

REPORT NUMBER NIS-1-00011

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

ENTERGY OPERATIONS, INC.

ECHELON ONE

P.O. BOX 31995

JACKSON, MS. 39286-1995

PREPARED BY

*ED Burton*

RESP. ENG. (ISI)

REVIEWED BY

*[Signature]*

TESTING/INSPECTION  
PROGRAMS SUPERVISOR

APPROVED BY

*[Signature]*

ENG. SUPPORT SUPT.



ENTERGY

DOCUMENT COMPLETION DATE

SEPTEMBER 8, 1995



## INTRODUCTION

The Inservice Inspections performed between December 4, 1993 and June 20, 1995 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, NUREGS, Standard Review Plans, and Code Cases:

Regulatory Guide 1.147, Rev.5	Inservice Inspection Code Case Acceptability ASME Section XI, Division 1
Regulatory Guide 1.150, 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 3.6.2	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.
Code Case N-335	Rules for Ultrasonic Examination of Similar and Dissimilar Metal Piping Welds

## INTRODUCTION (Continued)

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-416-1	Alternate Pressure Test Requirements for Welded Repairs or Installation of Replacement Items by Welding, Class 1, 2 and 3 Section XI, Division 1
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.
Code Case N-498	Alternative Rules 10-Year Hydrostatic Pressure Test for Class 1 and 2 Systems
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. Section VI of the report contains abstracts for ASME Class III repairs and replacements; 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 I**

**(NIS-1 FORM)**

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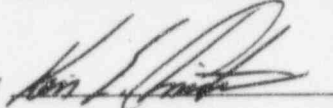
FORM NIS-1 OWNER'S DATA REPORT FOR INSERVICE INSPECTION  
As required by the provisions of the ASME Code Rules  
NIS-1-00011  
Page 2 of 72

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

8. EXAMINATION DATES 12/04/93 to 06/20/95 9. INSPECTION INTERVAL 07/01/85 to 01/01/97\*  
\* GNRI-94/00184  
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 9/8 19 95

Signed ENERGY OPERATIONS, INC. by   
(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 12/04/93 to 06/20/95 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 09/07 1995

Factory Mutual Engineering

  
Inspector's Signature

Commissions MS. 600  
National Board, State, Province and No.



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- 

RESOLUTION OF OPEN ITEMS IDENTIFIED IN NIS-1-00010

- |    |              |   |                          |
|----|--------------|---|--------------------------|
| 1. | Q1E12G021C01 | Items 2 and 3 not inspected during this time frame  | Inspected in RFO7*       |
| 2. | Q1P41G004A02 | Fireproofing could not be removed from items 2,3, and 4 to the extent necessary for the exam. | Alternate selection made |

\*Note: Section XI credit taken in RFO6 (NIS-1-00010)

The items listed below were identified during RFO5 as items 5 and 6 and not resolved by the issuing date of NIS-1-00010.

- |    |              |   |                   |
|----|--------------|---|-------------------|
| 3  | Q1P41G014C05 | Stanchion to pipe weld inaccessible for examination | Inspected in RFO7 |
| 4. | Q2P41G014C10 | Stanchion to pipe weld inaccessible for examination | Inspected in RFO7 |

Note: Section XI credit taken in RFO5 (NIS1-00009) for items 3 and 4.

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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.

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  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)

Item NO. B3.10 Nozzle Inside Radius Section

<u>CAT.</u>	<u>ITEM #</u>	<u>I.D. NUMBER</u>	<u>DRAWING NO.</u>	<u>No. of Rec. Ind.</u>	<u>No. of Rep. Ind.</u>	<u>Relief Req. Note/Para.</u>
B-D	Weld	B13-N4A-IR	351N80B0007	1	0	I-00013/15, e, 11.12
B-D	Weld	B13-N4B-IR	351N80B0007	2	0	I-00013, e, 11.12
B-D	Weld	B13-N4C-IR	351N80B0007	4	0	I-00013/15, e, 11.12
B-D	Weld	B13-N4D-IR	351N80B0007	2	0	I-00013/15, e, 11.12
B-D	Weld	B13-N4E-IR	351N80B0007	0	0	I00013, e
B-D	Weld	B13-N4F-IR	351N80B0007	0	0	I-00013/15, e

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

Item No. B5.10 Nozzle-To-Safe-End-Weld

<u>CAT.</u>	<u>ITEM #</u>	<u>I.D. NUMBER</u>	<u>DRAWING NO.</u>	<u>No. of Rec. Ind.</u>	<u>No. of Rep. Ind.</u>	<u>Relief Req. Note/Para.</u>
B-D	Weld	B13-N4A-KB	351N80B0007	0	0	I-00015, e
B-D	Weld	B13-N4B-KB	351N80B0007	0	0	I-00015, e
B-D	Weld	B13-N4C-KB	351N80B0007	2	0	I-00015, e, 11.4
B-D	Weld	B13-N4D-KB	351N80B0007	0	0	I-00015, e
B-D	Weld	B13-N4E-KB	351N80B0007	4	0	I-00015, e, 11.2, 11.5
B-D	Weld	B13-N4F-KB	351N80B0007	3	0	I-00015, e, 11.6
B-F	Weld	B13-N10-KB	351N80B0007	0	0	N/A
B-F	Weld	B13-N10-KC	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)

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

Item No. B6.20 Reactor Vessel Closure Studs

<u>CAT</u>	<u>ITEM</u>	<u>I.D. NUMBER</u>	<u>DRAWING No.</u>	<u>No.of Rec.Ind</u>	<u>No.of Rep.Ind.</u>	<u>Relief Req Note/Para.</u>
B-G-1	Studs	51 thru 76	351N80B0007	25	0	f, 11.14

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

Item No. B6.30 Reactor Vessel Closure Studs

<u>CAT</u>	<u>ITEM</u>	<u>I.D. NUMBER</u>	<u>DRAWING No.</u>	<u>No.of Rec.Ind.</u>	<u>No.of Rep.Ind.</u>	<u>Relief Req. Note/Para.</u>
B-G-1	Studs	2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 17, 18, 50 and 51	351N80B0007	0	0	h.

Item No. B7.10 Reactor Vessel

B-G-2 VT-1	BOLTS	CRD-IRM/LPRM BOLTING	133D9489 (GE Drw.)	0	0	I-00008
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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) 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. Ind.</u>	<u>No. of Rep. Ind.</u>	<u>Relief Req. Note/Para.</u>
P-N-1 VT-3 *	B13.10	SEE BELOW	351N80B0007 351N830009 351N85B0010 RPV-11-1 & 2	0	N/A	a, d

\* The code requires visual exams (VT-3) on normally accessible areas each inspection period.

Items examined in the category and required for the third period include:

Core Spray Lines, SPARGERS, and Headers (I.E. 80-13)

Accessible Area of Reactor Vessel Interior

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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) 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. Ind.</u>	<u>No. of Rep. Ind.</u>	<u>Relief Req. Note/Para.</u>
B-N-1	B13.10	SEE BELOW	351N80B0007	0	N/A	a, d
VT-3 *			351N830009			--
			351N85B0010			
			RPV-11-1 & 2			

Additional RPV examinations performed during RFO7:

- Shroud Support Access Hole Cover Weldment (SIL# 462)
- Steam Dryer Drain Channel Attachment Welds (SIL# 374)
- LPCI Coupling (MNCR# 0212-93)
- Reactor Separator 1 and 3 Standby (MNCR# 0308-93)
- Jet Pump #10 (general mechanical condition)
- Jet Pump Raiser Brackets - 50% (SIL# 551)
- Jet Pump Adjusting Screws (100%)
- Jet Pump #14 and #17 - general mechanical condition
- Jet Pump #13 Restraining bracket
- Sham Assembly #14 (MNCR# 0220-93)
- Sham Assembly to Separator Flange Attachment Weld #14 (MNCR# 0220-93)
- Core Spray Line @ 187°

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- 

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. Ind</u>	<u>No. of Rep. Ind</u>	<u>Relief Req. Note/Para.</u>
B-N-2 VT-1 *	B13.20 Attach. Welds	N/A	351N80B0007	0	0	N/A

\* Lower Steam Dryer Guide Brackets; required each outage (IPC 90/3844).



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- 

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 be designated as a VT-1, VT-3, or VT-4.

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.

- 
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- 

FIRST LETTER - PRIMARY PRESSURE RATING

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

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

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- 

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

B21 Feedwater - Volumetric Exams

<u>Cat.</u>	<u>Item</u>	<u>I.D.</u>	<u>Dwg.</u>	<u>Class/ Mat'l</u>	<u>Size</u>	<u>Area/ Elv.</u>	<u>No. of Rec. Ind. Note/Para. Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-J	Weld	Q1B21G026W43	FW-11-4	DBA	12"	11 163'	0	0
C-F	Weld	Q1B21G030-D100-4	FW-8-4	DEB	24"	8 146'	3 11.7	0

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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>Mat'l</u>	<u>Size</u>	<u>Area/</u> <u>Elv.</u>	<u>No. of</u> <u>Rec. Ind.</u> <u>Note/Para</u> <u>Relf. Req.</u>	<u>No. of</u> <u>Rej.</u> <u>Incl.</u>
B-J	Weld	Q1B21G026W43	FW-11-4	DBA	12"	11 163'	0	0

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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. Ind. Note/Para. Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-J	Weld	Q1B21G001W11	MS-11-5	1	28"	11 147'	0	0
B-J	Weld	Q1B21G010-B1-B-LA	MS-11-5	1	28"	11 147'	0	0
B-J	Weld	Q1B21G10-B1-B-LB	MS-11-5	1	28"	11 147'	0	0
B-G-1	Studs	Q1B21F028C	MS-8-3	1	28	8 139'	0	0
B-G-1	Studs	Q1B21F022C	MS-11-9	1	28"	11 147'	0	0
B-G-1	Studs	Q1B21F022D	MS-11-12	1	28"	11 147'	0	0

FORM NIS-11  
 SUPPLEMENTAL SHEET  
 PAGE 16 OF 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 (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. Note/Para. Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-J	Weld	Q1B21G153W20	MS-11-13	DBA	2"	11 171'	0	0
B-J	Weld	Q1B21G001W11	MS-11-9	1	28"	11 147'	0	0
B-J	Weld	Q1B21G010-B1-B-LA	MS-11-9	1	28"	11 147'	0	0
B-J	Weld	Q1B21G10-B1-B-LB	MS-11-9	1	28"	11 147'	0	0

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SUPPLEMENTAL SHEET  
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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 Rej. Ind. Note/Para. Relf. Req.</u>
F-B VT-3	Hanger	Q1B21G153H01	MS-11-13	DBA	2"	11 161'	0

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 SUPPLEMENTAL SHEET  
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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)

B2i 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 Rej. Inc. Note/Para. Relf. Req.</u>
DA-DB VT-3	Att Weld	Q1B21G005B101A	RV-11-1	GBC	10"	11 147'	0
DA-DB VT-3	Att. Weld	Q1B21G005B101B	RV-11-5	GBC	10"	11 147'	0
DA-DB VT-3	Att. Weld	Q1B21G005B102B	RV-11-5	GBC	10"	11 147'	0
DA-DB VT-3	Att. Weld	Q1B21G023R11	RV-11-8	GBC	10"	11 114	0
DA-DB VT-3	Att. Weld	Q1B21A101V3-S1A	RV-11-6	EBC	N/A	11 93'	0
DA-DB VT-3	Att Weld	Q1B21G005B101C	RV-11-11	GBC	10"	11 147'	0
DA-DB VT-3	Att. Weld	Q1B21G005B102C	RV-11-11	EBC	10"	11 147'	0
DA-DB VT-3	Att. Weld	Q1B21G025R04	RV-11-15	GBC	12"	11 114'	0



FORM NIS-11  
 SUPPLEMENTAL SHEET  
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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 Rej. Incl. Note/Para. Relf. Req.</u>
DA-DB VT-3	Att. Weld	Q1B21G005B101D	RV-11-16	GBC	10"	11 147'	0
DA VT-3	Integ. Att. Weld	Q1B21A003D-A1	RV-11-11	N/A	N/A	11 161'	0
DA VT-3	Integ. Att. Weld	Q1B21A003D-A2	RV-11-11	N/A	N/A	11 161'	0
DA VT-3	Integ. Att. Weld	Q1B21A003D-A3	RV-11-11	N/A	N/A	11 161'	0
DA VT-3	Integ. Att. Weld	Q1B21A003D-A4	RV-11-11	N/A	N/A	11 161'	0
DA VT-3	Att. Weld	Q1B21A100A-A1	RV-11-16	N/A	N/A	11 161'	0
DA VT-3	Integ. Att. Weld	Q1B21A100A-A2	RV-11-16	N/A	N/A	11 161'	0
DA VT-3	Integ. Att. Weld	Q1B21A100A-A3	RV-11-16	N/A	N/A	11 161'	0

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 SUPPLEMENTAL SHEET  
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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 Rej. Ind. Note/Para. Relf. Req.</u>
DA VT-3	Integ. Att. Weld	Q1B21A100A-A4	RV-11-16	N/A	N/A	11 161'	0
FB VT-3	Supp.	Q1B21A003D-S1	RV-11-11	N/A	N/A	11 161'	0
FB VT-3	Supp.	Q1B21A003D-S2	RV-11-11	N/A	N/A	11 161'	0
FB VT-3	Supp.	Q1B21A003D-S3	RV-11-11	N/A	N/A	11 161'	0
FB VT-3	Supp.	Q1B21A003D-S4	RV-11-11	N/A	N/A	11 161'	0

FORM NIS-11  
 SUPPLEMENTAL SHEET  
 PAGE 21 OF 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)

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. Note/Para. Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-J	Weld	Q1B33G001W4	RR-11-2	1	24"	11 101'	0 I-00010	0
B-J	Weld	Q1B33G001W4-L	RR-11-2	1	24"	11 101'	0	0
B-J	Weld	Q1B33G001W8	RR-11-3	1	24"	11 101'	6 11.8 I-00010	0
B-J	Weld	Q1B33G001W8-L	RR-11-3	1	24"	11 101'	4 11.9	0
B-J	Weld	Q1B33G001W10	RR-11-3	1	24"	11 101'	1 11.4 I-00010	0
B-J	Weld	Q1B33G001W10-L	RR-11-3	1	24"	11 101'	0	0
B-J	Weld	Q1B33G024W145	RR-11-19	DBA	4"	11 113'	0	0
B-J	Weld	Q1B33G024W152	RR-11-19	DBA	4"	11 113'	0	0

FORM NIS-11  
SUPPLEMENTAL SHEET  
PAGE 22 OF 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 (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. Relf. Req.</u>	<u>No. of Rej. Incl.</u>
B-J	Weld	Q1B33G001W4	RR-11-2	1	24"	11 101'	0	0
B-J	Weld	Q1B33G001W4-L	RR-11-2	1	24"	11 101'	0	0
B-J	Weld	Q1B33G001W8	RR-11-3	1	24"	11 101'	0	0
B-J	Weld	Q1B33G001W8-L	RR-11-3	1	24"	11 101'	0	0
B-J	Weld	Q1B33G001W10	RR-11-3	1	24"	11 101'	0	0
B-J	Weld	Q1B33G001W10-L	RR-11-3	1	24"	11 101'	0	0
B-J	Weld	Q1B33G024W145	RR-11-19	DBA	4"	11 113'	0	0
B-J	Weld	Q1B33G024W152	RR-11-19	DBA	4"	11 113'	0	0

FORM NIS-11  
 SUPPLEMENTAL SHEET  
 PAGE 23 OF 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 (Piping Welds, Components and Supports)

B33 Reactor Recirculation 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>Elv.</u>	<u>No. of</u>		<u>No. of</u> <u>Rej.</u> <u>Ind.</u>
							<u>Rec.</u>	<u>Ind.</u> <u>Note/Para.</u> <u>Relf. Req.</u>	
B-K-1	Att. Weld	Q1B33C001A-C1	RR-11-2	1	24"	11 101'	1 11.10		0
B-K-1	Att. Weld	Q1B33C001A-C2	RR-11-2	1	24"	11 101'	0		0
B-K-1	Att. Weld	Q1B33C001A-C3	RR-11-2	1	24"	11 101'	0		0
B-K-1	Att. Weld	Q1B33C001A-C4	RR-11-2	1	24"	11 101'	0		0
B-K-1	Att. Weld	Q1B33C001B-C5	RR-11-9	1	24'	11 101'	0		0
B-K-1	Att. Weld	Q1B33C001B-C6	RR-11-9	1	24'	11 101'	0		0
B-K-1	Att. Weld	Q1B33C001B-C1	RR-11-9	1	24"	11 101'	0		0
B-K-1	Att. Weld	Q1B33GC001B-C2	RR-11-9	1	24"	11 101'	0		0

FORM NIS-11  
 SUPPLEMENTAL SHEET  
 PAGE 24 OF 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)  
 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. Note/Para. Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-K-1	Att. Weld	Q1B33C001B-C3	RR-11-9	1	24"	11 101'	0	0
B-K-1	Att. Weld	Q1B33C001B-C4	RR-11-9	1	24"	11 101'	0	0

FORM NIS-11  
 SUPPLEMENTAL SHEET  
 PAGE 2<sup>s</sup> OF 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 (Piping Welds, Components and Supports)

B33 Reactor Recirculation 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 Rej. Ind. Note/Para. Relf. Req.</u>
F-B VT-3	Hanger	Q1B33G024C03	RR-11-19	DBA	4"	11 113'	0
B-M-2 VT-3	Valve	Q1B33F067A	RR-11-3	1	24"	11 101'	0

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 SUPPLEMENTAL SHEET  
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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 - 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>Elv.</u>	<u>No. of</u> <u>Rej. Ind.</u> <u>Note/Para.</u> <u>Relf. Req.</u>
FB VT-3	Hanger	Q1C41G120C03	LC-11-8	DCA	1.5"	11 161'	0
FB VT-3	Hanger	Q1C41G120C04	LC-11-8	DCA	1.5"	11 161'	0
FB VT-3	Hanger	Q1C41G120R01	LC-11-8	DCA	1.5"	11 161'	0
FB VT-3	Hanger	Q1C41G119C01	LC-11-11	DCA	1.5"	11 161'	0
FB VT-4	Hanger	Q1C41G136C02	LC-11-13	DBA	1.5"	11 147'	0 g



FORM NIS-11  
SUPPLEMENTAL SHEET  
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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 - 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. Note/Para. Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-J	Weld	Q1E12G014W45	RH-8-8	DBA	6"	8 119'	0	0
C-A	Weld	Q1E12B001A-C-4	RH-7-19	Heat Exch.	N/A	7 119'	3 11.2	0
C-B	Weld	Q1E12B001A-N3	RH-7-19	Heat Exch.	N/A	7 119'	0	0
C-B	Inside Radius	Q1E12B001A-N3	RH-7-19	Heat Exch.	N/A	7 119'	0	0
C-B	Weld	Q1E12B001A-N4	RH-7-19	Heat Exch	N/A	7 119'	7 11.11	0
C-B	Inside Radius	Q1E12B001A-N4	RH-7-19	Heat Exch	N/A	7 119'	0	0
C-F	Weld	Q1E12G014W38	RH-8-4	DEB	12"	8 119'	0	0
C-F	Weld	Q1E12G014W127	RH-8-4	DEB	12"	8 119'	1 11.4	0

FORM NIS-11  
SUPPLEMENTAL SHEET  
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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 - 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. Note/Para. Relf. Req.</u>	<u>No. of Rej. Ind.</u>
C-F	Weld	Q1E12G014W128	RH-8-4	DEB	12"	8 119'	1 11.4	0
C-F	Weld	Q1E12G014W98	RH-8-4	DEB	12"	8 119'	2 11.8	0
C-F	Weld	Q1E12G014-18-8-2	RH-8-4	DEB	12"	8 119'	0	0
C-F	Weld	Q1E12G014W134	RH-8-4	DEB	12"	8 119'	0	0
C-F	Weld	Q1E12G014W135	RH-8-4	DEB	12"	8 119'	1 11.2	0
C-F	Weld	Q1E12G014-18-8-5	RH-8-4	DEB	12"	8 119'	2 11.4	0
C-F	Weld	Q1E12G014W129	RH-8-4	DEB	12"	8 119'	2 11.2	0
C-F	Weld	Q1E12G010W6	RH-8-10	GBB	20"	8 119'	0	0

FORM NIS-11  
 SUPPLEMENTAL SHEET  
 PAGE 29 OF 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 (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. Note/Para. Relf. Req.</u>	<u>No. of Rej. Ind.</u>
C-F	Weld	Q1E12G010-8-8-1	RH-8-12	GBB	24"	8 93'	0	0
C-F	Weld	Q1E12G014W1	RH-8-17	GBB	20"	8 93'	0	0
C-F	Weld	Q1E12G014W508	RH-8-20	DBB	12"	8 119'	0	0
C-F	Weld	Q1E12G010W34	RH-8-27	GBB	20'	8 119'	0	0
C-F	Weld	Q1E12G009-5-8-3	RH-8-30	GBB	20"	8 119'	0	0
C-F	Weld	Q1E12G009-5-8-4	RH-8-30	GBB	20"	8 119'	0	0
C-F	Weld	Q1E12G009W14	RH-8-30	GBB	20"	8 119'	0	0
C-F	Weld	Q1E12G009W8	RH-8-30	GBB	20"	8 93'	0	0

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SUPPLEMENTAL SHEET  
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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)

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. Note/Para. Ref. Req.</u>	<u>No. of Rej. Ind.</u>
C-F	Weld	Q1E12G009-1-8-1	RH-8-31	GBB	20"	8 93'	0	0
C-F	Weld	Q1E12G009-1-8-2	RH-8-31	GBB	20"	8 93'	0	0

FORM NIS-11  
SUPPLEMENTAL SHEET  
PAGE 31 OF 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)

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. Ind. Note/Para. Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-J	Weld	Q1E12G014W44	RH-8-8	DBA	6"	8 119'	0	0
B-J	Weld	Q1E12G014W45	RH-8-8	DBA	6"	8 119'	0	0
C-A	Weld	Q1E12B001A-N3	RH-7-19	Heat Exch.	N/A	7 119'	0	0
C-A	Weld	Q1E12B001A-N4	RH-7-19	Heat Exch.	N/A	7 119'	0	0
C-C	Shell Pin	Q1E12C002B-SB-12	RH-8-12	Pump	N/A	8 93'	0 I-00009, 11.15, 12.2	0
C-C	Lug	Q1E12G009H03	RH-8-31	GBB	18"	8 119'	0	0
C-C	Lug	Q1E12G010R04	RH-8-11	GBB	24"	8 93'	0	0
C-F	Weld	Q1E12G014W38	RH-8-4	DEB	12"	8 119'	0	0

FORM NIS-11  
 SUPPLEMENTAL SHEET  
 PAGE 32 OF 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)

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. Ind. Note/Para. Relf. Req.</u>	<u>No. of Rej. Ind.</u>
C-F	Weld	Q1E12G014W127	RH-8-4	DBB	12"	8 119'	0	0
C-F	Weld	Q1E12G014W128	RH-8-4	DBB	12"	8 119'	0	0
C-F	Weld	Q1E12G014W98	RH-8-4	DBB	12"	8 119'	0	0
C-F	Weld	Q1E12G014-18-8-2	RH-8-4	DBB	12"	8 119'	0	0
C-F	Weld	Q1E12G014W134	RH-8-4	DBB	12"	8 119'	0	0
C-F	Weld	Q1E12G014W135	RH-8-4	DBB	12"	8 119'	0	0
C-F	Weld	Q1E12G014-18-8-5	RH-8-4	DBB	12"	8 119'	0	0
C-F	Weld	Q1E12G014W129	RH-8-4	DBB	12"	8 119'	0	0

FORM NIS-11  
SUPPLEMENTAL SHEET  
PAGE 33 OF 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 (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. Ind. Note/Para. Relf. Req.</u>	<u>No. of Rej. Ind.</u>
C-F	Weld	Q1E12G012W53	RH-8-9	GBB	18"	8 119'	0	0
C-F	Weld	Q1E12G010W6	RH-8-10	GBB	20"	8 119'	0	0
C-F	Weld	Q1E12G010W12	RH-8-11	GBB	18"	8 93'	0	0
C-F	Weld	Q1E12G010-8-8-1	RH-8-12	GBB	24"	8 93'	0	0
C-F	Weld	Q1E12G014W1	RH-8-17	GBB	20"	8 93'	0	0
C-F	Weld	Q1E12G014W501	RH-8-17	GBB	6"	8 93'	0	0
C-F	Weld	Q1E12G014W503	RH-8-17	GBB	6"	8 93'	0	0
C-F	Weld	Q1E12G014W511	RH-8-17	GBB	18"	8 93'	0	0

FORM NIS-11  
SUPPLEMENTAL SHEET  
PAGE 34 OF 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 (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. Ind. Note/Para. Relf. Req.</u>	<u>No. of Rej. Ind.</u>
C-F	Weld	Q1E12G014W507	RH-8-20	GBB	12"	8 119'	0	0
C-F	Weld	Q1E12G014W508	RH-8-20	GBB	12"	8 119'	0	0
C-F	Weld	Q1E12G010W34	RH-8-30	GBB	20"	8 119'	0	0
C-F	Weld	Q1E12G009-5-8-3	RH-8-30	GBB	20"	8 119'	0	0
C-F	Weld	Q1E12G009-5-8-4	RH-8-30	GBB	20"	8 119'	0	0
C-F	Weld	Q1E12G009W14	RH-8-30	GBB	20"	8 119'	0	0
C-F	Weld	Q1E12G009W8	RH-8-30	GBB	20"	8 93'	0	0
C-F	Weld	Q1E12G009-1-8-1	RH-8-31	GBB	20"	8 93'	0	0



FORM NIS-11  
 SUPPLEMENTAL SHEET  
 PAGE 35 OF 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)

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. Ind. Note/Para. Relf. Req.</u>	<u>No. of Rej. Ind.</u>
C-F	Weld	Q1E12G009-1-8-2	RH-8-31	GBB	20"	8 93'	0	0
C-F	Weld	Q1E12G009W9	RH-8-31	GBB	18"	8 93'	0	0
C-F	Weld	Q1E12G009W10	RH-8-31	GBB	18"	8 119'	0	0
C-G	Weld	Q1E12C002B-SB-2	RH-8-12	II	N/A	8 93'	0 I-00009	0
C-G	Weld	Q1E12C002B-SB-3	RH-8-12	II	N/A	8 93'	0	0
C-G	Weld	Q1E12C002B-SB-4	RH-8-12	II	N/A	8 93'	0	0
C-G	Weld	Q1E12C002B-SB-5	RH-8-12	II	N/A	8 93'	0	0
C-G	Weld	Q1E12C002B-SB-6	RH-8-12	II	N/A	8 93'	0	0

FORM NIS-11  
 SUPPLEMENTAL SHEET  
 PAGE 36 OF 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)

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. Ind. Note/Para. Relf. Req.</u>	<u>No. of Rej. Ind.</u>
C-G	Weld	Q1E12C002B-SB-7	RH-8-12	II	N/A	8 93'	0	0

FORM NIS-11  
 SUPPLEMENTAL SHEET  
 PAGE 37 OF 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)

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 Rej. Ind. Note/Para. Rel.f. Req.</u>
D-B VT-3	Att. Weld	Q1E12G011C01	RH-18-38	HBC	18"	8 93'	0
D-B VT-3	Att. Weld	Q1E12G011H02	RH-8-38	HBC	18"	8 93'	0
D-B VT-3	Att. Weld	Q1E12G011R02	RH-8-38	HBC	18"	8 93'	0
F-A VT-3	Hanger	Q1E12G017A01	RH-11-22	GBB	18"	11 208'	0
F-A VT-3	Hanger	Q1E12G025A03	RH-8-32	GBB	18"	8 93'	0
F-B VT-3	Hanger	Q1E12G014H06	RH-8-15	HBB	4"	8 93'	0
F-B VT-3	Hanger	Q1E12G011H02	RH-8-38	HBC	18"	8 93'	0
F-B VT-3	Hanger	Q1E12G015R14	RH-11-18	GBB	18"	11 135'	0

FORM NIS-11  
 SUPPLEMENTAL SHEET  
 PAGE 38 OF 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)

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 Rej. Ind. Note/Para. Relf. Req.</u>
F-B VT-3	Hanger	Q1E12G021C01	RH-8-2	DBB	6"	8 139'	0
F-C VT-3 VT-4	Hanger	Q1E12G015H01	RH-11-13	GBB	14"	11 131'	0
F-C VT-3 VT-4	Hanger	Q1E12G015H17	RH-11-19	GBB	18"	11 185'	0
F-C VT-3 VT-4	Hanger	Q1E12G015H18	RH-11-16	GBB	18"	11 161'	0
F-C VT-3 VT-4	Hanger	Q1E12G021H03	RH-8-3	DBB	12"	8 139'	0
B-M-2 V-3	Valve	Q1E12F019	RH-8-8	DBA	6"	8 119'	0

FORM NIS-11  
 SUPPLEMENTAL SHEET  
 PAGE 39 OF 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)

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/Para. Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-J	Weld	Q1E21G002-10-11-3	LP-11-2	DEA	14"	11 141'	0	0
C-D	Bolts	Q1E21C001	LP-9-3	II	N/A	9 93'	0	0

FORM NIS-11  
SUPPLEMENTAL SHEET  
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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)

E21 Low Pressure Core Spray- 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>Elv.</u>	<u>No. of</u> <u>Rec. Ind.</u> <u>Note/Para.</u> <u>Relf. Req.</u>	<u>No. of</u> <u>Rej.</u> <u>Ind.</u>
B-J	Weld	Q1E21G002-10-11-3	LP-11-2	DBA	14"	11 141'	0	0

FORM NIS-11  
 SUPPLEMENTAL SHEET  
 PAGE 41 OF 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)

E51 Reactor Core Isolation Cooling- 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. Note/Para. Relf. Req.</u>	<u>No. of Rej. Incl.</u>
B-J	Weld	Q1E51G001W71	RI-8-9	DBA	6"	8 119'	0	0
B-J	Weld	Q1E51G001W72	RI-8-9	DBA	6"	8 119'	0	0
B-J	Weld	Q1E51G001-6-8-1	RI-8-9	DBA	6"	8 119'	0	0
B-J	Weld	Q1E51G001-6-8-2	RI-8-9	DBA	6"	8 119'	0	0
B-J	Weld	Q1E51G001W35	RI-8-10	DBA	6"	8 119'	0	0
B-J	Weld	Q1E51G001-28-11-4	RI-11-4	DBA	6"	11 208'	0	0
B-J	Weld	Q1E51G001W13	RI-11-7	DBA	6"	11 114'	0	0
C-F	Weld	Q1E51G001W62	RI-8-10	DEB	6"	8 119'	1 11.4	0

FORM NIS-11  
 SUPPLEMENTAL SHEET  
 PAGE 42 OF 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)

E51 Reactor Core Isolation Cooling- 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. Note/Para. Relf. Req.</u>	<u>No. of Rej. Incl.</u>
C-F	Weld	Q1E51G001W65	RI-8-10	DBB	6"	8 119'	1 11.2	0
C-F	Weld	Q1E51G001W66	RI-8-10	DBB	6"	8 119'	0	0
C-F	Weld	Q1E51G001W67	RI-8-10	DBB	8"	8 119'	1 11.4	0



FORM NIS-11  
 SUPPLEMENTAL SHEET  
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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)

E51 Reactor Core Isolation Cooling- 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. Note/Para. Relf. Req.</u>	<u>No. of Rej. Incl.</u>
B-J	Weld	Q1E51G001W71	RI-8-9	DBA	6"	8 119'	0	0
B-J	Weld	Q1E51G001W72	RI-8-9	DBA	6"	8 119'	0	0
B-J	Weld	Q1E51G001-6-8-1	RI-8-9	DBA	6"	8 119'	0	0
B-J	Weld	Q1E51G001-6-8-2	RI-8-9	DBA	6"	8 119'	0	0
B-J	Weld	Q1E51G001W35	RI-8-10	DBA	6"	8 119'	0	0
B-J	Weld	Q1E51G001-28-11-4	RI-11-4	DBA	6"	11 208'	0	0
B-J	Weld	Q1E51G001W13	RI-11-7	DBA	6"	11 114'	0	0
C-F	Weld	Q1E51G001W62	RI-8-10	DEB	6"	8 119'	0	0

FORM NIS-11  
 SUPPLEMENTAL SHEET  
 PAGE 44 OF 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 (Piping Welds, Components and Supports)

E51 Reactor Core Isolation Cooling- 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. Note/Para. Relf. Req.</u>	<u>No. of Rej. Incl.</u>
C-F	Weld	Q1E51G001W65	RI-8-10	DBB	6"	8 119'	0	0
C-F	Weld	Q1E51G001W66	RI-8-10	DBB	6"	8 119'	0	0
C-F	Weld	Q1E51G001W67	RI-8-10	DBB	8"	8 119'	0	0

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SUPPLEMENTAL SHEET  
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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 (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 Ind. Note/Para. Ref. Req.</u>
F-A VT-3	Hanger	Q1E51G001R13	RI-11-5	DBA	6"	11 147'	0
F-B VT-3	Hanger	Q1E51G004C01	RI-8-1	DBB	10"	8 139'	0

FORM NIS-11  
 SUPPLEMENTAL SHEET  
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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)

G33 Reactor Water Cleanup 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. Note/Para. Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-J	Weld	Q1G33G002W14	CJ-11-2	DBA	6"	11 114'	0	0
B-J	Weld	Q1G33G002-20-11-1	CJ-11-2	DBA	6"	11 114'	0	0
B-J	Weld	Q1G33G002-20-11-2	CJ-11-2	DBA	6"	11 114'	0	0
B-J	Weld	Q1G33G002-20-11-3	CJ-11-2	DBA	6"	11 114'	0	0
B-J	Weld	Q1G33G002W78	CJ-11-2	DBA	6"	11 114'	0	0
B-J	Weld	Q1G33G002W79	CJ-11-2	DBA	6"	11 114'	0	0
B-J	Weld	Q1G33G002W112	CJ-11-2	DBA	6"	11 114'	0	0
B-J	Weld	Q1G33G002-56-11-1	CJ-11-2	DBA	6"	11 114'	0	0

FORM NIS-11  
SUPPLEMENTAL SHEET  
PAGE 47 OF 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 (Piping Welds, Components and Supports)

G33 Reactor Water Cleanup 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., Note/Para. Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-J	Weld	Q1G33G002W15	CJ-11-2	DBA	6"	11 114'	0	0
B-J	Weld	Q1G33G002-20-11-5	CJ-11-2	DBA	6"	11 114'	1 11.2	0
B-J	Weld	Q1G33G002W16	CJ-11-3	DBA	6"	11 114'	1 11.4	0
B-J	Weld	Q1G33G002W143	CJ-11-3	DBA	6"	11 114'	0	0
B-J	Weld	Q1G33G002W113	CJ-11-3	DBA	6"	11 114'	0	0
B-J	Weld	Q1GG33G002-57-11-1	CJ-11-3	DBA	6"	11 114'	0	0
B-J	Weld	Q1G33G002W114	CJ-11-3	DBA	6"	11 114'	0	0
B-J	Weld	Q1G33G002W17	CJ-11-3	DBA	6"	11 114'	0	0

FORM NIS-11  
 SUPPLEMENTAL SHEET  
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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)

G33 Reactor Water Cleanup 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., Note/Para. Relf. Req.</u>	<u>No. of Rej. Incl.</u>
B-J	Weld	Q1G33G011W5	CU-11-11	DBA	6"	11 161'	0	0
B-J	Weld	Q1G33G011W7	CU-11-11	DBA	6"	11 161'	0	0
B-J	Weld	Q1G33G011W8	CU-11-11	DBA	6"	11 161'	0	0
B-J	Weld	Q1G33G011-4-11-1	CU-11-11	DBA	6"	11 161'	0	0
B-J	Weld	Q1G33G012W71	CU-11-13	DBA	6"	11 161'	0	0
B-J	Weld	Q1GG33G012W72	CU-11-13	DBA	6"	11 161'	0	0
B-J	Weld	Q1G33G011W6	CU-11-11	DBA	6"	11 161'	0	0
B-J	Weld	Q1G33G011-5-11-1	CU-11-11	DBA	6"	11 161'	0	0

FORM NIS-11  
 SUPPLEMENTAL SHEET  
 PAGE 49 OF 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 (Piping Welds, Components and Supports)

G33 Reactor Water Cleanup 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/ Elev.</u>	<u>No. of Rec. Ind., Note/Para. Rel. Req.</u>	<u>No. of Rej. Ind.</u>
B-J	Weld	Q1G33G011-5-11-2	CJ-11-11	DBA	6"	11 161'	0	0
C-F	Weld	Q1G33G00'W5	CJ-8-2	DEB	6"	8 139'	0	0

FORM NIS-11  
 SUPPLEMENTAL SHEET  
 PAGE 50 OF 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)

G33 Reactor Water Cleanup 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., Note/Para. Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-J	Weld	Q1G33G002W14	CU-11-2	DBA	6"	11 114'	0	0
B-J	Weld	Q1G33G002-20-11-1	CU-11-2	DBA	6"	11 114'	0	0
B-J	Weld	Q1G33G002-20-11-2	CU-11-2	DBA	6"	11 114'	0	0
B-J	Weld	Q1G33G002-20-11-3	CU-11-2	DBA	6"	11 114'	0	0
B-J	Weld	Q1G33G002W78	CU-11-2	DBA	6"	11 114'	0	0
B-J	Weld	Q1G33G002W79	CU-11-2	DBA	6"	11 114'	0	0
B-J	Weld	Q1G33G002W112	CU-11-2	DBA	6"	11 114'	0	0
B-J	Weld	Q1G33G002-56-11-1	CU-11-2	DBA	6"	11 114'	0	0



FORM NIS-11  
SUPPLEMENTAL SHEET  
PAGE 51 OF 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 (Piping Welds, Components and Supports)

G33 Reactor Water Cleanup 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. Note/Para. Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-J	Weld	Q1G33G002W15	CJ-11-2	DBA	6"	11 114'	0	0
B-J	Weld	Q1G33G002-20-11-5	CJ-11-2	DBA	6"	11 114'	1 11.2	0
B-J	Weld	Q1G33G002W16	CJ-11-3	DBA	6"	11 114'	1 11.4	0
B-J	Weld	Q1G33G002W143	CJ-11-3	DBA	6"	11 114'	0	0
B-J	Weld	Q1G33G002W113	CJ-11-3	DBA	6"	11 114'	0	0
B-J	Weld	Q1G33G002-57-11-1	CJ-11-3	DBA	6"	11 114'	0	0
B-J	Weld	Q1G33G002W114	CJ-11-3	DBA	6"	11 114'	0	0
B-J	Weld	Q1G33G02W17	CJ-11-3	DBA	6"	11 114'	0	0

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 SUPPLEMENTAL SHEET  
 PAGE 52 OF 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 (Piping Welds, Components and Supports)  
 G33 Reactor Water Cleanup 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. Note/Para. Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-J	Weld	Q1G33G011W5	CU-11-11	DBA	6"	11 161'	0	0
B-J	Weld	Q1G33G011W7	CU-11-11	DBA	6"	11 161'	0	0
B-J	Weld	Q1G33G011W8	CU-11-11	DBA	6"	11 161'	0	0
B-J	Weld	Q1G33G011-4-11-1	CU-11-11	DBA	6"	11 161'	0	0
B-J	Weld	Q1G33G012W71	CU-11-13	DBA	6"	11 161'	0	0
B-J	Weld	Q1GG33G012W72	CU-11-13	DBA	6"	11 161'	0	0
B-J	Weld	Q1G33G011W6	CU-11-11	DBA	6"	11 161'	0	0
B-J	Weld	Q1G33G011-5-11-1	CU-11-11	DBA	6"	11 161'	0	0

FORM NIS-11  
 SUPPLEMENTAL SHEET  
 PAGE 53 OF 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)

G33 Reactor Water Cleanup 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. Note/Para. Relf. Req.</u>	<u>No. of Rej. Ind.</u>
B-J	Weld	Q1G33G011-5-11-2	CU-11-11	DBA	6"	11 161'	0	0
C-F	Weld	Q1G33G001W5	CU-8-2	DEB	6"	8 139'	0	0

FORM NIS-11  
 SUPPLEMENTAL SHEET  
 PAGE 54 OF 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 (Piping Welds, Components and Supports)

G33 Reactor Water Cleanup 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 Rej. Incl. Note/Para. Relf. Req.</u>
F-C VT-3 VT-4	Hanger	Q1G33G002H13	CJ-11-3	DBA	6"	11 114'	0
F-C VT-3	Hanger	Q1G33G002R21	CJ-11-2	DBA	6"	11 114'	0 11.13, 12.1

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 SUPPLEMENTAL SHEET  
 PAGE 55 OF 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 (Piping Welds, Components and Supports)

G41 Fuel Pool Cooling and Clean-Up - 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 Rej. Ind. Note/Para. Relf. Req.</u>
D-C VT-3	Att. Weld	Q1G41G006A01	FC-9-23	HBC	18"	9 93'	0
FA-FB VT-3	Att. Weld	Q1G41B001A-S1A-A	FC-9-12	HBC	8"	9 185'	0
FA-FB VT-3	Att. Weld	Q1G41B001A-S2A-A	FC-9-12	HBC	8"	9 185'	0
FA-FB VT-3	Att. Weld	Q1G41B001A-S1B-A	FC-9-12	HBC	8"	9 185'	0
FA-FB VT-3	Att. Weld	Q1G41B001A-S2B-A	FC-9-12	HBC	8"	9 185'	0
F-A VT-3	Hanger	Q1G41G006A01	FC-9-23	HBC	18"	9 93'	0

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 SUPPLEMENTAL SHEET  
 PAGE 56 OF 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)

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 Rej. Ind Note/Para. Relf. Req.</u>
DA, DB ,DC VT-3	Att. Weld	Q1P41G014C05	WS-YD-11	HBC	20"	YD <133'	0
DA, DB ,DC VT-3	Att. Weld	Q2P41G014C10	WS-YD-11	HBC	24"	YD <133'	0
FA VT-3	Hanger	Q2P41G013A01	WS-YD-9	HBC	24"	YD 133'	0
FB VT-3	Hanger	Q1P41G009R07	WS-12-3	HBC	10"	12 133'	0
FB VT-3	Hanger	Q1P41G008A03	WS-12-4	HBC	10"	129 133'	0

FORM NIS-11  
 SUPPLEMENTAL SHEET  
 PAGE 57 OF 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 (Piping Welds, Components and Supports)

P75 Standby Diesel Generator 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 Rej. Ind. Note/Para. Relf. Req.</u>
DA, DB, DC VT-3	Att. Weld	Q1P75-S1A Q1P75B004B	SDG-12-11	N/A	N/A	12 133'	0
DA, DB, DC VT-3	Att. Weld	Q1P75-S2A Q1P75B004B	SDG-12-11	N/A	N/A	12 133'	0
DA, DB, DC VT-3	Att. Weld	Q1P75-S3A Q1P75B004B	SDG-12-11	N/A	N/A	12 133'	0
FA, FB, FC VT-3	Support	Q1P75-S1 Q1P75A004B	SDG-12-11	N/A	N/A	12 133'	0
FA, FB, FC VT-3	Support	Q1P75-S2 Q1P75A004B	SDG-12-11	N/A	N/A	12 133'	0
FA, FB, FC VT-3	Support	Q1P75-S3 Q1P75A004B	SDG-12-11	N/A	N/A	12 133'	0
FA, FB, FC VT-3	Support	Q1P75-S4 Q1P75B004B	SDG-12-11	N/A	N/A	12 133'	0
FA, FB, FC VT-3	Support	Q1P75-S1 Q1P75AB004B	SDG-12-11	N/A	N/A	12 133'	0

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 SUPPLEMENTAL SHEET  
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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)

P75 Standby Diesel Generator 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 Rej. Ind. Note/Para. Relf. Req.</u>
FA, FB, FC VT-3	Support	Q1P75-S2 Q1P75B004B	SDG-12-11	N/A	N/A	12 133'	0
FA, FB, FC VT-3	Support	Q1P75-S3 Q1P75B004B	SDG-12-11	N/A	N/A	12 133'	0



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 SUPPLEMENTAL SHEET  
 PAGE 59 OF 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 (Piping Welds, Components and Supports)

P75 Standby Diesel Generator 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 Rej. Ind. Note/Para. Relf. Req.</u>
DA, DB, DC VT-3	Att. Weld	Q1P75-S1A Q1P75B004B	SDG-12-11	N/A	N/A	12 133'	0
DA, DB, DC VT-3	Att. Weld	Q1P75-S2A Q1P75B004B	SDG-12-11	N/A	N/A	12 133'	0
DA, DB, DC VT-3	Att. Weld	Q1P75-S2A Q1P75B004B	SDG-12-11	N/A	N/A	12 133'	0

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 SUPPLEMENTAL SHEET  
 PAGE 60 OF 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 (Piping Welds, Components and Supports)

P81 HPCS Generator 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 Rej. Ind. Note/Para. Relf. Req.</u>
DA, DB, DC VT-3	Att. Weld	Q1P81-S1A Q1P81B001	HDG-12-1	N/A	N/A	12 133'	0
DA, DB, DC VT-3	Att. Weld	Q1P81-S2A Q1P81B001	HDG-12-1	N/A	N/A	12 133'	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)
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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-2, 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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- 

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

ITEM NO. B12.40: CATEGORY B-M-2

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 for Group #1 Category "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" and one 14" check valves have been VT-3 examined and were found acceptable. The requirements of Section XI for 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 for 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 for Group #5 Category "B-M-2" have been satisfied.

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Group #6 - Contains four 24" gate valves. To date, one 24" valve has been VT-3 examined and found acceptable. The requirements of Section XI for Group #6, Category "B-M-2" have been satisfied.

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 for 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.

Group #9 - Contains one 6" piston check valve. To date, the one valve in this group has been VT-3 examined and found acceptable. The requirements of Sections XI for Group #9 Category B-M-2 have been satisfied.

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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	2
Total number of visual exams required for the Ten Year Interval	9
Total number of visual exams performed for the Ten Year Interval	8
Percentage of Ten Year Interval requirements completed	88.89

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**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.

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.

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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	03-1-01-6	5	0



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11. ABSTRACT OF CONDITIONS NOTED

- 11.1 The recordable indication was determined to be weld geometry.
- 11.2 The recordable indication was determined to be ID surface geometry.
- 11.3 The recordable indication was determined to be counterbore root geometry.
- 11.4 The recordable indication was determined to be root geometry.
- 11.5 The recordable indication was determined to be interface geometry.
- 11.6 The recordable indications was determined to be ID geometry and interface geometry.
- 11.7 The recordable indications were determined to be root and counterbore geometry.
- 11.8 The recordable indications was determined to be shear beam redirect, root geometry, and ID geometry.
- 11.9 The recordable indications was determined to be shear beam redirect and root geometry.
- 11.10 The recordable indication was determined to be a linear indication 3/16" in length on weld centerline located at interior end of weld.
- 11.11 The recordable indication was determined to be geometric in nature and was evaluated as lack-of-fusion along the weld prep.
- 11.12 The recordable indication(s) were determined to be geometric reflectors.
- 11.13 The base plate of the hanger has a 3/8" gap between it and the wall.
- 11.14 The recordable indication(s) were determined to be geometry (1) for each stud.

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11. ABSTRACT OF CONDITIONS NOTED (Continued)

- 11.15 A liquid penetrant examination was performed on weld after sandblasting. QAI 9.13 (Rev 6) restricts PT after sandblasting.

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12. ABSTRACT OF CORRECTIVE MEASURES RECOMMENDED AND ACTION TAKEN

- 12.1 MNCR 0148-95 documents a gap of approximately 3/8" between the base plate (drawing KAQ1G33G002R21) and a concrete wall. The disposition was to accept as-is. The condition was not considered serviced induced and no rework was required.
- 12.2 QDR 95-0397 documents that a Liquid Penetrant (PT) exam was performed after sandblasting of weld. The QDR was transmitted to NPE for acceptance of data collected as corrective action. Section XI credit will be taken for this weld but will be included in the "Open Item Section" of this report.

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**GENERAL REFERENCE NOTES**

- a. Examination include the space above and below the reactor core that is made accessible for examination by removal of components during normal refueling outages.
- b. Code Case N-460 specifies that a reduction in examination coverage on any class 1 or 2 weld may be acceptable provided that the reduction in coverage for that weld is less than 10%.
- c. Code Case N-461 specifies that any calibration block may be used that is within  $\pm 25\%$  of the pipe wall thickness.
- d. Augmented exam in accordance with IE Bulletin 80-13.
- e. Augmented exam in accordance with NUREG-0619.
- f. Volumetric examination per Code Case N-307-1 may be used.
- g. This component was scheduled and examined (VT-4) in RFO5 but not listed in NIS-1-00009.
- h. The listed studs were removed during RFO7. A surface exam is required only if the studs are removed (once each interval).

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**SUMMARY OF OPEN ITEMS**

This section lists items that were identified during RFO7. The resolution to these open items will be reported in NIS-1-00012.

ITEM NO.	CODE CATEGORY	ID NUMBER	TYPE OF EXAM	DESCRIPTION/EXAM NOT COMPLETED
1	C-C	Q1E12C002B-SB12	SURFACE	PT exam performed after sand-blasting (cleaning) weld. Unable to perform MT exam.

This section lists items that were identified during the reporting period for NIS-1-00010 but were not resolved before issuing NIS-1-00011. The resolution to these items will be reported in NIS-1-00012.

ITEM NO.	CODE CATEGORY	ID NUMBER	TYPE OF EXAM	DESCRIPTION/EXAM NOT COMPLETED
1	B-J	B33G3-A1-F	SURFACE	Entire examination volume cannot be examined-SCR 93-0014 (RFO5 Item)
2	B-J	B33G3-A1-G	SURFACE	Entire examination volume cannot be examined-SCR 93-0014 (RFO5 Item)
3	B-J	B33G3-A1-H	SURFACE	Entire examination volume cannot be examined-SCR 93-0014 (RFO5 Item)
4	B-J	B33G3-A1-J	SURFACE	Entire examination volume cannot be examined-SCR 93-0014 (RFO5 Item)

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SUMMARY OF OPEN ITEMS (Continued)

ITEM NO.	CODE CATEGORY	ID NUMBER	TYPE OF EXAM	DESCRIPTION/EXAM NOT COMPLETED
5	B-J	B33G4-B1-H	SURFACE	Entire examination volume cannot be examined-SCR 93-0014 (RFO5 Item)
6	B-J	B33G4-B1-J	SURFACE	Entire examination volume cannot be examined-SCR 93-0014 (RFO5 Item)
7	B-J	B33G4-B1-K	SURFACE	Entire examination volume cannot be examined-SCR 93-0014 (RFO5 Item)
8	B-J	B33G4-B1-L	SURFACE	Entire examination volume cannot be examined-SCR 93-0014 (RFO5 Item)
9	B-J	E32G119-W-32	SURFACE	Entire examination volume cannot be examined-SCR 93-0014
10	B-J	E51G001W39	VOLUMETRIC	Entire examination volume cannot be examined-SCR 93-0014

**INSERVICE INSPECTION SUMMARY REPORT**  
**FOR**  
**GRAND GULF NUCLEAR STATION**  
**SECTION II**  
**CLASS I, II, AND III CODE CATEGORY SUMMARY**

**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 Exams/ % of 3rd. Per. Require. Perf.</u>	<u># of Exams/ % of 10 YR. Interval Requirement</u>
B-A	VOLU.	45	16 / 35.6	13 / 28.9	16 / 35.6	0	13 / 81.2	42 / 93.3
B-A	SURF.	2	0 / 0.0	1 / 50.0	1 / 50.0	0	1 / 100.0	2 / 100.0
B-D	VOLU.	70	26 / 37.1	22 / 31.4	22 / 31.4	0	22 / 100.0	70 / 100.0
B-E	VISU.	6	3 / 50.0	2 / 33.3	1 / 16.7	0	0 / 0.0	5 / 83.3
B-F	VOLU.	40	12 / 30.0	16 / 40.0	12 / 30.0	2	12 / 100.0	40 / 100.0
B-F	SURF.	40	12 / 30.0	16 / 40.0	12 / 30.0	0	12 / 100.0	40 / 100.0
B-G-1	VOLU.	15	4 / 26.7	6 / 40.0	5 / 33.3	4	5 / 100.0	15 / 100.0
B-G-1	SURF.	9	2 / 22.2	3 / 33.3	4 / 55.5	1	1 / 16.7	6 / 66.7
B-G-1	VISU.	12	3 / 25.0	5 / 41.7	4 / 33.3	0	1 / 20.0	9 / 69.2
B-G-2	VISU.	19	5 / 26.3	9 / 47.4	5 / 26.3	0	4 / 80.0	18 / 94.7



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

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B-H	SURF.	1	0 / 0.0	0 / 0.0	1 / 100	0	1 / 100.0	1 / 100.0
B-J	VOLU.	359	95 / 18.1	120 / 33.4	144 / 40.1	46	144 / 100.0	359 / 100.0
B-J	SURF.	524	112 / 21.4	184 / 35.1	228 / 43.5	50	228 / 100.0	524 / 100.0
B-K-1	SURF.	60	14 / 23.3	21 / 35.0	26 / 43.3	10	26 / 100.0	60 / 100.0
B-L-2	VISU.	1	0 / 0.0	1 / 100.0	0 / 0.0	N/A	N/A	1 / 100.0
B-M-2	VISU.	9	5 / 55.6	0 / 0.0	4 / 44.4	2	3 / 75.0	8 / 88.9
B-N-1	VISU.	3	1 / 33.3	1 / 33.3	1 / 33.3	0	1 / 100.0	3 / 100.0
B-N-2	VISU.	1	0 / 0.0	0 / 0.0	1 / 100.0	0	1 / 100.0	1 / 100.0
C-A	VOLU.	2	1 / 50.0	0 / 0.0	1 / 50.0	1	1 / 100.0	2 / 100.0
C-B	VOLU.	4	0 / 0.0	0 / 0.0	4 / 100.0	4	4 / 100.0	4 / 100.0

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

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C-B	SURF.	2	0 / 0.0	0 / 0.0	2 / 100.0	2	2 / 100.0	2 / 100.0
C-C	SURF.	35	12 / 34.3	10 / 26.6	13 / 37.1	3	13 / 100.0	35 / 100.0
C-D	VOLU.	1	0 / 0.0	0 / 0.0	1 / 100.0	1	1 / 100.0	1 / 100.0
C-F	VOLU.	226	61 / 27.0	74 / 32.7	91 / 40.3	26	90 / 99.0	225 / 99.6
C-F	SURF.	291	79 / 27.1	96 / 33.0	116 / 39.9	34	115 / 99.1	290 / 99.7
C-G	SURF.	42	15 / 35.7	9 / 21.4	18 / 42.9	6	18 / 100.0	42 / 100.0
D-A	VISU	8	0 / 00.0	0 / 00.0	8 / 100.0	8	8 / 100.0	8 / 100.0
D-B	VISU.	20	5 / 25.0	2 / 10.0	13 / 65.0	3	13 / 100.0	20 / 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 Exams/ % of 3rd. Per. Require. Perf.</u>	<u># of Exams/ % of 10 YR. Interval Requirement</u>
D-C	VISU.	31	9 / 29.0	12 / 38.7	10 / 32.3	10	10 / 100.0	31 / 100.0
D-A, D-B	VISU.	86	24 / 30.9	27 / 31.4	35 / 40.1	11	35 / 100.0	86 / 100.0
D-A, D-B, & D-C	VISU.	47	9 / 19.1	18 / 38.3	20 / 42.6	2	20 / 100.04	47 / 100.0
F-A	VISU	44	15 / 34.1	12 / 27.3	17 / 38.7	3	17 / 100.0	44 / 100.0
F-B	VISU.	562	109 / 19.4	112 / 19.9	341 / 61.1	13	341 / 100.0	562 / 100.0
F-C	VISU.	177	46 / 26.0	57 / 32.2	74 / 41.8	11	74 / 100.0	177 / 100.0
FA, FB	VISU.	18	4 / 22.2	6 / 33.3	8 / 44.4	8	8 / 100.0	18 / 100.0
FA, FC	VISU	9	0 / 0	9 / 100	0 / 00	0	N/A	9 / 100.0
FA, FB, FC	VISU	4	0 / 00.0	0 / 00.0	4 / 100.0	4	4 / 100.0	4 / 100.0

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

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NO BRK ZONE	VOL	24	13 / 54.2	9 / 37.5	0 / 0.0	0	N/A	24 / 100.0
NO BRK ZONE	SURF	8	0 / 0.0	4 / 50.0	4 / 50.0	4	4 / 100.0	8 / 100.0
I.E. 80-07	VOLU	6	2 / 33.3	2 / 33.3	2 / 33.3	0	2 / 100.0	6 / 100.0
B-N-1 I.E. 80-13	VIS	6	2 / 33.3	2 / 33.3	2 / 33.3	0	2 / 100.0	6 / 100.0
B-D 0619	VOLU	24	6 / 25.0	6 / 25.0	12 / 50.0	6	12 / 100.0	24 / 100.0
B-D 0619	SURF	18	6 / 33.3	6 / 33.3	6 / 33.3	0	6 / 100.0	18 / 100.0
B-F 0619	VOLU.	24	6 / 25.0	6 / 25.0	12 / 50.0	6	12 / 100.0	24 / 100.0
B-F 0619	SURF.	18	6 / 33.3	6 / 33.3	6 / 33.3	0	6 / 100.0	18 / 100.0
C-F I.E. 79-17	SURF.	3	3 / 100.0	0 / 0.0	0 / 0.0	N/A	N/A	3 / 100.0
C-F I.E. 79-17	VISU.	3	3 / 100.0	0 / 0.0	0 / 0.0	N/A	N/A	3 / 100.0

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

**TOTAL SUMMARY OF CODE CATEGORY EXAMINATIONS**  
**(NUGEG, I.E. BULLETIN, AND NO BREAK ZONE EXAMS NOT INCLUDED)**

	Type of Exam	Total Ex. Per 10 yr. Interval	Total Exams Req'd 1st Per. / % of Total	Total Exams Req'd 2nd Per. / % of Total	Total Exams Req'd 3rd Per. / % of Total	No. of Items Examined This Report Period	# of Exams/ % of 3rd. Per. Require. Perf.	# of Exams/ % of 10 YR. Interval Requirement
SUM.	VOLU.	762	215 / 28.2	251 / 32.9	296 / 38.9	84	291 / 99.3	757 / 99.3
SUM.	SURF.	1000	246 / 24.5	340 / 33.8	420 / 41.7	102	416 / 99.1	1002 / 99.6
SUM.	VISU.	1058	238 / 22.5	272 / 25.7	548 / 51.8	76	541 / 99.7	1051 / 99.3
TOTAL SUM.	ALL	2826	699 / 24.7	863 / 30.5	1264 / 44.7	262	1248 / 98.7	2810 / 99.4

**INSERVICE INSPECTION SUMMARY REPORT**

**FOR**

**GRAND GULF NUCLEAR STATION**

**SECTION III**

**ISOMETRICS**

<b>SYSTEM</b>	<b>DRAWING NUMBER</b>
B13 REACTOR PRESSURE VESSEL	351N80B00007
	351N83B00009
	351N85B00010
	RV-11-1
	RV-11-2
	133D9489 (GE Drw.)
B21 FEEDWATER	FW-8-4
	FW-11-4
B21 MAINSTEAM	MS-8-3
	MS-11-9
	MS-11-12
	MS-11-13
B21 MAINSTEAM RELIEF VALVES	RV-11-1
	RV-11-5
	RV-11-6
	RV-11-8
	RV-11-11
	RV-11-15
	RV-11-16
B33 REACTOR RECIRCULATION	RR-11-2
	RR-11-3
	RR-11-9
	RR-11-19
C41 STANDBY LIQUID CONTROL	LC-11-8
	LC-11-11
	LC-11-13

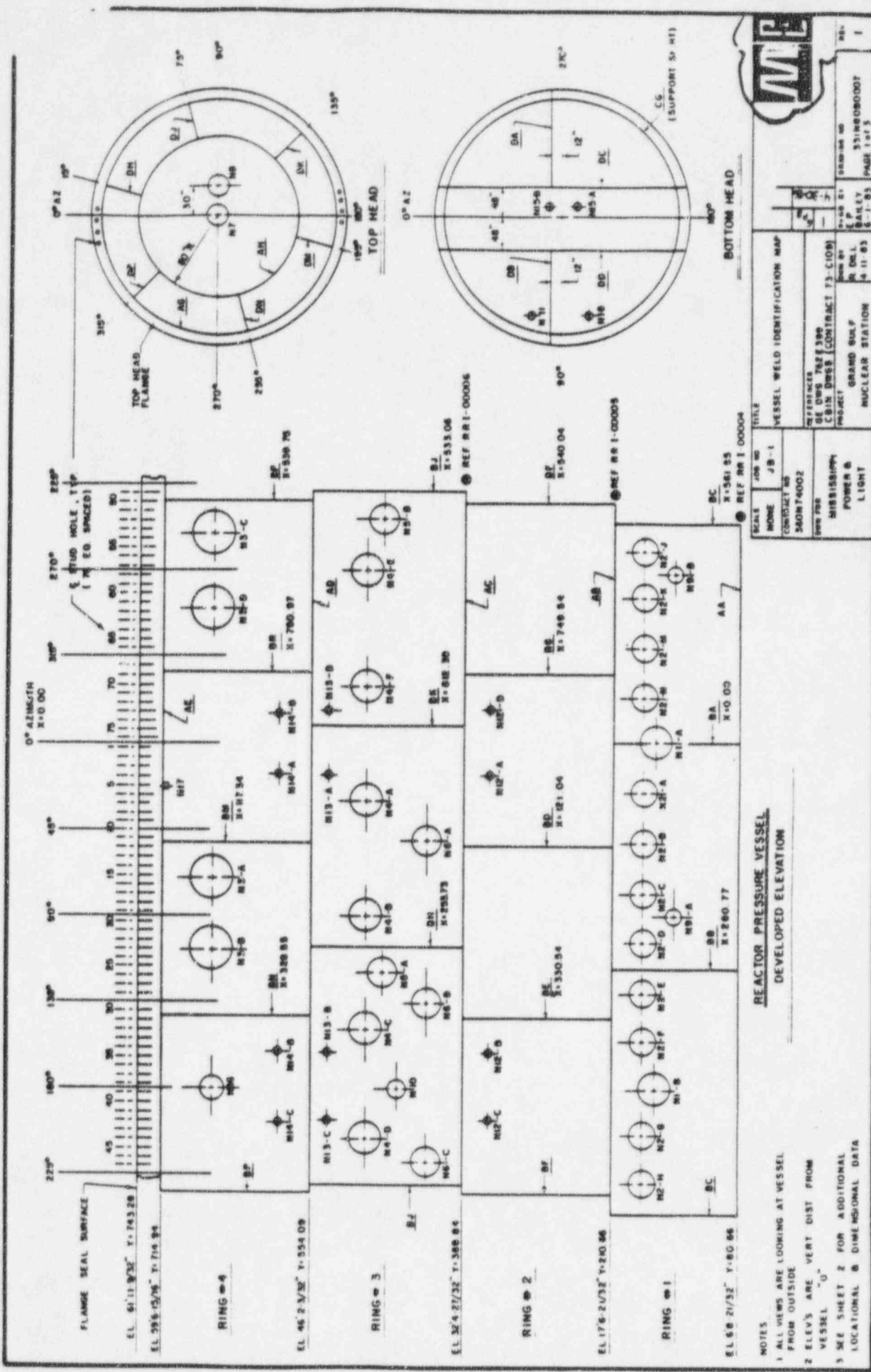
## ISOMETRICS (CONTINUED)

