

MISSISSIPPI POWER AND LIGHT COMPANY  
PRESERVICE INSPECTION PROGRAM  
GRAND GULF NUCLEAR STATION UNIT 1

BOOK NUMBER 2 CONTAINS GENERAL ELECTRIC ISOMETRICS  
ON SYSTEM NUMBER C41, B21(FW), B21(MS), B21(RV),  
B21(SD), B21(SF), B33 and G33

COPY 4 REVISION A

**INFORMATION ONLY**

NOT TO BE USED FOR DESIGN,  
FABRICATION, CONSTRUCTION  
OR MAINTENANCE

3

**RH - RHR      SYSTEM - E12**

**INFORMATION ONLY**

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OR MAINTENANCE

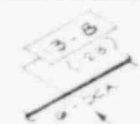
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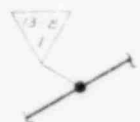
## DRAWING

## SYMBOLS

## LETTER SYMBOLS



SPOOL I.D. NO.  
W/ VENDOR DWG NO.  
IN PARENTHESIS



LINE SIZE &  
SPECIFICATION  
DESIGNATION

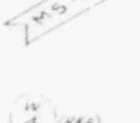
SHOP WELD  
I.D. NO.



FIELD WELD  
I.D. NO.



LONGITUDINAL SEAM  
WELD I.D. NO.



DWG CONTINUATION  
(ARROW POINTS IN  
DIRECTION OF FLOW)



WELD COUNTED ON  
CONTINUATION SHEET  
AND SHOWN THIS  
SHEET FOR REFERENCE

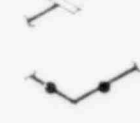


VALVE & I.D. NO.

INDICATES PRESSURE  
RETAINING BOLTING



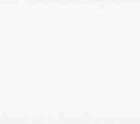
CHECK VALVE  
& I.D. NO.



FLG BUTTERFLY  
VALVE &  
I.D. NO.



ELL



REDUCER



TEE



STUB-IN FITTING  
(VOL, SOL, ETC)



PLUGGED STUB-IN



WELD CAP



SCREWED CAP



PLAIN END



VENDOR CODE TAG  
& SHOP WELD NO.



PENETRATION  
SLEEVE



PENETRATION  
SLEEVE W/ FLUED  
HEAD OR SEAL  
PLATE



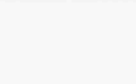
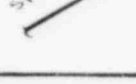
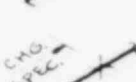
"IN-LINE"  
PENETRATION



LIMIT OF SAFETY  
RELATED PIPING  
& COMPONENTS



POINT OF DESIGN  
SPECIFICATION  
CHANGE



## PIPING SYSTEMS

CC - CONTAINMENT COOLING

CD - CONDENSATE

CG - COMBUSTIBLE GAS

CR - CHILLED WATER

CS - COND/RW STORAGE & TRANSFER

CU - REACTOR WATER CLEANUP

CW - COMP COOLING WATER

DG - DIESEL GENERATOR

DR - FLOOR & EQUIPMENT DRAIN

DW - DOMESTIC WATER

FC - FUFL POOL COOLING & CLEANUP

FD - FILTER/DEMIN (FP/COU)

FW - FEEDWATER

HP - HIGH PRESSURE CORE SPRAY

IA - INSTRUMENT AIR

LC - LEAK DETECTION

LD - LEAK DETECTION

LP - LOW PRESSURE CORE SPRAY

LR - LEAK RATE TEST SYSTEM

MS - MAIN STEAM

RD - CONTROL ROD DRIVE

RF - FILTER/DEMIN (RWCU)

RH - RESIDUAL HEAT REMOVAL

R1 - REACTOR CORE ISOLATION COOLING

RR - REACTOR RECIRCULATION

RV - MAIN STEAM RELIEF VALVE

SA - SERVICE AIR

SC - SUPPRESSION POOL CLEAN UP

SD - MAIN STEAM DRAINS

SM - SUPP POOL MAKE UP

SW - PLANT SERVICE WATER

WS - STANDBY SERVICE WATER

## WELDING CONFIGURATION

A - LONGITUDINAL SEAM

B - PIPE TO ATTACHMENT

C - PIPE TO FITTING

D - PIPE TO NOZZLE

E - PIPE TO PIPE

F - PIPE TO PUMP

G - PIPE TO VALVE

H - PIPE TO WELDOLET

I - FITTING TO FITTING

K - FITTING TO PUMP

L - FITTING TO VALVE

M - VALVE TO VALVE

N - PIPE TO SWEEPolet

P - PIPE TO SOCKlet

R - CODE TAG WELD

## INFORMATION ONLY

AUX - AUXILIARY

BLDG - BUILDING

CL - CENTERLINE

CL - CLASS

COMP - COMPLETE COMPONENT

CONT - CONTAINMENT

DW - DRYWELL

DWG - DRAWING

EL - ELEVATION

FLG - FLANGE

HD - HEAD

HX - HEAT EXCHANGER

ID - IDENTIFICATION

ISI - INSERVICE INSPECTION

MPL - MASTER PARTS LIST

N - NORTH OF NOZZLE

PEN - PENETRATION

REV - REVISION

RPV - REACTOR VESSEL

RX - REACTOR

SCH - SCHEDULE

SHT - SHEET

SOL - SOCKlet

STD - STANDARD

STM - STEAM

TOL - THREADED

TURB - TURBINE

WOL - WELDOLET

## HANGERS

A - SNUBBER

B - RIGID STRUT

C - BOX OR GUIDE

D - SPRING

E - COMBINATION

F - ANCHOR

PWR

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SCALE NONE	JOB NO. JB-1	TITLE LEGEND FOR ISI ISOMETRIC DRAWINGS
CONTRACT NO. 360474002		PROJECT GRAND GULF NUCLEAR PLANT
MADE FOR MISSISSIPPI POWER & LIGHT		

**GENERAL ELECTRIC**  
NUCLEAR SERVICE OPERATION  
INSTALLATION & SERVICE ENGINEERING  
ATLANTA, GEORGIA

DRAWING NO.  
351N79B0006  
SHEET NO. 1 OF 3

# ISI EXAMINATION REQUIREMENTS

- 1 VOLUMETRIC EXAMINATION OF CLASS 1 AND 2 COMPONENTS PER ASME SECTION XI, INB-2500 AND INC-2500.
- 10% VOLUMETRIC EXAMINATION OF 10% OF THE CLASS 2 PIPING WELDS IN ECCS SYSTEMS WHICH ARE PRESSURIZED LESS THAN 200 PSI DURING NORMAL PLANT OPERATION AND ARE NOT EXEMPTED BY OTHER CRITERIA
- 2 SURFACE EXAMINATION OF CLASS 1 COMPONENTS PER ASME SECTION XI, INB-2500 AND INC-2500.
- 3 VISUAL EXAMINATION OF CLASS 1 AND 2 COMPONENTS PER ASME SECTION XI, INB-2500 AND INC-2500.
- 4 SYSTEM LEAKAGE AND HYDRO STATIC PRESSURE TESTS AND VISUAL EXAMINATION OF CLASS 1 COMPONENTS PER ASME SECTION XI, INA-5000 AND INB-5000.
- 5 SYSTEM PRESSURE TESTS AND VISUAL EXAMINATION OF CLASS 2 COMPONENTS PER ASME SECTION XI, INA-5000 AND INC-5000.
- 6 SYSTEM PRESSURE TESTS AND VISUAL EXAMINATION OF CLASS 3 COMPONENTS PER ASME SECTION XI, INA-5000 AND INB-5000.
- 7 ASME CLASS 2 AND 3 COMPONENTS EXEMPT FROM ANY ISI PER ASME SECTION XI

## INFORMATION ONLY

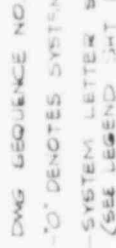
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OR MAINTENANCE

3

# DWG. NUMBERING SYSTEM

## I. SYSTEM OUTLINE DRAWINGS (ISOMETRICS)

EXAMPLE: MS-O-1



## II. WELD IDENTIFICATION DWGS (ISOMETRIC)

### A. ASME CLASS 1 & 2 SYSTEMS

EXAMPLE: FW-11-2



### B. CLASS 3 SYSTEMS

EXAMPLE: CU-103



ORIGINAL COPY WHEN THIS IMPRINT IN RED

SCALE NONE	JOB NO JB-1	TITLE LEGEND FOR ISI ISOMETRIC DRAWINGS	GENERAL ELECTRIC NUCLEAR SERVICE OPERATION ATLANTA, GEORGIA
CONTRACT NO 860N74002	PROJECT MISSISSIPPI POWER & LIGHT	PROJECT GRAND GULF NUCLEAR PLANT	DRAWING NO 35IN79B0006
			REV A
			SHEET NO 2 OF 3

PIPE CLASSES ARE DESIGNATED BY A THREE LETTER CODE. THE FIRST LETTER INDICATES THE PRIMARY FLANGE PRESSURE RATING, THE SECOND LETTER, THE TYPE OF MATERIAL; AND THE THIRD LETTER, THE CODE TO WHICH THE PIPING IS DESIGNED.

#### FIRST LETTER - PRIMARY PRESSURE RATING

(UNLESS OTHERWISE NOTED, ALL RATINGS ARE IN ACCORDANCE WITH ANSI B16.5)

A. SPECIFIC PRESSURE AT SPECIFIC TEMPERATURE

B. 2500#

C. 1500#

D. 900#

E. 600#

F. 400#

G. 300#

H. 150#

J. 125# ANSI B16.1

K. 175# WOG UNDERWRITERS' LABORATORIES, INC.

L. 250# ANSI B16.1

X. GRAVITY RATING

Y. ROOF DRAINS, GRAVITY RATING

#### ADDITIONAL PRESSURE RATINGS:

M. 200# (MANUFACTURER'S RATING)

N. 150# WOG

P. 100# (MANUFACTURER'S RATING)

R. 75# (MANUFACTURER'S RATING)

S. 50# WOG

T. 25# AWWA (OR MANUFACTURER'S RATING)

Z. GENERAL USE AS DESIGNATED ON PIPING CLASS SHEETS

V. 150# (MANUFACTURER'S RATING)

#### SECOND LETTER - MATERIAL

A. ALLOY STEEL

B. CARBON STEEL

C. AUSTENITIC STAINLESS STEEL

D. COPPER, BRASS or BRONZE

E. ALUMINUM

I. CARBON STEEL - COPPER BEARING

G. CARBON STEEL - SARAN LINED

H. CAST IRON

K. PVC

M. DURIUM

N. CARBON STEEL - GALVANIZED

P. CAST IRON - CEMENT LINED

R. CARBON STEEL - EPOXY LINED

S. DUCTILE IRON - CEMENT LINED

T. DELETED

V. FRP

W. CARBON STEEL - TEFLON LINED

#### THIRD LETTER - APPLICABLE CODES

A. NUCLEAR POWER PLANT COMPONENTS  
ASME BBPV CODE, SECTION III, CLASS 1

B. NUCLEAR POWER PLANT COMPONENTS  
ASME BBPV CODE, SECTION III, CLASS 2

C. NUCLEAR POWER PLANT COMPONENTS  
ASME BBPV CODE, SECTION III, CLASS 3

D. POWER PIPING CODE, ANSI B31.1

F. NATIONAL FIRE PROTECTION ASSOCIATION CODE

G. SOUTHERN STANDARD PLUMBING CODE

H. POWER BOILERS, ASME BBPV CODE, SECTION I

J. AMERICAN WATER WORKS ASSOCIATION STANDARDS

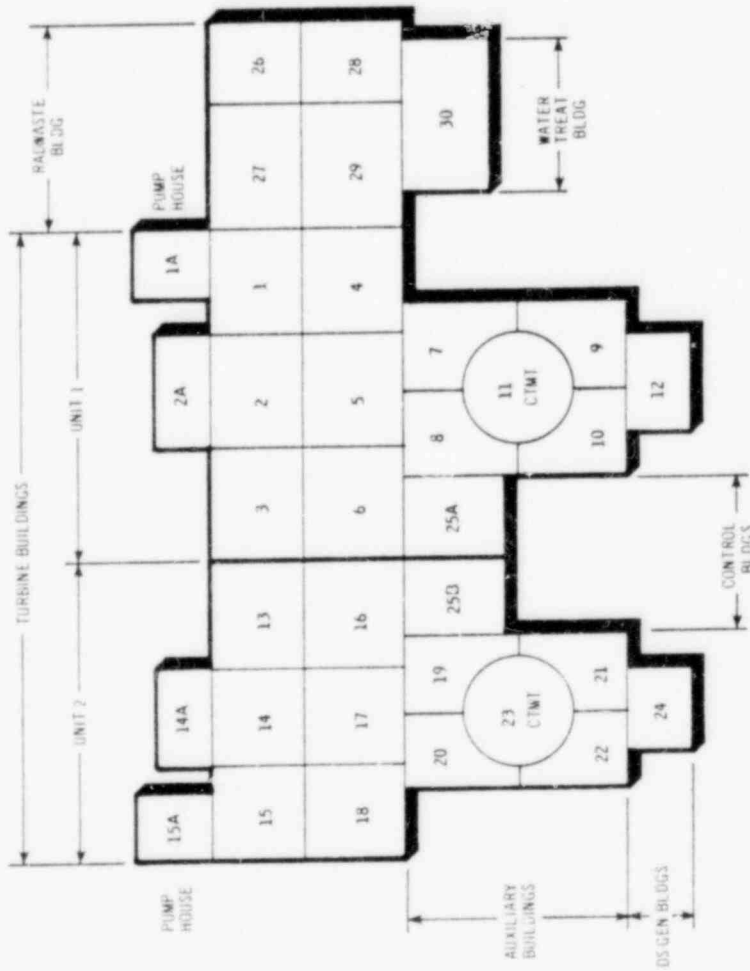
Z. FABRICATED, INSPECTED AND INSTALLED PER ASME  
SECTION III, CLASS 3. DESIGNED PER ANSI B31.1.  
N-STAMPING, SEISMIC ANALYSIS AND Q-LISTING ARE  
NOT REQUIRED.

