per location) of skirt circumference. Estimated time spent in removal and replacement of this insulation is 196 manhours. Radiation dose rates are expected to average 150 millirem per hour. Man-rem exposure is estimated to be 29.4 rem.

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INSERVICE INSPECTION
OF

REACTOR PRESSURE VESSEL SUPPORT SKIRT SURFACES

IV. Information to support the determination that the Code requirements are impractical (continued):

3. Sixteen adjustable panels form a ring of insulation in the vessel to skirt weld area. Removal of these panels exposes a band of skirt base material in the IWF examination boundary approximately 22 1/2" wide. Based on experience obtained during previous outages there is insufficient space to permit simultaneous removal of all panels unless they are completely removed from the skirt ID via the manways. Even though these panels are "removable", the top sections of the panels are screwed to the adjoining panels at the vertical split line. Removal of these panels exposes approximately 30% of the ID skirt surface. Estimated time spent in removal and replacement of this insulation is 392 manhours. Radiation dose rates are expected to average 150 millirem per hour. Man-rem exposure is estimated to be 58.8 rem.

Total estimated man-rem exposure for removal and reinstallation of all removable panels is 88.2 rem. Access to approximately 27% of the bolting and 32% of the skirt surface is provided.

Removal of permanent insulation is required for 100% visual examination. Estimated time spent in removal and replacement of permanent insulation is 882 manhours. Radiation dose rates are expected to average 150 millirem per hour. Total man-rem exposure associated with removal and replacement of permanent insulation is estimated to be 132.3 rem.

V. Specific relief requested:

Permission is requested to delete inservice inspection of the ID area of the RPV support skirt.

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UNIT 1
RELIEF REQUEST I-00022, REVISION 0
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INSERVICE INSPECTION
OF
REACTOR PRESSURE VESSEL SUPPORT SKIRT SURFACES

CR

VI. Reasons why relief should be granted: Deletion of the inservice inspection of the RPV support skirt ID is requested for the following reasons:

1) All support skirt welds below the bottom head-to-vessel support skirt weld were required to be examined by the magnetic particle method in accordance with ASME III Class 1 requirements.

2) After completion of forming (rolling), the final surfaces of the support skirt vertical members were required to be examined by the magnetic particle method in accordance with ASME III Class 1 requirements. After completion of machining, the final surfaces of the support skirt base plate (flange) were required to be examined by the magnetic particle method in accordance with ASME III Class 1 requirements. The final surfaces of the support skirt flange bolt holes were required to be examined by the dye penetrant method in accordance with ASME III Class 1 requirements.

3) The design basis failure mode of the support skirt is buckling caused by primary bending compressive stress. Maximum permissible load is governed by buckling criteria. The skirt vertical member is fabricated from SA533 Gr B Cl I plate. This material has a minimum required elongation of 18%. The percent strain resulting from forming is approximately 1.6% (NF-4213.1). After forming, the material still has ample ductility and is expected to exhibit significant plastic deformation prior to fracture. Any service induced damage would be associated with buckling failure and would be evident during visual examination of the skirt exterior. No additional information is obtained by an ID skirt exam.

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INSERVICE INSPECTION
OF

REACTOR PRESSURE VESSEL SUPPORT SKIRT SURFACES

CR

- VI. Reasons why relief should be granted (continued):
- 4) All support skirt base and weld materials were procured in compliance with ASME III NB-2300 to assure adequate protection against non-ductile failure. Skirt base material was required to exhibit a reference nil-ductility transition temperature of not greater than 10 deg F as established by Charpy V-notch and dropweight tests. For weld material, a reference nil-ductility transition temperature of not greater than -20 deg F was required. Rapid crack propagation from service conditions is unlikely.
- 5) 100% of the external skirt surfaces and bolting are subject to visual examination once every ten year interval in accordance with ASME XI.
- VII. Alternate Testing: None
- VIII. NRC discussion statement (Revision 0):
- "The Code requires that the RPV support skirt receive a VT-3 visual examination from the support base plate/building structure connection to within one bottom head thickness of the RPV head (Reference IWF-1300-1). The design of the RPV support skirt ID precludes VT-3 visual examination based on personnel exposure. Visual examination of the ID surface is therefore, impractical to perform. Imposition of this Code requirement would necessitate redesigning and refabricating a new RPV support skirt and would cause a burden on the licensee that would not be compensated for by an increase in safety. The design failure mode of the support skirt is buckling caused by primary bending compressive stress.

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UNIT 1
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INSERVICE INSPECTION
OF
REACTOR PRESSURE VESSEL SUPPORT SKIRT SURFACES

- VIII. NRC discussion statement (Revision 0, continued):
- Any service induced damage would be associated with buckling failure and would be evident during visual examination of the skirt exterior. Elimination of the Code-required visual ID examination will not significantly affect the assurance of the continued structural integrity. Pursuant to 10 CFR 50.55a(g)(6)(i), relief is granted as requested."

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NO. 90-0005
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INSERVICE INSPECTION SUMMARY REPORT

FOR

GRAND GULF NUCLEAR STATION

SECTION V

REPAIR/REPLACEMENTS

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00285	00305
00286	00306
00287	00307



NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



ENTERGY

NIS-2 NO. 00268

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

RECLASSIFICATION: MATERIAL NONCONFORMANCE REPORT (MNCR) NO. 0003-88 REQUIRED A SUMMARY REPORT TO BE PREPARED TO RECLASSIFY NINE UNIT 2 HENRY PRATT BUTTERFLY VALVES AS ALSO BEING ANSI 150# PRESSURE CLASS VALVES AND INSERT A COPY OF THIS REPORT IN EACH CODE DATA PACKAGE FOR THE FOLLOWING VALVES:

VALVE S/N	MPL TAG NO.	VALVE S/N	MPL TAG NO.
D-0027-5-3	Q1P41F185A	D-0081-7-1	Q1G41F041A
D-0038-1-4	Q1P41F005B	D-0081-7-2	Q1G41F041B
D-0058-1-2	Q1P42F200B	D-0082-3-2	Q1P42F032A
D-0058-7-1	Q1P41F006B	D-0082-3-3	Q1P42F032B
		D-0084-1-3	Q2P44F118

NO TESTS OR EXAMINATIONS WERE REQUIRED.

FOR A BACKGROUND SUMMARY ON THE REASON THESE VALVES REQUIRED RECLASSIFICATION SEE PAGE 2.

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a) name b) size c) capacity d) class e) material f) MPL No. g) drawings h) location i) manufacturer's name j) manufacturer's address k) manufacturer's I.D. no. l) National Board No. m) Construction Code Edition & Addenda n) Code Case no.

1. RECLASSIFIED: a) VALVE c) ANSI B16.5 150# CLASS or (See Table Below) d) 3 e) BODY: SA-516, GR.55 h) N/A i) HENRY PRATT CO. j) AURORA, IL l) N/A m) ASME SECTION III, 1971 EDITION, SUMMER 1973 ADDENDA n) #1516-1 b,c,f,g,k) See Table Below

k) VALVE S/N	l) MPL TAG NO.	b) SIZE & TYPE	d) MFR'S DWG. NO.	c) DESIGN CAPACITY
D-0027-5-3	Q1P41F185A	8" NXL	#C-2661	95 psi, 100 F
D-0038-1-4	Q1P41F005B	24" NXL	#C-2917	125 psi, 145 F
D-0058-1-2	Q1P41F200B	8" NXL	#C-3442	50 psi, 100 F
D-0058-7-1	Q1P41F006B	20" NXL	#C-3442	125 psi, 150 F

(CONTINUED ON PAGE 3)

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division 1, 1977 Edition with Summer, 1979, Addenda.

Signed: [Signature] Date 12/2/91 Title: Engineering Support Supt.
Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of Mississippi and employed by Arkwright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL SYSTEM

[Signature] Date 12-6-91 Commission MS-600
Inspector's Signature National Board, State, Province and Nos.



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00268

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (CONT. FROM PAGE 1)

DURING RECEIPT INSPECTION OF HENRY PRATT VALVE S/N D-0084-1-3 (TAGGED Q2P44F118), IT WAS OBSERVED THAT THE SYSTEM DESIGN CONDITIONS (PRESSURE & TEMPERATURE) WERE HIGHER THAN THE VALVE DESIGN CONDITIONS (PER VALVE NAMEPLATE AND NPV-1 DATA REPORT). OTHER HENRY PRATT VALVES WERE FOUND TO HAVE THE SAME PROBLEM.

WHEN THE MANUFACTURER APPLIED THE REQUIRED INFORMATION TO THE CODE NAMEPLATES AND NPV-1 FORMS, THE VALVE DESIGN CONDITIONS SPECIFIED TO THE MANUFACTURER IN DESIGN SPECIFICATIONS NO. 9645-M-257 & 9645-M-258 WERE CORRECT DURING CODE STAMP APPLICATION. BUT LATER, THE SYSTEM DESIGN CONDITIONS WERE ALTERED AFTER THE VALVES WERE CODE STAMPED.

THE HENRY PRATT VALVES WERE ALSO DESIGNED TO MEET ANSI B16.5 SPECIFIED PRESSURE TEMPERATURE RATINGS CORRESPONDING TO 150# PRESSURE CLASS VALVES WHICH EXCEEDS THE REQUIREMENTS FOR THE ALTERED SYSTEM DESIGN CONDITIONS.

THE VALVE DESIGN SPECIFICATIONS IN ACCORDANCE WITH ASME SECTION III, 1974 EDITION, SUMMER 1975 ADDENDA, DID NOT REQUIRE THE CODE NAMEPLATES AND NPV-1 FORMS TO INCLUDE THE ANSI PRESSURE CLASS WITH THE VALVE DESIGN PRESSURE AND TEMPERATURE. SUBSEQUENT EDITIONS OF THE CODE PERMIT THE NAMEPLATES AND NPV-1 FORMS TO CONTAIN ANSI PRESSURE CLASS RATINGS IN LIEU OF ACTUAL VALVE DESIGN CONDITIONS.

DISCREPANT MATERIAL REPORT (DMR) NO. 0430-87 WAS ISSUED FOR VALVE S/N D-0084-1-3 TO DOCUMENT THE VARIANCE IN SYSTEM AND VALVE DESIGN CONDITIONS AND REFERENCED BECHTEL NONCONFORMANCE REPORT (NCR) #5496 ACCEPT-AS-IS DISPOSITION AS THE BASIS FOR AN INTERIM ACCEPTANCE OF THE VALVE.

BECHTEL NCR #5496 IDENTIFIED ALL UNIT 1 AND UNIT 2 HENRY PRATT VALVES WHERE THE SYSTEM DESIGN CONDITIONS EXCEEDED VALVE DESIGN CONDITIONS, BUT ONLY THE UNIT 1 VALVES WERE DETERMINED TO BE ACCEPTABLE AND NCR #5990 WAS INITIATED TO DISPOSITION THE UNIT 2 VALVES WHICH WERE READDRESSSED BY MNCR #0003-88.

MNCR #0003-88 WAS ISSUED TO CLOSE-OUT DMR #0430-87 WHEN VALVE S/N D-0084-1-3 WAS INSTALLED IN UNIT 1 TO REPLACE Q1P44F118.

MNCR #0003-88, WHICH WAS ORIGINALLY INITIATED TO ADDRESS VALVE S/N D-0084-1-3, EXPANDED IT'S DISPOSITION TO ADDRESS ALL UNIT 1 VALVES THAT WERE ORIGINALLY DISPOSITIONED AS ACCEPTABLE BY BECHTEL NCR #5496 AND ADDRESSED NINE OF THE UNIT 2 VALVES (INCLUDING S/N D-0084-1-3) THAT WERE INSTALLED IN UNIT 1.

(CONTINUED ON PAGE 3)



ENERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00268

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (CONT. FROM PAGE 2)

MNCR #0003-88 DISPOSITIONED THE UNIT 1 VALVES ACCEPTABLE-AS-IS BASED ON BECHTEL'S NCR #5496 DISPOSITION. NO FURTHER ACTION WAS REQUIRED SINCE A COPY OF THE NCR TRANSMITTAL LETTER WAS INSERTED INTO ALL OF THE UNIT 1 VALVE CODE DATA PACKAGES TO PROVIDE TRACEABILITY TO THE ACTUAL VALVE DESIGN CONDITIONS. NO NAMEPLATE MODIFICATION WAS REQUIRED PER THE NCR.

MNCR #0003-88 DISPOSITIONED NINE OF THE UNIT 2 VALVES ACCEPTABLE-AS-IS AND DOCUMENTED THE VALVES AS ALSO ANSI 150# PRESSURE CLASS VALVES WHICH EXCEED THE REQUIREMENTS FOR SYSTEM DESIGN CONDITIONS.

THE APPLICABLE DESIGN DOCUMENTS (9645-M-257 AND 9645-M-258) WERE UPDATED SO THAT FUTURE VALVE PROCUREMENT WILL REFLECT CURRENT DESIGN CONDITIONS. VENDOR DRAWINGS AND MANUALS WERE UNAFFECTED.

THE EXISTING NAMEPLATE ON EACH UNIT 2 VALVE PROVIDES TRACEABILITY TO THE CODE DATA PACKAGE WHICH IS UPDATED BY THIS REPORT AND PROVIDES THE CURRENT VALVE PRESSURE RATINGS. NO NAMEPLATE MODIFICATION WAS REQUIRED PER THE MNCR.

COMPONENT INFORMATION : (CONT. FROM PAGE 1)

2. RECLASSIFIED: All information is the same as item 1 on page 1, except for the Table below and the following:

e) BODY: SA-516, GR. 70 n) For s/n D-0084-1-4: #1516-2; For the other four listed below: N/A

k) VALVE S/N	D MPL TAG NO.	b) SIZE & TYPE	g) MFR'S DWG. NO.	c) DESIGN CAPACITY
D-0081-7-1	Q1G41F041A	8" 1100 SERIES	#C-5091	50 psi, 150 F
D-0081-7-2	Q1G41F041B	8" 1100 SERIES	#C-5091	50 psi, 150 F
D-0082-3-2	Q1P42F032A	8" 1100 SERIES	#C-4542 R/1	50 psi, 100 F
D-0082-3-3	Q1P42F032B	8" 1100 SERIES	#C-4542 R/1	50 psi, 100 F
D-0084-1-3	Q2P44F118	24" 1100 SERIES	#C-4496 R/3	120 psi, 100 F

1 2 0 7 6 1 4 4 6



NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

NIS-2 NO. 00269

2/A
1 2

Sulzer Brothers Limited
Pump Division
CH-8401 Winterthur, Switzerland

OWNER: ENERGETY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (include type and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

MODIFICATION: In both Reactor Recirculation Pumps, cracks initiation on the shafts due to local thermal stresses. In order to isolate the critical parts from thermal mixing and to reduce the thermal stresses, a Shaft Sleeve on the shaft and a Thermal Sleeve on the Heat Exchanger were incorporated on to two spare pumps parts. The required free space for the new parts was achieved by removing the inner cooling water passage on the spare Heat Exchanger. A new Inner Cylinder was introduced as a primary pressure boundary with the new Thermal Sleeve welded on. The Bottom Plate was replaced and modified accordingly. The following tests and examinations were performed:

Visual Examinations of welds:	HT.EXCH. FOR S/N 751-S-1371 (HX1)* 4/10/12, Dec 91/8, Jan 92	HT.EXCH. FOR S/N 751-S-1373 (HX2)* 3/10/13, Dec 91/9, 1.92
Radiographic Examinations of welds:	18, Dec. 91	18, Dec. 91
Liquid Penetrant Examinations:	see Visual Exam.	see Visual Exam.
Hydrostatic Pressure Test and VT-2 Examin.	23, Jan. 92	22, Jan. 92
Purchase Order No. MP 126219; Work Completed:	26, Febr. 92	26, Febr. 92

* Additional marking made by Sulzer Pump Division on the HEAT EXCHANGERS

COMPONENT INFORMATION: (include all applicable information and indicate whether repaired, replaced or etc.) a) name b) size c) capacity d) class e) material f) MPL No. g) drawings h) location i) manufacturer's name j) manufacturer's address k) manufacturer's I.D. no. l) National Board No. m) Construction Code Edition & Addenda n) Code Case no.

I. MODIFICATION: a) SPARE HEAT EXCHANGER ASSEMBLIES b) FOR PUMP SIZE: 24"x 24"x 35" c) N/A d) 1 e) ASME SA-182 GR. F316 Lf) FOR Q1B33C001 A/B g) SULZER BROS. DWG. #0-104.208.182 REV.0 h) MODIFIED OFFSITE AT WINTERTHUR, SWITZERLAND i) MANUFACTURER: BYRON JACKSON PUMP DIVISION / MODIFIED BY: SULZER BROS. LTD., PUMP DIVISION j) MODIFIER'S ADDRESS: WINTERTHUR, SWITZERLAND k) HEAT EXCHANGER ASSEMBLY FLANGE l) NAT. BOARD NO.

HT. #B1-74717 (FROM PUMP S/N 751-S-1371) ± HX 1 22
HT. #7A077-5 (FROM PUMP S/N 751-S-1373) ± HX 2 36

m) EVALUATED & CERTIFIED BY BYRON JACKSON (SEE ATTACHED SHEETS) TO BE IN COMPLIANCE TO ASME SECTION III, 1971 EDITION, SUMMER 1973 ADDENDA n) N/A

(CONTINUE ON PAGE 2/2)

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division 1, 1977 edition with Summer, 1979, Addenda

Signed: J. Smith Date 26, February 1992 Title: Senior QA-Engineer
Owner Representative Project Manager QA

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Providence of Mississippi, and employed by Arkwright Mutual/Mutual Boiler Div. of Norwood, Mass. have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FILED IN HARDCOPY

Harold R. Bivins Date 9-20-92 Commission Ms. 600
Inspector's Signature National Board, State, Province and Nos.

FACTORY MUTUAL SYSTEM

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NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

PAGE 2 OF 2

NIS-2 NO. 00269

2/A
2 2

Sulzer Brothers Limited
Pump Division
CH 8401 Winterthur, Switzerland

OWNER: ENERGENCY OPERATIONS, INC.
ECHOLON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

FILED IN HARDCOPY

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a) name b) size c) capacity d) class e) material f) MP# No. g) drawings h) location i) manufacturer's name j) manufacturer's address k) manufacturer's I.D. no. l) National Board No. m) Construction Code Edition & Addenda n) Code Case no.

(CONTINUE FROM PAGE 1/2)

- 2. REPLACEMENT: a) Inner Cylinder b-h) same as item 1 i) Böhler GmbH j) Kapfenberg, Austria k) Heat-No. R31589 l) N/A m) ASME Section III, 74 Ed., Summer 74 Addenda n) N/A
- 3. REPLACEMENT: a) Thermal Sleeve b-h) same as item 1 i) same as item 2 j) same as item 2 k) and m) same as item 2 n) N/A
- 4. REPLACEMENT: a) Divider Blocks b-h) same as item 1 i)+j) same as item 2 k) Heat No. H30551 l) N/A m) same as item 2 n) N/A

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division I, 1977 edition with Summer, 1979, Addenda

Signed: [Signature] Date 26 February 1992 Title: Senior QA-Engineer
Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Providence of Mississippi and employed by Arkwright Mutual/Mutual Boiler Div. of Worwood, Mass. have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the Inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL SYSTEM

[Signature]
Inspector's Signature

Date 8-20-92

Commission MS 600
National Board, State, Province and Nos.



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00270

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC. ECHELON ONE P.O. BOX 31995 JACKSON, MS 39286-1995	PLANT: GRAND GULF NUCLEAR STATION P.O. BOX 756 PORT GIBSON, MS 39150	UNIT: GRAND GULF ONE COMMERCIAL OPERATION DATE: JULY 1, 1985
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ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

REPLACEMENT: During a quarterly surveillance of the Standby Liquid Control (SLC) B-Loop System, an expansion joint assembly on the discharge side of the SLC Pump was found leaking from a 1.25" crack on the first crest of the bellows. The cause for the crack was attributed to high cycle, low stress fatigue. The expansion joint assembly was sent to the manufacturer for replacement of the bellows. (See Manufacturer's Report Attached.) The expansion joint assembly was returned and reinstalled. Material Nonconformance Report (MNCR) No. 0174-91 was initiated to document leakage and provide corrective action.

(CONTINUED ON PAGE 2)

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a) name b) size c) capacity d) class e) material f) MFL No. g) drawings h) location i) manufacturer's name j) manufacturer's address k) manufacturer's I.D. no. l) National Board No. m) Construction Code Edition & Addenda n) Code Case no.

COMPONENT: a) EXPANSION JOINT ASSEMBLY b) 2" NPS c) 1500 PSIG d) 2 e) Flanges: SA182 Type 304L f) Q1C41G514B g) MFR. DWG. #: 86125 h) Containment Building, Area 11, Elevation 185' i) Metal Bellows Div., Parker Hannifin Corporation j) Moorpark, California k) P/N 86125, S/N 001 l) 134 m) ASME Section III, '74 Edition, S'75 Addenda n) N-188-1

REPLACEMENT: a) Bellows b) 2" O.D. x .040" thick e) Inconel 625, SB444 k) HT. #2650-0-6836; HT. Code #D-248 c,d,f,g,h,i,j,l,m,n) Same as above

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division I, 1977 Edition with Summer, 1979 Addenda.

Signed: [Signature] Date 5/15/92 Title: Engineering Support Supt.
Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Providence of Mississippi and employed by Arkwright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Inspector's Signature: [Signature] Date 5-16-92 Commission MS-600
National Board, State, Province and Nos.



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00270

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC. ECHELON ONE P.O. BOX 31995 JACKSON, MS 39286-1995	PLANT: GRAND GULF NUCLEAR STATION P.O. BOX 756 PORT GIBSON, MS 39150	UNIT: GRAND GULF ONE COMMERCIAL OPERATION DATE: JULY 1, 1985
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The following tests and examinations were performed:

By The Manufacturer:

Liquid Penetrant Examinations on the Liner & Bellows to Flanges Welds: 12/04/91

Hydrostatic Test & Visual Examination: 12/04/91

Final Visual Examination: 12/04/91

MFR's Work Order No. 300740 (Under P.O.# MP133302): Completed 12/04/91

By Energy Operations, INC.:

System Functional Test & VT-2 Examination: 12/05/91

Operability Surveillance Test: 12/05/91

Work Order No. 57267: Completed 12/05/91

MANUFACTURER'S REPORT OF WELDED REPAIRS OR ALTERATIONS

1 REPAIRED BY (Name and address of Manufacturer or Repair Concern):
Metal Bellows Div. Parker Hannifin Corp., 200 Science Dr., Moorpark, Ca. 93021-8010

2 REPAIRED FOR (Name and plant address of owner):
Entergy Operations, Inc., Grand Gulf Nuclear Station, Unit One, Port Gibson, MS 39150

3 OBJECT AND TYPE (Boiler, pressure vessel, P.T., W.T., jacketed, etc.):
Expansion Joint

4 IDENTIFICATION NUMBER (Owner's, Serial, other):
P/N 86125 S/N 001 Orig. Natl. Board No. 134

YEAR BUILT: 1987

5 DESCRIPTION OF REPAIR (Use separate sheet if desired if necessary):
Removed old bellows and liner. Dye Penetrant tested rework on old flanges. Fabricated new bellows material and welded to the expansion joint using old flange and old liner. Repair meets 1974 Edition, S'74 Addenda of the Code.
Code Case N-188-1 Class 2

6 EVALUATION MADE IN ACCORDANCE WITH:
 Owner's Instructions Nat'l Board Rules Repair Concern's Plans Ref. Intergy Operations Inc. PO#MP13330

7 REPAIR PLANS APPROVED BY (Name of Owner representative):
Steve Lewis

DATE OF APPROVAL: 12/3/91

8 WELDING PROCEDURE QUALIFICATION AND WELDER QUALIFICATION IN ACCORDANCE WITH ASME CODE:
 YES NO

PROCEDURE DESIGNATION	DATE OF QUALIFICATION	TEST RESULTS AVAILABLE
WPS A097 Rev. B	1/20/84	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
WPS A099 Rev. B	1/25/84	

WELDER'S NAME	DATE LAST QUALIFIED	WELDER'S NAME	DATE LAST QUALIFIED
Doug Martin W-6	10/3/90	-----	-----
Bill DeJane W-11	8/15/90	-----	-----

9 REPAIRS COMPLETED (Date): 12/4/91

HYDROSTATIC TEST (Pressure): 2250

We certify the above statements to be correct and that the repairs when completed satisfactorily withstood the hydrostatic test without evidence of leakage or other signs of distress.

Date 12/4 1991 Signed Metal Bellows Div. Parker Hannifin Corp. (Manufacturer or Repair Concern) By [Signature] (Representative)

NPT Certificate #N-2801 Expires June 2, 1992

CERTIFICATE OF WELDED REPAIR INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of CALIFORNIA have inspected during repair the object described above and state that to the best of my knowledge and belief the statements made and certified to above by the representative of METAL BELLOW DIV. are correct.
(Manufacturer or Repair Concern)

By signing this certificate neither the Inspector nor The Hartford Steam Boiler Inspection and Insurance Company makes any warranty, expressed or implied, concerning the object described in this report. Furthermore neither the Inspector nor The Hartford Steam Boiler Inspection and Insurance Company shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection, except such liability as may be provided in a policy of insurance which The Hartford Steam Boiler Inspection and Insurance Company may issue upon said object and then only in accordance with the terms of said policy.

Date DEC 4 1991 Signed Cirilo F. Reyes (Inspector) Commission MB9436 CA1526 (State or Nat'l Board No.)