SYSTEM	DRAWING NUMBER
E12 RESIDUAL HEAT REMOVAL	RH-7-19
	RH-8-2
	RH-8-3
	RH-8-4
	RH-8-8
	RH-8-9
	RH-8-10
	RH-8-11
	RH-8-12
	RH-8-15
	RH-8-17
	RH-8-20
	RH-8-27
	RH-8-30
	RH-8-31
	RH-8-32
	RH-8-38
	RH-11-13
	RH-11-16
RH-11-18	
RH-11-19	
E21 LOW PRESSURE CORE SPRAY	LP-9-3
	LP-11-2
E51 REACTOR CORE ISOLATION COOLING	RI-8-1
	RI-8-9
	RI-8-10
	RI-11-4
	RI-11-5
	RI-11-7
G33 REACTOR WATER CLEAN-UP	CU-8-2
	CU-11-2
	CU-11-3
	CU-11-11
	CU-11-13
G41 FUEL POOP COOLING & CLEAN-UP	FC-9-12
	FC-9-23

ISOMETRICS (CONTINUED)

SYSTEM	DRAWING NUMBER
P41 STANDBY SERVICE WATER	WS-12-3 WS-12-4 WS-YD-9 WS-YD-11
P75 STANDBY DIESEL GENERATOR	SDG-12-11
P81 STANDBY DIESEL GENERATOR	HDG-12-1





**MP**

VESEL WELD IDENTIFICATION MAP

CONTRACT NO. 240M74002

DATE 7/88

ISSUES/REV. 1

POWER B LIGHT

GRAND GULF NUCLEAR STATION

4-11-83

3318808007

PAGE 1 of 5

REACTOR PRESSURE VESSEL DEVELOPED ELEVATION

NOTES

1 ALL VIEWS ARE LOOKING AT VESSEL FROM OUTSIDE

2 ELEV'S ARE VERT DIST FROM VESSEL "0"

3 SEE SHEET 2 FOR ADDITIONAL LOCATIONAL & DIMENSIONAL DATA



381800007  
PAGE 7 OF 8

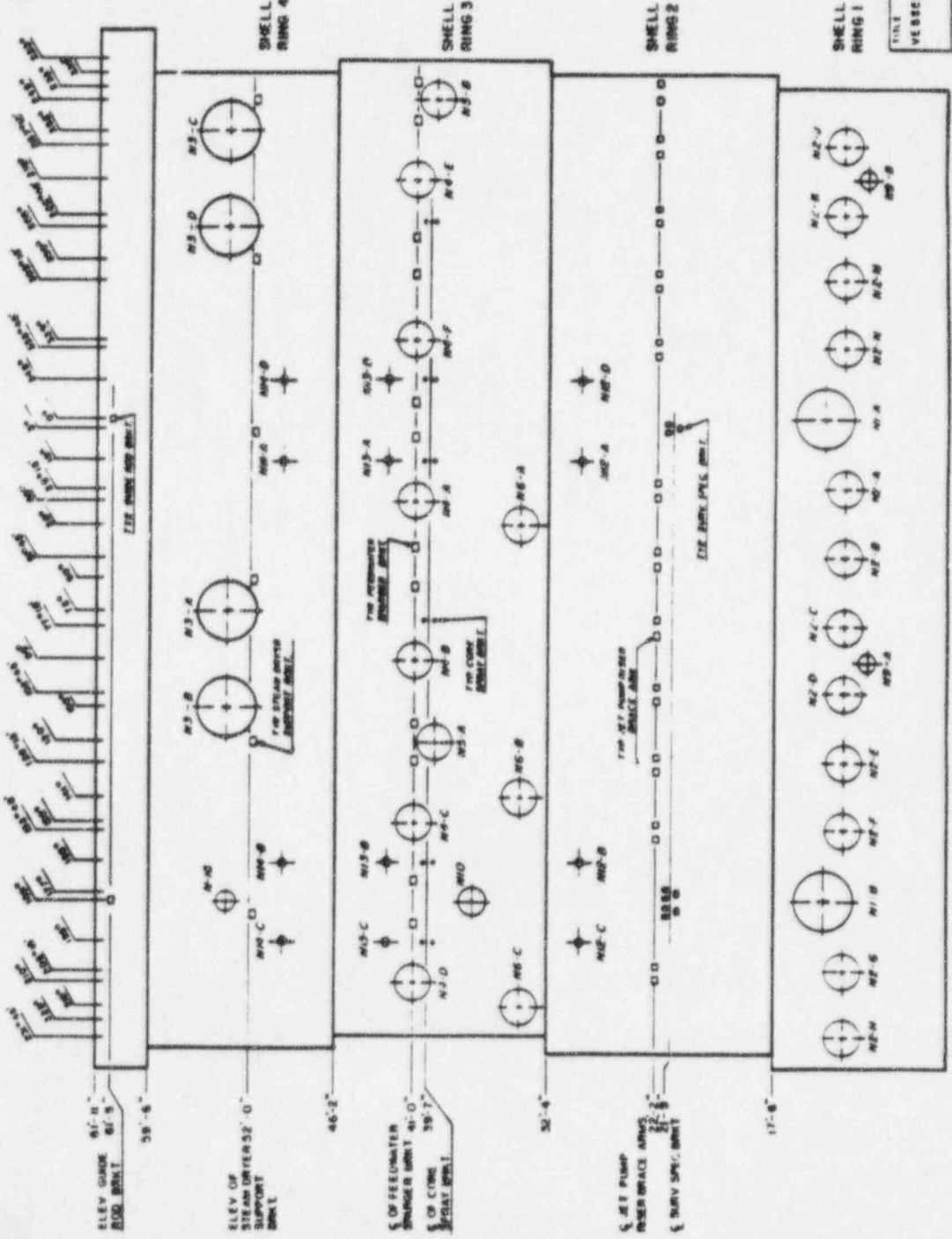
VESEL INTERIOR ATTACHMENTS  
IDENTIFICATION MAP

DATE: 11-1-83  
BY: M. DILL  
4-11-83

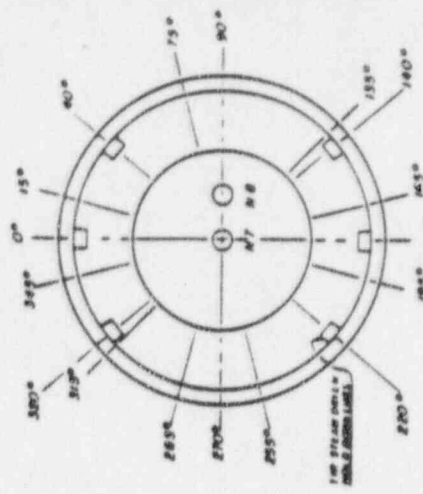
PROJECT: GRAND GULF  
NUCLEAR STATION

VESEL JOB NO. 380840008  
JOB - 1  
POWER & LIGHT

REACTOR PRESSURE VESSEL  
INSIDE VIEW



ELEVATION FOR ALL  
STEAM DRIVER HOLD DOWN  
LUGS. SEE 2-2



TOP HEAD  
INSIDE VIEW

IDENT	Y COORDINATE	ELEVATION
AA	80.66	8' - 6 3/8"
AB	210.66	17' - 6 3/8"
AC	348.64	32' - 6 3/8"
AD	494.08	48' - 2 1/2"
AE	714.94	59' - 6 3/8"

RING # 1	942.32
RING # 2	938.00
RING # 3	936.00
RING # 4	944.84

IDENT	X COORD (CORRECTED)				AZIMUTH
	1	2	3	4	
BA	0.00	10.00	---	---	0°
BB	280.77	1279.35	---	---	120°
BC	561.55	1568.67	---	---	240°
BD	121.85	121.04	---	---	82°
BE	1332.24	330.94	---	---	232°
BF	1753.40	749.54	---	---	352°
BH	---	233.73	(1875.80)	---	109°
BJ	---	533.06	(1837.46)	---	229°
BK	---	542.39	(1819.02)	---	349°
BL	---	---	(116.38)	---	90°
BM	---	---	(332.81)	---	140°
BN	---	---	(533.30)	---	230°
BO	---	---	(744.88)	---	330°

LOCATION	BRACKET	ELEVATION	AZIMUTH
RING # 2	BURN SPEC	21'-9"	3° 17' 48.3"
RING # 2	JET PUMP RISER BRACE ARM	22'-2"	26° 32' 77.4037 (28° 10' 20.8°) 238° 23' 7.2887 (208° 33.4°)
RING # 3	CORE SPRAY	38'-7"	151° 74' 46.5 (163° 28.5°) 249°
RING # 3	FEEDWATER SPANNER	41'-0"	358° 77' 47.7 (27° 42' 12.7°) 170° 46.7 (233° 24.7°) 280° 30.3°
RING # 4	STEAM DRUM SUPPORT	52'-0"	9° 40' 120° (193° 240°) 300°
SHELL FLAME	GRADE RED	61'-5"	0° 180°
TOP HEAD	STEAM DRUM HOLD DOWN LOGS	62'-9"	0° 00° 140° (180° 220°) 320°


NOZZLE

IDENT	ELEVATION	AZIMUTH	X COORD	Y COORD	CUTOUT DIA	FUNCTION
N1-A	14'-6 3/8"	0°	0.00	172.30	30.80	RECIRCULATION INLET
N1-B	14'-6 3/8"	180°	421.20	172.30	30.80	RECIRCULATION INLET
N2-A	14'-11 7/8"	26° 15'	61.10	179.30	35.37	RECIRCULATION INLET
N2-B	14'-11 7/8"	316° 45'	121.10	179.30	35.37	RECIRCULATION INLET
N2-C	14'-11 7/8"	77° 10'	180.80	179.30	35.37	RECIRCULATION INLET
N2-D	14'-11 7/8"	108° 43'	240.40	179.30	35.37	RECIRCULATION INLET
N2-E	14'-11 7/8"	228° 15'	300.10	179.30	35.37	RECIRCULATION INLET
N2-F	14'-11 7/8"	153° 45'	359.70	179.30	35.37	RECIRCULATION INLET
N2-G	14'-11 7/8"	208° 18'	418.30	179.30	35.37	RECIRCULATION INLET
N2-H	14'-11 7/8"	231° 05'	476.90	179.30	35.37	RECIRCULATION INLET
N2-I	14'-11 7/8"	253° 15'	535.50	179.30	35.37	RECIRCULATION INLET
N2-J	14'-11 7/8"	276° 45'	594.10	179.30	35.37	RECIRCULATION INLET
N2-K	14'-11 7/8"	300° 15'	652.70	179.30	35.37	RECIRCULATION INLET
N2-L	14'-11 7/8"	323° 45'	711.30	179.30	35.37	RECIRCULATION INLET
N3-A	54'-0"	78°	165.00	648.00	82.87	STEAM OUTLET
N3-B	54'-0"	108°	233.50	648.00	82.87	STEAM OUTLET
N3-C	54'-0"	288°	581.40	648.00	82.87	STEAM OUTLET
N3-D	54'-0"	288°	678.90	648.00	82.87	STEAM OUTLET
N4-A	41'-1 1/4"	30°	69.80	493.25	35.12	FEEDWATER
N4-B	41'-1 1/4"	90°	209.30	493.25	35.12	FEEDWATER
N4-C	41'-1 1/4"	150°	349.80	493.25	35.12	FEEDWATER
N4-D	41'-1 1/4"	210°	490.30	493.25	35.12	FEEDWATER
N4-E	41'-1 1/4"	270°	630.80	493.25	35.12	FEEDWATER
N4-F	41'-1 1/4"	330°	771.30	493.25	35.12	FEEDWATER
N5-A	38'-11 1/4"	120°	279.25	479.25	35.37	CORE SPRAY
N5-B	38'-11 1/4"	240°	568.70	479.25	35.37	CORE SPRAY
N6-A	34'-11 1/4"	38°	90.60	419.00	35.37	RNR/LPCI
N6-B	34'-11 1/4"	141°	328.50	419.00	35.37	RNR/LPCI
N6-C	34'-11 1/4"	218°	609.80	419.00	35.37	RNR/LPCI

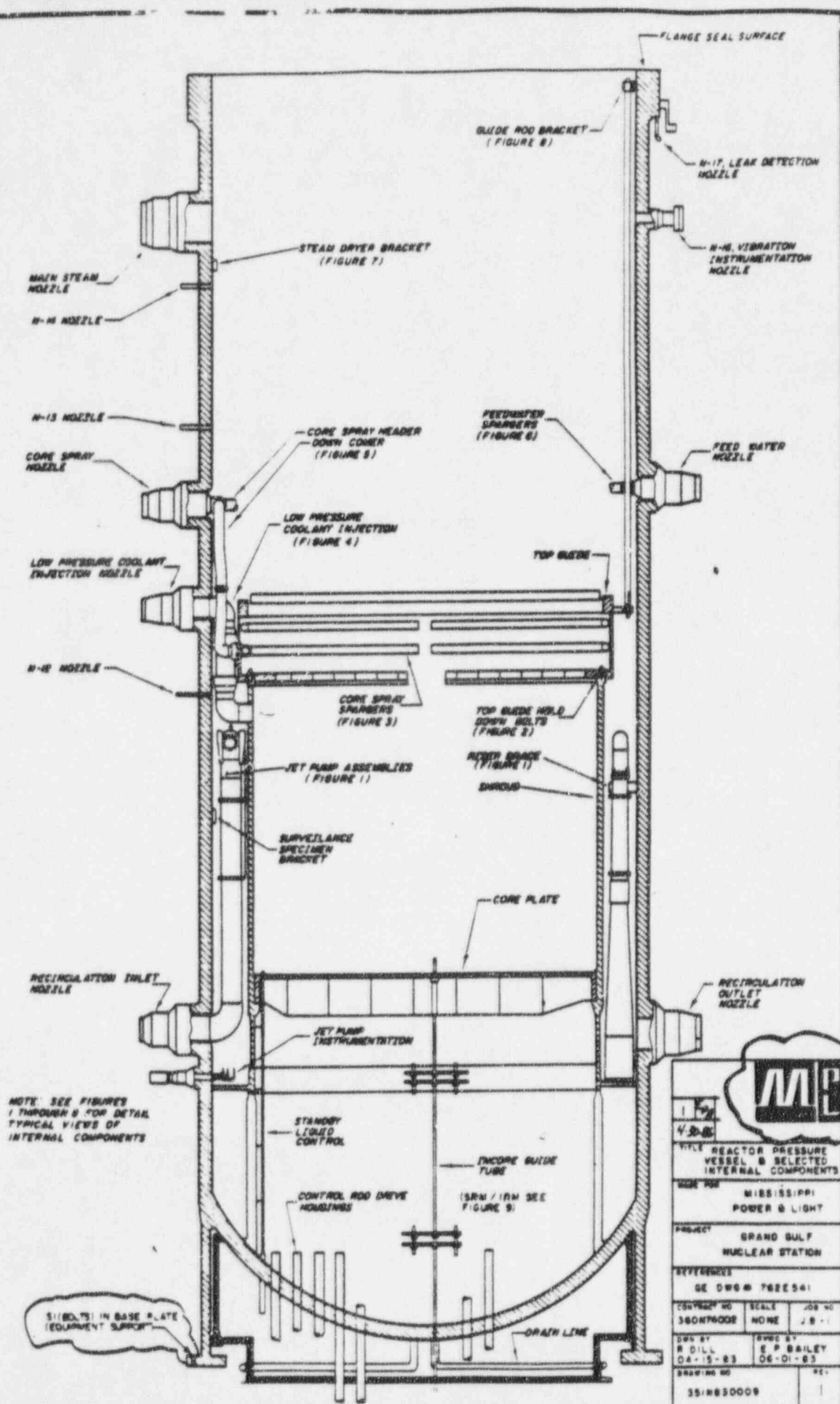
DATA

IDENT	ELEVATION	AZIMUTH	CUTOUT DIA	FUNCTION
N7	TOP HD	5	20.5	RLIC / HEAD SPRAY
N8	TOP HD	5	20.8	SPARE
N9-A	13'-0"	90°	17.0	JET PUMP INSTR
N9-B	13'-0"	270°	17.0	JET PUMP INSTR
N10	37'-6 1/2"	180°	19.88	CRD HYD SYS
N11	307 HD	79°	5.2	SOLE
N12-A	30'-6"	18°	3.2	INSTRUMENTATION
N12-B	30'-6"	108°	3.2	INSTRUMENTATION
N12-C	30'-6"	188°	3.2	INSTRUMENTATION
N12-D	30'-6"	348°	3.2	INSTRUMENTATION
N13-A	43'-1"	15°	3.2	INSTRUMENTATION
N13-B	43'-1"	165°	3.2	INSTRUMENTATION
N13-C	43'-1"	185°	3.2	INSTRUMENTATION
N13-D	43'-1"	345°	3.2	INSTRUMENTATION
N14-A	49'-11"	150°	3.2	INSTRUMENTATION
N14-B	49'-11"	165°	3.2	INSTRUMENTATION
N14-C	49'-11"	185°	3.2	INSTRUMENTATION
N14-D	49'-11"	345°	3.2	INSTRUMENTATION
N15-A	307 HD	215°	N/A	DRAIN
N15-B	307 HD	315°	N/A	DRAIN
N16	37'-11 1/4"	180°	23.84	INSTRUMENTATION
N17	37'-11 1/4"	180°	3.2	LEAK DETECTION
N18	307 HD	109°	3.2	DIFFERENTIAL PRESS

9-N17 NOT A PRESSURE RETAINING WELD



SCALE: 1" = 10'	TITLE: VESSEL WELD IDENTIFICATION MAP	PROJECT: GRAND BULK	DATE: 4-11-83
CONTRACT NO: 300874002	DESIGNER: C. B. DAVIS (CONTRACT 13-C-102)	DRIVER: R. DILL	REVISION NO: 1
ISSUED FOR: MESSERSHIP POWER B LIGHT	PROJECT: GRAND BULK	NUCLEAR STATION: 4-11-83	351-NB00007



NOTE: SEE FIGURES 1 THROUGH 9 FOR DETAIL TYPICAL VIEWS OF INTERNAL COMPONENTS

S1 BOLTS IN BASE PLATE (EQUIPMENT SUPPLY)

<b>MP</b>		
4-2-63		
TITLE REACTOR PRESSURE VESSEL & SELECTED INTERNAL COMPONENTS		
BASE FOR MISSISSIPPI POWER & LIGHT		
PROJECT GRAND GULF NUCLEAR STATION		
REVISIONS		
DE DWG NO 762541		
CONTRACT NO	SCALE	JOB NO
36074005	NONE	78-1
DWG BY	DWG BY	
R DILL	E P BAILEY	
DA-15-83	06-01-83	
DRAWING NO	REV.	
351830009	1	

# JET PUMP ASSEMBLY

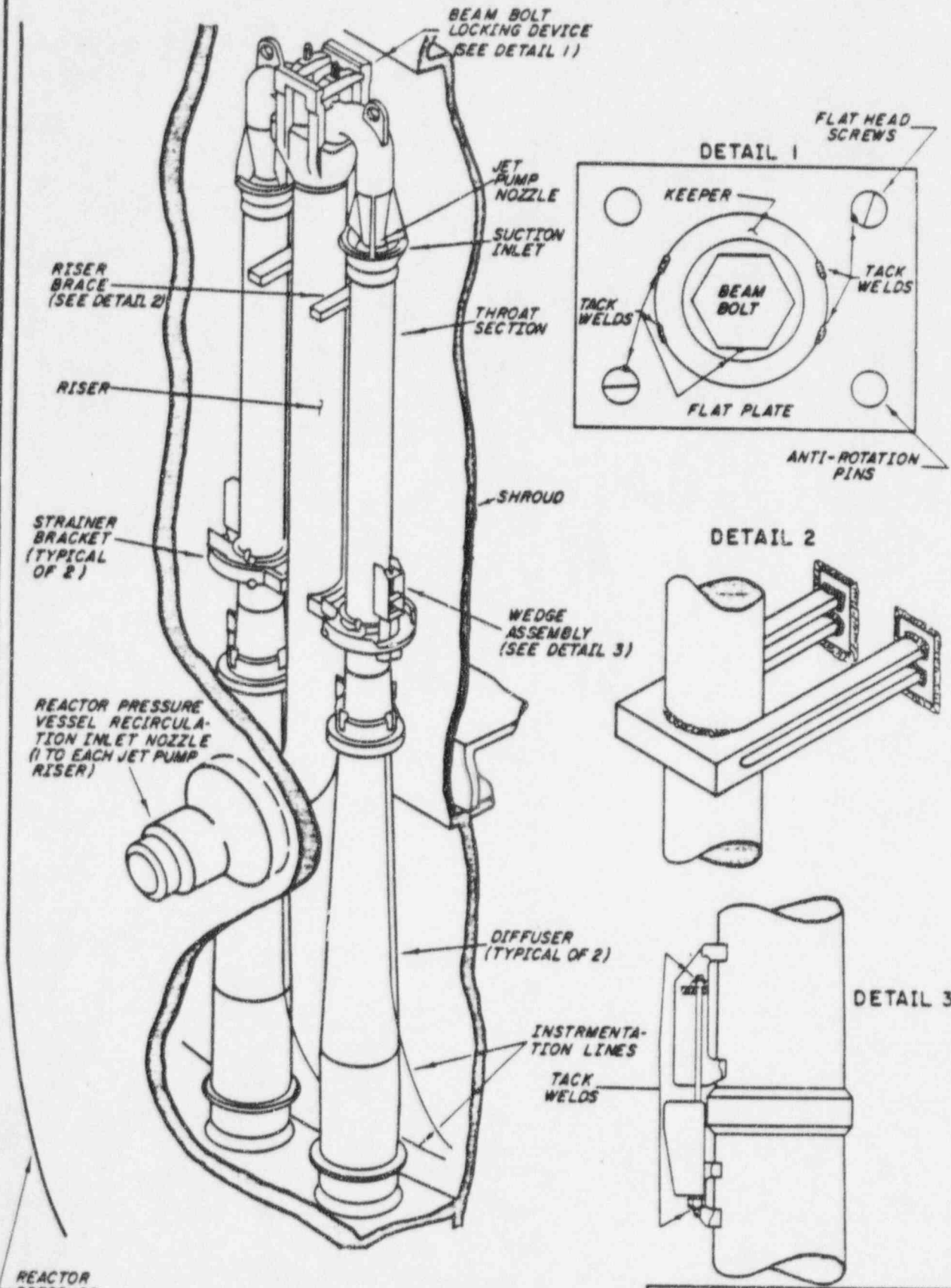
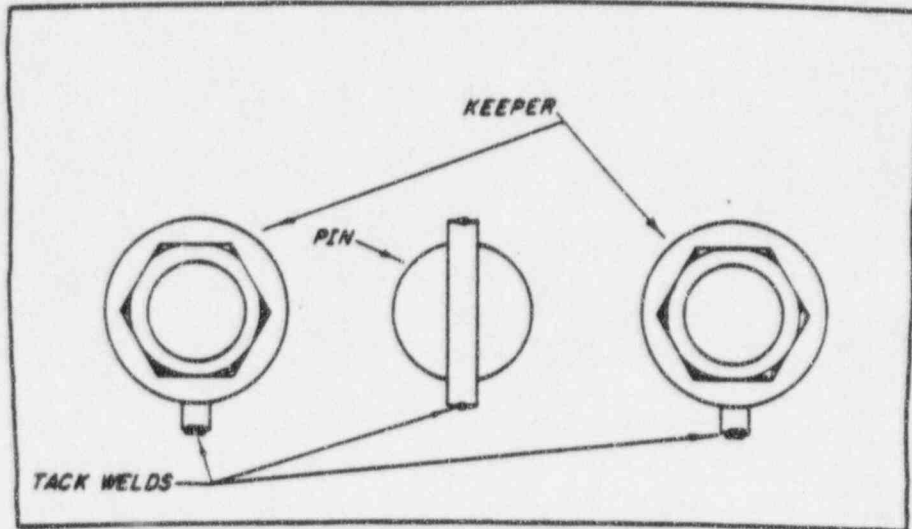


FIGURE 1

DWN BY R. DILL 4-11-83	RW'D BY E. BAILEY 6-1-83	REF DWG 35IN830009
------------------------------	--------------------------------	-----------------------

TOP GUIDE HOLD DOWN  
BOLTS



TYPICAL VIEW

FIGURE 2

OWN BY	REV'D BY	REF DWG
R DILL	E PAILEY	35IN830009
4-11-83	6-1-83	

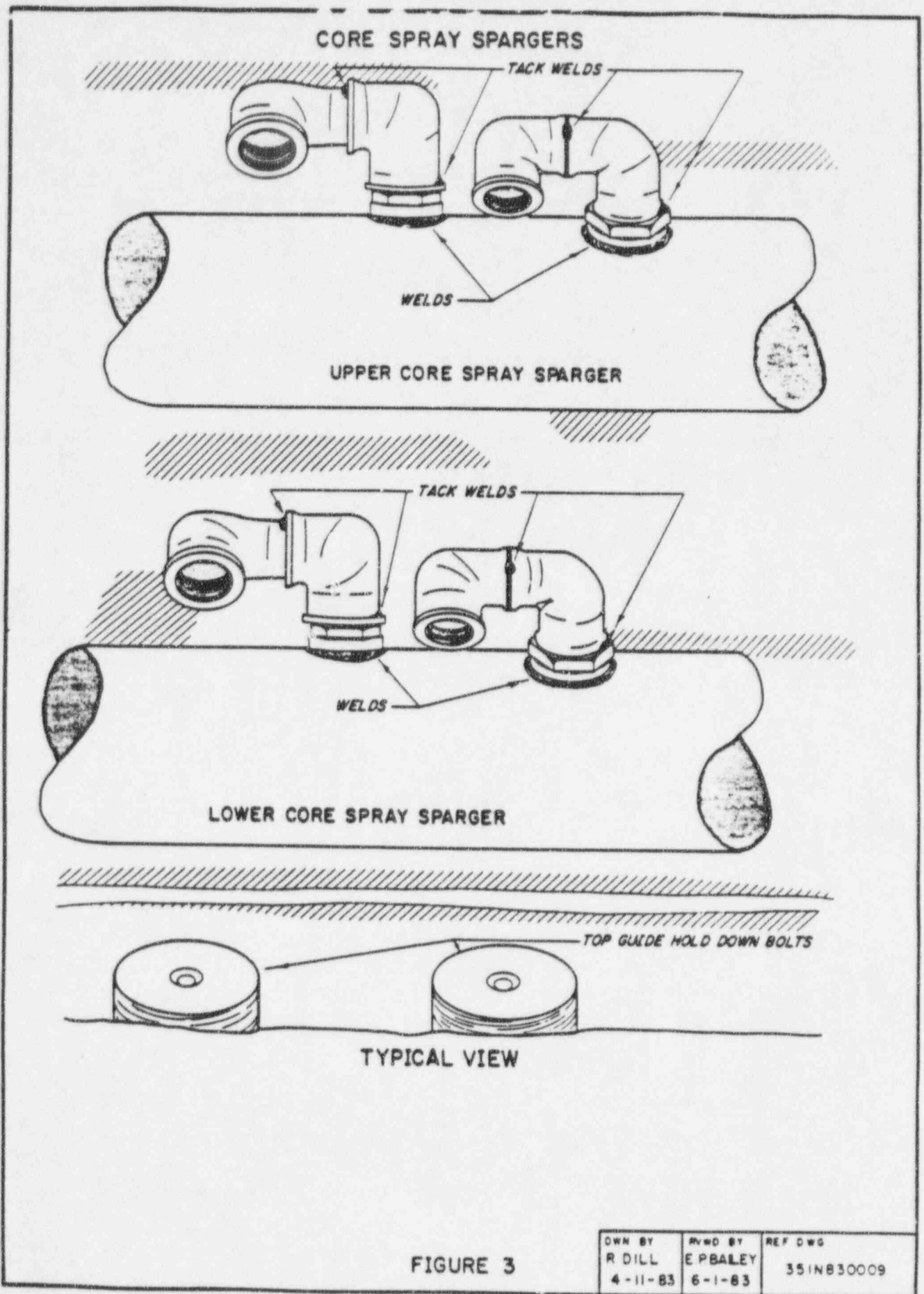


FIGURE 3

OWN BY	REV'D BY	REF DWG
R DILL	E PBALEY	35IN830009
4-11-83	6-1-83	

# LOW PRESSURE COOLANT INJECTION ASSEMBLY

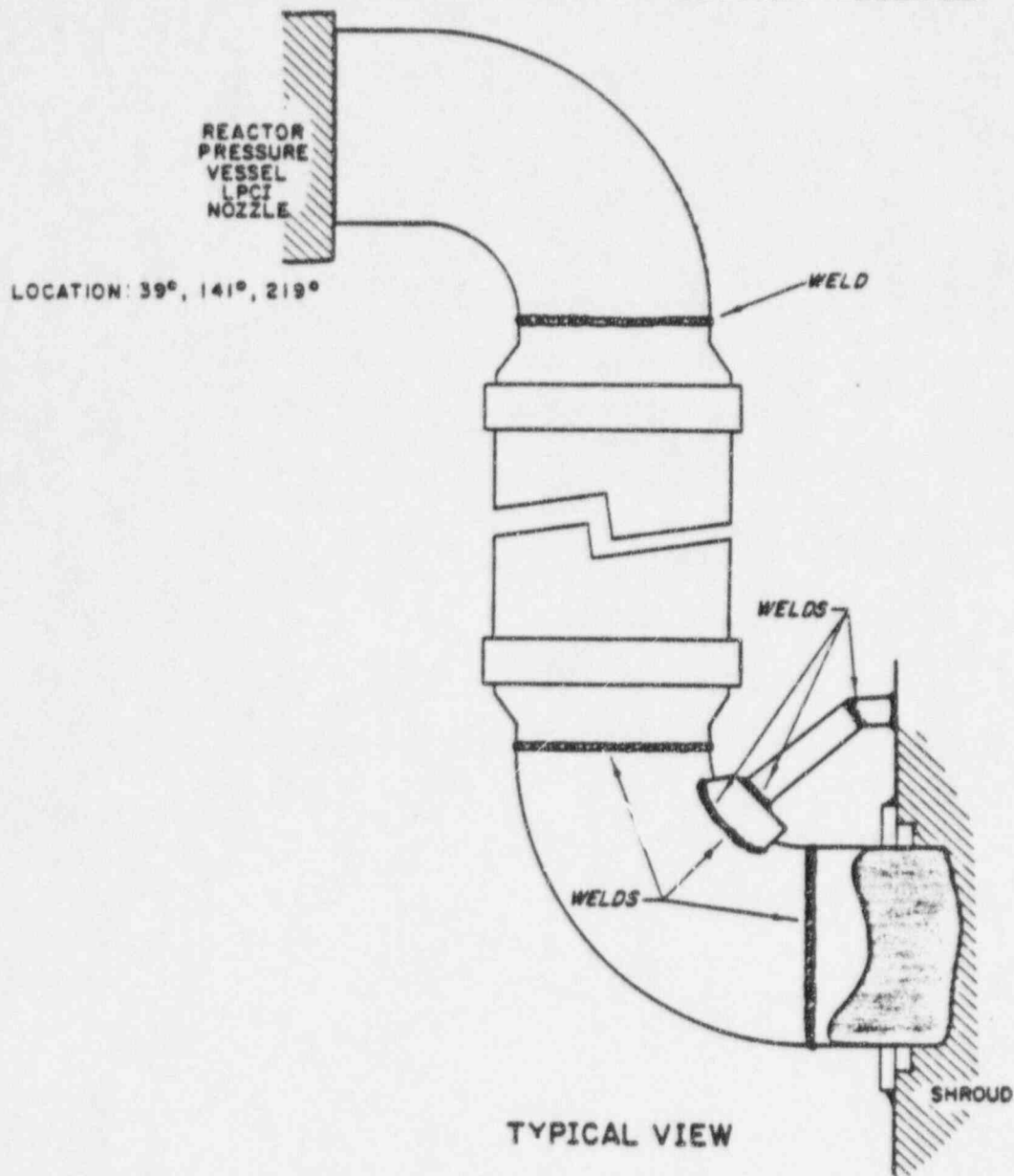


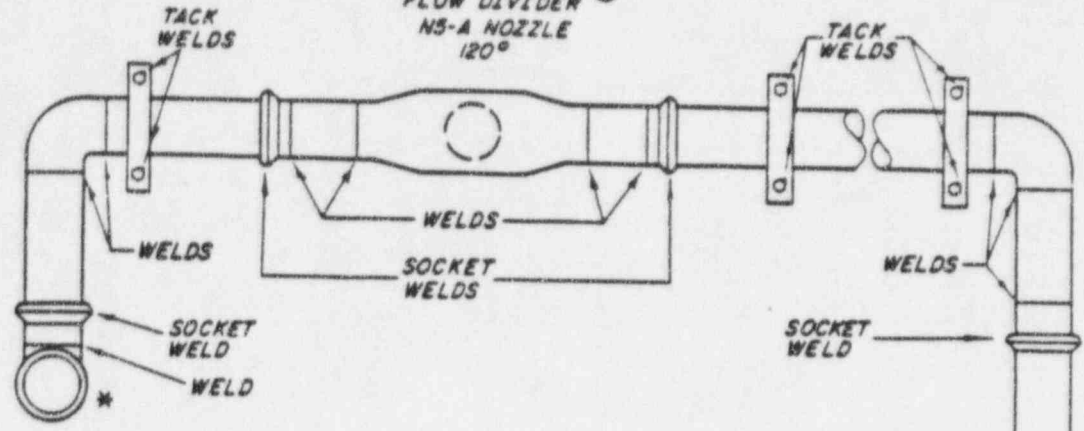
FIGURE 4

DWN BY	RWD BY	REF DWG
R DILL	EPBALEY	35INB30009
4-11-83	6-1-83	

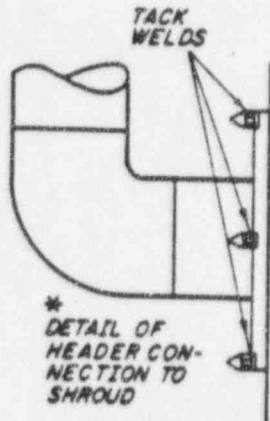
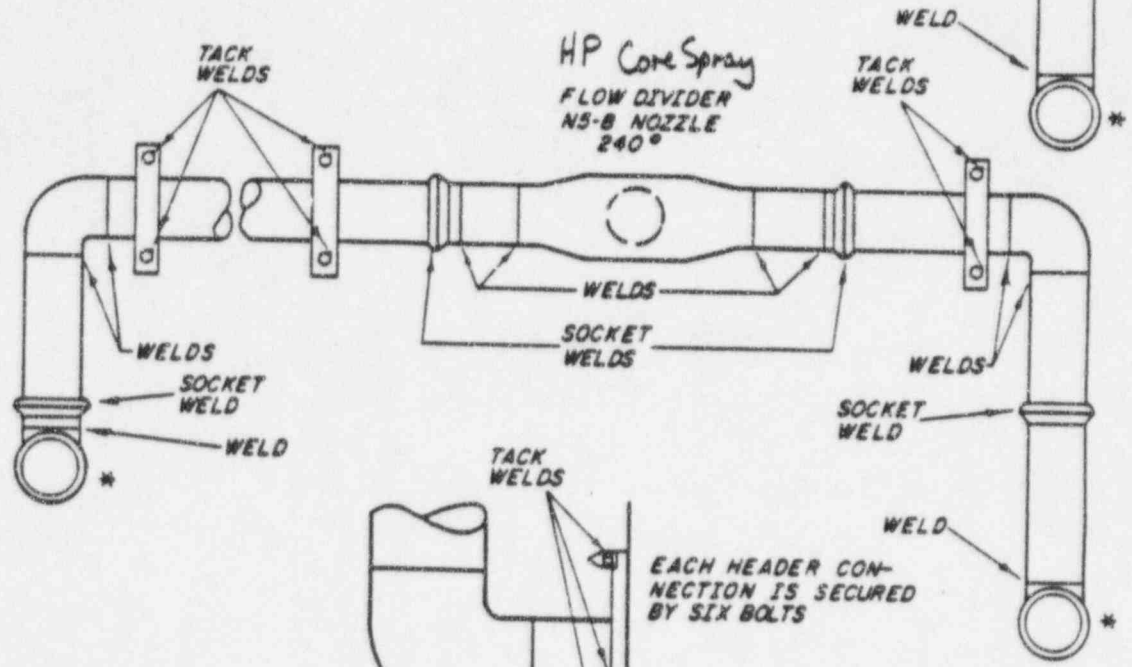


# CORE SPRAY HEADER WELDS

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

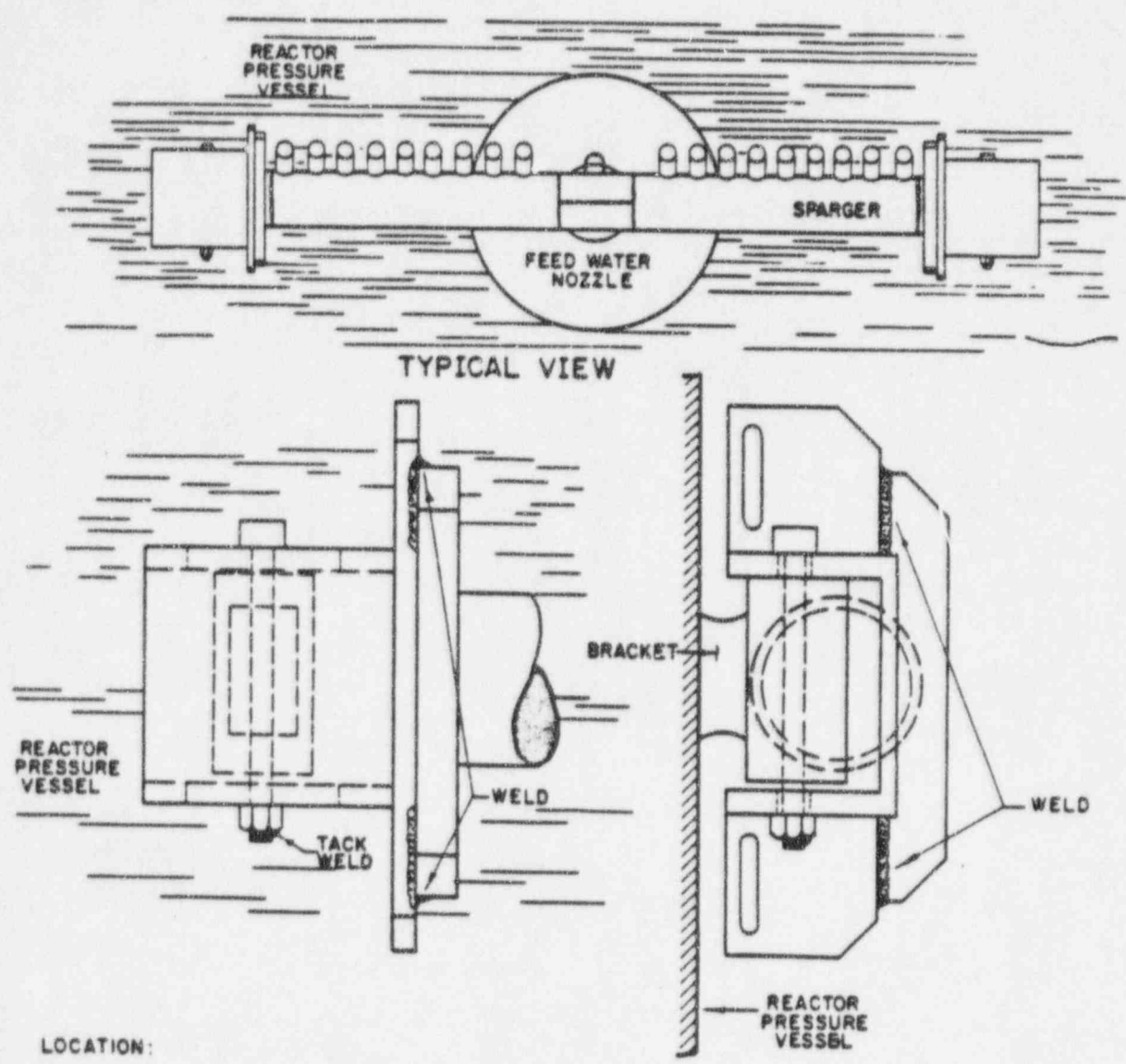
\*  
DETAIL OF  
HEADER CON-  
NECTION TO  
SHROUD

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

FIGURE 5

OWN BY	RVCD BY	REF DWG
R. DILL 4-11-83	E. P. BAILEY 6-1-83	351N830009

# FEED WATER SPARGER

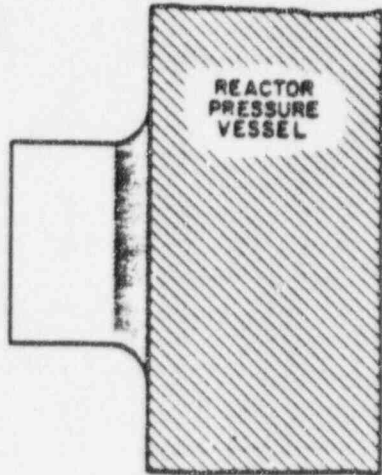
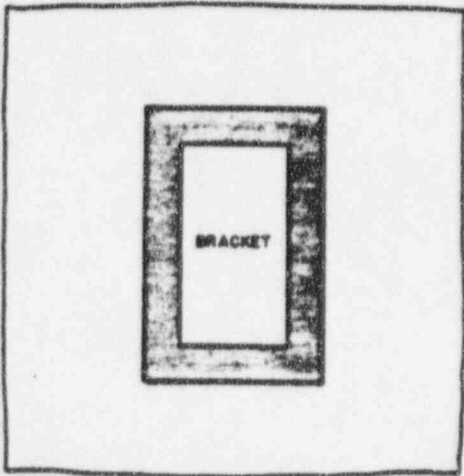
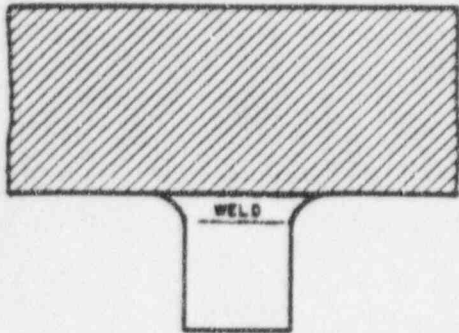


LOCATION:  
 30°; 90°; 150°  
 210°; 270°; 330°

FIGURE 6

DWN BY R DILL 4-11-83	RVWD BY EPBAILEY 6-1-83	REF DWG 351NB30009
-----------------------------	-------------------------------	-----------------------

STEAM DRYER  
SUPPORT BRACKET  
(TYPICAL VIEW)

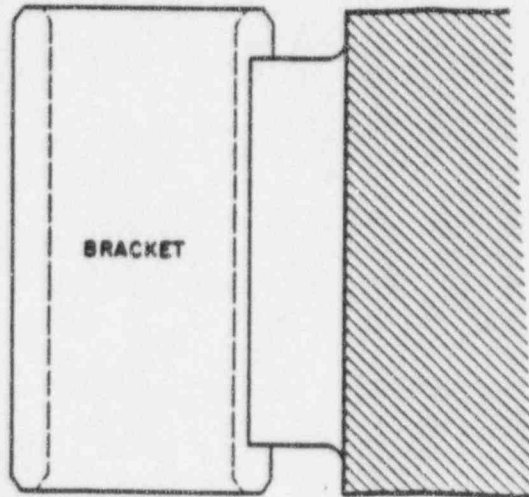
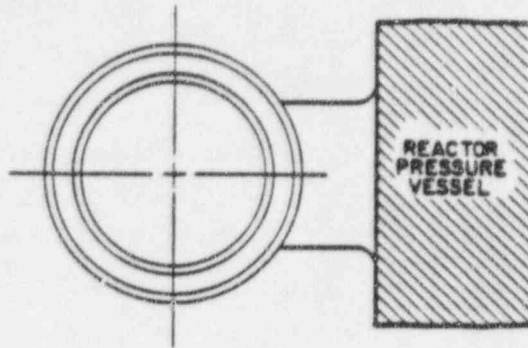


LOCATION:  
5°; 60°; 120°  
185°; 240°; 300°

FIGURE 7

DWN BY	RVWD BY	REF DWG
R DILL	E BAILEY	351NB30009
4-11-83	6-1-83	

# GUIDE ROD SUPPORT BRACKET



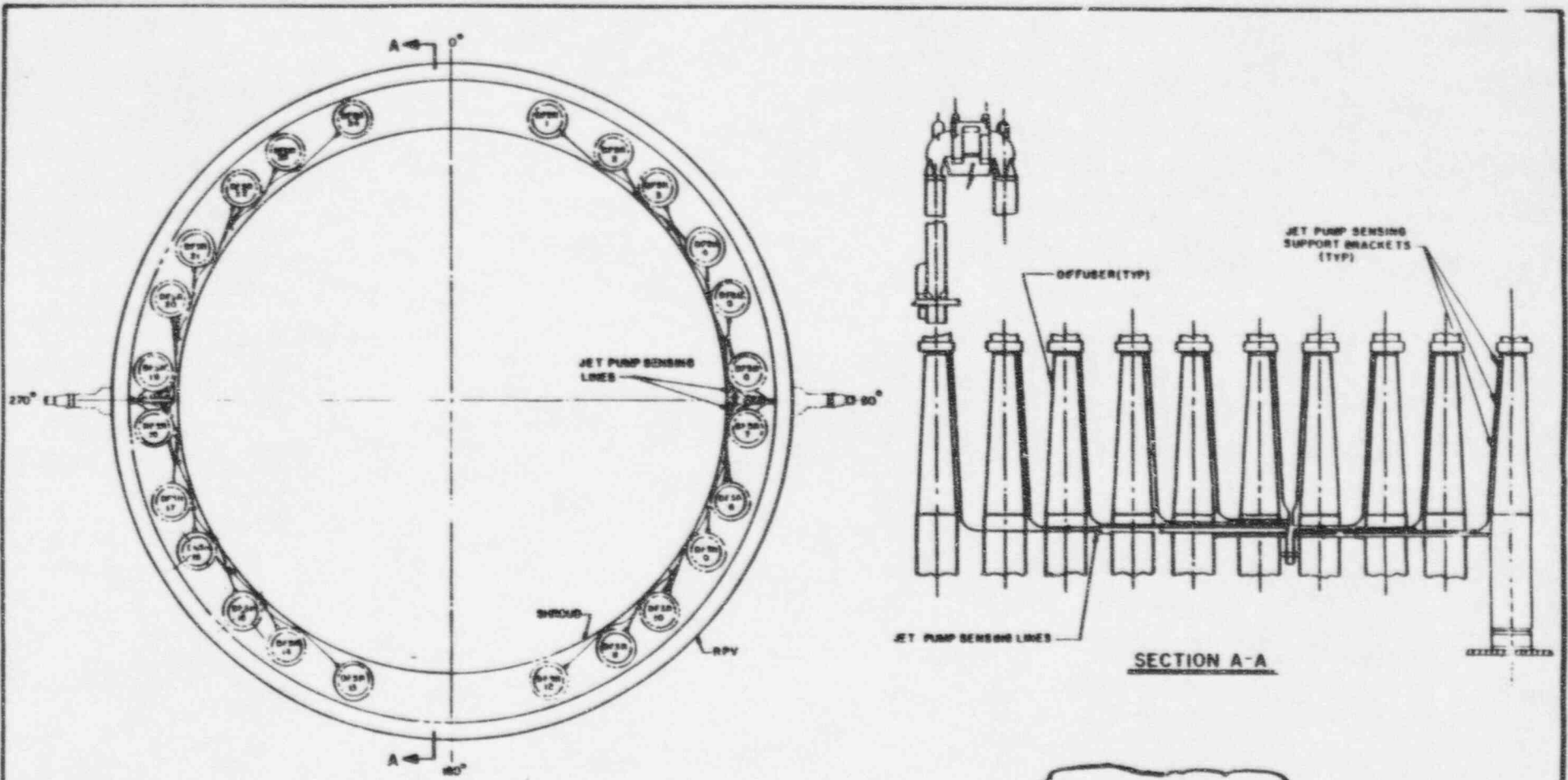
TYPICAL VIEW

LOCATION: 0°; 180°

FIGURE 8

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





INSIDE VIEW OF REACTOR PRESSURE VESSEL (RPV)

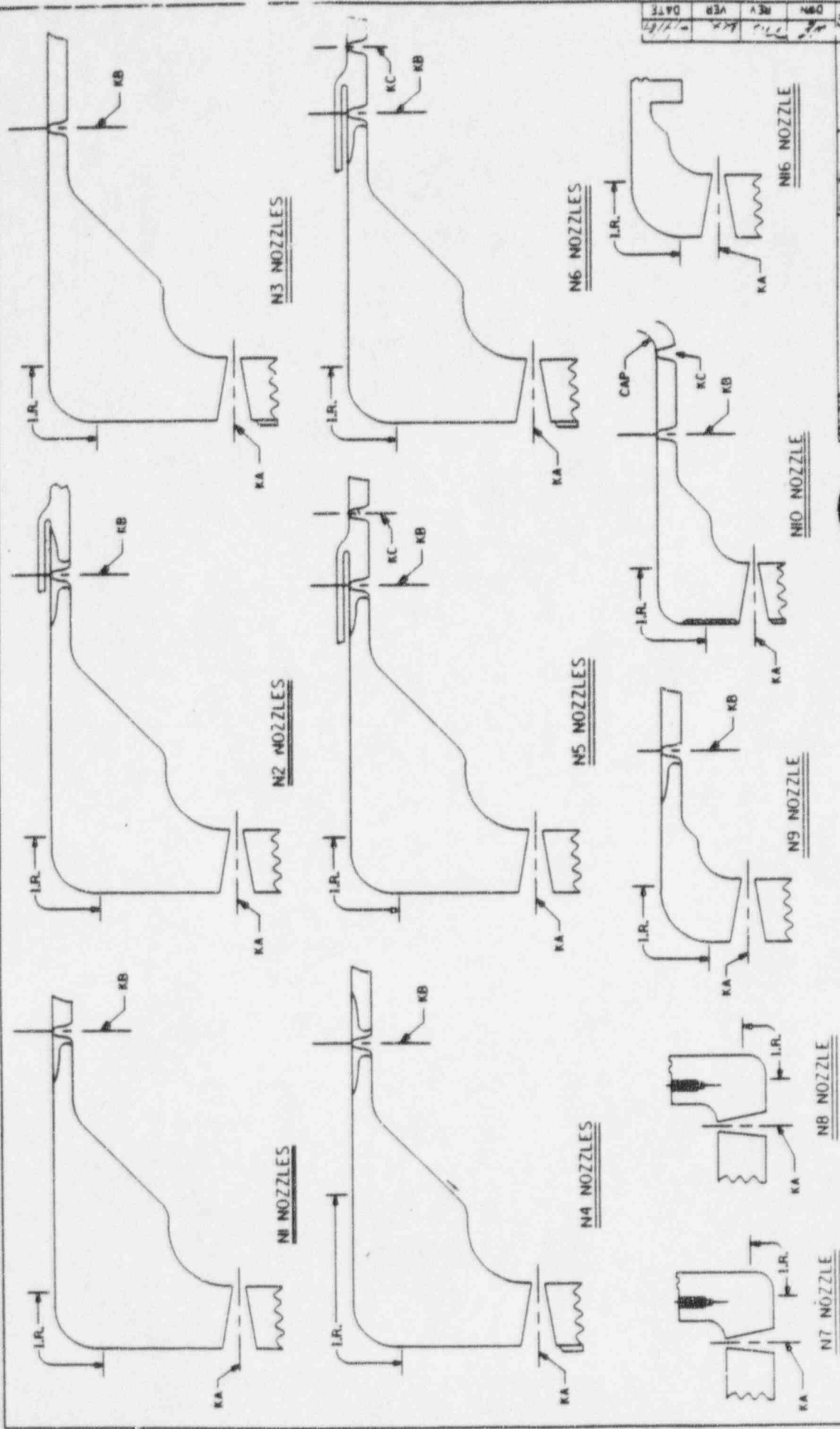
JET PUMP SENSING LINES AND SUPPORT BRACKET SCHEMATIC

NO 35INB5B0010

DWG. 35INB5B0010 WAS ISSUED AT REV 1



PROJECT	MPBL	GG-1	(JB-1)	MADE BY	37 Dr. J McFARLAND	NPE
SYSTEM	RPV	LOCATION	DRYWELL	REP DWS	752 E881	GE/SIL
						420
						35INB5B0010
						PAGE 1 OF 1

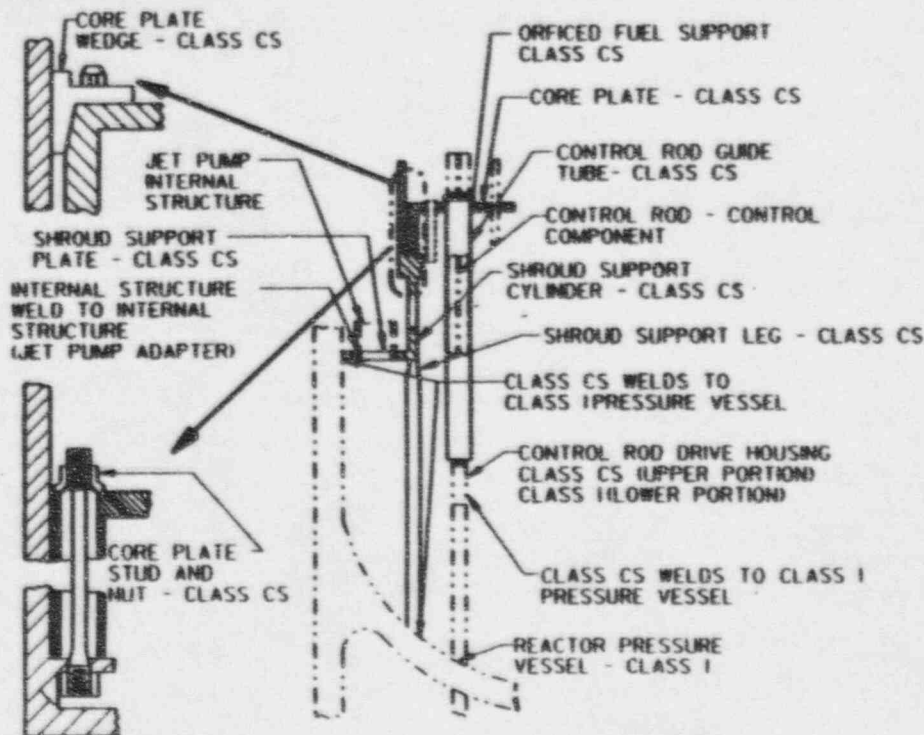
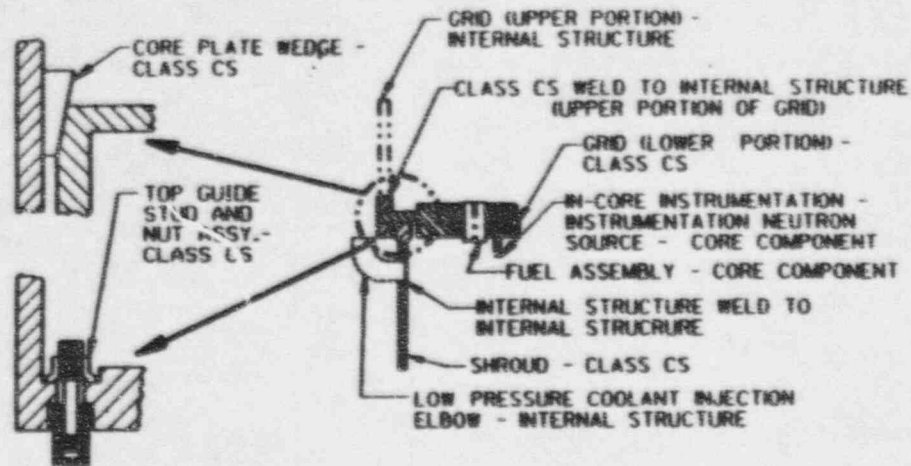


NOTE: IR (INNER RADIUS) OF NOZZLES NOT A WELD LOCATION BUT INDICATES APPROXIMATE AREA REQUIRING EXAMINATION (D.T.L.)