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SCALE NONE	JOB NO. JB-1	TITLE LETTER CODE FOR PIPING		GENERAL ELECTRIC NUCLEAR SERVICE OPERATION INSTALLATION & SERVICE ENGINEERING DIV. ATLANTA, GEORGIA	
CONTRACT NO. 360N74002		PROJECT GRAND GULF NUCLEAR PLANT		DRAWING NO. 35IN7980006	REV. A
MADE FOR MISSISSIPPI POWER & LIGHT CO.				SHEET NO. 3 OF 3	



GRAND GULF NUCLEAR STATION UNITS 1 AND 2

PORT GIBSON, MISSISSIPPI  
MISSISSIPPI POWER & LIGHT COMPANY

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SCALE	JOB NO.	TITLE	GENERAL ELECTRIC
NONE	JB-1	KEY PLAN	NUCLEAR SERVICE OPERATION
CONTRACT NO.	360N74002	AREA LOCATIONS	INSTALLATION & SERVICE ENGINEERING DIV.
MADE FOR	MISSISSIPPI POWER & LIGHT		ATLANTA, GEORGIA
		PROJECT	DRAWING NO.
		GRAND GULF NUCLEAR PLANT	35IN 8030007
			REV.
			A

# INDEX TO ISOS FOR E-12 SYSTEM

COMPOSITE: RH-0-1	REV
ISOS: RH-7-2	A
RH-7-3	A
RH-7-4	A
RH-7-5	A
RH-8-9	A
RH-8-10	A
RH-8-11	A
RH-8-12	A
RH-8-13	A
RH-11-1	A
RH-100	A

COMPOSITE: RH-0-3	A
ISOS: RH-10-1	A
RH-10-2	A
RH-10-3	A
RH-10-4	A
RH-10-5	A
RH-11-5	A
RH-11-6	A
RH-11-7	A
RH-11-8	A

COMPOSITE: RH-0-2A	REV
ISOS: RH-7-1	A
RH-7-6	A
RH-7-7	A
RH-7-8	A
RH-7-9	A
RH-7-10	A
RH-7-11	A
RH-7-12	A
RH-7-13	A
RH-7-14	A
RH-7-15	A
RH-7-16	A
RH-7-17	A
RH-7-18	A
RH-7-19	A
RH-7-20	A
RH-7-21	A
RH-7-24	A
RH-7-25	A
RH-7-26	A
RH-8-1	A
RH-8-2	A
RH-8-6	A
RH-101	A

COMPOSITE: RH-0-2B	REV
ISOS: RH-8-3	A
RH-8-4	A
RH-8-5	A
RH-8-7	A
RH-8-8	A
RH-8-14	A
RH-8-15	A
RH-8-16	A
RH-8-17	A
RH-8-18	A
RH-8-19	A
RH-8-20	A
RH-8-21	A
RH-8-22	A
RH-8-23	A
RH-8-24	A
RH-8-25	A
RH-8-26	A
RH-8-27	A
RH-8-28	A
RH-8-29	A

COMPOSITE: RH-0-2C	REV
ISOS: RH-11-2	A
RH-11-3	A
RH-11-9	A
RH-11-12	A
RH-11-13	A
RH-11-14	A
RH-11-15	A
RH-11-16	A
RH-11-20	A

COMPOSITE: RH-0-2D	REV
ISOS: RH-11-4	A
RH-11-10	A
RH-11-11	A
RH-11-17	A
RH-11-18	A
RH-11-19	A
RH-11-21	A

COMPOSITE: RH-0-4	A
ISOS: RH-7-22	A
RH-7-23	A
RH-8-30	A
RH-8-31	A

INFORMATION ONLY

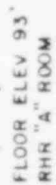
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REV A  
DATE 11-1-68







PROJECT MPAL GG-1 (JB-1)		MADE BY S GRAUS		 GENERAL ELECTRIC	12	872
LOCATION AUX BLDG		REF ID M-1085B			12	370
SYSTEM R H R		PAGE 101		3		

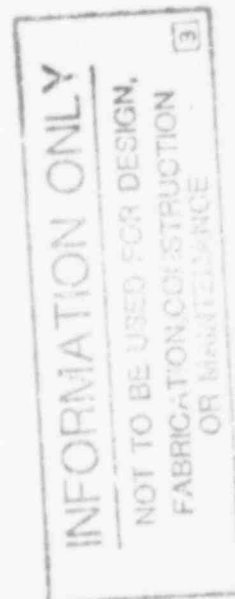
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GENERAL ELECTRIC

PROJECT	MPAL GG-1 (JB-1)	
SYSTEM	LOCATION	REP USE
RHR	AUX BLDG	M-13-6A

2H-O-1





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GENERAL ELECTRIC

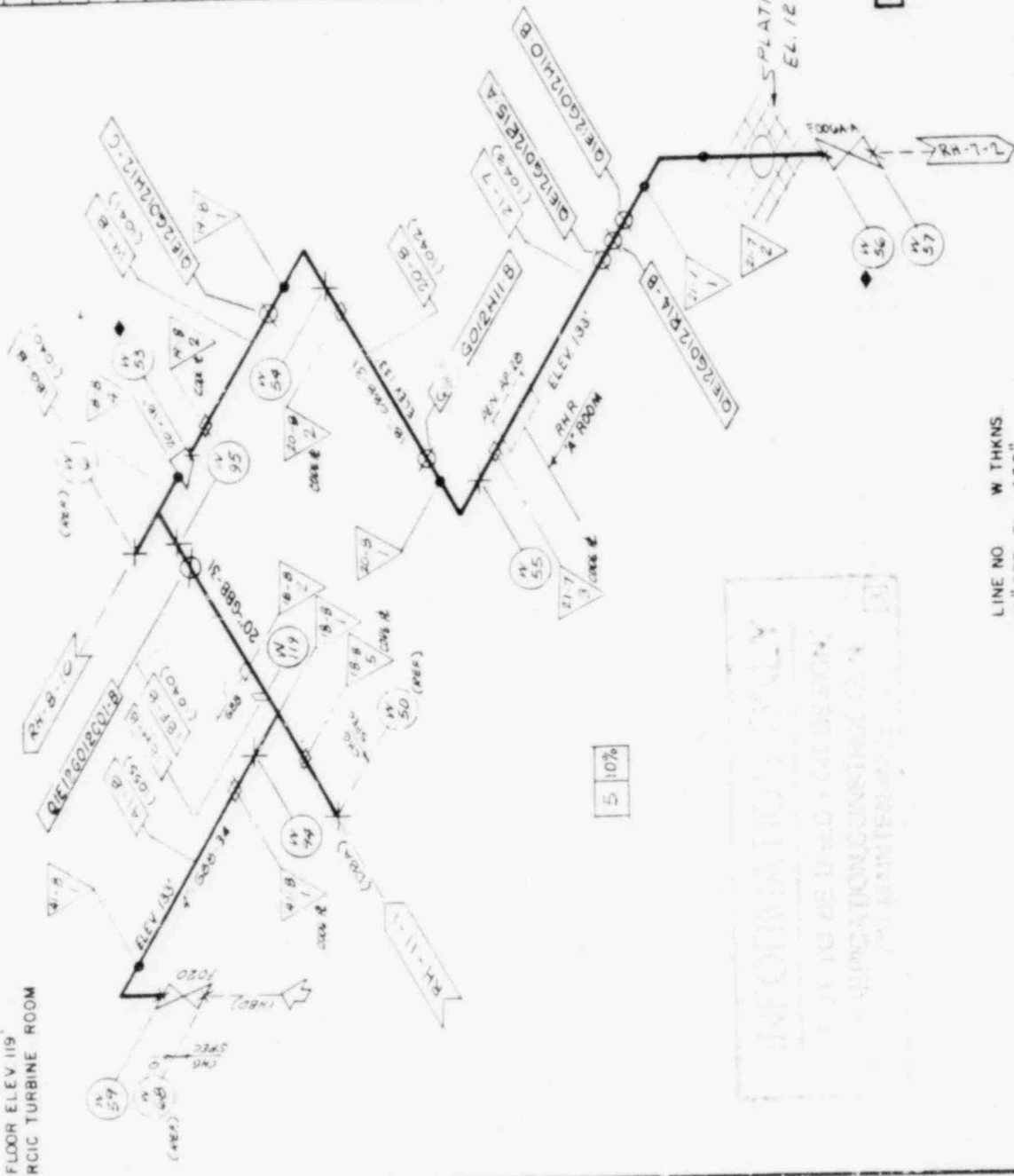
PROJECT	MPBL GG-1 (JB-1)		DATE: 06-07-79	165E-NSO	4
AIRPORT	LOCATION	AUX BLDG	REV: PG 0	ATLANTA	
R/R		M-13484	M-10658		
			SK-M-1593		

1-O-Me





FLOOR ELEV 119'  
RCIC TURBINE ROOM



WELD NO	WELD DESCR	CODE CAT	TYPE EXPL	EXAM TIME PERIOD	ACCESS SATIS	LOG MAX COM
W-53	"C"	CF	UT	08-30-79	YES	YES
W-56	"G"	CF	UT	08-30-79	YES	YES
W-53	"C"	CF	MT	02-10-81	YES	YES
W-56	"G"	CF	MT	02-11-81	YES	YES
H12-C	HANGER	CE	VT			N/A
H15-A	HANGER	CE	VT			N/A
H14-B	HANGER	CE	VT			N/A
H10-B	HANGER	CE	VT			N/A
H11-B	HANGER	CE	VT			N/A

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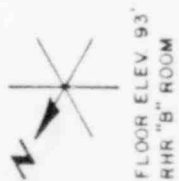
PROJECT MP&L GG-1 (JB-1)		MADE BY 08-03-79 S.G. S		IBSE-NSO ATLANTA	
SYSTEM R.H.R.	LOCATION AUX BLDG	REF Dwg M-1348A	REF Dwg M-1085B	REF Dwg RH	SK-M-1593 PAGE 1 of 1

LINE NO. W THKNS  
18" GBB-31 438"