ENTERGY

NIS-2 SUMMARY REPORT FOR
REPAIRS/REPLACEMENTS

NIS-2 NO. 00271

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

REPAIRS: During Receipt Inspection of Lonegan Relief Valves with welded flanged pipe-ends, inspectors discovered there were no traceable documentation included with the paperwork for the welding, pipe and flange material attached to the valve ends. Discrepant Material Report (DMR) No.'s 0008-89, 0027-89, and 0117-89 were issued to document this discrepancy and other documentation problems.

The valves were disassembled, inspected, parts replaced (if needed), and set-pressure tested. After passing the test, the flanged spool pieces were ground-off, valve ends weld-prepped and returned to warehouse stock as spares, except for valve s/n 500320-2-26-3.

The bonnet to valve s/n 500320-2-26-3 (tagged Q2E12F025C) was discarded. After the valve body ends were weld-prepped, the valve body and internal parts were returned to the warehouse disassembled as spare parts, individually tagged with the original valve s/n for traceability.

(Continued at top of pg. 2)

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a) name b) size c) capacity d) class e) material f) MPL No. g) drawings h) location i) manufacturer's name j) manufacturer's address k) manufacturer's I.D. no. l) National Board No. m) Construction Code Edition & Addenda n) Code Case no.

REPAIRS: a) SAFETY RELIEF VALVES c) N/A d) 2 e) BASE: ASME SA-479 TYPE 304 h) MAINT. SHOP i) J. E. LONEGAN j) PHILADELPHIA, PA. l) N/A m) ASME SECT. III, 74 ED., S'74 ADD. n) 1555, 1574, N-242
b, f, g, k) See Table Below

f) MPL TAG NO.	k) VALVE S/N	b) SIZE / MODEL NO.	c) VENDOR'S DWG. NO.
Q2E12F005	500320-2-24-1	1" x 1" / LCT-11	A-2624 REV.C
Q2E12F017A	500320-2-25-1	1" x 1" / LCT-11	A-2587 REV.N
Q2E12F017B	500320-2-25-2	1" x 1" / LCT-11	A-2587 REV.N
Q2E12F017C	500320-2-25-3	1" x 1" / LCT-11	A-2587 REV.N
Q2E12F025C	500320-2-26-3	1" x 1" / LCT-11	A-2587 REV.N
Q2E51F017	500320-2-20-1	3/4" x 1" / LCT-20	A-2587 REV.N

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division 1, 1977 Edition with Addenda, 1999, Addenda.

Signed: [Signature] Date 12/18/91 Title: Engineering Support Supt.
Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Providence of Mississippi and employed by Arkwright Mutual Mutual Boiler Div. of Worwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Date 12-18-91 Commissions MS 600
Inspector's Signature National Board, State, Province and Nos.



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00271

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC. ECHELON ONE P.O. BOX 31995 JACKSON, MS 39286-1995	PLANT: GRAND GULF NUCLEAR STATION P.O. BOX 756 PORT GIBSON, MS 39150	UNIT: GRAND GULF ONE COMMERCIAL OPERATION DATE: JULY 1, 1985
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ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Cont. from top of pg. 1)

WORK ORDER NO.	DATE WORK COMPLETED	VALVE S/N	SET PRESSURE TEST DATE	DMR NO.
#29819	12/12/90	500320-2-25-2	12/05/90	0008-89
#29824	12/12/90	500320-2-26-3	N/R	0008-89 (Disassembled for spare parts)
#29867	12/07/90	500320-2-24-1	12/06/90	0008-89
#29870	01/09/91	500320-2-25-3	01/02/91	0027-89
#29871	01/09/91	500320-2-25-1	12/05/90	0027-89
#30026	12/07/90	500320-2-20-1	12/06/90	0117-89



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00272

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC. ECHELON ONE P.O. BOX 31995 JACKSON, MS 39286-1995	PLANT: GRAND GULF NUCLEAR STATION P.O. BOX 756 PORT GIBSON, MS 39150	UNIT: GRAND GULF ONE COMMERCIAL OPERATION DATE: JULY 1, 1985
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ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

SPARE REPLACEMENT: A new orifice plate was fabricated as a spare for the flanged connection of Flow Element no. Q1G33N040 in case a replacement was needed for the work being performed under W.O. #41458 in accordance with Material Nonconformance Report (MNCR) #00043-91.

Since the original orifice plate was reinstalled after passing inspection and passed a retest under W.O. #41458, the new orifice plate was turned in to warehouse stock as a spare.

Work Order #42317

Work Completed: 05/13/91

COMPONENT INFORMATION: (include all applicable information and indicate whether repaired, replaced or etc.) a)name b)size c)capacity d)class e)material f)NPL No. g)drawings h)location i)manufacturer's name j)manufacturer's address k)manufacturer's I.D. no. l)National Board No. m)Construction Code Edition & Addenda n)Code Case no.

SPARE REPLACEMENT: a) ORIFICE PLATE b) 6" RF-W/N c) 900# ASA d) PLATE MAT.: CLASS 1 e) STAINLESS STEEL, SA-240 TYPE 304 f) Q1G33N040 g) VICKERY-SIMMS, INC. (VSI) DWG. #N-1016-2 REV.B h) AUX. BLDG., STEAM TUNNEL i) PLATE MFR.: HUB, INC. j) TUCKER, GA k) HEAT #100079, COIL #1-305450 l) N/A m) ASME SECTION III, 80'ED., S'82 ADD. n) N/A

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division 1, 1977 Edition with Summer, 1979, Addenda.

Signed: [Signature] FOR FOR Date 1/2/92 Title: Engineering Support Supt.
Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Providence of Mississippi and employed by Arkwright Mutual/Mutual Boiler Div. of Holywood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Date 1-7-92 Commissions MS-600
Inspector's Signature National Board, State, Province and Mos.

FACTORY MUTUAL SYSTEM



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00273

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

REPLACEMENTS: Eleven Main Steam/Safety Relief Valve (MSSRV) spares were disassembled for the 5-Year Service Life Inspection as required by the Updated Final Safety Analysis Report (UFSAR), Section 5.2.2.10.

The valves were inspected for wear, damage, and erosion and were rebuilt as necessary. Three valves had pressure retaining parts replaced.

Material Nonconformance Report (MNCR) No. 0138-91 was issued to record crack indications found on the Inlet Nozzle area of MSSRV S/N-160805 under Work Order (W.O.) #53052. The indications were determined to be superficial and would not affect the function of the valve. During engineering evaluation of the crack indications, the Body & Inlet Nozzle Assembly was replaced with another assembly from MSSRV S/N-160797.

Discrepant Material Report (DMR) No. 0144-91 was issued to record low seat height dimensions found on the disc of MSSRV S/N-160818 under W.O. #40751. A decision is pending by engineering on whether to rebuild the original disc's seat or to discard it. The disc was replaced with another disc from MSSRV S/N-160797.

(Continued on Page 2)

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a) name b) size c) capacity d) class e) material f) MPL No. g) drawings h) location i) manufacturer's name j) manufacturer's address k) manufacturer's I.L. no. l) National Board No. m) Construction Code Edition & Addenda n) Code Case no.

1. COMPONENT: a) DUAL FUNCTION SAFETY RELIEF VALVES b) 8"x10" c) N/A d) 1 e) BODY: CAST CARBON STEEL SA-352 LCB f) USED SPARES g) G.E. DWG. #G-471-6/125.04.03 REV 6 h) MAINTENANCE SHOP
i) G. DIKKERS & CO. j) HENGLO (O) / THE NETHERLANDS k) SERIAL NO. l) NAT. BD. NO.
m) ASME SECTION III, 74'ED., S'76 ADD n) N/A

160805	003
160818	104
160825	111

2. REPLACEMENT: a) VALVE BODY & NOZZLE ASSEMBLY b,c,d) SAME AS ITEM 1 e) BODY: SA-352 LCB
NOZZLE: SA-352 LF2 f) FROM VALVE S/N 160797; INSTALLED ON VALVE S/N 160805 g,h,i) SAME AS ITEM 1
k) REMOVED ASSY.: BODY - HT. #10.04.8, S/N 3; NOZZLE - HT. #AEU-010 l) N/A m,n) SAME AS ITEM 1
INSTALLED ASSY.: BODY - HT. #04.45.7, S/N 1; NOZZLE - HT. #AEU-011

(Continued on Page 2)

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division 1, 1977 Edition with Summer, 1979, Addenda.

Signed: [Signature] Date 2/10/92 Title: Engineering Support Supt.
Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Providence of Mississippi and employed by Arkwright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL SYSTEM

[Signature] Date 3-10-92 Commissions MS-600
Inspector's Signature National Board, State, Province and Nos.



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00273

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (CONT. FROM PAGE 1)

The following examination was performed:

Presence VT-1 Visual Examination on a Capscrew (P/N BF) Replacement under W.O. #40107 7-30-91

Work Order #40107 for MSSRV S/N-160825: Completed 7-22-91

Work Order #40751 for MSSRV S/N-160818: Completed 7-30-91

Work Order #53052 for MSSRV S/N-160805: Completed 1-13-92

COMPONENT INFORMATION: (CONT. FROM PAGE 1)

3. REPLACEMENT: a) VALVE DISC b,c,d) SAME AS ITEM 1 e) ASME SA-351 CF3A f) DISC FROM VALVE S/N-160797
INSTALLED ON VALVE S/N-160818 g,h,i,j) SAME AS ITEM 1 k) REMOVED: HT. #54.15.8, S/N 4B l) N/A
m,n) SAME AS ITEM 1 INSTALLED: HT. #58.52.7, S/N 4B

4. REPLACEMENT: a) SOCKET HEAD CAPSCREW (P/N BF) b) 1"-8 UNC c) N/A d) 1 e) ASME SA-193 GR B7
f) INSTALLED ON VALVE S/N-160825 g,h,i,j) SAME AS ITEM 1 k) REMOVED: HT. CODE #CAL l) N/A
m,n) SAME AS ITEM 1 INSTALLED: HT. CODE #CAL



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00274

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

MODIFICATIONS AND REPLACEMENTS: THE INLET AND OUTLET FLANGE STUD HOLES OF THE MAIN STEAM/SAFETY RELIEF VALVE (MSSRV) SPARES WERE INSPECTED FOR DAMAGED THREADS, PROPER DEPTH, PROPER CHAMFER, AND FOR DAMAGED HELICAL-COIL THREADED INSERTS. THE STUD HOLES DETERMINED TO BE UNACCEPTABLE WERE REDRILLED, TAPPED, RECHAMFERED AND HELICAL-COIL THREADED INSERTS INSTALLED. THE STUD HOLES WITH DAMAGED HELICAL-COIL THREADED INSERTS WERE REPLACED WITH NEW HELICAL-COIL THREADED INSERTS. THE MSSRV SPARES WERE SHIPPED TO AN INDEPENDENT TESTING LABORATORY FOR SET POINT TESTING AND CERTIFICATION AFTER WORK WAS COMPLETED. SEE TABLE IN PAGE 2 FOR WORK ORDER (W.O.) NO.'S AND DATES COMPLETED.

REPAIR: WHEN AN INLET STUD WAS REMOVED FROM MSSRV S/N 160813, THE PIPE WRENCH SCRAPED THE FLANGE LEAVING FOUR SCRAPED/GOUGED AREAS ON THE GASKET SEATING SURFACE.

(CONTINUED ON PAGE 2)

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a) name b) size c) capacity d) class e) material f) MPL No. g) drawings h) location i) manufacturer's name j) manufacturer's address k) manufacturer's I.D. no. l) National Board No. m) Construction Code Edition & Addenda n) Code Case no.

1. COMPONENTS: a) DUAL FUNCTION SAFETY RELIEF VALVES b) 8" X 10" NPS c) N/A d) 1 e) BODY: CAST CARBON STEEL, SA-352 LCB f) SEE TABLE ON PAGE 2 g) G.E. DWG. #G-471-B/125.04.03 REV.6 h) MAINT. SHOP i) G. DIKKERS & CO. j) HENGLO (O) / THE NETHERLANDS k, l) SEE TABLE ON PAGE 2 m) ASME SECTION III, 1974 EDITION, SUMMER 1976 ADDENDA n) N/A

2. REPLACEMENTS: a) HELICAL-COIL INSERTS b) INLET FLANGE: 1 & 5/8" x 8-UNC; OUTLET FLANGE: 1" x 8-UNC c) N/A d) 1 e) INCONEL X750 ROLLING WIRE f, g) N/A h) SEE TABLE ON PAGE 2 i) HELI-COIL PRODUCTS, DIVISION OF MITE CORP. j) DANBURY, CONNECTICUT k) CONTROL NO.'S FOR HELICAL-COILS INSTALLED. IN INLET FLANGE: 4017-1 (W-6436), 57183-A (W-6257), 80669-A (W-6321). IN OUTLET FLANGE: 3952 (V-6370), 50306-A (W-6141) l, m, n) N/A

(CONTINUED ON PAGE 2)

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division 1, 1977 Edition with Summer 1979, Addenda.

Signed: [Signature] Date 3/19/92 Title: Engineering Support Svmt.
Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Providence of Mississippi and employed by Arkwright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Inspector's Signature: [Signature] Date: 3-28-92 Commissions: N.B. L.C.C.
National Board, State, Province and Nos.

FACTORY MUTUAL SYSTEM



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00274

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (CONTINUED FROM PAGE 1)

DISCREPANT MATERIAL REPORT (DMR) #0097-91 WAS INITIATED TO DOCUMENT THE INDICATIONS, WHICH WERE DETERMINED TO BE MOSTLY SUPERFICIAL, BUT COULD CREATE A STEAM PATH. THEREFORE, THE GOUGES WERE REMOVED BY MACHINING THE GASKET SEALING SURFACE TO PREVENT STEAM LEAKAGE UNDER WORK ORDER #40683.

THE FOLLOWING EXAMINATION WAS PERFORMED: LIQUID PENETRANT (PT) EXAM ON INLET FLANGE FACE OF MSSRV S/N 160813 AFTER FINAL MACHINING: 7/22/91

COMPONENT INFORMATION: (CONTINUED FROM PAGE 1)

W.O. #	WORK COMPLETED	j) VALVE NO. SERIES LOC. (Q1B21-1)	k) VALVE S/N	NATIONAL BOARD NO.	HELICAL COILS REPLACED OR HOLE NUMBERS MODIFIED	
					INLET FLANGE	OUTLET FLANGE
39036	4-12-91	F041	160802	013	NONE	2, 11, 16
37833	3-25-91	F041	160818	104	5*	NONE
39570	4-04-91	F041	160815	101	NONE	2, 16
39046	4-02-91	F051	160811	007	NONE	15
39571	4-08-91	F047	160841	194	6	NONE
43087	7-16-91	F047	160825	111	7	NONE
43081	5-31-91	F041	160801	010	NONE	2
41695	6-28-91	F051	160812	015	NONE	1, 6, 8, 9, 11, 12, 15
41561	5-29-91	F047	160805	003	NONE	16
41313	5-15-91	F041	160796	011	4, 7	6
41108	5-09-91	F041	160795	008	NONE	6*, 10
40683	7-23-91	F051	160813	001	3, 6	2*, 14*, 16*
40682	7-25-91	F047	160804	006	12	4, 5, 8

* DENOTES OLD HELICAL-COIL REPLACED WITH NEW HELICAL-COIL



ENTERGY

NIS-2 SUMMARY REPORT FOR
REPAIRS/REPLACEMENTS

NIS-2 NO. 00275

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC.
ECHELOW ONE
P.O. BOX 31995
JACKSON, MS 39286-1995PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

REPLACEMENTS: Due to an increase in temperature and leakage on the seal cartridge assembly for Reactor Recirculation Pump-B, the modified seal cartridge assemblies for reactor recirculation pumps A & B were replaced with originally designed rebuilt seal cartridge assemblies. The following test and examination was performed:

System Inservice Test & VT-2 Visual Examination: 5/24/91

Work Orders #41514 (Q1B33C001B) & #42000 (Q1B33C001A)

Work Completed: 5/26/91

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a) name b) size c) capacity d) class e) material f) NPL No. g) drawings h) location i) manufacturer's name j) manufacturer's address k) manufacturer's I.D. no. l) National Board No. m) Construction Code Edition & Addenda n) Code Case no.

1. COMPONENTS: a) Reactor Recirculation Pumps b) 24" x 24" x 35" c) Flow Capacity: 10,000 - 50,000 GPM. Flow Rating: 44,600 GPM d) 1 e) Pump Case: SA351 GR.CFBM f) Q1B33C001A/B g) Byron Jackson DWG. #IF-783^R Rev.D h) CTMT, Drywell, EL 100' i) Byron Jackson Pump Division (Borg-Warner Corp.) j) Los Angeles, CA. k) Q1B33C001A: S/N 741-S-1276; Q1B33C001B: S/N 741-S-1277 l) N/A m) ASME Section III, 1971 Edition, Summer 1973 Addenda n) N/A

2. REMOVED: a) Modified Seal Cartridge Assemblies b, c, d, f, h, i, j, l, m, n) Same as Item 1 e) Seal Flange: SA351 GR.CFB g) Byron Jackson DWG. #IE-3817 Rev. A k) Q1B33C001A: S/N 741-S-1277; Q1B33C001B: S/N 813-S-6777-2

3. INSTALLED: a) Originally Designed Seal Cartridge Assemblies b - n) Same as Item 2, except for k) Q1B33C001A: S/N 813-S-6777-1, Q1B33C001B: S/N 741-S-1276

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division I, 1977 Edition with Summer 1979, Addenda.

Signed: Amil H. For Date 4/7/92 Title: Engineering Support Supv.
Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Mississippi, and employed by Arkwright Mutual/Mutual Boiler Div. of Horwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Sandra R. Bivins
Inspector's Signature

Date 4-15-92

FACTORY MUTUAL SYSTEM
Commissions MS-600
National Board, State, Province and Kos.



ENTERGY

NIS-2 SUMMARY REPORT FOR
REPAIRS/REPLACEMENTS

NIS-2 NO. 00276

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995PLANT: GRAND GULF NUCLEAR STATION
P.O. LY 756
PORT GIBSON, MS 39150UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

REPLACEMENTS: Reactor Recirculation Pumps A & B continued to have similar problems with temperature and leakage increases with the original designed seal cartridge assemblies (Reference NIS-2 #00275). Therefore the original designed seal cartridge assemblies were replaced with rebuilt modified seal cartridge assemblies and purge flow was restored. The following test and examination was performed:

System Inservice Test & VT-2 Visual Examination: 6/15/91

Work Orders #45252 (Q1B33C001B) & #45245 (Q1B33C001A)

Work Completed: 6/18/91

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a) name b) size c) capacity d) class e) material f) NPL No. g) drawings h) location i) manufacturer's name j) manufacturer's address k) manufacturer's I.D. no. l) National Board No. m) Construction Code Edition & Addenda n) Code Case no.

1. COMPONENT: a) Reactor Recirculation Pumps b) 24" x 24" x 35" c) Flow Capacity: 10,000 - 50,000 GPM. Flow Rating: 44,000 GPM d) r e) Pump Case: SA351 GR.CF8 f) Q1B33C001A/B g) Byron Jackson Dwg. #IF-7836 Rev.D h) CTMT, Drywell, EL. 100' i) Byron Jackson Pump Division (Borg-Warner Corp.) j) Los Angeles, CA. k) Q1B33C001A: S/N 741-S-1276; Q1B33C001B: S/N 741-S-1277 l) N/A m) ASME Section III, 1971 Edition, Summer 1973 Addenda n) N/A

2. REMOVED: a) Originally Designed Seal Cartridge Assemblies b,c,d,f,h,i,j,l,m,n) Same as Item 1 e) Seal Flange: SA351 GR.CF8 g) Byron Jackson Dwg. #IE-3817 Rev. A k) Q1B33C001A: S/N 813-S-6777-1; Q1B33C001B: S/N 741-S-1276

3. INSTALLED: a) Modified Seal Cartridge Assemblies b - j) Same as Item 2 k) Q1B33C001A: S/N: 813-S-6777-2; Q1B33C001B: S/N 741-S-1277 l,m,n) Same as Item 2

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division 1, 1977 Edition with Summer, 1979, Addenda.

Signed: [Signature] For FOR Date 4/7/92 Title: Engineering Support Supt.
Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of Mississippi and employed by Arkwright Mutual/Mutual Boiler Div. of Worwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature]
Inspector's Signature

Date 4-10-92FACTORY MUTUAL SYSTEM
Commissions MS 600
National Board, State, Province and Nos.



ENERGY

NIS-2 SUMMARY REPORT FOR
REPAIRS/REPLACEMENTS

NIS-2 NO. 00277

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC.
ECHOLON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

REPLACEMENTS: Due to excessive pump vibration on Reactor Recirculation Pump-B, pump shaft, pump impeller, and seal cartridge assembly were replaced. The following test and examination were performed:

System Inservice Test & VT-2 Visual Examination: 1/09/92

Work Order #59017

Work Completed: 1/10/92

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a) name b) size c) capacity d) class e) material f) MPL No. g) drawings h) location i) manufacturer's name j) manufacturer's address k) manufacturer's I.D. no. l) National Board No. m) Construction Code Edition & Addenda n) Code Case no.

1. COMPONENTS: a) Reactor Recirculation Pump b) 24" x 24" x 35" c) Flow Capacity: 10,000 - 50,000 GPM. Flow Rating: 44,600 GPM d) 1 e) Pump Case: SA351 GR.CF8M f) Q1B33C001B g) Byron Jackson DWG. #IF-7836 Rev.D h) CTMT, Drywell, EL 100' i) Byron Jackson Pump Division (Borg-Warner Corp.) j) Los Angeles, CA k) S/N 741-S-1277 l) N/A m) ASME Section III, 1971 Edition, Summer 1973 Addenda n) N/A

2. REMOVED: a) Seal Cartridge Assembly b,c,d,f,h,i,j,l,m,n) Same as Item 1 e) Seal Flange: SA351 GR.CF8 g) Byron Jackson DWG. #IE-3817 Rev.A k) S/N 741-S-1277

3. INSTALLED: a) Seal Cartridge Assembly b-n) Same as Item 2, except for k) S/N 741-S-1279

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division 1, 1977 Edition with Summer, 1979, Addenda.

Signed: [Signature]

Owner Representative

Date

4/15/92

Title:

Engineering Support Supt.

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Providence of Mississippi and employed by Arkwright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL SYSTEM

[Signature]
Inspector's Signature

Date

4-16-92

Commissions

MS 600

National Board, State, Province and Nos.



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00278

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC. ECHELON ONE P.O. BOX 31795 JACKSON, MS 39286-1995	PLANT: GRAND GULF NUCLEAR STATION P.O. BOX 756 PORT GIBSON, MS 39150	UNIT: GRAND GULF ONE COMMERCIAL OPERATION DATE: JULY 1, 1985
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ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

REPLACEMENT/MODIFICATION: Outboard Containment Isolation Check Valve No. Q1B21F032B for the B - Feedwater Line, was found with leakage through the stuffing box flange (south side of valve). Leakage could not be isolated with the system in service. Therefore, an on-line temporary repair* was performed to control leakage by injecting a sealant compound into the flanged joint of the stuffing box until a permanent repair can be completed. Seven stuffing box studs were replaced and a dowel pin hole was tapped to install adaptors for the sealant compound injection. Material Nonconformance Report (MNCR) No. 0073-91 was initiated to document valve leakage and provide corrective action. The following tests and examinations were performed:

- Preservice VT-1 Visual Examination on Replacement Studs: 5/24/91
- Maintenance Leak Test and Visual Examination: 6/16/91
- Surveillance Operability Test: 7/5/91
- Work Order No. 43898: Completed 7/5/91

*Injection of sealant compound is not a Section XI Repair.

COMPONENT INFORMATION: (include all applicable information and indicate whether repaired, replaced or etc.) a)name b)size c)capacity d)class e)material f)MPL No. g)drawings h)location i)manufacturer's name j)manufacturer's address k)manufacturer's I.D. no. l)National Board No. m)Construction Code Edition & Addenda n)Code Case no.

1. Component: a) Swing Check Valve b) 24" NPS c) N/A d) 1 e) Body: SA 352 Gr.LCB f) Q1B21F032B
g) Vendor Dwg. 13615-01-H Rev B h) Aux Bldg, Area 8, Elev 139' i) Atwood & Monro Co., Inc. j) Salem, Mass. k) S/N: 2-13615 l) N/A m) ASME Section III, 1974 Edition, Summer 1974 Addenda n) N/A

2. Installed: a) Studs b) 7/8" x 5" c) Ultimate Tensile Strength: 141,300; Yield Strength: 126,800 d) 1
e) SA 193 Gr.B7 f) N/A g,h) See Item 1 i) Texas Bolt Company j) Houston, Texas k) Heat No.: 72649
l) N/A m) ASME Section III, Class 1 n) N/A

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division I, 1977 Edition with Summer 1979, Addenda.

Signed: [Signature] Date: 4/19/92 Title: Engineering Support Supt.
Other Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Providence of Mississippi, and employed by Arkwright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL SYSTEM

[Signature] Date: 4-19-92 Commissions: MS 600
Inspector's Signature National Board, State, Province and Nos.