DATE	REV	BY	CHK
11/17/71	1	KA	KB

PROJECT	DRWN BY	DATE	SCALE
SYSTEM 2000	R. ERVES	11/17/71	1:1
NOZZLE WELD LOC.	LOCATION	DRWG. NO.	REV. NO.
DRYWELL	DRYWELL	100-100-1	1





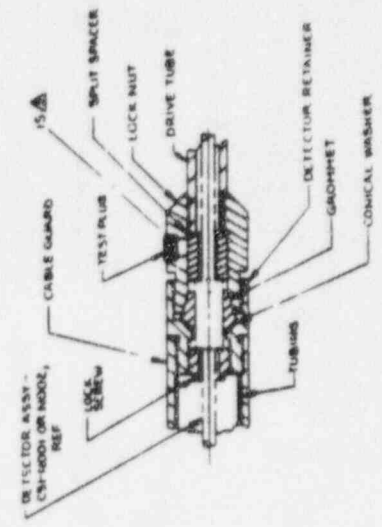
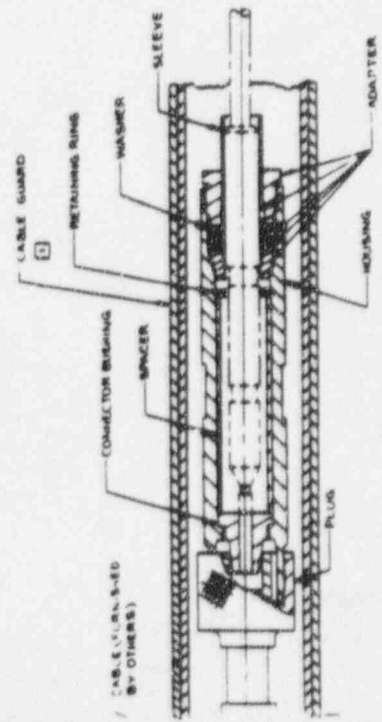
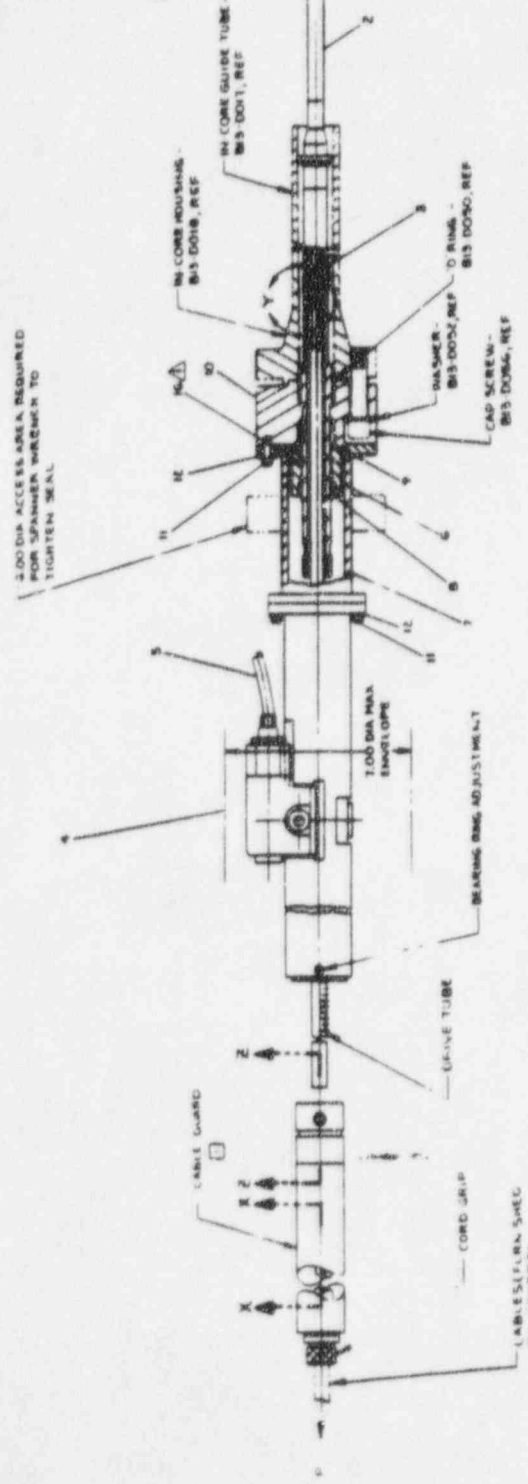
**NOTE:**

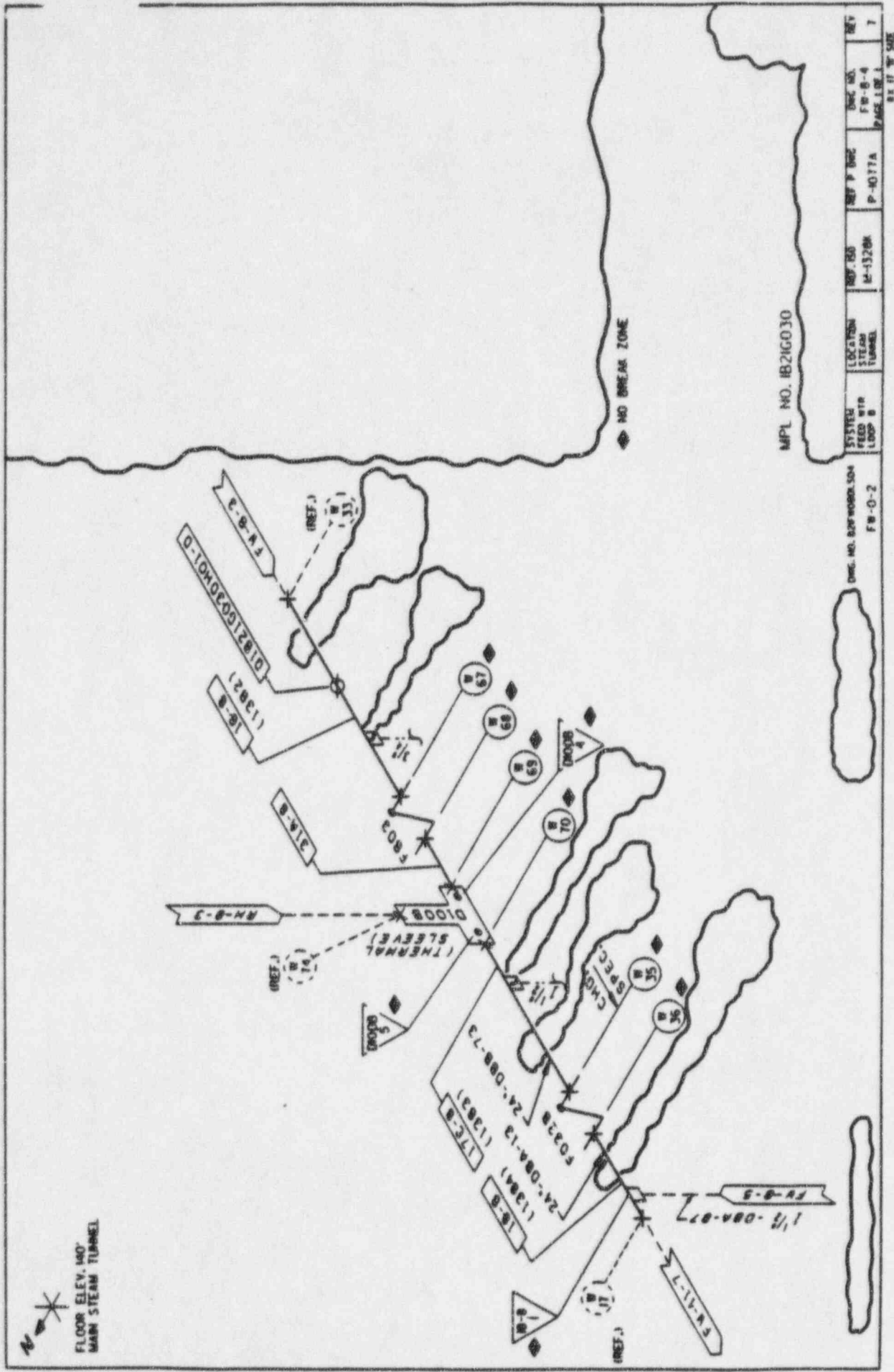
CLASS CS ITEMS ARE CORE SUPPORT STRUCTURES

PROJECT	GCNS	MADE BY	R. W. BOONE	REV.	0
SYSTEM CORE SPT. STRUCTURE	LOCATION IN RPV	REF. P. DWG.	N/A	DATE	
		REF. DWG.	22A4052 FIG. 1	VER.	
		SS/DWG. NO.	RPV 8	DATE	
				REV.	2



- NOTES
1. COAT THREADS ON ITEM 6 WITH ITEM 1, INSTALLATION
  2. FOR ARRANGEMENT REFER TO NEUTRON MONITORING SYSTEM MP. ITEM NUMBER CS-2000
  3. AFTER PRESSURE TEST CUAT THREADS OF TEST PLUS WITH ITEM 18
  4. FOR INSTALLATION INSTRUCTIONS SEE MP. ITEM NO. A-48370





MPL NO. IB21G030

SYSTEM	NO. 100	NO. 100	NO. 100	NO. 100
LOAD	WTR	WTR	WTR	WTR
LOAD	B	B	B	B
NO.	100	100	100	100
NO.	M-1320K	M-1320K	M-1320K	M-1320K
NO.	P-4017A	P-4017A	P-4017A	P-4017A
NO.	PAGE 1 OF 1	PAGE 1 OF 1	PAGE 1 OF 1	PAGE 1 OF 1
NO.	7	7	7	7

NO. 100	NO. 100	NO. 100	NO. 100
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NO. 100	NO. 100	NO. 100	NO. 100
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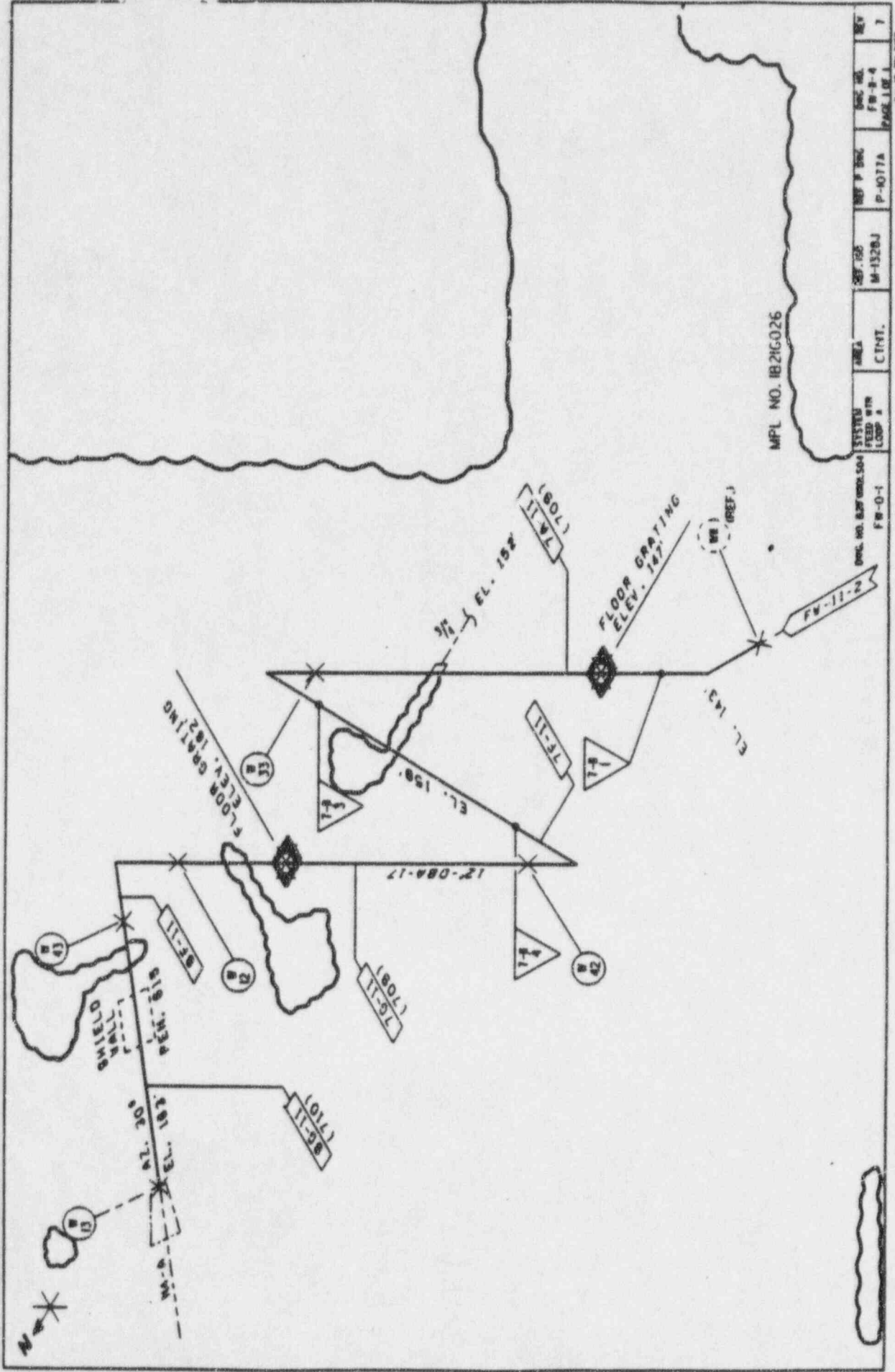
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FLOOR ELEV. 140'  
MAIN STEAM TUNNEL

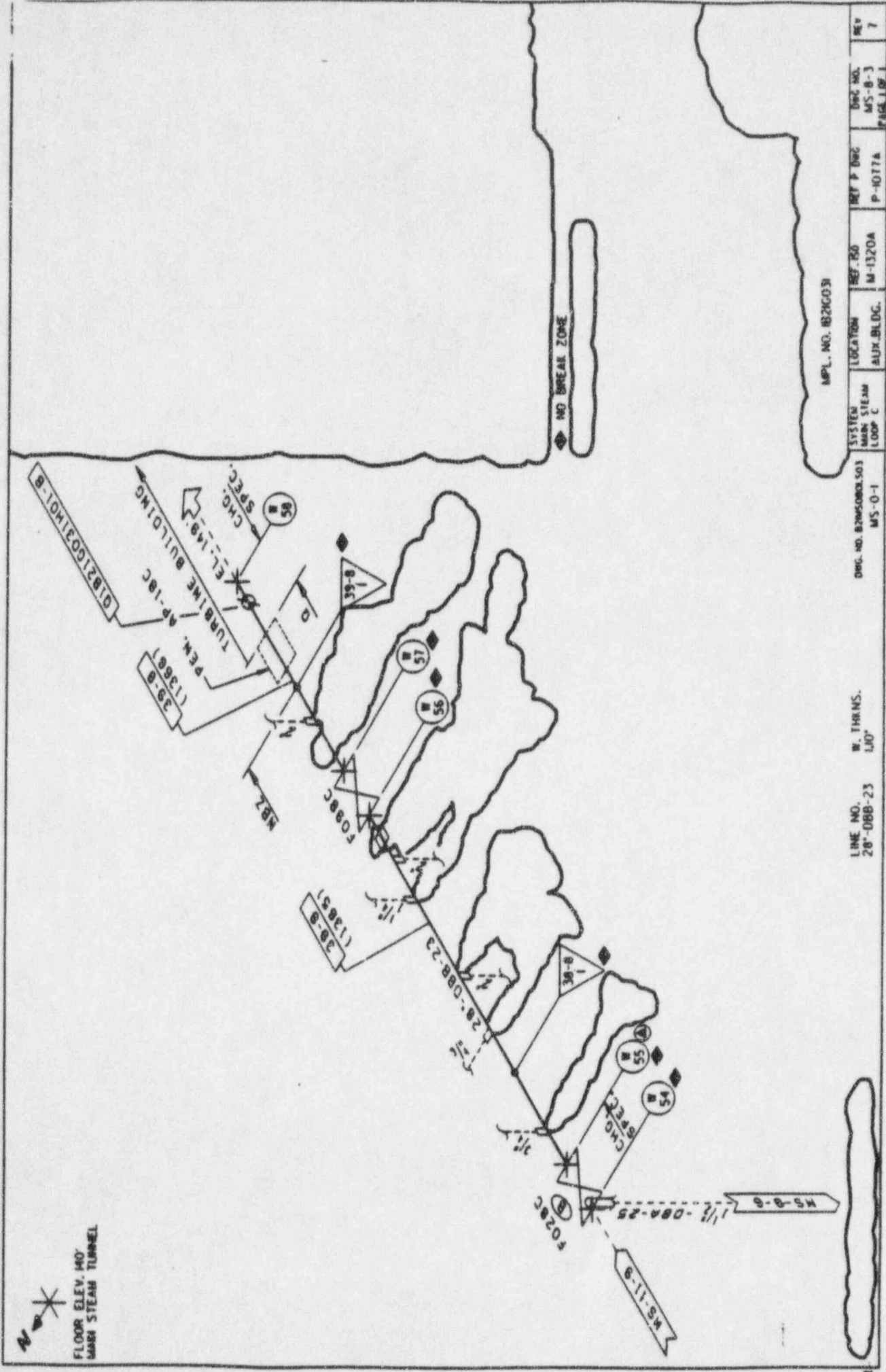


MPL NO. 1B21G026

SYSTEM FEED WITH LOOP 1	AREA C/TMT.	REF. DES M-132BJ	REF. P. DES P-1077A	DES. NO. FW-8-4	PAGE NO. PAGE 1 OF 1	REV 7
-------------------------------	----------------	---------------------	------------------------	--------------------	-------------------------	----------

DES. NO. 8-132BJ  
FW-0-1

8 1/2" X 11"

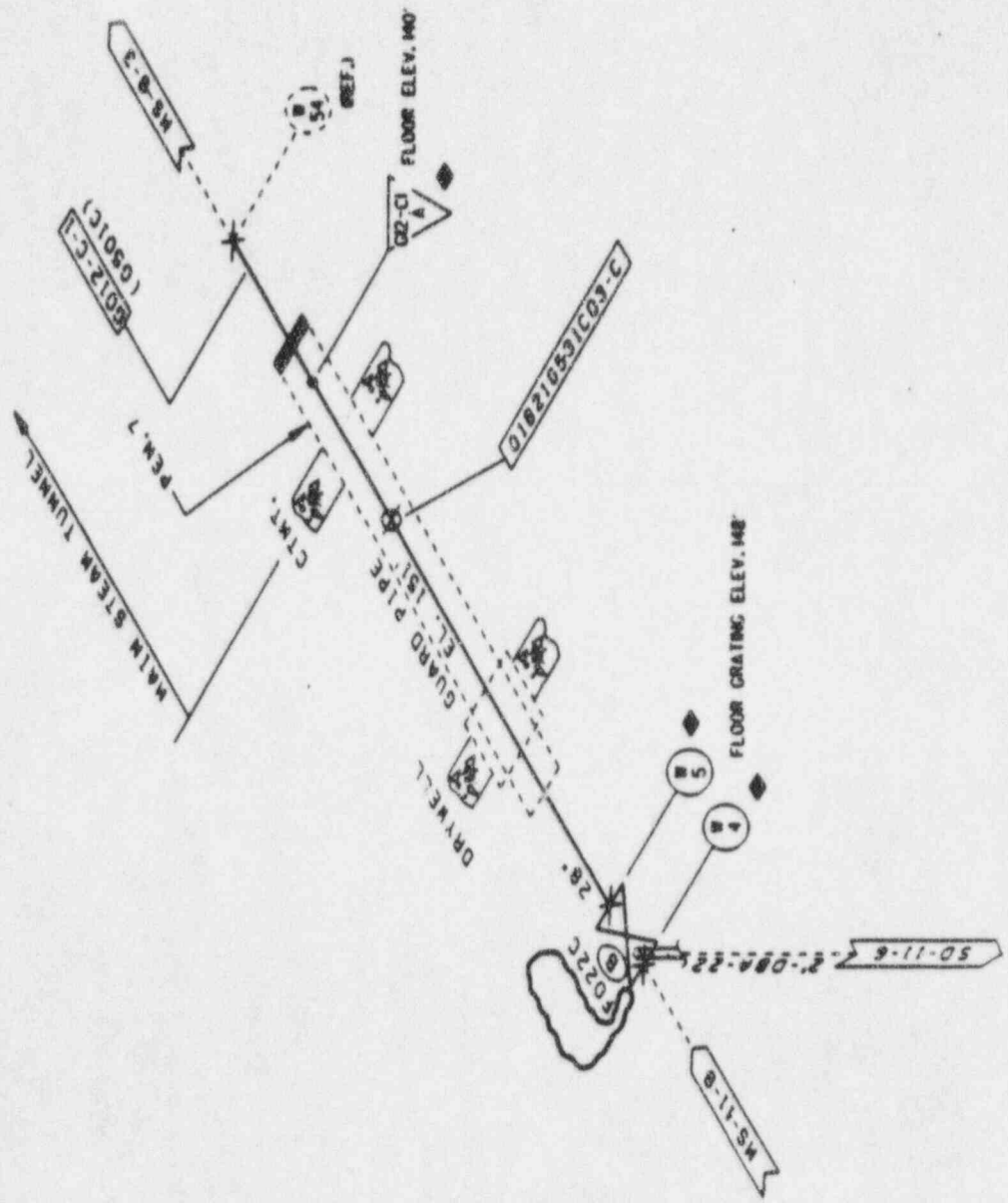


N  
 FLOOR ELEV. 140'  
 MAIN STEAM TUNNEL

MPL. NO. B226031

DRG. NO. B226031.001	SYSTEM MAIN STEAM LOOP C	MS-0-1	REF. 250 M-1320A	REF. P. DRG. P-1077A	DRG. NO. MS-B-3	REV. 7
LOCATION ALJY. BLDG.		PAGE 1 OF 1				

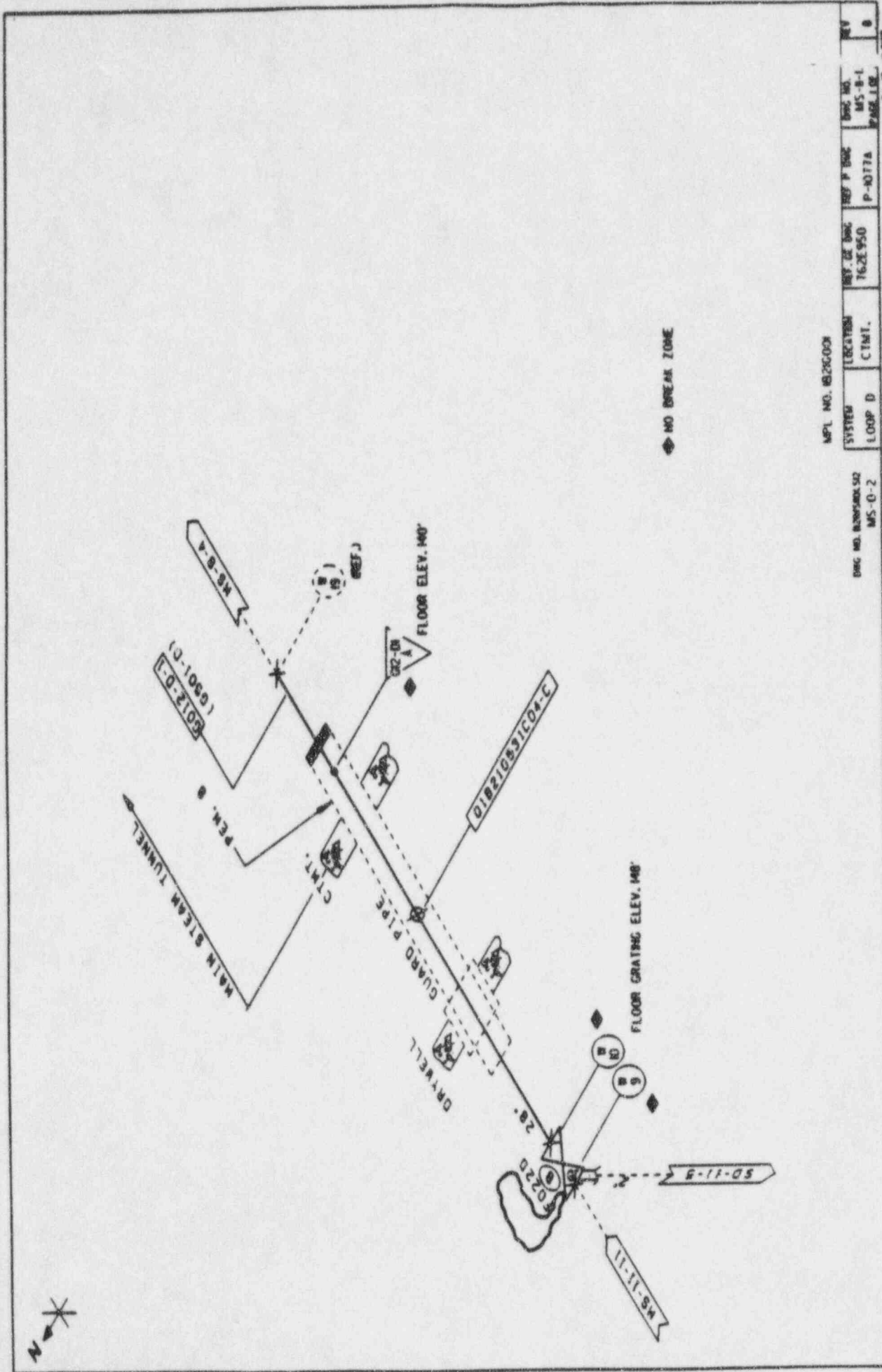
LINE NO. 28-08B-23  
 W. THINS. 1/2"



◆ NO BREAK ZONE

MPL NO. B226008

SYMBOL	LOCATION	REF. OF Dwg	REF. P. Dwg	DWG. NO.	REV.
MAIN STEAM LOOP C	CTMT	16.2E.950	P-1077A	MS-8-9	8
DWG. NO. B226008.009	MS-0-1				



MPJ NO. 4826004	REF. NO. 162E950	REF. P. 506	REF. P. 506	REF. P. 506
SYSTEM LOCATION	162E950	MS-B-1	MS-B-1	MS-B-1
LOOP D	C1M1.	P-4077A	P-4077A	P-4077A
MS-0-2				

DWG NO. 4826004-52  
MS-0-2

MS-0-2  
MS-0-2

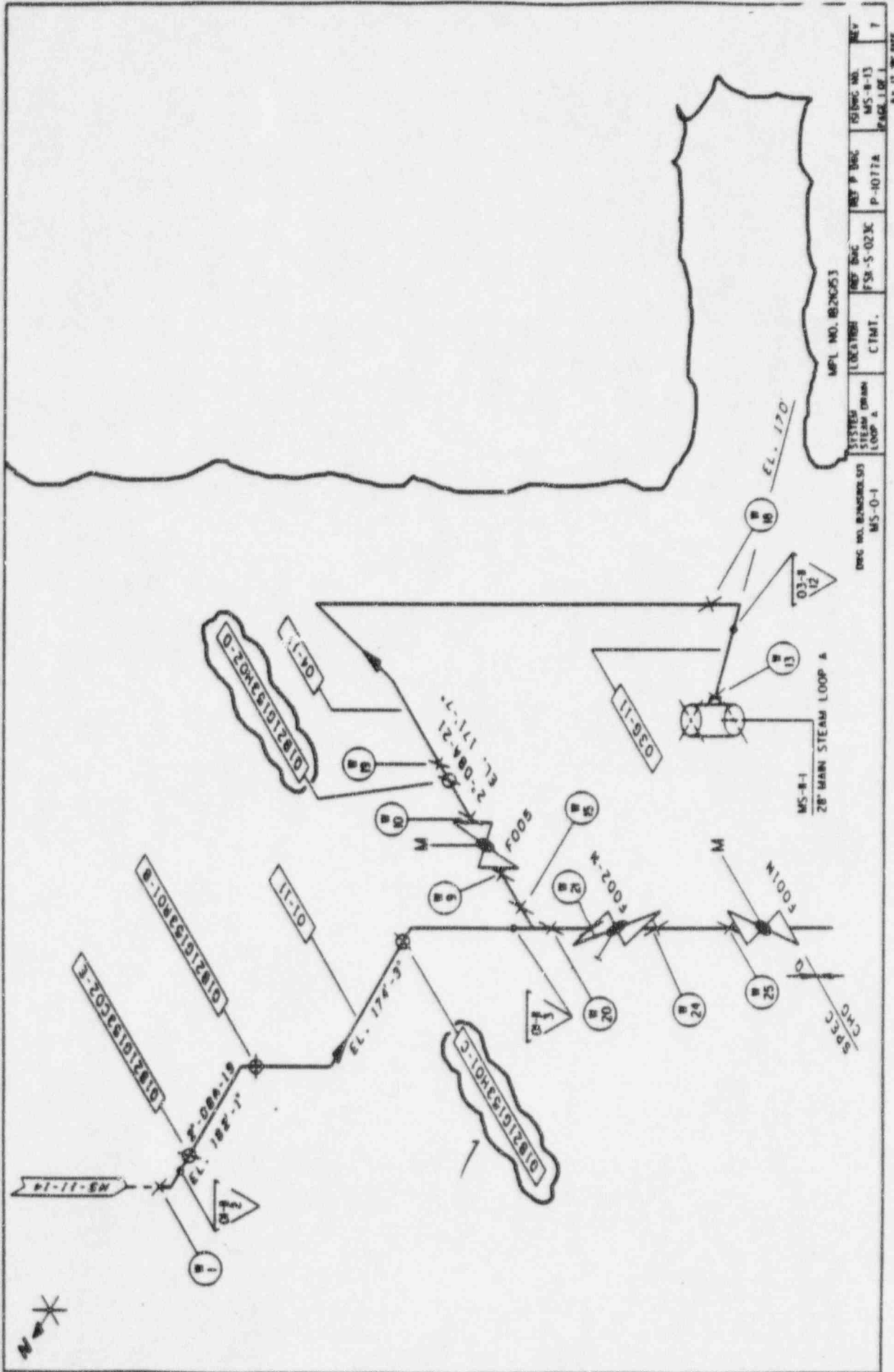
MS-0-2  
MS-0-2

MS-0-2  
MS-0-2

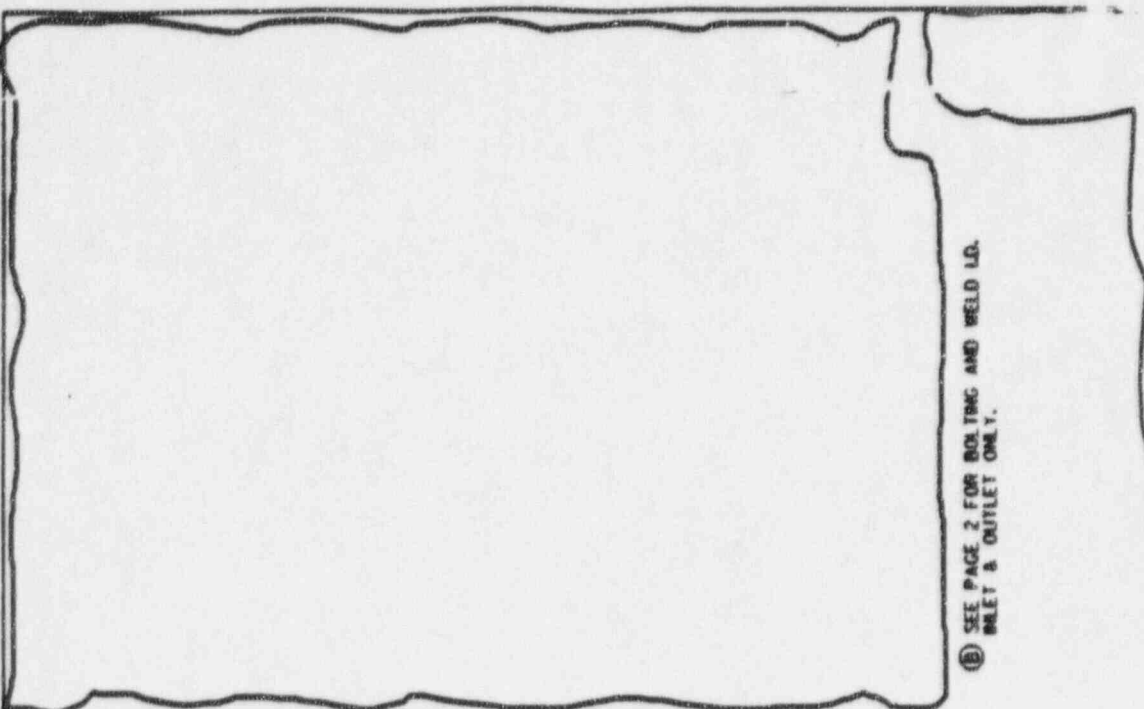
MS-0-2  
MS-0-2

MS-0-2  
MS-0-2

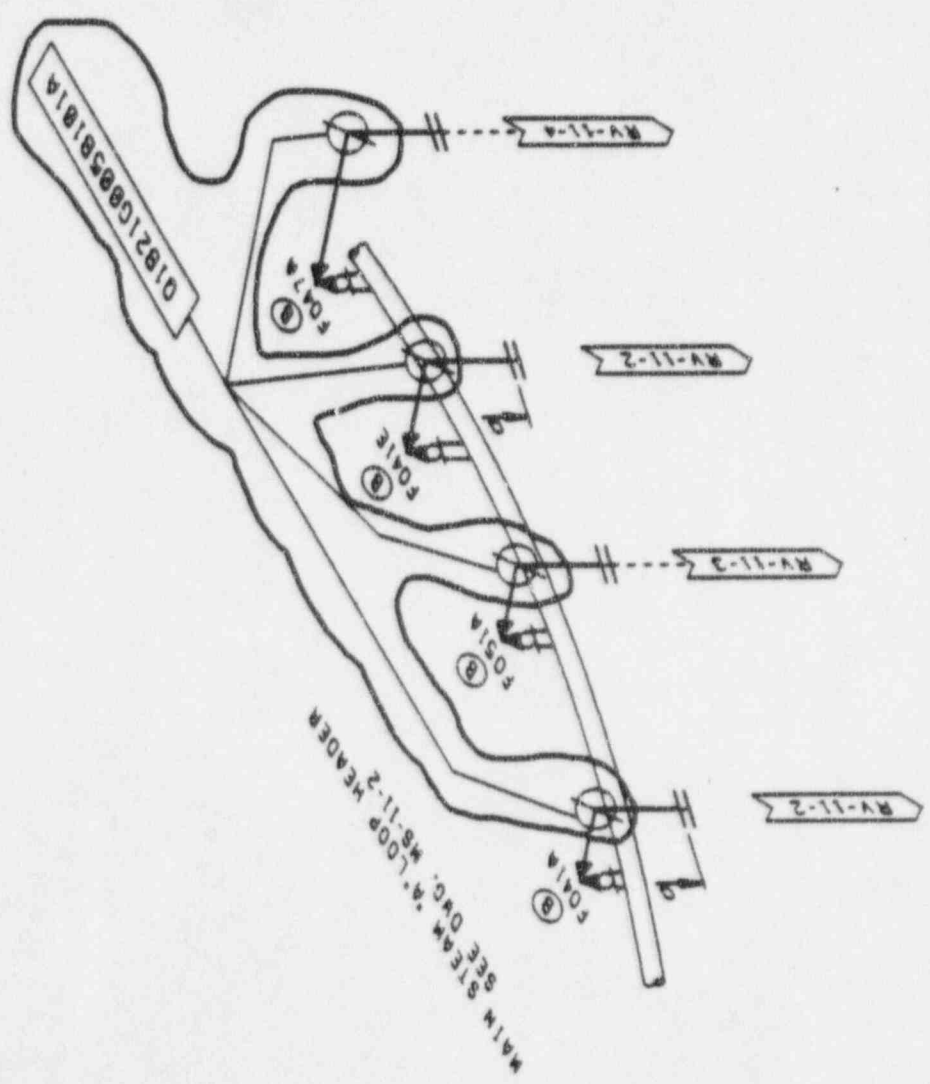
MS-0-2  
MS-0-2



MPPL NO. 1820053	DESIGN NO.	MS-0-1	REV. P. 001	DATE	1
LOCATION	FSR-S-023C	CTMT.	P-1077A	MS-0-13	7
SYSTEM	STEAM LOOP A			PAGE 1 OF 1	

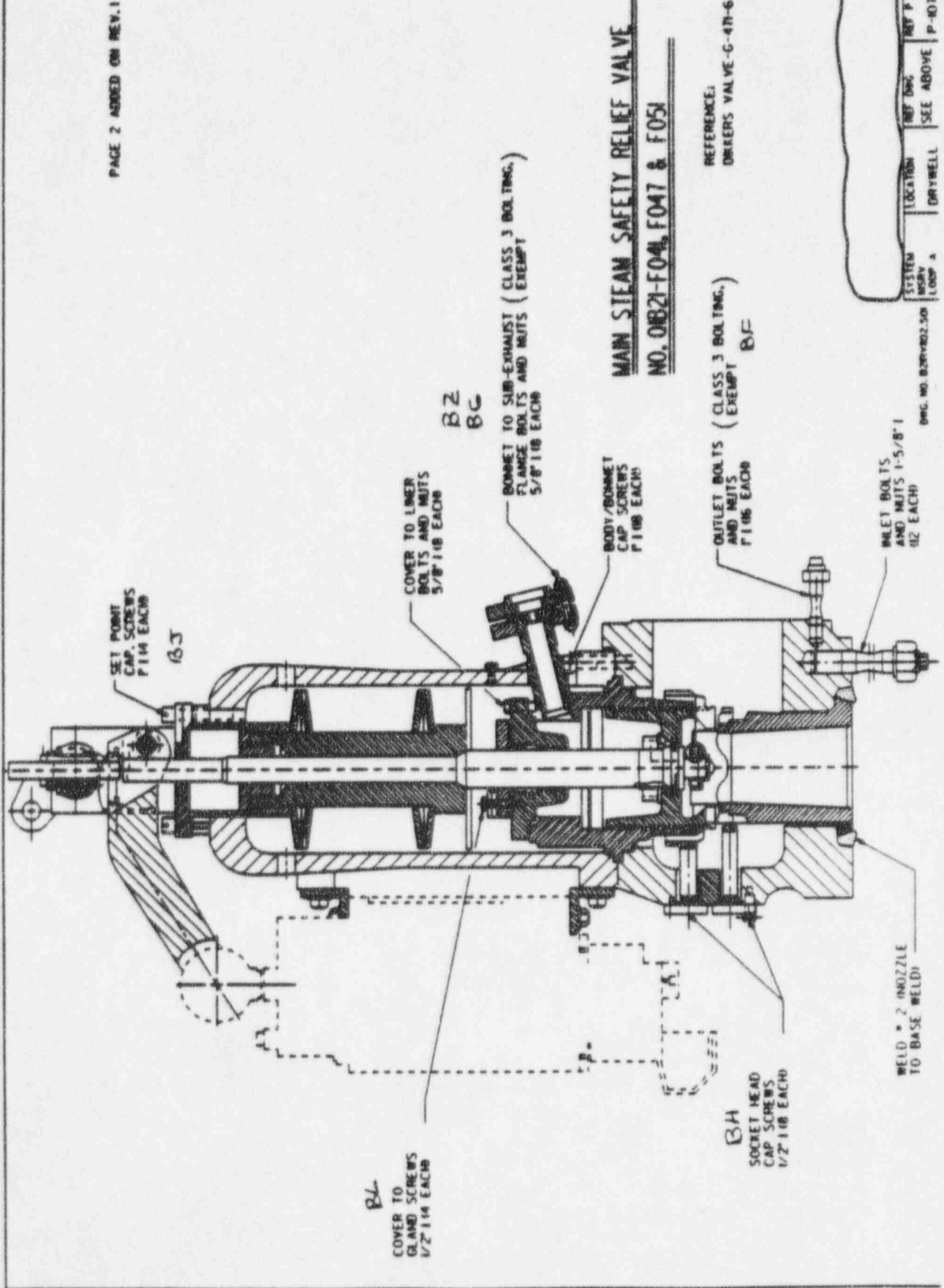


SEE PAGE 2 FOR BOLTING AND WELD LD.  
INLET & OUTLET ONLY.



MPPL NO. B-26024	REF. ENG. M-1328C	REV. P. ENG. P-KDTTC	FEEDING NO. RV-11-1
SYSTEMS LOCATION	M-1328C		RV-11-1
WORKSHEET NO. RV-0-1	CTMT.		PAGE 1 OF 2



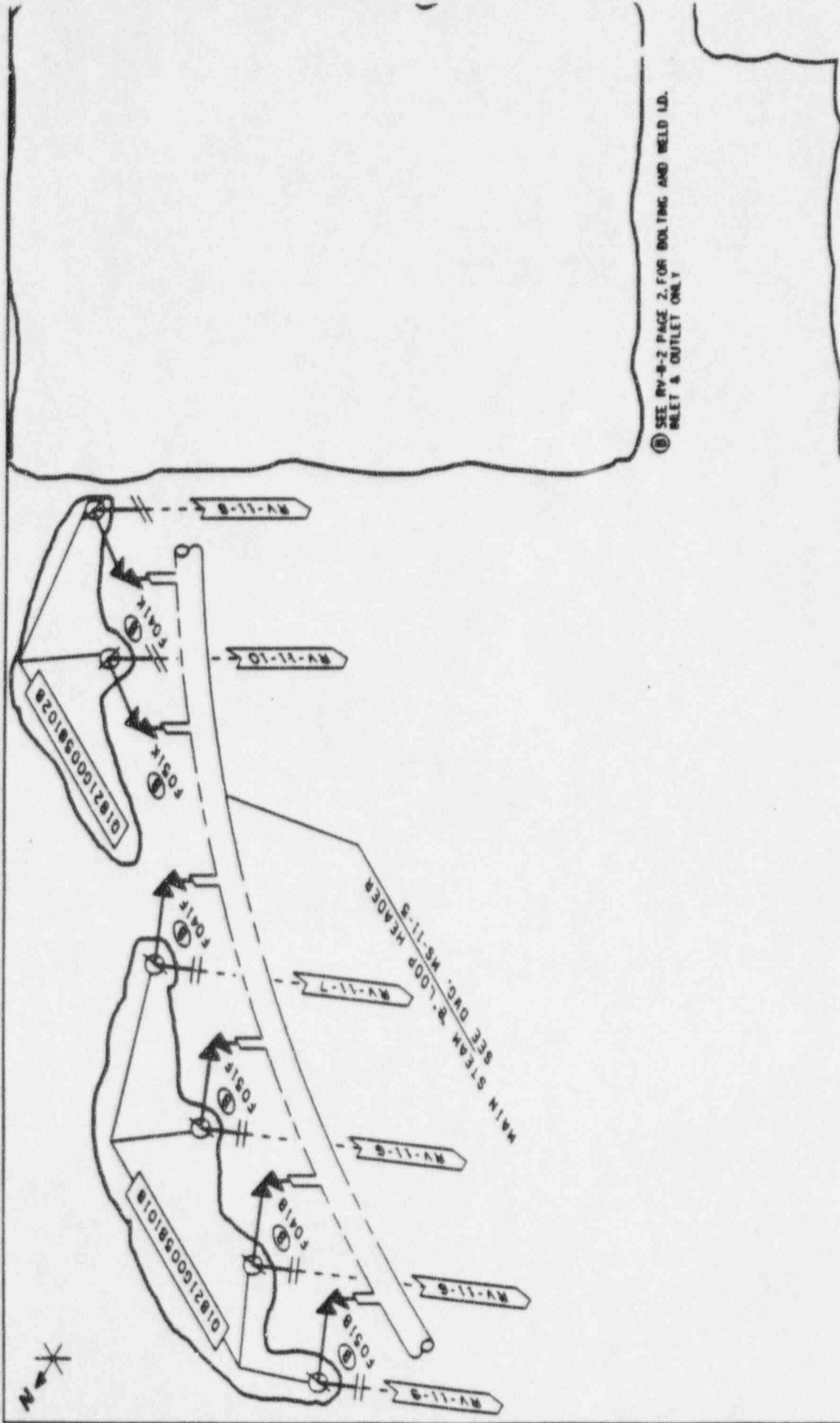


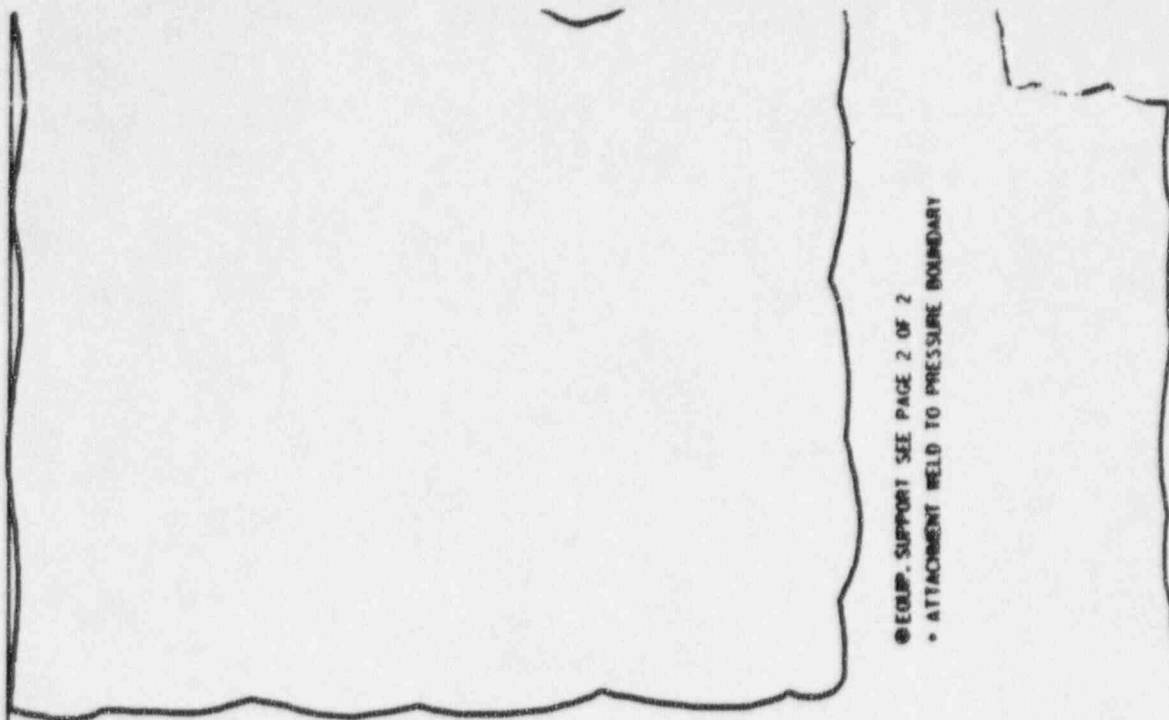
**MAIN STEAM SAFETY RELIEF VALVE**  
**NO. 08B21-F04, F047 & F051**

REFERENCE:  
 DRIVERS VALVE-G-471-6/125.0403

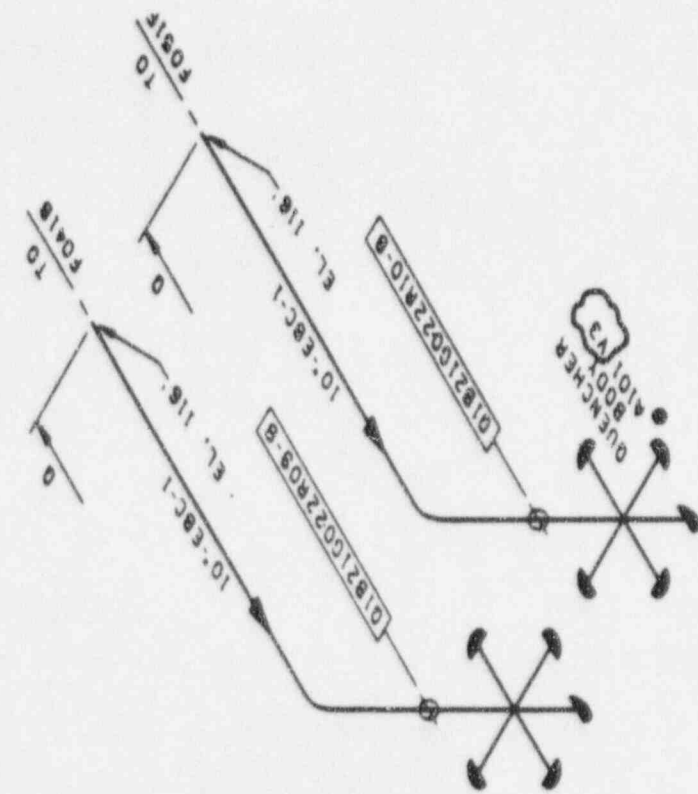
SYSTEM	LOCKING	REF Dwg	REF P Dwg	ISSUING DR.
LOOP	DRYWELL	SEE ABOVE	P-4017C	RV-B-1

DWG. NO. B21V02.500

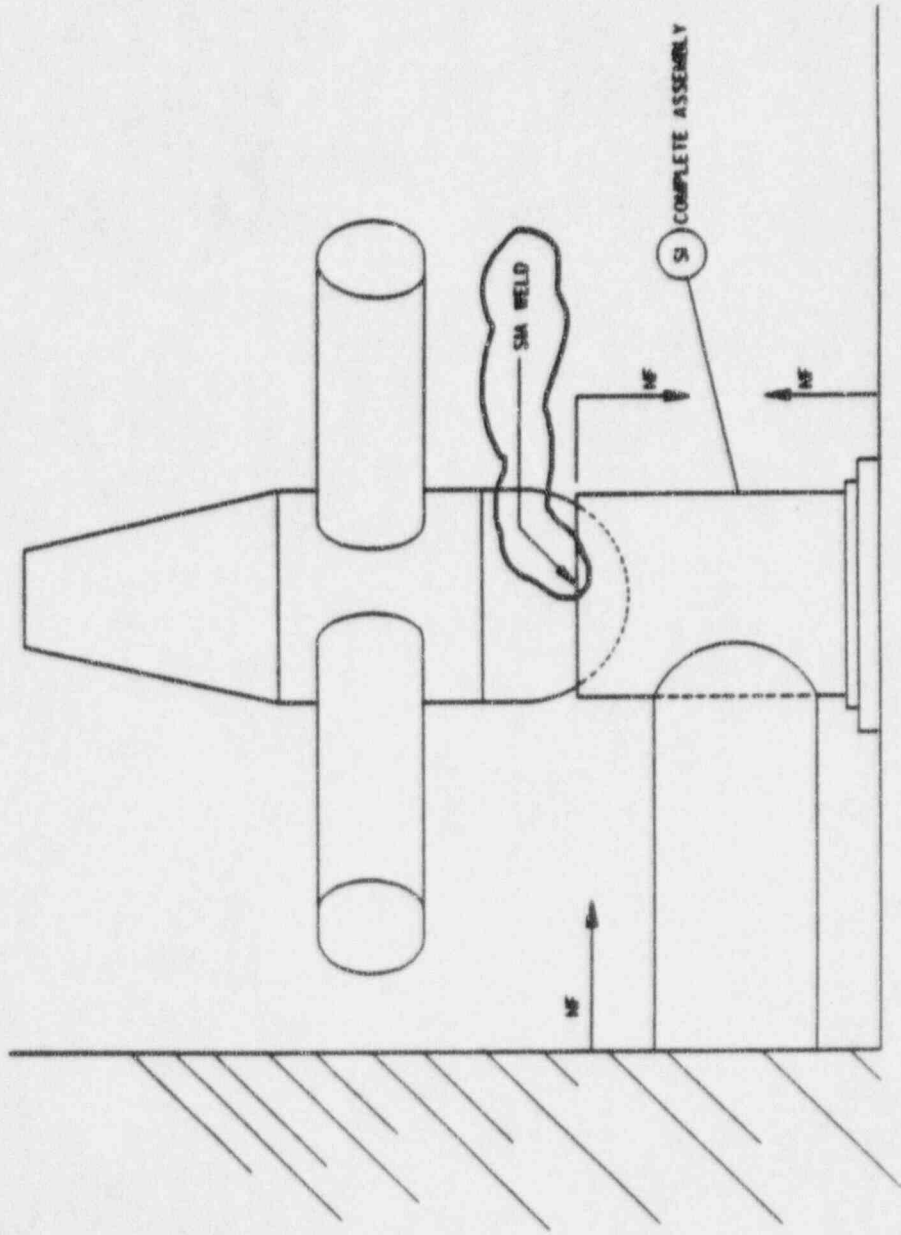




• EQUIP. SUPPORT SEE PAGE 2 OF 2  
 • ATTACHMENT WELD TO PRESSURE BOUNDARY



DOC. NO. B27002.008	REV. NO. B27002.022	SYSTEM	LIBRARY	REF. NO.	REV. NO.
RV-0-2		LOOP 8	CTMT.	M-1328E	RV-8-6
					P-1017C
					PAGE 1 OF 2



PAGE 2 ADDED TO REV. 1

MAIN STEAM SAFETY/RELIEF VALVE DISCHARGE LINE QUENCHER • 01B21A101

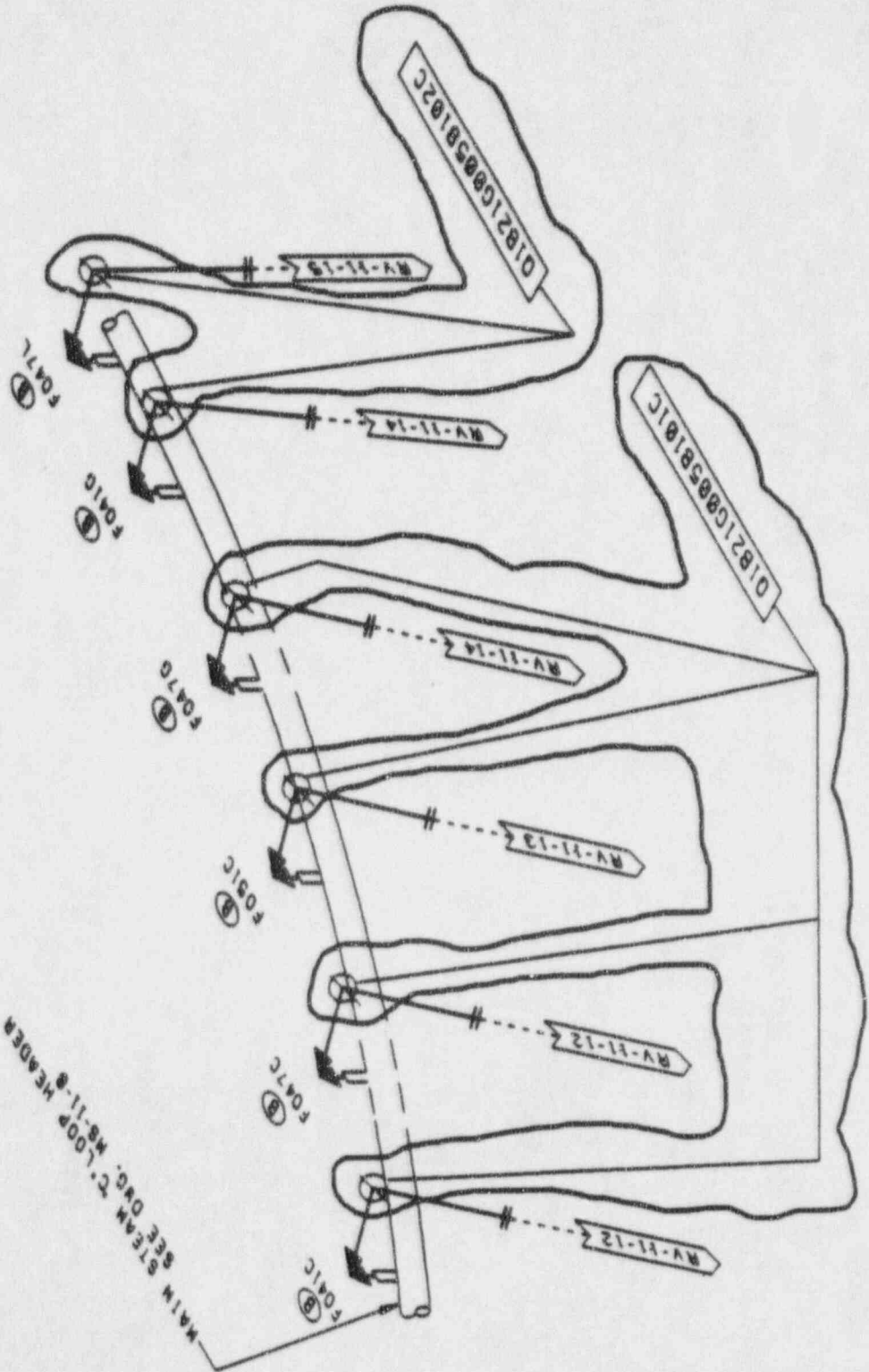
REFERENCE DRAWING •

(HCH/BAUND ENG C01 D-79-232



NOTE:  
FOR MSRV ACCUMULATORS  
SEE PAGE 2.

MAIN STEAM C-LOOP HEADER  
SEE DRG. M-11-8



MPL No. 1821G025

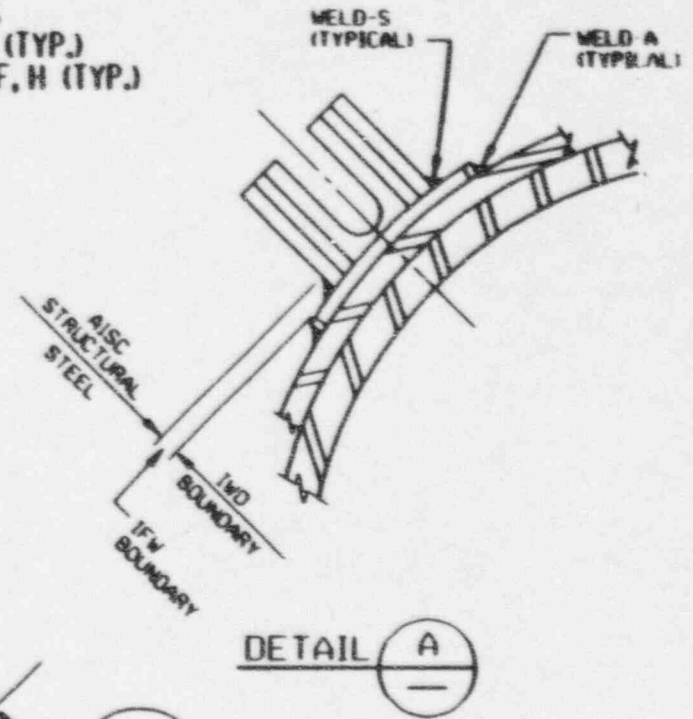
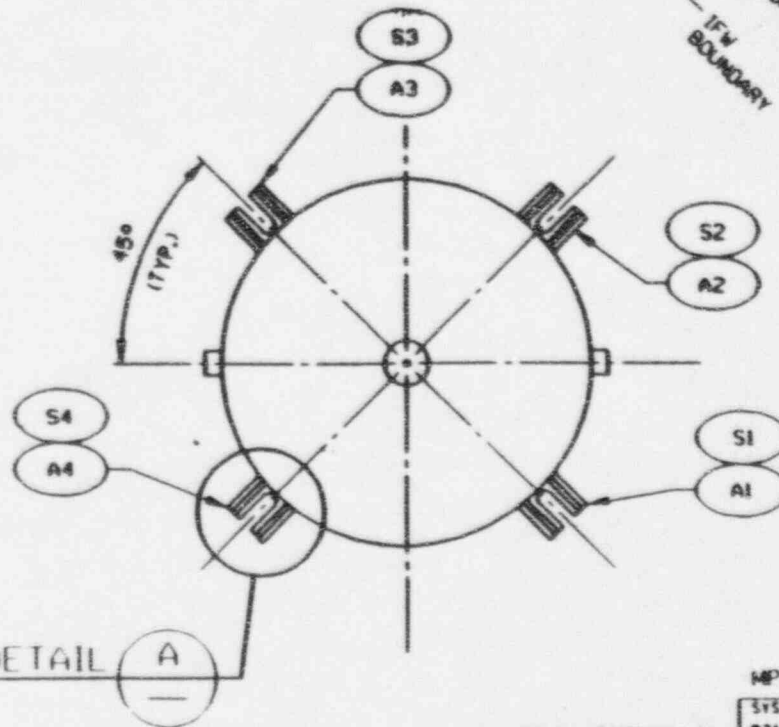
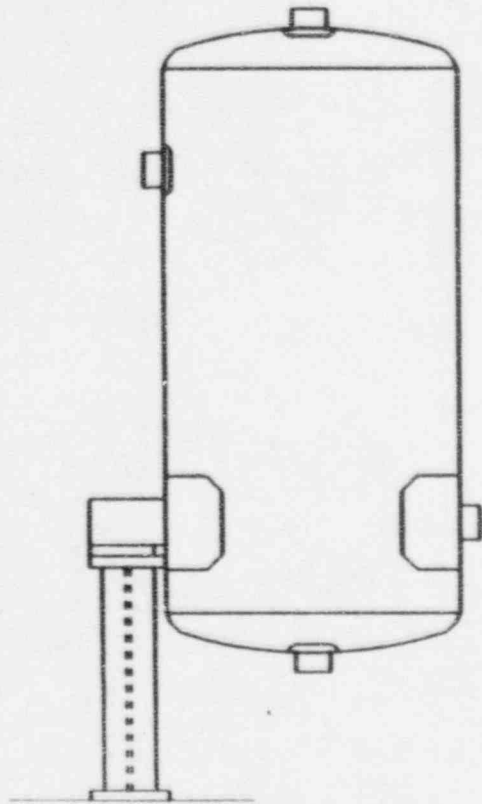
DRG No. 1821G025	SYSTEM	REV	DATE	BY	CHK	REV	DATE	BY	CHK
	MSRV	1	11-13-78	...	...	1	11-13-78	...	...
	MSRV	2	11-13-78	...	...	2	11-13-78	...	...

NON-ADS/ADS AIR ACCUMULATORS  
 \* QIB21A004A, C, E, G, J, K, M, P, R, T, U (TYP.)  
 ADS AIR ACCUMULATORS \* QIB21A003D, E, F, H (TYP.)

REFERENCE DRAWING \*

GCAS # 98LB-QIB21A004A-LJ-001

GCAS # 98LB-QIB21A003A-LJ-001



SEE DETAIL A

MPL No. 1B21G025

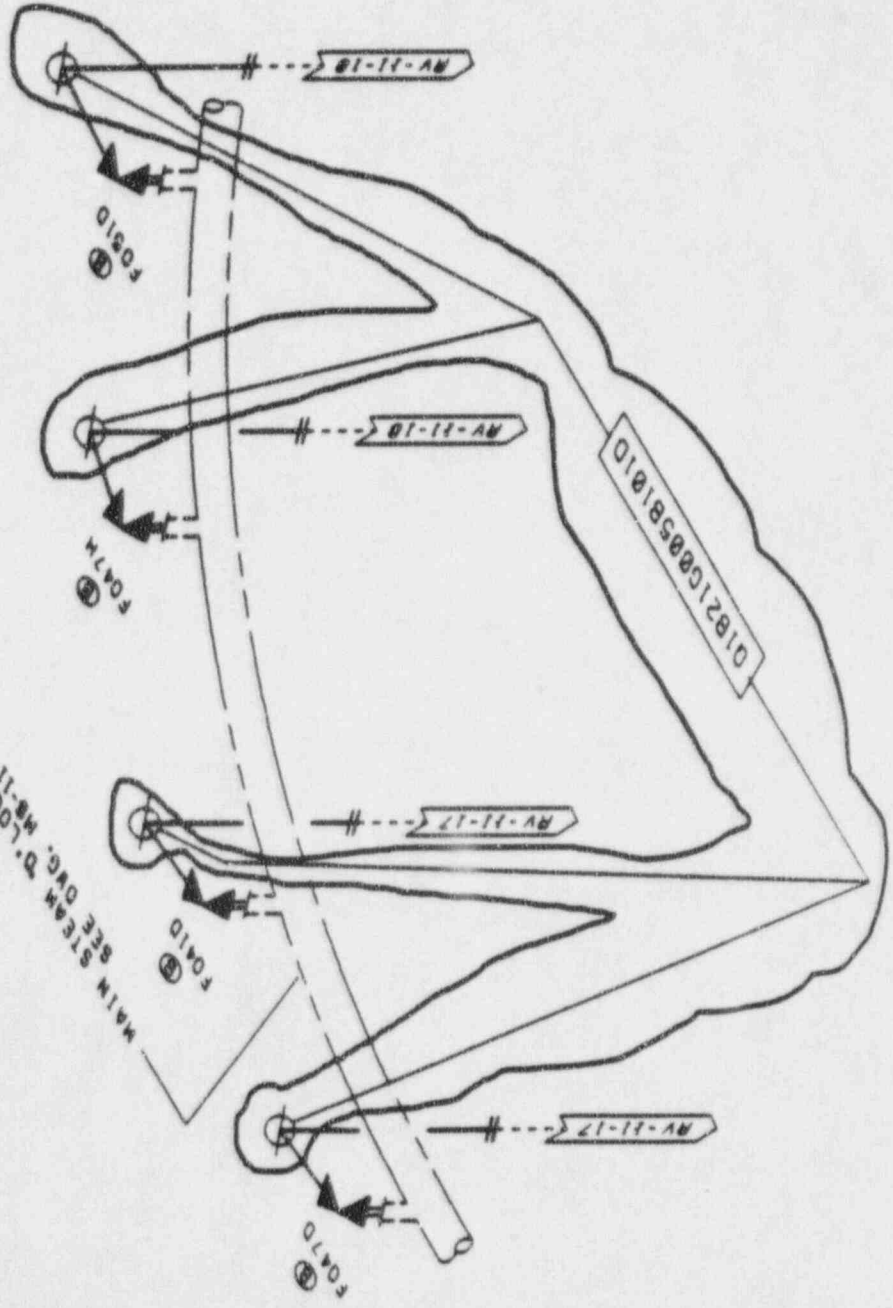
SYSTEM	LOCATION	REF Doc	REF P Doc	ISI Doc NO.	REV
021	CTMT.	N/A	P-1077C	RV-11-11	8

PAGE 2 OF 3



NOTE:  
FOR WSRV RECEIVERS,  
SEE PAGE 2.