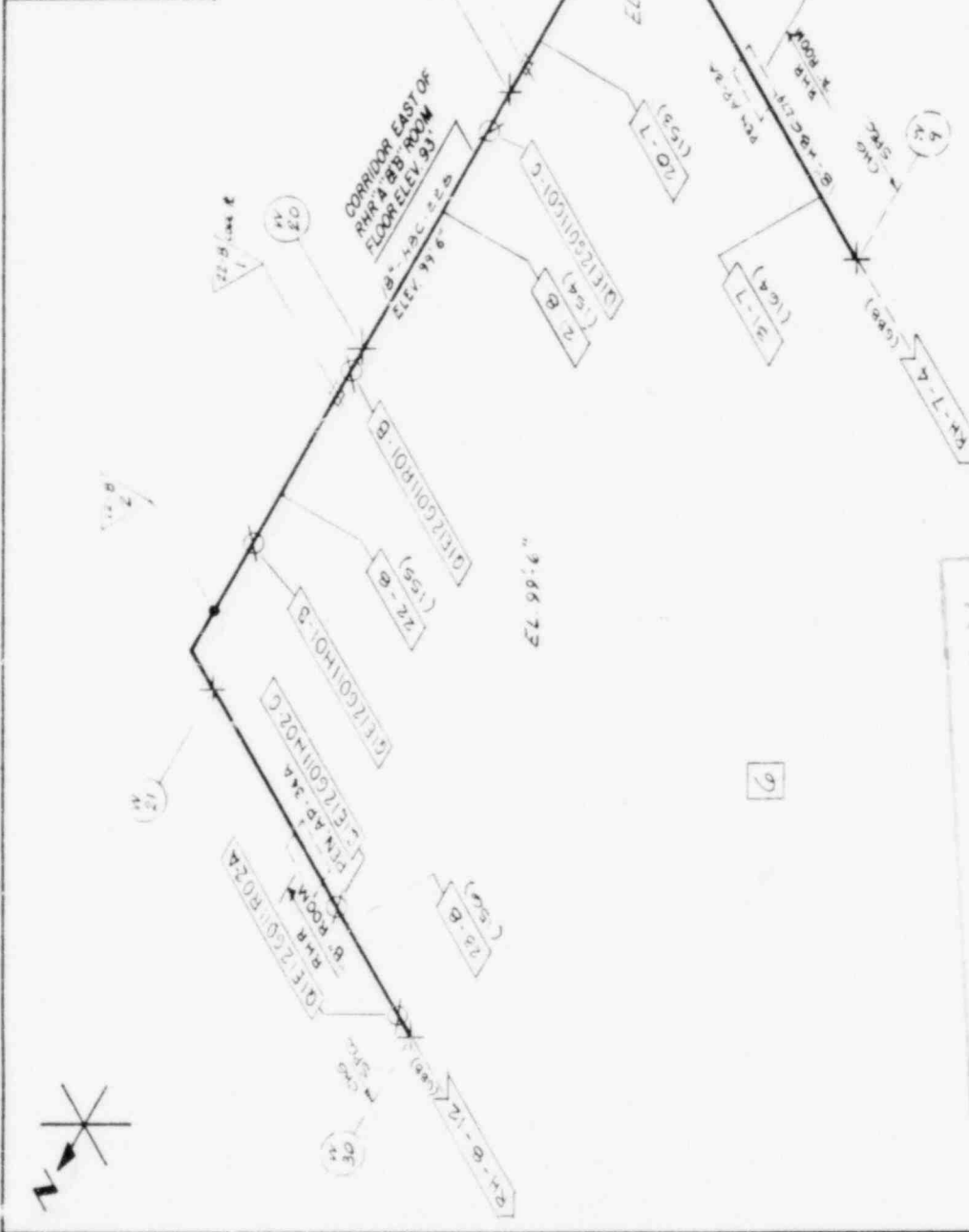
ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

PROJECT MP8AL	LOCATION AUX BLDG	REF URG		M-348B	M-1085A	IMPROV NO RH-B	BASE - NSO ATLANTA	72-11-10
		(JB-1)						
SYSTEM R H R		GENERAL		ELECTRIC		72-11-10		13





MPBL NO	WELD DESCR	CODE CAT	TYPE EXAM	EXAM TIME PERIOD	ACCESS BASIS	IS MARK COMP
1E129011						
COI-C	HANGER	DC	VT			N/A
ROI-B	HANGER	DC	VT			N/A
HOI-B	HANGER	DC	VT			N/A
HOI-C	HANGER	DC	VT			N/A
ROI-A	HANGER	DC	VT			N/A

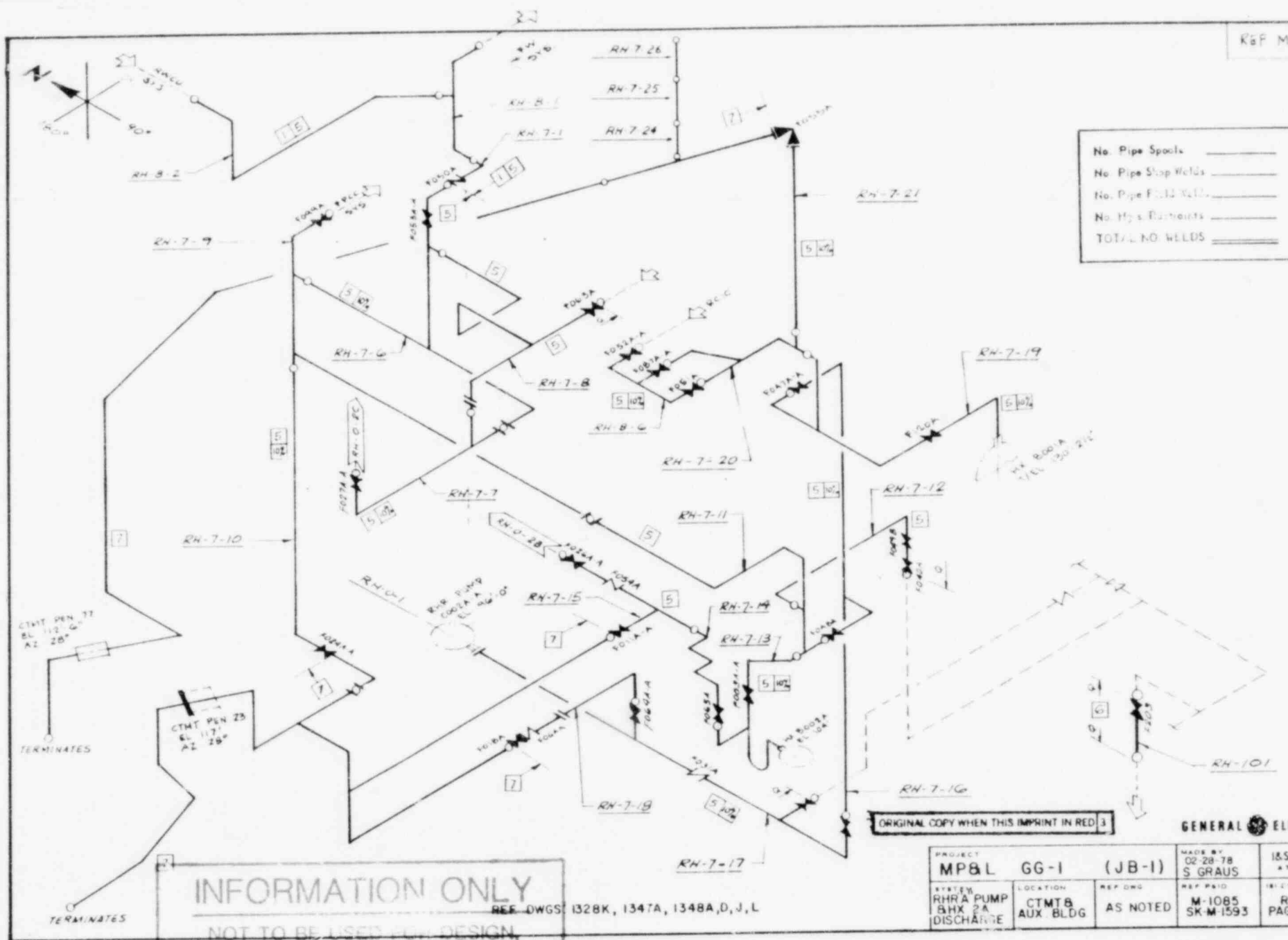


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PROJECT	MPBL	GG-1	(JB-1)	MADE BY	OB 06/79	IBSE NSO	ATLANTA
SYSTEM	RHR	AUX ELDG	M-135HJ	REF DWG	M-1085A	REF DWG NO	RH-100
					SK-M-1593		PAGE 1 of 1

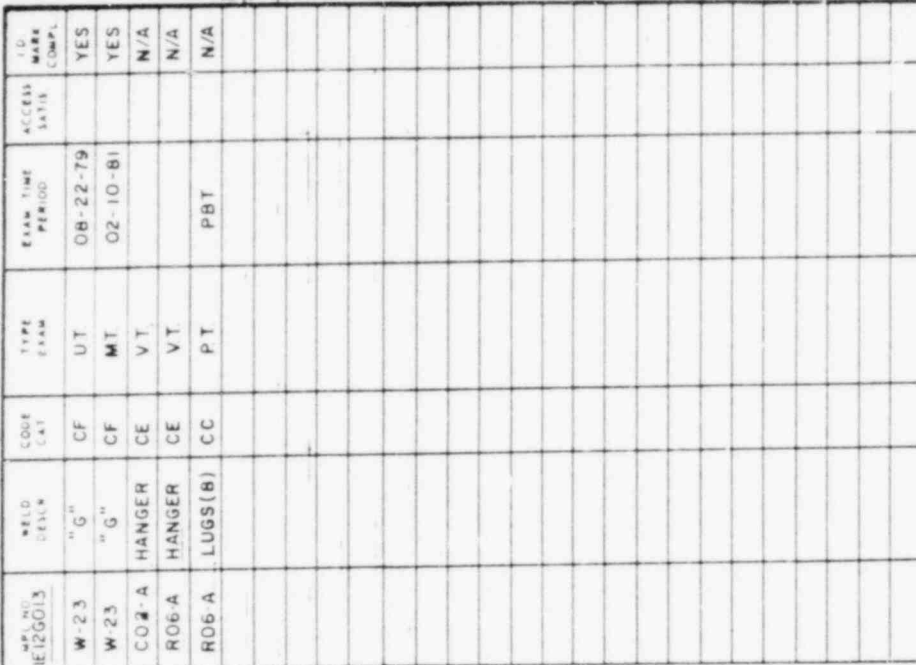
RH-0-1





ORIGINAL COPY WHEN THIS IMPRINT IN RED		MPBL		GG-1 (JB-1)		Date 04-19-77		IBSE NSO	
SYSTEM		LOCATION		REF. 180		S.G. RAUS		ATLANTA	
RHYTHM FROM		AUX BLDG		M-1348D		REF. PAID		DWS NS	
HT EX. 2A						ME-1085B		RH-7	
						SK-N-1593		PAGE 1 of 1	

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GENERAL ELECTRIC

PROJECT	MPBL GG - 1 (JB-1)	
SYSTEM	LOCATION	REF DWG
R H R	AUX BLDG	M 1348D

MADE BY 08-14-79 S. GRAUS	185E-NSO ATLANTA	DATE 6
REP NO M-1085B	185C-NSO RH-7	QTY 6
SK-M-1593 PAGE 1 of 1		

2" DBB-72 844"

CAL. STANDARD 1.D.4.15





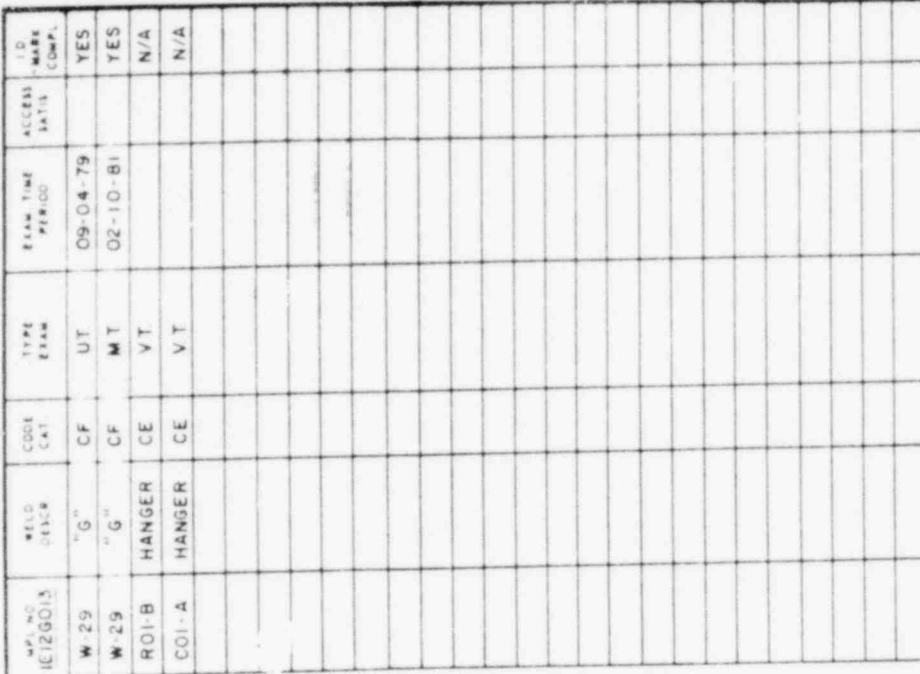
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GENERAL ELECTRIC