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



ORIGINAL

NIS-2 NO. 00279

OWNER: ENTERGY OPERATIONS, INC.
ECHOLON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

REPLACEMENT: To facilitate disassembly and removal of Reactor Recirculation Pump-B, selected mechanical interferences were removed. Items removed included mechanical snubbers attached to Recirculation Pump-B. During removal of these snubbers, one snubber pin was damaged and replaced. The following examination was performed:

Snubber Visual Inspection on Q1B33G002S372B: 12/28/90

Work Order #: 31913

Work Completed: 12/28/90

COMMENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a) name b) size c) class d) city e) class f) material g) NPL No. h) drawings i) location j) manufacturer's name k) manufacturer's address l) manufacturer's I.D. no. m) National Board No. n) Construction Code Edition & Addenda o) Code Case no.

1. COMPONENT: a) Hydraulic Snubber b,c) 50 KIPS d) 1 e) Various f) Q1B33G002S372B g) GE DWG.: # 768E317 h) CTMT Bldg, Area 11, Drywell, Elev. 100' i) E-Systems, Inc. Montek Division j) Salt Lake City, Utah k) S/N 190 l) N/A m) ASME Section III, 1974 Edition, Summer 1975 Addenda n) 1644-4, 1682-1, 1706

INSTALLED: a) Snubber Pin b) 3.2487" Diameter X 8.52" Length c) 50 KIPS d) 1, NF e) ASME SA564 Type 630 f) Q1B33G002S372B g) GE DWG.: # 768E317 h,i,j) Same As Item 1 k) P/N 152194-010, Code # DAS, Ht # 616873 l) N/A m) ASME Section III, 1974 Edition, Summer 1975 Addenda n) 1644-4 and N-242.1, Para. 5.5

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division 1, 1977 Edition with Summer, 1979 Addenda.

Signed: [Signature] Date: 4/17/92 Title: Engineering Support & pr.
Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Providence of Mississippi and employed by Archwright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected: certified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL SYSTEM

[Signature]
Inspector's Signature

Date 4-18-92

Commissions MS 600
National Board, State, Province and Nos.



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00280

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

REPLACEMENT: Vibration monitoring of Reactor Recirculation Pump-B detected high vibrations. The pump was disassembled for inspection and found the pump shaft broken.

For corrective action the internals of Reactor Recirculation Pumps A & B were replaced with rebuilt Cover/Driver Mount Assemblies with a new Heat Exchanger, Shaft-Impeller and Hydrostatic Bearing Assemblies included (See NIS-2 #00285). Rebuilt Seal Cartridge Assemblies were installed also.

Material Nonconformance Report (MNCR) No. 0287-90 was initiated to document this nonconformance and provide corrective action.

The following tests and examinations were performed:

System Leakage Tests with VT-2 Visual Examinations: 1/11/91

Work Order No.'s 31911 & 32094. Completed 1/12/91

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a)name b)site c)capacity d)class e)material f)MPL No. g)drawings h)location i)manufacturer's name j)manufacturer's address k)manufacturer's I.D. no. l)National Board No. m)Construction Code Edition & Addenda n)Code Case no.

1. COMPONENTS: a) REACTOR RECIRCULATION PUMPS b) 24" x 24" x 35" c) CAPACITY: 10,000 - 50,000 GPM d) 1 e) PUMP CASE: SA351 GR.CF8M f) Q1B33C001A/B g) VENDOR DWG. #IF-7836 Rev.D h) CTMT. Area 11, El.50' i) BYRON JACKSON PUMP DIV. (BORG-WARNER CORP.) j) LOS ANGELES, CA. k) PUMP-A: S/N 741-S-1276; PUMP-B: S/N 741-S-1277 l) N/A m) ASME Section III, 1971 Ed., Summer 1973 Add. n) N/A

2. REPLACEMENTS: a) COVER/DRIVER MOUNT ASSEMBLIES b - n) SAME AS ITEM 1, EXCEPT FOR e) PUMP COVER: ASME SA-105 k) PUMP-A: REMOVED S/N 741-S-1279 / INSTALLED S/N 741-S-1276
PUMP-B: REMOVED S/N 741-S-1278 / INSTALLED S/N 741-S-1277

3. REPLACEMENTS: a) SEAL CARTRIDGE ASSEMBLIES b - n) SAME AS ITEM 1, EXCEPT FOR e) SEAL FLANGE: SA351 GR.CF8 g) VENDOR DWG. #IE-3817 REV.A k) PUMP-A: REBUILT & REINSTALLED S/N 741-S-1277; PUMP-B: REMOVED S/N 741-S-1279 / INSTALLED S/N 813-S-6777-2

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division 1, 1977 Edition with Summer, 1979, Addenda.

Signed: [Signature] Date 8/11/92 Title: Engineering Support Supt.
Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Providence of Mississippi, and employed by Arkwright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL SYSTEM

[Signature]
Inspector's Signature

Date 8-12-92

Commissions MS-500
National Board, State, Province and Nos.



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00281

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC.
ECHELOW ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

REPLACEMENT: After performing a Decontamination Flush on the Reactor Recirculation Pump - B Casing, ISI VT-1 Visual Examinations were performed on the studs and nuts of the Decontamination Inlet and Outlet Flange Connections. All studs and nuts passed inspection, but one nut from the Outlet Flange Connection was found with an arc strike on it and was replaced for preventive maintenance. The following test and examinations were performed:

- Inservice VT-1 Visual Exam. on Studs & Nuts for the Decon Inlet/Outlet Flange Connections: 12/25,26/90
- Preservice VT-1 Visual Exam. on the Replacement Nut for the Decon Outlet Flange Connection: 12/27/90
- System Leakage Test & VT-2 Visual Examination: 12/31/90
- Work Order No. 31924 Completed 12/31/90

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a)name b)size c)capacity d)class e)material f)NFJ No. g)drawings h)location i)manufacturer's name j)manufacturer's address k)manufacturer's I.D. no. l)National Board No. m)Construction Code Edition & Addenda n)Code Case no.

REPLACEMENT: a) Heavy Hex Nut b) 1 1/8" 3 c) N/A d) 1 e) ASME SA194 Gr.7 f) N/A g) G.E. DWG. # 762E883 h) CFMT, Area 11, El. 93' i) Hub, Inc. j) Tucker, GA k) Heat # C27729 l) N/A m) ASME Section III, 1980 Edition, Summer 1982 Addenda n) N/A

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division I, 1977 Edition with Summer, 1977, Addenda.

Signed: [Signature] Date 6/12/92 Title: Engineering Support Supt.
Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of Mississippi, and employed by Arkwright Mutual/Mutual Boiler Div. of Worwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL SYSTEM

[Signature] Date 6-16-92 Commissions MS 600
Inspector's Signature National Board, State, Province and Nos.



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00282

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

MODIFICATION: VALVE SUPPORT QSP21G256A01 WAS REMOVED IN ACCORDANCE WITH DESIGN CHANGE PACKAGE (DCP) 89/0175, WHICH WAS INITIATED TO PROVIDE DEMINERALIZED WATER TO THE NORTH AND SOUTH ENDS OF THE CONTAINMENT BUILDING. NO TESTS OR EXAMINATIONS WERE PERFORMED AS A RESULT OF THE REMOVAL OF THE SUPPORT.

WORK ORDER NO. 19890175 CI NO. 23021 COMPLETED 04/08/92

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a) name b) size c) capacity d) class e) material f) MPL No. g) drawings h) location i) manufacturer's name j) manufacturer's address k) manufacturer's I.D. no. l) National Board No. m) Construction Code Edition & Addenda n) Code Case no.

REMOVED: a) SUPPORT b) FOR 2" VALVE Q1P21F018 c) N/A d) 2 e) PLATE: SA36 AND TUBE STEEL: A500 GR.B f) QSP21G256A01 g) HANGER DWG. NO. QSP21G256A01 (REV.1 h) CTMT. BLDG. AREA 11, EL. 171' i) BECHTEL GROUP j) GAITHERSBURG, MD k) QSP21G256A01 l) N/A m) ASME SECT. III, 1974 ED., NO ADD. n) 1644-7, 1718, 1818, N-71-10

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division I, 1977 Edition with Summer, 1979, Addenda.

Signed: *William L. ...* Date 8/11/92 Title: Engineering Support Supt.
Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of Mississippi and employed by Arkwright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, express or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL SYSTEM

Arnold R. ...
Inspector's Signature

Date 8-13-92

Commissions MS. 600
National Board, State, Province and Nos.



ENTERGY

NIS-2 SUMMARY REPORT FOR
REPAIRS/REPLACEMENTS

NIS-2 NO. 00283

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 71995
JACKSON, MS 39286-1995PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS, REPLACEMENTS/MODIFICATIONS: (include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

REPLACEMENT: The seal cartridge for Reactor Recirculation Pump 6 was replaced due to leakage from the first stage of the seal. The following test and examination was performed:

System Leakage Test & VT-2 Visual Examination: 12/13/90

Work Order No. 31096 : Completed 12/16/90

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a) name b) size c) capacity d) class e) material f) NPL No. g) drawings h) location i) manufacturer's name j) manufacturer's address k) manufacturer's I.D. no. l) National Board No. m) Construction Code Edition & Addenda n) Code Case no.

1. COMPONENTS: a) Reactor Recirculation Pump b) 24" x 24" x 35" c) Flow Capacity: 10,000 - 50,000 GPM, Flow Rating: 44,600 GPM d) 1 e) Pump Case: SA351 GR.CF8M f) Q1B33C001B g) Byron Jackson DWG. NO. IF-7836 Rev.D h) Containment, Area 11, Elevation 93' i) Byron Jackson Pump Division (Borg-Warner Corp.) j) Los Angeles, CA k) S/N: 741-S-1277 l) N/A m) ASME Section III, 1971 Edition, Summer 1973 Addenda n) N/A

2. REPLACEMENT: a) Seal Cartridge Assembly b - n) Same as item 1 e) Seal Flange: SA351 GR.CF8M g) Byron Jackson Dwg. No. IE-3817 Rev. A k) Removed: S/N 741-S-1279; Installed: S/N 813-S-6777-2

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division 1, 1977 Edition with Summer, 1979, Addenda.

Signed: [Signature] Date: 8/21/92 Title: Engineering Support Supt.
Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Providence of Mississippi and employed by Arkwright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL SYSTEM

Inspector's Signature: [Signature] Date: 8-21-92 Commission: MS 650
National Board, State, Province and Nos.



ENTERGY

NIS-2 SUMMARY REPORT FOR
REPAIRS/REPLACEMENTS

NIS-2 NO. 00284

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC.
ECHOLON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

REPLACEMENT: During rebuild of spare Control Rod Drive Serial No. 8283, a Ring Flange Cap Screw failed a VT-1 Visual Examination due to excessive wear obtained during installation and removal of the cap screw and was replaced. Discrepant Material Report (DMR) No. 0098-92 was inflated to document the excessive wear and to provide corrective action. The following examination was performed.

VT-1 Visual Examination on all removed CRD Ring Flange Cap Screws: 04-17-92

VT-1 Visual Examination on one new CRD Ring Flange Cap Screw replacement: 04-18-92

Work Order No. 68840: Completed 04-25-92

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a) name b) size c) capacity d) class v) material f) MPL No. g) drawings h) location i) manufacturer's name j) manufacturer's address k) manufacturer's I.D. no. l) National Board No. m) Construction Code Edition & Addenda n) Code Case no.

1. COMPONENT: a) Control Rod Drive Assy. b) Flange: 3.37" T. x 9 5/8" O.D. c) N/A d) 1 e) Flange: SA182 F304 f) Q1B13D008 g) GE DWG. No. 768E534G001 h) N/A i) General Electric Company j) Wilmington, NC k) Model No. 7RDB144DG001; S/N 8283 l) N/A m) ASME Section III, 1971 Edition, Summer 1973 Addenda n) 1361-2

2. REMOVED: a) Socket Head Cap Screw b) 1/2" Diameter c) N/A d) 1 e) SA193 Gr. B6 f) N/A g) GE DWG. 117C4516P2 h - n) Same as item 1 k) Heat Code KE-1; Heat No. 831503

3. INSTALLED: a) Socket Head Cap Screw b - g) Same as item 2 h - n) Same as item 1

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division 1, 1977 Edition with Summer, 1979, Addenda.

Signed: [Signature] Date 7/24/92 Title: Engineering Support Supt.
Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Mississippi and employed by Arkwright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL SYSTEM

[Signature]
Inspector's Signature

Date 7-27-92

Commissioner Ms. Goo
National Board, State, Province and Nos.



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00285

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

REPLACEMENT: Two spare Cover/Driver Mount Assemblies from Reactor Recirculation Pumps s/n's 741-S-1276 & 741-S-1277 were rebuilt with a new Heat Exchanger Assembly, Shaft-impeller Assembly, and a Hydrostatic Bearing Assembly from spare Reactor Recirculation Pumps s/n's 751-S-1370 & 751-S-1372.

The assemblies from s/n 751-S-1370 were installed in Cover/Driver Mount Assembly s/n 741-S-1276 under Work Order #16759 and the assemblies from s/n 751-S-1372 were installed in Cover/Driver Mount Assembly s/n 741-S-1277 under Work Order #15883.

Four of the sixteen Heat Exchanger to Cover studs (P/N 3-16) were replaced on Cover/Driver Mount Assembly s/n 741-S-1276 because they were missing and the sixteen nuts for both Cover/Driver Mount Assemblies were replaced for preventive maintenance due to some markings found on them.

Quality Deficiency Report No. 0116-91 was initiated to document the recording of incorrect serial no.'s and was corrected.

(Continued on page 2)

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a)name b)size c)capacity d)class e)material f)MPL No. g)drawings h)location i)manufacturer's name j)manufacturer's address k)manufacturer's I.D. no. l)National Board No. m)Construction Code Edition & Addenda n)Code Case no.

1. COMPONENT SUBASSEMBLY: a) COVER/DRIVER MOUNT ASSEMBLIES b) FOR PUMP SIZE: 24" x 24" x 35" c) N/A d) 1 e) PUMP COVER: SA105 f) FOR PUMP NO.'s Q1B33C001A/B g) BYRON JACKSON DWG. NO. IF-7836 REV. D h) PUMP'S LOCATION: CTMT., AREA 11, EL. 93' i) BYRON JACKSON PUMP DIVISION (BORG-WARNER CORP.) j) LOS ANGELES, CA k) S/N 741-S-1276 & S/N 741-S-1277 l) N/A m) ASME SECT. III, 1971 ED., SUMMER 1973 ADD. n) N/A

2. REPLACEMENTS: a) HEAT EXCHANGER ASSEMBLIES b,c,d,f,g,h,i,j) SAME AS ITEM 1 e) FLANGE: SA182 GR. F316 k) S/N 751-S-1370 & S/N 751-S-1372 l) N/A m) ASME SECT. III, 1974 ED., SUMMER 1974 ADD. n) 1682, 1690 & 1820

(CONTINUED ON PAGE TWO)

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division 1, 1977 Edition with Summer, 1979, Addenda.

Signed: [Signature] Date 8/11/92 Title: Engineering Support Supt.
Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Providence of Mississippi and employed by Arkwright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL SYSTEM

[Signature]
Inspector's Signature

Date 8-13-92

Commissions NIS 600
National Board, State, Province and Nos.



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00285

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPLACEMENTS: (Cont. from page 1)

THE FOLLOWING EXAMINATIONS WERE PERFORMED:

VT-1 VISUAL EXAMINATIONS ON THE HEAT EXCHANGER TO COVER STUDS & NUTS: 12/20,22,24/90
WORK ORDER NO.'s 15883 & 16759: COMPLETED 12/28/90

COMPONENT INFORMATION: (Cont. from page 1)

3. REPLACEMENTS: a) STUDS (4 from s/n 741-S-1278 installed on s/n 741-S-1276) b) 1 1/2" - 8 UN c) N/A d) 1
e) SA-540 GR. B23 CL4 f) FOR PUMP NO.'s Q1B33C001A/B g) BYRON JACKSON DWG. NO. IF-7836 REV.D
h) PUMP's LOCATION: CTMT., AREA 11, EL.93' i) BYRON JACKSON PUMP DIVISION (BORG-WARNER CORP.) j)
LOS ANGELES, CA k) FROM PUMP S/N 741-S 78: HT.#43039 l) N/A m) ASME SECT. III, 1971 ED., SUMMER
1973 ADD. n) N/A

4. REPLACEMENTS: n) HEAVY HEX NUTS b) 1 1/2" - 8 c) N/A d) 1 e) SA194 GR.7 f,g,h) SAME AS ITEM i)
j) CARDINAL INDUSTRIAL PRODUCTS INC j) LAS VEGAS, NV k) HT. NO. C27729; HT. CODE: E2 l) N/A
m) ASME SECT. III, 1980 ED., WINTER 1982 ADD. n) N/A



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00286

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC. ECHELON ONE P.O. BOX 31995 JACKSON, MS 39286-1995	PLANT: GRAND GULF NUCLEAR STATION P.O. BOX 756 PORT GIBSON, MS 39150	UNIT: GRAND GULF ONE COMMERCIAL OPERATION DATE: JULY 1, 1985
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ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS:(Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

REPLACEMENT: An expansion joint assembly from the Standby Liquid Control (SLC) A-Loop System was removed to be inspected for misalignment per the disposition of Material Nonconformance Report (MNCR) No. 0174-91. The expansion joint was found in good condition, but was replaced with a new one per engineering's direction to perform metallurgical analysis on the removed expansion joint. This action was performed due to a leaking crack found on the SLC B Loop expansion joint (SEE NIS-2-270). The following tests and examinations were performed:

- System Functional Test and Visual Examination: 5/12/92
- Operability Surveillance Test for pump: 5/12/92
- Work Order No. 59510
- Work Completed 5/13/92

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a)name b)size c)capacity d)class e)material f)MPL No. g)drawings h)location i)manufacturer's name j)manufacturer's address k)manufacturer's I.D. no. l)National Board No. m)Construction Code Edition & Addenda n)Code Case no.

COMPONENT REPLACEMENT: a) EXPANSION JOINT ASSEMBLY b) 2" NPS c) 1500 PSIG d) 2 e) Flanges: SA182 Type 304L f) Q1C41G514A g) MFR. DWG NO.: 86125 h) Containment Building, Area 11, Elevation 185' i) Metal Bellows Div, Parker Hannifin Corporation j) Moorpark, California k) P/N 86125, Removed: S/N 002; Installed: S/N 003 l) Removed: 135; Installed: N/A n) ASME Section III, '74 Edition, S'74 Addenda n) N-188-1

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division 1, 1977 Edition with Summer, 1979, Addenda.

Signed: William J. [Signature] Date 8/13/92 Title: Engineering Support Supt.
Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Providence of Mississippi and employed by Arkwright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL SYSTEM

Donald R. Bivins Date 8-20-92 Commissions MS, 600
Inspector's Signature National Board, State, Province and Nos.



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00287

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

MODIFICATIONS: Two ASME Class 3 Yarway valves were found installed in an ASME Class 1 system (Q1E38F002A & B). Engineering evaluated ASME Section III's requirements and requested the manufacturer review their documentation to determine if the valves could be re-certified to ASME Class 1.

GGNS Nuclear Plant Engineering and Yarway Engineering determined that the valves met all ASME Code Class 1 requirements. Yarway revised the required documents and provided new Class 1 "N" stamped nameplates for the valves.

The Class 1 nameplates were attached to the valves and the Class 3 nameplates were destroyed. The revised documentation from Yarway was added to the original records for each valve. Material Nonconformance Report (MNCR) NO. 0043-92 was initiated to document this nonconformance and provide corrective action.

The ASME NPV-1 Manufacturer's Data Reports for the two installed Class 3 valves, included six additional valves. Therefore, it was necessary for Yarway to include the other six valves in their revised documentation and upgrade all eight valves that were originally supplied to Bechtel for GGNS.

(Continued on Page 2)

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a) name b) size c) capacity d) class e) material f) MPL No. g) drawings h) location i) manufacturer's name j) manufacturer's address k) manufacturer's I.D. no. l) National Board No. m) Construction Code Edition & Addenda n) Code Case no.

1. COMPONENTS MODIFIED: a) STOP CHECK VALVES b) 1.5" NPS c) 2350 PSI; 700°F d) 1 e) BODY: SA105 f) Q1E38F002A & B g) VENDOR DWG. NO. 016-104127-01 h) AUX. BLDG., AREA 8 (MAIN STEAM TUNNEL) i) YARWAY CORP. j) BLUEBELL, PA. k) MODEL NO. 5515B-SA105; FOR Q1E38F002A: S/N-2187, FOR Q1E38F002B: S/N-2182 l) N/A m) ASME SECTION III, 1974 EDITION, WINTER 1974 ADDENDA n) N/A

2. COMPONENT MODIFIED: a) STOP GLOBE VALVE b,c,d,e) SAME AS ITEM 1 f) Q1P41F108 g) VENDOR DWG. NO. 016-103271-05 h) AUX. BLDG., AREA 10, 93' EL. i,j) SAME AS ITEM 1 k) MODEL NO. 5515B-SA105 S/N-2185 l,m,n) SAME AS ITEM 1

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division I, 1977 Edition with Summer, 1979 Addenda.

Signed: [Signature] Date 4/5/92 Title: Engineering Support Supt.
Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Providence of Mississippi and employed by Arkwright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL SYSTEM

[Signature] Date 6-8-92 Commissions MS, 600
Inspector's Signature National Board, State, Province and Nos.



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00287

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (CONT. FROM PAGE 1)

Record reviews for GGNS Unit 1 components determined that only one of the other six valves is installed and it is installed in a class three system (Q1P41F108). The nameplate was changed and the revised documentation from Yarway was attached to the original record for the valve. The other five valves are not installed in Unit 1 nor are they available for installation. The three installed valves were installed prior to commercial operation. No tests or examinations were required.

Work Order No. 73096 (For Q1E38F002A & B): Completed 5-26-92

Work Order No. 73379 (For Q1P41F108): Completed 5-26-92



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00288

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

REPLACEMENT: DURING AN INTERNAL INSPECTION OF STOP CHECK VALVE NO. Q1P41F169B, PITTING WAS FOUND IN THE VALVE BODY, ON THE SEATING AREA OF THE STEM AND ON THE BACKSEAT BUSHING, WHICH PREVENTED FREE MOVEMENT OF THE DISC.

ENGINEERING EVALUATION REQUEST (EER) NO. 92/6144 WAS INITIATED TO EVALUATE THE PITTING INDICATIONS AND PROVIDE CORRECTIVE ACTION. THE DISPOSITION ATTRIBUTED THE INDICATIONS TO NORMAL WEAR. THE WORN PARTS WERE REPLACED, AND THE VALVE WAS REASSEMBLED. THE FOLLOWING TESTS AND EXAMINATIONS WERE PERFORMED:

LOCAL LEAK RATE TEST: 05-08-92

SYSTEM FUNCTIONAL TEST & VT-2 VISUAL EXAMINATION: 05-09-92

SURVEILLANCE OPERABILITY TEST: 05-12-92

WORK ORDER #71634: COMPLETED 05-12-92

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a) name b) size c) capacity d) class e) material f) MPL No. g) drawings h) location i) manufacturer's name j) manufacturer's address k) manufacturer's I.D. no. l) National Board No. m) Construction Code Edition & Addenda n) Code Case no.

1. COMPONENT a) STOP CHECK VALVE b) 2" c) 2350 PSI, 700° F d) 1 e) BODY: SA105 f) Q1P41F169B
g) GGNS DWG. NO. 9645-M251.0-Q1-1.2-003 REV. 4 h) CTMT, AREA 11, EL 184', PIPELINE NO. 2" HBE-146
i) YARWAY CORP. j) BLUEBELL PA. k) FIGURE NO. 5551B-SA105S, S/N 3403 l) N/A m) ASME SECTION III, 74'ED., W'74 ADD. n) N/A

2. REPLACEMENT a) DISC b) 2" c) 1500 PSI d) 1 e) AMS 5385 f,g,h,i,j) SAME AS ITEM 1 k) S/N D4-J l) N/A
m) ASME SECTION III, 74'ED., W'74 ADD. n) N/A

3. REPLACEMENT a) BACKSEAT BUSHING b) 2" c) N/A d) 1 e) SA182 GR. F6A f,g,h,i,j) SAME AS ITEM 1
k) S/N 0166C l,m,n) SAME AS ITEM 2

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division I, 1977 Edition with Summer, 1979, Addenda.

Signed: AM Rho Date 7/6/92 Title: Engineering Support Supt.
Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Providence of Mississippi and employed by Arkwright Mutual/Mutual Roller Div. of Worwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL SYSTEM

Arnold R. Bivins
Inspector's Signature

Date 7-7-92

Commissions MS, 600
National Board, State, Province and Nos.



ENTERGY

NIS-2 SUMMARY REPORT FOR
REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00289

OWNER: ENTERGY OPERATIONS, INC.
ECHELOW ONE
P.O. BOX 31995
JACKSON, MS 39286-1995PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

REPLACEMENTS: During Refueling Outage No. 5 (RFO5), twenty-two Control Rod Drives (CRD) Assemblies were replaced for preventive maintenance because they were starting to show normal wear, as indicated by an increase in stall-flow leakage through the seals.

For each CRD Assembly, eight capscrews, which attach the CRD to the CRD Housing, were replaced with eighteen sets of capscrews removed during RFO4. The capscrews from the other four CRD Assemblies were replaced with new capscrews. (See Quality Deficiency Report No. 0198-92 for material control deficiencies.)

All CRD capscrews were replaced so that VT-1 Visual Examinations could be performed on the removed capscrews without impacting the RFO5 schedule. The examinations determined some of the capscrews were unacceptable due to a degradation of the capscrew's socket head area caused by personal error during disassembly.