MAIN STEAK D. LOOP HEADER  
SEE ORG. W-11-11



MPL No. IB21G025

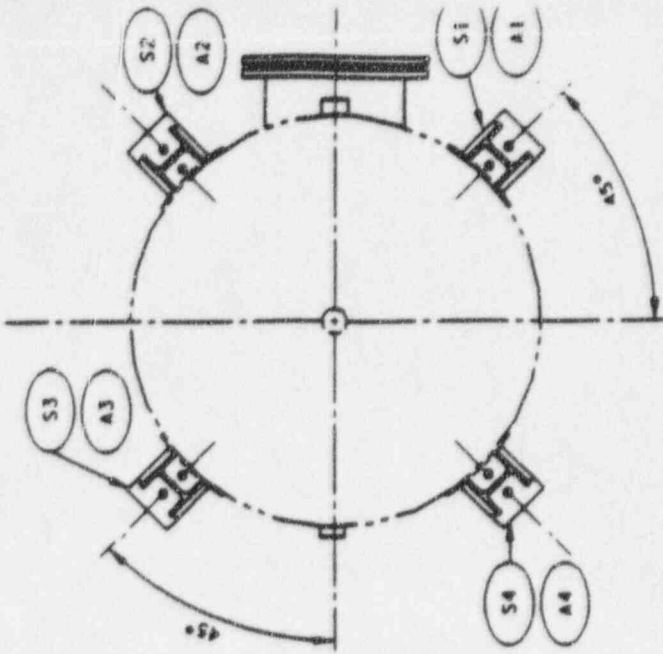
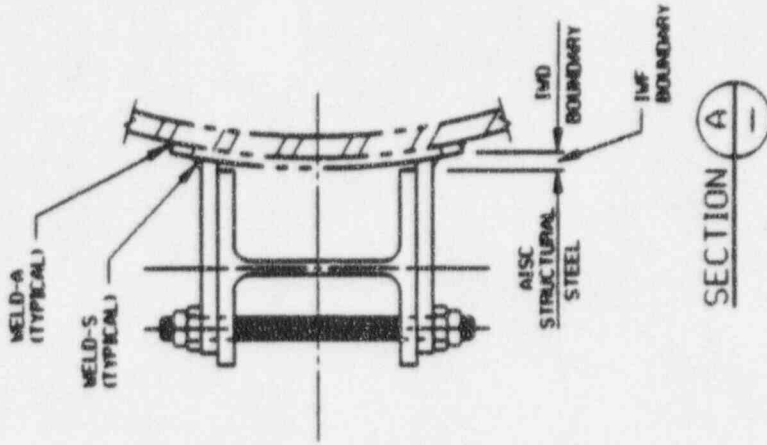
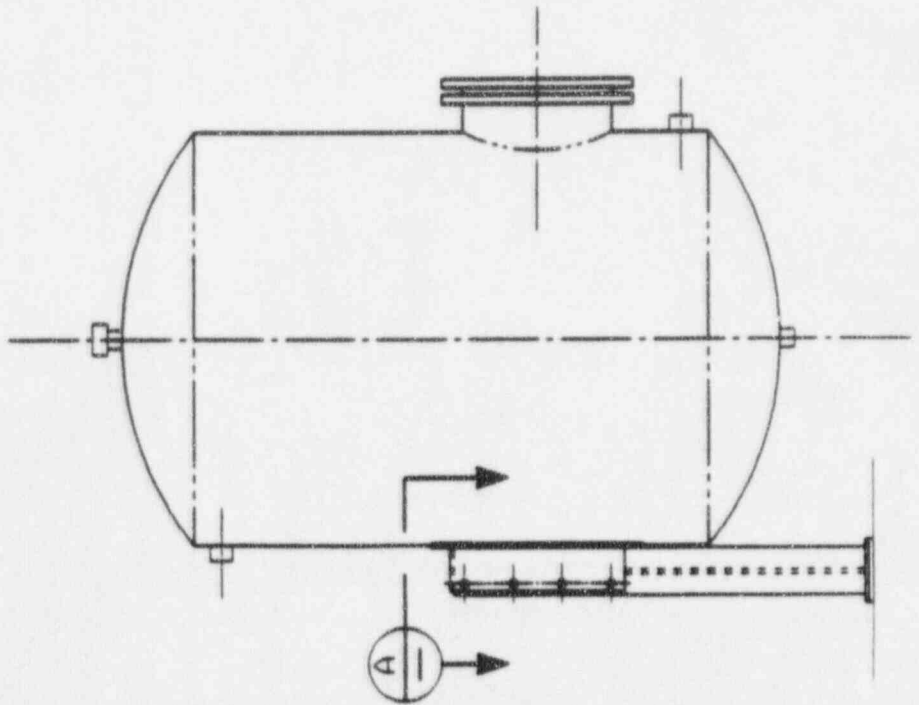
DESIGN NO.	SYSTEM	LOCATION	REV. NO.	REV. DATE	REV. BY	REV. DATE	REV. BY
RV-0-4	WSPV LOOP 0	CTMT.	N/A				



ADS AIR RECEIVER • 01B21A188A

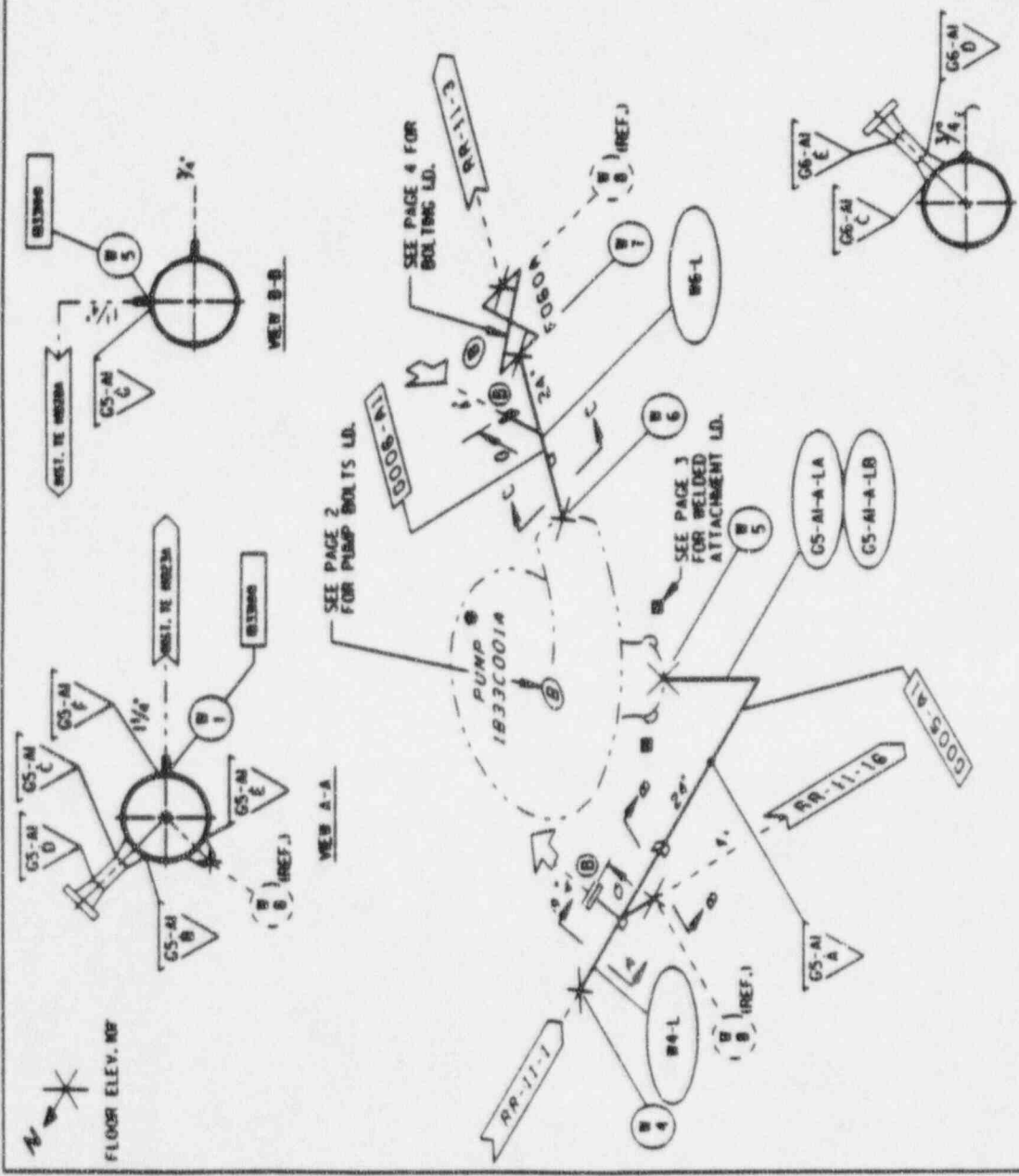
REFERENCE DRAWING •

GD&S # 98218-01B21A188A-L1-881



MPL No. 1B21G025

SYSTEM REC.	LOCATION	REF Dwg	REF P Dwg	TSI Dwg NO	REV
B21R1102-516	C1MT	N/A	P-1077C	RV-11-16	PAGE 2 OF 3

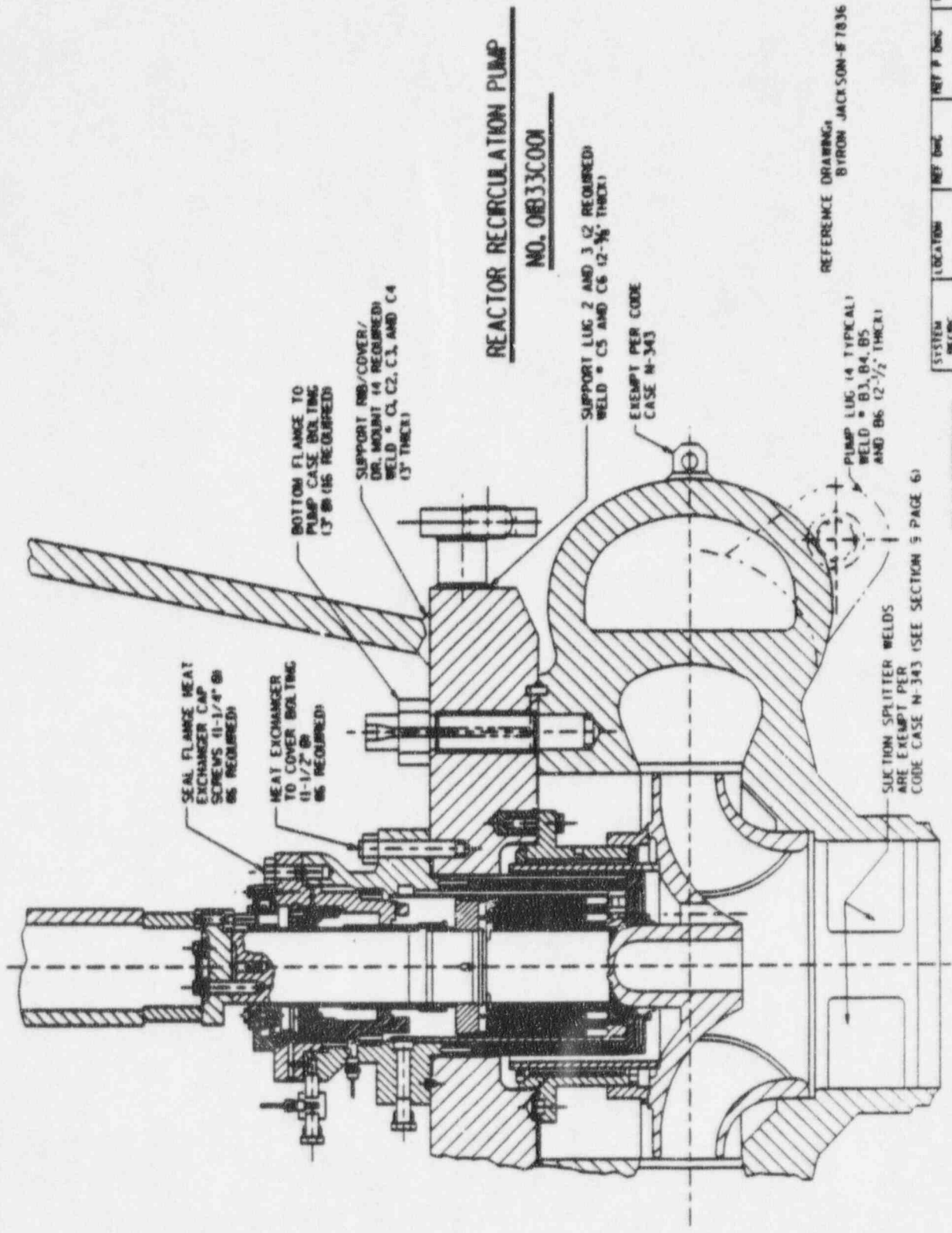


VIEW C-C

MPL NO. 1833G008  
1833GAR41

DWG. NO. 1833MMML502	SYSTEM RECIRC. LOOP A	LOCATOR LDCAT056	REF. OF DWG. 167E917	REF. P. DWG. P-K078A	DWG. NO. RR-11-2	MPL
PER-0-1		DRYWELL			PAGE 18	0

FLOOR ELEV. 10'



**REACTOR RECIRCULATION PUMP**

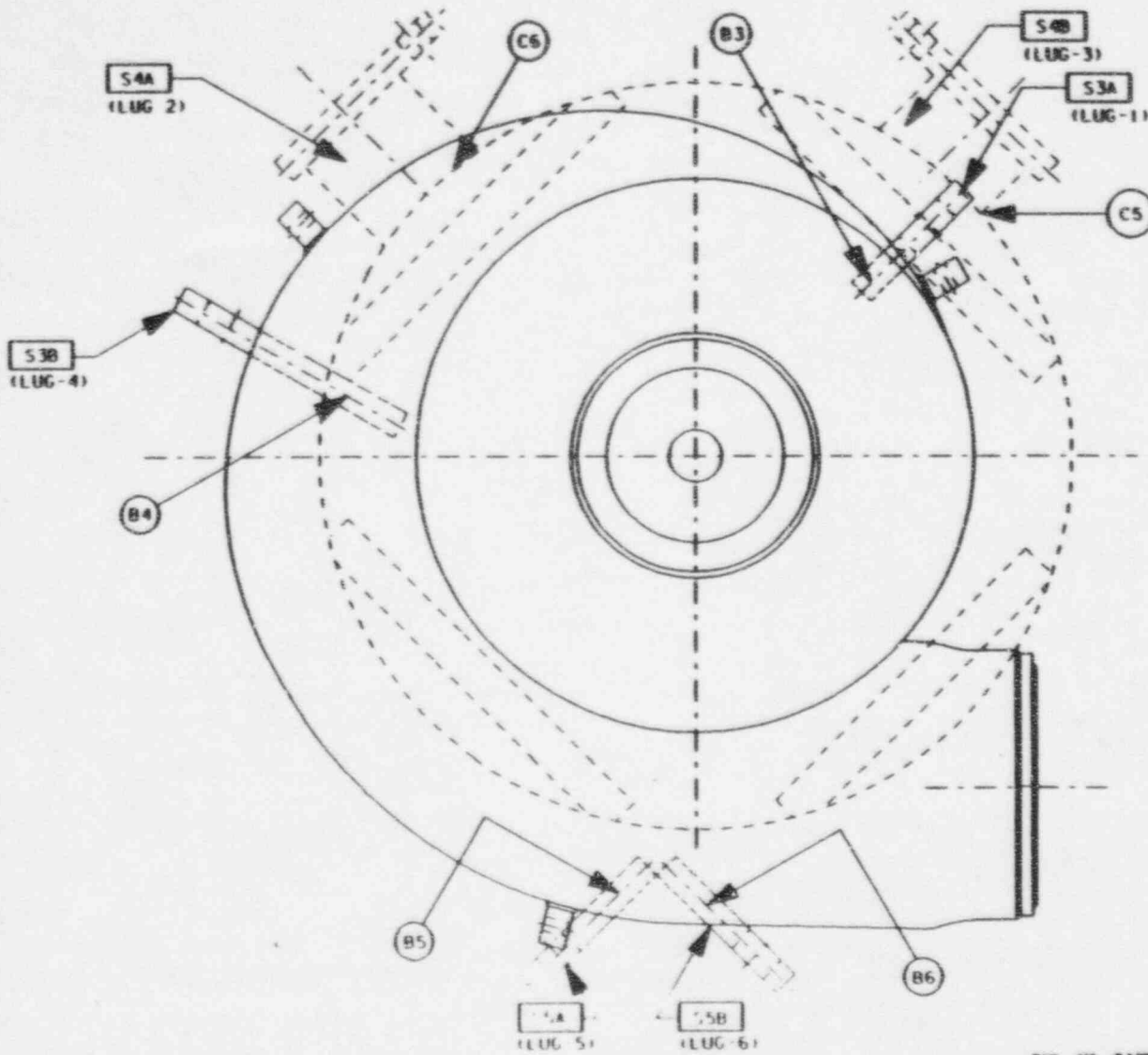
**NO. 01B33C001**

REFERENCE DRAWING:  
BYRON JACKSON-87836

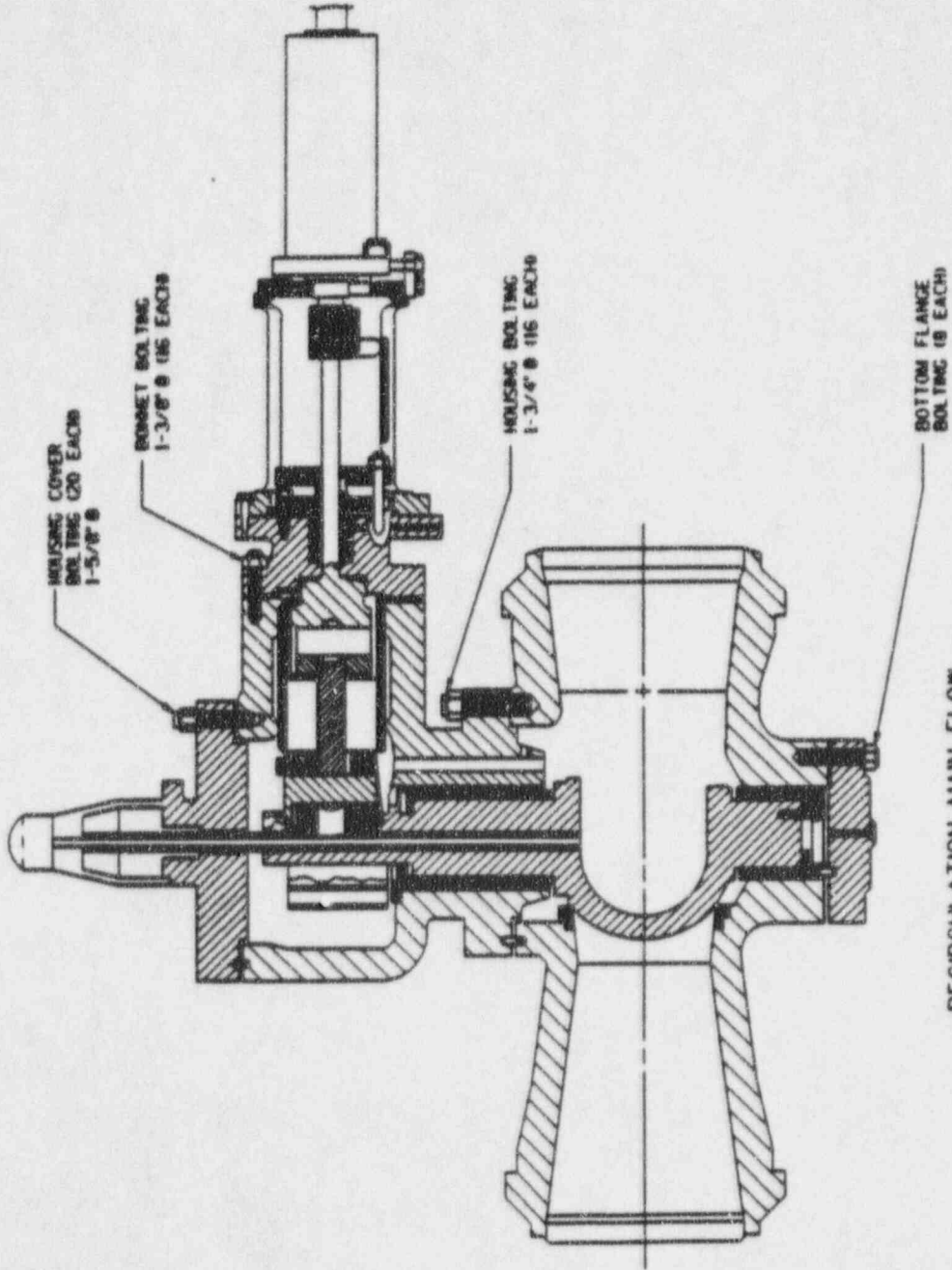
DWG. NO. B13P0003.502

SYSTEM	LOCATION	REF. Dwg.	REF. P. Dwg.	REV.
RECIRC. LOOP A	FRYDBE11	SEE ABOVE	P-1078a	
				FR-1-2
				P

REACTOR RECIRCULATION PUMP NO. 01B33C001  
 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 (P) EXAM.

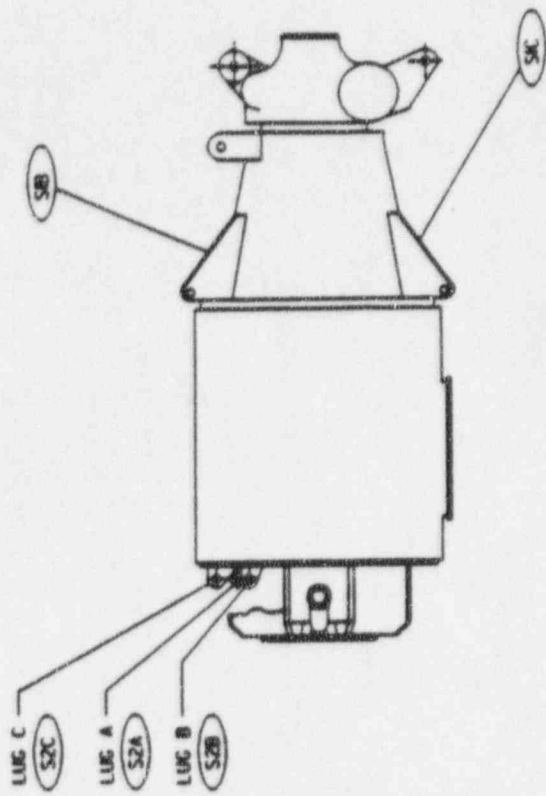


**RECIRCULATION MAIN FLOW  
 CONTROL VALVE**

NO. 01B33-F060

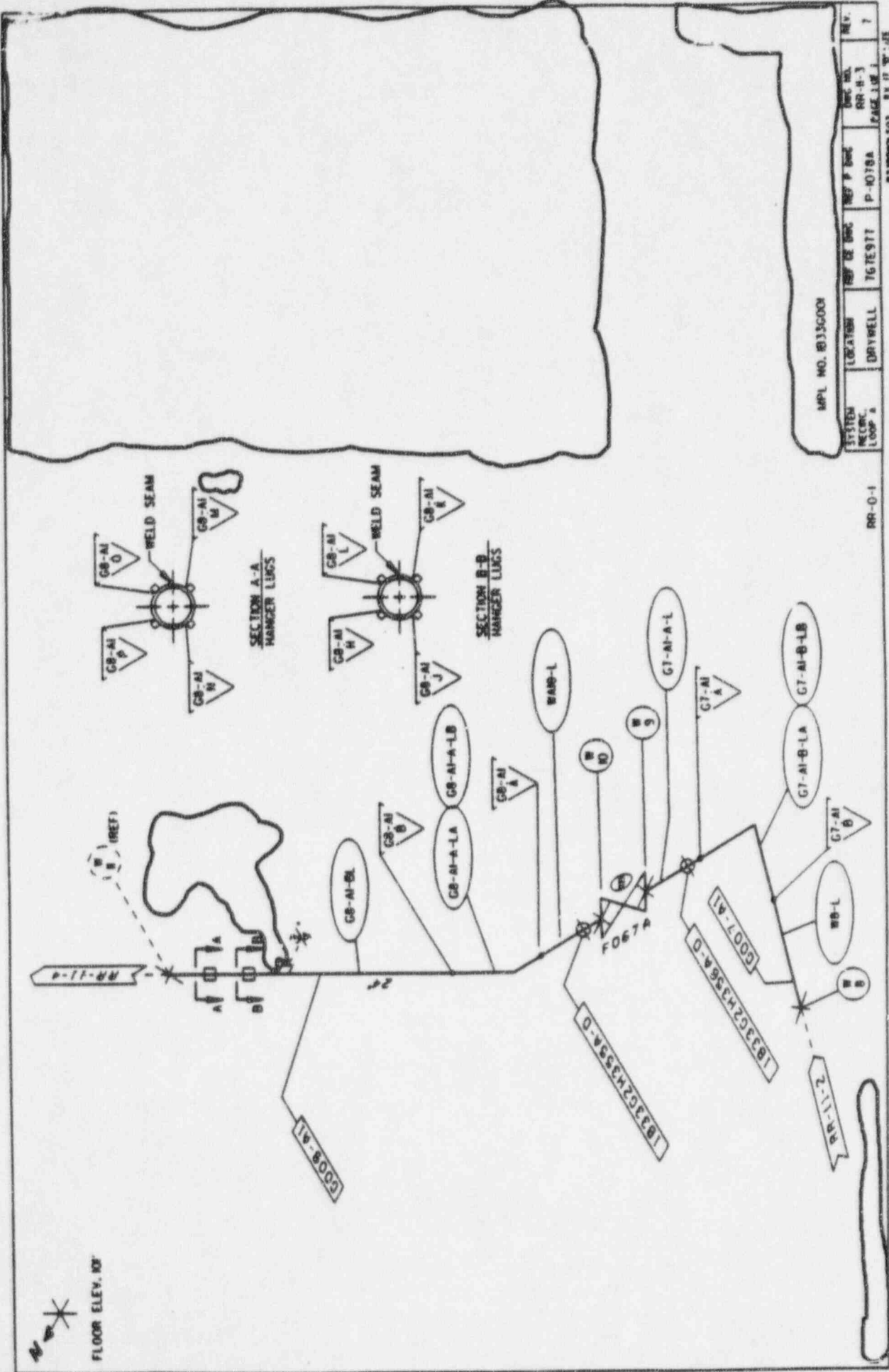
REFERENCE DRAWING  
 FISHER-55A 3139

SYSTEM RECIRC. LOOP 4	LOCATION DRYWELL	REF DWG SEE ABOVE	REV'D DWG P-10784	REV'D DWG NR-B-2 PAGE 1 OF 3
DWG. NO. B1330005.502				



REFERENCE DRAWING:  
 GE NO. 162E37

REACTOR RECIRCULATION PUMP  
NO. 01B33C001

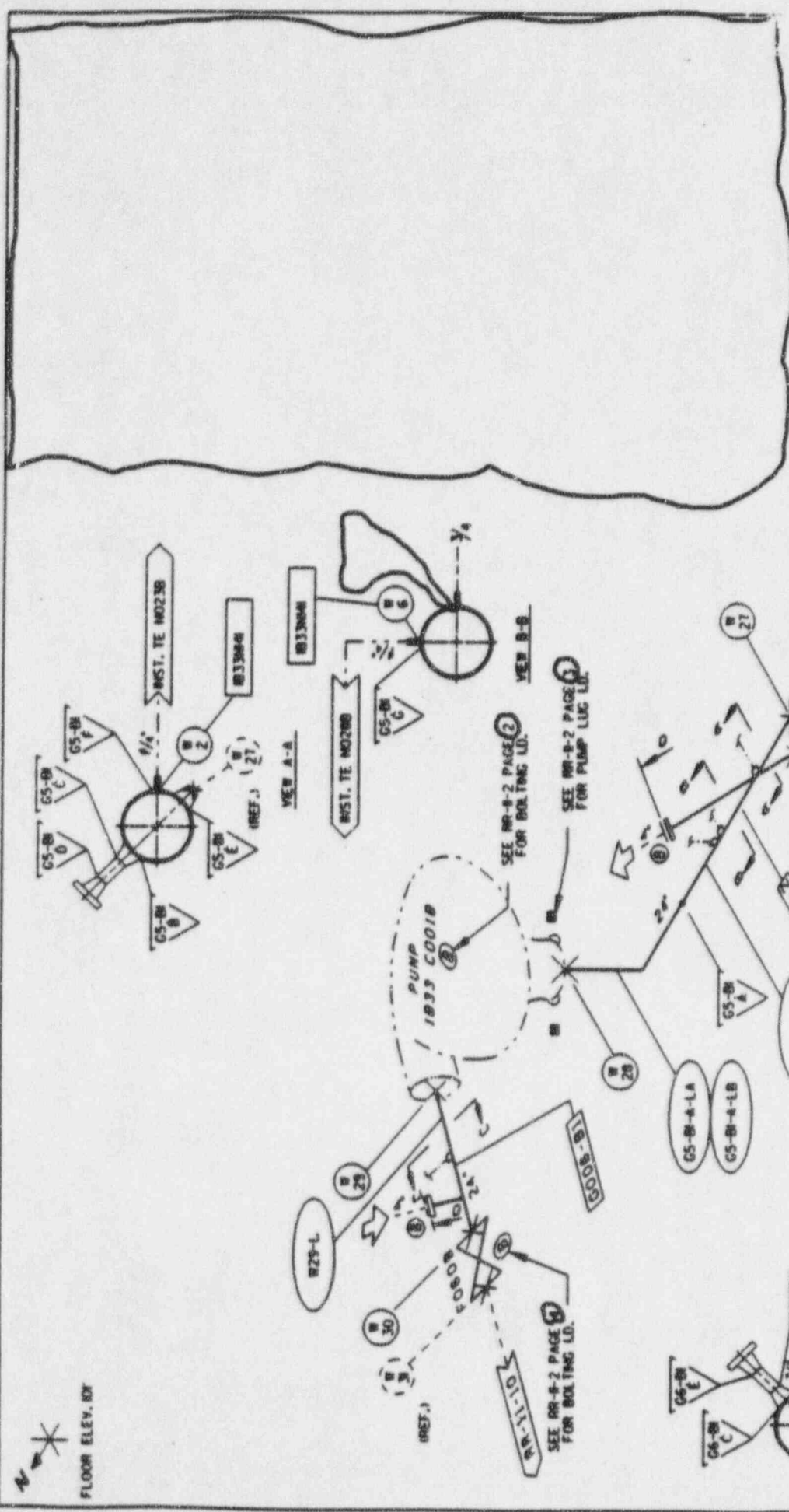


MPL NO. 8135000

SYSTEM	REF. NO.	REF. DATE	REF. BY	REV.
MECHANICAL LOOP #	DRYWELL	TG7E917	P-1078A	PAGE 1 OF 1
LOCATION	DRYWELL	TG7E917	P-1078A	PAGE 1 OF 1
REV.				7

RR-0-1

8135000.503 8x11 1/2" DE

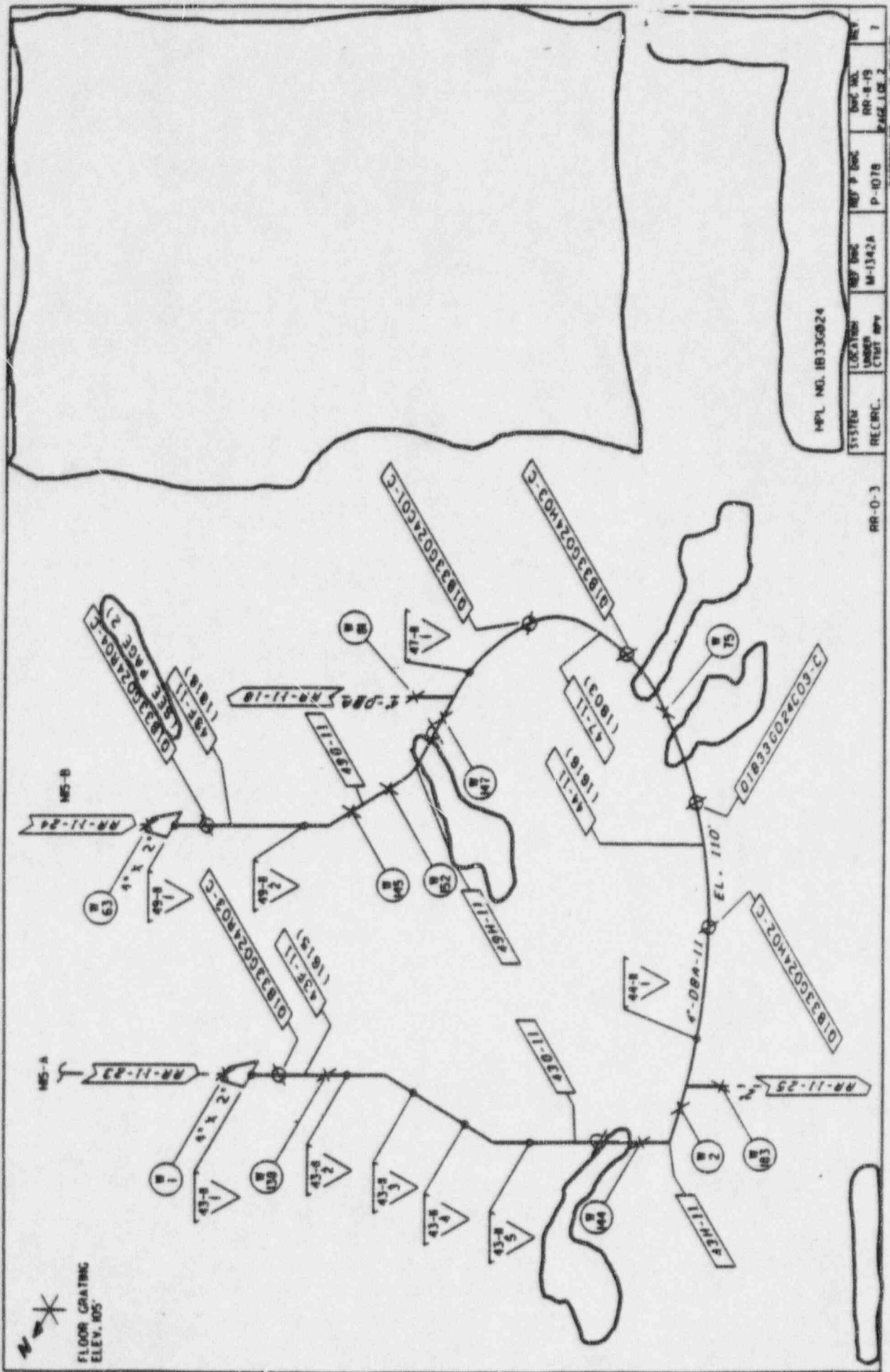


MPL NO. B31300P B31300H	LOCATION DRYWELL	REF. OF DRG. 767E977	REF. OF DRG. P-8078A	DRG. NO. RR-N-9	PAGE NO. PAGE 101
SYSTEM: MECH. LOOP B					

RR-O-2

DRAWING SIZE 8 1/2" X 11" SIZE





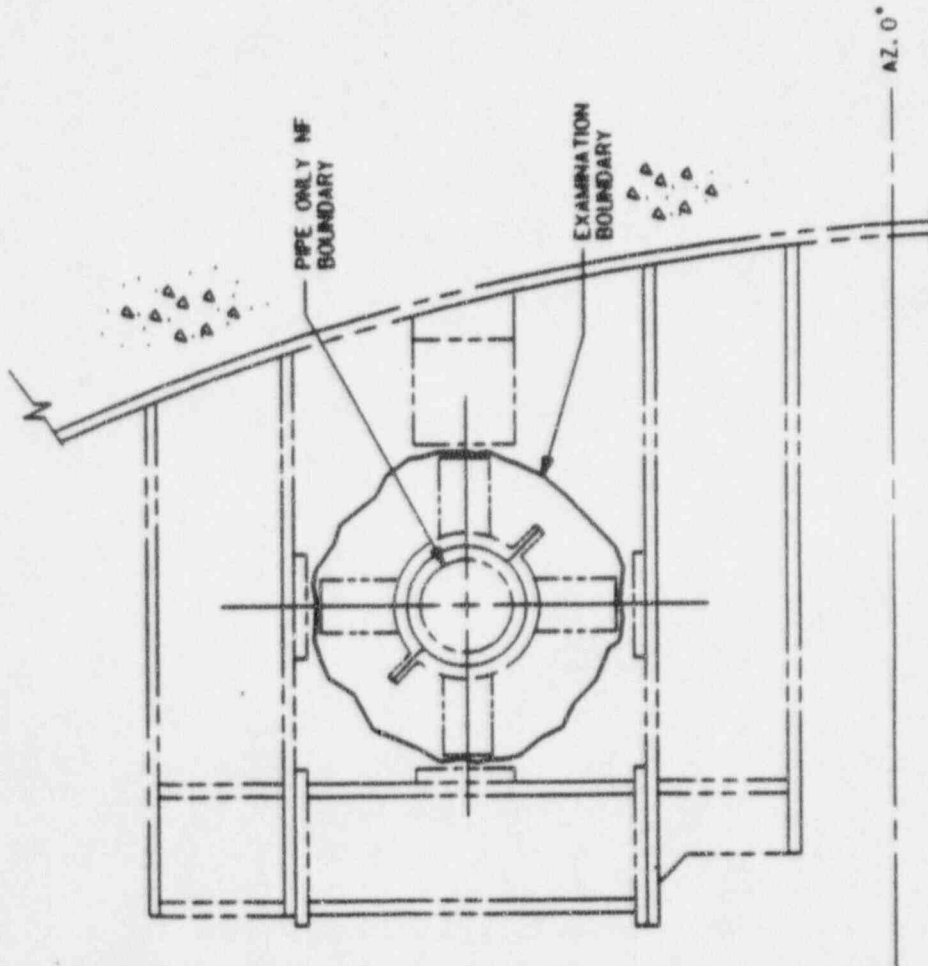
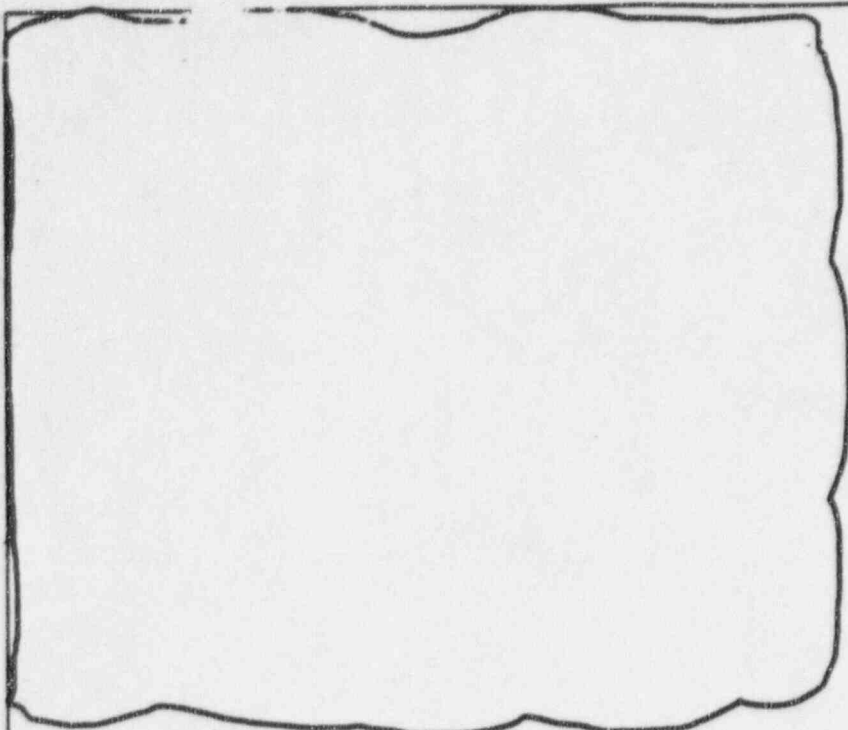

  
 FLOOR GRATING  
 ELEV. 805'

MPL NO. 18330824

SYSTEM	LOCATION	REF'D DOC	REF'D DOC	DOC NO.	REV
REC'D	UNDER	M-1342A	P-1078	RR-8-19	1
				2	2
				3	3

RR-0-3

8330824.S9 8x11 1/4" SURE

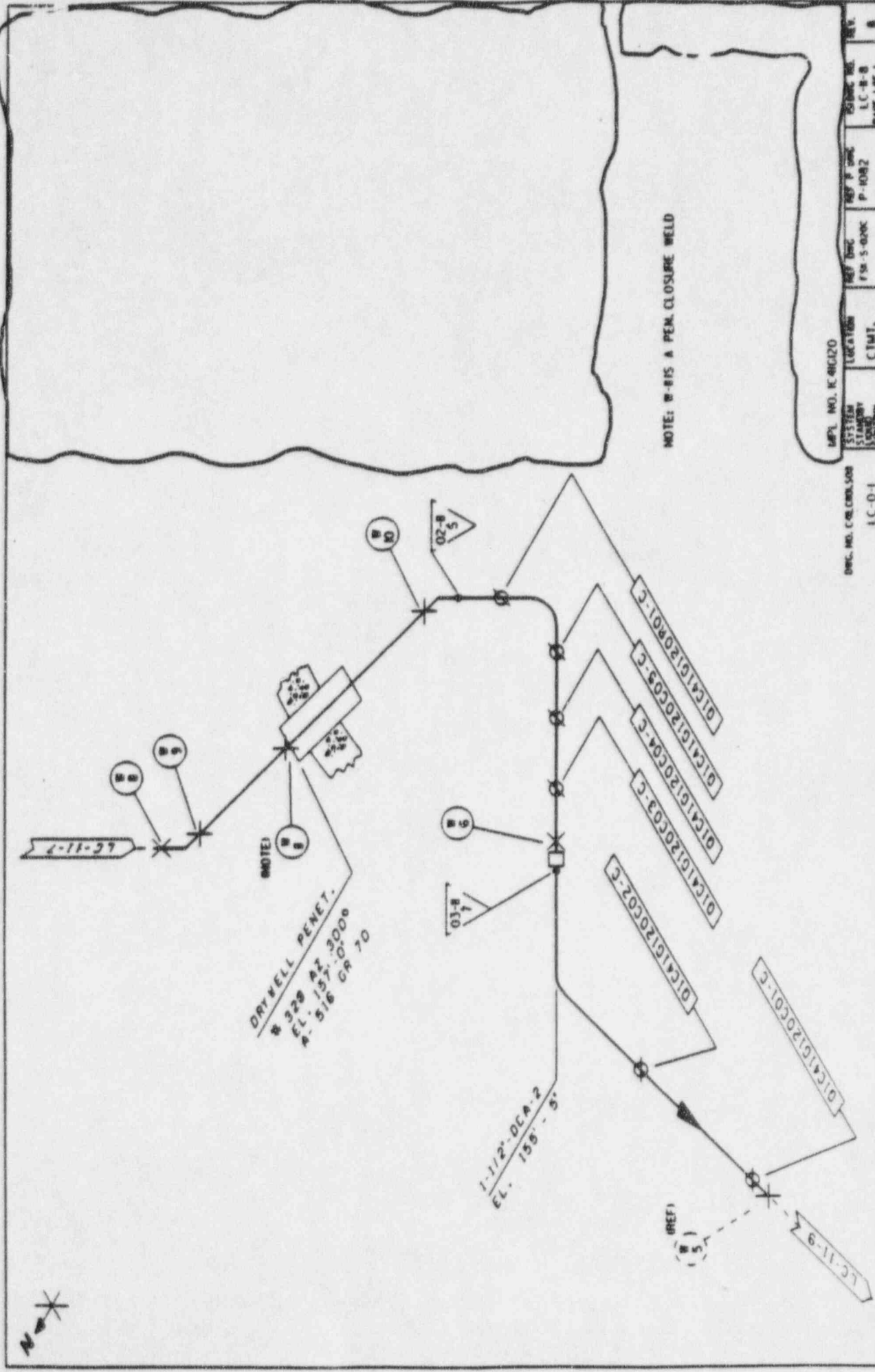


SUPPORT: OMB33G024R04

MPL NO. B33G024

SYSTEM	LOCATION	REF Desc	REV	DATE
RECIRC.	UNDER	M-1342A	P-1078A	RR-8-19
				PAGE 2 OF 3
				REV. 7

83399902.09 81 11 78 SITE

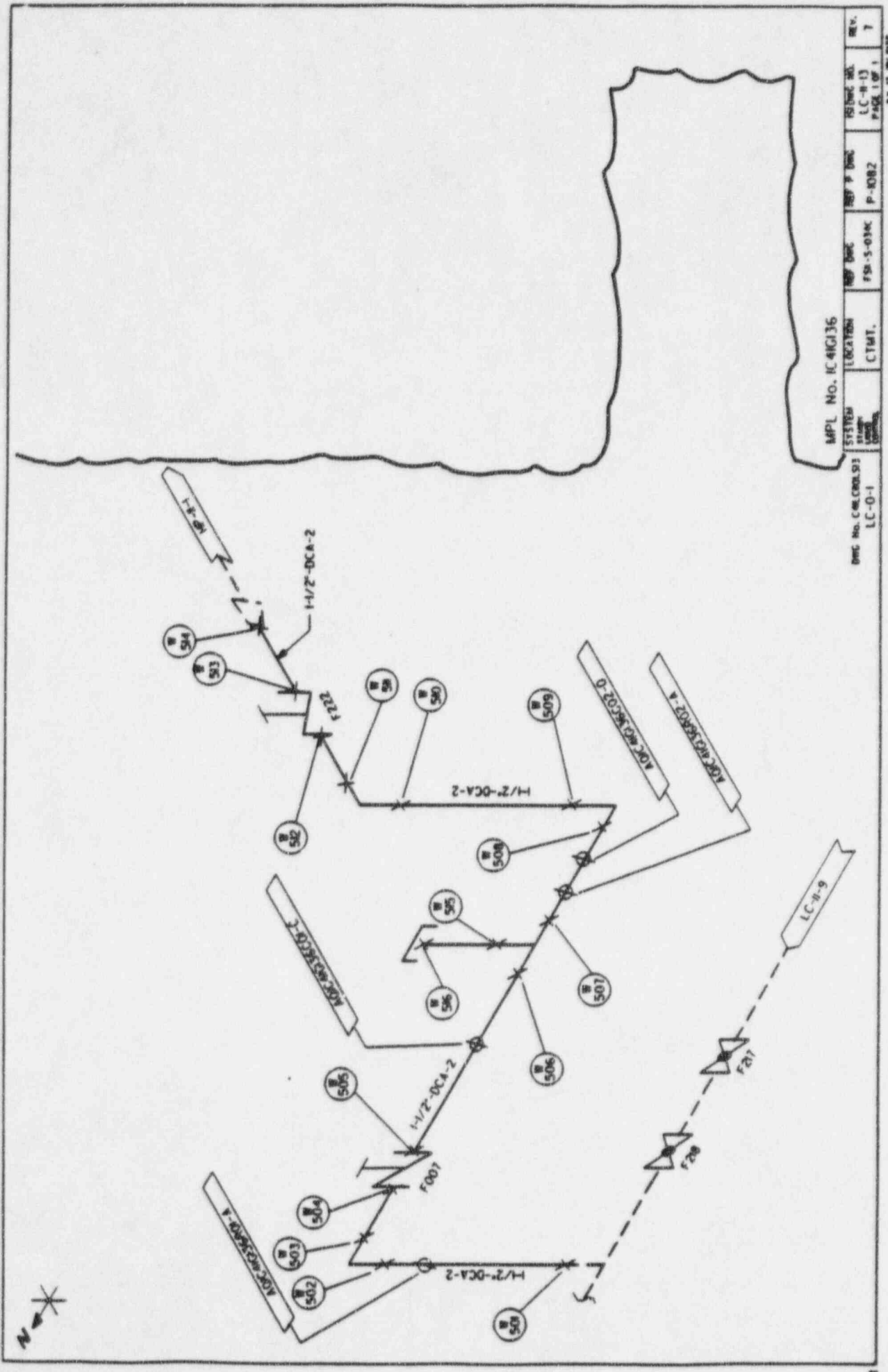


NOTE: W-B IS A PENM. CLOSURE WELD

REF. NO. K-48120	LOCATION	REF. Dwg	REF. P. DWG	DATE	REV.
SYSTEM		FW-5-020C	P-10B2		LC-B-B
STAMP	CTMT.				PAGE 1 OF 1
LC-0-1					





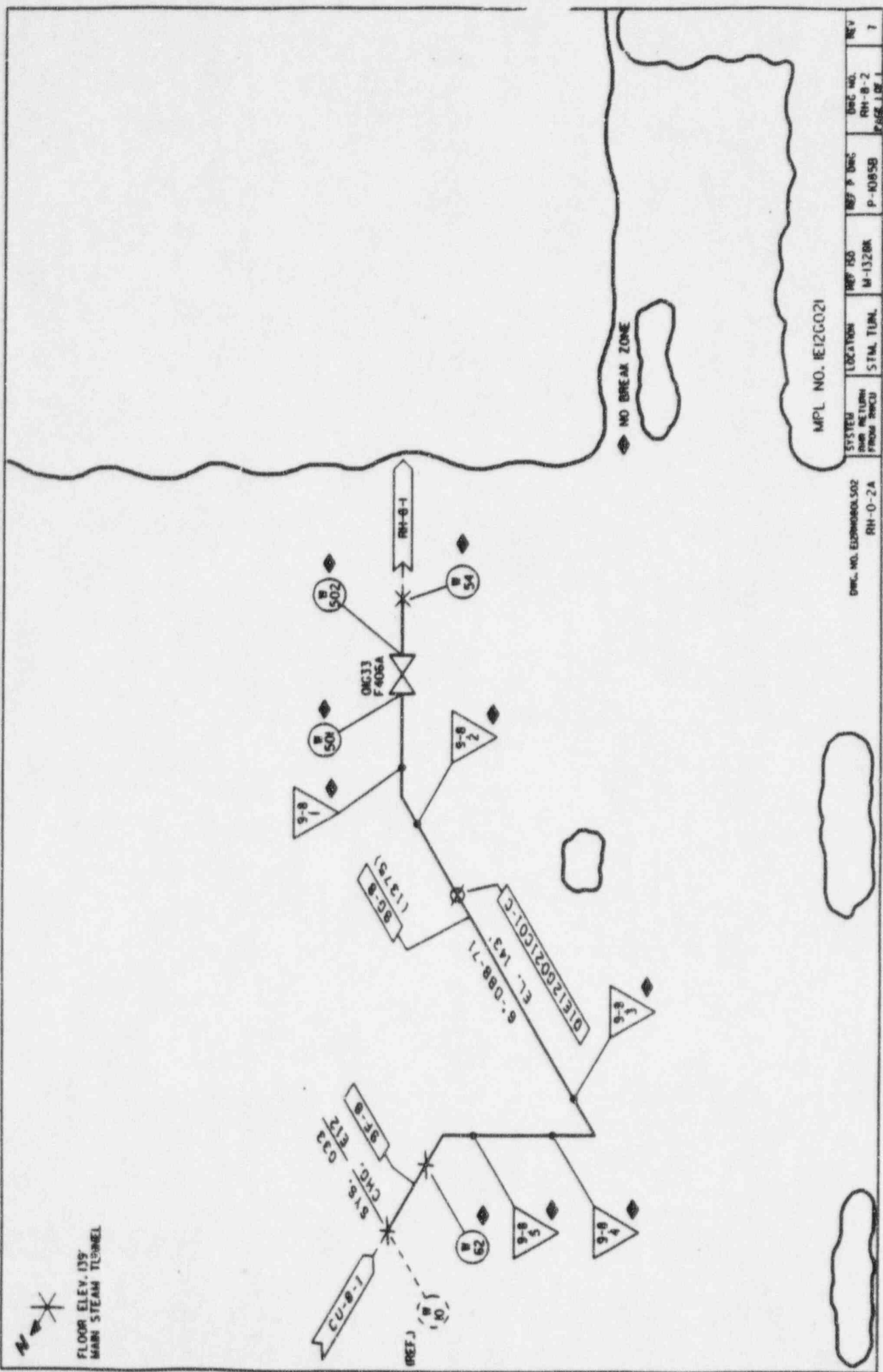


MPL NO. IC 41G136

DMC No. C.M.C. 000.513	SYSTEM	LOCATION	REF # DMC	REF # DMC	REF # DMC	REV.
LC-0-1	LC-0-1	CTMT.	F58-5-03AC	P-10382	P-10382	7
						1 OF 1
						PAGE 1 OF 1

SEE IT OR SEE





FLOOR ELEV. 139'  
 MAIN STEAM TUNNEL

MPL NO. IE12G021

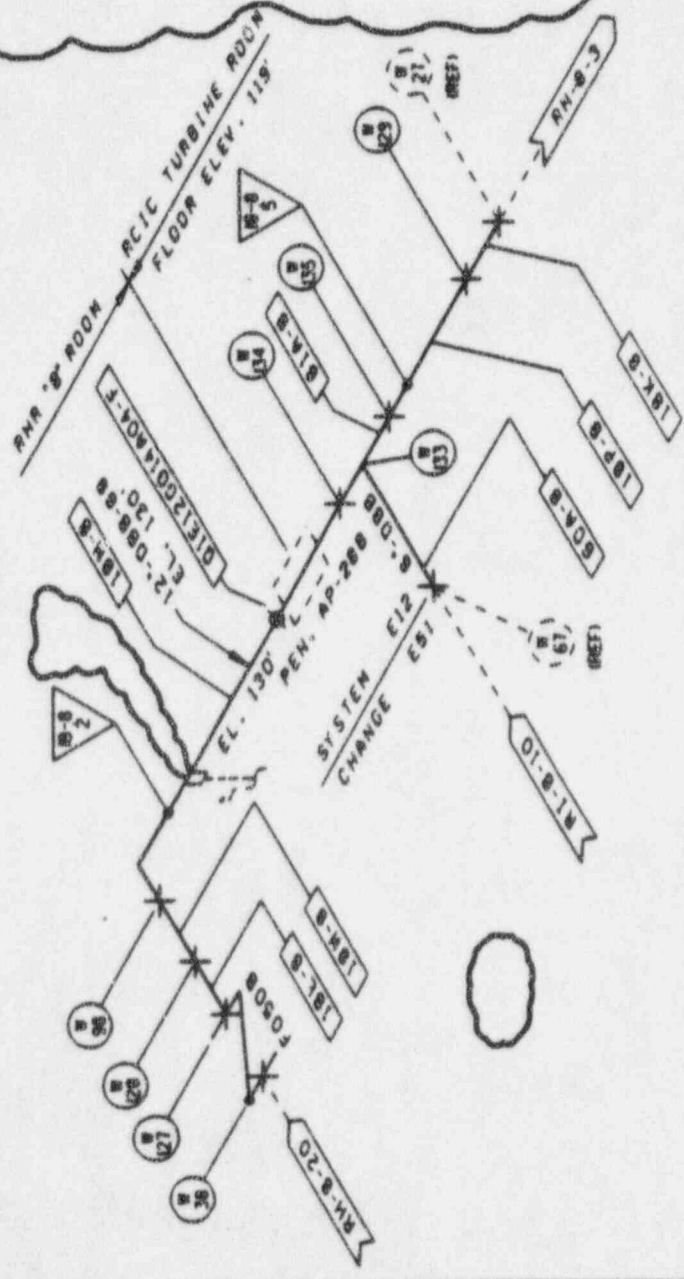
SYSTEM	LOCATION	REF P TAG	DOC NO.	REV
FROM RETURN	STMA TUNEL	P-4085B	RH-8-2	7
PH-0-2A	M-132BK	P-4085B	FACE LABEL	

11 11 13EE



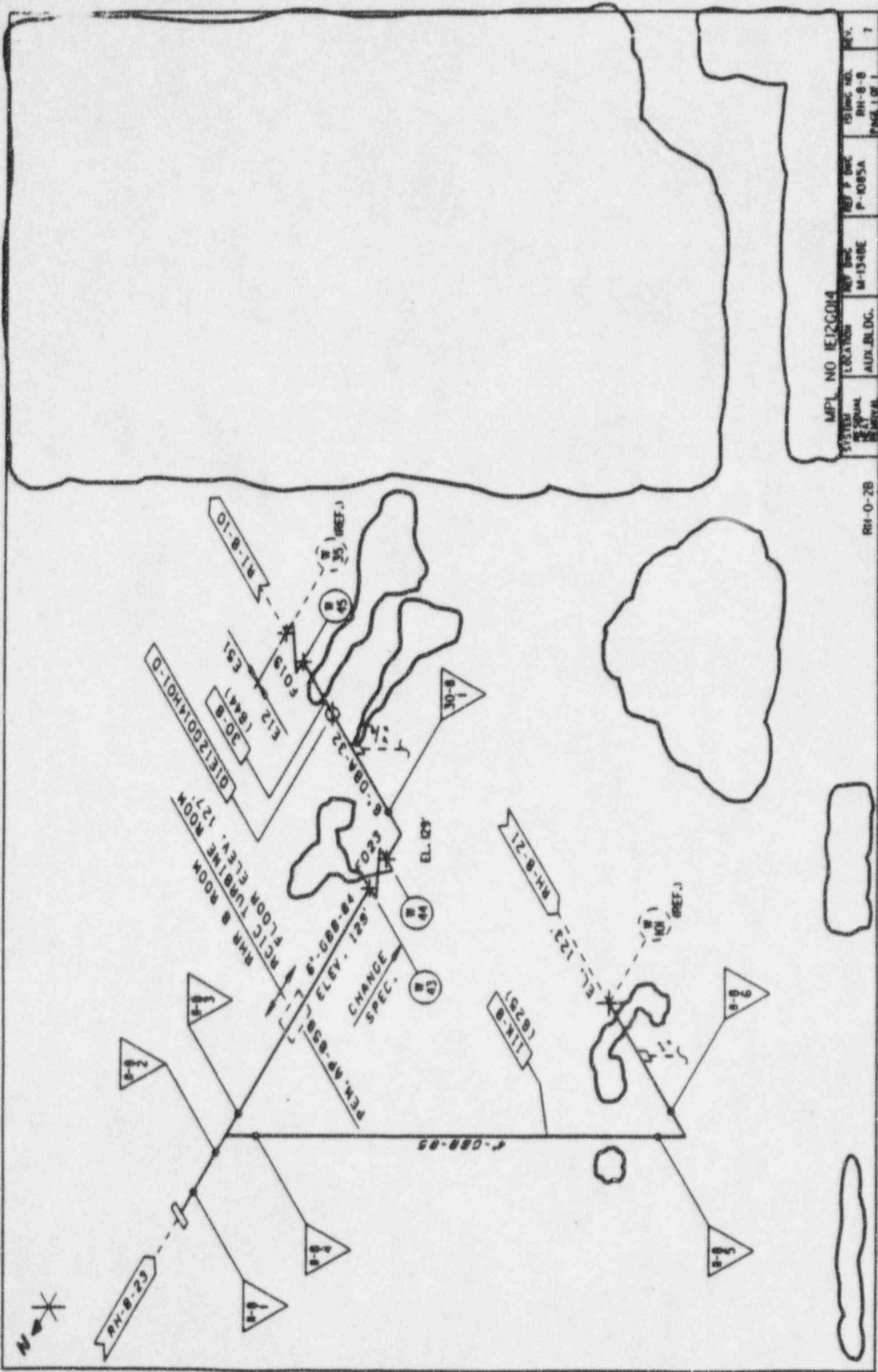


FLOOR ELEV. 275



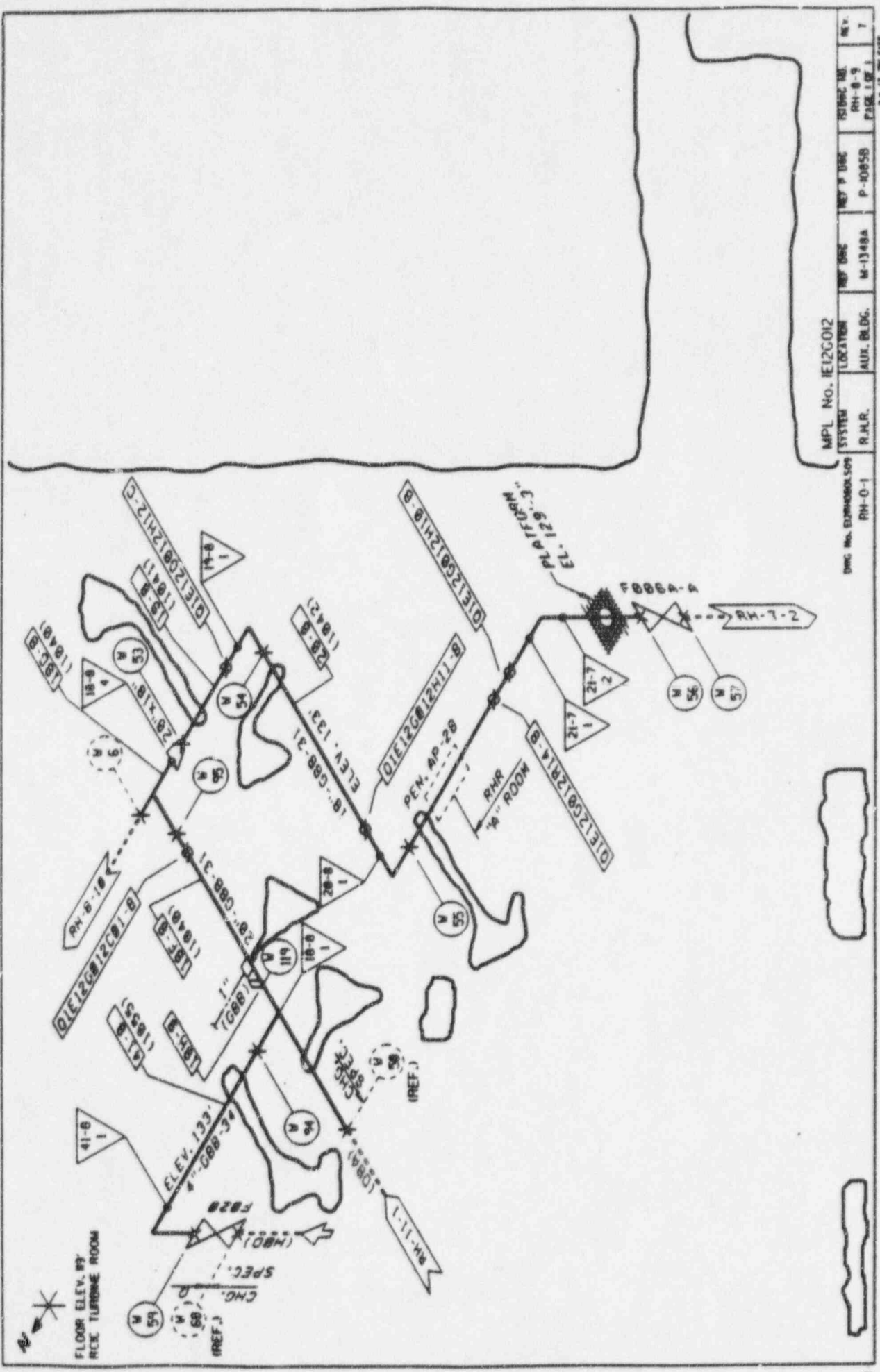
MPPL NO. R12C014

SYSTEM	LOC/ISSN	REF 750	REF P DRC	DWG NO.
EXCHANGER 504		M-1348E	P-1085B	RH-8-4
RH-0-2B	WT. EX. 2B	AUX. BLDG.		PAGE 1 OF 7



MPL NO IE12G014	
SYSTEM	REF DOC
LOCATION	M-134BE
AUX BLDG.	P-1085A
DATE	15 DEC 80
REV.	RH-8-8
PAGE	1 OF 1
SCALE	AS SHOWN

RH-0-28

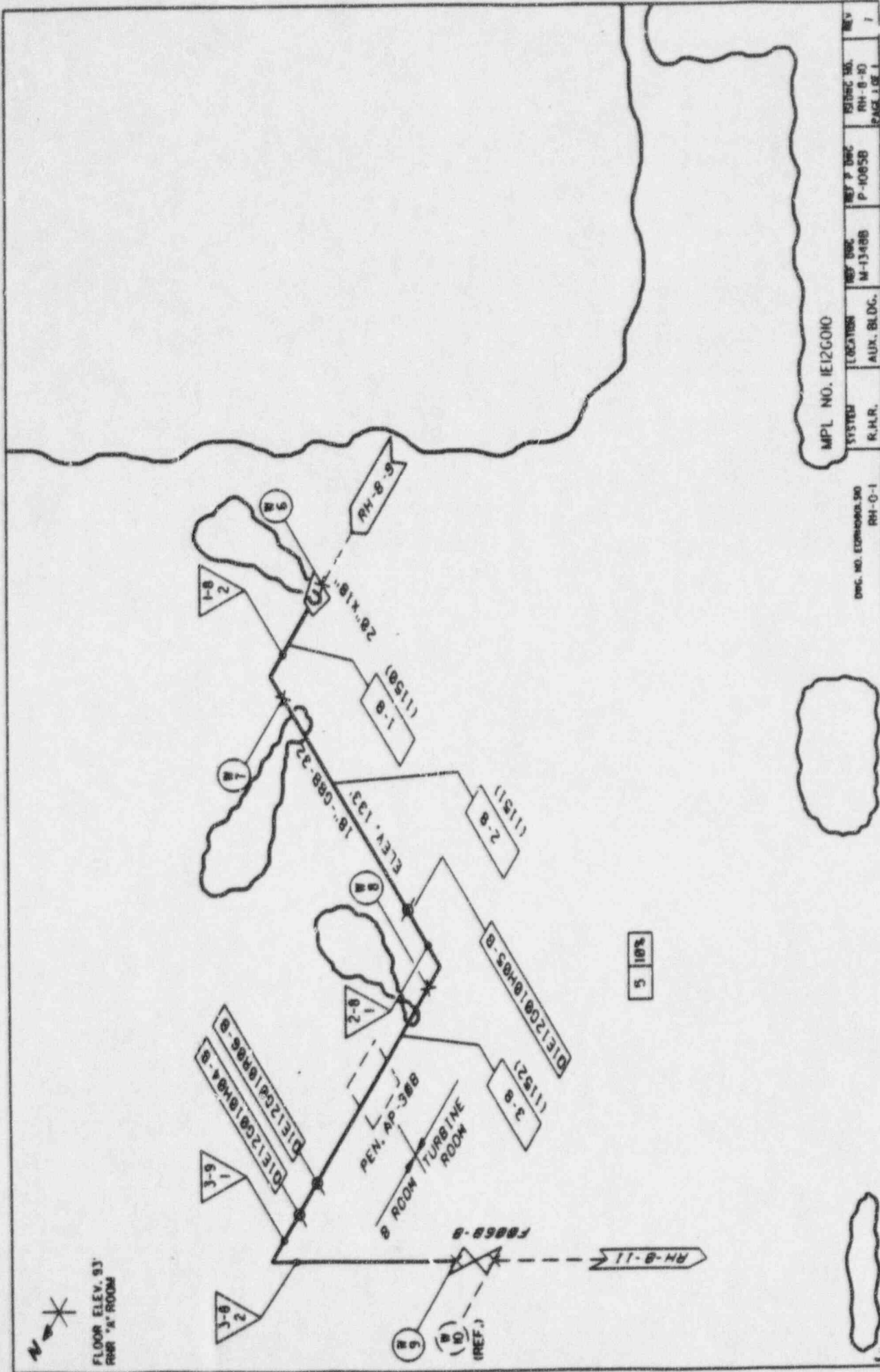


FLOOR ELEV. #9  
RICE TURBINE ROOM

MPL No. IE12G012

DOC No. EDWARDS0509	SYSTEM LOCATION	REF'D DOC	REF'D URG	ISSUED NO.	REV.
RH-0-1	AUX. BLDG.	M-1348A	P-1085B	RH-8-9	7
				FILE REF.	