PROJECT	MP&L	GG-1	(JB-1)
SYSTEM	RHR	AUX. BLDG	REF. DRG. M-1348D

RH-0-2A





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GENERAL ELECTRIC

PROJECT	MP8L	66-1 (JB-1)	MADE BY G. J. S. GRAUS	BASE-N2O ATLANTA	NO
SYSTEM	RHR	AUX BLDG	REF DSG M-1085B	DRUG NO RH-7	NO
			LOCATIONS M-1348D	PAGE TOP	10

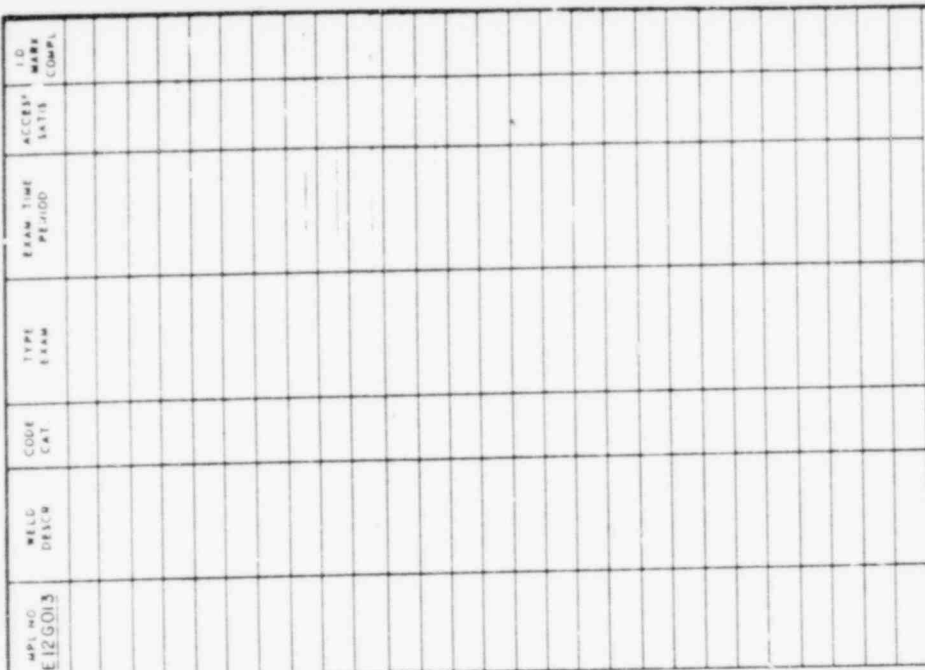
RH-0-2 A

LINE NO.	W THINS
18" GBB-51	438"

CAL STANDARD 10 • 39



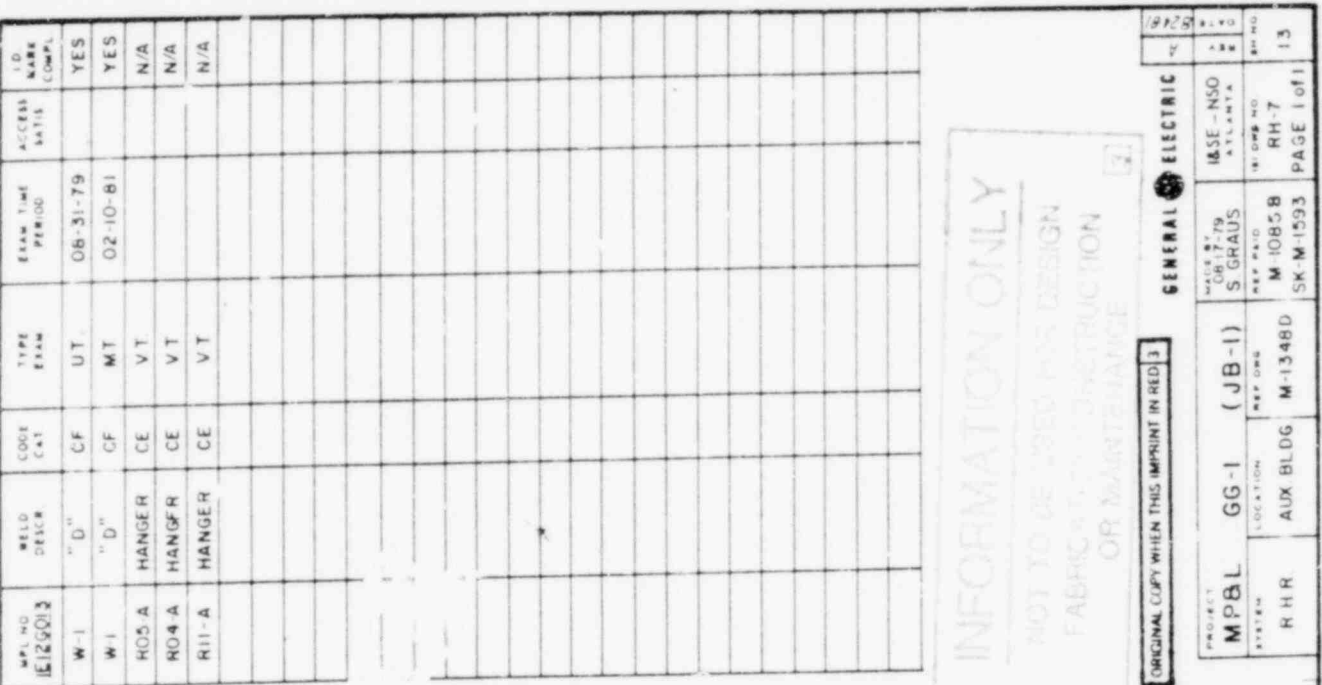




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GENERAL ELECTRIC

RH-0-2A





RH-O-2A



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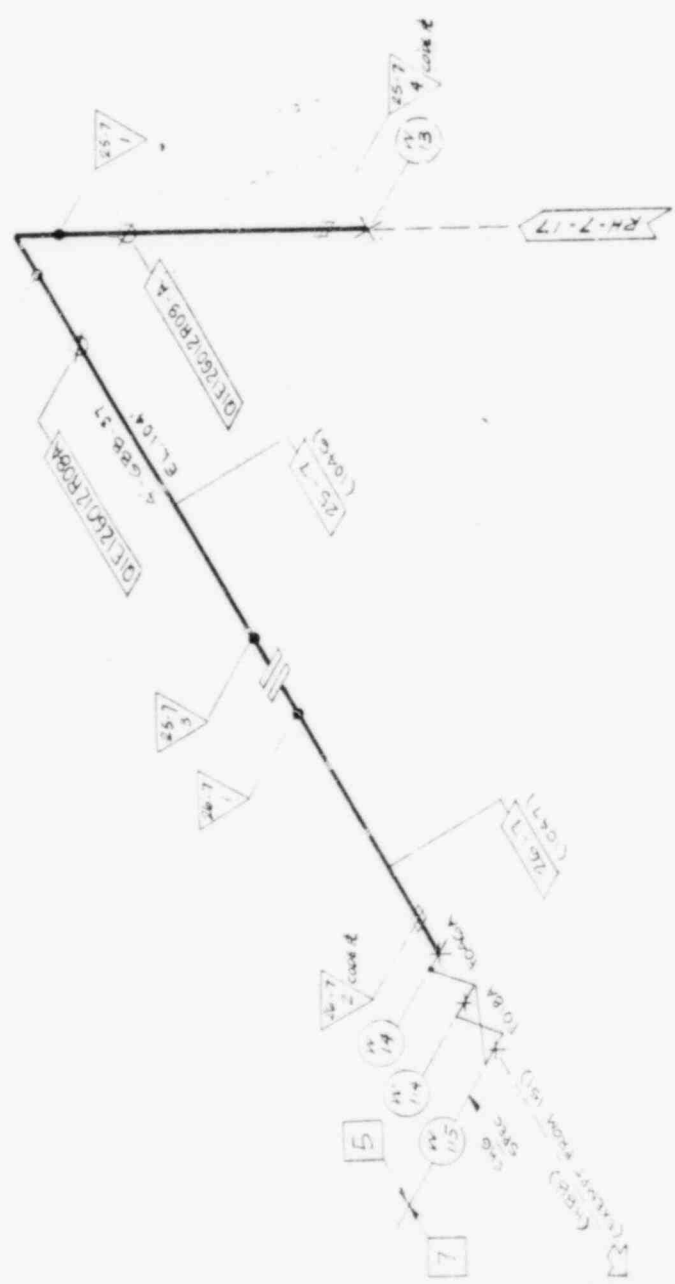
GENERAL ELECTRIC

PROJECT	MP&L	GG-1	(JB-1)
SUBSYSTEM	R.H.R.	AUX BLDG	M-1348A
LOCATION	M&P Bldg		

RH-O-2A





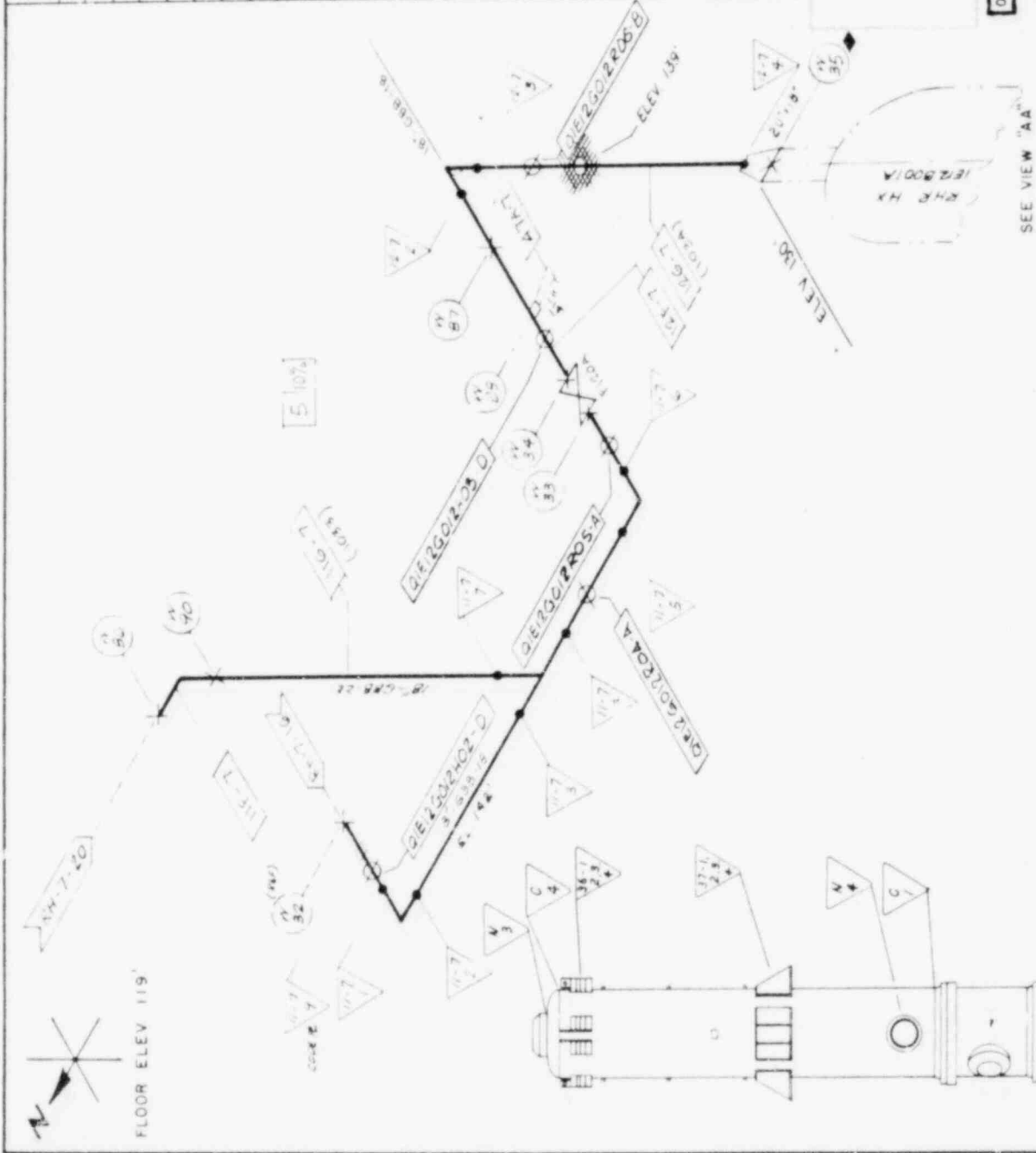


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PROJECT MP&L		GG-1 (JB-1)		DATE 08-20-79		FACILITY S GAUSA		GENERAL ELECTRIC		REV NO 1	
SYSTEM R H R		LOCATION AUX BLDG		REF DES M-1348A		REV DES M-1085B		REV DES NO R1-7		REV NO 1B	
								PAGE 101			