Other capscrews were determined unacceptable after Liquid Penetrant Examinations identified areas as having excessive corrosion, but later was determined acceptable after engineering's evaluation.

(CONTINUED ON PAGE 2)

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a)name b)size c)capacity d)class e)material f)MPL No. g)drawings h)location i)manufacturer's name j)manufacturer's address k)manufacturer's I.D. no. l)National Board No. m)Construction Code Edition & Addenda n)Code Case no.

REPLACEMENTS: a) CONTROL ROD DRIVE ASSEMBLIES b) FLANGE: 3.37" T. x 9.5/8" O.D. c) N/A d) 1
e) FLANGE: SA182 F304 f) Q1B13D008 g) G.E. DWG. #768E534G001 h) REACTOR VESSEL BOTTOM
i) GENERAL ELECTRIC CO. j) SAN JOSE, CA. k) MODEL #7RDB144DG001; (SEE TABLE ON PAGE 2 FOR S/N's)
l) N/A m) ASME SECT. III, 1971 EDITION, SUMMER 1973 ADDENDA n) 1361-2

REPLACEMENTS: a) CAPSCREWS b) 1"-8 x 5 1/2" c) N/A d) 1 e) SA193 GR.B7 f) Q1B13D055
g) G.E. DWG. #117C4515P002 h,i,j) SAME AS ABOVE k) REMOVED: MATERIAL CODE #BBK-4, HT. #C-2751, LOT #3,4,5,6,8,9,11 or 13; INSTALLED: (SEE TABLE ON PAGE 2) l) N/A m) ASME SECT. III, 1971 EDITION, WINTER 1972 ADDENDA n) N/A

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division 1, 1977 Edition with Summer, 1979, Addenda.

Signed: [Signature] Date 8/3/92 Title: Engineering Support Supt.
Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Providence of Mississippi and employed by Arkwright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL SYSTEM

[Signature] Date 8-3-92
Inspector's Signature

Commissions NB 5580 MS 600
National Board, State, Province and Nos.



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00289

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC.
ECHOLOM ONE
P.O. BOX 31995
JACKSON, MS 39266-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (CONT. FROM PAGE 2)

The following deficiency reports were initiated to document the discrepancies found and provide corrective action:

Discrepant Material Report (DMR) No.'s 0173-92, 0179-92 & 0184-92

Material Nonconformance Report (MNCR) No. 0173-92

The following tests and examinations were performed:

Visual VT-1 & Liquid Penetrant Examinations on the Capscrews removed: (SEE TABLE BELOW)

Visual VT-1 Exam.'s for new and reused Capscrews installed were done during RFO4: (SEE NIS-2 NO. 00255)

System Leakage Tests & VT-2 Examinations 05/29/92

Work Completed 05/31/92

WORK ORDER #	CRD LOC. #	CRD S/N REMOVED	CRD S/N INSTALLED	REMOVED CAPSCREWS		DEFICIENCY REPORT NO.
				VISUAL VT-1 EXAM.	PT EXAM.	
68029	24-17*	8375	8627	05-08-92	05-10-92	
68144	28-17*	9262	A5673	05-05-92	05-07-92	
68145	24-21*	8580	9307	05-08-92	05-15-92	DMR #0179-92
68146	16-21*	8179	A5074	05-05-92		
68147	16-25*	8131	A5200	05-08-92	05-12-92	MNCR #0173-92
68148	20-29**	8483	A3641	05-08-92		
68149	12-29*	8228	A5102	05-08-92	05-15-92	MNCR #0173-92
68150	08-33*	8764	8124	05-08-92		
68151	20-37*	8670	8262	05-08-92		
68152	24-45*	8716	8283	05-14-92		
68153	32-53*	8828	8135	05-08-92	05-15-92	DMR #0179-92 & MNCR #0173-92
68154	36-53*	7716	8406	05-11-92	05-11-92	DMR #0179-92
68155	44-45*	8668	8763	05-08-92	05-10-92	MNCR #0173-92
68156	32-41*	8694	A2049	05-08-92	05-15-92	MNCR #0173-92
68157	40-37**	8316	8768	05-11-92		DMR #0179-92
68158	44-37*	8710	8198	05-08-92		
68159	32-33*	9589	8164	05-12-92		DMR #0179-92
68160	36-33*	A2048	8584	05-12-92		DMR #0173-92
68161	36-29**	7592	A3821	05-12-92		
68162	48-29*	8832	9607	05-08-92	05-10-92	
68163	52-29*	8765	9568	05-11-92	05-10-92	DMR #0184-92 & MNCR #0173-92
68164	36-21**	9457	A5194	05-08-92		DMR #0179-92

* The manufacturer's I.D. NO.'s for the Capscrews installed in this CRD location are
Material Code #BBK-4, HT. #C-2751, Lot #3,4,5,6,8,9,11, or 13. (M.R #GPD-5802)

** The manufacturer's I.D. NO.'s for the Capscrews installed in this CRD location are
HT. #6057694, Lot #2 or HT. #6077940, Lot #5. (PQIPN #00046-79)



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



ORIGINAL

NIS-2 NO. 00290

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

REPLACEMENTS: THE E-SYSTEMS HYDRAULIC SNUBBERS REQUIRED REFURBISHMENT DUE TO SEAL LIFE EXPIRATION. DURING THE REFURBISHMENT, SOME COMPONENTS WERE REPLACED FOR REASONS OTHER THAN COMPONENT FAILURE (e.g. DAMAGED DURING REMOVAL, OR REINSTALLATION, LOST, OR CORROSION):

A. THE END DAM ASSEMBLY ON A 20 KIP SNUBBER (S/N 175) WAS FOUND TO BE CORRODED UPON DISASSEMBLY. ANOTHER END DAM WAS SUPPLIED BY W.O. 61010 AND INSTALLED UNDER CONTRACT G-3287. (REF: MP201525 M00898)

B. THE CONTROL VALVE ASSEMBLY ON A 50 KIP SNUBBER (S/N 118) WAS DAMAGED DURING REMOVAL. THE PARTS WERE SUPPLIED BY W.O. 61192 AND INSTALLED UNDER CONTRACT G-3287. (REF: MP117104 M04178 AND DMR 0209-91 AND DMR 0209-91)

(CONTINUED ON PAGE 2)

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a)name b)size c)capacity d)class e)material f)MPL No. g)drawings h)location i)manufacturer's name j)manufacturer's address k)manufacturer's I.D. no. l)National Board No. m)Construction Code Edition & Addenda n)Code Case no.

A: REPLACEMENT ON E-20 S/N 175: a) END DAM ASSE. b) 20 KIP c) 1. SUBSECTION NF e) N/A f) SPARE g) N/A h) N/A i) E-SYSTEMS, INC. MONTEK DIVISION j) SALT LAKE CITY, UTAH k) REMOVED FROM S/N 175 AND REPLACED WITH END DAM (P/N 152021-100) FROM S/N 067 l) N/A m) ASME SECTION III SUBSECTION NF, 1977 EDITION WINTER 1977 ADDENDA n) CODE CASE 1644-8, 1682-1, 1706, N-242-1.

(CONTINUED ON PAGE 2)

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division I, 1977 Edition with Summer 1979 Addenda.

Signed: [Signature] Date 8/5/92 Title: Engineering Support Supt.
Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of Mississippi and employed by Arkwright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Date 8-19-92 Commissions MS, GCP
Inspector's Signature National Board, State, Province and Nos.

FACTORY MUTUAL SYSTEM



ENTERGY

 NIS-2 SUMMARY REPORT FOR
 REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00290

 OWNER: ENTERGY OPERATIONS, INC.
 ECHELON ONE
 P.O. BOX 31995
 JACKSON, MS 39286-1995

 PLANT: GRAND GULF NUCLEAR STATION
 P.O. BOX 756
 PORT GIBSON, MS 39150

 UNIT: GRAND GULF ONE
 COMMERCIAL OPERATION DATE:
 JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS:

C. THE CENTER DAM ON A 50 KIP SNUBBER (S/N 118) WAS FOUND TO BE CORRODED UPON DISASSEMBLY. THE CENTER DAM WAS SUPPLIED BY W.O. 61192 AND INSTALLED UNDER CONTRACT G-3287. (REF. MP201525 M00740)

D. THE RESERVOIR MOUNTING HARDWARE ON A 100 KIP SNUBBER (S/N 020) WAS DAMAGED DURING HANDLING. THE NEW HARDWARE WAS SUPPLIED BY W.O. 31233 AND INSTALLED UNDER CONTRACT G-3287. (REF. MP201525 M00740)

E. DURING DISASSEMBLY OF A 20 KIP SNUBBER (S/N 158), THE TEST PORT PLUG GALLED AND THE CYLINDER (TO WHICH THE CODE DATA PLATE IS ATTACHED) WAS REPLACED. THE NEW CYLINDER WAS FROM S/N 067 AND CONTAINED THE CODE DATA PLATE. SNUBBER S/N 158 WILL NO LONGER EXIST, AND WILL BE SUPERSEDED BY S/N 067. THE CYLINDER WAS SUPPLIED BY W.O. 61395 AND INSTALLED UNDER CONTRACT G-3287. (REF. MP201525 M02466)

COMPONENT INFORMATION:

B: REPLACEMENT ON E-50 S/N 118: a) CONTROL VALVE ASSEMBLY b,c) 50 KIP d) SAME AS ABOVE e) N/A f) SPARE g) N/A h) N/A i) SAME AS ABOVE j) SAME AS ABOVE k) REMOVED FROM SNUBBER S/N 118 AND REPLACED WITH CONTROL VALVE ASSEMBLY S/N 1733 l) N/A m) ASME SECTION III SUBSECTION NF, 1974 EDITION THRU SUMMER OF 75 ADDENDA n) CODE CASES 1644-4 AND N-242.1 PAR. 5.5.

C: REPLACEMENT ON E-50 S/N 118: a) CENTER DAM ASSEMBLY b,c) 50 KIP d) SAME AS ABOVE e) N/A f) SPARE g) N/A h) N/A i) SAME AS ABOVE j) SAME AS ABOVE k) REMOVED FROM S/M 118 AND REPLACED WITH CENTER DAM ASSEMBLY (P/N 15203; 100) FROM S/N 079 l) N/A m) SAME AS ABOVE n) CODE CASES 1644-4, 1682-1, 1706.

D: REPLACEMENT ON E-100 S/N 020: a) BOLT, RETAINER CLIP b,c) 100 KIP d) SAME AS ABOVE e) N/A f) SPARE g) N/A h) N/A i) SAME AS ABOVE j) SAME AS ABOVE k) REMOVED FROM S/N 020 AND REPLACED WITH MOUNTING CLIP BOLTS (4 EACH) (P/N 910646-001) FROM S/N 073 l) N/A m,r) SAME AS ABOVE

E: REPLACEMENT ON E-20 S/N 067 (FORMALLY S/N 158): a) MAIN CYLINDER b,c) 20 KIP d) SAME AS ABOVE e) N/A f) SPARE g) N/A h) N/A i) SAME AS ABOVE j) SAME AS ABOVE k) REMOVED FROM S/N 158 AND REPLACED WITH CYLINDER (P/N 152028-101) FROM S/N 067 l) N/A m) 1977 EDITION, WINTER 1977 ADDENDA n) CODE CASES 1644-8, 1682-1, 1706 AND N-242.1



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00291

OWNER: ENTERGY OPERATIONS, INC. ECHELON ONE P.O. BOX 31995 JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION P.O. BOX 756 PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE COMMERCIAL OPERATION DATE: JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

REPLACEMENTS: DURING REFUELING OUTAGE NUMBER 5 (RF05), THE HYDRAULIC SNUBBER POPULATION WAS REPLACED DUE TO APPROACHING SEAL LIFE EXPIRATION. THE NEWLY INSTALLED SNUBBERS WERE REFURBISHED AND FUNCTIONALLY TESTED PER CONTRACT G-3287. IN ADDITION, THREE SNUBBER ATTACHMENT PINS, TWO TIE-BOLT NUTS, AND ONE SNUBBER CLAMP U-BOLT WERE REPLACED FOR REASONS OTHER THAN FAILURE (e.g. DAMAGE DURING REMOVAL OR LOST). ALSO, ONE SNUBBER WAS RELOCATED TO A DIFFERENT LOCATION FOR ADDITIONAL SEAL LIFE INFORMATION. SEE TABLE ON PAGE 2 FOR THE FOLLOWING INFORMATION:

WORK ORDER NUMBER (W.O.#)

DATE OF SNUBBER FUNCTIONAL TEST OF SNUBBERS INSTALLED DURING RF05

DATE OF SNUBBER VISUAL INSPECTION OF SNUBBERS INSTALLED DURING RF05

DATE THAT SNUBBER WAS RETURNED TO OPERATION (RTO'D)

(CONTINUED ON PAGE 2)

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a)name b)size c)capacity d)class e)material f)MPL No. g)drawings h)location i)manufacturer's name j)manufacturer's address k)manufacturer's I.D. no. l)National Board No. m)Construction Code Edition & Addenda n)Code Case no.

REPLACEMENTS FOR SEAL LIFE EXPIRATION: a)HYDRAULIC SNUBBERS b,c,f,g,h,k) SEE TABLE ON PAGES 5 THRU 7 d) 1.SUBSECTION NF e) VARIOUS j) E-SYSTEMS, INC. MONTEK DIVISION j)SALT LAKE CITY, UTAH i) N/A m) ASME SECTION III, DIVISION 1, 1974 EDITION, SUMMER 1975 ADDENDA n) CODE CASES 1644-4, N-242-1, PARA 5.5.

(CONTINUED OF PAGE 5)

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division 1, 1977 Edition with Summer, 1978, Addenda.

Signed: [Signature] Date 8/10/92 Title: Engineering Support Supt. Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Providence of Mississippi and employed by Arkwright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Inspector's Signature

Date 8-24-92

FACTORY MUTUAL SYSTEM Commissions MS 600 National Board, State, Province and Nos.



ENTERGY

NIS-2 SUMMARY REPORT FOR
REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00291

OWNER: ENTERGY OPERATIONS, INC. ECHELON ONE P.O. BOX 31995 JACKSON, MS 39286-1995	PLANT: GRAND GULF NUCLEAR STATION P.O. BOX 756 PORT GIBSON, MS 39150	UNIT: GRAND GULF ONE COMMERCIAL OPERATION DATE: JULY 1, 1985
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ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS. (cont.)

W.O.#	DATE OF FUNCTIONAL TEST	DATE OF VISUAL INSPECTION	DATE RTO'd
58568	12/09/91	05/06/92	05/06/92
58569	03/28/92	05/06/92	05/06/92
58563	03/29/92	04/27/92	04/28/92
58567	11/19/91	05/08/92	05/08/92
58571	11/09/91	05/07/92	05/07/92
58557	11/09/91	04/24/92	04/27/92
58564	11/19/91	05/08/92	05/08/92
58577	11/08/91	05/07/92	05/07/92
58558*	11/16/91	04/23/92	04/25/92
58565	11/14/91	05/08/92	05/08/92
58578	11/09/91	05/07/92	05/07/92
58566	03/28/92	05/06/92	05/07/92
58570	03/28/92	05/08/92	05/08/92
58574	11/14/91	05/08/92	05/08/92
58559	12/30/91	04/23/92	04/27/92
58560**	12/29/91	05/11/92	05/11/92
58579	12/30/91	04/28/92	04/29/92
58572	12/28/91	04/27/92	04/28/92
58575	12/29/91	05/06/92	05/06/92
58561	12/29/91	04/27/92	04/28/92
58580	12/29/91	04/28/92	04/29/92
58573	12/29/91	04/28/92	04/30/92
58576	12/29/91	05/06/92	05/06/92
58562	03/30/92	05/09/92	05/09/92
58591	03/29/92	04/30/92	04/30/92
58589	12/30/91	04/30/92	04/30/92
58587	11/01/91	05/02/92	05/02/92
58581	03/29/92	05/15/92	05/15/92
58583	11/01/91	05/16/92	05/16/92
58593	10/31/91	04/30/92	04/30/92
58595	11/01/91	04/30/92	04/30/92
58599	11/01/91	04/29/92	04/29/92

(CONTINUED ON PAGE 3)



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



ORIGINAL

NIS-2 NO. 0029

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (cont.)

W.O.#	DATE OF FUNCTIONAL TEST	DATE OF VISUAL INSPECTION	DATE RTO'd
58597	03/29/92	04/29/92	04/29/92
58592	10/30/91	04/25/92	04/29/92
58590	03/29/92	04/29/92	04/29/92
58588	10/31/91	05/02/92	05/03/92
58582	10/31/91	05/19/92	05/20/92
58584	03/29/92	05/13/92	05/13/92
58600	03/29/92	04/28/92	04/28/92
58598	12/30/91	05/04/92	05/04/92
58594	11/01/91	05/01/92	05/01/92
58596	11/14/91	05/01/92	05/01/92
58585	03/28/92	05/02/92	05/02/92
58613	12/09/91	05/13/92	05/13/92
58611	12/06/91	05/11/92	05/11/92
58609	12/06/91	05/11/92	05/11/92
58605***	03/28/92	05/04/92	05/04/92
58601	12/09/91	05/01/92	05/01/92
58603	12/06/91	05/01/92	05/01/92
58586*	12/06/91	05/03/92	05/03/92
58614	12/09/91	05/22/92	05/23/92
58612	12/09/91	05/03/92	05/03/92
58610	03/28/92	05/02/92	05/02/92
58606	03/28/92	05/05/92	05/05/92
58602	03/28/92	04/30/92	04/30/92
58604*	12/06/91	04/29/92	04/29/92
58623	11/16/91	05/24/92	05/24/92
58625	11/08/91	05/24/92	05/24/92
58627	03/29/92	05/24/92	05/24/92
58629	11/09/91	05/24/92	05/24/92
58619	12/07/91	05/22/92	05/24/92
58615	03/29/92	05/16/92	05/16/92
58631	12/07/91	05/18/92	05/18/92
58607	03/29/92	05/04/92	03/04/92

(CONTINUED ON PAGE 4)



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00291

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (cont.)

W.O.#	DATE OF FUNCTIONAL TEST	DATE OF VISUAL INSPECTION	DATE RTO'd
58624	11/19/91	05/18/92	05/18/92
58626	11/16/91	05/18/92	05/18/92
58628	11/19/91	05/18/92	05/18/92
58630	12/07/91	05/18/92	05/18/92
58620	03/29/92	05/18/92	05/18/92
58616	11/14/91	05/22/92	05/22/92
58632	11/09/91	05/22/92	05/22/92
58608	11/16/91	05/11/92	05/11/92
58617****	10/25/87	05/22/92	05/22/92
58621	12/28/91	05/22/92	05/22/92
58622	12/28/91	05/18/92	05/18/92
58618	12/28/91	05/18/92	05/18/92

*ALSO REPLACED SNUBBER ATTACHMENT PINS DUE TO BEING DAMAGED OR LOST DURING REMOVAL (REF: R0282-84)

**ALSO REPLACED 2 TIE-BOLT NUTS DUE AFTER DISCOVERED MISSING DURING THE HYDRAULIC SNUBBER REFURBISHMENT PER CONTRACT C-3287. THE TIE-BOLT NUTS WERE SUPPLIED BY THE VENDOR AS 'NON-CODE' MATERIAL, BUT ENTERGY ENGINEERING HAS DETERMINED THAT THE TIE-BOLT NUTS SHOULD HAVE BEEN SUPPLIED AS 'CODE' MATERIAL. MATERIAL NONCONFORMANCE REPORT (MNCR) 0250-92 HAS BEEN GENERATED TO TRACK THE DISCREPANCY. (REF: MP 201525 M06404)

***ALSO REPLACED THE U-BOLT OF THE CLAMP ASSEMBLY WHEN DAMAGED DURING REMOVAL FOR ISI INSPECTION. (REF: MRR-7984)

****MOVED FROM SUPPORT QIB33G006S371B.



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00292

OWNER: ENTERGY OPERATIONS, INC.
ECHELOM ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

COMPONENT INFORMATION: (cont.)

W O #	b.c) SIZE /		g) DWG. # FSK-P.	k) S/N REMOVED /	
	CAPACITY	f) MPL#		h) LOCATION	S/N INSTALLED
58568	30KIP	Q1B21G006S104B	1174-M.001-C	D/W EL 150	083D/073
58569	30KIP	Q1B21G006S104C	1180-M.001-C	D/W EL 150	084D/077
58563	50KIP	Q1B21G006S103A	1169-M.001-C	D/W EL 150	296D/086
58567	50KIP	Q1B21G006S104A	1170-M.001-C	D/W EL 150	182D/102
58571	50KIP	Q1B21G006S105A	1170-M.001-C	D/W EL 150	173D/104
58557	50KIP	Q1B21G006S101B	1171-M.001-C	D/W EL 156	297D/096
58564	50KIP	Q1B21G006S103B	1173-M.001-C	D/W EL 149	175D/095
58577	50KIP	Q1B21G006S107B	1176-M.001-C	D/W EL 150	196D/111
58558	50KIP	Q1B21G006S101C	1177-M.001-C	D/W EL 156	298D/114
58565	50KIP	Q1B21G006S103C	1079-M.001-C	D/W EL 149	174D/094
58578	50KIP	Q1B21G006S107C	1182-M.001-C	D/W EL 150	198D/112
58566	50KIP	Q1B21G006S103D	1184-M.001-C	D/W EL 150	295D/097
58570	50KIP	Q1B21G006S104D	1185-M.001-C	D/W EL 150	178D/105
58574	50KIP	Q1B21G006S105D	1185-M.001-C	D/W EL 150	171D/117
58559	70KIP	Q1B21G006S102A	1188-M.001-C	D/W EL 155	229 /052
58560	70KIP	Q1B21G006S102B	1172-M.001-C	D/W EL 156	035 /088
58579	70KIP	Q1B21G006S108B	1175-M.001-C	D/W EL 150	223 /051
58572	70KIP	Q1B21G006S105B	1175-M.001-C	D/W EL 150	225 /029
58575	70KIP	Q1B21G006S106B	1176-M.001-C	D/W EL 150	227 /090
58561	70KIP	Q1B21G006S102C	1178-M.001-C	D/W EL 156	030 /089
58580	70KIP	Q1B21G006S108C	1181-M.001-C	D/W EL 150	003 /224
58573	70KIP	Q1B21G006S105C	1181-M.001-C	D/W EL 150	002 /091
58576	70KIP	Q1B21G006S106C	1182-M.001-C	D/W EL 150	228 /092
58562	70KIP	Q1B21G006S102D	1183-M.001-C	D/W EL 153	230 /093
58591	20KIP	Q1B33G006S306A	1059-M.001-C	D/W EL 131	253D/149
58589	20KIP	Q1B33G006S305A	1061-M.001-C	D/W EL 131	159 /006
58587	20KIP	Q1B33G006S304A	1063-M.001-C	D/W EL 111	162 /160
58581	20KIP	Q1B33G006S301A	1066-M.001-C	D/W EL 111	165 /169
58583	20KIP	Q1B33G006S302A	1067-M.001-C	D/W EL 103	167 /154
58593	20KIP	Q1B33G006S351A	1057-M.001-C	D/W EL 134	233D/172
58595	20KIP	Q1B33G006S352A	1057-M.001-C	D/W EL 125	229D/174
58599	20KIP	Q1B33G006S354A	1055-M.001-C	D/W EL 125	231D/161
58597	20KIP	Q1B33G006S353A	1055-M.001-C	D/W EL 134	235D/164



ENTERGY

NIS-2 SUMMARY REPORT FOR
REPAIRS/REPLACEMENTS



ORIGINAL

NIS-2 NO. 00291

OWNER: ENTERGY OPERATIONS, INC.
ECKELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT:

...ION DATE:

COMPONENT INFORMATION: (cont.)

W.O #	b.c)SIZE/ CAPACITY	f)MPL#	g)DWG # FSK-P-	h)LOCATION	k)REMOVED/ INSTALLED
58592	20KIP	Q1B33G006S306B	1058-M.001-C	D/W EL 131	238D/175
58590	20KIP	Q1B33G006S305B	1060-M.001-C	D/W EL 131	168 /007
58588	20KIP	Q1B33G006S304B	1062-M.001-C	D/W EL 111	170 /166
58582	20KIP	Q1B33G006S301B	1066-M.001-C	D/W EL 111	004 /151
58584	20KIP	Q1B33G006S302B	1067-M.001-C	D/W EL 103	005 /175
58600	20KIP	Q1B33G006S354B	1054-M.001-C	D/W EL 125	228D/155
58598	20KIP	Q1B33G006S353B	1054-M.001-C	D/W EL 134	234D/152
58594	20KIP	Q1B33G006S351B	1056-M.001-C	D/W EL 134	232D/163
58596	20KIP	Q1B33G006S352B	1056-M.001-C	D/W EL 125	230D/156
58585	30KIP	Q1B33G006S303A	1065-M.001-C	D/W EL 107	085D/201
58613	30KIP	Q1B33G006S362A	1040-M.001-C	D/W EL 110	003 /078
58611	30KIP	Q1B33G006S361A	1042-M.001-C	D/W EL 101	004 /202
58609	30KIP	Q1B33G006S360A	1045-M.001-C	D/W EL 107	005 /199
58605	30KIP	Q1B33G006S359A	1048-M.001-C	D/W EL 110	091 /075
58601	30KIP	Q1B33G006S356A	1053-M.001-C	D/W EL 125	339 /206
58603	30KIP	Q1B33G006S357A	1051-M.001-C	D/W EL 125	341 /071
58586	30KIP	Q1B33G006S303B	1064-M.001-C	D/W EL 107	086D/076
58614	30KIP	Q1B33G006S362B	1041-M.001-C	D/W EL 110	093 /074
58612	30KIP	Q1B33G006S301B	1043-M.001-C	D/W EL 101	089 /069
58610	30KIP	Q1B33G006S360B	1044-M.001-C	D/W EL 107	337 /200
58606	30KIP	Q1B33G006S358B	1049-M.001-C	D/W EL 110	088 /070
58602	30KIP	Q1B33G006S356B	1052-M.001-C	D/W EL 125	340 /072
58604	30KIP	Q1B33G006S357B	1050-M.001-C	D/W EL 125	342 /203
58623	50KIP	Q1B33G006S372A	1076-M.001-C	D/W EL 101	004 /063
58625	50KIP	Q1B33G006S373A	1078-M.001-C	D/W EL 101	005 /106
58627	50KIP	Q1B33G006S374A	1080-M.001-C	D/W EL 101	006 /066
58629	50KIP	Q1B33G006S375A	1082-M.001-C	D/W EL 101	007 /098
58619	50KIP	Q1B33G006S370A	1072-M.001-C	D/W EL 125	187 /113
58615	50KIP	Q1B33G006S363A	1068-M.001-C	D/W EL 102	188 /118
58631	50KIP	Q1B33G006S376A	1084-M.001-C	D/W EL 107	176D/116
58607	50KIP	Q1B33G006S359A	1046-M.001-C	D/W EL 110	169 /119
58624	50KIP	Q1B33G006S372B	1077-M.001-C	D/W EL 101	190 /100
58626	50KIP	Q1B33G006S373B	1079-M.001-C	D/W EL 101	193 /093



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00291

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

COMPONENT INFORMATION: (cont.)