SEE IT ON SIZE

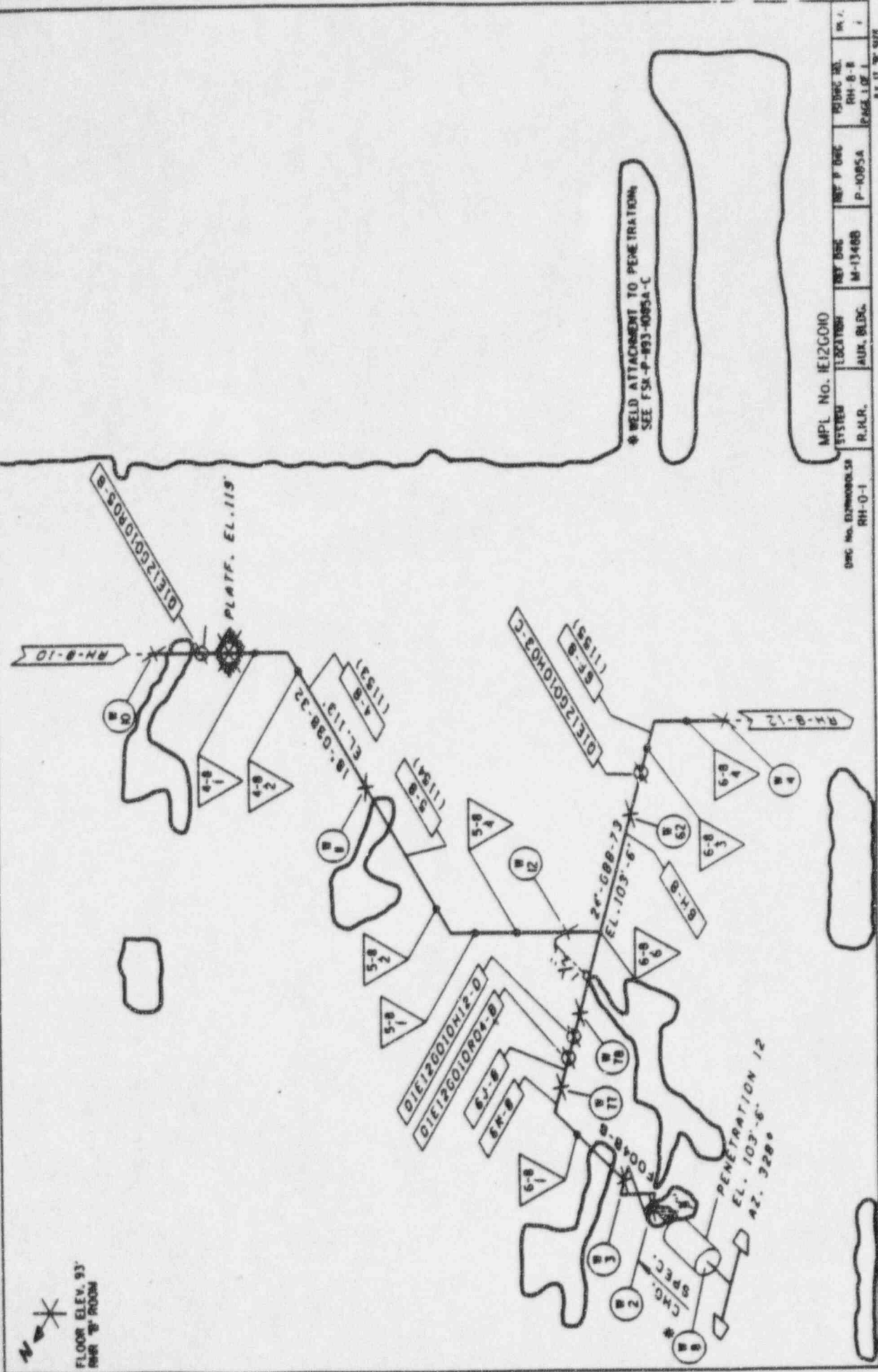


FLOOR ELEV. 93'  
RHR 'A' ROOM

5 100'

MPL NO. IE12G010

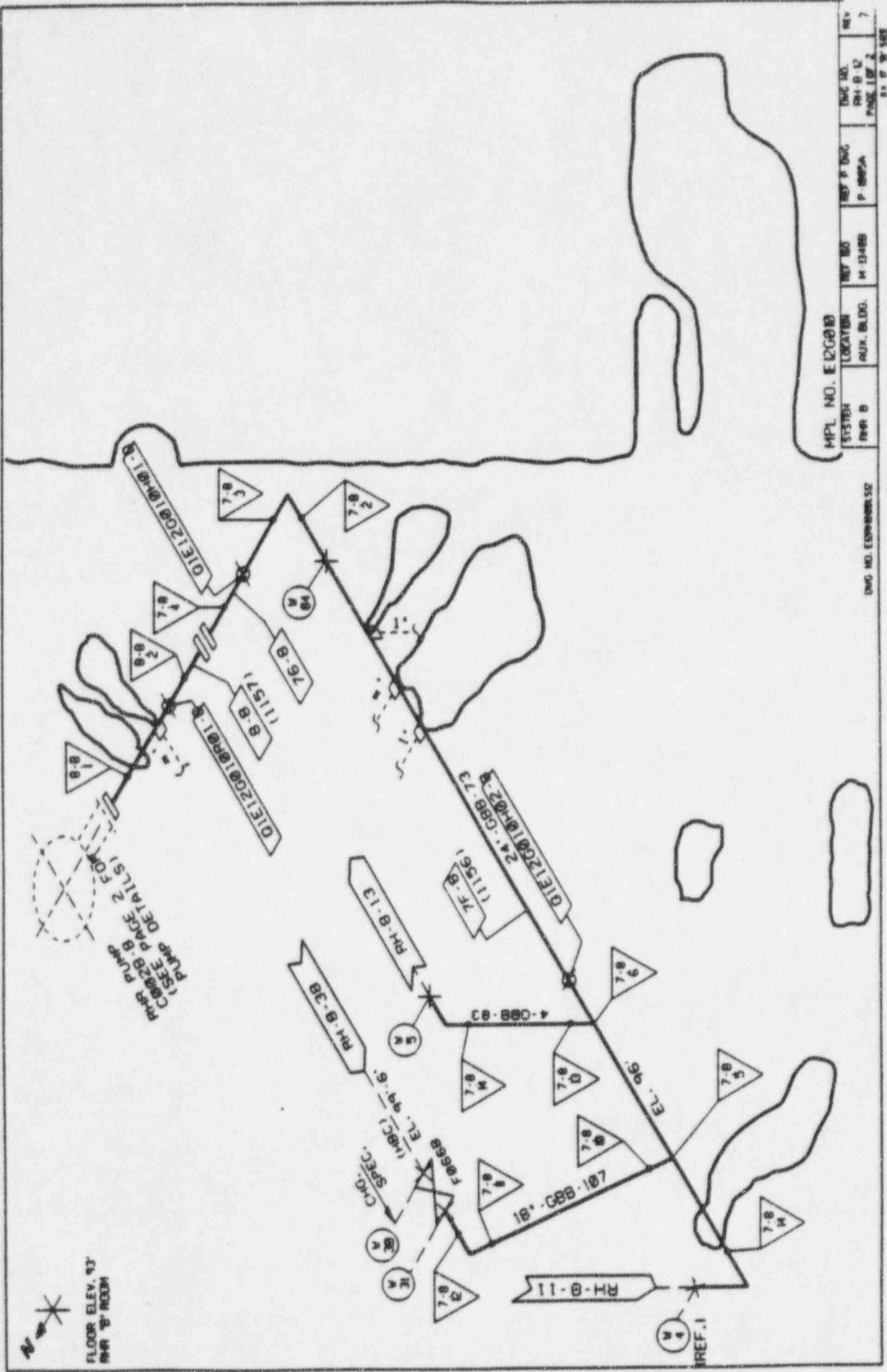
REF'D DWG	REF DWG	REF DWG	REF DWG	REV
P-10058	M-1348B	M-1348B	RH-8-8	1
R.H.R.	AUX. BLDG.	R.H.R.	PAGE 1 OF 1	
DWG. NO. EDR00000.90				
RH-0-1				



WELD ATTACHMENT TO PENETRATION  
SEE FSK-P-893-4085A-C

FLOOR ELEV. 93'  
RMR 7<sup>th</sup> ROOM

DMG No. E2200004.58 RH-0-1	MPL No. IE12G010	SYSTEM LOCATION R.I.R. AUX. BLDG.	REV DSC M-13488	REV F DSC P-1085A	REV DSC RH-8-B	REV PAGE 1 OF 1
-------------------------------	------------------	--------------------------------------	--------------------	----------------------	-------------------	--------------------



FLOOR ELEV. 13  
RHS "B" ROOM

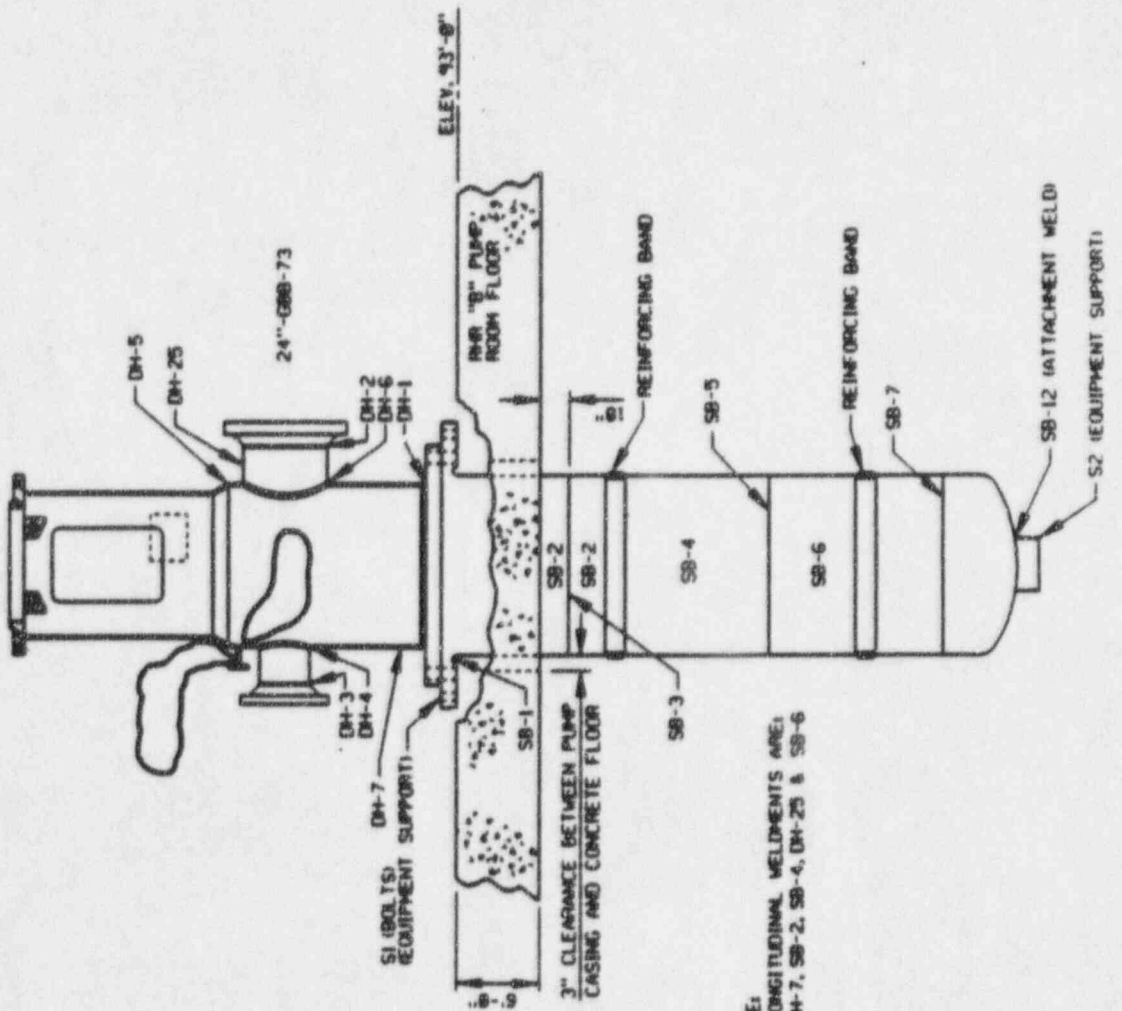


FIRE PUMP  
(SEE PAGE 2 FOR  
PUMP DETAILS)

MPL NO. E 120810	LOCATOR	REF NO	REF P Dwg	DWG NO.
SYSTEM	AUX. BLOC.	M-1346B	P-BMPA	RHS B. 13
				PAGE 1 OF 2
				REV 7

DWG NO. E120810-13

11 P 8 SEE



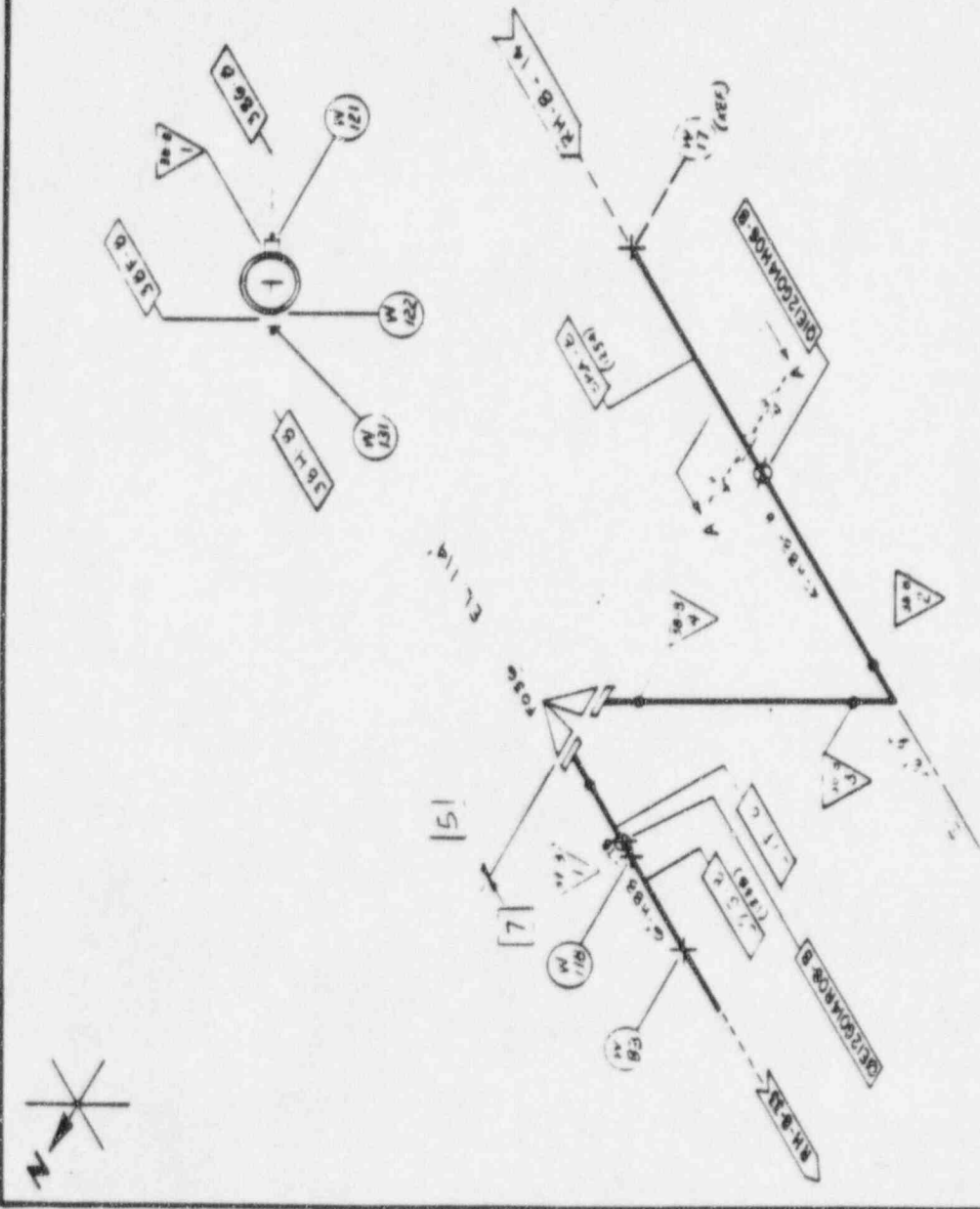
NOTE:  
LONGITUDINAL WELDMENTS ARE:  
DH-7, SB-2, SB-4, DH-25 & SB-6


SYSTEM	MPL No. IE12GONO	REV.	1
RHS B	LOCATION	REF Dwg	13 DEC 60
RHS B	ALIX. BLDG.	M-13488	RH-8-12
		P-1085A	PAGE 2 OF 2
			7

DWG No. ED08080232

BY 11 '8' SIZE

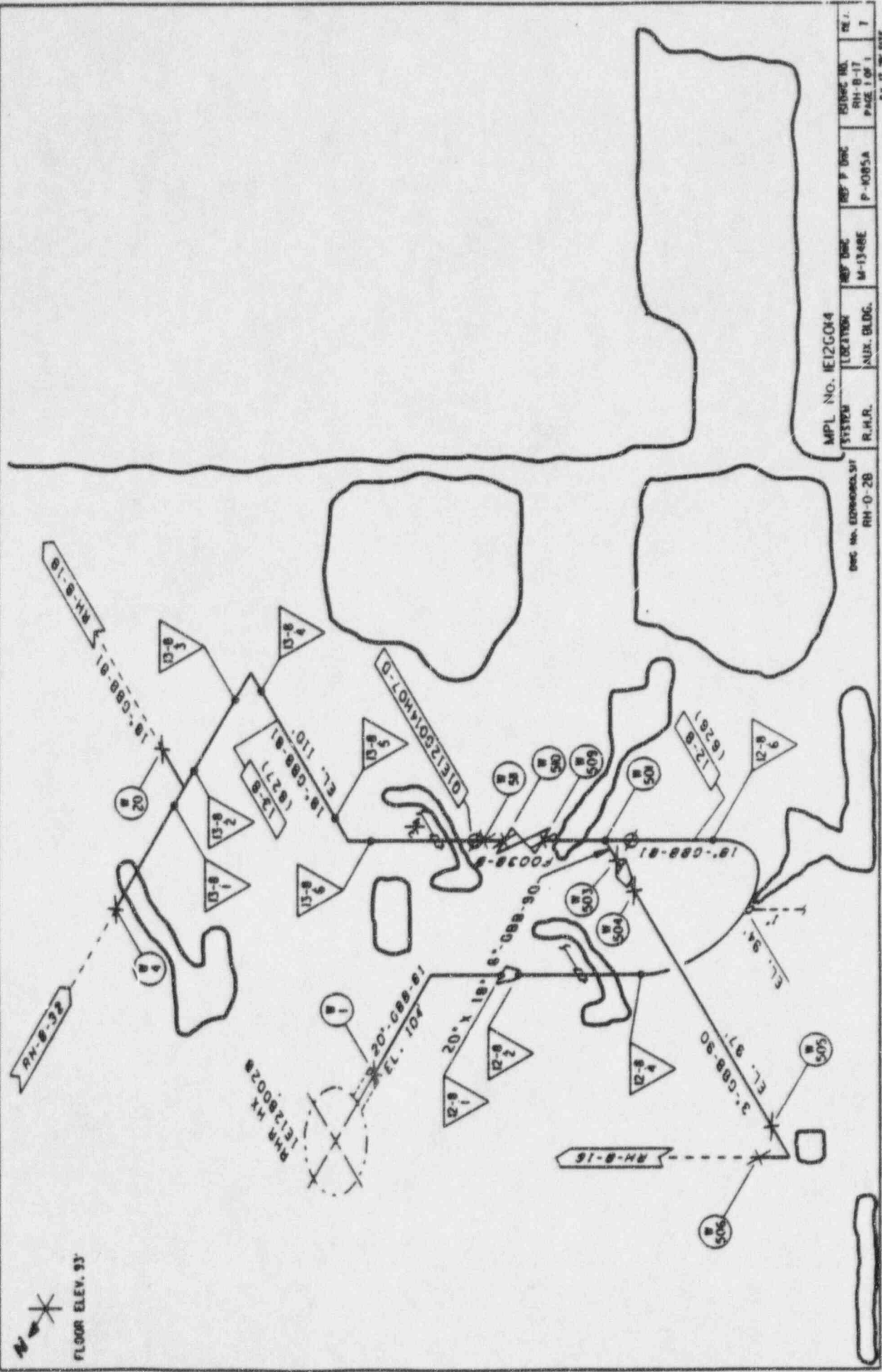
MP&L KEY	WELD DESCR	CODE CAT	TYPE ESAB	EXAM TIME PERIOD	ID MARK COMP
H06-B	HANGER	FB	VT 3	3	N/A
R08-B	HANGER	FB	VT 3	NOT CHOSEN	N/A
/					





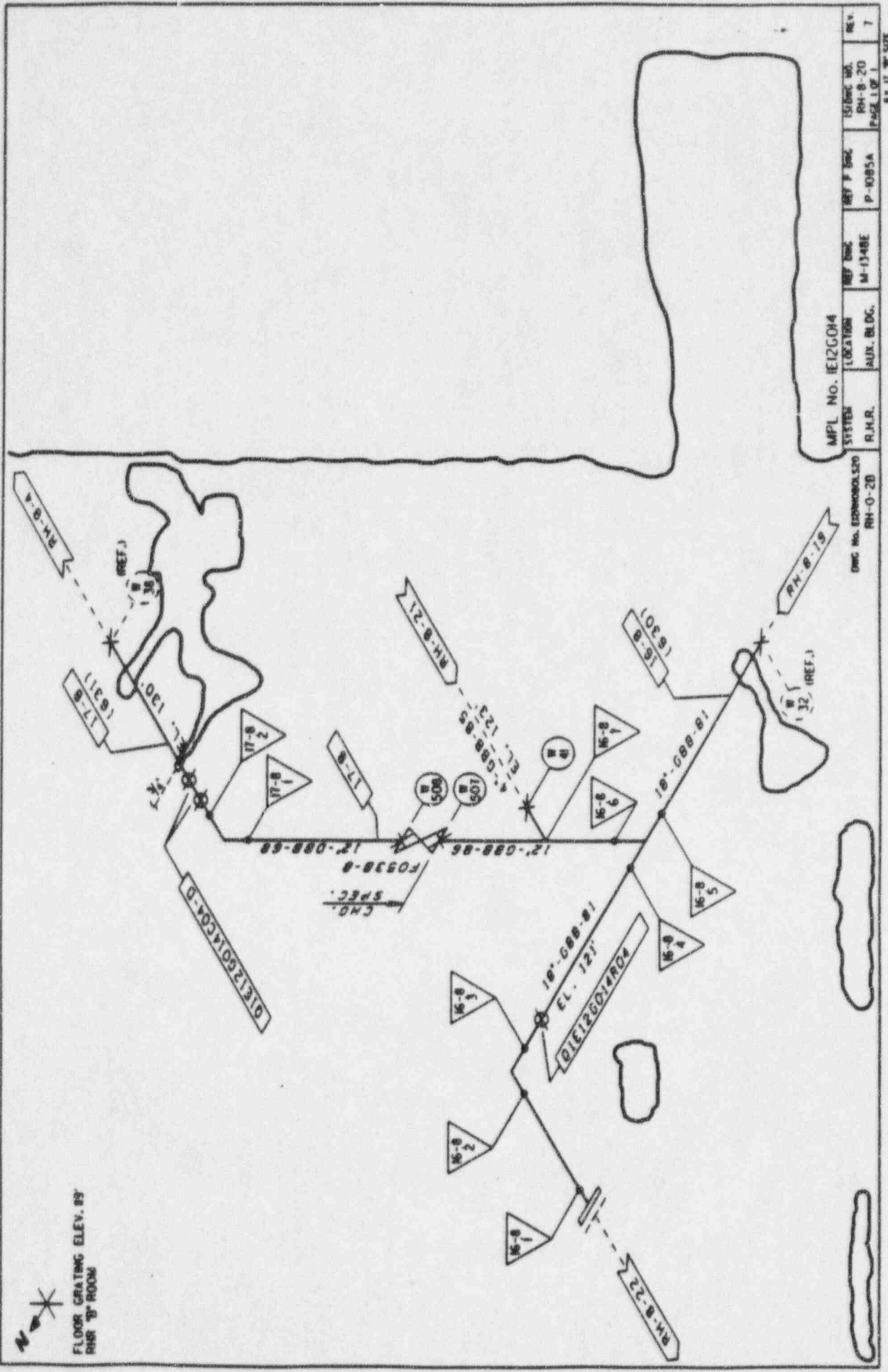
PROJECT <b>MP&amp;L</b>	LOCATION <b>GG-1 (JB-1)</b>	DATE <b>08.11.78</b>	BY <b>S. GRAUS</b>	SCALE <b>1:1</b>
DESIGNED BY <b>RHR</b>	AUX BLDG <b>M-1348E</b>	PROJECT NO <b>P-1085A</b>	ISSUE NO <b>RH-B</b>	DATE <b>1978</b>






  
 FLOOR ELEV. 93'

MPL No. IE12G014  
 SYSTEM LOCATION AUX. BLDG.  
 REF. DISC M-1348E P-1085A  
 REF. P. DISC RH-B-17 PAGE 1 OF 7  
 DISC No. ESTIMATED BY RH-0-28  
 11 17 '88 SEE

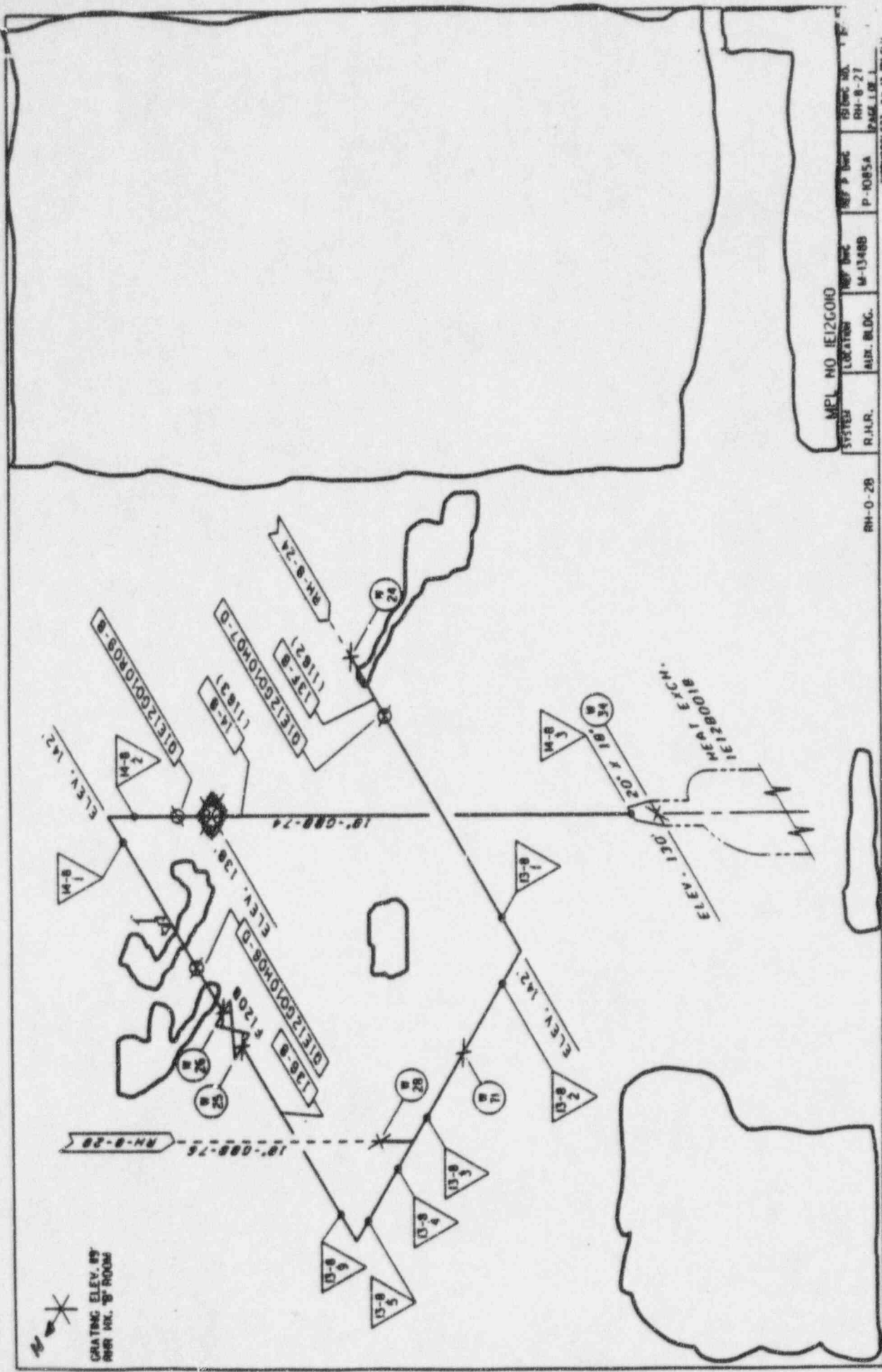


FLOOR GRATING ELEV. BY  
RHR 'B' ROOM

MPL No. IE12G014  
SYSTEMS LOCATION  
R.H.R. AUX. BLDG.  
REF DWG M-1348E  
REF P DWG P-1085A  
REV. 15/DEC 68  
RH-8-20  
Page 1 of 1

DWG No. E2200001.570  
RH-0-2D

11 17 58Z



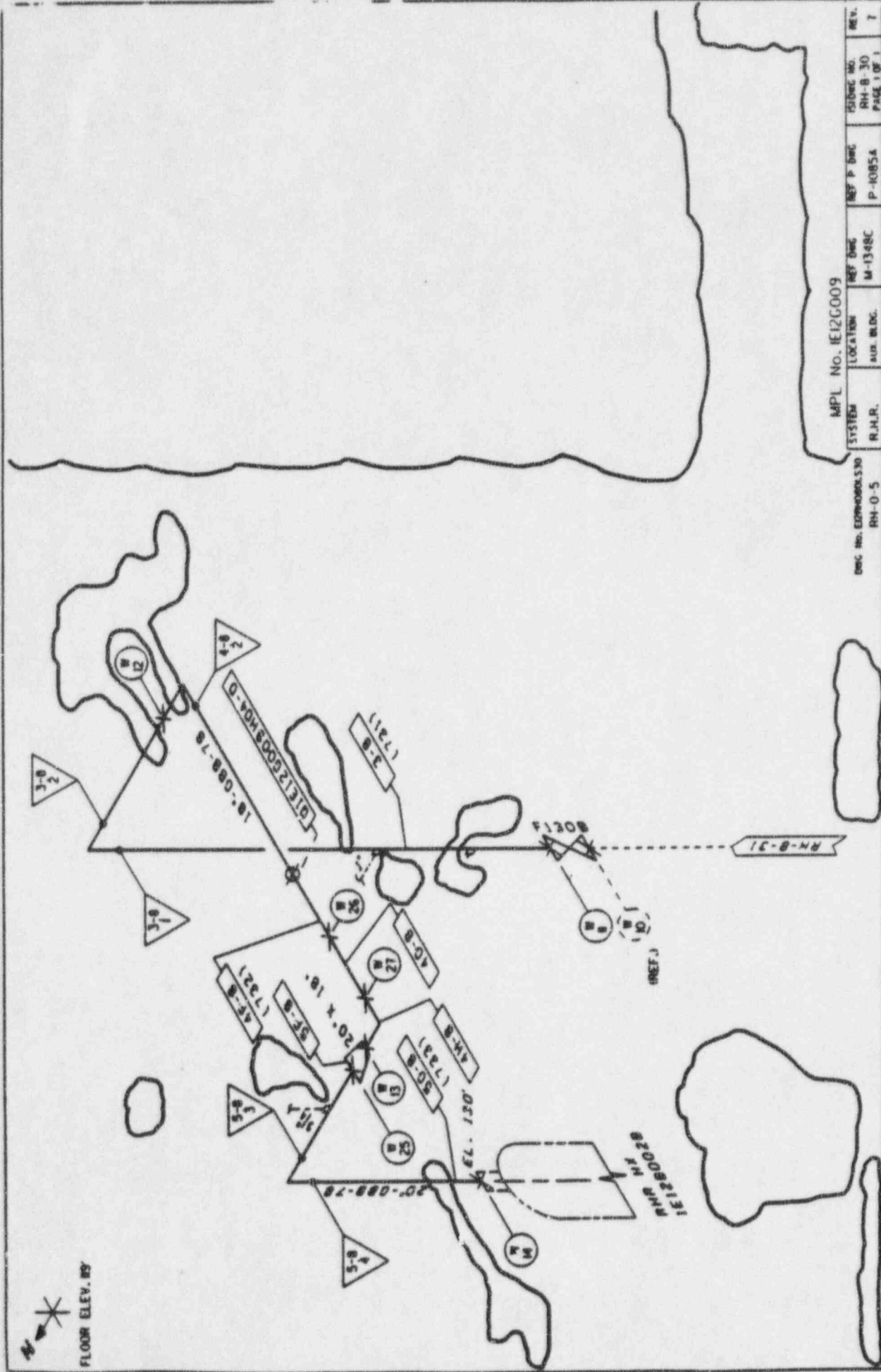
\*  
 GRATING ELEV. BY  
 RMR INL. 'B' ROOM

MPL NO IE2G010

SYSTEM	REF. DOC.	REV. NO.
LOCATION	M-1348B	RH-8-27
R.H.R.	P-1085A	PAGE 1 OF 1
AIR. BLDG.	M-1348B	

RH-0-28

12/20/00 12:27 81 11 51

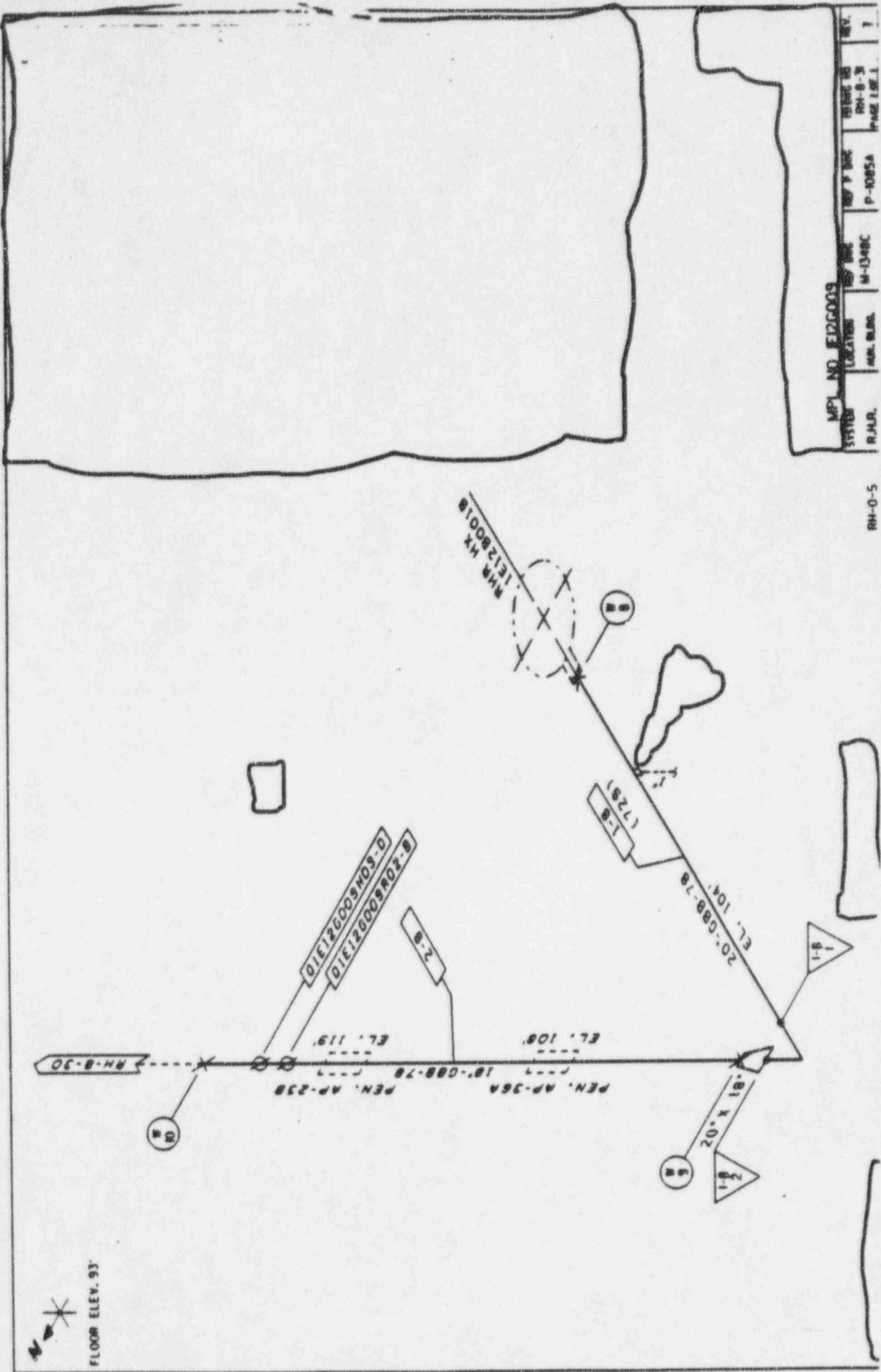



  
 FLOOR ELEV. 157

MPPL No. IE12G009	REF. Dwg	REF. P. Dwg	PLACING NO.	REV.
SYSTEM	M-1348C	P-1085A	RH-B-30	I
R.H.R.	LOC. BY	DATE	PAGE 1 OF 1	T

Dwg No. EDPH000530  
 RH-0-5

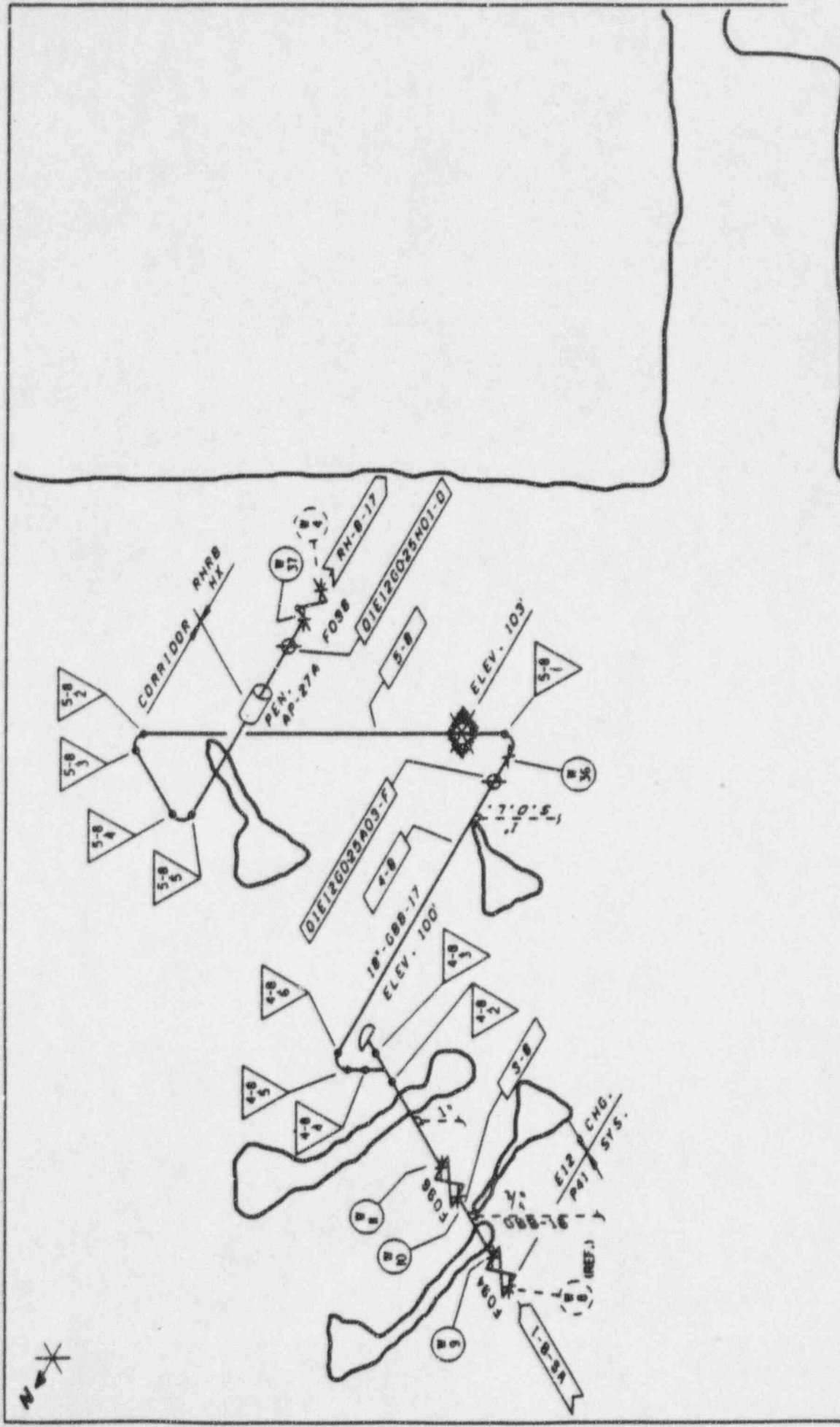
8 x 11" SIZE



MPJ NO. E12G003

SYSTEM	LOCATION	REV. DATE	REV. NO.
M-1348C	M-1085A	RH-8-3	7
REV. DATE	REV. NO.		

R.H.0-5



DWG No. E12G025	REV. DATE	REV. DATE	REV. DATE	REV. DATE
PH-0-2B	M-13588	P-1068D	RH-8-37	PAGE 1 OF 1
R.H.R.	AUX. BLDG.	LOC. BLDG.	LOC. BLDG.	REV. DATE
MPL No. IE12G025		REV. DATE		



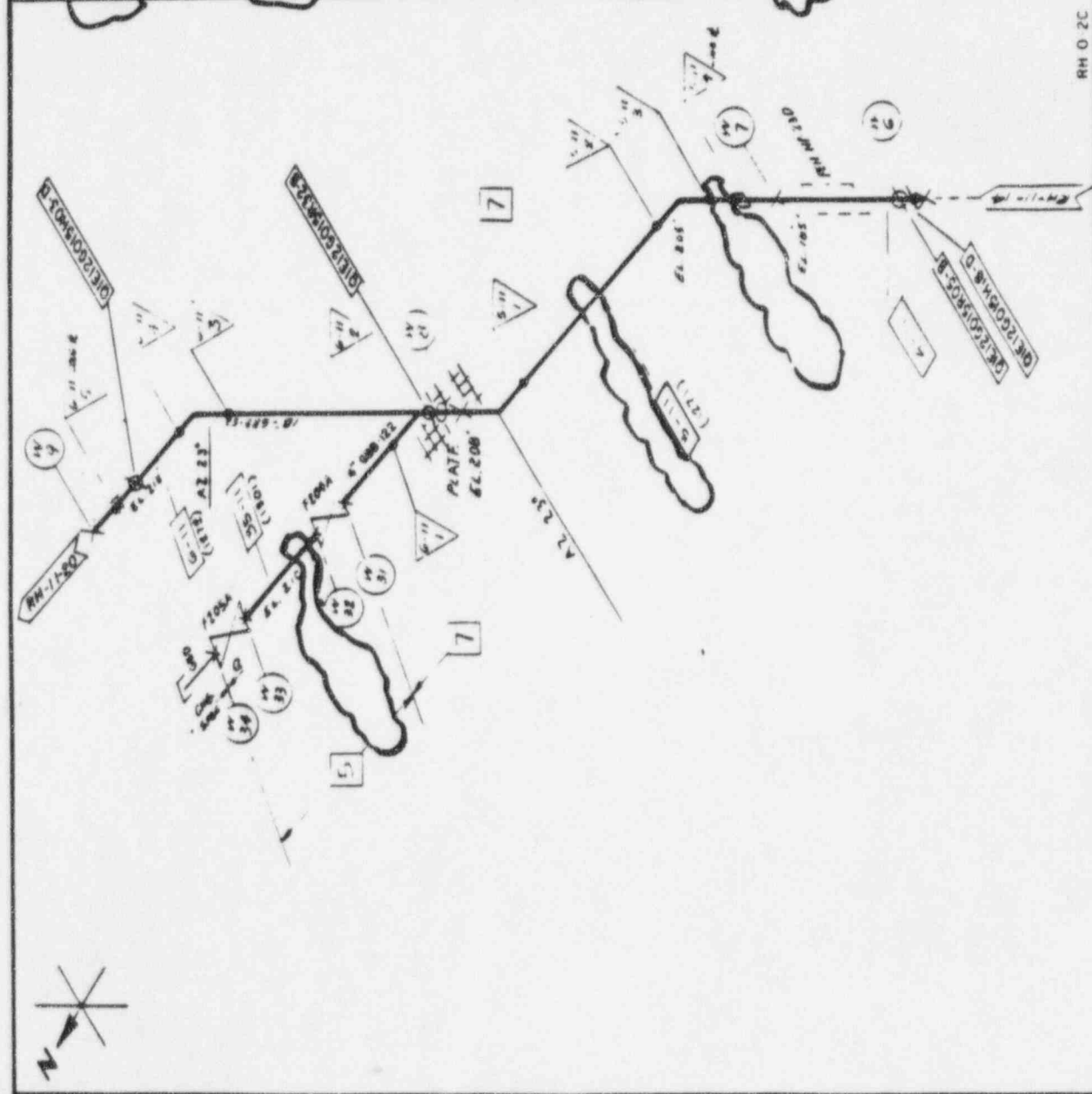


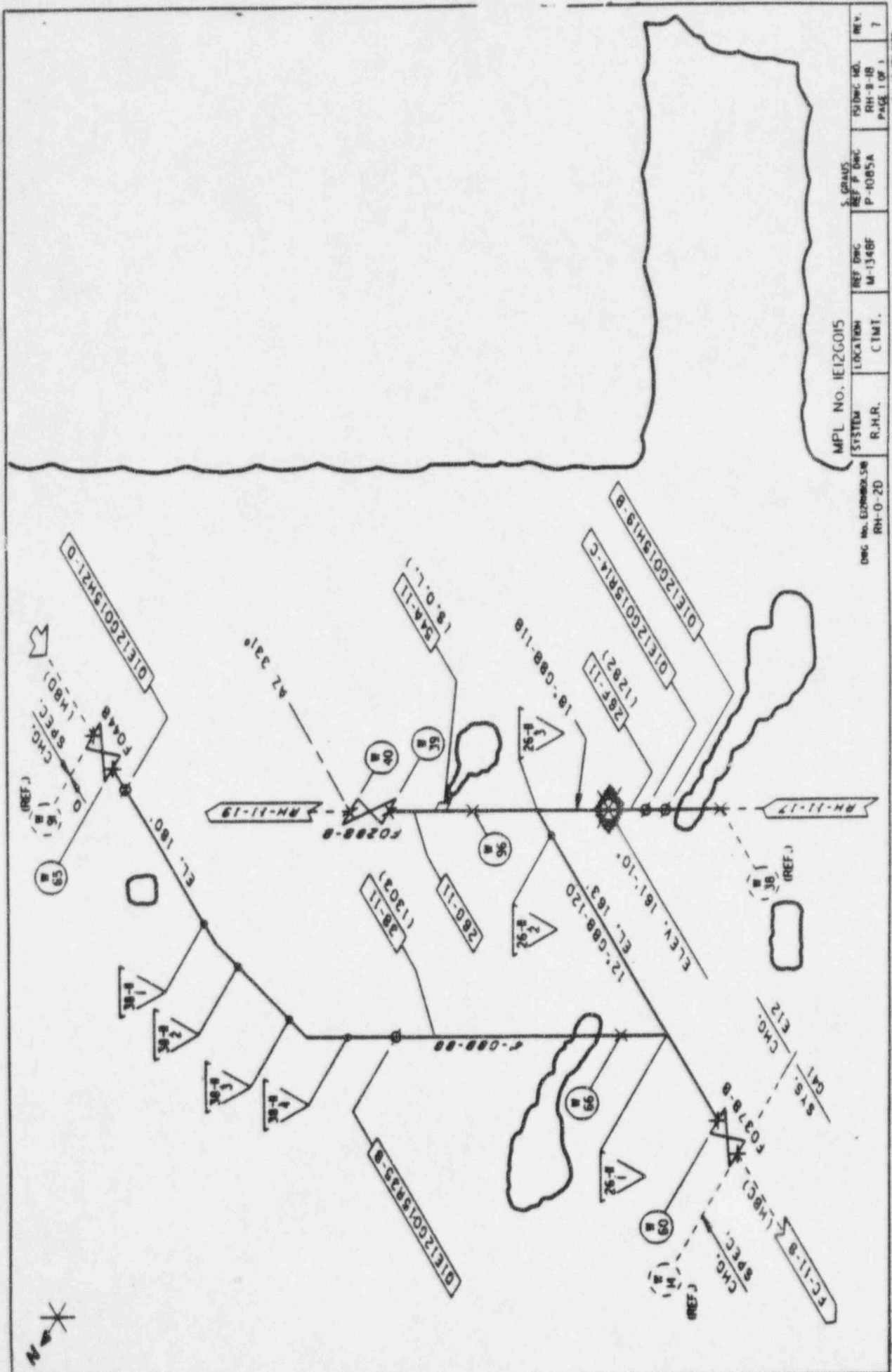


WELD NO	WELD DESCR.	CODE CAT	TYPE EXAM	EXAM TIME PERIOD	DATE MADE (M/P)
R12G06					
R05-B	HANGER FB	FB	VT3		N/A
R32-B	HANGER FB	FB	VT3	NOT CHOSEN	N/A
H03-D	HANGER FC	FC	VT3		N/A
H18-D	HANGER FC	FC	VT3	NOT CHOSEN	N/A
H03-D	HANGER FC	FC	VT4		N/A
H18-D	HANGER FC	FC	VT4	NOT CHOSEN	N/A



PROJECT: **MPBL (GG-1) JB-1**  
 MADE BY: **S GRAUS**  
 BASE - N/D  
 DATE: **12-10-85**  
 RHR: **RH II**  
 CTMT: **M-1348F**  
 PAGE 1 of 1





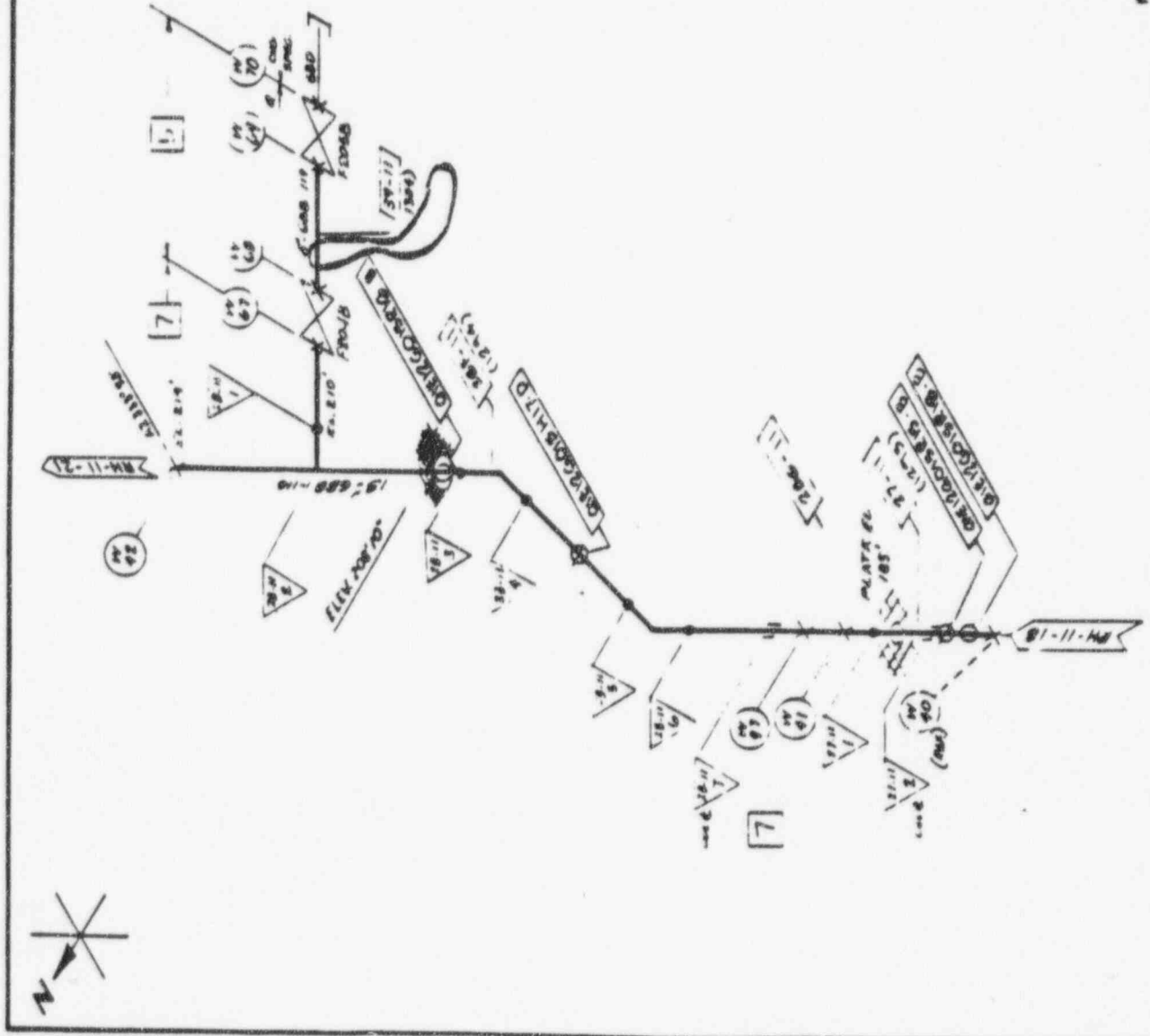
MPL NO. IE12G015

SYSTEM	LOCATION	C.TMT.	5. GRAUS	REV.
R.H.R.	M-136BF		P-1085A	RH-8-18
RH-0-20				PAGE 1 OF 1
				7

DMG No. E12M003.50  
RH-0-20

8 X 11" SIZE

PCN 95-0001  
PAGE 4 of 6



WEL NO NEW 005	WELD DEVICE	COMP CAT.	TYPE SEAM	SEAM TIME PERIOD	LD MATERIAL CLASS
R18-B	HANGER	FB	VT3	NOT CHOSEN	N/A
K17-D	HANGER	FC	VT3	NOT CHOSEN	N/A
R15-B	HANGER	FB	VT3	NOT CHOSEN	N/A
R18-B	HANGER	FB	VT3	NOT CHOSEN	N/A
K17-D	HANGER	FC	VT4	NOT CHOSEN	N/A

MPBL  
RHR

MPBL  
GG-1 (JB-1)

MPBL  
CTMT

MPBL  
M-1348F

MPBL  
P-1080A

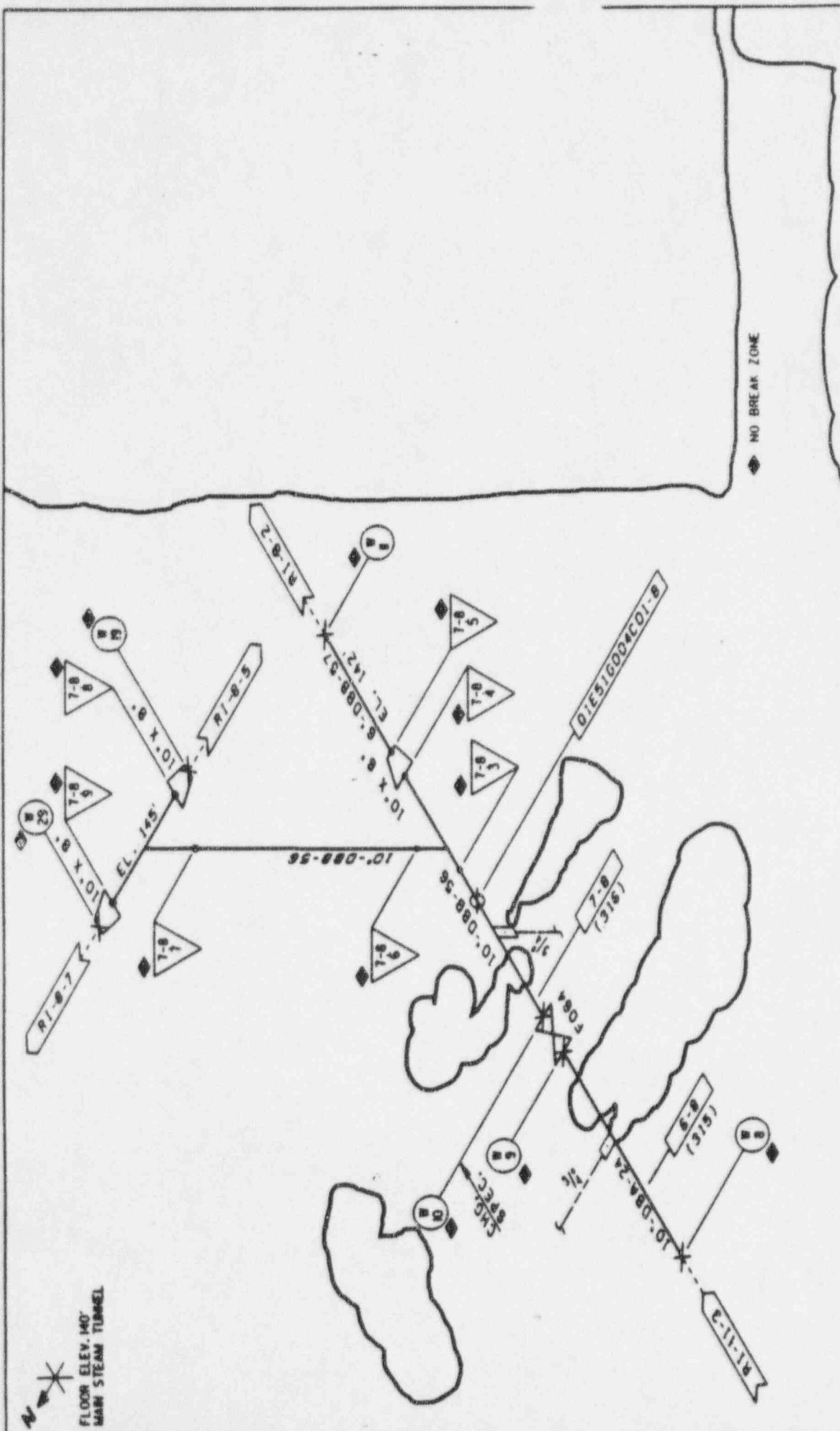
MPBL  
MSE - MSO  
ATLANTA

MPBL  
RM-11

MPBL  
PAGE 1 of 1







REF. DWG.	M-1347A	REF. P. DWG.	P-1063B	ISSUING NO.	RI-8-1	REV.	7
LOCATION	AUX. BLDG.			PAGE	1 OF 1		
SYSTEM	MS TO	PROC. TURB.					