WFL NO	WFL DESCR	CODE CAT	TYPE EXAM	EXAM TIME PERIOD	ACCESS SATIS	IS MAKE COMPL
1E25012						
W-35	" D"	CF	UT	08-31-79		YES
W-35	" D"	CF	MT	02-11-81		YES
RO5-A	HANGER	CE	VT			N/A
RO4-A	HANGER	CE	VT			N/A
37-1,2,3,4	HT EX	CC	MT	EFCI		
36-1,2,3,4	HT EX	CC	MT	EFCI		
N-4	HT EX	CB	MT			
C-1	HT EX	CA	UT	EFCI		
C-4	HT EX	CA	UT	EFCI		
N-3	HT EX	CB	UT	EFCI		
N-4	HT EX	CB	UT	EFCI		
N-3	HT EX	CB	MT			



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 NOT TO BE USED FOR CONSTRUCTION  
 SEE VIEW "AA"

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GENERAL ELECTRIC

PROJECT: MP&L GG-1 (JB-1) LOCATION: AUX BLDG M-1348A  
 SYSTEM: RHR RHR

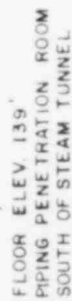
LINE NO. WITHKNS.  
 18" GBB-22 438"  
 18" GBB-18 439"

CAL STANDARD I.D. 40

RH-0-2A

SEE VIEW "AA"

19

RH-0-2A

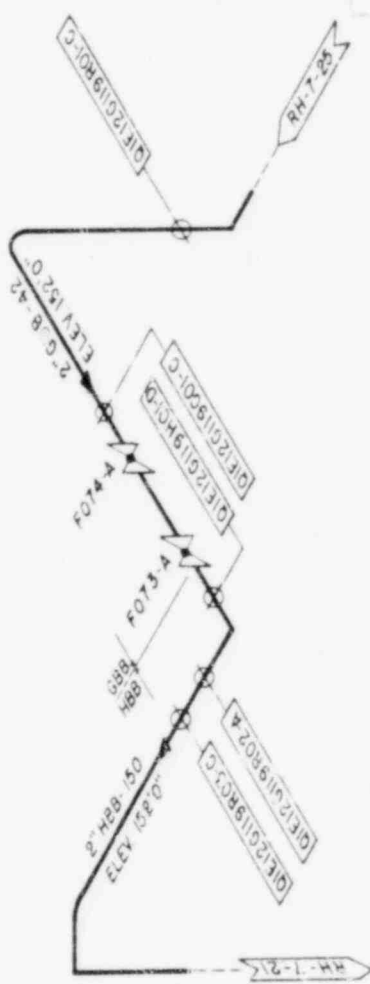


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OR MAINTENANCE

ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

PROJECT	GG-1 (JB-1)		MADE BY	GENERAL ELECTRIC
MPBL			08-20-79	18E-N50
			S GAUS	ATLANTA
SYSTEM	LOCATION	REF ID#	REF ID#	REF ID#
R <sub>1</sub> , R	AUX BLDG	M-1085B	RR-7	
		M-1348J	PAGE 1 of 1	21

RH-O-2A

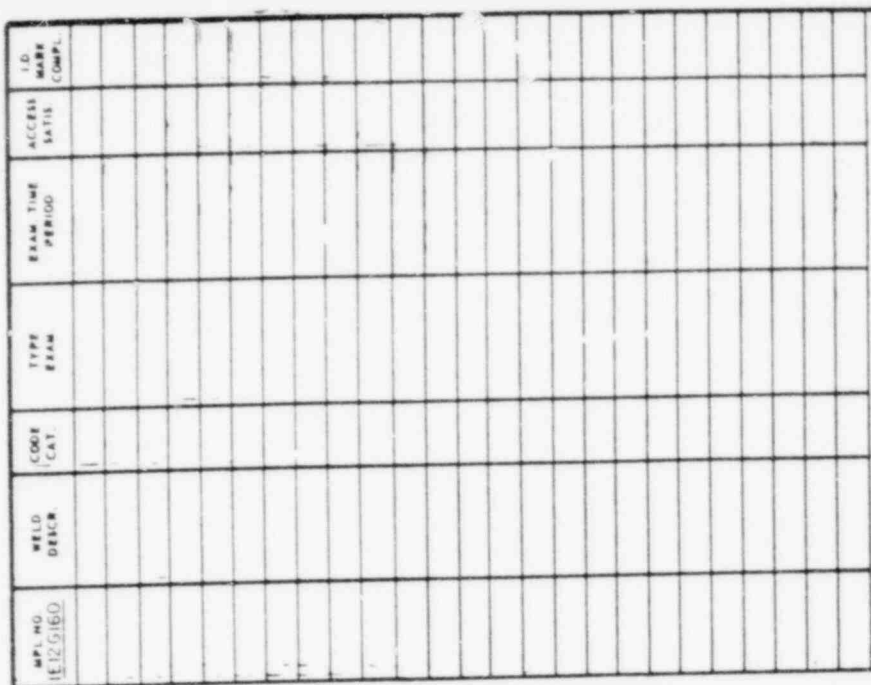
[illegible]

ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

GENERAL ELECTRIC

PROJECT	MP9L	GG-1 (JB-1)	TORRY R DILL	MSE-N50 SYLANA	24
SYSTEM	R R R	AUX 8LCG	REF #10 M1085B	REORDER NO. RH-7	PAGE 1 of 1
			NF 1548 J		
			PS-S-1085B		
			G095		

RH-0-2A

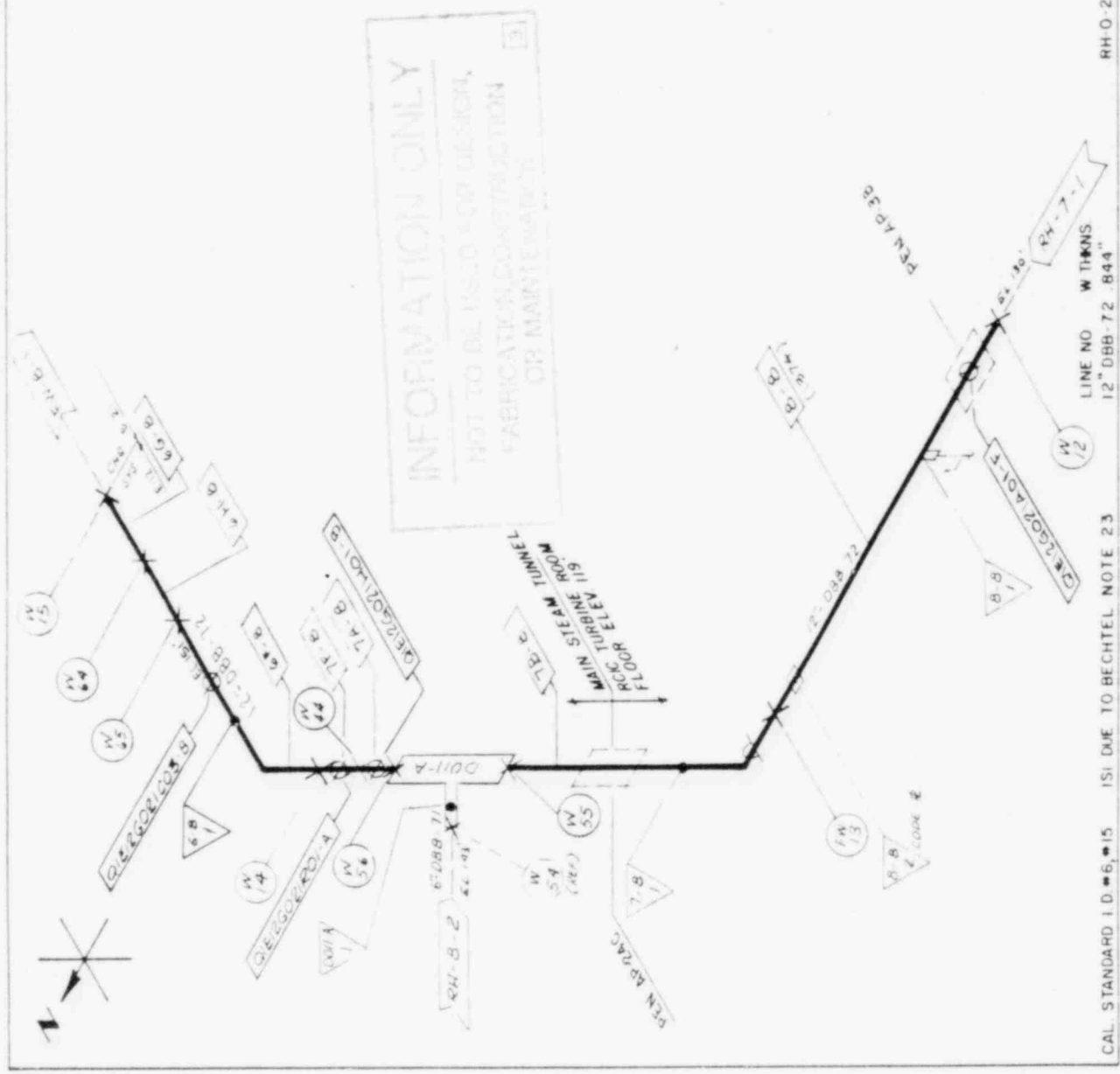


**GENIAL ELECTRIC**

PROJECT	MPBL	GG-1 (JB-1)	MADE BY R.OLL	BASE-NISO ATLANTA	DATE
SYSTEM	RHR	LOCATION AUX BLDG 019-B	REP. PIG M-1348J PSK S-1085B 019-B	NO. DWS. NO. RH-7	25
				PAGE 1 of 1	