W O #	b,c)SIZE/ CAPACITY	f)MPL#	g)DWG # FSK-P-	h)LOCATION	k)REMOVED/ INSTALLED
58628	50KIP	Q1B33G006S374B	1081-M.001-C	D/W EL 101	167 /115
58630	50KIP	Q1B33G006S375B	1083-M.001-C	D/W EL 101	194 /120
58620	50KIP	Q1B33G006S370B	1073-M.001-C	D/W EL 125	192 /085
58616	50KIP	Q1B33G006S363B	1069-M.001-C	D/W EL 102	189 /064
58632	50KIP	Q1B33G006S376B	1085-M.001-C	D/W EL 107	177D /107
58608	50KIP	Q1B33G006S359B	1047-M.001-C	D/W EL 110	166 /103
58617	100KIP	Q1B33G006S369A	1070-M.001-C	D/W EL 123	001 /043*
58621	100KIP	Q1B33G006S371A	1074-M.001-C	D/W EL 123	041 /020
58622	100KIP	Q1B33G006S371B	1075-M.001-C	D/W EL 123	043 /042
58618	100KIP	Q1B33G006S369B	1071-M.001-C	D/W EL 123	040 /017

*MOVED FROM SUPPORT Q1B33G006S371B

REPLACEMENT ON Q1B21G006S101C: a) ATTACHMENT PIN b,c) 50 KIP d) 1, SUBSECTION NF e) ASME SA-564, TYPE 630 f) Q1B21G006S101C g) FSK-P-1171-M.001-C h) D/W EL 156 i) E-SYSTEMS, INC., MONTEK DIVISION j) SALT LAKE CITY, UTAH k) P/N 152194-004, HEAT TRACE "DAU" OR "DAH" l) N/A m) ASME SECTION III, DIVISION I AND SUBSECTION NF, 1974 EDITION INCLUDING ADDENDA THROUGH SUMMER OF 1975 n) CODE CASES 1644-4 AND N-242-1, PAR 5.5

REPLACEMENT ON Q1B33G006S303B: a) ATTACHMENT PIN b,c) 30 KIP d) 1, SUBSECTION NF e) ASME SA-564, TYPE 630 f) Q1B33G006S303B g) FSK-P-1064-M.001-C h) D/W EL 107 i) E-SYSTEMS, INC., MONTEK DIVISION j) SALT LAKE CITY, UTAH k) P/N 152194-003, HEAT TRACE "D487H", "D479H", "D495H", "DAD", OR "696809" l) N/A m) ASME SECTION III, DIVISION I AND SUBSECTION NF, 1974 EDITION INCLUDING ADDENDA THROUGH SUMMER OF 1975 n) CODE CASES 1644-4 AND N-242-1, PAR. 5.5

REPLACEMENT ON Q1B33G006S357B: a) ATTACHMENT PIN b,c) 30 KIP d) 1, SUBSECTION NF e) ASME SA-564, TYPE 630 f) Q1B33G006S357B g) FSK-P-1050-M.001-C h) D/W EL 125 i) E-SYSTEMS, INC., MONTEK DIVISION j) SALT LAKE CITY, UTAH k) P/N 152194-003, HEAT TRACE "D487H", "D479H", "D495H", "DAD", OR "696809" l) N/A m) ASME SECTION III, DIVISION I AND SUBSECTION NF, 1974 EDITION INCLUDING ADDENDA THROUGH SUMMER OF 1975 n) CODE CASES 1644-4 AND N-242-1, PAR 5.5

(CONTINUED OF PAGE 8)



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00291

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

COMPONENT INFORMATION:

REPLACEMENT ON Q1B33G006S358A: a) U-BOLT FROM CLAMP ASSEMBLY b,c) 30 KIP d) 1, SUBSECTION NF e) N/A f) Q1B33G006S358A g) FSK-P-1048-M.001-C h) D/W EL 110 i) E-SYSTEMS INC., MONTEK DIVISION j) SALT LAKE CITY, UTAH k) P/N 152246-100, S/N 031, 032, 033, 034, 035 OR 036 l) N/A m) ASME SECTION III, DIVISION I, 1974 EDITION, SUMMER 1975 ADDENDA n) CODE CASES 1344-4, 1682-1, 1706

REPLACEMENT ON Q1B21G006S102B: a) TWO TIE-BOLT NUTS b,c) 70 KIP d,e,m,n) REFER TO '**' ON PAGE 4 AND TO ENTERGY MATERIAL NONCONFORMANCE (MNCR) 0250-92 f) Q1B21G006S102B g) FSK-P-1172-M.001-C h) D/W EL 156 i) ENERTECH j) BREA, CALIFORNIA k) P/N 910644-009 l) N/A



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00292

OWNER: ENTERGY OPERATIONS, INC. ECHOLON ONE P.O. BOX 31995 JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION P.O. BOX 756 PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE COMMERCIAL OPERATION DATE: JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

REPLACEMENTS: DURING RFO5 FUNCTIONAL TESTING OF THE PSA MECHANICAL SNUBBERS, THE FOLLOWING REPLACEMENTS WERE REQUIRED:

A) ON SUPPORT Q1B21G153R02, THE PSA-1/4 (S/N 11028) WAS TESTED ON 4/23/92 PER TECH SPEC REQUIREMENT 4.7.4. THE PEAK DRAG FORCE WAS 2436.76 lbs. EXCEEDING THE ALLOWABLE DRAG FORCE OF 32.5 lbs (5% OF RATED LOAD FOR A PSA-1/2). MATERIAL NONCOMFORMANCE REPORT (MNCR) 0078-92 WAS GENERATED TO DOCUMENT THE DISCREPANCY, EVALUATE THE IMPACT TO THE PIPING SYSTEM, AND TO PERFORM THE REQUIRED SUITABILITY EVALUATION OF THE REPLACEMENT. A LIKE-FOR-LIKE REPLACEMENT SNUBBER, PSA-1/4 (S/N 28204), WAS TESTED ON 4/25/92 AND INSTALLED THAT DAY.

(CONTINUED ON PAGE 2)

COMPONENT INFORMATION: (include all applicable information and indicate whether repaired, replaced or etc.) a)name b)size c)capacity d)class e)material f)MPL No. g)drawings h)location i)manufacturer's name j)manufacturer's address k)manufacturer's I.D. no. l)National Board No. m)Construction Code Edition & Addenda n)Code Case no.

A. REPLACEMENT ON Q1B21G153R02: REMOVED: A) MECHANICAL SNUBBER B) PSA-1/4 C) 350# D) SUBSECTION NF E) VARIOUS F) Q1B21G153R02 G) FSK-H-1077A-023-C H) CTMT EL 175' I) BERGEN-PATERSON PIPESUPPORT CO. J) WOBURN, MA K) S/N 11028 L) N/A M) ASME SECTION III, SUBSECTION NF, 1974 EDITION, NO ADDENDA N) NONE INSTALLED: A) MECHANICAL SNUBBER B) PSA-1/4 C) 350# D) CLASS 1 E) VARIOUS F) Q1B21G153R02 G) FSK-H-1077A-023-C H) CTMT EL 175' I) PACIFIC SCIENTIFIC CO. J) ANAHEIM, CA K) S/N 28204 L) N/A M) ASME SECTION III, SUBSECTION NF, 1977 EDITION, WINTER 1978 ADDENDA N) CODE CASE 1644-7

(CONTINUED ON PAGE 3)

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division J, 1977 Edition with Summer, 1979, Addenda.

Signed: [Signature] Date: 8/27/92 Title: Engineering Support Supt. Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Providence of Mississippi and employed by Arkwright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Date: 8-27-92 Commissions: MS, ECC National Board, State, Province and Nos. Inspector's Signature

FACTORY MUTUAL SYSTEM



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00292

OWNER: ENTERGY OPERATIONS, INC.
ECHOLON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS (CONT.):

A cont.) THE SNUBBER VISUAL EXAMINATION WAS PERFORMED ON 4/26/92, AND THE WORK ORDER (W.O. 67928) WAS RETURNED TO OPERATION (RTO'D) ON 5/26/92 AFTER THE DISPOSITION OF MNCR 0078-92 WAS COMPLETE AND IT WAS DETERMINED THAT THE SNUBBER'S HIGH DRAG FORCES DID NOT CAUSE ANY NEGATIVE SYSTEM IMPACT AND THAT A LIKE-FOR-LIKE REPLACEMENT WAS SUITABLE. (REF MWO-M91241/R-28747 MRR-16829)

B) ON SUPPORT Q1B21G103R01, A SNUBBER BRACKET PIN WAS REPLACED FOR REASONS OTHER THAN PIN FAILURE (e.g. DAMAGE DURING REMOVAL OR LOST). THE PIN WAS REPLACED AND THE SNUBBER WAS INSTALLED AND VISUALLY INSPECTED ON 4/21/92, AND THE WORK ORDER (W.O. 67932) WAS RTO'D ON 4/22/92. (REF. R0893-85)

C) ON SUPPORT Q1E12G010R15, A SNUBBER BRACKET PIN WAS REPLACED FOR REASONS OTHER THAN PIN FAILURE (e.g. DAMAGE DURING REMOVAL OR LOST). THE PIN WAS REPLACED AND THE SNUBBER INSTALLED ON 4/25/92. THE SNUBBER WAS VISUALLY INSPECTED ON 4/26/92, AND THE WORK ORDER (W.O. 67961) WAS RTO'D ON 4/28/92. (REF 87MP734815 M07442)

D) ON SUPPORT Q1G33G002R05, A SNUBBER BRACKET PIN WAS REPLACED FOR REASONS OTHER THAN PIN FAILURE (e.g. DAMAGE DURING REMOVAL OR LOST). THE PIN WAS REPLACED AND THE SNUBBER INSTALLED ON 4/26/92. THE SNUBBER WAS VISUALLY INSPECTED ON 4/26/92, AND THE WORK ORDER (W.O. 67944) WAS RTO'D ON 4/27/92. (REF. 87MP734815 M07442)

E) ON SUPPORT Q1E12G015R38, A SNUBBER BRACKET PIN WAS REPLACED FOR REASONS OTHER THAN PIN FAILURE (e.g. DAMAGE DURING REMOVAL OR LOST). THE PIN WAS REPLACED AND THE SNUBBER INSTALLED ON 4/26/92. THE SNUBBER WAS VISUALLY INSPECTED ON 4/26/92, AND THE WORK ORDER (W.O. 67947) WAS RTO'D ON 4/27/92. (REF. 87MP734815 M08326)



ENTERGY

NIS-2 SUMMARY REPORT FOR
REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00292

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

COMPONENT INFORMATION (CONT.):

B) REPLACEMENT ON Q1B21G183R01:

INSTALLED: A) PIN, SNUBBER BRACKET B) FOR PSA-1/4 C) N/A D) CLASS 1 E) SA-564, GR630
F) Q1B21G183R01 G) FSK-H-1077C-009-C H) CTMT EL 152 I) PACIFIC SCIENTIFIC J) ANAHEIM,
CA K) P/N 1801341-01, CODE NUMBER N2416 L) N/A M) ASME SECTION III, SUBSECTION NF
1980 EDITION, SUMMER 1982 ADDENDA N) CODE CASE N71-7

C) REPLACEMENT ON Q1E12G010R15:

INSTALLED: A) PIN, SNUBBER BRACKET B) FOR PSA-3 C) N/A D) SUBSECTION NF E) SA-564, TYPE 630
F) Q1E12G010R15 G) HL-1348B H) AUX BLDG, AREA 8 ELEV. 103 I) PACIFIC SCIENTIFIC
J) ANAHEIM, CA K) P/N 1801341-05, MAT'L CODE #N2793 L) N/A M) ASME SECTION III,
SUBSECTION NF, 1980 EDITION, SUMMER 1982 ADDENDA N) CODE CASE 1644-5

D) REPLACEMENT ON Q1G33G002R05:

INSTALLED: A) PIN, SNUBBER BRACKET B) FOR PSA-3 C) N/A D) SUBSECTION NF E) SA-564, TYPE 630
F) Q1G33G002R05 G) HL-1242A H) AUX BLDG, AREA C ELEV. 103 I) PACIFIC SCIENTIFIC
J) ANAHEIM, CA K) P/N 1801341-05, MAT'L CODE #N2793 L) N/A M) ASME SECTION III,
SUBSECTION NF, 1980 EDITION, SUMMER 1982 ADDENDA N) CODE CASE 1644-5

E) REPLACEMENT ON Q1E12G015R38:

INSTALLED: A) PIN, SNUBBER BRACKET B) FOR PSA-35 C) N/A D) SUBSECTION NF E) SA-564, TYPE 630
F) Q1E12G015R38 G) HL-1348F H) CTMT ELEV. 157 I) PACIFIC SCIENTIFIC J) ANAHEIM, CA
K) P/N 1801341-11, MAT'L CODE #N2325B L) N/A M) ASME SECTION III, SUBSECTION NF,
1980 EDITION, SUMMER 1982 ADDENDA N) CODE CASE 1644-5



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00293

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC. ECHELON ONE P.O. BOX 31995 JACKSON, MS 39286-1995	PLANT: GRAND GULF NUCLEAR STATION P.O. BOX 756 PORT GIBSON, MS 39150	UNIT: GRAND GULF ONE COMMERCIAL OPERATION DATE: JULY 1, 1985
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ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

REPLACEMENTS: FOUR STUDS AND SIXTEEN NUTS FROM HANGER NO. Q1B21G154R01 WERE MISPLACED DURING DISASSEMBLY TO ALLOW ACCESS TO A VALVE. THE STUDS AND NUTS WERE REPLACED AND THE HANGER WAS REINSTALLED.

DURING A POST REVIEW OF THE MANUFACTURER'S CERTIFICATIONS FOR THE NEW STUDS AND NUTS, IT WAS DISCOVERED THAT ASME SECTION III, CLASS 2 (NC) STUDS AND CLASS 1 (NB) NUTS HAD BEEN INSTALLED INTO AN ASME SECTION III, NF, CLASS 1 SUPPORT. THE BOLTING MATERIAL IS REQUIRED TO BE CERTIFIED TO ASME SUBSECTION NF. THIS CONDITION WAS IDENTIFIED IN MATERIAL NONCONFORMANCE REPORT (MNCR) NO. 0228-92 AND QUALITY DEFICIENCY REPORT (QDR) NO. 0178-92. ENGINEERING'S DISPOSITION DETERMINED THE BOLTING ACCEPTABLE BASED ON REVIEWS OF THE PURCHASE SPECIFICATION AND MATERIAL SPECIFICATION DOCUMENTS.

WORK ORDER NO. 75478 : COMPLETED 05-29-92

COMPONENT INFORMATION: (include all applicable information and indicate whether repaired, replaced or etc.) a) name b) size c) capacity d) class e) material f) MPL No. g) drawings h) location i) manufacturer's name j) manufacturer's address k) manufacturer's I.D. no. l) National Board No. m) Construction Code Edition & Addenda n) Code Case no.

- 1. COMPONENT: a) HANGER b) FOR 2" DBA-22 c) N/A d) 1 e) PLATE: SA36 AND TUBE STEEL: A500 GR B f) Q1B21G154R01 g) HANGER DWG. NO. AQ1B21G154R01 REV. B h) CTMT. BLDG. AREA 11 EL. 145' i) BECTHEL GROUP j) GAITHERSBURG, MD k) Q1B21G154R01 l) N/A m) ASME SECT. III, 1974 ED., NO ADD. n) 1644-7, 1718, 1818, N-71-10
- 2. REPLACEMENT: a) STUDS b) 5/8"-11 x 5" c) N/A d) 2 e) SA193 GR.7 f,g,h) SAME AS ITEM ONE i) HUB INC. j) TUCKER, GA. k) HEAT #X304D l) N/A m) ASME SECT. III, 1977 ED., TO WINTER 1979 ADD. n) N/A
- 3. REPLACEMENT: a) HEX NUTS b) 5/8"-11 c) N/A d) 1 e) SA194 GR.2H f,g,h) SAME AS ITEM ONE i) CARDINAL INDUSTRIAL PRODUCTS INC j) LAS VEGAS, NV. k) HEAT #D32706 l) N/A m) ASME SECT. III, 1980 ED., TO SUMMER 1982 ADD. n) N/A

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division 1, 1977 Edition with Summer, 1979 Addenda.

Signed: [Signature] Date 7/22/92 Title: Engineering Support Supt.
 Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Providence of Mississippi and employed by Arthuright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Inspector's Signature: [Signature] Date 7-23-92 Commissions MS-600
 National Board, State, Province and Nos.

FACTORY MUTUAL SYSTEM



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00294

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC.
ECHOLOW ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

REPLACEMENT: AIR OPERATED GATE VALVE NO Q1G36F101 FAILED A LOCAL LEAK RATE TEST (LLRT) DUE TO EROSION FOUND ON THE DISC. A NEW DISC WAS INSTALLED AND THE VALVE REASSEMBLED. THE FOLLOWING TESTS AND EXAMINATIONS WERE PERFORMED:

MAINTENANCE LEAK TEST & VISUAL EXAMINATION OF FLANGED CONNECTIONS: 05/28/92

LOCAL LEAK RATE TEST (LLRT): 05/28/92

SURVEILLANCE OPERABILITY TEST: 05/29/92

WORK ORDER NO. 732 COMPLETED 06/29/92

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a) name b) size c) capacity d) class e) material f) NPL No. g) drawings h) location i) manufacturer's name j) manufacturer's address k) manufacturer's I.D. no. l) National Board No. m) Construction Code Edition & Addenda n) Code Case no.

1. COMPONENT: a) GATE VALVE b) 4" NPS c) 150 # d) 2 e) BODY: SA105 f) Q1G36F101 g) VEN. DWG. NO. 045547-4 & 5 h) AUX. BLDG., AREA 7, EL. 128' i) WILLIAM POWELL CO. j) CINCINNATI, OH k) S/N 3387-1. BODY: CONTROLLED MATERIAL (CM) NO. 1560B, HT. NO. CB l) N/A m) ASME SECT. III, 1971 ED., WINTER 1971 ADD. n) N/A

2. REPLACEMENT: a) DISC b) 4" NPS c) N/A d) 2 e) SA351 GR. CA15 f,g,h,i) SAME AS ITEM ONE k) REMOVED: CM NO. 837B, HT. NO. 8996. INSTALLED: CM NO. 2692B, HT. NO. B85 l) SAME AS ITEM ONE m) ASME SECT. III, 1971 ED., WINTER 1972 ADD. n) N/A

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division I, 1977 Edition with Summer 1979 Addenda.

Signed: [Signature] Date: 8/10/92 Title: Engineering Support Supt.
Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Providence of Mississippi and employed by Arkwright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL SYSTEM

[Signature]
Inspector's Signature

Date: 8-12-92

Commissions MS 600
National Board, State, Province and Nos.



NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



ENTERGY

NIS-2 NO. 00295

ORIGINAL

OWNER: ENTERGY OPERATING, INC. ECHELOM ONE P.O. BOX 31995 JACKSON, MS 39286-1995	PLANT: GRAND GULF NUCLEAR STATION P.O. BOX 756 PORT GIBSON, MS 39150	UNIT: GRAND GULF ONE COMMERCIAL OPERATION DATE: JULY 1, 1985
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ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

REPLACEMENT: REACTOR WATER CLEAN UP INBOARD ISOLATION VALVE Q1G33F040 WAS DISASSEMBLED DURING REPAIR OUTAGE NO FIVE (RFO5) FOR DECONTAMINATION FLUSHING AND INSPECTION. DURING DISASSEMBLY OF THE VALVE BONNET, A STUD THAT WAS STUCK HAD TO BE CUT TO REMOVE THE BONNET. THE STUD WAS REPLACED DURING VALVE REASSEMBLY. THE FOLLOWING EXAMINATION AND TESTS WERE PERFORMED.

- MAINTENANCE LEAK TEST & VISUAL EXAMINATION ON FLANGED CONNECTIONS: 05/29/92
- SURVEILLANCE OPERABILITY TEST: 05-29-92
- LOCAL LEAK RATE TEST (LLRT): 06-05-92
- WORK ORDER NO. 60896
- WORK COMPLETED: 06-05-92

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a)name b)size c)capacity d)class e)material f)MPL No. g)drawings h)location i)manufacturer's name j)manufacturer's address k)manufacturer's I.D. no. l)National Board No. m)Construction Code Edition & Addenda n)Code Case no.

1. COMPONENT: a) GATE VALVE b) 6" NPS c) 90J # d) 2 e) BODY: SA216 GR WCB f) Q1G33F040 g) VEN. DWG. NO. 045582-2 h) CTMT B/DG. AREA 11, EL. 135' i) WILLIAM POWELL CO. j) CINCINNATI, OH k) S/N 70165-1 l) N/A m) ASME SECT. III 1971 ED., WINTER 1972 ADD. n) N/A

2. REPLACEMENT: a) STUD b) 5/8"-11 x 4 1/2" c) N/A d) 2 e) SA193 GR B7 f,g,h) SAME AS ITEM ONE i) HUB INC. j) TUCKER, GA k) HT. NO. X604D l) N/A m) ASME SECT. III 1977 ED. WINTER 1979 ADD. n) N/A

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division I, 1977 Edition with Summer, 1979, Addenda.

Signed: *[Signature]* Date: 8/10/92 Title: Engineering Support Supt.
 Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Providence of Mississippi and employed by Arkwright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Date: 8-11-92 Commissions: MS. 600
 Inspector's Signature National Board, State, Province and Nos.



ENTERGY

NIS-2 SUMMARY REPORT FOR
REPAIRS/REPLACEMENTS

NIS-2 NO. 00296

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC.
SHELTON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

REPLACEMENTS: EXPLOSIVE ACTUATED VALVE Q1C41FC04B IN THE STANDBY LIQUID CONTROL (SLC) SYSTEM WAS REBUILT FOLLOWING FIRING OF THE EXPLOSIVE CHARGE DURING AN OPERABILITY SURVEILLANCE TEST. A NEW VALVE REPLACEMENT KIT WAS INSTALLED AND THE VALVE WAS REINSTALLED IN THE SYSTEM. THE FOLLOWING TESTS AND EXAMINATIONS WERE PERFORMED:

SYSTEM FUNCTIONAL BENCH TEST & VT-2 VISUAL EXAMINATION: 05/15/92

MAINTENANCE LEAK TEST & VISUAL EXAMINATION ON THE INLET FLANGE CONNECTION: 06/02/92

WORK ORDER: #60587

WORK COMPLETED: 06/03/92

DESCRIPTION: (Include all applicable information and indicate whether repaired, replaced or etc.) a) name b) size c) size d) material e) NPL No. f) drawings h) location i) manufacturer's name j) manufacturer's address k) I.D. no. l) National Board No. m) Construction Code Edition & Addenda n) Code Case no.

1. REPAIRS: a) EXPLOSIVE ACTUATED VALVE b) 1.5" NPS c) N/A d) 2 e) ASME SA 479, TYPE 304L f) Q1C41FC04B g) CONAX DWG. #1832-159 REV.0 h) CTMT, AREA 11, EL. 185' i) CONAX CORP. j) BUFFALO, N.Y. k) S/N 24, C/N 279 l) 111 m) ASME SECT. III, 1971 ED., WINTER 1972 ADD n) N/A

2. REPLACEMENTS: a) EXPLOSIVE VALVE REPLACEMENT KIT d) 2 e, f, k, l) SEE TABLE ON PAGE 2
b, c, g, h, i, j) SAME AS ITEM ONE m) SEE PAGE 2 n) N/A (FOR ALL PARTS IN THE KIT)

(CONTINUED ON PAGE 2)

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division I, 1977 Edition with Summer, 1979, Addenda.

Signed: [Signature] Date 8/5/92 Title: Engineering Support Supt.
Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Providence of Mississippi, and employed by Arkwright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL SYSTEM

[Signature]
Inspector's Signature

Date 8-14-92

Commissions MS 600
National Board, State, Province and Nos.