DWG NO. ESMR000.50  
RI-0-2

MPL NO. ESMC004

NO BREAK ZONE

SCALE: 1/4" = 1'-0"

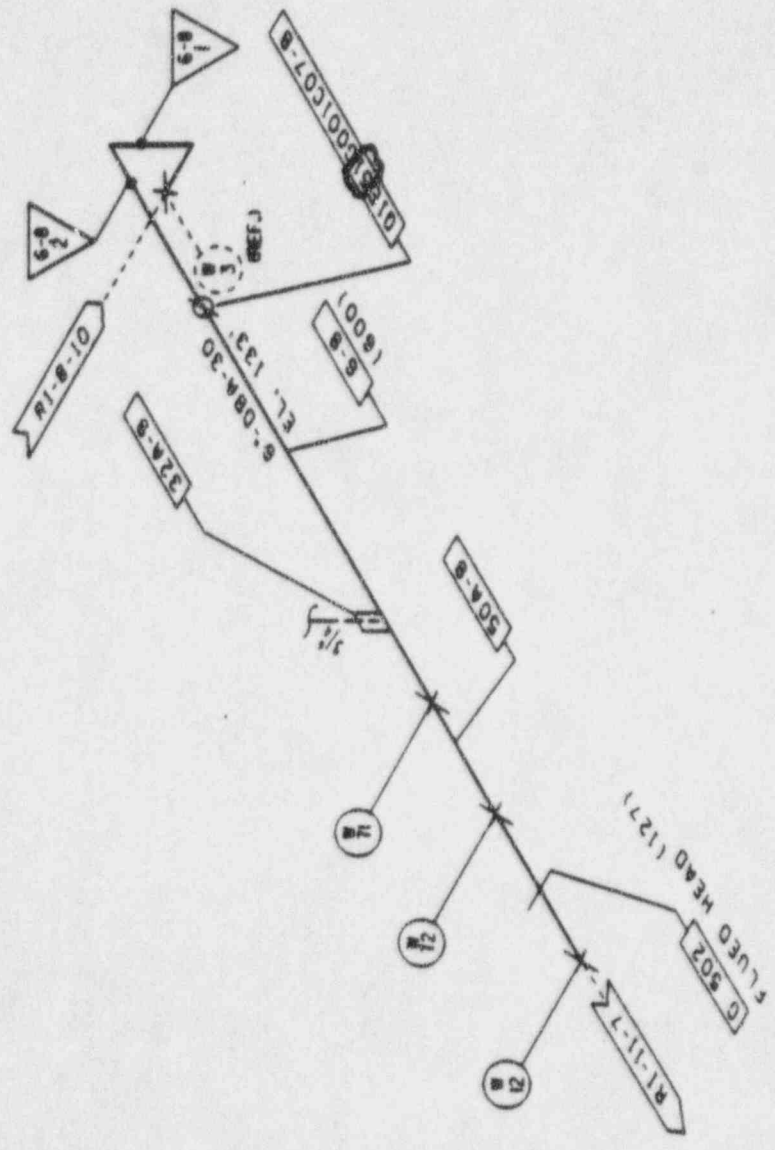
DATE: 11/1/80

PROJECT: MARI STEAM TUNNEL

FLOOR ELEV. 140'  
MARI STEAM TUNNEL

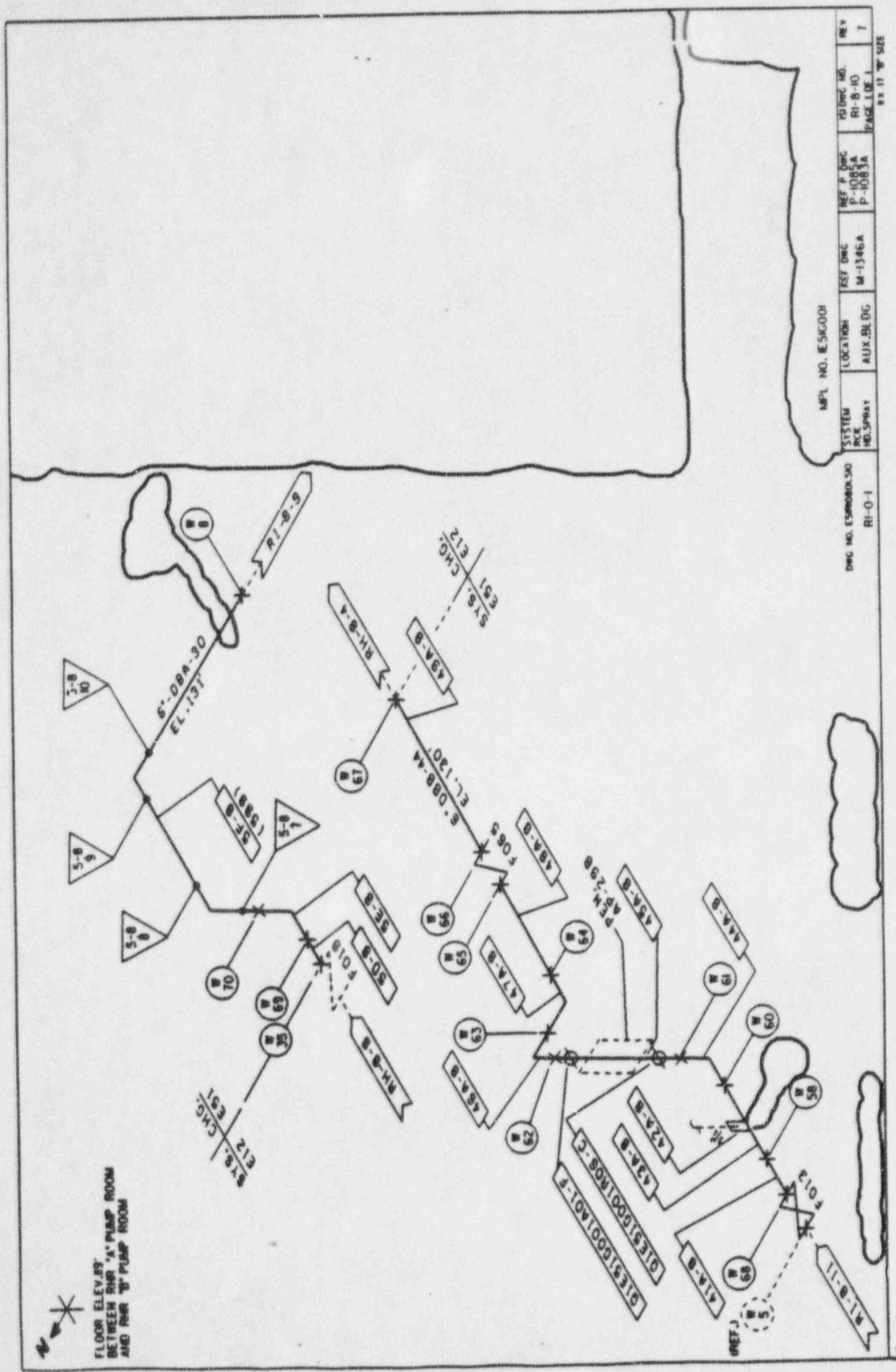


FLOOR EL. BY  
BETWEEN RMR 'A' PUMP ROOM  
AND RMR 'B' PUMP ROOM



W.P. NO. E'S6000

DWG NO. E'S6000.500	SYSTEM	LOCATION	REF DWG	REF P DWG	ISSUE NO.	REV
RI-0-1	HE. SPRAY	ALJ. BLDG.	M-1346A	P-1085A	RI-8-5	0
					PAGE 1 OF	0



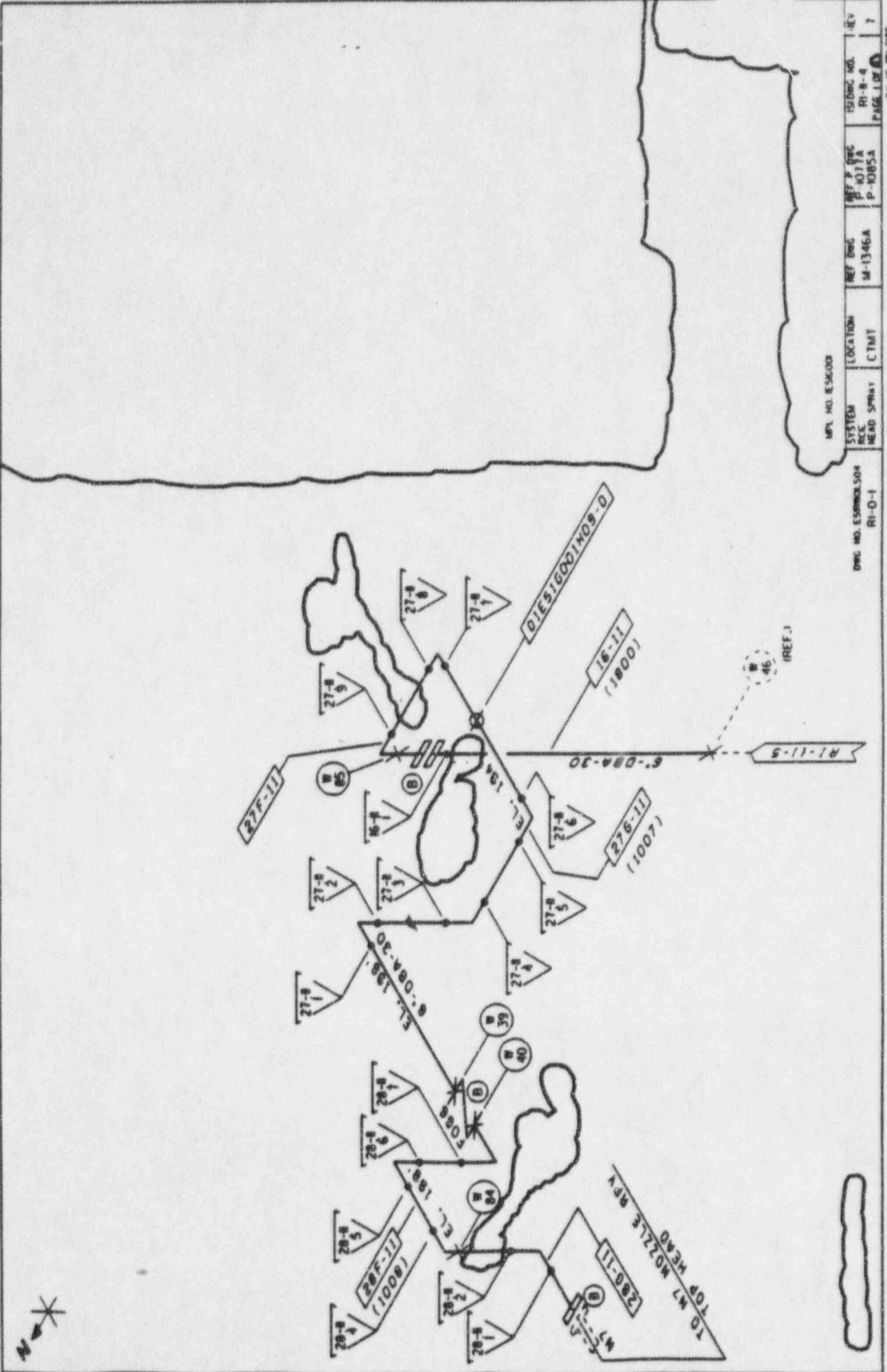
FLOOR ELEVATION  
 BETWEEN RHR 'A' PUMP ROOM  
 AND RHR 'B' PUMP ROOM



MBL NO. E51C001	REF P. Dwg	15 DEC 10	REV
SYSTEM LOCATION	P-1083A	RI-8-10	
RCK NO. SPRAY	M-1346A	PAGE 1 OF 1	7
AUX. BLDG			
DWG NO. E50000A.50			
RI-0-1			

11 11 11 SET

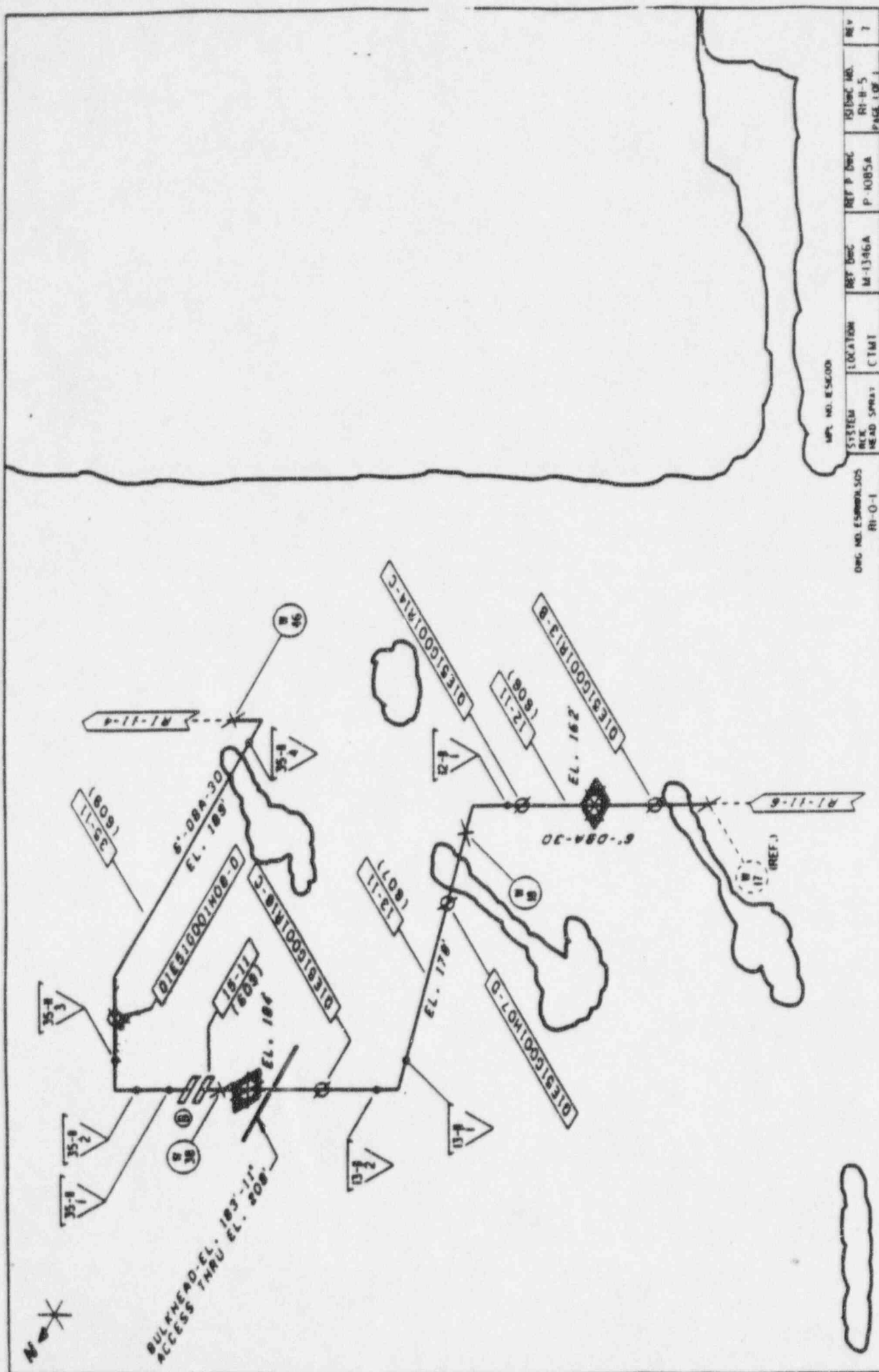




Dwg No. E5000A.504  
 RI-0-1

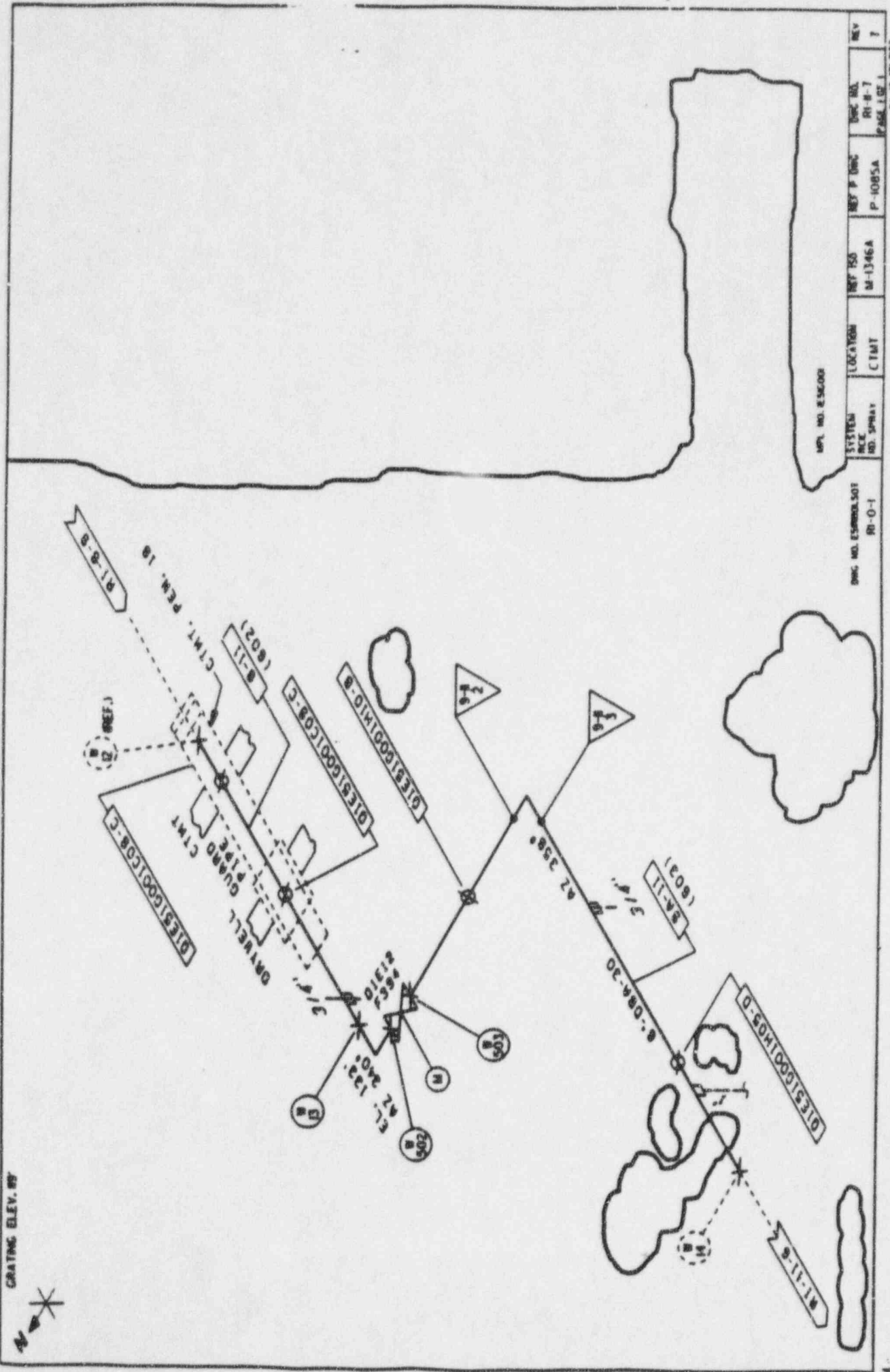
MPV No. E5000  
 SYSTEM HEAD SPRAY  
 LOCATION C.TMT  
 REF Dwg M-1346A  
 REF P Dwg P-1085A  
 15 Dwg No. RI-8-4  
 REV 7  
 PAGE 1 OF 1

8 X 17 1/2 SIZE



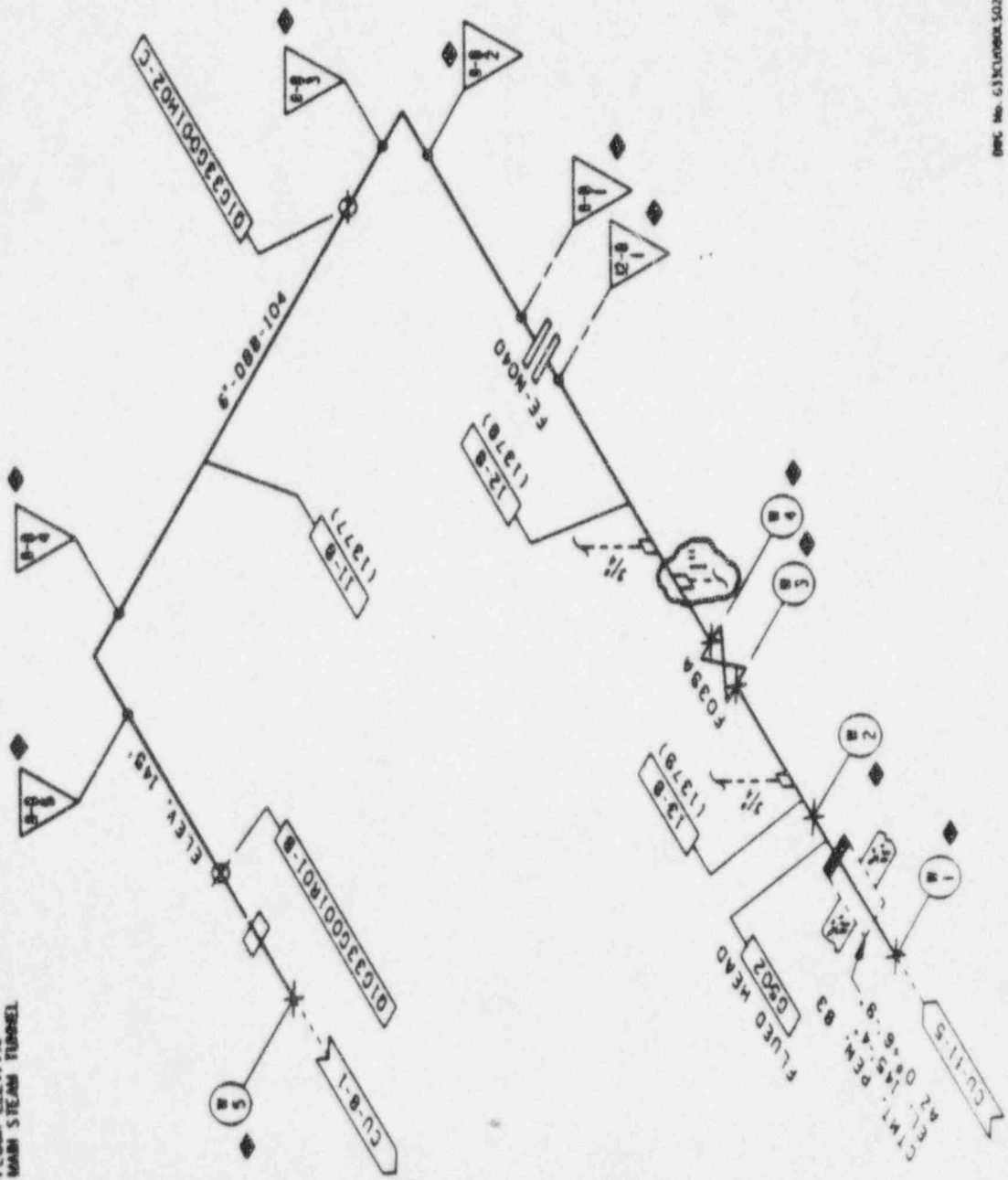
OWG NO. ESMON.505	MP. NO. E5E008	SYSTEM	LOCATION	REF. DOC.	REF. P. DOC.	DISC. NO.	REV.
R1-0-1		HEAD SPRAY	CTMT	M-1346A	P-K085A	R1-B-5	7
						PAGE 1 OF 1	

EX 17 W 3-14





FLOOR ELEV. 40'  
MAIN STEAM TUBES



◆ NO BREAK ZONE

MPL No. IC 33G00H

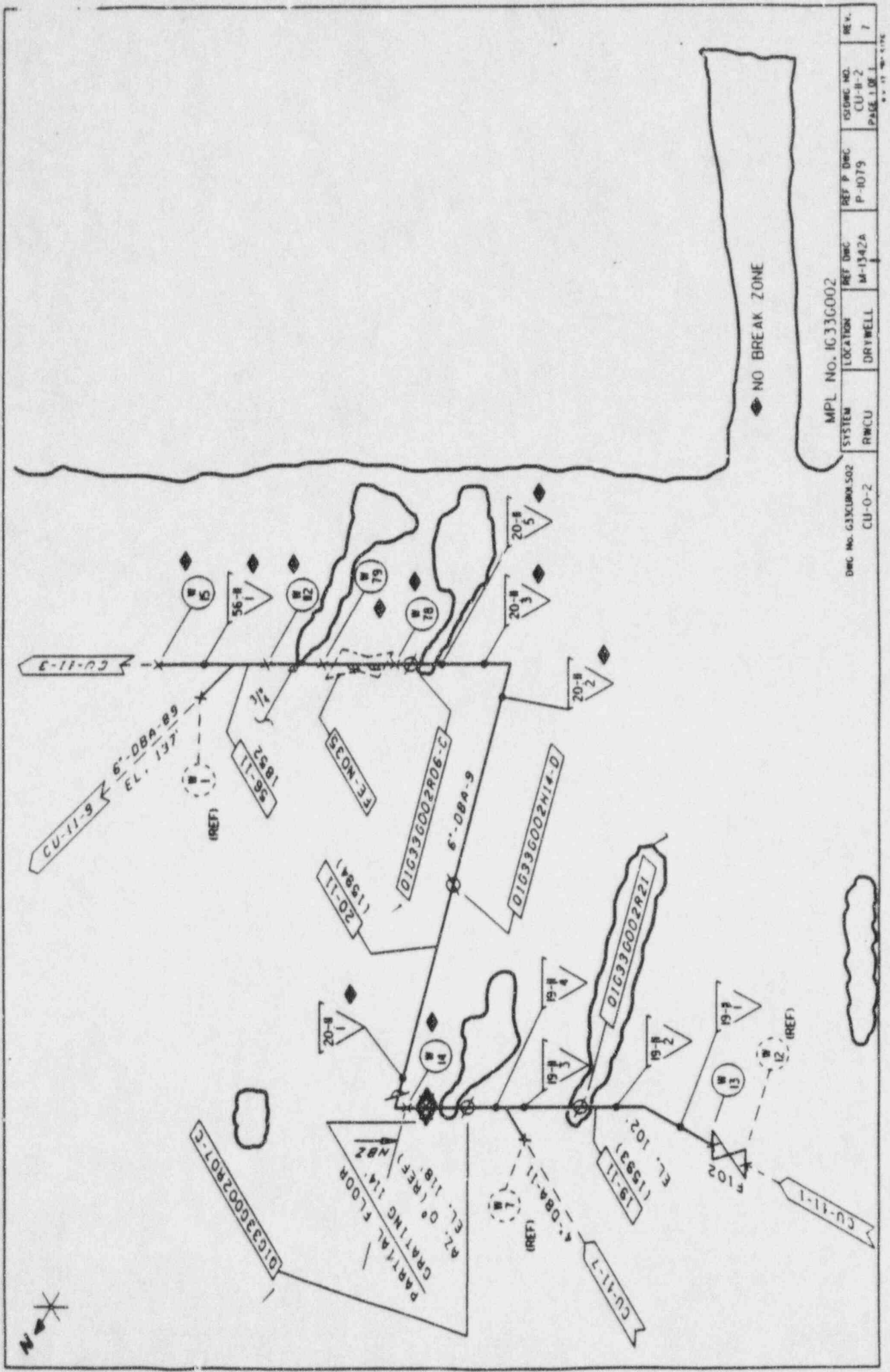
SYSTEM LOCATION  
MPCU FROM  
MPCU FROM  
MPCU FROM

REF 60 M-1320K  
REF P DOC P-6075  
BMC NO. CU-8-2

REV. 8

DATE 11-11-1

PROJECT NO. 63100000.502



◆ NO BREAK ZONE

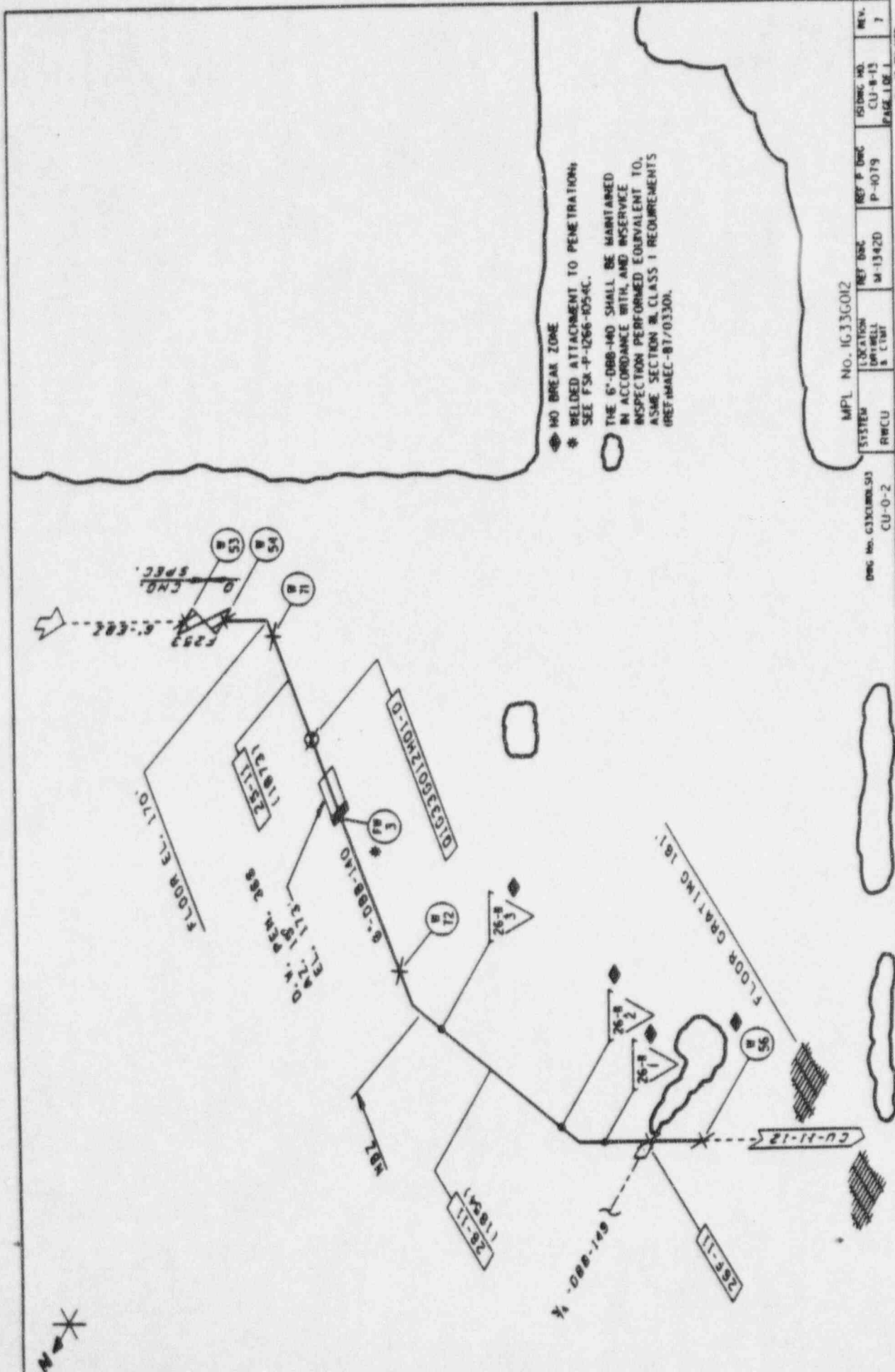
MPL No. IG33G002

DWG No. G33G002	SYSTEM	LOCATION	REF DWG	REF P DWG	ISSWG NO.	REV.
CU-0-2	RWCU	DRYWELL	M-1342A	P-1079	CU-H-2	7
					PAGE 1 OF 1	

0.000000







\* NO BREAK ZONE  
 \* WELDED ATTACHMENT TO PENETRATION;  
 SEE FSK-P-1266-105-4C.  
 \* THE 6" DBB-140 SHALL BE MAINTAINED  
 IN ACCORDANCE WITH, AND INSERVEICE  
 INSPECTION PERFORMED EQUIVALENT TO,  
 ASME SECTION III, CLASS 1 REQUIREMENTS  
 (REF: MAEC-87/0330).

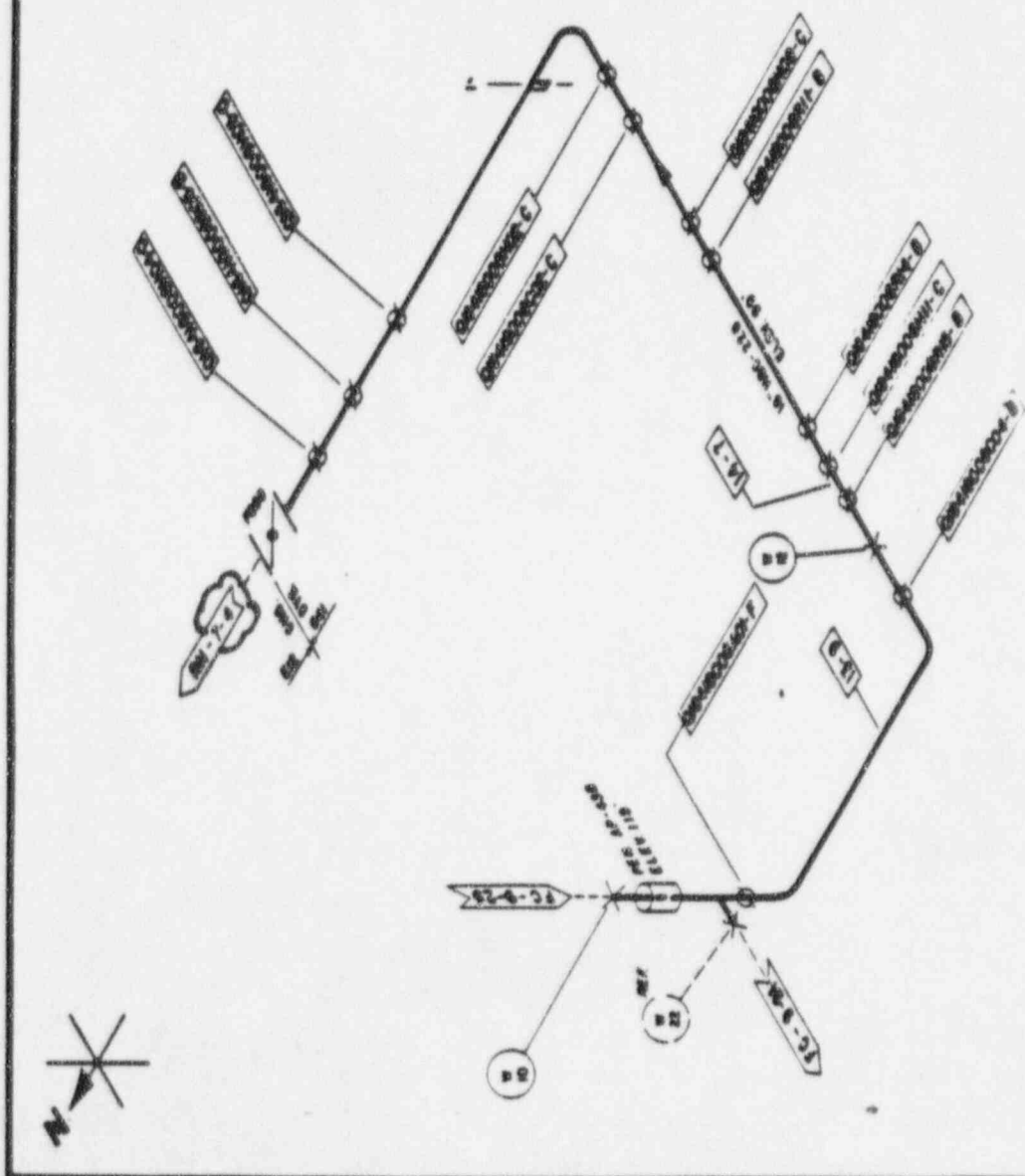
MPL NO. 16.33G012

SYSTEM	LOCATION	REF. Dwg	REF. P. Dwg	ISDING. NO.	REV.
RWCU	WELL & UNIT	M-1342D	P-1019	CU-8-13	7
				PAGE 1 OF 1	

Dwg No. G33C000.503  
 CU-0-2



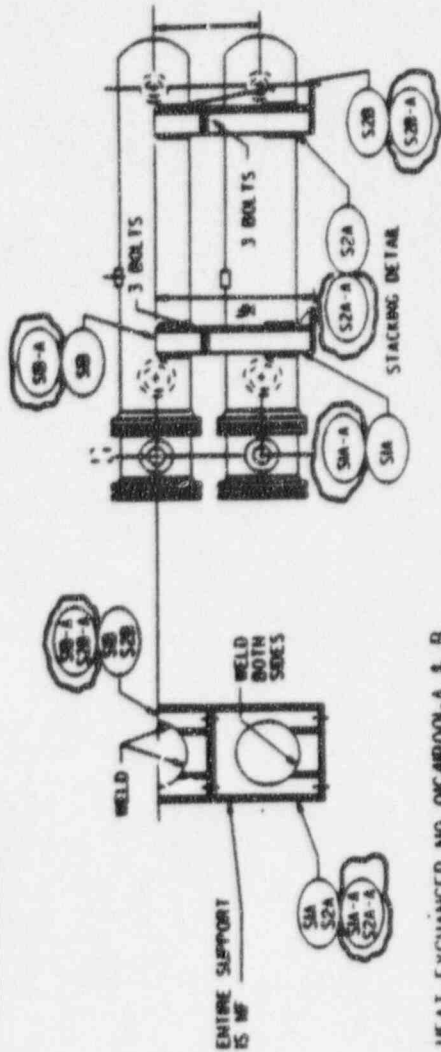
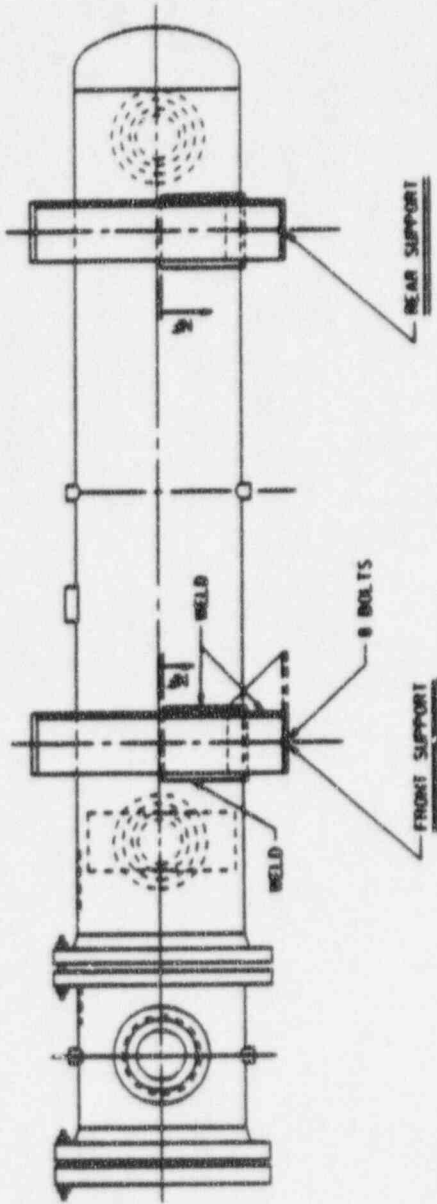
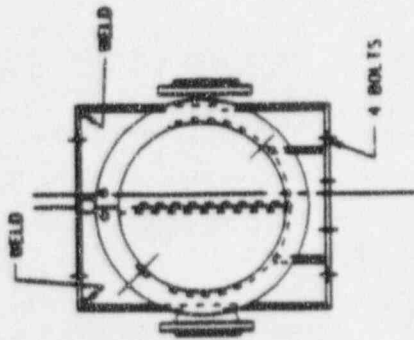




WEL. NO.	WEL. TYPE	WEL. SIZE	WEL. CLASS	WEL. TYPE	WEL. SIZE	WEL. CLASS	WEL. TYPE	WEL. SIZE
M449008								
A01-F	HANGER	FA	VT3	3				N/A
C02-C	HANGER	FB	VT3	NOT CHOSEN				N/A
C04-B	HANGER	FB	VT3	NOT CHOSEN				N/A
H02-C	HANGER	FB	VT3	NOT CHOSEN				N/A
H03-C	HANGER	FB	VT3	2				N/A
H04-C	HANGER	FB	VT3	3				N/A
H07-C	HANGER	FB	VT3	NOT CHOSEN				N/A
H11-C	HANGER	FB	VT3	NOT CHOSEN				N/A
R05-B	HANGER	FB	VT3	NOT CHOSEN				N/A
R11-B	HANGER	FB	VT3	NOT CHOSEN				N/A
R14-B	HANGER	FB	VT3	NOT CHOSEN				N/A
R15-B	HANGER	FB	VT3	NOT CHOSEN				N/A
A01-F	WELD#	DC	VT3	2				N/A
R05-B	WELD#	DC	VT3	2				N/A



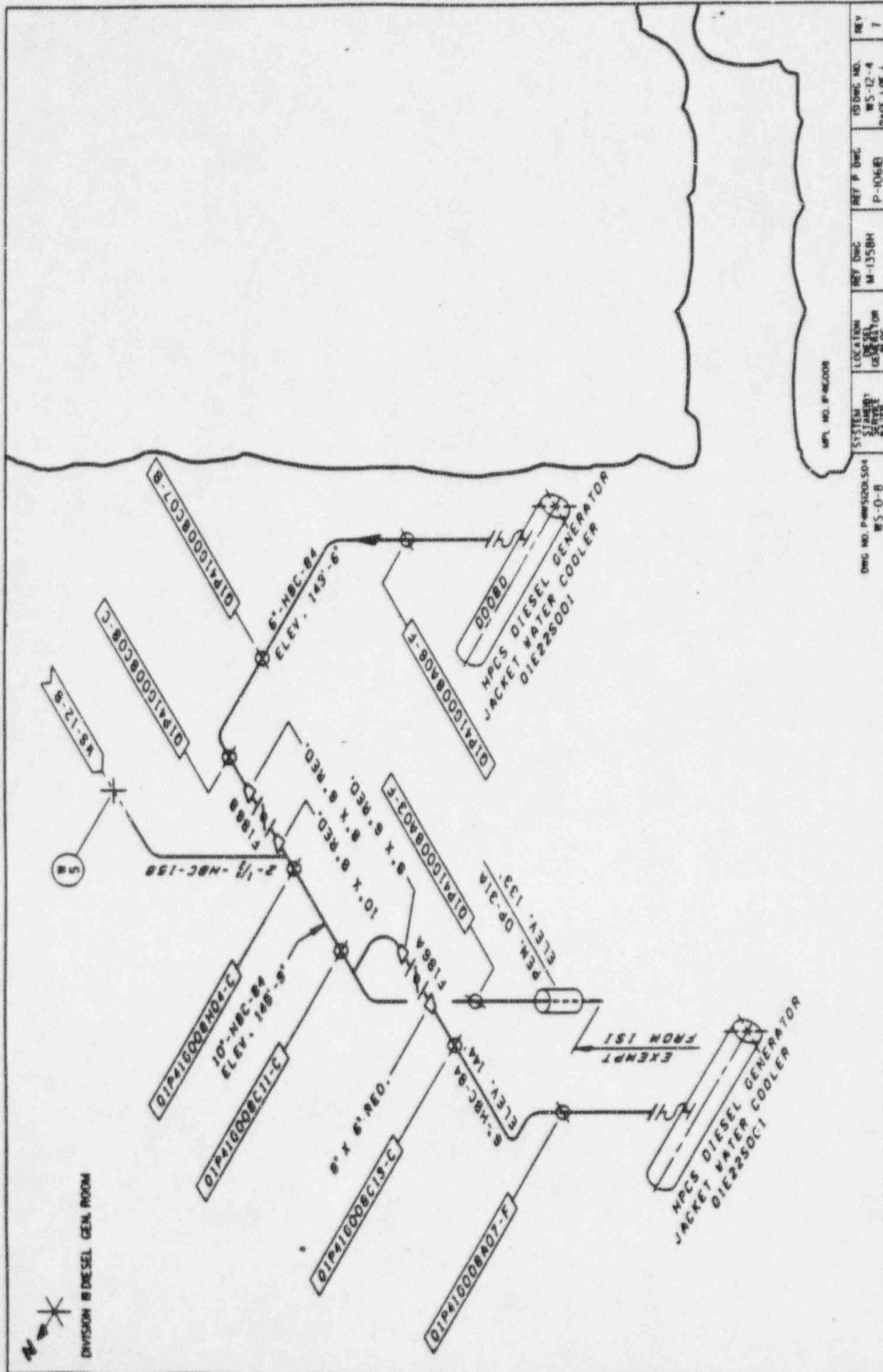
PROJECT: **MPOL G0-1 (JB-1)**  
 DATE BY: **01-22-88**  
 DRAWN BY: **J. DELL**  
 CHECKED BY: **J. DELL**  
 LOCATION: **AUX BLDG**  
 WEL. NO.: **M-135H J**  
 WEL. SIZE: **P-1088C**  
 WEL. CLASS: **FC-9**  
 WEL. TYPE: **PAGE 1 of 1**



FUEL POOL HEAT EXCHANGER NO. 06-48001-A & B

REFERENCE DRAWING NO. 141LAS (MENS TRAIL)  
NO. D 4532-6

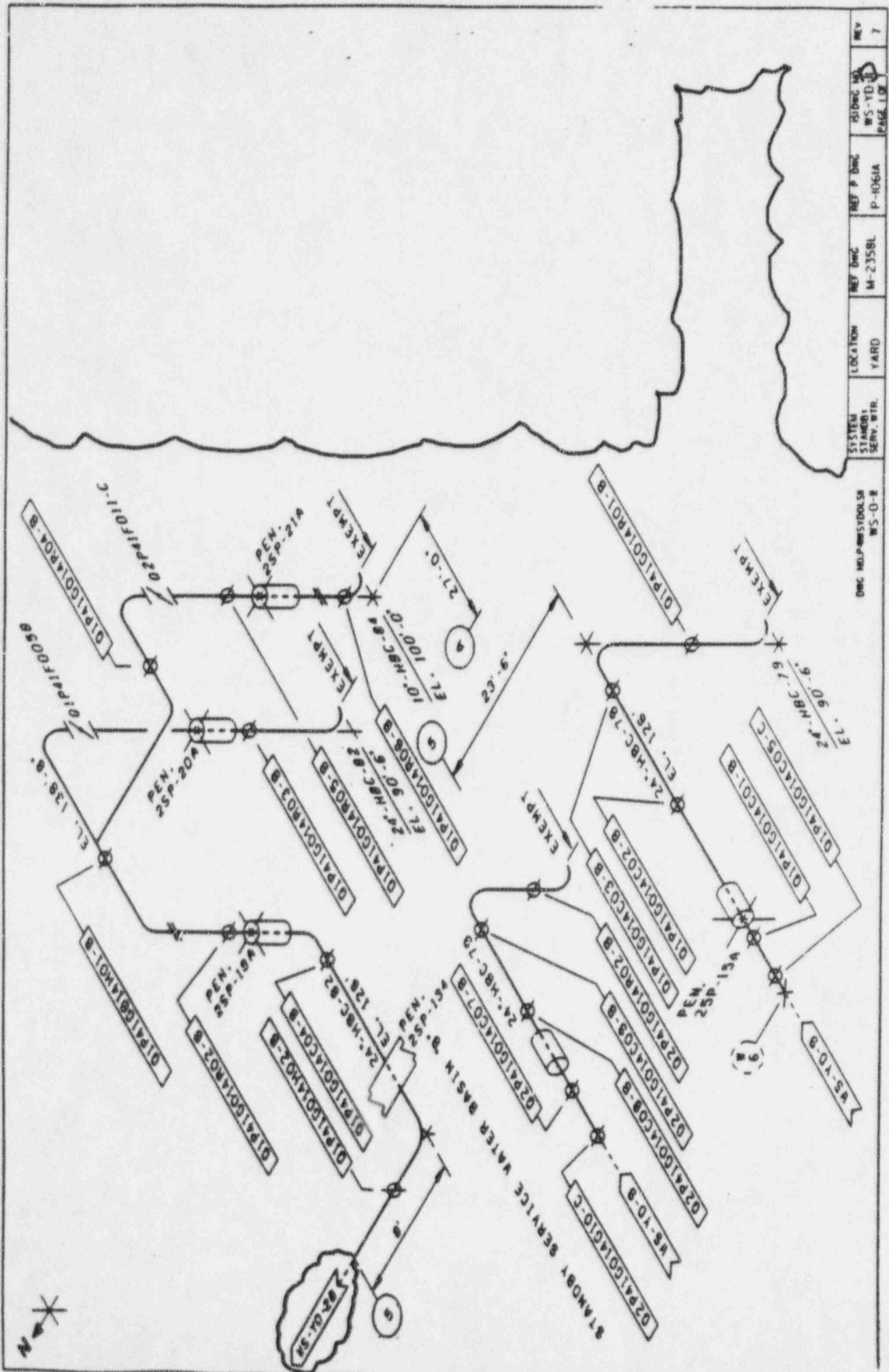




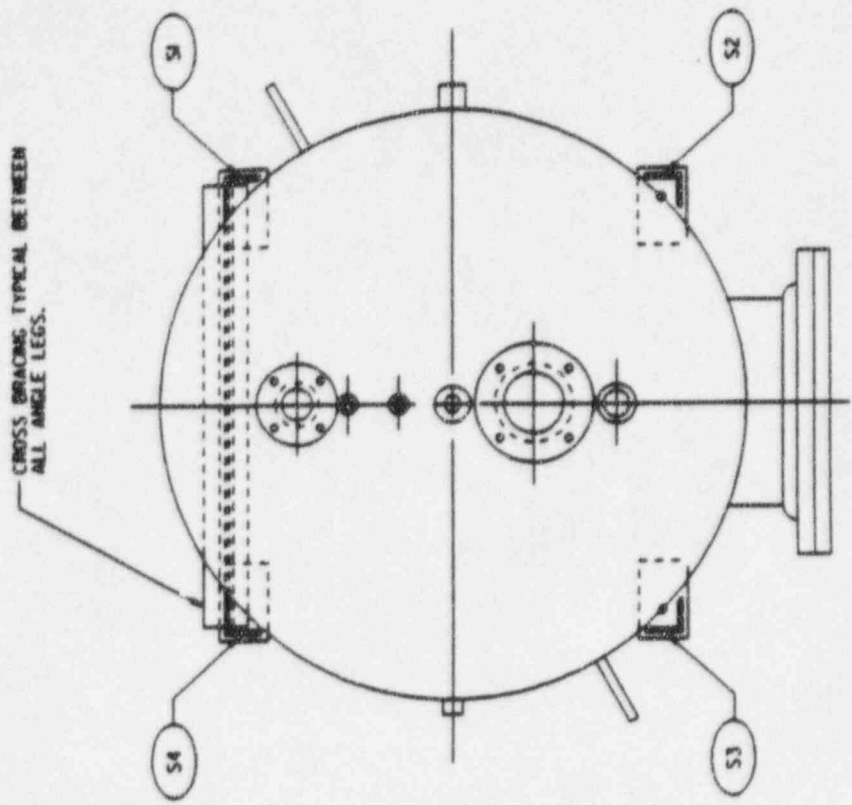
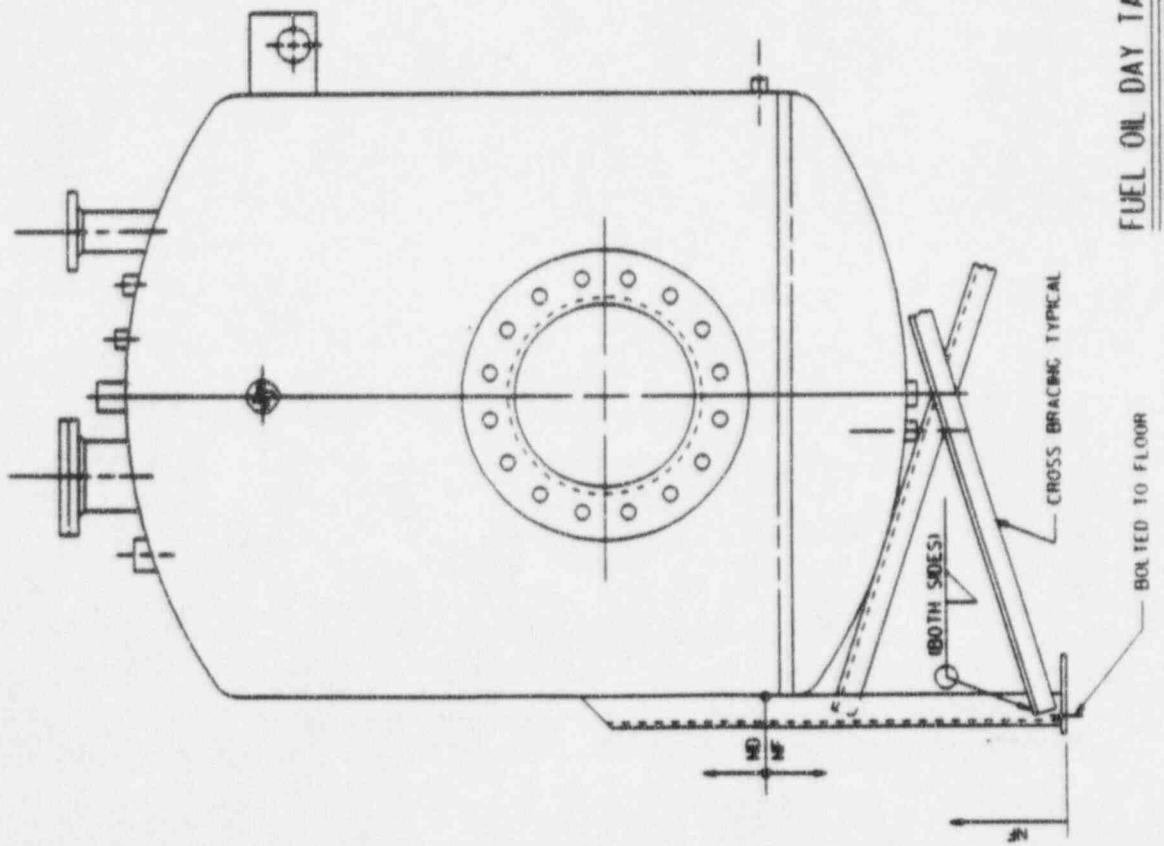
DIVISION DIESEL GEN. ROOM

DWG NO. P-10600-504	SYSTEM	LOCATION	REF DWG	REV
WS-0-0	STEAM WATER	GEN. ROOM	M-135BH P-10603	WS-12-4 PAGE 1 OF 1 7
MPL NO. P-106008				



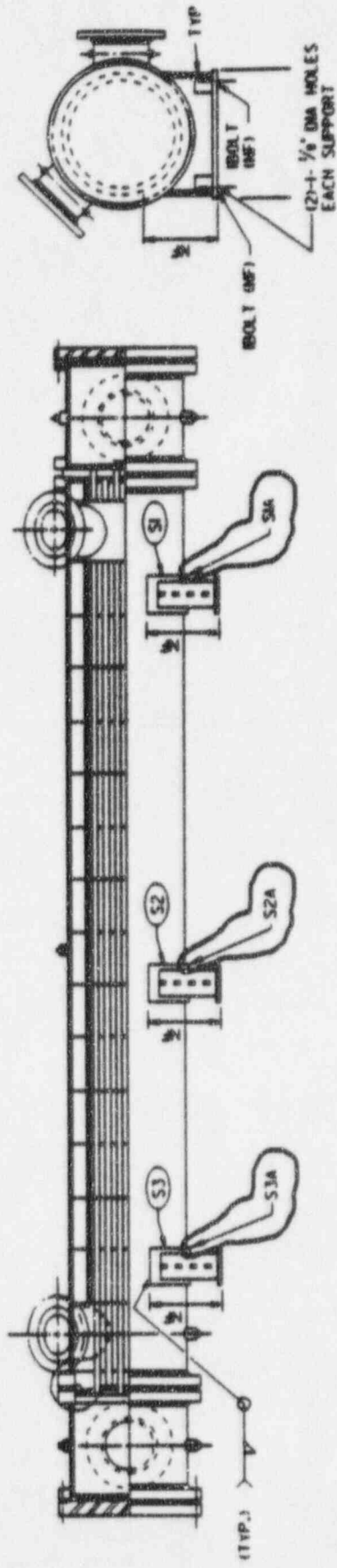


DWG. NO. P-10651001.0A	WS-0-E	SYSTEM STATION	LOC. YARD	REF. DWG. M-2358L	REF. P. DWG. P-10651A	ISSUING NO. WS-YD-10	REV. 7
							PAGE 1 OF 7



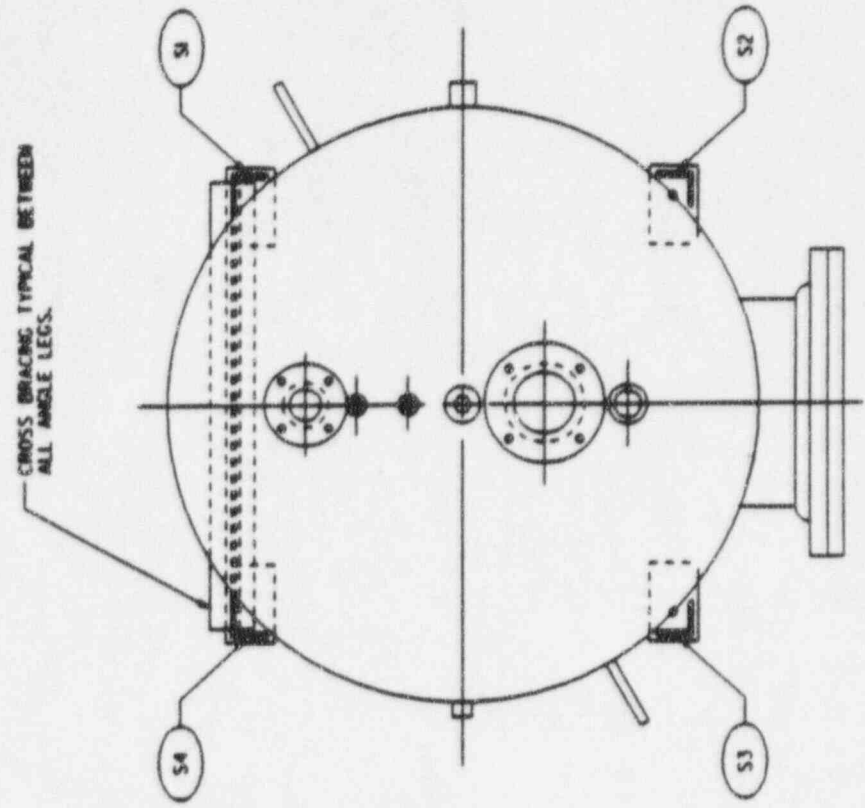
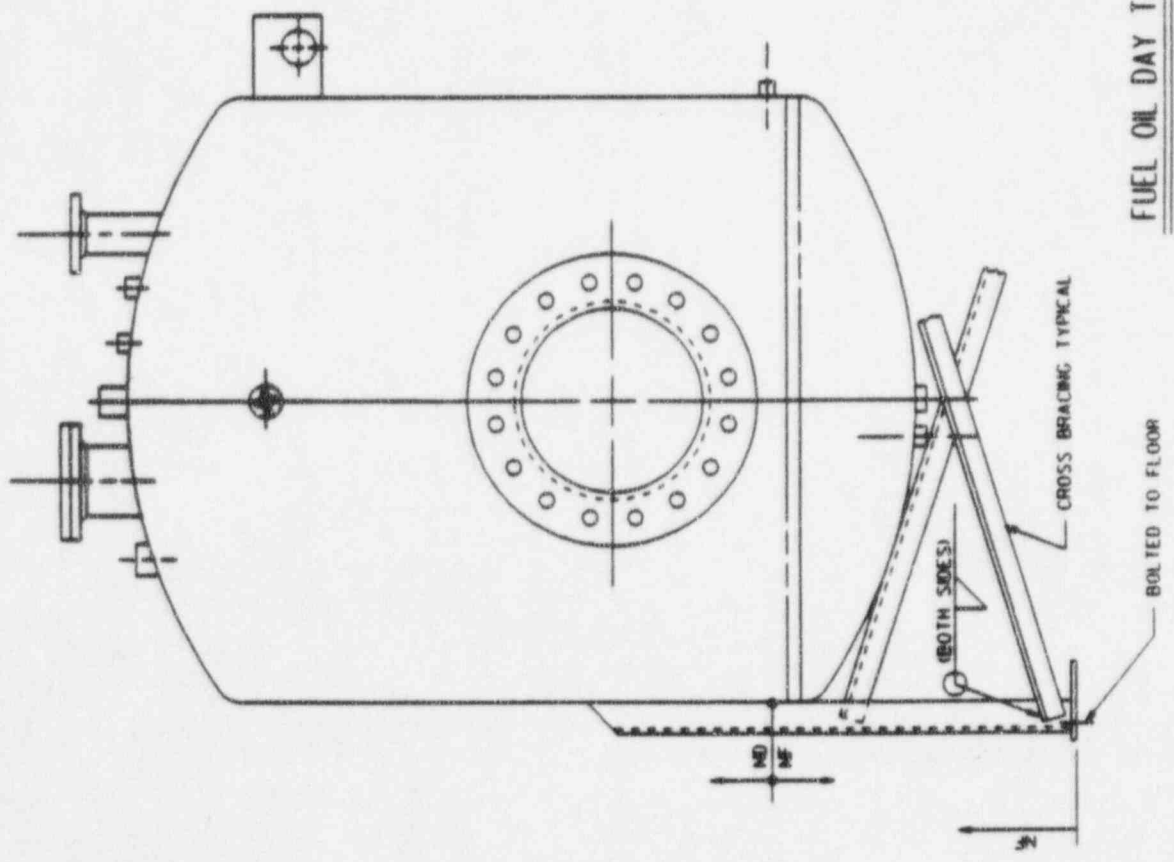
**FUEL OIL DAY TANK # OIP75A004B**

REFERENCE DWG. #BLUFFALO TANK 12-2008



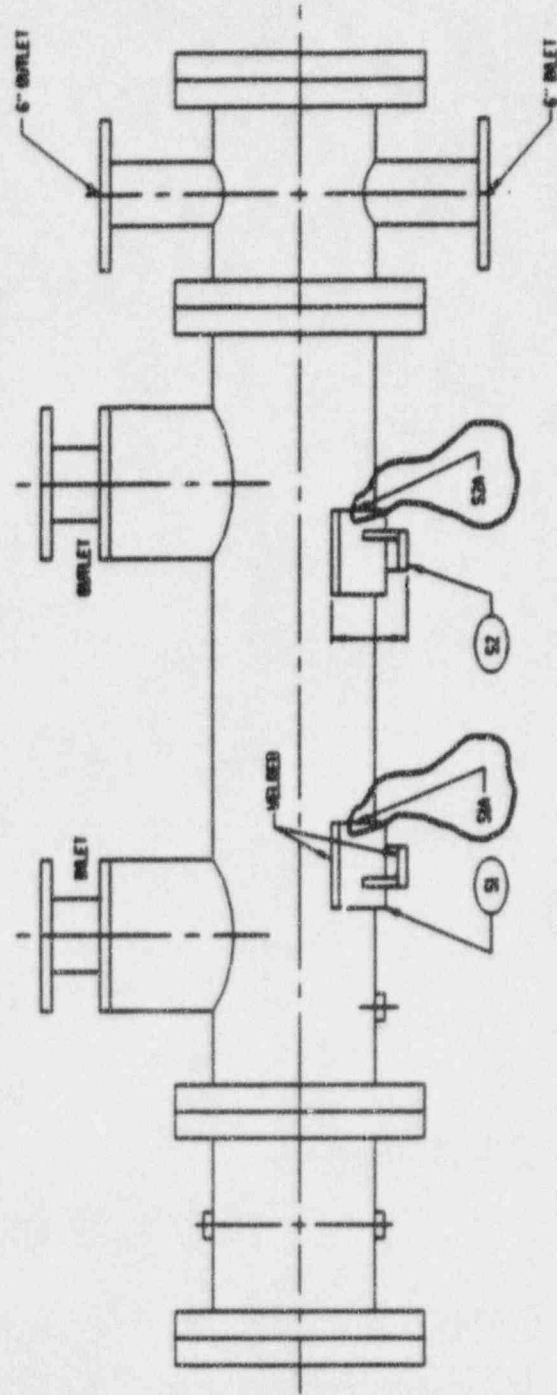
**JACKET WATER COOLER NO. DP75-800-4B**  
 REFERENCE DRAWING (THERMIX CHANGER) NO. E-1053





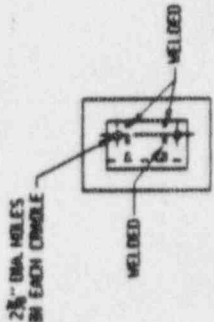
**FUEL OIL DAY TANK - CIP8IA002**

REFERENCE DWG. # BUFFALO TANK 2-200B



ENGINE JACKETWATER COOLER \*DIP8188881  
 REFERENCE DRAWING \*AMERICAN STANDARD 5-846-12-102-80A

NOTE:  
 SADDLE TO VESSEL  
 WELDS ARE NO.



**INSERVICE INSPECTION SUMMARY REPORT**

**FOR**

**GRAND GULF NUCLEAR STATION**

**SECTION IV**

**RELIEF REQUEST**

<b>RELIEF REQUEST NUMBER</b>	<b>SUBJECT</b>
I-00008	PERIPHERAL CRD's
I-00009	PUMP CASING WELDS
I-00010	LIMITED ULTRASONIC ACCESS FOR PIPING WELDS
I-00013	INSERVICE INSPECTION RPV NOZZLE INNER RADII
I-00015	INSERVICE INSPECTION OF REACTOR PRESSURE VESSEL WELDS

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

PAGE 5 OF 5

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-00009, REVISION 2

PAGE 1 OF 5

INSERVICE INSPECTION OF PUMP CASING AND ATTACHMENT WELDS

- I. Component: Pump casing and attachment welds located within the surrounding concrete pump support encasement for the following pumps (see attached list and sketches):

<u>PUMP</u>	<u>PUMP NO.</u>	<u>SKETCH NO.</u>
Residual Heat Removal	1E12C002B	RH-8-12
Low Pressure Core Spray	1E21C001	LP-9-4
High Pressure Core Spray	1E22C001	HP-8-10

- II. Code: The three pumps listed above were designed and fabricated to the ASME Section III, class 2 requirements. Applicable Inservice Inspection is to be preformed in accordance with ASME Section XI, 1977 Edition through and including Summer 1979 Addenda and Code Case N 343.

- III. Code Requirements: Pressure retaining welds, and attachment welds that provide a support function are required to receive a surface examination once every ten-year interval in accordance with ASME Section XI, Table IWC-2500-1 category C-C and C-G.

- IV. Information to support the determination that the Code requirements are impractical: Inaccessible pump casing welds are located where the concrete pump support encasement only allows a 3 inch clearance between the pump casing and the concrete encasement wall (see figure 1 for details of the design). Due to the limited accessibility, it is impractical to surface examine those portions of the welds located within the surrounding concrete pump support encasement. The 1E12C002B and 1E21C001 pumps also have a support integrally welded to the bottom exterior of the pump barrel that rests against the sump floor. The clearance between the floor and the bottom of the barrel is approximately 1 inch preventing sufficient access to perform the surface examination of the 1/2 inch of base material on each side of the attaching weld (see figure 2).

GRAND GULF NUCLEAR STATION  
UNIT 1  
RELIEF REQUEST I-00009, REVISION 2

PAGE 2 OF 5

INSERVICE INSPECTION OF PUMP CASING AND ATTACHMENT WELDS

- V. Specific relief Requested: Permission is requested to exempt from inservice inspection the inaccessible portions of the pump casing welds listed on Table 1. Also permission is requested to exempt the base material associated with the support attachment welds from the surface examinations as shown in figure 2.
- VI. Reasons why relief should be granted: Request for exemption should be granted for the following reasons:
1. The pump casing welds have been volumetrically examined by radiography and passed in accordance with the ASME Section III, Class 2 requirements.
  2. The attachment welds were surface examined and accepted in accordance with the requirements of ASME Section III, Class 2 requirements.
  3. The accessible length of each applicable casing weld will be surface examined in accordance with ASME Class 2 requirements.
  4. The entire weld volume of each support attachment weld will be surface examined in accordance with ASME Class 2 requirements.
  5. The failure of these welds, thus leading to failure of the pump, would have no adverse effect on plant safety, as redundant emergency core cooling systems are provided.
  6. Annunciators (i.e. low suction pressure, discharge pressure abnormal, etc.) are provided in the control room, along with other system indicators, to alert the operators to abnormal operating conditions.
  7. The systems, including the pumps, are tested per the GGNS Operating License Manual (Technical Specifications) requirements to ensure operability.