RH-O-2A



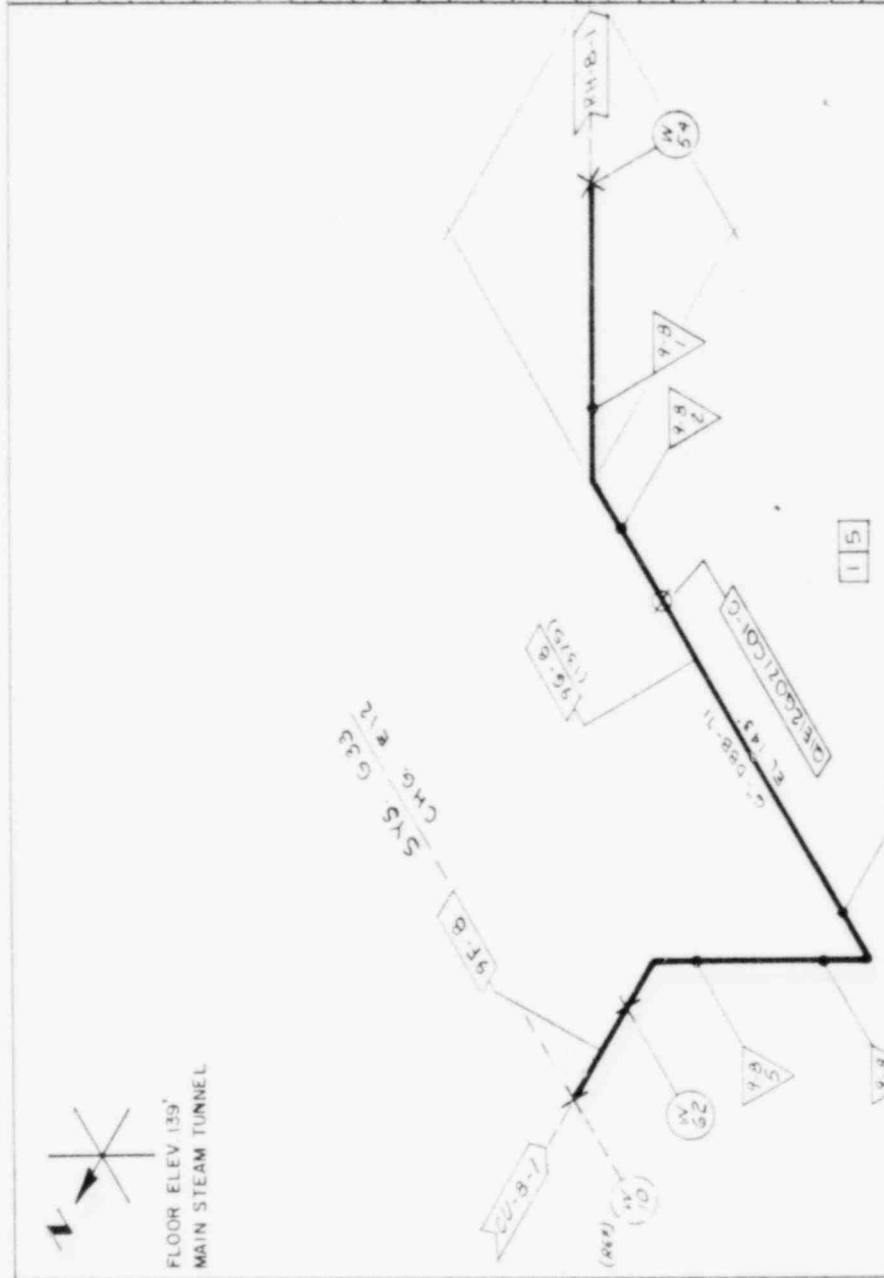


MPBL #18 1812 G021	WELD DESCR	CODE CAT	TYPE EXAM	EXAM TIME PERIOD	ACCESS SATIS	I.D. MARK COMP
W-12	"C"	CF	UT	06-06-80		YES
W-13	"C"	CF	UT	06-19-80		YES
7-8-1	"C"	CF	UT	06-19-80		YES
W-55	"C"	CF	UT	06-06-80		YES
W-56	"C"	CF	UT	06-06-80		YES
W-44	"C"	CF	UT	06-06-80		YES
W-14	"C"	CF	UT	07-16-79		YES
6-8-1	"C"	CF	UT	06-06-80		YES
W-65	"E"	CF	UT	06-06-80		YES
W-64	"E"	CF	UT	06-06-80		YES
W-15	"C"	CF	UT	06-06-80		YES
W-12	"C"	CF	MT	02-11-81		YES
W-13	"C"	CF	MT	02-11-81		YES
7-8-1	"C"	CF	MT	02-11-81		YES
W-55	"C"	CF	MT	02-11-81		YES
W-56	"C"	CF	MT	02-11-81		YES
W-44	"C"	CF	MT	02-17-81		YES
W-14	"C"	CF	MT	02-17-81		YES
6-8-1	"C"	CF	MT	02-17-81		YES
W-65	"E"	CF	MT	02-17-81		YES
W-64	"E"	CF	MT	02-17-81		YES
W-15	"C"	CF	MT	02-17-81		YES
AOI-F	HANGER	CE	VT			N/A
HOI-B	HANGER	CE	VT			N/A
ROI-A	HANGER	CE	VT			N/A
CO3-B	HANGER	CE	VT			N/A
DOII A-1	"J"	CF	MT	07-27-81		YES

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MPBL	GG-1	(JB-1)	IBSE NSO
SYSTEM	LOCATION	REF ISO	ATLANTA
RHR RETURN	STM TUN	M-1328K	DWG N° RH-8
FROM RWCU			SK-M 1593
			PAGE 1041

WPL NO (E12 502)	WELD DESCR	CODE CAT	TYPE EXAM	EXAM TIME PERIOD	ACCESS SATIS	I.D. MARK COMP
W 62	"C"	CF	UT	06-05-80		YES
9 8-5	"C"	CF	UT	06-05-80		YES
9 8-4	"C"	CF	UT	06-05-80		YES
9 8-3	"C"	CF	UT	06-05-80		YES
9 8-2	"C"	CF	UT	06-05-80		YES
9 8-1	"C"	CF	UT	06-05-80		YES
W 54	"C"	CF	UT	06-05-80		YES
W 62	"C"	CF	UT	06-05-80		YES
9 8-5	"C"	CF	MT	02-11-81		YES
9 8-4	"C"	CF	MT	02-11-81		YES
9 8-3	"C"	CF	MT	02-11-81		YES
9 8-2	"C"	CF	MT	02-11-81		YES
9 8-1	"C"	CF	MT	02-11-81		YES
W 54	"C"	CF	MT	02-11-81		YES
COI-C	HANGER	CE	VT			N/A



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MPBL	GG-1	(JB-1)	DATE	ISSUE NO	ATLANTA
SYSTEM	LOCATION	REP NO	DATE	DATE	DATE
RHR RET-10N	STM TUN	M-1328K	M-1085B	RH-B	RH-B
FROM RWCU			SK-M-1593	PAGE 10/1	

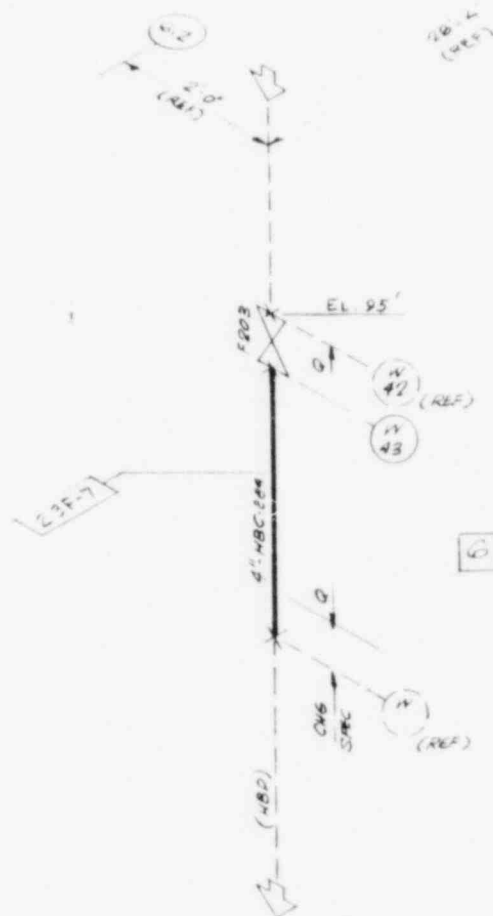
LINE NO. WITHINS  
 6" DBB-71 562"

CAL STANDARD I D #12





REF MFL NO.  
1E12 6022



# INFORMATION ONLY

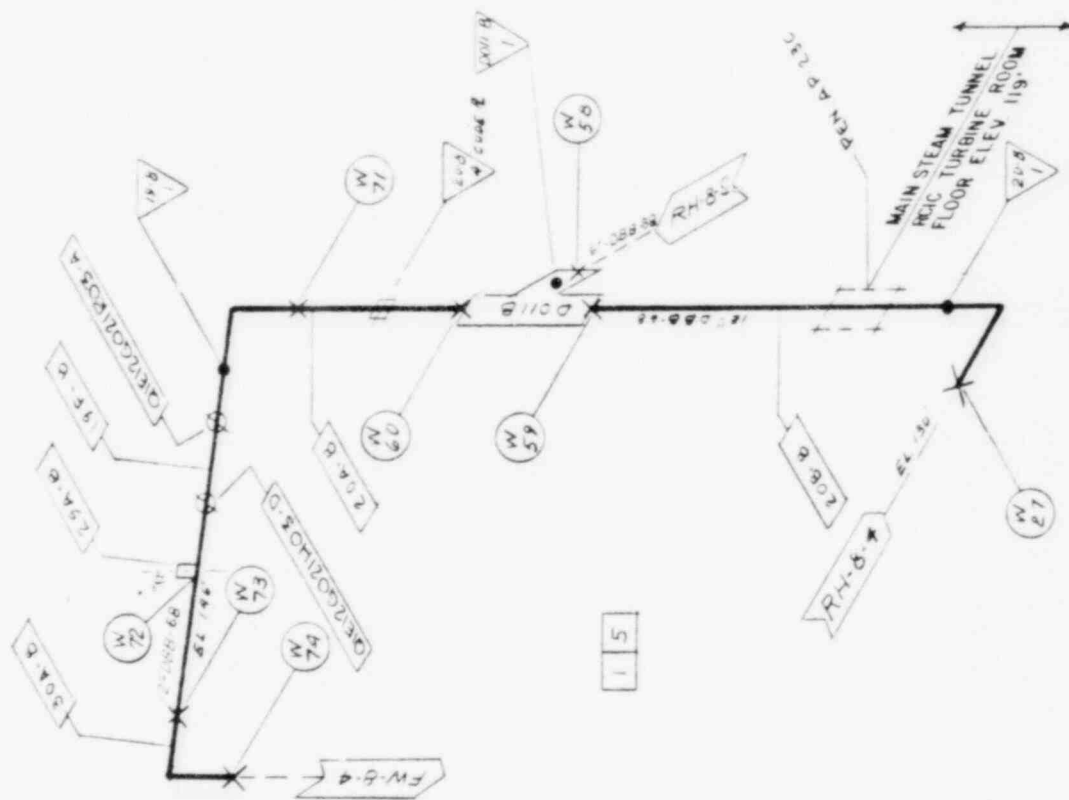
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OR MAINTENANCE

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PROJECT			DRAWN		18 SE NSO		REV	DATE
MP&L GG-1 (JB-1)			08-22-79 S. GRAUS		ATLANTA			
SYSTEM	LOCATION	REF DWS	REF P&ID	131 DWS NO.				
R H R	AUX BLDG	M-1348L	M-1085B	RH-101				
			SK-M-1593	PAGE 1 of 1				

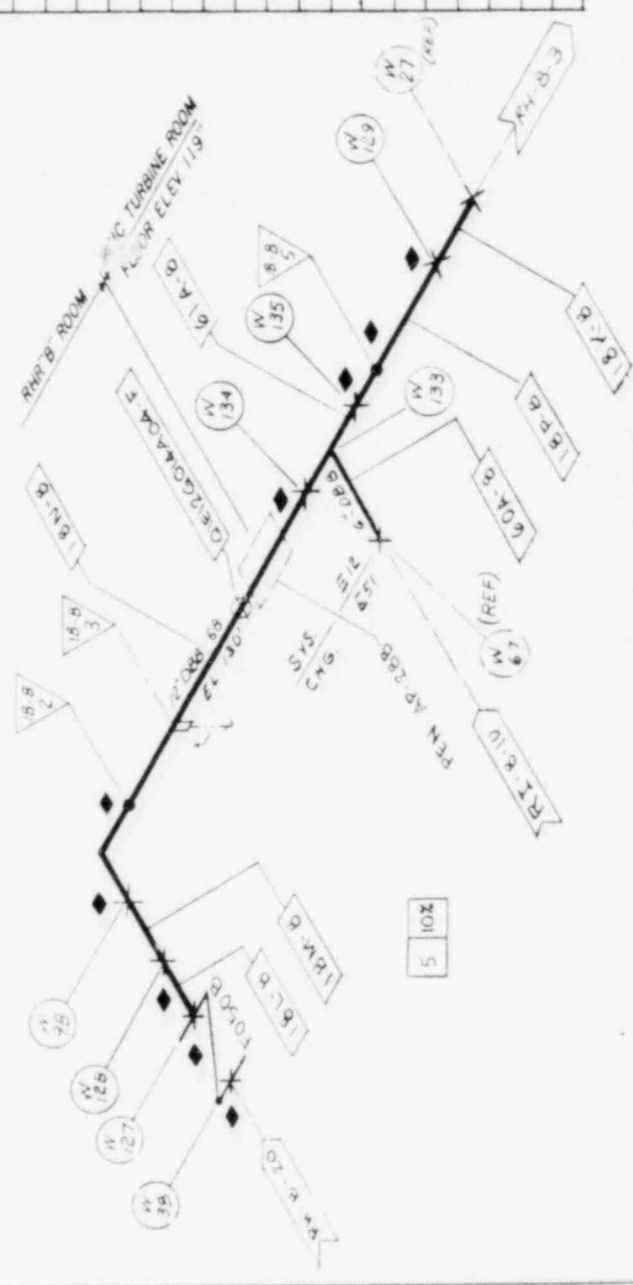
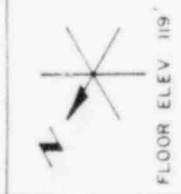
RH-0-2A