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00296

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

COMPONENT INFORMATION: (CONT. FROM PAGE 1)

a) EXPLOSIVE VALVE REPLACEMENT KIT k) P/N N-27006-03; S.E.P. S/N: REMOVED / INSTALLED
l) Q1C11F004B: #577 #671

THE KIT DETAILED CONSISTS OF THE FOLLOWING PARTS:

NAME	e) MATERIAL	k) PART #
TRIGGER BODY	304 SS, SA-479	N-38018-01
RAM	TYPE 630, COND. H900, SA-564	N-39012-01
INLET FITTING	304 SS, SA-479	N-38017-01B
PRIMER CHAMBER	(NON-PRESSURE RETAINING PART)	N-38062-01

THE NATIONAL BOARD NO. OF EACH PART IN THE KIT IS:

NAME	S/N 671	N/B#
*TRIGGER BODY SUB-ASSY.	3611	
INLET FITTING	3584	

*TRIGGER BODY SUB-ASSY. INCLUDES THE RAM.

m) CONSTRUCTION CODE EDITION & ADDENDA FOR EACH PART IN THE KIT:

NAME	CONSTRUCTION CODE EDITION & ADDENDA
TRIGGER BODY:	ASME SECT. III, CLASS 1, 1977 ED., SUMMER 1977 ADD.
RAM:	ASME SECT. II & III, CLASS 1, 1977 ED., SUMMER 1977 ADD.
INLET FITTING:	ASME SECT. II & III, CLASS 1, 1977 ED., SUMMER 1977 ADD.
PRIMER CHAMBER:	(NON-PRESSURE RETAINING PART) ASME SECT. II 1977 ED., SUMMER 1977 ADD.



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00297

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

REPAIRS: During a maintenance leak check following replacement of gaskets in Reactor Water Cleanup (RWCU) flow orifice Q1G33-FE-N040, a small pin-hole leak was found on a seal weld connecting a pressure sensing line (3/4"-DBB-104) to the downstream flange on the flow orifice. Material Nonconformance Report (MNCR) No. 0058-91 was written to document the leakage and specify corrective action. The cause was determined to be an incomplete weld from construction which cracked under stresses caused during replacement of the orifice gaskets under Work Order (WO) Nos. 00040339 and 00041458.

The seal weld was repaired under WO No. 00042413 by grinding out part of the old weld and welding new material into the cavity. Quality Deficiency Report (QDR) No. 0096-91 and MNCR No. 0061-91 were issued because a liquid penetrant examination was not performed on the final repair weld before completing work under WO No. 00042413.

(CONTINUED ON PAGE 2)

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.. a)name b)size c)capacity d)class e)material f)MPL No. g)drawings h)location i)manufacturer's name j)manufacturer's address k)manufacturer's I.D. no. l)National Board No. m)Construction Code Edition & Addenda n)Code Case no.

REPAIRED: a) Flange b) 6 inch c) 900 lb. d) 2 e) Carbon Steel, Schedule 120, SA-105 f) Q1G33-FE-N040
g) M-1328K h) Auxiliary Building Main Steam Tunnel, Area 8, Elevation 145 feet i) National Flange and Fitting Co.
j) Houston, TX k) Heat No. 214881 l) N/A m) ASME Section III, 1971 Edition through Summer 1973 Addenda
n) N/A

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division 1, 1979 Edition with Summer, 1979, Addenda.

Signed: [Signature] Date 8/26/92 Title: Engineering Support Supt.
Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Providence of Mississippi, and employed by Arkwright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Date 8-27-92 Commissions MS 600
Inspector's Signature National Board, State, Province and Nos.

FACTORY MUTUAL SYSTEM



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



ORIGINAL

NIS-2 NO. 00297

OWNER: ENTERGY OPERATIONS, INC.
ECHULON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS:(Continued from Page 1):

During Refueling Outage No. 5 (RFO5), radiographic examinations were performed on the seal welds for all four sensing line connections to the flanges of the flow orifice. This was performed as corrective action per MNCR 0058-91 to examine the thread interfaces between the pressure sensing tubing and the flanges for evidence of possible corrosion. In addition, liquid penetrant examinations were performed on all four welded connections to the flanges. No evidence of corrosion or recordable indications were found.

Near the end of RFO5 a pinhole leak was discovered in the same seal weld during the periodic system leakage test and Visual Examination VT-2 of the Class 1 pressure boundary. MNCR No. 0197-92 was written to document the leakage, evaluate the cause and specify corrective action. The cause of the leakage was determined to be a defect in the weld repair performed under WO No. 00042413. The weld was completely ground out and rewelded under WO No. 00073773.

The following tests and examinations were performed under the documents indicated:

Under WO No. 00042413:

Visual Examination of the excavated area before repair welding: 05/02/91

Visual Examination VE-1 of the final repair weld: 05/02/91

Maintenance leak check: 05/03/91

Work complete: 05/03/91

Under WO No. 00072767:

Diagnostic liquid penetrant examinations of four sensing line connection seal welds: 05/21/92

Work complete: 05/23/92

Under MNCR No. 0058-91

Radiographic examinations of four sensing line connection seal welds for corrosion: 05/04/92

Under WO No. 00073773:

Visual Examination of the excavated area before repair welding: 05/31/92

Visual Examination VE-1 of the final repair weld: 05/31/92

Liquid penetrant examination of the final repair weld: 05/31/92

Maintenance leak check: 06/09/92

Work complete: 06/09/92



NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



ENTERGY

NIS-2 NO. 00298

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC. ECHOLON ONE P.O. BOX 31995 JACKSON, MS 39286-1995	PLANT: GRAND GULF NUCLEAR STATION P.O. BOX 756 PORT GIBSON, MS 39150	UNIT: GRAND GULF ONE COMMERCIAL OPERATION DATE: JULY 1, 1985
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ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

REPLACEMENT: WHILE PERFORMING REACTOR REASSEMBLY DURING REFUELING OUTAGE NO. FIVE (RFO5), A STUD WAS REPLACED ON THE FLANGED CONNECTION ON THE RPV HEAD SPRAY NOZZLE FLANGE DUE TO DAMAGE OBTAINED DURING DISASSEMBLY. THE FOLLOWING TEST AND EXAMINATION WAS PERFORMED.

SYSTEM LEAKAGE TEST & VISUAL (VT-2) EXAMINATION: 05/29/92
WORK ORDER NO. 70019 DATE WORK COMPLETED: 7/01/92

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) k)name b)size c)capacity d)class e)material f)NPL No. g)drawings h)location i)manufacturer's name j)manufacturer's address k)manufacturer's I.D. no. l)National Board No. m)Construction Code Edition & Addenda n)Code Case no.

1. REPLACEMENT: a) STUD b) 1 3/8" x 9 3/4" c) N/A d) 1 e) SA193 GR. B7 f) Q1E51G001-28G-11 & Q1B13D003-N7 NOZZLE g) ISOMETRIC DWG. NO. M-1346A REV.26 h) CTMT. BLDG. AREA 11, EL. 196'10" i) HUB, INC. j) TUCKER, GA k) HT. NO. 8098719 l) N/A m) ASME SECT. III, 1980 ED., SUMMER 1982 ADD. n) N/A

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division I, 1977 Edition with Summer, 1979, Addenda.

Signed: [Signature] Date 7/23/92 Title: Engineering Support Supt.
Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of Mississippi and employed by Arkwright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Date 7-27-92 Commission MS-600
Inspector's Signature National Board, State, Province and Mod.

FACTORY MUTUAL SYSTEM



ENTERGY

NIS-2 SUMMARY REPORT FOR
REPAIRS/REPLACEMENTS

NIS-2 NO. 00299

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

REPLACEMENT: Valve Q1G33F001 failed a Local Leak Rate Test (LLRT) due to seat leakage above individual valve allowable leakage. Material Nonconformance Report (MNCR) 0244-90 was initiated to document the discrepancy and to provide corrective action. During Refueling Outage Five (RFO5) the valve was disassembled and inspected to determine the cause of the leakage. The inspection revealed pitting and scratches on the wedge. A wedge was obtained from a spare valve and installed in the valve.

While the valve was disassembled for wedge replacement, a crack-like indication was discovered in the weld prep area for the bonnet leak-off nipple. MNCR 0189-92 was initiated to document the indication and to provide corrective action. A replacement bonnet was obtained from a spare valve and installed on valve Q1G33F001, and the valve was reassembled. During subsequent evaluation after the work was completed, the indication was determined to be lack of fusion from the old weld which had caused a false indication.

(CONTINUED ON PAGE 2)

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a) name b) size c) capacity d) class e) material f) MPL No. g) drawings h) location i) manufacturer's name j) manufacturer's address k) manufacturer's I.D. no. l) National Board No. m) Construction Code Edition & Addenda n) Code Case no.

1. COMPONENT: a) VALVE b) 6" c) N/A d) 1 e) BODY: SA216 GR. WCB f) Q1G33F001 g) DWG. NO. M242.0-Q1-01.2-120 REV. 3 h) CTMT BLDG. AREA 11, EL. 140' i) WILLIAM POWELL CO. j) CINCINNATI, OH k) S/N 69274-2 l) N/A m) ASME SECT. III, 1971 ED., WINTER 1972 ADD. n) N/A

2. REPLACEMENT: a) WEDGE b) 6" c) N/A d) 1 e) SA216 GR. WCB f,g,h,i,j) SAME AS ITEM ONE k) S/N CM 3524, HT. NO. 3824 l) N/A m) ASME SECT III, 1971 ED., WINTER 1972 ADD. n) N/A

3. REPLACEMENT: a) BONNET b) 6" c) N/A d) 1 e) SA105 f,g,h,i,j) SAME AS ITEM ONE k) S/N CM 3505B, HT. NO. 219201 l) N/A m) ASME SECT. III, 1971 ED., WINTER 1972 ADD. n) N/A

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division I, 1977 Edition with Summer, 1979, Addenda.

Signed: M. R. Jones Date 8/1/92 Title: Engineering Support Supt.
Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Providence of Mississippi and employed by Arkwright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL SYSTEM

Ronald R. Bivins
Inspector's Signature

Date 8-13-92

Commissions MS, KOD
National Board, State, Province and Nos.



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



ORIGINAL

NIS-2 NO. 00299

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS (CONT. FROM PAGE ONE)

THE FOLLOWING TESTS AND EXAMINATIONS WERE PERFORMED:

WORK ORDER NO. 66282 (Wedge Replacement)

LOCAL LEAK RATE TEST: 05/26/92

SURVEILLANCE OPERABILITY TEST: 5/27/92

SYSTEM LEAKAGE TEST & VISUAL (VT-2) EXAM: 05/29/92

WORK COMPLETED: 05/31/92

MODIFICATION WORK PERMIT NO. 19921071 (CONDITION IDENTIFICATION NO. 27891) (Bonnet Replacement)

LIQUID PENETRANT EXAM (PT): 05/26/92

WORK COMPLETED: 06/02/92



ENTERGY

NIS-2 SUMMARY REPORT FOR
REPAIRS/REPLACEMENTS

NIS-2 NO. 00300

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC.
SCHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBBS A, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

MODIFICATION: THE RESTRICTING ORIFICE PLATE FOR THE HIGH PRESSURE CORE SPRAY (HPCS) PUMP MINIMUM FLOW LINE (Q1E22D001) WAS REPLACED WITH A MODIFIED ORIFICE PLATE DURING REFUELING OUTAGE NO. FIVE (RFO5). THE NEW ORIFICE'S APERTURE WAS REBORED FROM .997" TO 1.212" TO INCREASE MINIMUM FLOW RATE FROM 700 GPM TO 1000 GPM PER DESIGN CHANGE PACKAGE (DCP) 91/0107 IN RESOLUTION TO NRC BULLETIN (NRCB) 88-04. THE FOLLOWING TESTS AND EXAMINATIONS WERE PERFORMED:

SURVEILLANCE OPERABILITY TEST: 05/07/92

SYSTEM FUNCTIONAL TEST & VT-2 VISUAL EXAMINATION: 05/04/92

RESIZING ORIFICE DONE UNDER WORK ORDER NO. 91/0107 CI NO. 26496

INSTALLING ORIFICE DONE UNDER WORK ORDER NO. 91/0107 CI NO. 26497

WORK COMPLETED 05/07/92

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a) name b) size c) capacity d) class e) material f) MPL No. g) drawings h) location i) manufacturer's name j) manufacturer's address k) manufacturer's I.D. no. l) National Board No. m) Construction Code Edition & Addenda n) Code Case no.

REPLACEMENT: a) RESTRICTING ORIFICE PLATE b) 4" x 3/4" THK c) 900 # d) 2 e) SA240 TP304
f) Q1E22D001 g) DWG. NO. 9645-M143.0-Q1E22D001-1.1-2 REV. 3 h) AUX. BLDG. AREA 8, EL. 107'6" i) HUB INC.
j) TUCKER, GA k) MODEL NO. MK 52; HT. NO. 29975 l) N/A m) ASME SEC. III, 1974 ED., WINTER 1975 ADD.
n) N/A

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division 1, 1977 Edition with Summer, 1979 Addenda.

Signed: [Signature] Date 7/30/92 Title: Engineering Support Supt.
Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Providence of Mississippi and employed by Arkwright Mutual/Mutual Boiler Div. of Morwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL SYSTEM

[Signature]
Inspector's Signature

Date 8-7-92

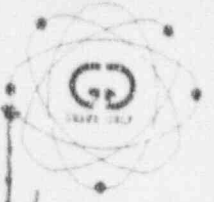
Commissions M5600
National Board, State, Province and Nos.



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00301

OWNER: ENTERGY OPERATIONS, INC. ECHOLON ONE P.O. BOX 31995 JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION P.O. BOX 756 PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE COMMERCIAL OPERATION DATE: JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

REPLACEMENT: DURING INSTALLATION AND REMOVAL OF TEMPORARY PIPING AND SUPPORTS TO ASSIST IN CHEMICAL DECONTAMINATION OF THE REACTOR RECIRCULATION SYSTEM (B33) AND THE REACTOR WATER CLEAN UP SYSTEM (G33), BLIND FLANGE Q1B33G001 AND A NUT FROM THE DECONTAMINATION DRAIN LINE ON THE OUTLET SIDE OF RECIRCULATION LOOP 'A' WERE LOST. THE FLANGE AND NUT WERE REPLACED AFTER CHEMICAL DECONTAMINATION WAS COMPLETED. THE FOLLOWING TEST AND EXAMINATION WERE PERFORMED:

SYSTEM LEAKAGE TEST AND VT-2 VISUAL EXAMINATION: 05-29-92

WORK ORDER NO. 69391 : COMPLETED 06-02-92

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a)name b)size c)capacity d)class e)material f)MPL No. g)drawings h)location i)manufacturer's name j)manufacturer's address k)manufacturer's I.D. no. l)National Board No. m)Construction Code Edition & Addenda n)Code Case no.

1. REPLACEMENT: a) LARGE TONGUE BLIND FLANGE b) 4" NPS c) 900 # d) 1 e) SA182 GR. F316 f) Q1B33G001 g) VENDOR DWG. NO. 767E977 h) CTMT. BLDG., AREA 11, EL. 93' i) ASSOCIATED PIPING & ENGINEERING CORP. j) COMPTON, CA k) HT. NO. ABJ l) N/A m) ASME SECT. III, 1974 ED., SLIMMER 1974 ADD. n) N/A

2. REPLACEMENT: a) HEAVY HEX NUT b) 1 1/8" - 8 UN c) N/A d) 1 e) SA194 GR. 7 f.o.h) SAME AS ITEM ONE i) HUB, INC. j) TUCKER, GA k) HT. NO. C27729; HT CODE: E2 l) N/A m) ASME SECT. III, 1980 ED., SLIMMER 1980 ADD. n) N/A

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division I, 1977 Edition with Summer, 1979, Addenda.

Signed: [Signature] Date: 8/10/92 Title: Engineering Support Supt. Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Providence of Mississippi and employed by Arkwright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected or verified by supporting documentation the component described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL SYSTEM

[Signature] Inspector's Signature

Date 8-11-92

Commissions MS, 600 National Board, State, Province and Nos.



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00302

OWNER: ENTERGY OPERATIONS, INC. ECHELON ONE P.O. BOX 31995 JACKSON, MS 39286-1995	PLANT: GRAND GULF NUCLEAR STATION P.O. BOX 756 PORT GIBSON, MS 39150	UNIT: GRAND GULF ONE COMMERCIAL OPERATION DATE: JULY 1, 1985
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ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

MODIFICATION: PRIOR TO REACTOR RECIRCULATION PUMP SEAL CARTRIDGE ASSEMBLY, A 25" HOLE WAS DRILLED IN THE SECONDARY SEAL 180 DEGREES FROM THE UPPER KEYWAY IN ORDER TO CONFORM WITH ORIGINAL SPECIFICATIONS. DISCREPANT MATERIAL REPORT (DMR) NO. 0052-92 WAS INITIATED TO DOCUMENT THE DISCREPANCY AND PROVIDE CORRECTIVE ACTION. NO TESTS OR EXAMINATIONS WERE PERFORMED.

WORK ORDER NO. 68447 : COMPLETED 04/03/92

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a)name b)size c)capacity d)class e)material f)MPL No. g)drawings h)location i)manufacturer's name j)manufacturer's address k)manufacturer's I.D. no. l)National Board No. m)Construction Code Edition & Addenda n)Code Case no.

MODIFIED: a) SEAL CARTRIDGE ASSEMBLY b) 24" 24" 35" c) N/A d) 1 e) SA182 GR F304 f) Q1B33C001 g) DWG NO. D-7294-432 h) CTMT BLDG. AREA 11, EL. 93' i) BYRON JACKSON PUMP DIVISION (BORG-WARNER CORP.) j) LOS ANGELES, CA k) S/N 751-S-1370 l) 33 m) ASME SECT. III, 1974 ED., SUMMER 1974 ADD. n) 1682, 1690 & 1820

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division 1, 1977 Edition with Summer, 1979, Addenda.

Signed: [Signature] Date 8/10/92 Title: Engineering Support Supt.
 Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Providence of Mississippi and employed by Arkwright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Date 8-12-92 Commissions MS 600
 Inspector's Signature National Board, State, Province and Nos.

FACTORY MUTUAL SYSTEM



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00303

OWNER: ENTERGY OPERATIONS, INC. ECHELON ONE P.O. BOX 31995 JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION P.O. BOX 756 PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE COMMERCIAL OPERATION DATE: JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS (include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

REPLACEMENT: ALL TWENTY MAIN STEAM RELIEF VALVES (MSRVs) WERE REMOVED DURING REFUELING OUTAGE NO. 5 FOR AS-FOUND SET PRESSURE TESTING AND RECERTIFICATION TO MEET TECHNICAL SPECIFICATION AND ASME SECTION XI CODE TESTING REQUIREMENTS. THE MSRVs WERE REPLACED WITH MSRV SPARES THAT HAD BEEN TESTED AND RECERTIFIED. THIS WORK WAS PERFORMED IN ACCORDANCE WITH SURVEILLANCE TASK NO. 1441 (WORK ORDER NO. 64191). THE FOLLOWING TESTS AND EXAMINATIONS WERE PERFORMED:

AS-FOUND SET PRESSURE TEST (BY WYLE LABS): SEE TABLE ON PAGE 2

VT-1 PRESERVICE EXAM ON REPLACEMENT INLET STUDS AND NUTS: 05/02/92 - 05/09/92

SYSTEM LEAKAGE TEST AND VT-2 EXAMINATION: 05/29/92

WORK ORDER NO. 72652 (VALVE OPERABILITY SURVEILLANCE) COMPLETED: 06/06/92

WORK ORDER NO. 71026 (REPLACEMENT OF STUDS AND NUTS) COMPLETED: 05/31/92

WORK ORDER NO. 64191 (MSRV REPLACEMENT) COMPLETED: 06/01/92

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a)name b)size c)capacity d)class e)material f)MPL No. g)drawings h)location i)manufacturer's name j)manufacturer's address k)manufacturer's I.D. no. l)National Board No. m)Construction Code Edition & Addenda n)Code Case no.

1. REPLACEMENTS: a) DUAL FUNCTION SAFETY RELIEF VALVES b) 8"x10" c) N/A d) 1 e) CARBON STEEL SA352 LCB (BODY) f) SEE TABLE ON PAGE 2 g) DIKKERS DWG. G-471-6/125.04.03 h) DRYWELL EL 147 i) G. DIKKERS & CO. j) HENEGELO (O)/ THE NETHERLANDS k) SEE TABLE ON PAGE 2 l) SEE TABLE ON PAGE 2 m) ASME SECTION III, 1974 EDITION, SUMMER 1976 ADDENDA n) N/A

(CONTINUED ON PAGE 2)

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division I, 1979 Edition with Summer, 1979, Addenda.

02*

Signature: [Signature] Date: 8/28/92 Title: Engineering Support Supt. Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Providence of Mississippi and employed by Arkwright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL SYSTEM

[Signature] Inspector's Signature

Date: 8-28-92

Commissions: MS, 600 National Board, State, Province and Nos.



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00303

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

COMPONENT INFORMATION: (CONTINUED FROM PAGE 1)

1. MPL NO.	REMOVED		INSTALLED		AS-FOUND SET PRESSURE TEST
	k) S/N	l) NAT. BD. NO.	k) S/N	l) NAT. BD. NO.	
f) (Q1B21-)					
F041A	160821	107	160801	010	05/20/92
F041B	160820	106	160802	013	05/13/92
F041C	160822	108	160838	183	05/22/92
F041D	160817	103	160815	101	05/12/92
F041E	160819	105	160795	008	05/19/92
F041F	160816	102	160818	104	05/07/92
F041G	160835	184	160796	011	05/19/92
F041K	160796	005	160836	190	05/08/92
F047A	160824	110	160827	113	05/19/92
F047C	160840	182	160808	016	05/22/92
F047D	160803	020	160841	194	05/12/92
F047G	160826	112	160839	206	05/21/92
F047H	160828	114	160804	006	05/11/92
F047L	160823	109	160825	111	05/19/92
F051A	160833	119	160812	015	05/21/92
F051B	160810	019	160831	117	05/13/92
F051C	160832	118	160844	201	05/21/92
F051D	160809	018	160829	115	05/11/92
F051F	160830	116	160811	007	05/08/92
F051K	160834	120	160813	001	05/11/92

2. REPLACEMENTS: a) INLET STUDS (20 EA) b) 1 5/8" 8JNC-2A c) N/A d) 1 e) SA-193 GR. B7
f) Q1B21F041A,C,G,-F047A,G,L,-F051A,B,C g) DIKKERS DWG. G-471-6/125.04.03 h) DRYWELL, EL. 147
i) GENERAL ELECTRIC j) SAN JOSE, CA. k) PT# CB(A); MARK# V,B7,ATA; HT# 43405 l) N/A m) ASME
SECTION III, 1974 EDITION, SUMMER 1976 ADDENDA n) N/A

(CONTINUED ON PAGE 3)



ENTERGY

NIS-2 SUMMARY REPORT FOR
REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00303

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

COMPONENT INFORMATION: (CONTINUED FROM PAGE 2)

3. REPLACEMENTS: a) INLET STUDS (5 EA) b) 1 5/8"-8UN-2A X 11.249" c) N/A d) 1 e) SA-540 B24

(MNCR 0261-92) f) Q1B21F041B,D,-F051B,K g) DIKKERS DWG. G-471-6/125.04.03 h) DRYWELL, EL. 147

i) SOUTHERN BOLT & FASTENER CORP. j) SHREVEPORT, LA. k) PT# CB; MARK# SB24A5812337;

HEAT# 8084327 l) N/A m) ASME SECTION III, 1974 EDITION, SUMMER 1976 ADDENDA n) N/A

4. REPLACEMENTS: a) INLET STUDS (4 EA) b) 1 5/8"-8UN-2A c) N/A d) 1 e) SA-193 GR. B7

f) Q1B21F047D,H,-F051B,K g) DIKKERS DWG. G-471-6/125.04.03 h) DRYWELL, EL. 147 i) GENERAL ELECTRIC

j) SAN JOSE, CA. k) PT# CB(A); MARK# V.B7,CC2; HEAT# X1794 l) N/A m) ASME SECTION III, 1974 EDITION,

SUMMER 1976 ADDENDA n) N/A

5. REPLACEMENTS: a) INLET NUTS (7 EA) b) 1 5/8"-8UN-2B c) N/A d) 1 e) SA-194 GR. 7 f) Q1B21F041A,

-F047A,L,-F051A g) DIKKERS DWG. G-471-6/125.04.03 h) DRYWELL, EL. 147 i) GENERAL ELECTRIC j) SAN

JOSE, CA k) PT# CC; MARK# XT4; HEAT# 8078476 l) N/A m) ASME SECTION III, 1974 EDITION, SUMMER 1976

ADDENDA n) N/A

6. REPLACEMENTS: a) INLET NUTS (7 EA) b) 1 5/8"-8 c) N/A d) 1 e) SA-194 GR.7 f) Q1B21F041D,-F047D,H,

-F051B,K g) DIKKERS DWG. G-471-6/125.04.03 h) DRYWELL, EL. 147 i) CARDINAL INDUSTRIAL PRODUCTS INC.

j) LAS VEGAS, NV k) HEAT CODE# A5; HEAT# 09555 l) N/A m) ASME SECTION III, 1980 EDITION, SUMMER

1982 ADDENDA n) N/A

7. REPLACEMENTS: a) INLET NUTS (2 EA) b) 1 5/8"-8UNS c) N/A d) 1 e) SA-194 GR.7 f) Q1B21F041B,-F051B

g) DIKKERS DWG. G-471-6/125.04.03 h) DRYWELL, EL. 147 i) GENERAL ELECTRIC j) SAN JOSE, CA

k) PT# CC; HT# AE l) N/A m) ASME SECTION III, 1974 EDITION, SUMMER 1976 ADDENDA n) N/A

8. REPLACEMENTS: a) OUTLET STUDS (43 EA) b) 1"-8UNC-2A c) N/A d) 1 e) SA-193 GR.B7 f) Q1B21F041A,B,

C,D,E,F,G,K,-F047A,C,G,L,-F051B,C,F,K g) DIKKERS DWG. G-471-6/125.04.03 h) DRYWELL, EL. 147 i) GENERAL

ELECTRIC j) SAN JOSE, CA. k) PT# CD; MARK# V.B7,C26; HEAT# 88082 l) N/A m) ASME SECTION III, 1974

EDITION, SUMMER 1976 ADDENDA n) N/A

9. REPLACEMENTS: a) OUTLET NUTS (28 EA) b) 1"-8UNC-2B c) N/A d) 1 e) SA-194 GR.7 f) Q1B21F041A,C,E,

G,-F047A,C,G,L,-051C g) DIKKERS DWG. G-471-6/125.04.03 h) DRYWELL, EL. 147 i) GENERAL ELECTRIC j) SAN

JOSE, CA k) PT# CE; MARK# XT6, HT# 8094962 l) N/A m) ASME SECTION III, 1974 EDITION, SUMMER 1976

ADDENDA n) N/A

(CONTINUED ON PAGE 4)



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



ORIGINAL

NIS-2 NO. 00303

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

COMPONENT INFORMATION: (CONTINUED FROM PAGE 3)

10. REPLACEMENTS: a) OUTLET NUTS (17 EA) b) 1"-8UNC-2B c) N/A d) 1 e) SA-194 GR.7 f) Q1B21F041B.D.
F.K.-F051B.F. g) DIKKERS DWG. G-471-6/125.04.03 h) DRYWELL, EL. 147 i) GENERAL ELECTRIC j) SAN JOSE,
CA k) PT# CE; MARK# V, B7, AD 4-3; HEAT# 56776 l) N/A m) ASME SECTION II' 1974 EDITION, 1976
ADDENDA n) N/A

NOTE: STUDS AND NUTS WERE REPLACED BECAUSE OF ONE OR MORE OF THE FOLLOWING:
- DAMAGED OR GALLED THREADS
- COULD NOT BE REMOVED WITHOUT CUTTING
- COULD NOT BE ADEQUATELY CLEANED WITHIN TIME CONSTRAINTS



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



ORIGINAL

NIS-2 NO. 00304

OWNER: ENTERGY OPERATIONS, INC.
EACHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

REPLACEMENTS: Two spare Cover/Driver Mount Assemblies from Reactor Recirculation Pumps s/n's 741-S-1278 & 741-S-1279 were rebuilt with a new modified Hydrostatic Bearing Assembly, a modified Heat Exchanger Assembly and a modified Shaft-Impeller Assembly (See NIS-2 No. 00269 for the modified Heat Exchanger & Shaft-Impeller assemblies).