GRAND GULF NUCLEAR STATION  
UNIT 1  
RELIEF REQUEST I-00009, REVISION 2

PAGE 3 OF 5

INSERVICE INSPECTION OF PUMP CASING AND ATTACHMENT WELDS

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

8. Pumps will be subject to a system pressure test in accordance with ASME Section XI, Class 2 requirements.

9. Approximately 82 percent of the welds on the subject pump, which require surface examination, are accessible. Performance of the required examinations on these accessible welds should ensure that generic degradation is not occurring in these pump casing welds.

NOTE: A similar request for relief from preservice inspection of the pump casing welds has been accepted by the NRC in GGNS Safety Evaluation Report, Supplement No. 2.

VII. Alternate Testing:

None

VIII. NRC discussion statement (Revision 2):

The NRC has indicated in their response to the Rev. 2 submittal that the revision is basically a clarification of the existing conditions and the premise for granting relief has not changed. Therefore, the NRC's conditions for the Rev. 1 request-for-relief are still applicable. 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 the surface examinations can be conducted from either the external or internal surface of the pump casing, an attempt should be made to examine the portions of the casing welds, inaccessible on the external surface, on an internal surface if the pumps are disassembled for maintenance.

Therefore, relief is recommended as requested provided:

(a) The surface examinations are performed to the maximum extent practical,

GRAND GULF NUCLEAR STATION  
UNIT 1  
RELIEF REQUEST I-00009, REVISION 2

PAGE 4 OF 5

INSERVICE INSPECTION OF PUMP CASING AND ATTACHMENT WELDS

- VIII. NRC discussion statement (Revision 2, continued):
- (b) the code-required system pressure tests are performed, and
  - (c) the surface examinations are completed from the internal surface if a pump is disassembled for maintenance.

NRC additional discussion for revision 1 to the relief request:

The staff concludes that the limited surface examination of the support-to-casing welds for the residual heat removal pump and the low pressure core spray pump will provide the necessary assurance of structural reliability because although 1/2 inch of base metal on each side of the weld cannot be examined, 100% of the weld metal will be examined. In addition, if the pumps are disassembled for maintenance, surface examinations will be completed from the internal surface. The staff also 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 NUCLEAR STATION  
UNIT 1  
RELIEF REQUEST NO. I-00009 REVISION 2

TABLE 1

LIST OF PUMP WELDS

PAGE 5 OF 5

E12 - RHR PUMP "B" CASING

Welds Surfaces That Shall Be Examined

DH-1	DH-4	DH-7	SB-4	SB-7
DH-2	DH-5	DH-25	SB-5	
DH-3	DH-6	SB-3	SB-6	

Welds That Can Be Partially Examined

SB-2 (18" accessible, 54" inaccessible)

Welds that cannot be examined

SB-1 (inaccessible)

Attachment welds that can be partially examined

SB-12 (see figure 2 for details of limitation)

E21 - LPCS PUMP CASING

Welds Surfaces That Shall Be Examined

DH-1	DH-4	DH-7	SB-4	SB-7
DH-2	DH-5	DH-27	SB-5	
DH-3	DH-6	SB-3	SB-6	

Welds That Can Be Partially Examined

SB-2 (3" accessible, 69" inaccessible)

Welds That Cannot Be Examined

SB-1 (inaccessible)

Attachment Welds That Can Be Partially Examined

SB-12 (see figure 2 for details of limitation)

E22-MPCS PUMP CASING

Welds Surfaces That Shall Be Examined

DH-1	DH-4	DH-7	SB-5
DH-2	DH-5	DH-19	SB-6
DH-3	DH-6	SH-28	SB-7

Welds That Can Be Partially Examined

SB-4 (68" accessible, 4" inaccessible)

Welds That Cannot Be Examined

SB-1 (inaccessible)

SB-2 (inaccessible)

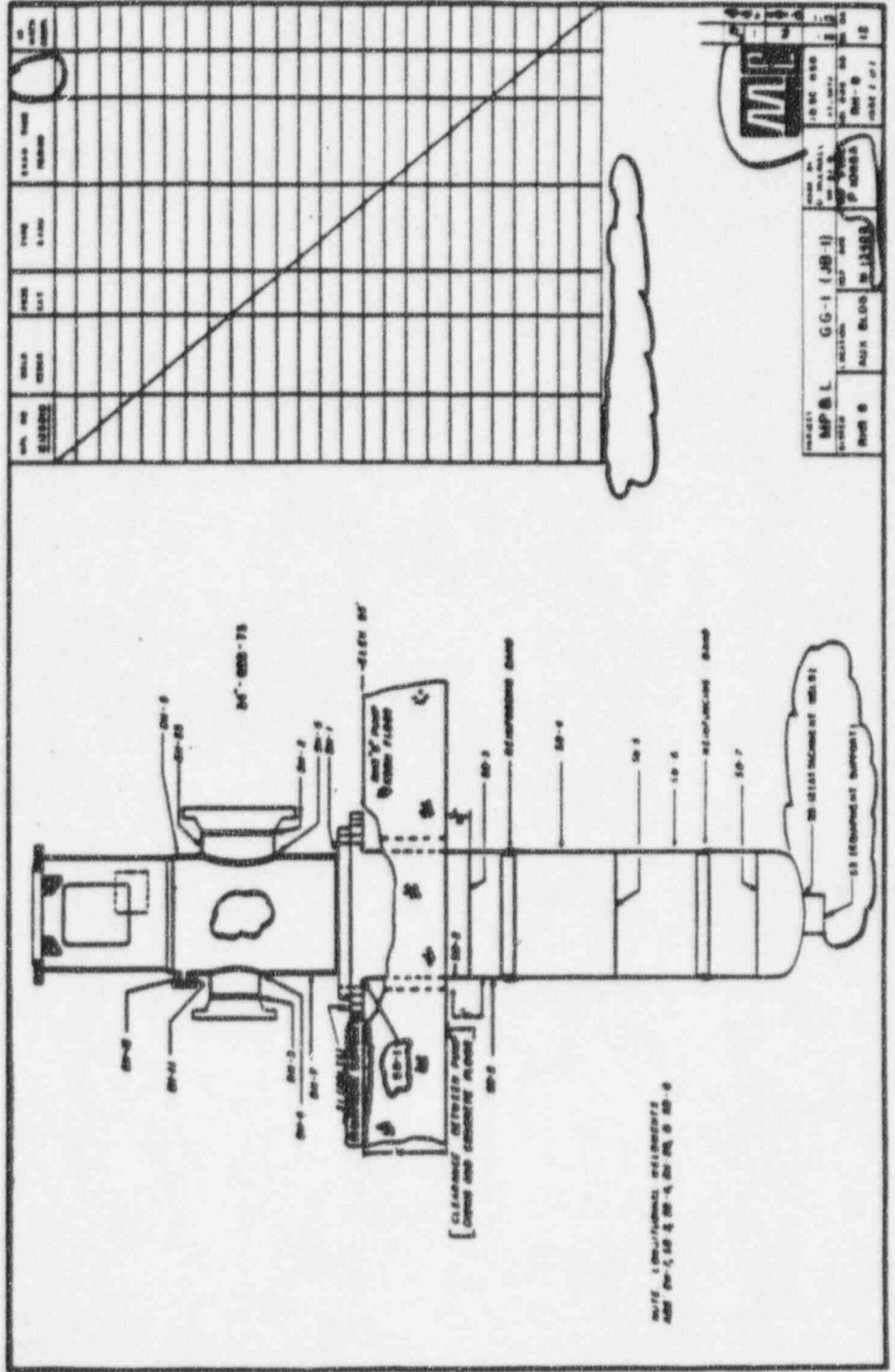
SB-3 (inaccessible)

**GRAND GULF NUCLEAR STATION  
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**INSERVICE INSPECTION REQUIREMENTS  
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Relief Request NO. I-00009

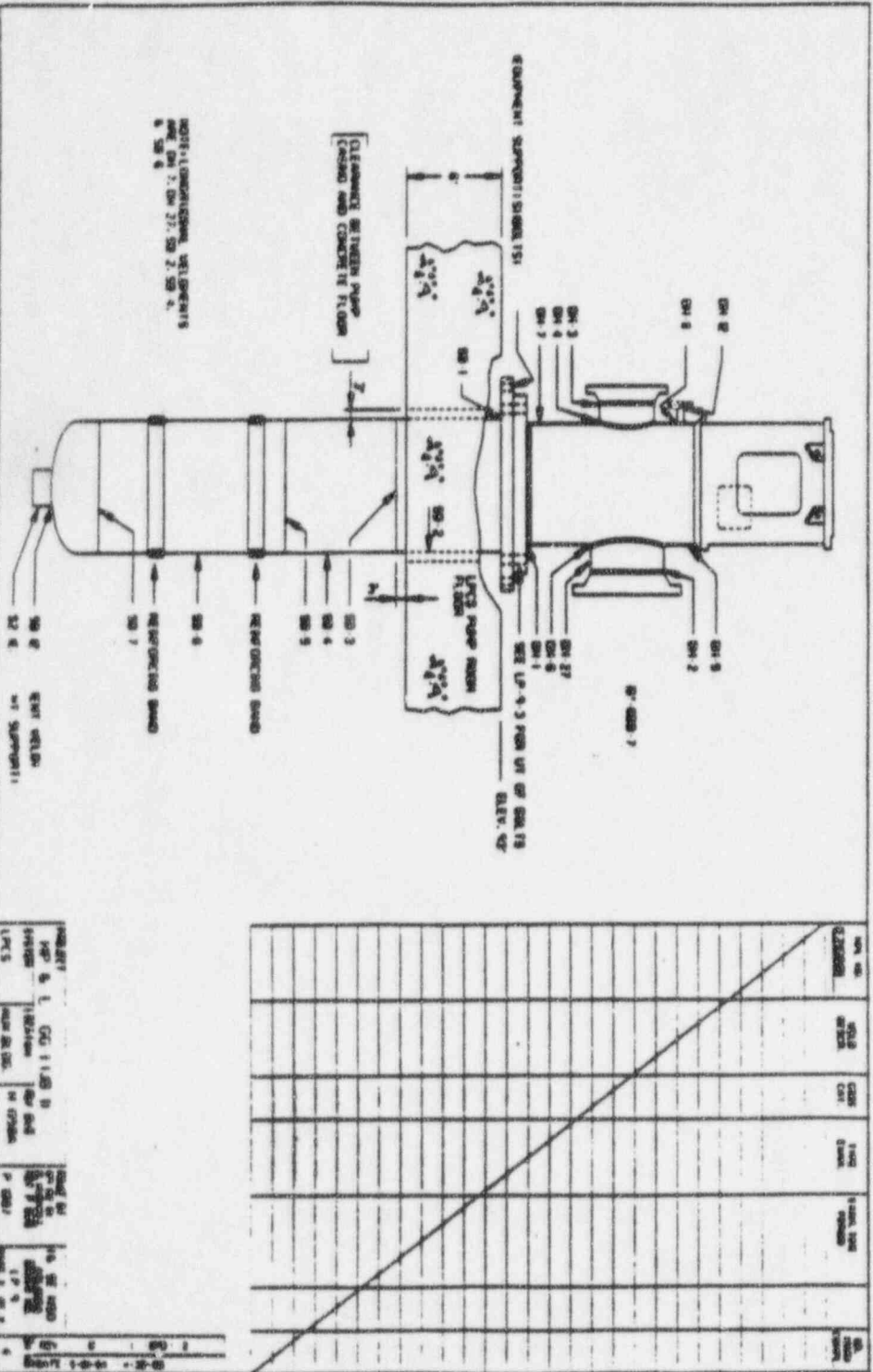
FIGURE 1





Relief Request NO. I-00009

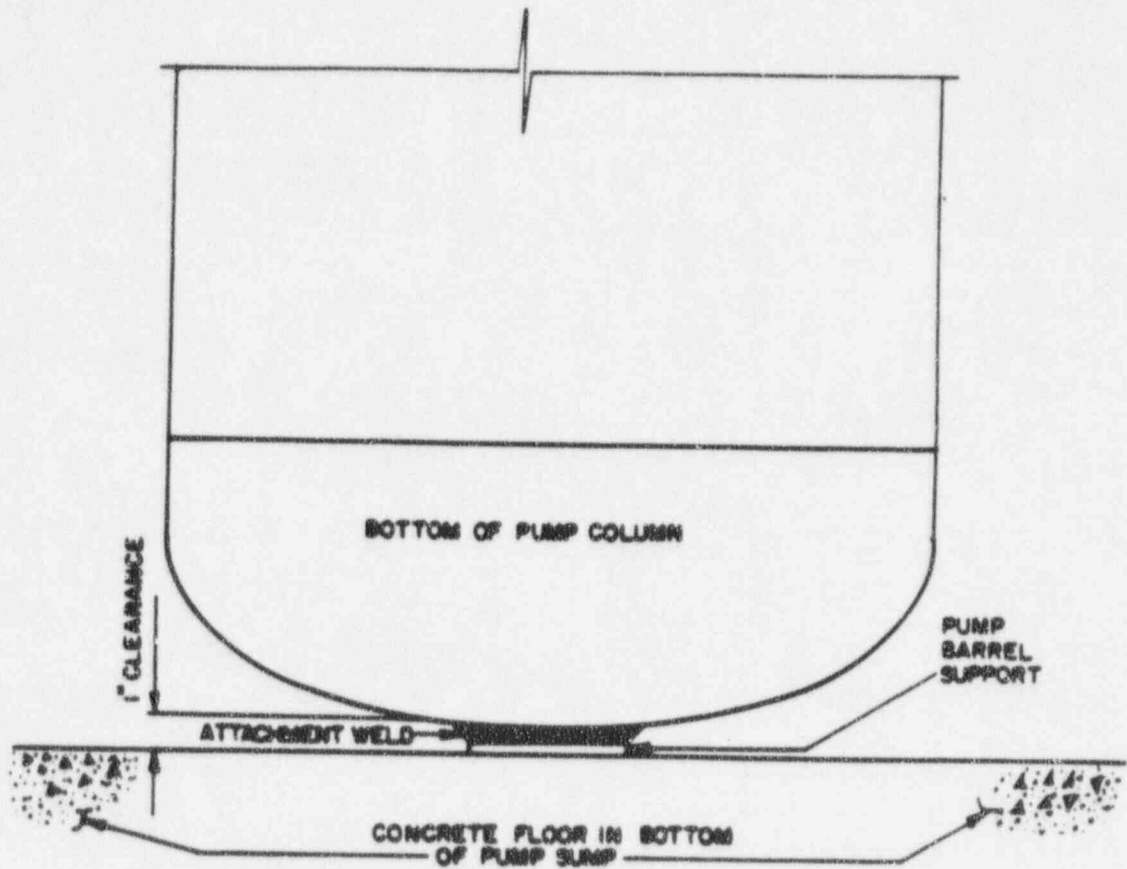
FIGURE 1





Relief Request NO. I-00009

FIGURE 2



ATTACHMENT WELD LIMITATIONS  
PUMPS 1E12C002B AND 1E21C001

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INSERVICE EXAMINATION  
OF  
PRESSURE RETAINING WELDS

- 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 maximum practical extent as described in Table 1.

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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 pressure 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.

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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 or reduction in the margin of plant safety since there is isolation capability and/or shut down capability as part of the plant design. The design analysis bounds the limiting fault conditions for line breaks in and outside of containment.
  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 ( $1.72 S_m$ ),
    - b) usage factor is 0.0442.

Circumferential and longitudinal welds in piping with stress levels below  $2.4 S_m$  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.

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INSERVICE EXAMINATION  
OF  
PRESSURE RETAINING WELDS

- VII. Alternate testing: The applicable welds will be examined to the maximum extent practical as determined by the extent of the specific limitation. Each weld will be subjected to a volumetric or surface examination as required by Tables IWB and IWC 2500-1
- VIII. NRC summary statement (Rev. 5): "The staff has reviewed the submittal 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 systems 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 staff concludes that relief should be granted as requested in Relief Request No. I-00010, Revision 5, due to physical inaccessibility of portions of the identified welds.

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**GRAND GULF NUCLEAR STATION  
UNIT 1  
RELIEF REQUEST NO. I-00010 REVISION 5**

**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
1	E12	6014-FV-44	RH-8-8	6"	VALVE TO ELBOW	55%	T	100%	1	CIRC	ELBOW RADIUS
2	B21	68-C1-B-L/B	MS-11-8	28"	ELBOW SEAM	38%	T	38%	1	LONG	PIPE RESTRAINT
3*	E51	6004-B-8-1	R1-B-2	6"	ELBOW TO ELBOW	70%	T	100%	2	CIRC	ELBOW RADIUS
4	B21	611-01-B-L/B	MS-11-11	28"	ELBOW SEAM	38%	T	38%	1	LONG	PIPE RESTRAINT
5	B21	68-A1-B-L/B	MS-11-2	28"	ELBOW SEAM	38%	T	38%	1	LONG	PIPE RESTRAINT
6	B21	6030-FV-23	FV-B-2	24"	VALVE TO PIPE	93%	T	100%	1	CIRC	SOCK-O-LET
7	B21	6030-FV-36	FV-B-4	24"	VALVE TO PIPE	93%	T	100%	1	CIRC	SOCK-O-LET
8	B21	6026-FV-17	FV-11-7	24"	PIPE TO TEE	93%	T	100%	1	CIRC	SOCK-O-LET
9	B21	6001-W4	MS-11-3	28"	VALVE TO PIPE	82%	T	100%	1	CIRC	PIPE RESTRAINT
10	B21	6001-W4	MS-11-9	28"	VALVE TO ELBOW	82%	T	100%	1	CIRC	PIPE RESTRAINT
11	B21	69-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 "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 SCAN	EXAMINABLE SURFACE AREA	CLASS	WELD TYPE	REASON FOR LIMITATIONS
13*	E51	6004-7-8-4	RI-8-1	10"	REDUCER TO TEE	71%	T	100%	2	CIRC	TEE
14*	E51	6004-7-8-9	RI-8-1	10"	REDUCER TO TEE	71%	T	100%	2	CIRC	TEE
15*	E51	6004-7-8-8	RI-8-1	10"	REDUCER TO TEE	71%	T	100%	2	CIRC	TEE
16	B33	6024-W2	RR-11-19	4"	ELBOW TO TEE	62%	T	100%	1	CIRC	TEE
17	B33	6002-W179	CU-8-7	4"	ELBOW TO FITT.	55%	T	NA	1	CIRC	ELBOW RADIUS
18	B21	611-D1-B-L/A	MS-11-11	28"	ELBOW SEAM	38%	T	38%	1	LONG	PIPE RESTRAINT
19	B21	6001-W9	MS-11-12	28"	VALVE TO PIPE	82%	T	100%	1	CIRC	PIPE RESTRAINT
20	B21	68-A1-B-L/A	MS-11-2	28"	ELBOW SEAM	38%	T	38%	1	LONG	PIPE RESTRAINT
21*	E51	6001-W1	RI-8-12	8"	VALVE TO ELBOW	73%	T	100%	2	CIRC	ELBOW RADIUS
22	E51	6001-W40	RI-11-4	8"	VALVE TO ELBOW	73%	T	100%	1	CIRC	ELBOW RADIUS
23	B33	6001-W5	RR-11-2	24"	ELBOW TO PUMP	73% see note 1	T	100%	1	CIRC	PUMP
24	B33	6001-W8	RR-11-2	24"	PIPE TO PUMP	58% see note 1	T	100%	1	CIRC	PUMP

\*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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UNIT 1  
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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
25	B33	6001-48	RR-11-3	24"	VALVE TO PIPE	50% see note 2	T	100%	1	CIRC	VALVE
26	B33	6001-428	RR-11-9	24"	ELBOW TO PUMP	62% see note 1	T	100%	1	CIRC	PUMP
27	B33	6001-429	RR-11-9	24"	PUMP TO PIPE	61% see note 1	T	100%	1	CIRC	PUMP
28	B33	6001-431	RR-11-10	24"	VALVE TO PIPE	50% see note 1&2	T	100%	1	CIRC	VALVE
29	B33	65-81-B	RR-11-9	4"/24"	SWEEP TO PIPE	58% see note 1	T	100%	1	BRANCH	SWEEP-O-LET
30	B33	65-81-E	RR-11-9	4"/24"	SWEEP TO PIPE	63% see note 1	T	100%	1	BRANCH	SWEEP-O-LET
31	B33	6023-437	RR-11-15	20"	TEE TO PIPE	65% see note 1	T	100%	1	CIRC	TEE
32	B33	6024-48	RR-11-16	4"	PIPE TO SWEEP	50% see note 2	T	100%	1	CIRC	SWEEP-O-LET
33	B33	6024-427	RR-11-17	4"	PIPE TO SWEEP	50% see note 2	T	100%	1	CIRC	SWEEP-O-LET
34	B33	610-81-L	RR-11-11	12"/16"	SWEEP TO PIPE	50% see note 3	P	100%	1	BRANCH	SWEEP-O-LET
35	B33	610-81-K	RR-11-11	12"/16"	SWEEP TO PIPE	50% see note 3	P	100%	1	BRANCH	SWEEP-O-LET
36	B33	610-81-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	833	610-81-H	RR-11-11	12"/18"	SWEEP TO PIPE	50% see note 3	P	100%	1	BRANCH	SWEEP-O-LET
38	833	610-81-6	RR-11-11	12"/18"	SWEEP TO PIPE	50% see note 3	P	100%	1	BRANCH	SWEEP-O-LET
39	833	610-81-F	RR-11-11	12"/18"	SWEEP TO PIPE	50% see note 3	P	100%	1	BRANCH	SWEEP-O-LET
40	833	6001-W34	RR-11-11	24"	PIPE TO CROSS	50% see note 3	P	100%	1	CIRC	CROSS
41	833	610-81-A	RR-11-11	16"	PIPE TO CROSS	50% see note 3	P	100%	1	CIRC	CROSS
42	833	610-81-8	RR-11-11	16"	PIPE TO CROSS	50% see note 3	P	100%	1	CIRC	CROSS
43	821	68-A1-C	MS-11-2	8"/28"	SWEEP TO PIPE	100%	T	98%	1	BRANCH	PIPE SUPPORT
44	821	6026-W36	FW-11-1	24"	PIPE TO VALVE	95%	T	100%	1	CIRC	PIPE SUPPORT
45	821	68-A1-L,M,N,P	MS-11-2	28"	LUGS TO PIPE	N/A	N/A	49%	1	INT ATT	PIPE RESTRAINT
46	821	610-81-L,M,N,P	MS-11-5	28"	LUGS TO PIPE	N/A	N/A	49%	1	INT ATT	PIPE RESTRAINT
47	821	68-C1-L,M,N,P	MS-11-8	28"	LUGS TO PIPE	N/A	N/A	49%	1	INT ATT	PIPE RESTRAINT
48	821	611-81-L,M,N,P	MS-11-11	28"	LUGS TO PIPE	N/A	N/A	49%	1	INT ATT	PIPE RESTRAINT

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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
49	833	6001427	RR-11-9	24"	PIPE TO VALVE	50% see note 1	T	100%	1	CIRC	VALVE
50	833	6001433	RR-11-19	24"	VALVE TO PIPE	50% see note 1	T	100%	1	CIRC	VALVE
51	833	610-A1-A	RR-11-4	16"	CROSS TO PIPE	50% see note 3	P	100%	1	CIRC	CROSS
52	833	610-A1-B	RR-11-4	16"	CROSS TO PIPE	50% see note 3	P	100%	1	CIRC	CROSS
53	833	66-B1-C	RR-11-8	4"/24"	PIPE TO SWEEP	50% see note 1	T	100%	1	BRANCH	SWEEP
54	833	610-A1-F	RR-11-4	16"/12"	PIPE TO SWEEP	50% see note 3	P	100%	1	BRANCH	SWEEP
55	833	610-A1-G	RR-11-4	16"/12"	PIPE TO SWEEP	50% see note 3	P	100%	1	BRANCH	SWEEP
56	833	610-A1-H	RR-11-4	16"/12"	PIPE TO SWEEP	50% see note 3	P	100%	1	BRANCH	SWEEP
57	833	610-A1-J	RR-11-4	16"/12"	PIPE TO SWEEP	50% see note 3	P	100%	1	BRANCH	SWEEP
58	833	610-A1-K	RR-11-4	16"/12"	PIPE TO SWEEP	50% see note 3	P	100%	1	BRANCH	SWEEP
59	833	610-A1-L	RR-11-4	16"/12"	PIPE TO SWEEP	50% see note 3	P	100%	1	BRANCH	SWEEP
60	833	600144	RR-11-2	24"	VALVE TO PIPE	50% see note 1	T	100%	1	CIRC	VALVE

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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
61	833	6001W9	RR-11-3	24"	PIPE TO VALVE	50% see note 1	T	100%	1	CIRC	VALVE
62	833	6001V10	RR-11-3	24"	VALVE TO PIPE	50% see note 1	T	100%	1	CIRC	VALVE
63	833	66-A1-C	RR-11-2	4"/24"	PIPE TO SWEEP	50% see note 1	T	100%	1	BRANCH	SWEEP
64	833	65-A1-E	RR-11-2	4"/24"	PIPE TO SWEEP	50% see note 1	T	100%	1	BRANCH	SWEEP
65	833	65-A1-B	RR-11-2	4"/24"	PIPE TO SWEEP	50% see note 1	T	100%	1	BRANCH	SWEEP
66	821	611-01-C	MS-11-11	26"/10"	PIPE TO SWEEP	57%	T	97%	1	BRANCH	HANGER
67	821	610-01-C	MS-11-5	26"/10"	PIPE TO SWEEP	71%	T	100%	1	BRANCH	HANGER
68	821	610-01-E	MS-11-5	26"/10"	PIPE TO SWEEP	71%	T	85%	1	BRANCH	HANGER
69	821	610-01-F	MS-11-5	26"/10"	PIPE TO SWEEP	76%	T	100%	1	BRANCH	HANGER
70	821	610-01-H	MS-11-5	26"/10"	PIPE TO SWEEP	76%	T	100%	1	BRANCH	HANGER
71	821	610-01-G	MS-11-5	26"/10"	PIPE TO SWEEP	76%	T	100%	1	BRANCH	HANGER
72*	851	6004V18	RI-8-21	6"	VALVE TO PIPE	83.18%	T	100%	2	CIRC	PIPE RESTRAINT

\*Under the rules of IWC-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 SCAN	EXAMINABLE SURFACE AREA	CLASS	WELD TYPE	REASON FOR LIMITATIONS
73	633	6012M54	CU-11-13	6"	VALVE TO ELBOW	85.58%	T	100%	1	CIRC	ELBOW RADIUS
74	B21	6001W5	MS-11-8	28"	VALVE TO PIPE	82.8%	T	100%	1	CIRC	VALVE
75	B21	6001W10	MS-11-12	28"	VALVE TO PIPE	80.8%	T	100%	1	CIRC	VALVE
76	B33	6001W3	RR-11-1	24"	ELBOW TO VALVE	30.0%	T	100%	1	CIRC	VALVE
77	B33	6001W26	RR-11-8	24"	ELBOW TO VALVE	50.0%	T	100%	1	CIRC	VALVE

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**TABLE 1**

**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:

1. 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:

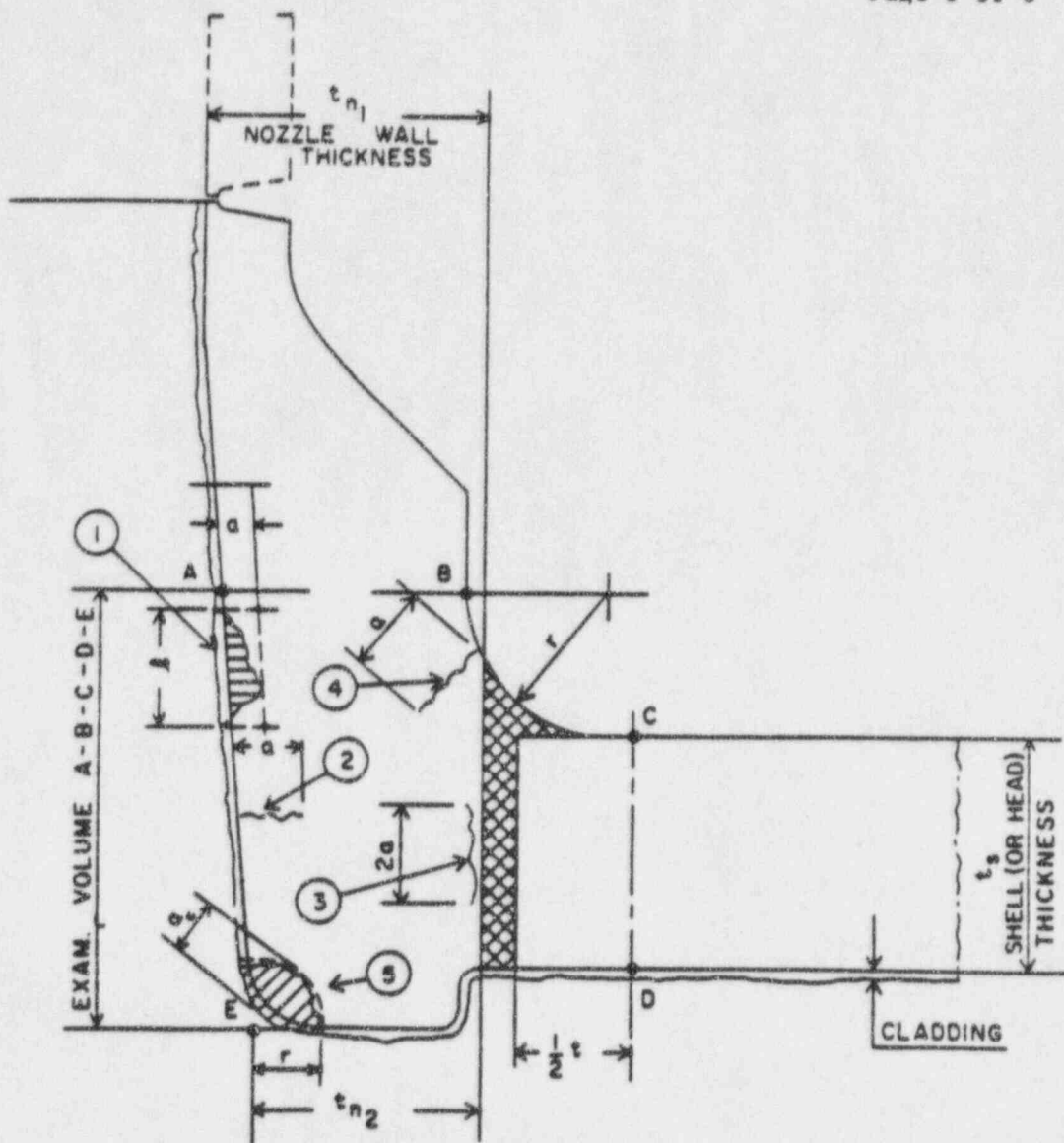
Since the requested relief meets the requirements contained in an Edition and Addenda of ASME Section XI that is accepted by the Commission, no alternate testing is proposed.





TABLE 1  
RELIEF REQUEST - I-00013

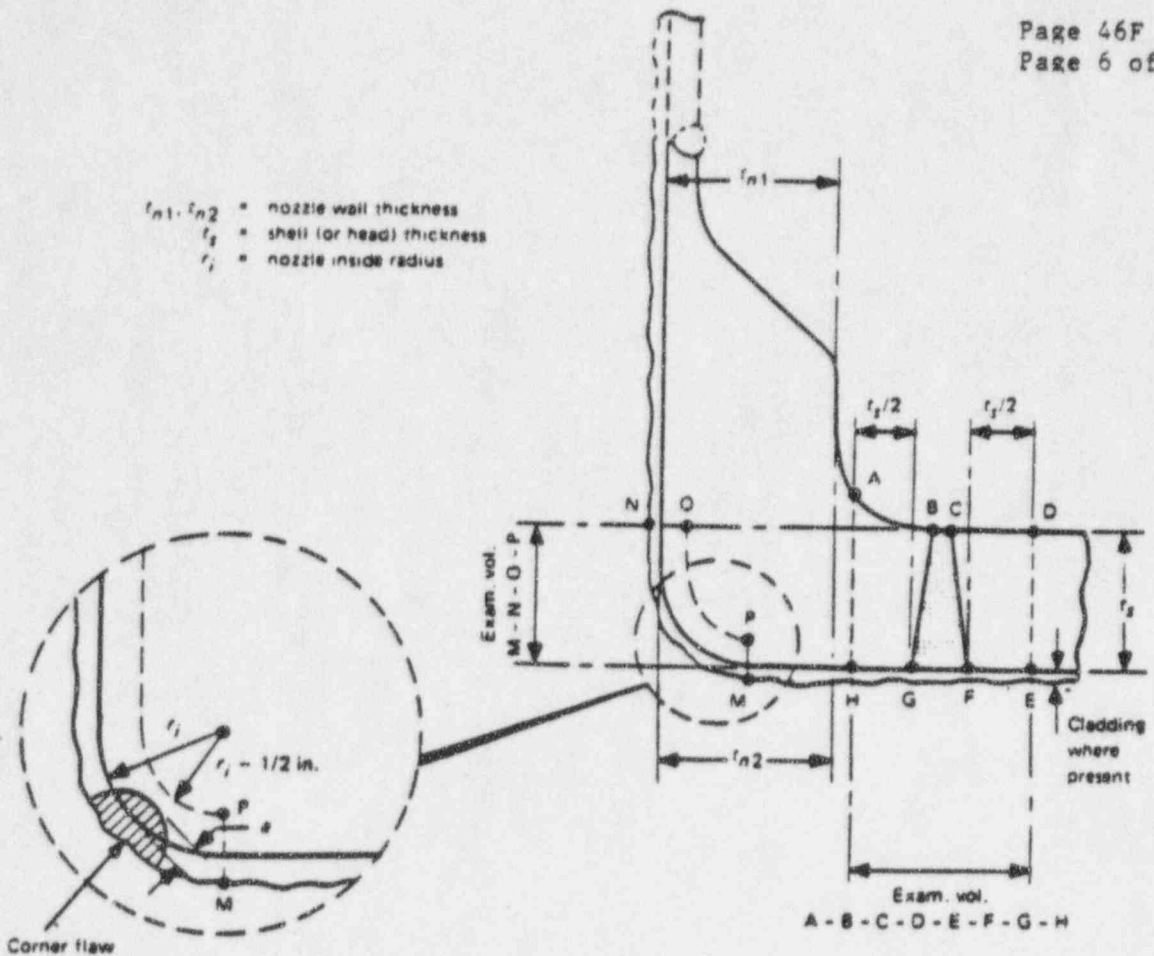
Nozzle No.	Service	Cutout Diameter Inches	Notes
N1-A	Recirculation Outlet	50.80	
N1-B	Recirculation Outlet	50.80	
N2-A	Recirculation Inlet	35.37	
N2-B	Recirculation Inlet	35.37	
N2-C	Recirculation Inlet	35.37	
N2-D	Recirculation Inlet	35.37	
N2-E	Recirculation Inlet	35.37	
N2-F	Recirculation Inlet	35.37	
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	
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	
N16	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

**NOTES:**

- (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-2500-7(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**



GRAND GULF NUCLEAR STATION  
UNIT 1  
RELIEF REQUEST NO. I-00015 REVISION 1

PAGE 1 of 4

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.



GRAND GULF NUCLEAR STATION  
UNIT 1  
RELIEF REQUEST NO. I-00015 REVISION 1

PAGE 2 of 4

- |   |  |
|---|--|
| IV. Information to support the determination that the code requirements are impractical:<br>(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:<br><ol style="list-style-type: none"><li>1. The entire reactor pressure vessel was subjected to an ASME Section III hydrostatic test after fabrication.</li><li>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.</li><li>3. The subject welds were volumetrically examined in accordance with ASME Section III during fabrication.</li></ol> |



GRAND GULF NUCLEAR STATION  
UNIT 1  
RELIEF REQUEST NO. I-00015 REVISION 1

PAGE 3 of 4

- 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 Licensees 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



GRAND GULF NUCLEAR STATION  
UNIT 1  
RELIEF REQUEST NO. I-00015 REVISION 1

PAGE 4 of 4

VIII. NRC Discussion  
Statement  
continued:

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

**INSERVICE INSPECTION SUMMARY REPORT**

**FOR**

**GRAND GULF NUCLEAR STATION**

**SECTION V**

**REPAIR/REPLACEMENT (NIS-2)**

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**NIS-2 NUMBERS**

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00350	





ENTERGY

### NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS ON CLASS 2 COMPONENTS



NIS-2 NO. 00337

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 (MSRV) spares were inspected for thread damage, fit, and acceptability. Existing heli-coil threaded inserts were inspected for thread damage and proper material. The stud holes determined to be unacceptable were drilled, tapped, and heli-coil threaded inserts were installed. Damaged heli-coil threaded inserts were replaced with new heli-coil threaded inserts. Any existing stainless steel heli-coil threaded inserts were replaced with inconel heli-coil threaded inserts. The MSRV spares were shipped to an independent testing facility for pressure setpoint testing and recertification after work was completed. The 5 Year Service Life Inspection was performed in conjunction with the work above and three valves were found to have discs with crack indications on the seating surfaces and outer shoulders of the discs during Liquid Penetrant Examinations. The cause for the indications was determined to be manufacturing flaws. The discs were replaced per Material Nonconformance Reports 0085-94 and 0100-94.

See Table 1 and 2 for Work Order (W.O.) #s and completion dates.

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.

**Components:** a) Dual Function Safety Relief Valves b) 8" x 10" c) N/A d) 1 e) Body: SA-352 LCB, Cast Carbon Steel f) See Table 2 on Page 2 g) G.E Dwg. G-471-6/125.04.03 R6 h) Maint. Shop i) G. Dijkers & Co. j) Hengelo (O) / The Netherlands k-l) See Table 2 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, 1977 Edition with Summer, 1979, Addenda.

Signed: [Signature] Date 2/23/95 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 3-1-95 Commissions MS600  
Inspector's Signature National Board, State, Province and Nos.

FACTORY MUTUAL ENGINEERING



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



ORIGINAL

NIS-2 NO. 00337

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)

Replacement: a) Main Valve Discs b.c) N/A d) 1 e) ASME SA-351 CF3A f) N/A g) G.E Dwg. #G471-6/125 #D-SA h) Maint. Shop i) General Electric Co. j) San Jose, CA k) See Table 1 l) N/A m) ASME Section III, 1974 Edition, Summer 1976 Addenda n) N/A

Table 1

k)

W. O. #	Valve S/N	Trace # Removed	Trace # Installed	Work Completed
122453	160829	HT. # 63-03-8, S/N 3B	M295830-S/N 30	09/01/94
122455	160838	HT. # 51.09.9, S/N 1A	M295840-S/N 32	08/03/94
122457	160844	HT. # 56.07.9, S/N 2B	M298540-S/N 35	07/05/94

Modifications/Replacements: a) Helical-coil Threaded Inserts b) inlet flange: 1 1/2" x 8-UNC; outlet flange: 1" x 8-UNC c) N/A d) 1 e) Inconel-X750 f.g) N/A h) See Table 2 i) Heli-Coil Products j) Danbury, Connecticut k) control no.'s for inserts installed in inlet flange: 60669-A (W-6321); in outlet flange: 56952-A (W-6224), 3952-1 (W-6370), 50306-A (W-6141) l,m,n) N/A

Table 2

W.O #	Valve S/N	National Board #	Valve Location Series #	Hole #'s		Work Completed
				Inlet	Outlet	
121821	160802	013	(Q1B21) F041	none	2	06/16/94
121822	160804	006	" F047	4,5,12	none	08/10/94
121825	160812	015	" F051	2,9	none	08/10/94
121827	160815	101	" F047	6	none	08/02/94
121829	160825	111	" F047	none	9	06/28/94
121837	160844	201	" F051	none	5	07/05/94



ENTERGY

**NIS-2 SUMMARY REPORT FOR  
REPAIRS/REPLACEMENTS**



**ORIGINAL**

NIS-2 NO. 00338

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:** Air operated gate valve No. Q1G36F101 failed a Local Leak Rate Test (LLRT). The valve wedge showed signs of wear and MNCR NO. 0328-93 was initiated for corrective action. The valve seat, stem and backseat were cleaned, and the valve wedge replaced. The following tests and examinations were performed:

Local Leak Rate Test (LLRT): 11/12/93

Surveillance Operability Test: 11/12/93

Maintenance Leak Test & Visual Examination on Mechanical Connections: 2/2/94

Work Order NO. 109753: Completed 2/9/94

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) 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 69387-1; Body: Controlled Material (CM) NO. 1560B, HT. NO. CB l) N/A m) ASME SECT. III, 1971 ED., Winter 1972 ADD. n) N/A

**2. Replacement:** a) Wedge/Disc b-j) Same as item one except for c) N/A e) SA351 k) Removed: CM NO. 2692B, HT. NO. B85; Installed: CM NO. 2701B, Heat NO. B84 l-n) Same as item one

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

*Cam Phoe*  
Owner Representative

Date

*9/15/94*

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 ENGINEERING

*Arnold R. Davis*  
Inspector's Signature

Date 9-15-94

Commissions MS. 600  
National Board, State, Province and Nos.



ENTERGY

# NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



# ORIGINAL

NIS-2 NO. 00339

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:** Bolting was replaced on a stock pipe clamp. The bolts were replaced because the original bolts were removed from the stock pipe clamp to replace bolting on a pipe clamp that was damaged during RF05. (See NIS-2 No. 00336)

Work was completed under Work Order # 129966: Completed 11/8/94

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) Pipe Clamp b) For 20" Pipe c) N/A d) 1 e) SA-307 Gr. B f) Q2B33G023R01 (Spare) g) HL-1348A h) Maintenance Shop i) Bergen Patterson Pipe Support j) Laconia, N.H. k) Mark #Q2B33G023R01, Part # 6202-120N-20" l) N/A m) ASME Section III, Subsection NF, 1974 Addenda n) 1644.10

**2.Replacement:** a) Studs (4) b) 1 1/2" c-n) Same as Item 1 except for e) SA-36 k) PN C1712D n) N/A

**3.Replacement:** a) Nuts (16) b) 1 1/2" c-n) Same as Item 2 except for e) SA-563 Gr. A k) PN C1713D

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: Amilice Date 1/10/95 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.

Seward R. Swins Date 1-12-95 Commissions MS 600  
Inspector's Signature National Board, State, Province and Nos.

FACTORY MUTUAL ENGINEERING



ENTERGY

# NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



ORIGINAL

NIS-2 NO. 00340

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:** All twenty Main Steam Relief Valves (MSRVs) were removed and replaced during Refueling Outage No. 7 for as-found set pressure testing and certification to meet Technical Specifications and ASME Section XI testing requirements. The MSRV replacements were rebuilt spares that had been tested and recertified. All studs and nuts for the MSRV inlet and outlet flanges were inspected during rotation of MSRVs and those with deficiencies were replaced. The following tests and examinations were performed:

As-found Set Pressure Tests (by WYLE Labs): (See Table on Page 2)

VT-1 Preservice Examinations on Inlet stud & nut replacements: 5/2,5,6/95

System Pressure Test & VT-2 Examinations: 5/23/95

Valve Operability Tests: 5/30/95

Work Order #139584 (For Insp. of MRSV studs & nuts): Completed 5/25/95

Work Order #139625, under Surveillance Task #1141 (For Rotation of MSRVs): Completed 5/30/95

(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. REPLACEMENTS:** a) Dual Function Safety Relief Valves (20 ea.) b) 8" x 10" c) N/A d) 1 e) Body: SA-352 LCB, Cast Carbon Steel f) See Table 2 on Page 2 g) G.E. Dwg. G-471-6/125.04.03 h) Drywell, El. 147' i) G. Dijkers & Co. j) Hengelo (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

**2. REPLACEMENTS:** a) Inlet Flange Studs (31 ea.) b) 1 5/8"-8 UNC-2A c-n) Same as Item 1, except for: e) SA-193 Gr. B7 i) General Electric j) San Jose, CA k) Trace Code# ATA; Ht.# 43405 l) N/A

**3. REPLACEMENTS:** a) Inlet Flange Heavy Hex Nuts (19 ea.) b) 1 5/8"-8 UN-2B c-n) Same as Item 2, except for: e) SA-194 Gr. 7 and k) Trace Code# XT4; Ht.# 8078476 (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 Summary, 1979, Addenda.

Signed: [Signature] Date 8/16/95 Title: Testing/Inspection Programs 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 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 ENGINEERING

[Signature]  
Inspector's Signature

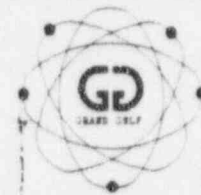
Date 8-22-95

Commissions MS. 600  
National Board, State, Province and Nos.



ENTERGY

# NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00340

# 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:** (Continued from Page 1)

Master Parts List (MPL)#	MSRV's Removed		MSRV's Installed		Date of Recertification Set Pressure Test (of MSRVs Installed)
	k) S/N	l) Nat. Bd.#	k) S/N	l) Nat. Bd.#	
F041A	160821	107	160801	010	12/02/94
F041B	160820	106	160802	013	11/30/94
F041C	160822	108	160838	183	11/18/94
F041D	160817	103	160815	101	11/15/94
F041E	160819	105	160795	008	12/01/94
F041F	160816	102	160818	104	11/09/94
F041G	160835	184	160796	011	11/23/94
F041K	160800	002	160837	252	06/23/94
F047A	160805	003	160827	113	11/10/94
F047C	160840	182	160808	016	12/02/94
F047D	160803	020	160841	194	11/09/94
F047G	160826	112	160839	206	11/23/94
F047H	160828	114	160824	110	05/25/93
F047L	160823	109	160825	111	11/22/94
F051A	160833	119	160812	015	11/22/94
F051B	160810	019	160831	117	11/16/94
F051C	160832	118	160844	201	12/01/94
F051D	160809	018	160829	115	11/30/94
F051F	160830	116	160811	007	11/10/94
F051K	160834	120	160814	014	05/18/93

4. REPLACEMENTS: a) Outlet Flange Studs (33 ea.) b) 1"-8 UNC-2A c-n) Same as Item 2, except for: k) Trace Code# C26; Ht. # 88082

5. REPLACEMENTS: a) Outlet Flange Heavy Hex Nuts (12 ea.) b) 1"-8 UNC-2B c-n) Same as Item 3, except for: k) Trace Code# XT6; Ht. # 8094962



ENTERGY

# NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00341

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: Per Material Nonconformance Report (MNCR) 0338-93, the disc and disc nut for High Pressure Core Spray Valve Q1E22F011 was modified by drilling two holes, 90° apart, through the disc and into the disc nut with pins installed and tack welded in place. The modification will prevent disengagement of the two parts caused by flow-induced vibration and thus prevent subsequent separation of the disc from the stem. This will eliminate the failure mechanism that was the apparent cause for the broken yoke problem originally identified in MNCR 0338-93 (See NIS-2-327).

The generic implications of this nonconformance have been addressed by including Anchor-Darling globe valves Q1E22F010 and Q1E22F023 in the disposition of MNCR 0338-93 (See NIS-2-328).

The following tests and examinations were performed:

VE-1 Visual Examination & Liquid Penetrant Examination of tack welds: 1/6/95

Maintenance Leak Test of the Valve Body to Bonnet mechanical connection: 1/10/95

Valve Operability Test: 1/11/95

Modification Work Package 19930338, Condition Identification #040379: Completed 1/19/95

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) Globe Valve b) 10" NPS c) 900 lb. d) 2 e) Body: SA216 Gr. WCB f) Q1E22F011 g) Vendor Dwg. #2999-3 h) Aux. Bldg., Area 8, El. 103' i) Anchor/Darling Valve Co. j) Hayward, CA k) S/N 2N-1021 l) N/A m) ASME Section III, 71'Ed. to W73 Add. n) 1567, 16376

2. Modified: a) Disc b-n) Same as in Item 1, except for: k) Heat #7249E, S/N 27

3. Installed: a) Pins (2) b) 3/8" dia. c) N/A d) 1, Subsection NF e) SA-36 f) N/A g) NPE Dwg. #VPF-KA3238-411 Rev. A h) Same as in Item 1 i) Hub, Inc. j) Tucker, GA k) Heat #4-7479 l) N/A m) ASME Section III, 80'Ed. to 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 I, 1977 Edition with Summer, 1979 Addenda.

Signed: *CM Phee*

Owner Representative

Date

*6/5/95*

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 ENGINEERING

*Amel R. Bivins*  
Inspector's Signature

Date

*6-7-95*

Commissions *MS. 600*  
National Board, State, Province and Nos.



ENTERGY

# NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00342

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:** It was discovered that the Residual Heat Removal (RHR) Jockey Pump "B" rotating assembly seals were leaking. As a preventative maintenance measure the entire rotating assembly was replaced. The following tests and examinations were performed:

Maintenance Leak Test with Visual Examination on the Mechanical Connections: 2/24/95

Surveillance Operability Test: 2/24/95

Work was completed under Maintenance Work Order # 129482: Completed 2/24/95

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) Jockey Pump b) 1" x 1½"-6 c) N/A d) 2 e) SA-351 Gr. CF8M f) Q1E12C003B g) Goulds Dwg. N737222 #1 h) Aux. Bldg., Area 8, El. 93' i) Goulds Pumps, INC. j) Seneca Falls, NY k) N737B222-2 l) 208 m) ASME Section III, 1977 Edition through Summer 1977 Addenda n) 1636-1

**2. Replacement:** a) Rotating Assembly b) for 1" x 1½"-6 pump c-) Same as Item 1 except for g) N737221 #1, Rev. 1 k) Removed: Rotating Assembly-Frame I.D. # G1086; Installed: Rotating Assembly S/N N565762 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 I, 1977 Edition with Summer, 1977 Addenda.

Signed: *Carl R. Roe* Date 6/7/95 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.

*Donald R. Swine* Date 6-9-95 Commissions MS. 600  
Inspector's Signature National Board, State, Province and Nos.

FACTORY MUTUAL ENGINEERING





ENTERGY

# NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

# ORIGINAL

NIS-2 NO. 00343

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 RF07 Freedom-of-Motion/Functional Testing of mechanical and hydraulic snubbers per the requirements of Technical Requirements Manual 7.6.3.10, the following snubbers and/or snubber hardware were installed:

**A:** **Q1E12G014R05:** Per Work Order #140304, PSA-1/2 mechanical snubber (S/N 7564) was unpinned and Freedom-Of-Motion Tested on 4/18/95. The results of F.O.M. testing were unacceptable, so the snubber was Functionally Tested on 4/19/95. The snubber failed Functional Testing and nonconformance document MNCR 0079-95 was generated. Replacement snubber (S/N 4684) was installed and the Snubber Visual Inspection was performed on 4/20/95.

(Ref. MRR 12620)

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 OF Q1E12G014R05:**

INSTALLED: a) Mechanical snubber b) PSA-1/2 c) 650 lbs. d) Class 2 e) various

f) Q1E12G014R05 g) HL-1348E h) Aux. Bldg. Area 8 Elev. 105 i) NPS Industries j) Portland, Oregon k) P/N 1801104-07 S/N 4684 l) N/A m) ASME Section III, Class 1, Subsection NF, 1977 Edition, 1978 Winter Addenda n) No Code Cases apply

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: *Ray D. Young* Date 8/17/95 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 ENGINEERING

*Donald R. Bevin* Date 8-30-95 Commissions MS 600  
Inspector's Signature National Board, State, Province and Nos.

Ray


**ENTERGY**
**NIS-2 SUMMARY REPORT FOR  
REPAIRS/REPLACEMENTS**
  
**ORIGINAL**

NIS-2 NO. 00343

 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.):**
**REPLACEMENTS (cont.):**

The following mechanical snubbers were replaced for service life considerations in anticipation of reduced snubber service life by the manufacturer. The original snubbers which were installed in the following supports passed functional testing, either as part of the RF07 sample plan or for informational testing. The replacement snubbers were disassembled and regreased prior to installation (Ref. W.O.s 135257, 135749, 135750, 135751, 135752, 135747 and 135748).

SUPPORT NUMBER	SNUBBER SIZE	OLD S/N	NEW S/N	WORK ORDER	VISUAL		
					INSPECTION DATE	RECEIPT DOCUMENTS	
B.	Q1B21G163R02	PSA-1/2	7482	20376	139766	05/12/95	QIPN-R1409-86
C.	Q1B33G105R02	PSA-1/4	28209	10699	138822	05/03/95	MRR-12620
D.	Q1B33G105R02	PSA-1/2	7477	20253	138822	05/03/95	QIPN-R0961-85
E.	Q1E12G119R02	PSA-1/2	7493	20381	139582	05/16/95	QIPN-R1423-86
F.	Q1E12G159R01	PSA-1/4	10730	11091	139582	05/16/95	MRR-12663
G.	Q1E12G159R03	PSA-1/4	10721	11063	139582	05/16/95	MRR-12663
H.	Q1E12G159R04	PSA-1/4	10727	13678	140275	05/16/95	MRR-13799
I.	Q1E32G106C01	PSA-1/2	7565	20254	139708	05/03/95	QIPN-R0961-85
J.	Q1E32G119C01	PSA-1/2	7586	7470	139705	04/26/95	MRR-12663
K.	Q1E51G001R06	PSA-1/2	7458	4735	140303	04/25/95	QIPN-R1019-85
L.	Q1E51G003R11	PSA-1/2	7462	7549	140302	04/25/95	QIPN-R1019-85
M.	Q1E51G003R11	PSA-1/2	7497	7478	140302	04/25/95	MRR-12663
N.	Q1E51G004R01	PSA-1/2	7469	7585	140305	04/26/95	MRR-12620
O.	Q1E51G004R01	PSA-1/2	7457	7581	140305	04/26/95	MRR-12620
P.	Q1E51G004R06	PSA-1/2	4730	7555	140305	04/26/95	MRR-12539
Q.	Q1E51G004R06	PSA-1/2	7597	7574	140305	04/26/95	MRR-12620
R.	Q1E12G015R28	PSA-10	7567	5231	135722	05/16/95	MRR-12620
S.	Q1E51G003R04	PSA-3	13066	13120	135760	05/16/95	MRR-13416
T.	Q1G33G002R14	PSA-10	7568	7511	135693	05/11/95	MRR-13415
U.	Q1E51G001R17	PSA-3	11197	13041	135774	05/22/95	MRR-13416
V.	Q1E51G004R11	PSA-1	10283	9142	135480	04/26/95	MRR-12663
W.	Q1E12G013R08	PSA-1	9384	9412	135473	05/16/95	MRR-12700
X.	Q1E12G020R07	PSA-3	13054	13102	135777	05/10/95	MRR-16246
Y.	Q1E51G001R10	PSA-3	11219	13077	135759	05/03/95	MRR-13416
Z.	Q1E12G025R01	PSA-10	5245	7420	135713	04/18/95	MRR-13415



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

ORIGINAL

NIS-2 NO. 00343

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.):

REPLACEMENTS (cont.):

	HARDWARE NUMBER	SNUBBER SIZE	OLD S/N	NEW S/N	WORK ORDER	VISUAL	
						INSPECTION DATE	RECEIPT DOCUMENTS
AA.	Q1E12G013R06	PSA-10	5234	14379	135745	05/16/95	MRR-17121
AB.	Q1C41G136R02	PSA-1	9125	9403	135468	04/24/95	MRR-12700
AC.	Q1E12G025C01	PSA-3	10282	10743	135761	04/19/95	MRR-12690
AD.	Q1E51G003R07	PSA-3	13072	13051	135773	05/02/95	MRR-13416
AE.	Q1E12G014R04	PSA-10	7419	7424	135723	04/18/95	MRR-13415
AF.	Q1E12G013R05	PSA-3	11205	13122	109049	05/16/95	MRR-13416
AG.	Q1E12G014C03	PSA-1	10281	9418	135474	05/12/95	MRR-12700
AH.	Q1E12G012R04	PSA-10	7461	14374	135736	05/12/95	MRR-17121
AI.	Q1E12G016R02	PSA-3	10724	13047	135763	05/03/95	MRR-13416
AJ.	Q1E51G004R14	PSA-10	7480	7573	135719	04/28/95	MRR-13416
AK.	Q1E12G010R07	PSA-10	14373	7497	135653	04/26/95	MRR-13415
AL.	Q1E22G003R04	PSA-10	7473	7512	135652	04/27/95	MRR-13415
AM.	Q1E51G004R13	PSA-10	7434	14377	135650	05/12/95	MRR-17121
AN.	Q1E51G004R14	PSA-10	7500	7570	135691	04/28/95	MRR-13416
AO.	Q1E51G001R20	PSA-10	12185	14370	135734	05/10/95	MRR-17121
AP.	Q1E22G003R03	PSA-10	7467	7562	109062	04/27/95	MRR-13416
AQ.	Q1B21G026R01	PSA-100	0924	1027	135754	05/10/95	MRR-15408
AR.	Q1B21G026R04	PSA-35	5626	7841	135787	04/26/95	MRR-15353
AS.	Q1E12G012R18	PSA-35	5288	8114	135785	05/12/95	MRR-15353

*Key*



ENTERGY

## NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

NIS-2 NO. 00343

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.):

#### REPLACEMENTS (cont.):

**AT. Q1B33G006S369B:** Per Work Order #140143, E-100 (100 kip) hydraulic snubber, S/N 017, was removed from the pipe support for Functional Testing as part of the RF07 Snubber Sample Plan. The snubber was removed from the support and Functionally Tested on 5/4/95. Although the Functional Test was acceptable, a refurbished snubber, S/N 019, was functionally tested on 5/5/95 and installed into the support for service life considerations on 5/8/95. The support was Visually Inspected on 5/8/95 with acceptable results, and the Work Order was Returned to Operation on 5/9/95.

(Ref. MRR-GPD-7269)

**AU. Q1B21G006S104D:** Per Work Order #140147, E-50 (50 kip) hydraulic snubber, S/N 105, was removed from the support on 4/20/95 for Functional Testing as part of the RF07 Snubber Sample Plan. The snubber was Functionally Tested "acceptable" on 4/21/95, but the snubber was damaged during transportation and reinstallation into the support. The snubber was replaced by E-50 S/N 169, which was Functionally Tested on 5/6/95 and installed into the support on 5/9/95. The support was Visually Inspected on 5/9/95 with acceptable results and the Work Order was Returned to Operation on 5/14/95.

(Ref. MRR-GPD-7984)

**AV/AW. Q1E51G004R14:** Per Work Order #135719, a snubber on this support was replaced for service life considerations (Ref "AJ"). The attachment hardware was lost and subsequently replaced. For the load pin located on the clamp end, a spare pipe clamp was requisitioned from the warehouse and the load pin (AV) was removed from the clamp and installed into the pipe support. The remainder of the spare clamp was discarded. The other load pin was replaced with a warehouse spare (AW). The snubber was installed into the support and Visually Inspected on 4/28/95.

(Ref. MRR-17726 and R0893-85)

**AX. Q1B21G153R02:** Per Work Order #140127, one of the snubbers on this support was removed for testing, at which time one of the load pins was lost. The load pin was replaced during reinstallation with a warehouse spare. The snubber was removed from the support, Freedom Of Motion Tested "acceptable", reinstalled and Visually Inspected on 4/21/95. The Work Order was completed 4/21/95 and was Returned to Operation on 5/9/95.

(Ref. QIPN-R-0893-85)



ENTERGY

# NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

# ORIGINAL

NIS-2 NO. 00343

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 TO REPAIRS/REPLACEMENTS/MODIFICATIONS(cont.):**

**REPLACEMENTS (cont.):**

AY. Q1B21G026R04: Per Work Order # 135787, a PSA-35 mechanical snubber was removed from the support for Functional Testing as part of the RF07 Snubber Sample Plan. The snubber load pin was damaged during removal and was replaced with a warehouse spare. The snubber was removed from the support and Functionally Tested on 4/24/95 and was reinstalled and Visually Inspected on 4/25/95. The Work Order was completed 4/26/95 and Returned to Operation on 4/27/95.

(Ref. 87MP734815002M08326)

2204



ENTERGY

## NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

# ORIGINAL



NIS-2 NO. 00343

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 OF Q1B21G163R02:

INSTALLED: a) Mechanical snubber b) PSA-1/2 S/N 20376 c) 650 lbs. d) Class 1 e) various  
f) Q1B21G163R02 g) FSK-H-1077B-033C h) Drywell elev. 112' i) Pacific Scientific  
j) Anaheim, Ca k) P/N 1801104-07 l) N/A m) ASME Section III, Subsection NF, 1980 Edition,  
Summer 1982 Addenda n) Code Cases N71-7 and N-247

#### C. REPLACEMENT OF Q1B33G105R02:

INSTALLED: a) Mechanical snubber b) PSA-1/4 S/N 10699 c) 350 lbs d) Class 1 e) various  
f) Q1B33G105R02 g) FSK-H-1078A-005C h) Drywell elev. 101' i) NPS Industries j) Portland,  
Oregon k) P/N 1801104-05 l) N/A m) ASME Section III, Subsection NF, Class 1, 1977  
Edition, Winter 1978 Addenda n) No Code Cases apply

#### D. REPLACEMENT OF Q1B33G105R02:

INSTALLED: a) Mechanical snubber b) PSA-1/2 S/N 20253 c) 650 lbs. d) Class 1 e) various  
f) Q1B33G105R02 g) FSK-H-1078A-005C h) Drywell elev. 101' i) Pacific Scientific  
Anaheim, Ca. k) P/N 1801104-07 l) N/A m) ASME Section III, Subsection NF, 1980 Edition,  
Summer 1982 Addenda n) Code Cases N71-7 and N 247

#### E. REPLACEMENT OF Q1E12G119R02:

INSTALLED: a) Mechanical snubber b) PSA-1/2 S/N 20381 c) 650 lbs. d) Class 2 e) various  
f) Q1E12G119R02 g) FSK-H-1085B-009B h) Aux. Bldg. Area 7 i) Pacific Scientific  
j) Anaheim, Ca k) P/N 1801104-07 l) N/A m) ASME Section III, Subsection NF, 1980 Edition,  
Summer 1982 Addenda n) Code Cases N71-7 and N-247

#### F. REPLACEMENT OF Q1E12G159R01:

INSTALLED: a) Mechanical snubber b) PSA-1/4 S/N 11091 c) 350 lbs. d) Class 2 e) various  
f) Q1E12G159R01 g) FSK-H-1085B-018B h) Aux. Bldg. Area 7 i) Bergen-Paterson  
j) Woburn, Mass. k) P/N 1801104-05 l) N/A m) ASME Section III, Subsection NF, 1974  
Edition with no addenda n) No Code Cases apply

#### G. REPLACEMENT OF Q1E12G159R03:

INSTALLED: a) Mechanical snubber b) PSA-1/4 S/N 11063 c) 350 lbs. d) Class 2 e) various  
f) Q1E12G159R03 g) FSK-H-1085B-018B h) Aux. Bldg. Area 7 i) Bergen-Paterson  
j) Woburn, Mass. k) P/N 1801104-05 l) N/A m) ASME Section III, Subsection NF, 1974  
Edition with no addenda n) No Code Cases apply



ENTERGY

NIS-2 SUMMARY REPORT FOR  
REPAIRS/REPLACEMENTS

ORIGINAL

NIS-2 NO. 00343

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.)