PROJECT	MP&L	GG-1	(JB-1)
SYSTEM	R4R1R2 TURN		
LOCATION	STM. TUN		
FROM RWCU	M-1328K		

CAL. STANDARD I D-15, #12 ISI DUE TO BECHTEL NOTE 23



MPL NR IBIT 6014	WELD DESCR	CODE CAT	TYPE EXAM	EXAM TIME PERIOD	ACCESS STATUS	ID MARK COMP
W 3B	"G"	CF	UT	08-27-79		YES
W 127	"G"	CF	UT	06-28-80		YES
W 128	"G"	CF	UT	08-09-80		YES
W 98	"C"	CF	UT	08-23-79		YES
IB-B-2	"C"	CF	UT	08-23-79		YES
W 134	"C"	CF	UT	08-09-80		YES
W 135	"C"	CF	UT	08-09-80		YES
IB-B-5	"E"	CF	UT	08-23-79		YES
W 129	"E"	CF	UT	08-09-80		YES
W 38	"G"	CF	MT	02-18-81		YES
W 127	"G"	CF	MT	02-18-81		YES
W 128	"G"	CF	MT	02-18-81		YES
W 98	"C"	CF	MT	02-18-81		YES
IB-B-2	"C"	CF	MT	02-18-81		YES
W 134	"C"	CF	MT	03-03-81		YES
W 135	"C"	CF	MT	03-03-81		YES
IB-B-5	"E"	CF	MT	03-03-81		YES
W 129	"E"	CF	MT	03-03-81		YES
A04 F HANGER		CE	VT			N/A

ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

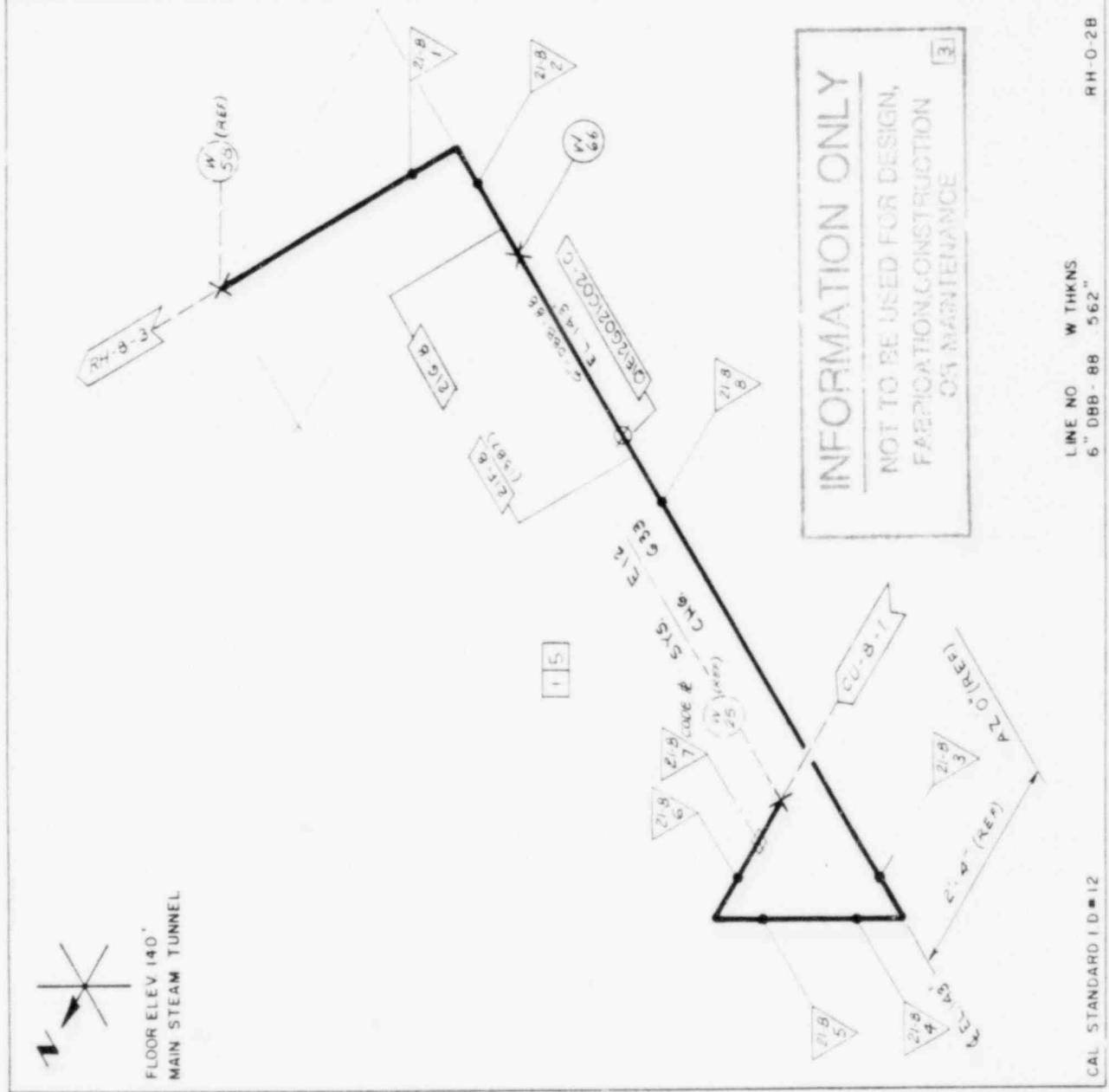
MPAL	GG-1	(JB-1)	IBSE NSO	ATLANTA	ATLANTA	ATLANTA
SYSTEM	RHR FROM	HT EX 2B	REF ISO	M 1348E	REF ISO	M 1348E
LOCATION	AUX BLDG		SK-M 1593			
HT EX 2B						

LIN NO W THKNS  
12" DBB-68 844"

CAL STANDARD I D #15

RH-O-2B

MPBL NR 18126021	WELD DESCR	CODE CAT	TYPE EXAM	EXAM. TIME PERIOD	ACCESS SATIS	I.D. MARK COMP
21-B-6	"C"	CF	UT	06-05-80		YES
21-B-5	"C"	CF	UT	06-03-80		YES
21-B-4	"C"	CF	UT	06-05-80		YES
21-B-3	"C"	CF	UT	06-05-80		YES
21-B-8	"E"	CF	UT	06-05-80		YES
W-66	"E"	CF	UT	06-05-80		YES
21-B-2	"C"	CF	UT	06-05-80		YES
21-B-1	"C"	CF	UT	06-05-80		YES
21-B-5	"C"	CF	MT	02-17-81		YES
21-B-5	"C"	CF	MT	02-17-81		YES
21-B-4	"C"	CF	MT	04-28-81		YES
21-B-3	"C"	CF	MT	02-17-81		YES
21-B-8	"E"	CF	MT	02-17-81		YES
W-66	"E"	CF	MT	02-17-81		YES
21-B-2	"C"	CF	MT	02-17-81		YES
21-B-1	"C"	CF	MT	02-17-81		YES
C02-C	HANGER	CE	VT			N/A



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MPBL	GG-1	(JB-1)	IBSE NSO	ATLANTA	5HT	5
SYSTEM	LOCATION	REF ISO	REF PAID	DMS NR	RH-B	
RHR RETURN	STM TUN	M-132BK	SK-M-1593	PAGE 10/1		

LINE NO W THKNS  
6" DBB-88 562"

CAL STANDARD I.D. 12

LINE NO.	W THKNS
8" 088-70	594"
8" 088-87	594"

CAL STANDARD 1 D 13

ORIGINAL COPY WHEN THIS IMPRINT IN RED	3
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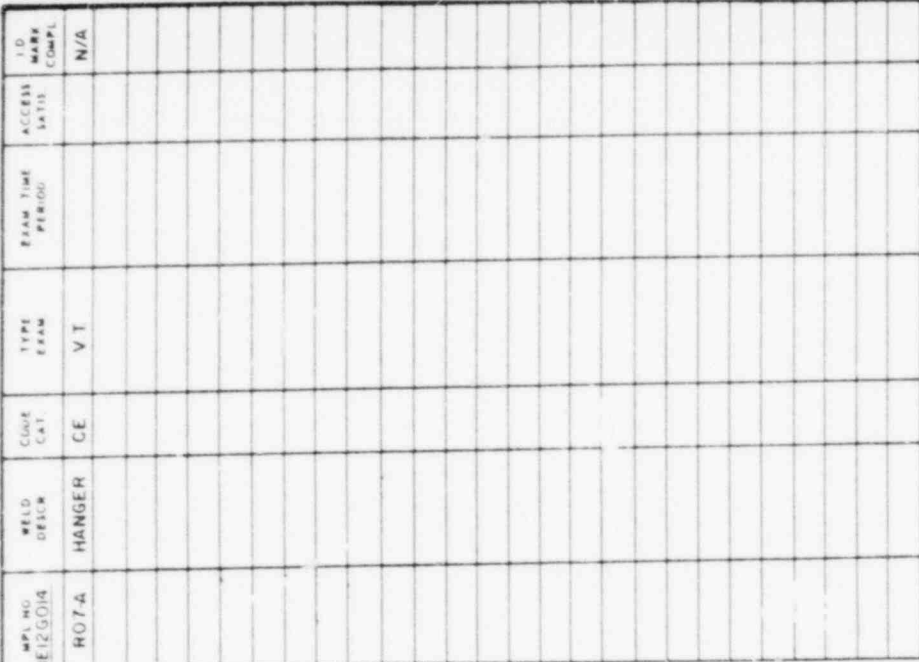
GENERAL ELECTRIC

PROJECT MPBL	GG-1 (JB-1)	WAGNER S GRAUS	BASE - NSO ATLANTA
SYSTEM RHR	LOCATION AUX BLDG.	REF ID# M-1085A	REF ID# RH-8
FROM RCIC		SK M-1593	PAGE 1 of 1

94-0-28

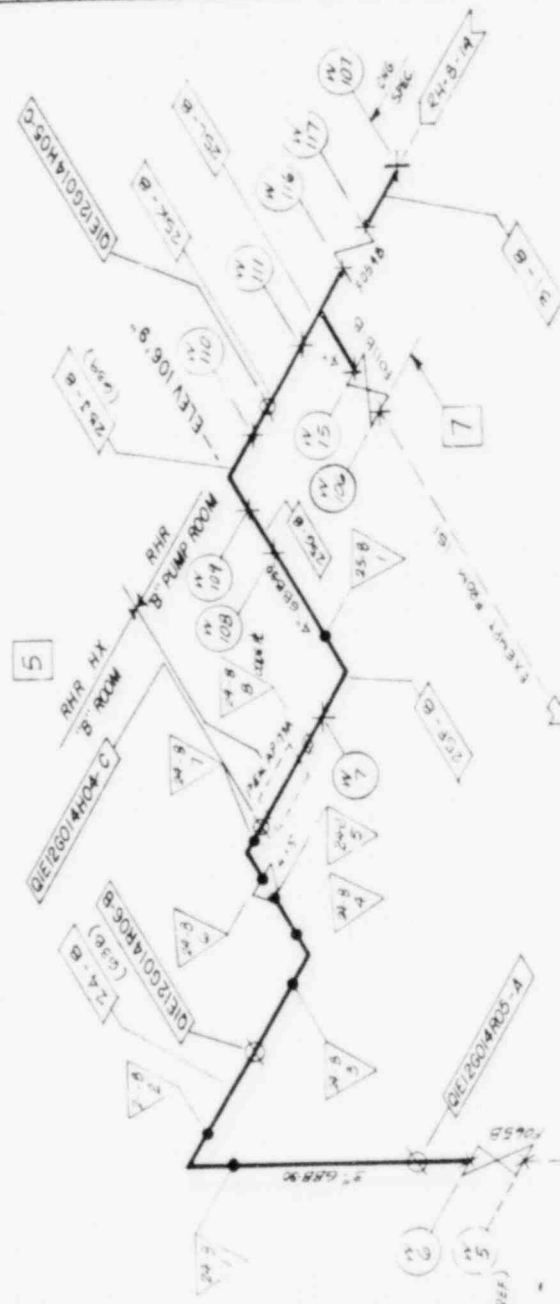






PROJECT		GG-1 (JB-1)		MADE IN	18SE-N50	DATE	7/27/74
MP&L				OH-23-79	ATLANTA	BY	1
SYSTEM		LOCATION		5 GRADES		REV	NO
RHR		AUX BLDG.		REF FLD	18-085A		
		M-1348E		REF DNG	RH-8		14
					SK-M-1593	PAGE 1 of 1	