Heat Exchanger Assembly s/n 751-S-1371 was installed in Cover/Driver Mount Assembly s/n 741-S-1278 under Work Order #67253 and Heat Exchanger Assembly s/n 751-S-1373 was installed in Cover/Driver Mount Assembly s/n 741-S-1279 under Work Order #66971.

New Heat Exchanger-to-Cover studs and nuts were installed on both Cover/Driver Mount Assemblies since the original ones have been used as spares.

Discrepant Material Report (DMR) No. 0065-92 was issued for the Heat Exchanger-to-Cover studs and nuts that were purchased non-safety related from a surplus supplier and to provide corrective action for acceptance by testing and reviewing the manufacturer's documentation. The studs and nuts were originally procured as safety-related by G.E. for another nuclear power plant. The studs and nuts passed testing and were determined acceptable. (Cont. on page 2)

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a) name b) size c) capacity d) class e) material f) MPL No. g) drawings h) location i) manufacturer's name j) manufacturer's address k) manufacturer's I.D. no. l) National Board No. m) Construction Code Edition & Addenda n) Code Case no.

1. COMPONENT SUBASSEMBLY: a) COVER/DRIVER MOUNT ASSEMBLIES b) FOR PUMP SIZE: 24" x 24" x 35"
c) N/A d) 1 e) PUMP COVER: SA105 f) FOR PUMP NO.'s Q1B33C001A/B g) BYRON JACKSON DWG. NO. 1F-7836 REV.D h) PUMP'S LOCATION: CTMT, AREA 11, EL. 93' i) BYRON JACKSON PUMP DIVISION (BORG-WARNER CORP.) j) LOS ANGELES, CA. k) S/N 741-S-1278 & S/N 741-S-1279 l) N/A m) ASME SECT. III, 1971 ED., SUMMER 1973 ADD. n) N/A

2. REPLACEMENTS: a) HEAT EXCHANGER ASSEMBLIES b,c,d,f,g,h,i) SAME AS ITEM 1 e) FLANGE: SA182 GR. F316 k) S/N 751-S-1371 & S/N 751-S-1373 l) N/A m) ASME SECT. III, 1974 ED., SUMMER 1974 ADD. n) 1682, 1690, 1810 & 1820

(CONTINUED ON PAGE 2)

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division I, 1977 Edition with Supplement 1979, Addenda.

Signed: [Signature] Date 8/28/92 Title: Engineering Support Supt.
Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Providence of Mississippi and employed by Arkwright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL SYSTEM

[Signature] Date 8-28-92 Commissions MS 600
Inspector's Signature National Board, State, Province and Nos.



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00304

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPLACEMENTS: (CONT. FROM PAGE 1)

THE FOLLOWING TESTS AND EXAMINATIONS WERE PERFORMED:

SPECTROMETER & HARDNESS TESTS ON THE NON-SAFETY RELATED STUDS & NUTS: 3/25/92

VT-1 VISUAL EXAMINATIONS ON THE HEAT EXCHANGER-TO-COVER STUDS & NUTS: 3/25/92

WORK ORDER NO's 66971 & 67253: COMPLETED 5/29/92

COMPONENT INFORMATION: (CONT FROM PAGE 1)

3. REPLACEMENTS: a) HEAT EXCHANGER-TO-COVER STUDS b) 1 1/2" - 8 UN c) N/A d) 1 e) SA-540 GR. B23 CL4 f) FOR PUMP NO's Q1B33C001A/B g) BYRON JACKSON DWG. NO. IF-7836 REV.D h) PUMP'S LOCATION: CTMT., AREA 11, EL.93' i) BYRON JACKSON PUMP DIVISION (BORG-WARNER CORP.) j) LOS ANGELES, CA. k) INSTALLED ON S/N 741-S-1278: HT. #85605 (15 ea.), HT. #14103 (1 ea.); INSTALLED ON S/N 741-S-1279: HT. #67724 (8 ea.) & P/N 3-16 (8 ea.) l) N/A m) FOR HT. #'s 85605 & 14103: ASME SECT. III, 74'ED., S'74 ADD.; FOR HT. #67724 & P/N 3-16: ASME SECT. III, 71'ED., S'73 ADD. n) FOR HT. #'s 85605 & 14103: 1682, 1690, 1810 & 1820; FOR HT. #67724: NONE

4. REPLACEMENTS: a) HEAVY HEX NUTS b) 1 1/2" - 8 c) N/A d) 1 e) SA-540 GR.7 f,g,h) SAME AS ITEM 3 i) CONSOLIDATED POWER SUPPLY j) BIRMINGHAM, AL k) P/N 3-17; HT. #8039958, HT. CODE #OH15 (32 ea.) l) N/A m) ASME SECT. III, 80'ED., S'82 ADD. n) NONE



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00305

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types, completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

MODIFICATION: A reanalysis of the Reactor Water Cleanup (RWCU) System (Master Parts List (MPL) System Code G33) in accordance with the criteria of ASME Code Case N-411 resulted in a redesign of the seismic piping restraints and supports (pipe hangers) for the RWCU System piping within the Drywell and Auxiliary Building Steam Tunnel. The redesign also included connecting portions of the Reactor Recirculation System (MPL System Code B33) and Leak Detection System (MPL System Code E31).

As part of the modification of the pipe hangers, twenty-six mechanical shock arresters (snubbers) on seventeen ASME Class 1 pipe hangers were removed from the plant. Most of the pipe hangers were simply abandoned; however, nine pipe hangers were redesigned and modified. Additional structural parts were welded onto three pipe hangers. Details of the modifications on each pipe hanger are summarized on Pages 2 through 4. In addition, tests, inspections and examinations performed on each hanger are listed on Pages 2 through 4.

(Continued on Page 2)

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a) name b) size c) capacity d) class e) material f) MPL No. g) drawings h) location i) manufacturer's name j) manufacturer's address k) manufacturer's I.D. no. l) National Board No. m) Construction Code Edition & Addenda n) Code Case no.

1. **MODIFIED:** a) Pipe Supports and Restraints b, f, g) See TABLE OF HANGERS MODIFIED on Page 5 c) N/A d) 1 e) Various h) Area 11, Drywell, See TABLE OF HANGERS MODIFIED on Page 5 for Elevation i) Bechtel Group j) Gaithersburg, MD k) See Column "f) MPL NO." in TABLE OF HANGERS MODIFIED on Page 5 l) N/A m) ASME Section III, 74 Edition with no Addenda n) 1644-7, 1718, 1818, N-71-10

2. **INSTALLED:** a) Tube Steel b) 6" x 6" x 1/2" c) N/A d) 1 e) A500-78, Gr. B f) Q1G33G012R02 g) HL-KA1342D, Rev. A; KAQ1G33G012R02, Rev. C h) Area 11, Drywell, Elevation 152' i) Hub, Inc. j) Tucker, GA k) Heat No. C14380 l) N/A m) ASME Section III, Subsection NF, 1980 Edition through Summer, 1982 Addenda n) N/A

(Continued on Page 5)

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division I, 1977 Edition with Summer, 1979, Addenda.

Signed: [Signature] Date 8/25/92 Title: Engineering Support Supt.
Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of Mississippi and employed by Arkwright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Date 8-26-92 Commissions MS. 600
Inspector's Signature National Board, State, Province and Hqs.

FACTORY MUTUAL SYSTEM



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00305

OWNER: ENTERGY OPERATIONS, INC.
ECHOLON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Continued from Page 1)

Q1B33G024R02: Two snubbers and pipe clamps removed. Rear brackets abandoned in place.

Tests, inspections and examinations performed:

Snubber visual inspection (stroke setting only) before removing snubbers: 5/1/92

Functional test of PSA-1 snubber (S/N 9429): 5/1/92

Q1B33G024R05: Snubber and pipe clamp removed. Rear bracket abandoned in place.

Tests, inspections and examinations performed:

Snubber visual inspection (stroke setting only) before removing snubber: 5/13/92

Q1B33G105R01: Snubber and pipe clamp removed. Rear bracket abandoned in place.

Tests, inspections and examinations performed:

Snubber visual inspection (stroke setting only) before removing snubber: 5/10/92

Q1B33G106C01: Snubber and pipe clamp removed. Rear bracket abandoned in place. Hanger redesigned as Q1B33G108H01 and remains in service as variable load support.

Tests, inspections and examinations performed:

Snubber visual inspection (stroke setting only) before removing snubber: 5/17/92

Q1B33G108R01: Three snubbers and pipe clamp structure removed. Rear brackets abandoned in place.

Tests, inspections and examinations performed:

Snubber visual inspection (stroke setting only) before removing snubbers: 5/17/92

Q1B33G128C01: Two snubbers and pipe clamps removed. Rear brackets abandoned in place. Hanger redesigned as Q1B33G128H01 and remains in service as variable load support.

Tests, inspections and examinations performed:

Snubber visual inspection (stroke setting only) before removing snubber: 5/8/92

Functional test of PSA-½ high-temperature snubber (S/N 101): 5/9/92

Functional test of PSA-1 high-temperature snubber (S/N 104): 5/9/92

Q1B33G129C01: Snubber and pipe clamp removed. Rear bracket abandoned in place. Hanger remains in service as variable load support with strut brace.

Tests, inspections and examinations performed:

Snubber visual inspection (stroke setting only) before removing snubber: 5/8/92

Functional test of PSA-½ high-temperature snubber (S/N 104): 5/9/92

(Continued on Page 3)



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



ORIGINAL

NIS-2 NO. 00305

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Continued from Page 2)

Q1G33G002H17: Increased thickness of welds on brace beam due to increased loads.

Tests, inspections and examinations performed:

Visual examination VE-2 on weld finals: 5/21/92

Q1G33G002R05: Two snubbers and pipe clamps removed. Rear brackets abandoned in place.

Tests, inspections and examinations performed:

Snubber visual inspection (stroke setting only) before removing snubbers: 5/11/92

Functional test of PSA-3 snubber (S/N 11211)(under Work Order No. 00067944): 4/26/92

Q1G33G002R08: PSA-35 snubber and pipe clamp removed. Rear bracket abandoned in place. PSA-10 snubber remains in service on restraint.

Tests, inspections and examinations performed:

Snubber visual inspection (stroke setting only) on PSA-10 snubber (S/N 7538) before removing snubbers:
5/21/92

Functional test of PSA-35 snubber (S/N 5229)(under Work Order No. 00067959): 5/1/92

Freedom-of-motion test of PSA-10 snubber (S/N 7538): 5/21/92

Post-stroke snubber visual inspection after reinstallation: 5/21/92

Post-work (preservice) visual examination VT-3 on support: 5/21/92

Q1G33G002R10: Two snubbers and pipe clamps removed. Rear brackets abandoned in place.

Tests, inspections and examinations performed:

Snubber visual inspection (stroke setting only) before removing snubbers: 5/17/92

Q1G33G002R13: Two snubbers and pipe clamps removed. Rear brackets abandoned in place.

Tests, inspections and examinations performed:

Snubber visual inspection (stroke setting only) before removing snubbers: 5/10/92

Functional test of PSA-1 snubber (S/N 9414)(under Work Order No. 00067801): 5/1/92

Functional test of PSA-3 snubber (S/N 11227): 5/15/92

Q1G33G002R21: Two snubbers, pipe clamps and rear brackets removed and replaced with rigid struts. Welded stiffener plate to I-beam due to increased loads.

Tests, inspections and examinations performed:

Snubber visual inspection (stroke setting only) before removing snubbers: 5/10/92

Visual examination VE-2 on weld finals: 5/24/92

Post-work (preservice) visual examination VT-3 on support: 5/25/92

(Continued on Page 4)



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00305

OWNER: ENTERGY OPERATIONS, INC.
ECCHELOW ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Continued from Page 3)

Q1G33G002R22: Snubber and pipe clamp removed. Rear bracket abandoned in place.

Tests, inspections and examinations performed:

Snubber visual inspection (stroke setting only) before removing snubber: 5/17/92

Q1G33G002R24: Snubber and pipe clamp removed. Rear bracket abandoned in place.

Tests, inspections and examinations performed:

Snubber visual inspection (stroke setting only) before removing snubber: 5/10/92

Q1G33G011R01: Snubber and pipe clamp removed. Rear bracket abandoned in place. Hanger continues in service as rigid sliding support.

Tests, inspections and examinations performed:

Snubber visual inspection (stroke setting only) before removing snubber: 5/14/92

Q1G33G011R03: Two snubbers and pipe clamp structure removed. Rear brackets abandoned in place.

Tests, inspections and examinations performed:

Snubber visual inspection (stroke setting only) before removing snubbers: 5/14/92

Functional test of PSA 3 snubber (S/N 10707): 5/15/92

Q1G33G012R01: Welded two stiffener plates to I-beam due to increased loads.

Tests, inspections and examinations performed:

Visual examination VE-2 on weld finals: 5/15/92

Magnetic particle examination on weld finals: 5/16/92

Post-work (preservice) visual examination VT-3 on support: 5/16/92

Snubber visual inspection (stroke setting only) before disconnecting snubbers: 5/18/92

Freedom-of-motion test on two PSA-3 snubbers: 5/18/92

Post-stroke snubber visual inspection: 5/18/92

Q1G33G012R02: Snubber removed and rear bracket abandoned in place. Snubber pipe clamp remains in service. Welded new piece of tube steel to structural I-beams.

Tests, inspections and examinations performed:

Snubber visual inspection (stroke setting only) before removing snubber: 5/15/92

Visual examination VE-2 on weld finals: 5/21/92

The work was performed in accordance with Design Change Package No. 88/0063 and Modification Work Permit No. 19880063, Condition Identification No. 025552, and was completed on 6/3/92.



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00305

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

COMPONENT INFORMATION (Continued from Page 1)

TABLE OF HANGERS MODIFIED

b) PIPE SIZE	f) MPL NO	g) DRAWINGS	h) ELEVATION
4"	Q1B33G024R02	HL-KA1342A, Rev. A KAQ1B33G024R02, Rev. A	102'
4"	Q1B33G024R05	HL-KA1342A, Rev. A KAQ1B33G024R05, Rev. A	102'
2"	Q1B33G105R01	FSK-H-KA1078A-005-C, Rev. A KAQ1B33G105R01, Rev. A	101'
2"	Q1B33G108C01	FSK-H-KA1078A-008-C, Rev. A KAQ1B33G108H01, Rev. A	101'
2"	Q1B33G108R01	FSK-H-KA1078A-008-C, Rev. A KAQ1B33G108R01, Rev. A	101'
2"	Q1B33G128C01	FSK-H-KA1078A-028-C, Rev. A KAQ1B33G128H01, Rev. A	121'
2"	Q1B33G129C01	FSK-H-KA1078A-029-C, Rev. A KAQ1B33G129C01, Rev. A	121'
4"	Q1G33G002H17	HL-KA1342A, Rev. A KAQ1G33G002H17, Rev. A	102'
6"	Q1G33G002R05	HL-KA1342A, Rev. A KAQ1G33G002R05, Rev. A	141'
6"	Q1G33G002R08	HL-KA1342A, Rev. A KAQ1G33G002R08, Rev. B	103'
4"	Q1G33G002R10	HL-KA1342A, Rev. A KAQ1G33G002R10, Rev. A	102'
4"	Q1G33G002R13	HL-KA1342A, Rev. A KAQ1G33G002R13, Rev. A	102'
6"	Q1G33G002R21	HL-KA1342A, Rev. A KAQ1G33G002R21, Rev. B	109'
4"	Q1G33G002R22	HL-KA1342A, Rev. A KAQ1G33G002R22, Rev. A	102'
4"	Q1G33G002R24	HL-KA1342A, Rev. A KAQ1G33G002R24, Rev. A	102'
6"	Q1G33G011R01	HL-KA1342B, Rev. A KAQ1G33G011R01, Rev. A	138'
6"	Q1G33G011R03	HL-KA1342B, Rev. A KAQ1G33G011R03, Rev. A	145'
6"	Q1G33G012R01	HL-KA1342D, Rev. A KAQ1G33G012R01, Rev. A	143'
6"	Q1G33G012R02	HL-KA1342D, Rev. A KAQ1G33G012R02, Rev. C	152'

(Continued on Page 6)



ENTERGY

NIS-2 SUMMARY REPORT FOR
REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00305

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

COMPONENT INFORMATION (Continued from Page 5)

- 3 **REMOVED:** a) Mechanical Shock Arrestor (Snubber) b,c) See TABLE OF SNUBBERS REMOVED below
d) 1 e) Various f) See TABLE OF SNUBBERS REMOVED below g,h) Same as Item 1 i) Pacific Scientific
Co. j) Anaheim, CA k) See TABLE OF SNUBBERS REMOVED below l) N/A m) ASME Section III,
Subsection NF, Various editions and addenda n) Various code cases or none

TABLE OF SNUBBERS REMOVED

f) MPL NO.	b) SIZE	c) CAPACITY	k) SERIAL NO.
Q1B33G024R02	PSA-1	1500 lbs	9429
	PSA-10	15,000 lbs	7497
Q1B33G024R05	PSA-10	15,000 lbs	7570
Q1B33G105R01	PSA-1/2	650 lbs	4698
Q1B33G108C01 ⁽¹⁾	PSA-3	6000 lbs	13107
Q1B33G108R01	PSA-1	1500 lbs	9139
	FSA-1	1500 lbs	9140
	PSA-1	1500 lbs	10268
Q1B33G128C01 ⁽²⁾	PSA-1/2HT ⁽³⁾	650 lbs	101
	PSA-1HT ⁽³⁾	1500 lbs	104
Q1B33G129C01	PSA-1/2HT ⁽³⁾	650 lbs	104
Q1G33G002R05	PSA-3	6000 lbs	11211
	PSA-3	6000 lbs	13064
Q1G33G002R08	PSA-35	50,000 lbs	5229
Q1G33G002R10	PSA-3	6000 lbs	11210
	PSA-3	6000 lbs	11224
Q1G33G002R13	PSA-1	1500 lbs	9414
	PSA-3	6000 lbs	11227
Q1G33G002R21	PSA-3	6000 lbs	11215
	PSA-3	6000 lbs	11228
Q1G33G002R22	PSA-3	6000 lbs	13088
Q1G33G002R24	PSA-35	50,000 lbs	5622
Q1G33G011R01	PSA-3	6000 lbs	11229
Q1G33G011R03	PSA-3	6000 lbs	10707
	PSA-3	6000 lbs	10720
Q1G33G012R02	PSA-3	6000 lbs	11221

NOTES

⁽¹⁾ DCP 88/0063 redesignated this support as Q1B33G108H01.

⁽²⁾ DCP 88/0063 redesignated this support as Q1B33G128H01.

⁽³⁾ High-temperature snubber

(Continued on Page 7)



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00305

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

COMPONENT INFORMATION (Continued from Page 6)

- 4. **INSTALLED:** a) Plate structural b) 1/2" thick c) N/A d) 1 e) SA-36 f) Q1G33G002R21 and Q1G33G012R01 g) HL-KA1342A, Rev. A; HL-KA1342D, Rev. A; KAQ1G33G002R21, Rev. B; KAQ1G33G012R01, Rev. A h) Area 11, Drywell, Elevations 109' and 103' i) Hub, Inc. j) Tucker, GA k) Heat No. B6781 l) N/A m) ASME Section III, Subsection NF, 1980 Edition through Summer, 1982 Addenda n) N/A
- 5. **INSTALLED:** a) Pipe Strut b) Size 12; 17 3/4" long c) 12,000 lbs. d) 1 e) Plate: SA-36; Rod: SA-36 and SA-193, Gr. B7; Pipe: SA-106, Gr. B f) Q1G33G002R21 g) HL-KA1342A, Rev. A; KAQ1G33G002R21, Rev. B h) Area 11, Drywell, Elevation 109' i) Bergen-Paterson Pipesupport Corp. j) Moulton, AL k) P/N 2100-12, Lot No. 9103-0001, PO Line Item 001 l) N/A m) ASME Section III, Subsection NF, 1974 Edition with no addenda n) N/A
- 6. **INSTALLED:** a) Pipe Strut b) Size 7; 2'-8 1/2" long c) 7000 lbs. d) 1 e) Plate: SA-36; Rod: SA-36; Pipe: SA-106, Gr. B; Pin: SA-564, Type 630; Nuts: SA-563, Gr. A f,g,h,i,j) Same as Item 5 k) P/N 2252-7N, Lot No. 9103-0001, PO Line Item 002 l) N/A m) Same as Item 5 n) N/A
- 7. **INSTALLED:** a) Pipe Clamp b) 6" pipe c) 12,000 lbs. d) 1 e) Plate: SA-36; Pin: SA-193, Gr. B7; Nut: SA-563, Gr. A; Bolt: SA-307, Gr. B f,g,h,i,j) Same as Item 5 k) P/N 2600-12, Lot No. 9103-0001, PO Line Item 004 l) N/A m) Same as Item 5 n) N/A
- 8. **INSTALLED:** a) Pipe Clamp b) 6" pipe c) 7000 lbs. d) 1 e) Plate: SA-36; Pin: SA-564, Type 630; Nut: SA-563, Gr. A; Stud: ASTM A-36 f,g,h,i,j) Same as Item 5 k) P/N 6202-7, Lot No. 9103-0001, PO Line Item 005 l) N/A m) Same as Item 5 n) N/A



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00306

OWNER: ENTERGY OPERATIONS, INC. ECHELON ONE P.O. BOX 31995 JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION P.O. BOX 756 PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE COMMERCIAL OPERATION DATE: JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS:(Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

REPLACEMENTS: The internals of Reactor Recirculation Pumps A & B were replaced with rebuilt Cover/Driver Mount Assemblies that included a new modified Hydrostatic Bearing Assembly, Heat Exchanger Assembly and Shaft-Impeller Assembly (See NIS-2-304) To prevent Shaft cracking.

During internal inspection of the A & B Pump Casings in the area adjacent to the bottom of the Impeller for maximum allowable wear and eccentricity, the B-Pump Casing was found unacceptable. The B-Pump Casing was modified by machining the area and installing a new Lower-Wear Ring to replace that portion of the Pump Case.

The Seal Cartridge Assemblies were replaced with new modified assemblies that included the new "CA-48" Seal which was specifically designed for GGNS to allow the pumps to run without seal-purge flow and to prevent crud-induced failures.