H. REPLACEMENT OF Q1E12G159R04:

INSTALLED: a) Mechanical snubber b) PSA-1/4 S/N 13678 c) 350 lbs. d) Class 2 e) various  
f) Q1E12G159R04 g) FSK-H-1085B-018B h) Aux. Bldg. Area 7 i) Bergen-Paterson  
j) Laconia, N.H. k) P/N 1801104-05 l) N/A m) ASME Section III, Subsection NF, 1974 Edition  
with no addenda n) No Code Cases apply

I. REPLACEMENT OF Q1E32G106C01:

INSTALLED: a) Mechanical snubber b) PSA-1/2 S/N 20254 c) 650 lbs. d) Class 2 e) various  
f) Q1E32G106C01 g) FSK-H-1097-006B h) Aux. Bldg. Area 8 i) Pacific Scientific  
j) Anaheim, Ca. k) P/N 1801104-07 l) N/A m) ASME Section III, Subsection NF, 1980  
Edition, Summer 1982 addenda n) Code Cases N71-7 and N-247 apply

J. REPLACEMENT OF Q1E32G119C01:

INSTALLED: a) Mechanical snubber b) PSA-1/2 S/N 7470 c) 650 lbs. d) Class 1 e) various  
f) Q1E32G119C01 g) FSK-H-1097-019B h) Aux. Bldg. Area 8 i) Bergen-Paterson j) Woburn,  
Mass. k) P/N 1801104-07 l) N/A m) ASME Section III, Subsection NF, 1974 Edition with  
no addenda n) No Code Cases apply

K. REPLACEMENT OF Q1E51G001R06:

INSTALLED: a) Mechanical snubber b) PSA-1/2 S/N 4735 c) 650 lbs. d) Class 2 e) various  
f) Q1E51G001R06 g) HL-1346A h) Aux. Bldg. Area 8 i) Pacific Scientific j) Anaheim, Ca.  
k) P/N 1801104-07 l) N/A m) ASME Section III, Subsection NF, 1977 Edition, Winter 1978  
addenda n) Code Cases 1644-5 and 1644-6 apply

L. REPLACEMENT OF Q1E51G003R11:

INSTALLED: a) Mechanical snubber b) PSA-1/2 S/N 7549 c) 650 lbs. d) Class 2 e) various  
f) Q1E51G003R11 g) HL-1347B h) Aux. Bldg. Area 7 i) Pacific Scientific j) Anaheim, Ca.  
k) P/N 1801104-07 l) N/A m) ASME Section III, Subsection NF, 1974 Edition, Winter 1974  
Addenda n) Code Case 1644-7 applies

M. REPLACEMENT OF Q1E51G003R11:

INSTALLED: a) Mechanical snubber b) PSA-1/2 S/N 7478 c) 650 lbs. d) Class 2 e) various  
f) Q1E51G003R11 g) HL-1347B h) Aux. Bldg. Area 7 i) Bergen-Paterson j) Woburn, Mass.  
k) P/N 1801104-07 l) N/A m) ASME Section III, Subsection NF, 1974 Edition n) No Code  
Cases apply



ENTERGY

NIS-2 SUMMARY REPORT FOR  
REPAIRS/REPLACEMENTS

ORIGINAL

NIS-2 NO. 00343

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.)

**N. REPLACEMENT OF Q1E51G004R01:**

INSTALLED: a) Mechanical snubber b) PSA-1/2 S/N 7585 c) 650 lbs. d) Class 2 e) various  
f) Q1E51G004R01 g) HL-1347A h) Aux. Bldg. Area 8 i) NPS Industries j) Portland, Or.  
k) 1801104-07 l) N/A m) ASME Section III, Subsection NF, Class 1, 1977 Edition, Winter 1978  
Addenda n) No Code Cases apply

**O. REPLACEMENT OF Q1E51G004R01:**

INSTALLED: a) Mechanical snubber b) PSA-1/2 S/N 7581 c) 650 lbs. d) Class 2 e) various  
f) Q1E51G004R01 g) HL-1347A h) Aux. Bldg. Area 8 i) NPS Industries j) Portland, Or.  
k) 1801104-07 l) N/A m) ASME Section III, Subsection NF, Class 1, 1977 Edition, Winter 1978  
Addenda n) No Code Cases apply

**P. REPLACEMENT OF Q1E51G004R06:**

INSTALLED: a) Mechanical snubber b) PSA-1/2 S/N 7555 c) 650 lbs. d) Class 2 e) various  
f) Q1E51G004R06 g) HL-1347A h) Aux. Bldg. Area 8 i) Bergen-Paterson j) Woburn, Mass.  
k) 1801104-07 l) N/A m) ASME Section III, Subsection NF, 1974 Edition n) No Code Cases  
apply

**Q. REPLACEMENT OF Q1E51G004R06:**

INSTALLED: a) Mechanical snubber b) PSA-1/2 S/N 7574 c) 650 lbs. d) Class 2 e) various  
f) Q1E51G004R06 g) HL-1347A h) Aux. Bldg. Area 8 i) NPS Industries j) Portland, Or.  
k) 1801104-07 l) N/A m) ASME Section III, Subsection NF, Class 1, 1977 Edition, Winter 1978  
Addenda n) No Code Cases apply

**R. REPLACEMENT OF Q1E12G015R28:**

INSTALLED: a) Mechanical snubber b) PSA-10 S/N 5231 c) 15000 lbs. d) Class 2 e) various  
f) Q1E12G015R28 g) HL-1348F h) Containment Building i) NPS Industries j) Portland, Or.  
k) 1801103-07 l) N/A m) ASME Section III, Subsection NF, Class 1, 1977 Edition, Winter 1978  
Addenda n) No Code Cases apply

**S. REPLACEMENT OF Q1E51G003R04:**

INSTALLED: a) Mechanical snubber b) PSA-3 S/N 13120 c) 6000 lbs. d) Class 2 e) various  
f) Q1E51G003R04 g) HL-1347B h) Aux. Bldg. Area 7 i) Bergen-Paterson j) Laconia, N.H.  
k) 1801106-05 l) N/A m) ASME Section III, Subsection NF, 1974 Edition n) No Code Cases  
apply

May





ENTERGY

NIS-2 SUMMARY REPORT FOR  
REPAIRS/REPLACEMENTS

ORIGINAL

NIS-2 NO. 00343

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.)

T. REPLACEMENT OF Q1G33G002R14:

INSTALLED: a) Mechanical snubber b) PSA-10 S/N 7511 c) 15000 lbs. d) Class 1 e) various  
f) Q1G33G002R14 g) HL-1342A h) Drywell elev 102' i) Bergen-Paterson j) Laconia, N.H.  
k) 1801103-07 l) N/A m) ASME Section III, Subsection NF, 1974 Edition n) Code Cases  
1644-7 and N-225 apply

U. REPLACEMENT OF Q1E51G001R17:

INSTALLED: a) Mechanical snubber b) PSA-3 S/N 13041 c) 6000 lbs. d) Class 1 e) various  
f) Q1E51G001R17 g) HL-1346A h) Drywell elev. 190' i) Bergen-Paterson j) Laconia, N.H.  
k) 1801106-05 l) N/A m) ASME Section III, Subsection NF, 1974 Edition n) No Code Cases  
apply

V. REPLACEMENT OF Q1E51G004R11:

INSTALLED: a) Mechanical snubber b) PSA-1 S/N 9142 c) 1500 lbs. d) Class 2 e) various  
f) Q1E51G004R11 g) HL-1347A h) Aux Bldg. Area 8 i) Bergen-Paterson j) Woburn, Mass.  
k) 1801102-05 l) N/A m) ASME Section III, Subsection NF, 1974 Edition n) No Code Cases  
apply

W. REPLACEMENT OF Q1E12G013R08:

INSTALLED: a) Mechanical snubber b) PSA-1 S/N 9412 c) 1500 lbs. d) Class 2 e) various  
f) Q1E12G013R08 g) HL-1348D h) Aux. Bldg. Area 7 i) Bergen-Paterson j) Laconia, N.H.  
k) 1801102-05 l) N/A m) ASME Section III, Subsection NF, 1974 Edition n) No Code Cases  
apply

X. REPLACEMENT OF Q1E12G020R07:

INSTALLED: a) Mechanical snubber b) PSA-3 S/N 13102 c) 6000 lbs. d) Class 2 e) various  
f) Q1E12G020R07 g) HL-1347A h) Aux. Bldg. Area 7 i) Bergen-Paterson j) Laconia, N.H.  
k) 1801106-05 l) N/A m) ASME Section III, Subsection NF, 1974 Edition n) Code Cases  
1644-7, 1651, 1683, 1690 and 1818 apply

Y. REPLACEMENT OF Q1E51G001R10:

INSTALLED: a) Mechanical snubber b) PSA-3 S/N 13077 c) 6000 lbs. d) Class 1 e) various  
f) Q1E51G001R10 g) HL-1346A h) Drywell elev. 135' i) Bergen-Paterson j) Laconia, N.H.  
k) 1801106-05 l) N/A m) ASME Section III, Subsection NF, 1974 Edition n) No Code Cases  
apply



ENTERGY

## NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

# ORIGINAL

NIS-2 NO. 00343

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.)

#### Z. REPLACEMENT OF Q1E12G025R01:

INSTALLED: a) Mechanical snubber b) PSA-10 S/N 7420 c) 15000 lbs. d) Class 2 e) various  
f) Q1E12G025R01 g) HL-1358B h) Aux. Bldg. Area 8 i) Bergen-Paterson j) Laconia, N.H.  
k) 1801103-07 l) N/A m) ASME Section III, Subsection NF, 1974 Edition n) Code Cases  
1644-7 and N-225 apply

#### AA. REPLACEMENT OF Q1E12G013R06:

INSTALLED: a) Mechanical snubber b) PSA-10 S/N 14379 c) 15000 lbs. d) Class 2 e) various  
f) Q1E12G013R06 g) HL-1348D h) Aux. Bldg. Area 7 i) Bergen-Paterson j) Laconia, N.H.  
k) 1801103-07 l) N/A m) ASME Section III, Subsection NF, 1974 Edition n) Code Cases 1644  
and 1818 apply

#### AB. REPLACEMENT OF Q1C41G136R02:

INSTALLED: a) Mechanical snubber b) PSA-1 S/N 9403 c) 1500 lbs. d) Class 1 e) various  
f) Q1C41G136R02 g) FSK-H-1082-034C h) Drywell Elevation 152' i) Bergen-Paterson  
j) Laconia, N.H. k) 1801102-05 l) N/A m) ASME Section III, Subsection NF, 1974 Edition  
n) No Code Cases apply

#### AC. REPLACEMENT OF Q1E12G025C01:

INSTALLED: a) Mechanical snubber b) PSA-3 S/N 10743 c) 6000 lbs. d) Class 2 e) various  
f) Q1E12G025C01 g) HL-1358B h) Aux. Bldg. Area 8 i) NPS Industries j) Portland, Oregon  
k) 1801106-05 l) N/A m) ASME Section III, Subsection NF, Class 1, 1977 Edition, Winter 1978  
Addenda n) No Code Cases apply

#### AD. REPLACEMENT OF Q1E51G003R07:

INSTALLED: a) Mechanical snubber b) PSA-3 S/N 13051 c) 6000 lbs. d) Class 2 e) various  
f) Q1E51G003R07 g) HL-1347B h) Aux. Bldg. Area 7 i) Bergen-Paterson j) Laconia, N.H.  
k) 1801106-05 l) N/A m) ASME Section III, Subsection NF, 1974 Edition n) No Code Cases  
apply

#### AE. REPLACEMENT OF Q1E12G014R04:

INSTALLED: a) Mechanical snubber b) PSA-10 S/N 7424 c) 15000 lbs. d) Class 2 e) various  
f) Q1E12G014R04 g) HL-1348E h) Aux. Bldg. Area 8 i) Bergen-Paterson j) Laconia, N.H.  
k) 1801103-07 l) N/A m) ASME Section III, Subsection NF, 1974 Edition  
n) Code Cases N-225 and 1644-7 apply



ENTERGY

## NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

# ORIGINAL

NIS-2 NO. 00343

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.)

#### AF. REPLACEMENT OF Q1E12G013R05:

INSTALLED: a) Mechanical snubber b) PSA-3 S/N 13122 c) 6000 lbs. d) Class 2 e) various  
f) Q1E12G013R05 g) HL-1348D h) Aux. Bldg. Area 7 i) Bergen-Paterson j) Laconia, N.H.  
k) 1801106-05 l) N/A m) ASME Section III, Subsection NF, 1974 Edition n) No Code Cases  
apply

#### AG. REPLACEMENT OF Q1E12G014C03:

INSTALLED: a) Mechanical snubber b) PSA-1 S/N 9418 c) 1500 lbs. d) Class 2 e) various  
f) Q1E12G014C03 g) HL-1348E h) Aux. Bldg. Area 7 i) Bergen-Paterson j) Laconia, N.H.  
k) 1801102-05 l) N/A m) ASME Section III, Subsection NF, 1974 Edition n) No Code Cases  
apply

#### AH. REPLACEMENT OF Q1E12G012R04:

INSTALLED: a) Mechanical snubber b) PSA-10 S/N 14374 c) 15000 lbs. d) Class 2 e) various  
f) Q1E12G012R04 g) HL-1348A h) Aux. Bldg. Area 7 i) Bergen-Paterson j) Laconia, N.H.  
k) 1801103-07 l) N/A m) ASME Section III, Subsection NF, 1974 Edition n) Code Cases 1644  
and 1818 apply

#### AI. REPLACEMENT OF Q1E12G016R02:

INSTALLED: a) Mechanical snubber b) PSA-3 S/N 13047 c) 6000 lbs. d) Class 1 e) various  
f) Q1E12G016R02 g) HL-1347T h) Drywell Elev 143" i) Bergen-Paterson j) Laconia, N.H.  
k) 1801106-05 l) N/A m) ASME Section III, Subsection NF, 1974 Edition n) No Code Cases  
apply

#### AJ. REPLACEMENT OF Q1E51G004R14:

INSTALLED: a) Mechanical snubber b) PSA-10 S/N 7573 c) 15000 lbs. d) Class 1 e) various  
f) Q1E51G004R14 g) HL-1347A h) Drywell Elev 152' i) Bergen-Paterson j) Laconia, N.H.  
k) 1801103-07 l) N/A m) ASME Section III, Subsection NF, 1974 Edition n) No Code Cases  
apply

#### AK. REPLACEMENT OF Q1E12G010R07:

INSTALLED: a) Mechanical snubber b) PSA-10 S/N 7497 c) 15000 lbs. d) Class 2 e) various  
f) Q1E12G010R07 g) HL-1348B h) Aux. Bldg. Area 8 i) Bergen-Paterson j) Laconia, N.H.  
k) 1801103-07 l) N/A m) ASME Section III, Subsection NF, 1974 Edition n) Code Cases N-  
225 and 1644-7 apply

Ray



ENTERGY

NIS-2 SUMMARY REPORT FOR  
REPAIRS/REPLACEMENTS

ORIGINAL

NIS-2 NO. 00343

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.)

AL. REPLACEMENT OF Q1E22G003R04:

INSTALLED: a) Mechanical snubber b) PSA-10 S/N 7512 c) 15000 lbs. d) Class 1 e) various  
f) Q1E22G003R04 g) HL-1349B h) Drywell Elev 149' i) Bergen-Paterson j) Laconia, N.H.  
k) 1801103-07 l) N/A m) ASME Section III, Subsection NF, 1974 Edition n) Code Cases N-  
225 and 1644-7 apply

AM. REPLACEMENT OF Q1E51G004R13:

INSTALLED: a) Mechanical snubber b) PSA-10 S/N 14377 c) 15000 lbs. d) Class 1 e) various  
f) Q1E51G004R13 g) HL-1347A h) Drywell Elev 167' i) Bergen-Paterson j) Laconia, N.H.  
k) 1801103-07 l) N/A m) ASME Section III, Subsection NF, 1974 Edition n) Code Cases 1644  
and 1818 apply

AN. REPLACEMENT OF Q1E51G004R14:

INSTALLED: a) Mechanical snubber b) PSA-10 S/N 7570 c) 15000 lbs. d) Class 1 e) various  
f) Q1E51G004R14 g) HL-1347A h) Drywell Elev 152' i) Bergen-Paterson j) Laconia, N.H.  
k) 1801103-07 l) N/A m) ASME Section III, Subsection NF, 1974 Edition n) No Code Cases  
apply

AO. REPLACEMENT OF Q1E51G001R20:

INSTALLED: a) Mechanical snubber b) PSA-10 S/N 14370 c) 15000 lbs. d) Class 1 e) various  
f) Q1E51G001R20 g) HL-1346A h) Drywell Elev 133' i) Bergen-Paterson j) Laconia, N.H.  
k) 1801103-07 l) N/A m) ASME Section III, Subsection NF, 1974 Edition n) Code Cases 1644  
and 1818 apply

AP. REPLACEMENT OF Q1E22G003R03:

INSTALLED: a) Mechanical snubber b) PSA-10 S/N 7562 c) 15000 lbs. d) Class 1 e) various  
f) Q1E22G003R03 g) HL-1349B h) Drywell Elev 149' i) Bergen-Paterson j) Laconia, N.H.  
k) 1801103-07 l) N/A m) ASME Section III, Subsection NF, 1974 Edition n) No Code Cases  
apply

AQ. REPLACEMENT OF Q1B21G026R01:

INSTALLED: a) Mechanical snubber b) PSA-100 S/N 1027 c) 120,000 lbs. d) Class 1 e) various  
f) Q1B21G026R01 g) HL-1328J h) Drywell Elev 143' i) Bergen-Paterson j) Laconia, N.H.  
k) 1801119-11 l) N/A m) ASME Section III, Subsection NF, 1974 Edition n) No Code Cases  
apply



ENTERGY

NIS-2 SUMMARY REPORT FOR  
REPAIRS/REPLACEMENTS

ORIGINAL

NIS-2 NO. 00343

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.)

AR. REPLACEMENT OF Q1B21G026R04:

INSTALLED: a) Mechanical snubber b) PSA-35 S/N 7841 c) 50,000 lbs. d) Class 1 e) various  
f) Q1B21G026R04 g) HL-1328J h) Drywell Elev 153' i) Bergen-Paterson j) Laconia, N.H.  
k) 1801112-11 l) N/A m) ASME Section III, Subsection NF, 1974 Edition n) No Code Cases  
apply

AS. REPLACEMENT OF Q1E12G012R18:

INSTALLED: a) Mechanical snubber b) PSA-35 S/N 8114 c) 50,000 lbs. d) Class 1 e) various  
f) Q1E12G012R18 g) HL-1348A h) Drywell Elev 133 i) Bergen-Paterson j) Laconia, N.H.  
k) 1801112-11 l) N/A m) ASME Section III, Subsection NF, 1974 Edition n) No Code Cases  
apply

AT. REPLACEMENT OF Q1B33G006S369B:

INSTALLED: a) Hydraulic snubber b) 100 kip S/N 019 c) 100,000 lbs. d) Class 1 e) various  
f) Q1B33G006S369B g) FSK-P-1012-M.001-C h) Drywell i) E-Systems, Montek Division  
j) Salt Lake City, Utah k) P/N 152010 l) N/A m) ASME Section III, Division I, 1974 Edition,  
Summer 1975 Addenda n) Code Cases 1644-4, 1682-1 and 1706 apply

AU. REPLACEMENT OF Q1B21G006S104D:

INSTALLED: a) Hydraulic snubber b) 50 kip S/N 169 c) 50,000 lbs. d) Class 1 e) various  
f) Q1B21G006S104D g) FSK-P-1013-M.001-C h) Drywell i) E-Systems, Montek Division  
j) Salt Lake City, Utah k) P/N 152005 l) N/A m) ASME Section III, Division I, 1974 Edition,  
Summer 1975 Addenda n) Code Cases 1644-4, 1682-1 and 1706 apply

AV. REPLACEMENT OF Q1E51G004R14:

INSTALLED: a) Retainer pin (load pin) from snubber pipe clamp b) 14" c) 15,000 lbs. d) Class 1  
e) SA-193 Gr B7 f) Q1E51G004R14 g) HL-1347A h) Drywell Elev. 152' i) Bergen-Paterson  
j) Laconia, N.H. k) P/N 6202-15N-14 l) N/A m) ASME Section III, Subsection NF, 1974  
Edition with no addenda n) Code Cases 1644-10 and 1818 apply.

AW. REPLACEMENT OF Q1E51G004R14:

INSTALLED: a) Retainer pin b) 1" c) N/A d) Class 1 e) SA-564, TYPE 630 f) Q1E12G004R14  
g) HL-1347A h) Drywell Elev. 152' i) Pacific Scientific j) Anaheim, Ca. k) 1801341-07 l) N/A  
m) ASME Section III, Subsection NF, 1980 Edition, Summer 1982 Addenda n) Code Case  
N71-7 is applicable.



ENTERGY

# NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

# ORIGINAL

NIS-2 NO. 00343

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.)

### AX. REPLACEMENT OF Q1B21G153R02:

INSTALLED: a) Pin, Snubber Bracket b) .375" diameter c) N/A d) Class 1 e) SA-564 Type 630  
f) Q1B21G153R02 g) FSK-H-1077A-023C h) Drywell Elev. 175' i) Pacific Scientific  
j) Anaheim, Ca. k) 1801341-01 l) N/A m) ASME Section III, Subsection NF, 1980 Edition,  
Summer 1982 Addenda n) Code Case N71-7 applies

### AY. REPLACEMENT OF Q1B21G026R04:

INSTALLED: a) Pin, Snubber Bracket b) 1.5" diameter c) N/A d) Class 1 e) SA-564 Type 630  
f) Q1B21G026R04 g) HL-1328J h) Drywell Elev. 153' i) Pacific Scientific j) Anaheim, Ca.  
k) 1801341-11 l) N/A m) ASME Section III, Subsection NF, 1980 Edition, Summer 1982  
Addenda n) Code Case 1644-5 applies



ENERGY

# NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

# ORIGINAL



NIS-2 NO. 00344

OWNER: ENERGENCY 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:** The seal cartridge for Reactor Recirculation Pump A 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: W.O. # 146834. Completed: 6/19/95  
Work was completed under Maintenance Work Order 146703: Completed 6/15/95

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) 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) Q1B33C001A 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 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 except for e) Seal Flange: SA351 GR CF8 g) Byron Jackson Dwg. No. IE-3817 Rev. A k) Removed: S/N 741-1370; Installed: S/N 813-S-6777-1

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 8/16/95 Title: Testing/Inspection Programs 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 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 ENGINEERING

[Signature] Date 8-17-95 Commissions MS. 600  
Inspector's Signature National Board, State, Province and Nos.



ENTERGY

# NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



# ORIGINAL

NIS-2 NO. 00345

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:** Explosive actuated valve Q1C41F004B in the Standby Liquid Control (SLC) System was rebuilt after 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 test and examination was performed:

System Functional Bench Test with a VT-2 Visual Examination on the Trigger body to valve mechanical connection: 4/25/95

Maintenance Leak Test with a Visual Examination on the Inlet Flange connection: 6/1/95

Surveillance Operability Test: 6/1/95

Work was Completed under Maintenance Work Order # 130206: Completed 6/1/95

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) Explosive Actuated Valve b) 1½" NPS c) N/A d) 2 e) ASME SA 479, Type 304L  
f) Q1C41F004B g) CONAX Dwg. #1832-159 Rev.0 h) CTMT, Area 11, El. 185' i) Conax Buffalo Corp. j) Buffalo, NY  
k) S/N 24, C/N 279 l) 111 m) ASME Section III, 1971 Edition, Winter 1972 Addenda n) N/A

2. Replacement: a) Explosive Valve Replacement Kit d) 1 b,c,g,h,i,j) Same as Item 1 e,f,k,l) See the Table on Page 2

(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 7/12/95 Title: Testing/Inspection Programs 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 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 ENGINEERING

[Signature] Date 7-17-95 Commissions MS. 600  
Inspector's Signature National Board, State, Province and Nos.





ENTERGY

NIS-2 SUMMARY REPORT FOR  
REPAIRS/REPLACEMENTS



NIS-2 NO. 00345 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; G.E. S/N of the kit: Removed/Installed  
0287-EQ 0407-EQ

The Kit Installed Consists of the Following Parts:

Name	e) Material	k) Part No.
Trigger Body	SA-479, Type 304 SST	N-38018-01
Ram	SA-564, Type 630, Cond. A	N-39012-01
Inlet Fitting	SA-479, Type 304 SST	N-38017-01B
*Primer Chamber Body	SA-479, Type 304 SS	N-38062-01

\*Non-Pressure Retaining Part

Name	**k.l) S/N & N/B#: Removed/Installed
*Trigger Subassembly	3611 4419
Inlet Fitting	3584 4394

\*Trigger Subassembly Includes the Trigger Body and Ram.

\*\*The National Board No. is the same as the MFR.'s Serial No.

m) Construction Code Edition & Addenda for Each Part in the Kit:

ASME Section III, Class 1, 1977 Edition through Summer, 1977 Addenda



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



ORIGINAL

NIS-2 NO. 00346

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.)

**Repair:** Testable Check Valve Q1E12F041C for the Low Pressure Core Injection "C" System (LPCI C) was found to be leaking from the gasket seating surface of the bearing cover. The leakage was determined to be caused by an insufficient gasket seal. Material Nonconformance Report 0344/93 was initiated to document the problem and provide corrective action. The bearing cover was removed and machined .025" to allow total gasket compression. The bearing cover was reinstalled and the following tests and examinations were performed:

Preservice VT-3 Visual Examination on the machined areas of the bearing cover: 4/26/95

System Leakage Test with VT-2 Visual Examination of the bearing cover Mechanical Connection: 5/23/95

Surveillance Operability Test: 4/27/95

Work Performed Under Maintenance Work Order No. 122299: Completed 5/28/95

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) Testable Check Valve b) 12" c) N/A d) 1 e) SA 216 Gr. WCC f) Q1E12F041C g) Vendor Dwg. No. 13615-04-H Rev. 2 h) CTMT, Area 11, El. 166' i) Atwood & Morrill Co., Inc. j) Salem, MA k) S/N 5-13615 l) N/A m) ASME Section III, 1974 Edition through Summer, 1974 Addenda n) N/A

2. Repaired: a) Bearing Cover b-n) Same as Item 1 except for e) SA350 Gr. LF-2 k) Heat # 214037

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, 1978, Addenda.

6-23-95  
WCF

Signed: [Signature]  
Owner Representative

Date: 7/11/95

Title: Testing/Inspection Programs Supv.

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 ENGINEERING

[Signature]  
Inspector's Signature

Date: 7-12-95

Commissions MS. 600  
National Board, State, Province and Nos.



ENTERGY

## NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00347 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 rebuild of a spare Control Rod Drive (CRD) Assembly, a ring flange capscrew was found to be missing. Material Nonconformance Report (MNCR) No. 0038/95 was initiated to document the problem and provide corrective action. The capscrew was replaced and the CRD was put in dry lay-up storage. The following examination was performed.

VT-1 Visual Examination: 2/22/95

Work was performed under Maintenance Work Order No. 137289: Completed 5/14/95

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) Control Rod Drive Assembly b) Flange: 3.37" T. x 9%" OD c) N/A d) 1 e) Flange: SA182 F304  
f) Q1B13D008 g) G.E. Dwg. No. 768E534G001 h) Reactor Vessel Bottom i) General Electric Co. j) San Jose, CA  
k) Model No. 7RDB144DG001, S/N 9608 l) N/A m) ASME Section III, 1971 Edition, Summer 1973 Addenda n) 1361-2

**2. Replacement:** a) Ring Flange Capscrew b) 1½" x 2"L. c) N/A d) 1 e) SA193 Gr. B6 f-m) Same as Item 1  
except for k) Material Code: FT-7, Heat No. 526107 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.

6/22/95  
Signed: *[Signature]*  
WCF

Owner Representative

Date 7/11/95

Title: Testing/Inspections Programs Supv.

### 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 ENGINEERING

*[Signature]*  
Inspector's Signature

Date 7-12-95

Commissions MS 600  
National Board, State, Province and Nos.



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00348

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.)

**Repair:** Per the Check Valve Maintenance and Trending Program, Residual Heat Removal (RHR) Check Valve Q1E12F019 was internally inspected and found to have pitting indications 1/64" deep on the valve cap. Material Nonconformance Report 0092/95 was initiated to document and provide a corrective action. The valve cap was machined 1/32" to remove pitting. The following tests and examinations were performed:

Inservice VT-3 Visual Examination of the valve body internal surface: 4/20/95

System Leakage Test with a VT-2 Visual Examination: 6/1/95

Work was performed under Maintenance Work Order No. 129856: Work Completed 6/1/95

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) Lift Check Valve b) 6" c) 900# d) 1 e) Body: SA216 Gr. WCB f) Q1E12F019 g) Dwg. No. 044363-1 h) Aux. Bldg. Area 8, El. 119' i) The William Powell Co. j) Cincinnati, OH k) S/N 68871-1, Body: Heat No. 2854 l) N/A m) ASME Section III, 1971 Edition through Winter 1972 Addenda n) N/A

Repaired: a) Valve Cap b-n) Same as Item 1 except for e) SA515 Gr. 70 k) Heat No. 802P69240

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.

6/29/95  
Signed: [Signature] Date 7/11/95 Title: Testing/Inspection Programs 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 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 ENGINEERING

[Signature] Date 7-13-95 Commissions 25, 600  
Inspector's Signature National Board, State, Province and Nos.



ENTERGY

# NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00349

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:** Reactor Core Isolation Cooling (RCIC) Valve Q1E51F025 was found with a packing leak. When the leak did not stop after retorquing the packing gland to the maximum allowed and due to time constraints, several valve parts were replaced to stop the leakage. The following examination and tests were performed:

System Functional Test with a VT-2 Visual Examination: 3/1/95

Surveillance Operability Test: 3/1/95

Work was performed under Maintenance Work Order# 131358: 3/1/95

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) 1½" NPS c) N/A d) 2 e) SA-217 WC-9 f) Q1E51F025 g) Mfr.'s Dwg. #53A5222 Rev. D h) Aux. Bldg., Area 7, El. 93' i) Fisher Controls, Inc. j) Marshalltown, IA k) S/N 6468621 l) 5954 m) ASME Section III, 1974 Edition, no addenda n) N/A

2. REPLACEMENTS: a,e,k) See Table below b,c,d,f,g,h,i,j,l,m,n) Same as Item 1 above.

a) Valve Part	e) Type Material	k)	Removed	Installed
Bonnet	SA-217, Gr. WC9	S/N:	1757-C1	8732-C5
Bonnet Flange	SA-217, Gr. WC9	Ht#:	2516, Code#: 2401	2516, 2396
Valve Plug (disc)	A276-72, Type 440C	Ht#:	79441-1	79441-1
Pipe Plug	SA-479, Type 316	Ht#:	76170-1	76170-1

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.

7-11-95  
Signed:

*[Signature]*  
Owner Representative

Date

7/11/95

Title: Testing/Inspection Programs Supv.

## 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 ENGINEERING

*[Signature]*  
Inspector's Signature

Date

7-13-95

Commissions

MS 600

National Board, State, Province and Nos.



ENTERGY

# NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

# ORIGINAL



NIS-2 NO. 00350

OWNER: ENTERGY OPERATIONS, INC.  
ECCHELON 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.)

**Repair:** Outboard Containment Isolation Check Valve No. Q1B21F032B for the B-Feedwater Line, was being disassembled for implementation of Design Change Package (DCP) 94/0003 (See NIS-2-00352). During disassembly, eroded areas were found on the gasket seating areas of both stuffing box flange connections. Material Nonconformance Report (MNCR) 0072-95 was initiated to document the eroded areas and provide corrective action. The stuffing box flanged faces were machined to the extent needed to remove the eroded areas and the end of the stuffing box that goes into the body was also cut back an equal amount to that removed from the flange face. The repair restored the valve to within the original design requirements and eliminated the eroded areas to prevent further leakage. The following examinations were performed:

Preservice VT-3 Visual Examination on both sides stuffing box flanged face prior to machining: 04/23/95

Liquid Penetrant Examination on the final machined surfaces of the stuffing box flange faces: 04/24/95

Work performed under Work Order #142975: Completed 04/27/95

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:** a) Swing Check Valve b) 24" NPS c) N/A d) 1 e) Body: SA-352 Gr. LCB f) Q1B21F032B g) Mfr.'s Dwg # 13615-01-H Rev. 8 h) Aux. Bldg., Area 8, Elev. 139' i) Atwood & Morrill Co., Inc. j) Salem, MA k) S/N: 2-13615 l) N/A m) ASME Section III, 1974 Edition, Summer 1974 Addenda n) N/A

**Repaired:** a) Stuffing Boxes b-n) Same as above except for: i) Quaker Alloy Casting Co. j) Myerstown, PA k) S/N 2-13615 & 4-13615

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 7/14/95 Title: Testing/Inspection Programs 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 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 ENGINEERING

[Signature] Date 7-14-95 Commissions MS 620  
Inspector's Signature National Board, State, Province and Nos.



ENTERGY

## NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

# ORIGINAL



NIS-2 NO. 00351

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:** The Condensate drain line from RCIC steam supply drain pot to the H.P. Condenser was found to have significant pipe wall thinning. The cause of the pipe wall thinning was determined to be Flow Accelerated Corrosion (FAC). To prevent further FAC, the section of piping was replaced with an erosion resistant alloy steel, Chromium-Molybdenum. During disassembly and reassembly of supports, some studs and nuts were replaced because they had to be cut off to remove the supports. The following tests and examinations were performed:

VE-1 Visual Examinations on Pipe Welds: 4/13-26/95

Magnetic Particle Testing Examinations: 5/2/95

Radiography Examinations of Pipe Welds: 4/28/95 & 5/2/95

System Leakage Test with VT-2 Visual Examinations: 6/20/95 (Performed under W.O. # 94/1049 CI# 47620)

Surveillance Operability Test: 6/6/95 (For Q1E51F025 & -F026); 6/21/95 (for Q1E51F054 under CI# 47620)

Work Completed Under Modification Work Permit No. 19941049 CI# 47888

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) Pipe b) 1½" Sch. 160 c) N/A d) 1 e) Chrome Molly, SA335 Gr. P22 f) Was DBB-52 & 54; Now is DAB-1 & 2 g) FSK-S-KA1083B-012-B h) Aux. Bldg., Area 8, El. 93' i) Energy & Process Corp. j) Tucker, GA k) Heat # 385211 l) N/A m) ASME Section III, 1980 Edition, Summer 1982 Addenda n) N/A

2. **Replacement:** a) Elbow Pipe b-n) Same as Item 1 except for e) Chrome Molly, SA234 Gr. WP22 k) Heat # 9072A

3. **Replacement:** a) 90° Pipe Reducer Tee b) 1½" x 1½" x ¾" c-n) Same as Item 2 except for k) Heat # 195

4. **Replacement:** a) Heavy Hex Nuts (6 ea.) b) ½"-13 c) N/A d) 1 e) SA194 Gr. 2H f) Q1E51G140C01, -C02 & -H03 g) FSK-H-KA1083B-012-B h) Same as Item 1 i) Cardinal Industrial Products j) Las Vegas, NV k) Heat # KC8972 l) N/A m) ASME Section III, 1986 Edition, No 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, 1979, Addenda.

Signed: WVS Date 8/16/95 Title: Testing/Inspection Programs 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 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 ENGINEERING

Seward B. Bivins  
Inspector's signature

Date 8-24-95

Commissions MS 600  
National Board, State, Province and Nos.



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



ORIGINAL

NIS-2 NO. 00351

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

(Continued from Page 1)

Component Information:

5. Replacement: a) All Thread Stud (1 ea.) b) 3/4"-11 x 4" c) N/A d) 2 e) SA193 Gr. B7 f-j) Same as Item 4  
k) Heat # 8096740 l) N/A m) ASME Section III, 1980 Edition, through Summer 1982 Addenda n) N/A

6. Replacement: a) Heavy Hex Head Bolts (5 ea.) b) 1/2"-13 x 2" c-n) Same as Item 4 except for e) SA307 Gr.B  
i) HUB INC. j) Tucker, GA k) Heat # 8889290 m) ASME Section III, 1977 Edition, through Winter 1979 Addenda

7. Replacement: a) Heavy Hex Nuts (4 ea.) b) 3/4"-11 c-n) Same as Item 4 except for i) Energy Process Corp.  
j) Tucker, GA k) Heat # 8079196; Heat Code: C9N m) ASME Section III, 1980 Edition, Summer 1982 Addenda





ENTERGY

# NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00352

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:** During Refueling Outage No. 7, Outboard Containment Isolation Feedwater Check Valves Q1B21F032A and B were modified by replacing the one-piece disc/arm assembly with a two-piece disc/arm assembly to eliminate the excessive seat leakage problem that has caused poor Local Leak Rate Test results as documented in Material Nonconformance Report (MNCR) No. 0177-93. The design change will improve the sealing capabilities of the Feedwater Check Valves by allowing for an easier alignment of the disc to valve body seat during installation and allow for a slight automatic adjustment during operation if wear or slippage occurs. The new discs are stainless steel with stainless steel seats. The existing Stellite valve body seats were not replaced. The following tests and examinations were performed:

Preservice VT-3 Visual Examinations on both valve's internals: 5/8/95 (-F032A) & 4/24/95 (-F032B)

Local Leak Rate Tests: 6/2/95 (-F032A), 5/31/95 (-F032B)

System Leakage Tests with VT-2 Examinations: 6/19/95 (-F032A) & 6/11/95 (-F032B)

Valve Operability Tests: 6/23/95

Work performed under Modification Work Permit No. 19940003, Supplement 1: CI#'s 44436 & 44438: Completed 6/6/95

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 Valves b) 24" NPS c) N/A d) 1 e) Body: SA352 Gr. LCB f) Q1B21F032A & B g) Mfr's Dwg # 13615-01-MH Rev.1 h) Aux. Bldg., Area 8, Elev. 139' i) Atwood & Morill Co., Inc. j) Salem, MA k) Q1B21F032A: S/N 1-13615 & Q1B21F032B: S/N 2-13615 l) N/A m) ASME Section III, 74'Ed. to S'74 Add. n) N/A

**2. Removed:** a) C -e-Piece Discs b-n) Same as Item 1 except for g) Mfr's Dwg # 13615-01-H Rev. 8 k) Q1B21F032A: S/N 2, Ht. # 12',15; Q1B21F032B: S/N 1-30934, Ht. # 348085

**3. Installed:** a) Two-Piece Disc Weldments (Disc Modification Kits) 2 ea. b-n) Same as Item 1 except for e) Disc: SA240 GR.316 q) Mfr's Dwg #43336-042-D Rev.0 k) Q1B21F032A: S/N 2, Ht. # 763551-39941; Q1B21F032B: S/N 1, HT. # 763551-39941

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 8/28/95 Title: Testing/Inspection Programs 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 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 ENGINEERING

[Signature]  
Inspector's Signature

Date 8-31-95

Commissions MS 600  
National Board, State, Province and Nos.



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00353

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:** Stop Check Valve Q1E51F021 was changed to a Globe valve by replacing the existing stem and disc assembly with a stem and disc from a compatible spare globe valve. This modification was made in order to remove the valve from the Pump and Valve program and eliminate the requirement for demonstration of operation. Also the backseat bushing was replaced with the backseat bushing from the spare valve for preventative maintenance. The following test and examination was performed:

Maintenance Leak Test with a Visual Examination of the Mechanical Connections: 6/10/95 (Under W.O.# 142853)  
 Work was performed under Modification Work Permit No. 19911031 CI# 34867: Work Completed 7/12/95

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) N/A d) 1 e) Body: SA105 f) Q1E51F021 g) Yarway Valve Dwg. 104127-01 h) Aux. Bldg. Area 8, El. 93' i) Yarway Corp. j) Blue Bell, PA k) Valve: S/N 2860 l) N/A m) ASME Section III, 1974 Edition through Winter 1974 Addenda n) N/A
- 2. Removed:** a) Disc b-n) Same as Item 1 except for e) AMS 5382 k) Heat Code # A5
- 3. Installed:** a) Disc (from Globe Valve S/N A6335) b-n) Same as Item 2 except for g) Yarway Valve Dwg. 103271-05 k) Heat Code # C5
- 4. Removed:** a) Backseat Bushing b-n) Same as Item 1 except for e) SA193 Gr. B7 k) Heat Code # YW597
- 5. Installed:** a) Backseat Bushing (from Globe Valve S/N A6335) b-n) Same as Item 1 except for e) SA182 Gr. F6 k) Heat Code # YW795

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 8/16/95 Title: Testing/Inspection Programs 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 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 8-23-95 Commissions MS 600  
 Inspector's Signature National Board, State, Province and Nos.

FACTORY MUTUAL ENGINEERING



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00354

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:** After a failed surveillance test, Check Valve Q1P53F008 and associated piping was cut from the weld and removed. During removal, the pipe strap on support Q1P53G525C01 was damaged. Upon reinstallation of the valve and associated components, a pipe strap which did not meet code material requirements was installed. Material Nonconformance Report (MNCR) No. 95/0235 and Quality Deficiency Report (QDR) # 95-0171 was initiated to document the problem and provide corrective action. The following tests and examinations were performed:

VE-1 Visual and Liquid Penetrant Examination on pipe weld: 5/13,14/95

VE-2 Visual Examination on Support weld: 5/14/95

System Leakage Test with a Vt-2 Visual Examination on pipe weld (in lieu of Hydrostatic Test per Code Case N-416-1): Completed 5/25/95

Surveillance Operability Test: 5/16/95

Local Leak Rate Test: 5/16/95

Work Performed under Maintenance Work Order No. 142915: Completed 5/25/95

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. Reinstalled: a) Pipe b) 2" NPS c) N/A d) 2 e) SA-312, Type 304L f) 2"-HCB-51 g) FSK-S-1067A-181-C h) CTMT, Area 11, El. 148' i) Sandvik, Inc. j) Scranton, PA k) Heat # 463520 l) N/A m) ASME Section III, 1977 Edition through Summer 1977 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 1979 Addenda.

Signed: [Signature] Date 6/2/95 Title: Testing/Inspection Programs 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 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.

Ronald P. Rivins Date 8-31-95 Commissions MS 600  
 Inspector's Signature National Board, State, Province and Nos.



ENTERGY

# NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



# ORIGINAL

NIS-2 NO. 00355

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:** During inspection of Stop Check Valve Q1E51F047, the valve disc and stem were found to have cuts and pitting. Material Nonconformance Report (MNCR) No. 0076/95 was initiated to document the problem and provide corrective action. The disk and stem assembly was replaced. Also the backseat bushing was replaced as a preventative maintenance measure. The following tests and examinations were performed:

- System Functional Test with a VT-2 Visual Examination of the Mechanical Connections: 6/20/95
- Surveillance Operability Test: 6/11/95 (Under W.O. # 141027)
- Replacement Work Performed Under Maintenance Work Order No. 142874: Completed: 6/20/95
- (Note: Valve disassembly, inspection of valve internals, and reassembly was done under W.O.# 141027)

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) N/A d) 1 e) Body: SA105 f) Q1E51F047 g) Yarway Valve Dwg. 104127-01 h) Aux. Bldg., Area 7, El. 99' i) Yarway Corp. j) Blue Bell, PA k) Valve: S/N 2859 l) N/A m) ASME Section III, 1974 Edition through Winter 1974 Addenda n) N/A
2. Removed: a) Disc b-n) Same as Item 1 except for e) AMS 5382 k) Heat Code # A5
3. Installed: a) Disc b-n) Same as Item 2 except for g) Yarway Valve Dwg. 103271-05 k) Heat Code # 90-1-2-F2
4. Removed: a) Backseat Bushing b-n) Same as Item 1 except for e) SA193 Gr. B7 k) S/N YW597
5. Installed: a) Backseat Bushing b-n) Same as Item 1 except for e) SA182 Gr. F6a k) S/N 6166C

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 8/31/95 Title: Testing/Inspection Programs 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 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 8-31-95 Commissions MS 600  
 Inspector's Signature National Board, State, Province and Nos.

FACTORY MUTUAL ENGINEERING



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



ORIGINAL

NIS-2 NO. 00356

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: During an effort to delete check valve Q1E51F021 from the pump and valve program, it was discovered that restricting orifice Q1E51D005 did not meet vendor recommended flow requirements. The bore size of restricting orifice, Q1E51D005, was increased to .600" to meet flow requirements. The following tests and examinations were performed:

System Functional Test with a VT-2 Visual Examination of the Mechanical Connection: 6/20/95

Work was performed under Modification Work Permit No. 19911031, CI # 49378 (Per CN # 95-0061): Completed: 6/21/95

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) Restricting Orifice b) 2" NPS x 3/4" T c) N/A d) 2 e) SA240 TP304 f) Q1E51D005 g) NPE Dwg. # M-KA143.0-Q1E51D005-1.1-1 Rev. A h) Aux. Bldg., Area 8, El. 93' i) Vickery-Simms, Inc. j) Arlington, TX k) Ht. # 713572 l) N/A m) ASME Section III, 1974 Edition through Winter 1975 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 1979 Addenda

Signed: [Signature] Date: 8/31/95 Title: Testing/Inspection Programs 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 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 ENGINEERING

[Signature] Date: 9-1-95 Commissions: MS, 600 National Board, State, Province and Nos.



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

ORIGINAL



NIS-2 NO. 00357

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.)

**Repair:** Reactor Water Clean Up (RWCU) Supply Header Check Valve Q1G33F052B was found to have a steam cut in the pressure seal gasket area by internal inspection during Refueling Outage Seven (RFO7). Material Nonconformance Report (MNCR) No. 95/0157 was initiated to document the problem and provide corrective action. The steam cut was due to steam leakage from an improperly sealed gasket. The steam cut was weld repaired and machined to meet design requirements. The following tests and examinations were performed.

System Functional Test with a VT-2 Visual Examination: 5/23/95

Visual (VE-1) Examination on final weld repair after machining: 5/16/95

Liquid Penetrant (PT) Examination on weld repair after machining: 5/16/95

Valve Operability Test: 6/12/95 (Under W.O. # 138999)

Work Performed under Work Order No. 144165. Completed: 6/13/95

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) Lift Check Valve b) 6" NPS c) N/A d) 2 e) Body: SA216 Gr. WCB f) Q1G33F052B g) GGNS Drawing No. 9645-M-242.0-Q1-1.2-129 Rev. 1 h) Auxiliary Building, Area 8, El. 139', Steam Tunnel i) William Powell Co. j) Cincinnati, OH k) Valve S/N 68888-3; Body CM 2840B l) N/A m) ASME Section III, 1971 Edition through 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 I, 1977 Edition with Summer, 1979 Addenda.

Signed: [Signature] Date 5/17/95 Title: Testing/Inspection Programs 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 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: 5-17-95 Commissions: NIS 600  
 National Board, State, Province and Nos. FACTORY MUTUAL ENGINEERING



ENTERGY

# NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

# ORIGINAL



NIS-2 NO. 00358

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:** RCIC turbine steam supply Globe Valve Q1E51F095 was found to have leakage and was disassembled with intention to rework. The valve was found to have steam cut damage on the valve seat. In order to access valve Q1E51F095, pipe support Q1E51G180H03 was ground out at the weld. Instead of reworking valve Q1E51F095 it was replaced and pipe support Q1E51G180H03 was rewelded in place. The following tests and examinations were performed:

- VE-1 Visual Examinations on pipe welds: 4/21/95
- VE-2 Visual Examination on pipe support welds: 4/21/95
- Magnetic Particle Testing on pipe welds: 4/21/95
- Surveillance Operability Test: 6/6/95 & 6/11/95
- System Leakage Test with a VT-2 Visual Examination (in lieu of Hydro per Code Case N-416-1): 6/19/95
- Work performed under Maintenance Work Order No. 139029: Completed: 6/19/95

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. Removed:** a) Globe Valve b) 2" c) N/A d) 1 e) Body: SA105 f) Q1E51F095 g) Yarway Dwg. 104679-02  
h) Aux. Bldg., Area 8, El. 93 i) Yarway Corp. j) Blue Bell, PA k) S/N A6545 l) N/A m) ASME Section III, 1974 Edition through Winter 1974 Addenda n) N/A

**2. Installed:** a) Globe Valve b-n) Same as Item 1 except for k) S/N A7281

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 8/7/95 Title: Testing/Inspection Programs 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 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 8-31-95 Commissions MS600  
Inspector's Signature National Board, State, Province and Nos.

FACTORY MUTUAL ENGINEERING



ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



ORIGINAL

NIS-2 NO. 00359

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:** The seal cartridge for Reactor Recirculation Pump A 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: 6/19/95

Work was performed under: Maintenance Work Order 146834: Completed 6/19/95

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) 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) Q1B33C001A 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 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 except for e) Seal Flange: SA351 GR.CF8 g) Byron Jackson Dwg. No. IE-3817 Rev. A k) Removed: S/N 813-S-6777-1; Installed: 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: [Signature] Date 8/31/95 Title: Testing/Inspection Programs 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 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 8-31-95 Commissions MS 600  
Inspector's Signature National Board, State, Province and Nos.

FACTORY MUTUAL ENGINEERING





ENTERGY

NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



ORIGINAL

NIS-2 NO. 00360

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.)

**Repair/Modification:** Check Valve Q1E12F050B failed a Local Leak Rate Test (LLRT) and was disassembled for inspection. Inspection showed that the valve had uniform wear on the body guide ribs resulting in excess bore diameter tolerance. Material Nonconformance Report (MNCR) 0184/95 was initiated to document the problem and provide corrective action. The valve was repaired by increasing the disc/plug guide ring's diameter to restore the required clearance between the valve bore diameter and the plug diameter. This was accomplished by completely removing the existing stellite on the disc/plug guide rings and weld build up the carbon steel base metal to a larger diameter prior to welding a new stellite overlay. Also, the disc was modified by machining a chamfer on the disc below the seat area to ensure the disc will enter the valve seat with minimal interference. The following tests and examinations were performed:

(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.

**Component:** a) Lift Check Valve b) 12" c) N/A d) 2 e) Body: SA216 Gr. WCB f) Q1E12F050B g) William Powell Dwg. 044481-4 & 5 h) Aux. Bldg., Area 8, El. 130' i) William Powell Co. j) Cincinnati, OH k) Valve: S/N 68478-1 l) N/A m) ASME Section III, 1971 Edition through Winter 1972 Addenda n) N/A

**Repaired:** a) Disc b-n) Same as Item 1 except for e) SA 516 Gr. 70 k) CM 2110B, Heat # 801X19720

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 9/5/95 Title: Testing/Inspection Programs 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 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 ENGINEERING

[Signature] Date 9-5-95 Commissions MS 600  
 Inspector's Signature National Board, State, Province and Nos.



ENTERGY

# NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00360

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/Modifications:** (Continued from Page 1)

Magnetic Particle Testing on Stellite Removal Areas: 5/24/95

VE-1 Visual and Magnetic Particle Examinations on both Guide Rings after build up of base metal: 5/26/95

VE-1 Visual and Liquid Penetrant Examination on new hardfacing surfaces after final machining: 5/28/95

Liquid Penetrant Examination on upper guide ring repaired area: 5/30/95

Local Leak Rate Test: 6/3/95

Maintenance Leak Test with a Visual Examination: 6/19/95

Surveillance Operability Test: 6/19/95

Work was performed under Maintenance Work Order No. 144875: Completed 6/19/95



ENTERGY

# NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS

# ORIGINAL



NIS-2 NO. 00361

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:** Two spare discs for Inboard Containment Isolation Feedwater Check Valves Q1B21F010A and B were reworked to restore the discs to their original dimensions and modified by returning the discs back to metal seats, per Material Nonconformance Report No. 0175-93 during Refueling Outage No. 7 (See NIS-2-00362). The hard facing material, Stellite, on the disc guide rings and seats were replaced with Norem B-1 to support the cobalt reduction program. Also, during the process in removing all stellite from the disc for Q1B21F010A, the Lug bolt holes were machined through and into and had to be rewelded, redrilled and tapped. The following examinations were performed: VE-1 Visual & Magnetic Particle Examinations on the removed stellite after machining: 4/3/95(-F010A), 4/5/95(-F010B) VE-1 Visual & Magnetic Particle Examinations on Lug Bolt holes (4) ground open before welding: 5/11/95(-F010A) VE-1 Visual & Magnetic Particle Examinations on Lug Bolt holes after welding & grinding and before drilling: 5/12/95 VE-1 Visual & Liquid Penetrant Examinations on the 309L cladding after machining: 5/18/95(-F010A), 4/16/95(-F010B) VE-1 Visual & Liquid Penetrant Examinations on the Norem B-1 welds after machining: 5/25/95(-F010A), 5/16/95(-F010B) Work performed under Modification Work Permit No. 19940003, Supplement 1; CI#'s 48530 & 48533; Completed 6/5/95

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) Discs b) For 24" 900# Lift Check Valve c) N/A d) 1 e) SA-516 GR 70 f) For Q1B21F010A & B g) Anchor/Darling Valve Dwg. # 804F05914 Rev.A h) CTMT. Bldg., Area 11, Drywell, El. 143' i) Wm. Powell Co. (Plant #2) j) Cincinnati, OH k) Q1B21F010A: Control Material (CM) # 2561B, Ht. # B1457-4; -F010B: CM # 1453B, Ht. # 802T71440 l) N/A m) ASME Section III, 71'Ed. to W72 Add. n) 1388-2

**Modified:** a) Disc Guides b,c,d,f,h,i,j,l,m,n) Same as above e) SA-216 GR. WCB g) Same Dwg. as above for the modification and GGNS Dwg. # M-KA242.0-Q1-1.3-31 Rev.A for the Lug Bolt Hole repairs k) Q1B21F010A: Control Material (CM) # 3136B, Ht. # 1252; -F010B: CM # 2933B, Ht. # 1238

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 8/28/95 Title: Testing/Inspection Programs Supv.  
95 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 ENGINEERING

[Signature]  
Inspector's Signature

Date 8-31-95

Commissions MS 600  
National Board, State, Province and Nos.



ENTERGY

# NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00362

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.)

**Modification:** Inboard Containment Isolation Check Valves Q1B21F010A and B have historically experienced problems in meeting the as-found leak testing criteria during normal surveillances conducted every refueling outage. These problems were documented in Material Nonconformance Report (MNCR) No. 0175-93. An engineering evaluation determined the cause was due to internal guide wear which may be attributed to low flow conditions. The inbody guide ribs and disc guide rings were no longer within the original dimensional specifications. In addition, the resilient seats were not providing satisfactory service, with degradation observed on every inspection. During Refueling Outage No. 7 (RFO7), the corrective action was to modify both valves by increasing the width of the lower guide rib to increase the support surface area of the disc in an effort to decrease guide wear. The inbody guides and seats were restored to their original design dimensions and tolerances. Also, the disc replacements were modified (See NIS-2-00361) to return the valve to metal seats. The hardfacing material, Stellite, was removed from the guide ribs and seats to be replaced with Norem B-1 to support the cobalt reduction program. (Note: The application of Norem B-1 hardfacing material for the guide ribs in Q1B21F010A was deferred until RFO8 for outage scheduling purposes.) (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) Lift Check Valve b) 24" NPS c) 900 lb. d) 1 e) Body: SA216 Gr. WCB f) Q1B21F010A and B g) For Machining of Inbody Guide Ribs & Seat, Applying 309L Cladding and then Norem B-1: Anchor/Darling Dwg.# 801D13686 Rev.A; For Widening Lower Inbody Guide Ribs: Dwg.# M-KA242.0-Q1-1.3-30 Rev.A; For Machining Weld Preps on the Seat Ring & Inbody Seat Ring Pocket Area: Anchor/Darling Dwg.# 013C33081 (No Rev.) h) CTMT Bldg. Area 11, Drywell, El. 143' i) William Powell Co. j) Cincinnati, OH k) Q1B21F010A: S/N 68885-2; Q1B21F010B: S/N 68885-1 l) N/A m) ASME Section III, 71'Ed. to W72 Add. n) 1388-2

2. Replaced: a) Discs (w/Disc Guides) b-n) Same as Item 1 above except for e) disc: SA-516 Gr.70 g) For Modification: Anchor/Darling Dwg.# 804F05914 Rev. A k) Q1B21F010A - Removed: CM# 1456B, Installed: CM# 2561B; Q1B21F010B - Removed: CM# 1455B, Installed: CM# 1453B

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 8/30/95 Title: Testing/Inspection Programs Supv.  
 95 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 9-1-95 Commissions MS 6000  
 Inspector's Signature National Board, State, Province and Nos.

FACTORY MUTUAL ENGINEERING



ENTERGY

NIS-2 SUMMARY REPORT FOR  
REPAIRS/REPLACEMENTS



NIS-2 NO. 00362 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 MODIFICATIONS:** (Continued from Page 1)

The Following Tests and Examinations were performed:

**On Q1B21F010A**

VE-1 Visual & Magnetic Particle Examinations on Guide Ribs after removing stellite by machining: 4/28/95  
 VE-1 Visual & Magnetic Particle Examinations on excavated MT indication areas on Lower Guide Rib: 4/30/95  
 VE-1 Visual & Magnetic Particle Examinations on the Valve Seat after stellite removal by machining: 4/30/95  
 VE-1 Visual & Magnetic Particle Examinations on the Valve Seat after remachining to meet dwg's. dimensions: 5/5/95  
 VE-1 Visual & Magnetic Particle Examinations on base metal build-up of Lower Guide Rib: 5/5/95  
 VE-1 Visual & Magnetic Particle Examinations on Seat Ring Pocket area after weld prep by machining: 5/23/95  
 VE-1 Visual & Liquid Penetrant Examinations on Seat Ring after weld prep by machining: 5/23/95  
 VE-1 Visual & Magnetic Particle Examinations on Seal Weld of Seat Ring in Seat Ring Pocket area: 5/23/95  
 VE-1 Visual & Magnetic Particle Examinations on Seal Weld of Seat Ring after blending weld smooth into body: 5/24/95  
 VE-1 Visual & Liquid Penetrant Examinations on Valve Seat & Guide Ribs after machining of 309L Cladding: 5/23,24/95  
 VE-1 Visual & Liquid Penetrant Examinations on removed Thermocouple tack weld areas inside of valve: 5/24/95  
 Preservice VT-3 Visual Examination on Valve's internals after modifications: 5/26/95  
 Liquid Penetrant Examination on seating surfaces of new disc & Valve Body after Blue Check: 5/26/95  
 Local Leak Rate Test: 5/26/95  
 Preservice VT-3 Visual Examination on Q1B21G154R01 after disassembly/reassembly to allow access to valve: 5/27/95  
 VE-1 Visual & Magnetic Particle Examinations on removed Thermocouple tack weld areas outside of valve: 5/27/95  
 Valve Operability Test: 6/23/95 (Performed under Modification Work Permit No. 19940003, CI# 50092)  
 System Leakage Test & VT-2 Exam.: 6/11/95 (Performed under Modification Work Permit No. 19940003, CI# 50092)

**On Q1B21F010B**

VT-3 Visual Examinations on Q1B21G156R01 & Q1B21G157R01 prior to disassembly to allow access to valve: 4/16/95  
 VE-1 Visual & Magnetic Particle Examinations on Valve Seat after stellite removal & weld prep by machining: 4/20/95  
 VE-1 Visual & Liquid Penetrant Examinations on 3 Guide Ribs after stellite removal by machining: 4/20,21/95  
 VE-1 Visual & Magnetic Particle Examinations on both sides of Lower Guide Rib after stellite removal: 4/20,21/95  
 VE-1 Visual & Magnetic Particle Examinations on Lower Guide after base metal build-up with E7018 weld: 4/21/95  
 VE-1 Visual & Magnetic Particle Examinations on Right & Left Guide Ribs after stellite removal by machining: 4/24/95  
 Liquid Penetrant Examination on finished machined surface of the upper guide: 4/29/95  
 VE-1 Visual & Liquid Penetrant Examinations on Right Guide Rib after machining 309L Cladding: 4/29/95  
 VE-1 Visual & Liquid Penetrant Examinations on Lower Guide Rib after machining 309L Cladding: 4/29/95  
 VE-1 Visual & Liquid Penetrant Examinations on Left Guide Rib after machining 309L Cladding: 4/29/95  
 VE-1 Visual & Liquid Penetrant Examinations on Valve Seat (no machining): 4/29/95  
 VE-1 Visual & Liquid Penetrant Examinations on Lower & Right Guides after removing cracks in Norem & 309L: 5/6/95

(Continued on Page 3)



ENTERGY

# NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



# ORIGINAL

NIS-2 NO. 00362

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 MODIFICATIONS: (Continued from Page 2)

#### On Q1B21F010B (Cont.)

- VE-1 Visual & Liquid Penetrant Examinations on Right Guide Rib after Norem B-1 & 309L removal by machining: 5/6/95
- VE-1 Visual & Liquid Penetrant Examinations on Lower Guide Rib after welding 309L Cladding: 5/9/95
- VE-1 Visual & Liquid Penetrant Examinations on Right Guide Rib after welding 309L Cladding: 5/9/95
- VE-1 Visual & Magnetic Particle Examinations on removed Thermocouple tack weld areas inside of valve: 5/11/95
- VE-1 Visual & Liquid Penetrant Examinations on removed Thermocouple tack weld areas outside of valve: 5/11,19/95
- VE-1 Visual & Liquid Penetrant Examinations on Valve Seat after final machining on Norem B-1: 5/17/95
- VE-1 Visual & Liquid Penetrant Examinations on Lower Guide Rib after final machining on Norem B-1: 5/17/95
- VE-1 Visual & Liquid Penetrant Examinations on Right Guide Rib after final machining on Norem B-1: 5/17/95
- VE-1 Visual & Liquid Penetrant Examinations on Left Guide Rib after final machining on Norem B-1: 5/17/95
- VE-1 Visual & Liquid Penetrant Examinations on Upper Guide Rib after final machining on Norem B-1: 5/17/95
- VE-1 Visual & Liquid Penetrant Examinations on Lower Guide Rib after removal of PT indications by grinding: 5/17/95
- VE-1 Visual & Liquid Penetrant Examinations on Left Guide Rib after removal of PT indications by grinding: 5/17/95
- Preservice VT-3 Visual Examination on Valve's internals after modifications: 5/18/95
- Local Leak Rate Test: 5/18/95
- VE-2 Visual Examinations on support welds for reassembly of support Q1B21G156R01: 5/19/95
- Preservice VT-3 Visual Examination on support Q1B21G156R01 after reassembly: 5/19/95
- Valve Operability Test: 6/23/95 (Performed under Modification Work Permit No. 19940003, CI# 50092)
- System Leakage Test & VT-2 Examination: 5/23/95 (Performed during Reactor Vessel Inservice Leak Test)

Work was performed under Modification Work Permit No. 19940003, CI# 44432 (For Q1B21F010A) & CI# 44435 (For Q1B21F010B): Completed 6/6/95

Disassembly/reassembly of Supports Q1B21G154R01, Q1B21G156R01 & Q1B21G157R01 to allow access for valve work was performed under Work Order# 142719: Completed 5/27/95



ENTERGY

# NIS-2 SUMMARY REPORT FOR REPAIRS/REPLACEMENTS



NIS-2 NO. 00363

ORIGINAL

OWNER: ENTERGY OPERATIONS, INC. GRAND GULF 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 disassembly, inspection and rebuild of 22 spare Control Rod Drive (CRD) Assemblies removed in Refueling Outage No. 5 (RFO5), CRD's S/N 7717 & A2048 were found to be missing a piston tube nut. Material Nonconformance Report No. 0027-95 was initiated to document the missing nuts and provide corrective action. The missing tube nuts were apparently removed during disassembly in RFO5 and were not reinstalled when the CRDs were reassembled and placed in dry lay-up storage. The CRDs were reassembled with new piston tube nuts and returned to storage. The following examinations were performed:

Preservice VT-1 Visual Examinations on replacement Piston Tube Nuts: 2/15,16/95  
Work was performed under Maintenance Work Order No. 134058: Completed 5/14/95

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) Control Rod Drive Assembly b) Flange: 3.37" T x 9 1/2" OD 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, S/N 7716 & A2048 l) N/A m) ASME Section III, 1971 Edition, Summer 1973 Addenda n) 1361-2

2. Replacements: a) Piston Tube Nuts (2 ea.) b) 1.30" T x 2.62" Dia. c) N/A d) 1 e) XM-19 SA479 f) - n) Same as Item 1 except for k) P/N 137C5934P001; S/N 1209 (on CRD S/N A2048) & S/N 1229 (on CRD S/N 7716)

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 9/5/95 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]  
Inspector's Signature

Date 9-5-95

FACTORY MUTUAL ENGINEERING  
Commissions MS 600  
National Board, State, Province and Nos.