All Heat Exchanger-to-Cover studs and nuts were replaced for preventive maintenance.

(Continued on Page 2)

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a)name b)size c)capacity d)class e)material f)MPL No. g)drawings h)location i)manufacturer's name j)manufacturer's address k)manufacturer's I.D. no. l)National Board No. m)Construction Code Edition & Addenda n)Code Case no.

1. COMPONENTS: a) REACTOR RECIRCULATION PUMPS b) 24" x 24" x 35" c) CAPACITY: 10,000 - 50,000 GPM d) 1 e) PUMP CASE: SA-351 GR.CF8M f) Q1B33C001A/B g) VENDOR DWG. #IF-7836 REV.D h) CTMT, AREA 11, EL 93' i) BYRON JACKSON PUMP DIV. (BORG-WARNER CORP.) j) LOS ANGELES, CA. k) PUMP-A: S/N 741-S-1276. PUMP-B: S/N 741-S-1277 l) N/A m) ASME SECTION III, 1971 ED, SUMMER 1973 ADD. n) N/A

2. REPLACEMENTS: a) COVER/DRIVER MOUNT ASSEMBLIES (SEE NIS-2 NO 304) b-n) SAME AS ITEM 1, EXCEPT FOR: a) PUMP COVER: ASME SA-105 k) PUMP-A: REMOVED S/N 741-S-1276 / INSTALLED S/N 741-S-1278 PUMP-B: REMOVED S/N 741-S-1277 / INSTALLED S/N 741-S-1279

(CONTINUED ON PAGE 2)

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division 1, 1977 Edition with Summer, 1979, Addenda.

Signed: [Signature] Date 8/26/92 Title: Engineering Support Supt. Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Providence of Mississippi and employed by Arkwright Mutual/Mutual Boiler Div. of Worwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[Signature] Date 8-27-92 Commissions MS, 600 National Board, State, Province and Nos. FACTORY MUTUAL SYSTEM



ENTERGY

NIS-2 SUMMARY REPORT FOR
REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00306

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPLACEMENTS: (Cont. from Page 1)

THE FOLLOWING TESTS AND EXAMINATIONS WERE PERFORMED:

INSERVICE VT-1 VISUAL EXAMINATIONS ON THE REMOVED PUMP CASING NUTS: 5/11,27/92
 INSERVICE VT-1 VISUAL EXAMINATIONS ON THE THREADS OF THE PUMP CASING STUD HOLES: 5/15,20,92
 INSERVICE MAGNETIC PARTICLE EXAMINATIONS ON THE REMOVED PUMP CASING STUDS: 5/11,27/92
 INSERVICE ULTRASONIC EXAMINATIONS ON THE REMOVED PUMP CASING STUDS: 5/12,27/92
 PRESERVICE VT-1 VISUAL EXAMINATIONS ON THE NEW PUMP CASING STUDS & NUTS: 5/7,15/92
 PRESERVICE MAGNETIC PARTICLE EXAMINATIONS ON THE NEW PUMP CASING STUDS: 5/2,3/92
 PRESERVICE ULTRASONIC EXAMINATIONS ON THE NEW PUMP CASING STUDS: 5/2,3/92
 PRESERVICE VT-1 VISUAL EXAMINATIONS ON THE INTERNAL SURFACES OF THE PUMP COVER: 5/15,20/92
 PRESERVICE VT-1 VISUAL EXAMINATION ON THE MACHINED AREA OF THE INTERNAL B-PUMP CASING
 PRIOR TO THE NEW WEAR RING INSTALLATION: 5/14/92
 PRESERVICE VT-1 VISUAL EXAMINATION ON THE B-PUMP CASING INTERNALS AFTER NEW WEAR RING
 INSTALLATION: 5/15/92
 SYSTEM LEAKAGE TESTS & VT-2 VISUAL EXAMINATIONS: 5/29/92

THIS WORK WAS PERFORMED IN ACCORDANCE WITH DESIGN CHANGE PACKAGE (DCP) NO. 88/0284 AND
 MODIFICATION WORK PERMIT (MWP) NO. 19880284, CONDITION IDENTIFICATION (CI) NO. 26604, 26606 &
 26812: COMPLETED 6/3/92

COMPONENT INFORMATION: (Cont. from Page 1)

3. REPLACEMENTS: a) HEAT EXCHANGER ASSEMBLIES (See NIS-2 NO. 269 & 304 for modification and installation)
 k) PUMP-A: REMOVED S/N 751-S-1370 / INSTALLED S/N 751-S-1371
 PUMP-B: REMOVED S/N 751-S-1372 / INSTALLED S/N 751-S-1373
4. REPLACEMENTS: a) SEAL CARTRIDGE ASSEMBLIES (See NIS-2 NO. 372 for modification of s/n 751-S-1370)
 b-n) SAME AS ITEM 1, EXCEPT FOR e) SEAL FLANGE: SA-351 GR.CF8 g) VENDOR DWG. #IE-3817 REV.A
 k) PUMP-A: REMOVED S/N 813-S-6777-2 / INSTALLED S/N 751-S-1370
 PUMP-B: REMOVED S/N 741-S-1279 / INSTALLED S/N 751-S-1373
5. REPLACEMENTS: a) PUMP CASING STUDS b) 1 1/2"-8UN c) N/A d) 1 e) SA-540 GR.B23 CL.4; f-j) SAME AS
 ITEM 1 k) PUMP-A: INSTALLED HT. #6051236, S/N 813-S-6777.82; PUMP-B: INSTALLED HT. #8094121, S/N 741-S-
 1278 (14 ea) & -1279 (2 ea.) m) FOR HT. #6051236: ASME SECT. III, 77'ED., NO ADD.; FOR HT. #8094121: ASME
 SECT. III, 71'ED., S'73 ADD. n) NONE
6. REPLACEMENTS: a) PUMP CASING NUTS b) 1 1/2"-8 c) N/A d) 1 e) SA-194, GR.7 f-j) SAME AS ITEM 1
 k) PUMP-A: INSTALLED HT. #69108, S/N 813-S-6777.83; PUMP-B: INSTALLED HT. #B97226, S/N 741-S-1278
 m) FOR HT. #69108: ASME SECT. III, 77'ED., NO ADD.; FOR HT. #B97226: ASME SECT. III, 71'ED., S'73 ADD.
 n) NONE



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



ORIGINAL

NIS-2 NO. 00307

OWNER: ENTERGY OPERATIONS, INC.
ECHOLON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS: (Include types and completion dates of tests, examinations, work completed, and corrective measures taken or recommended.)

MODIFICATION: DURING RFO5, DCP 88/0060-1, WHICH REANALYZED THE PIPING SYSTEM UTILIZING ASME CODE CASE N411, WAS IMPLEMENTED AS PART OF THE SNUBBER REDUCTION PROGRAM AT GGNS. THE DCP WAS IMPLEMENTED BY WORK ORDER (W.O. 19880060)/CONDITION IDENTIFICATION (C.I. 19897), WHICH WAS COMPLETED ON 6/3/92. THE FOLLOWING PIPE SUPPORTS HAD MECHANICAL SNUBBERS REMOVED OR MODIFIED DUE TO INCREASED SUPPORT LOADINGS. ADDITIONALLY, SOME MECHANICAL SNUBBERS WERE REMOVED AND LARGER ONES WERE INSTALLED DUE TO THE INCREASED SUPPORT LOADINGS

A. Q1B21G153C01: ONE MECHANICAL SNUBBER, A PSA-1/2 (S/N 4687), WAS DELETED AND WAS NOT REPLACED. THE SUPPORT WAS SUPERSEDED BY SUPPORT Q1B21G153H01.

B. Q1B21G153C03: TWO MECHANICAL SNUBBERS, A PSA-3 (S/N 10686) AND ANOTHER PSA-3 (S/N 10678), WERE DELETED AND WERE NOT REPLACED. THE SUPPORT WAS SUPERSEDED BY SUPPORT Q1B21G153H02.

(CONTINUED ON PAGE 2)

COMPONENT INFORMATION: (Include all applicable information and indicate whether repaired, replaced or etc.) a) name b) size c) capacity d) class e) material f) MPL No. g) drawings h) location i) manufacturer's name j) manufacturer's address k) manufacturer's I.D. no. l) National Board No. m) Construction Code Edition & Addenda n) Code Case no.

A. MODIFICATION ON Q1B21G153C01

DELETED: a) MECHANICAL SNUBBER b) PSA-1/2 c) 650# d) CLASS 1 e) VARIOUS f) Q1B21G153C01
g) FSK-H-1077A-023-C h) CTMT EL 174 i) PACIFIC SCIENTIFIC CO. j) ANAHEIM, CA k) S/N 4687
l) N/A m) ASME SECTION III, SUBSECTION NF, 1977 EDITION, WINTER 1978 ADDENDA n) NONE

B. MODIFICATION ON Q1B21G153C03

DELETED: a) TWO MECHANICAL SNUBBERS b) PSA-3 AND PSA-3 c) 6000# d) CLASS 1 e) VARIOUS
f) Q1B21G153C03 g) FSK-H-1077A-023-C h) CTMT EL 174 i) PACIFIC SCIENTIFIC CO. j) ANAHEIM,
CA k) S/N 10686 AND S/N 10678 l) N/A m) ASME SECTION III, SUBSECTION NF, 1977 EDITION,
WINTER 1978 ADDENDA n) NONE

(CONTINUED ON PAGE 3)

We certify that the statements made in this report are correct and conform to the rules of ASME Section XI, Division I, 1977 Edition, with Summer, 1979 Addenda.

Signed: [Signature] Date 8/22/92 Title: Engineering Support Supt.
Owner Representative

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Providence of Mississippi and employed by Arkwright Mutual/Mutual Boiler Div. of Norwood, Massachusetts, have inspected or verified by supporting documentation the components described in this summary report and state that to the best of my knowledge and belief, the Owner or their agent has performed examinations and taken corrective measures described in this summary report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate neither the inspector nor his employer make any warranty, expressed or implied, concerning the examinations and corrective measures described in the summary report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL SYSTEM

[Signature]
Inspector's Signature

Date 8-28-92

Commissions MS, GCO
National Board, State, Province and Nos.



ENERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00307

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

ABSTRACT OF REPAIRS/REPLACEMENTS/MODIFICATIONS (CONT):

C. Q1B21G153R03: ONE MECHANICAL SNUBBER, A PSA-3 (S/N 10273), WAS DELETED AND WAS NOT REPLACED. TWO LONG TANGENT U-BOLTS, P/N 283N, FOR A 3" DIAMETER PIPE WERE REPLACED WHEN THE ORIGINAL U-BOLTS WERE LOST DURING THE MODIFICATION (REF: MRR-4001). ALSO LOST WAS A WRAPPER PLATE, WHICH WAS REPLACED WITH ANOTHER 5/8" THICK PLATE (REF: 90MP007502 M05067). TESTS/INSPECTIONS: a) FREEDOM-OF-MOTION ON 5/31/92 b) POST-WORK SNUBBER VISUAL INSPECTION ON 6/1/92.

D. Q1B21G153R02: ONE MECHANICAL SNUBBER, A PSA-1/2 (S/N 4894) WAS REMOVED AND REPLACED WITH A PSA-1 (S/N 9129) (REF: MRR 12633). ALSO INSTALLED WAS A REAR BRACKET ASSEMBLY FOR A PSA-1 SNUBBER (P/N 1801558-03) (REF: R0893-85), A TRANSITION TUBE KIT FOR A PSA-1 SNUBBER (P/N 1801576-01) (REF: MRR-14141), A 2" PIPE CLAMP (P/N 2640-1.5N) (REF: MRR 13654), FOUR BOLTS FOR A PSA-1 SNUBBER FORWARD BRACKET (P/N 1801605-01) (REF: R1635-85), AND A TRANSITION PIPE FOR A PSA-1 SNUBBER (1" DIAMETER SCH 80) (REF: 89MP934512 M02199). TESTS/INSPECTIONS: a) SNUBBER FUNCTIONAL TEST ON 5/1/92 b) POST-WORK SNUBBER VISUAL INSPECTION ON 6/2/92.

E. Q1B21G153R05: DELETED ONE MECHANICAL SNUBBER, A PSA-3 (S/N 10291), AND REMOVED ANOTHER MECHANICAL SNUBBER, A PSA-1/2 (S/N 7490), AND REPLACED IT WITH A LARGER SNUBBER, A PSA-1 (S/N 9141) (REF: MRR 12663). ALSO INSTALLED TWO REAR BRACKET ASSEMBLIES FOR A PSA-1 (P/N 1801558-03) (REF: R0893-85), A TRANSITION TUBE KIT FOR A PSA-1 SNUBBER (P/N 1801576-01) (REF: MRR-14141), FOUR BOLTS FOR A PSA-1 SNUBBER FORWARD BRACKET (P/N 1301605-01) (REF: R1635-85), AND A TRANSITION PIPE FOR A PSA-1 (1" DIAMETER SCHEDULE 80) (REF: 89MP934512 M02199). TESTS/INSPECTIONS: a) SNUBBER FUNCTIONAL TEST ON 5/1/92 b) POST-WORK SNUBBER VISUAL INSPECTION ON 6/1/92.

F. Q1B21G153R01: ONE MECHANICAL SNUBBER, A PSA-1/4 (S/N 11078) WAS DELETED AND NOT REPLACED.

G. Q1B21G153C02: ONE MECHANICAL SNUBBER, A PSA-1/2 (S/N 7456), WAS DELETED AND NOT REPLACED.

H. Q1B21G152R01: THE SUPPORT ADDED TWO STIFFENER PLATES, 3/8" THICK, TO THE SUPPORT WHERE IT ATTACHES TO STRUCTURAL STEEL. (REF: 91MP114123 M07290)

I. Q1B21G152R02: THE SUPPORT ADDED TWO STIFFENER PLATES, 3/8" THICK, TO THE SUPPORT WHERE IT ATTACHES TO STRUCTURAL STEEL. (REF: 91MP114123 M07290)

J. Q1B21G152C01: MODIFIED THE SUPPORT, ADDING A 4"x4"x1/4" STRUCTURAL TUBE STEEL TO THE SUPPORT. (REF: 92MP203520 M07315)



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



ORIGINAL

NIS-2 NO. 00307

OWNER: ENTERGY OPERATIONS, INC.
ECHELON ONE
P.O. BOX 31995
JACKSON, MS 39286-1995

PLANT: GRAND GULF NUCLEAR STATION
P.O. BOX 756
PORT GIBSON, MS 39150

UNIT: GRAND GULF ONE
COMMERCIAL OPERATION DATE:
JULY 1, 1985

COMPONENT INFORMATION (CONT.)

C. MODIFICATION ON Q1B21G153R03

DELETED: a) MECHANICAL SNUBBER b) PSA-3 c) 6000# d) SUBSECTION NF e) VARIOUS
f) Q1B21G153R03 g) FSK-H-1077A-023-C h) CTMT EL 174 i) BERGEN-PATERSON PIPESUPPORT
CO. j) WOBURN, MA. k) S/N 10273 l) N/A m) ASME SECTION III, SUBSECTION NF, 1974
EDITION, NO ADDENDA n) NONE

REPLACED: a) TWO LONG TANGENT U-BOLTS FOR A 3" DIAMETER PIPE b) 283N-3" c) 2200# EACH
d) SUBSECTION NF e) CARBON STEEL f) Q1B21G153R03 g) FSK-H-1077A-023-C h) CTMT EL
174 i) BERGEN-PATERSON PIPESUPPORT CORP. j) LACONIA, NH k) N/A l) N/A m) ASME
SECTION III, SUBSECTION NF, 1974 EDITION WITH NO ADDENDA n) CODE CASE 1651

REPLACED: a) PLATE b) 5/8" THICK c) N/A d) CLASS 1 e) SA-35 f) Q1B21G153R03
g) FSK-H-1077A-023-C h) CTMT EL 174 i) HUB, INC. j) TUCKER, GA k) HEAT TRACE# B3164/3F
l) N/A m) ASME SECTION III, SUBSECTION NF, 1980 EDITION THROUGH SUMMER 1982
ADDENDA n) NONE

D. MODIFICATION ON Q1B21G153R02

REPLACED: a) MECHANICAL SNUBBER b) REMOVED PSA-1/2 / REPLACED WITH PSA-1 c) 650#/1500#
d) CLASS 1 / CLASS 1 e) VARIOUS f) Q1B21G153R02 g) FSK-H-1077A-023-C h) CTMT EL 174
i) BERGEN-PATERSON PIPESUPPORT CO. j) WOBURN, MA. k) REMOVED S/N 4694 / INSTALLED
9129 l) N/A m) ASME SECTION III, SUBSECTION NF, 1974 EDITION, NO ADDENDA n) NONE

INSTALLED: a) REAR BRACKET ASSEMBLY b) FOR PSA-1 c) N/A d) SUBSECTION NF e) N/A
f) Q1B21G153R02 g) FSK-H-1077A-023-C h) CTMT EL 174 i) PACIFIC SCIENTIFIC CO.
j) ANAHEIM, CA k) P/N 1801558-03 l) N/A m) ASME SECTION III, 1980 EDITION, SUMMER 1982
ADDENDA n) CODE CASE N71-7

INSTALLED: a) TRANSITION TUBE KIT b) FOR PSA-1 c) N/A d) SUBSECTION NF e) N/A
f) Q1B21G153R02 g) FSK-H-1077A-023-C h) CTMT EL 174 i) BERGEN-PATERSON PIPESUPPORT
CO. j) WOBURN, MA k) P/N 1801575-05 l) N/A m) ASME SECTION III, SUBSECTION NF, 1974
EDITION, WINTER 1976 ADDENDA n) CODE CASE 1644-7

INSTALLED: a) PIPE CLAMP b) FOR 2" DIA. PIPE c) N/A d) SUBSECTION NF e) N/A f) Q1B21G153R02
g) FSK-H-1077A-023-C h) CTMT EL 174 i) BERGEN-PATERSON PIPESUPPORT CO. j) LACONIA,
NH k) P/N 2640-1.5N-2" l) N/A m) ASME SECTION III, SUBSECTION NF, 1974 EDITION n) NONE



ENTERGY

 NIS-2 SUMMARY REPORT FOR
 REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00302

 OWNER: ENTERGY OPERATIONS, INC.
 ECHELON ONE
 P.O. BOX 31955
 JACKSON, MS 39208-1995

 PLANT: GRAND GULF NUCLEAR STATION
 P.O. BOX 756
 PORT GIBSON, MS 39150

 UNIT: GRAND GULF ONE
 COMMERCIAL OPERATION DATE:
 JULY 1, 1985

COMPONENT INFORMATION (CONT.)

 INSTALLED: a) FOUR FORWARD BRACKET BOLTS b) FOR PSA-1 c) N/A d) SUBSECTION NF
 e) A-193 GR B7 f) Q1B21G153R02 g) FSK-H-1077A-023-C h) CTMT EL 174 i) PACIFIC SCIENTIFIC
 CO. j) ANAHEIM, CA k) P/N 1801605-01, CODE NO. N-2639 l) N/A m) ASME SECTION III,
 SUBSECTION NF, 1980 EDITION, SUMMER 1982 ADDENDA n) CODE CASES N-71-7 & N-247

 INSTALLED: a) PIPE (AS A TRANSITION PIECE) b) 1" DIAMETER SCHEDULE 60 SMLS c) N/A d) CLASS
 2 e) SA-106 GR B f) Q1B21G153R02 g) FSK-H-1077A-023-C h) CTMT EL 174 i) HUB, INC.
 j) TUCKER, GA k) HEAT TRACE #74124 l) N/A m) ASME SECTION III, SUBSECTION NF, 1980
 EDITION THROUGH SUMMER 1982 ADDENDA n) NONE

E. MODIFICATION ON Q1B21G153R05

 DELETED: a) MECHANICAL SNUBBER b) PSA-3 c) 6000# d) CLASS 1 e) VARIOUS f) Q1B21G153R05
 g) FSK-H-1077A-023-C h) CTMT EL 174 i) PACIFIC SCIENTIFIC CO. j) ANAHEIM, CA k) S/N 10691
 l) N/A m) ASME SECTION III, SUBSECTION NF, 1977 EDITION, WINTER 1978 ADDENDA n) NONE

 REPLACED: a) MECHANICAL SNUBBER b) REMOVED PSA-1/2 / REPLACED WITH PSA-1 c) 650#/1500#
 d) SUBSECTION NF / SUBSECTION NF e) VARIOUS f) Q1B21G153R05 g) FSK-H-1077A-023-C
 h) CTMT EL 174 i) BERGEN-PATERSON PIPESUPPORT CO. j) WOBURN, MA. k) REMOVED S/N
 7490 / INSTALLED 9141 l) N/A m) ASME SECTION III, SUBSECTION NF, 1974 EDITION, NO
 ADDENDA n) NONE

 INSTALLED: a) TWO-REAR BRACKET ASSEMBLIES b) FOR PSA-1 c) N/A d) SUBSECTION NF e) N/A
 f) Q1B21G153R05 g) FSK-H-1077A-023-C h) CTMT EL 174 i) PACIFIC SCIENTIFIC CO.
 j) ANAHEIM, CA k) P/N 1801558-03 l) N/A m) ASME SECTION III, 1980 EDITION, SUMMER 1982
 ADDENDA n) CODE CASE N71-7

 INSTALLED: a) TRANSITION TUBE KEY b) FOR PSA-1 c) N/A d) SUBSECTION NF e) N/A f)
 Q1B21G153R05 g) FSK-H-1077A-023-C h) CTMT EL 174 i) BERGEN-PATERSON PIPESUPPORT
 CO. j) WOBURN, MA k) P/N 1801575-05 l) N/A m) ASME SECTION III, SUBSECTION NF, 1974
 EDITION, WINTER 1976 ADDENDA n) CODE CASE 1644-7

 INSTALLED: a) FOUR FORWARD BRACKET BOLTS b) FOR PSA-1 c) N/A d) SUBSECTION NF
 e) A-193 GR B7 f) Q1B21G153R05 g) FSK-H-1077A-023-C h) CTMT EL 174 i) PACIFIC SCIENTIFIC
 CO. j) ANAHEIM, CA k) P/N 1801605-01, CODE NO. N-2639 l) N/A m) ASME SECTION III,
 SUBSECTION NF, 1980 EDITION, SUMMER 1982 ADDENDA n) CODE CASES N-71-7 & N-247



ENTERGY

 NIS-2 SUMMARY REPORT FOR
 REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00307

 OWNER: ENTERGY OPERATIONS, INC.
 ECHELON ONE
 P.O. BOX 31995
 JACKSON, MS 39286-1995

 PLANT: GRAND GULF NUCLEAR STATION
 P.O. BOX 756
 PORT JIBSON, MS 39150

 UNIT: GRAND GULF ONE
 COMMERCIAL OPERATION DATE:
 JULY 1, 1985

COMPONENT INFORMATION (CONT.)

 INSTALLED: a) PIPE (AS A TRANSITION PIECE) b) 1" D/A SCH. 80 SMLS c) N/A d) CLASS 2 e) SA-106
 GR B f) Q1B21G153R05 g) FSK-H-1077A-023-C h) CTMT EL 174 i) HUB, INC. j) TUCKER, GA
 k) HEAT TRACE # 74124 l) N/A m) ASME SECTION III, SUBSECTION NC, 1980 EDITION THROUGH
 SUMMER 1982 ADDENDA n) NONE

F. MODIFICATION ON Q1B21G153R01

 DELETED: a) MECHANICAL SNUBBER b) PSA-1/4 c) 350# d) SUBSECTION NF e) VARIOUS
 f) Q1B21G153R01 g) FSK-H-1077A-023-C h) CTMT EL 174 i) BERGEN-PATERSON PIPESUPPORT
 CO. j) WOEURN, MA k) S/N 11078 l) N/A m) ASME SECTION III, SUBSECTION NF, 1974
 EDITION, NO ADDENDA n) NONE

G. MODIFICATION ON Q1B21G153C02

 DELETED: a) MECHANICAL SNUBBER b) PSA-1/2 c) 650# d) SUBSECTION NF e) VARIOUS
 f) Q1B21G153C02 g) FSK-H-1077A-023-C h) CTMT EL 174 i) BERGEN-PATERSON PIPESUPPORT
 CO. j) WOBURN, MA k) S/N 7456 l) N/A m) ASME SECTION III, SUBSECTION NF, 1974
 EDITION, NO ADDENDA n) NONE

H./I. MODIFICATION ON Q1B21G152R01 AND Q1B21G152R02

 INSTALLED: a) PLATE b) 3/8" THICK c) N/A d) CLASS 1 e) SA 36 f) Q1B21G152R01 AND
 Q1B21G152R02 g) FSK-H-1077A-022-C h) CTMT EL 174 i) ENERGY STEEL & SUPPLY CO.
 j) AUGERIN HILLS, MI k) HEAT TRACE D20010 l) N/A m) ASME SECTION III, SUBSECTION NF,
 1980 EDITION, SUMMER 1982 ADDENDA n) NONE

J. MODIFICATION ON Q1B21G152C01

 INSTALLED: a) STRUCTURAL TUBE STEEL b) 4" x 4" x 1/4" c) N/A d) CLASS 1 e) A500-78 GR B
 f) Q1B21G152C01 g) FSK-H-1077A-022-C h) CTMT EL 174 i) HUB, INC. j) TUCKER, GA k) HEAT
 TRACE WO4366 l) N/A m) ASME SECTION III, SUBSECTION NF, 1980 EDITION THROUGH
 SUMMER 1982 ADDENDA n) CODE CASE N71-10