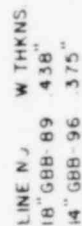


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ORIGINAL COPY WHEN THIS IMPRINT IN RED		GENERAL ELECTRIC		DATE	BY
PROJECT	MPBL	GG-1	(JB-1)	MADE BY	BASE - NSO
SYSTEM	R R R	LOCATION	AUX BLDG	GB 23-79	ATLANTA
				S GAUS	
				REF PLO	10-085A
				10-085A	RH-8
				SK-M-1593	PAGE 1 of 1

[illegible]





CAL STANDARD 1.0 = 32# 39

92-0-28

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GENERAL ELECTRIC

PROJECT	MP&L	GG-1 (JB-1)	DATE BY 08-24-79 S. GAUS	ISSUE - NSO ATLANTA	REV NO 19
SYSTEM	R H R	AUX BLDG	M-1085A SK-M-1593	REVISION RH-8 PAGE 10 of 1	

[illegible]



[illegible]

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GENERAL ELECTRIC

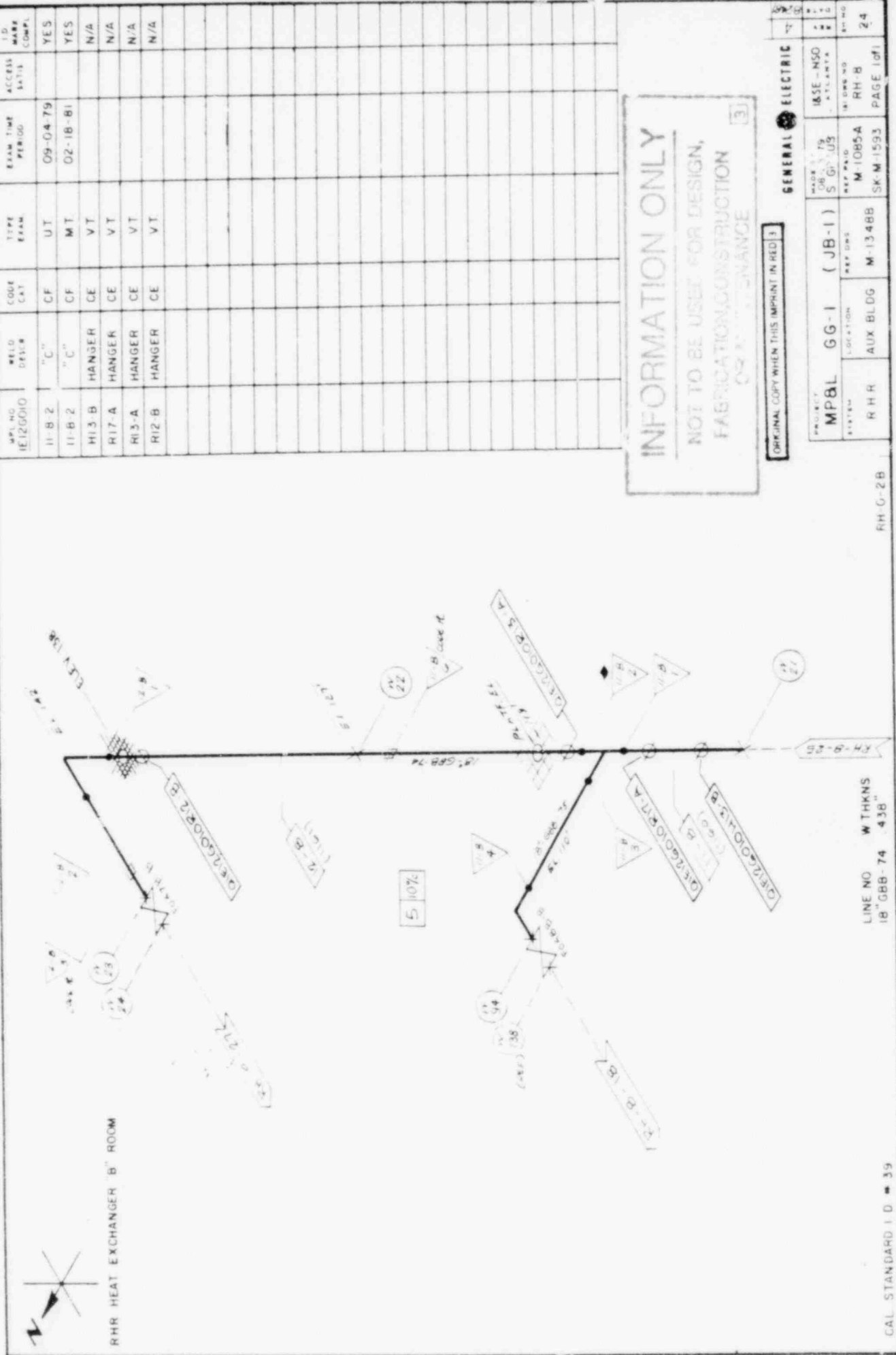
PROJECT	MPBL	GG-1	(JB-1)	MADE BY 08-27-79 SYNTHUS	ISSUE - NSO ATLANTA	1 2 3 4 5
SYSTEM	RHR	AUX BLDG	REF ORG	REF PAID	REF ORG NO	REF NO
			M-1348E	M-1085A	RH-8	21
			SK-M-F-133		PAGE 1 of 1	

H-0-28













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PROJECT MPBL		GG-1 (JB-1)		MADE IN SOUTH ATLANTA		IASE-N50		PAGE 7	
SYSTEM RHR		LOCATION AUX BLDG		REF DES M-1348B		REF DES M-1085A		PAGE 26	
						REF DES SK M-1593		PAGE 1061	

RM-0-28

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**GENERAL ELECTRIC**

PROJECT	MPAL GG-1 (JB-1)	REV	000
SYSTEM	LOCATION	AUX BLDG	M-1348B
RHR			

LINE NO.	W THKNS.
18" G88-74	4.38"

CAL STANDARD ID # 40

84-0-29

SK-M-1593 PAGE 1091



[illegible]

ORIGINAL COPY WHEN THIS IMPRINT IN RED

GENERAL

ELECTRIC

**AUTHOR**

MP8AL GG-1 (JB-1)

[illegible]

245

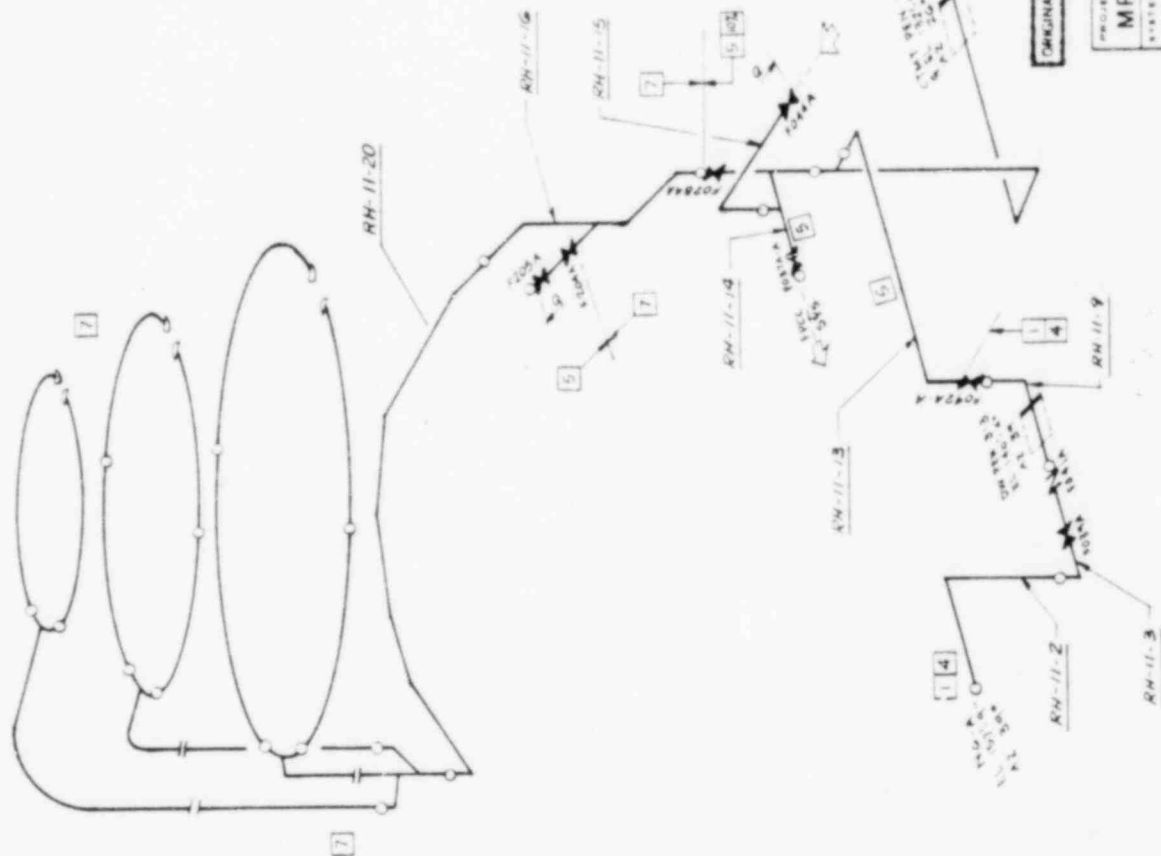
PH-0-28

[illegible]

PAGE 1 OF 1

1998





No. Pipe Spools	_____
No. Pipe Shop Welds	_____
No. Pipe Field Welds	_____
No. Hys. Restraints	_____
TOTAL NO. WELDS	_____

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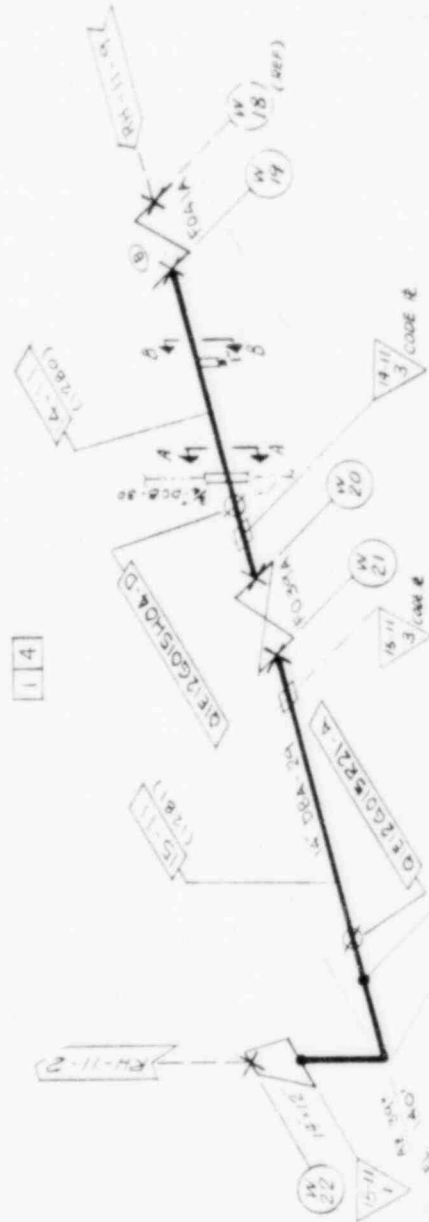
ORIGINAL COPY WHEN THIS IMPRINT IN RED

GENERAL				ELECTRIC	
PROJECT	MPBL	GG-1	(JB-1)	MADE BY	185E - NSO
SYSTEM	RHR	LPCI	CTMT	DATE	02-28-79
CTMT SPRAY				LOCATION	ATLANTA
				REF NO.	M-1085
				REF NO.	M-1348F
				REF NO.	M-1348H
				REF NO.	SK M-1593
				REF NO.	RH-0
				REF NO.	2C
				REF NO.	PAGE 1 of 1

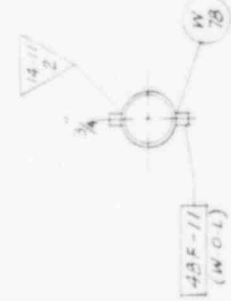




PARTIAL GRATING ELEV 135'  
DRYWELL AREA



SECTION B-B



SECTION A-A

CAL STANDARD I D 7.6

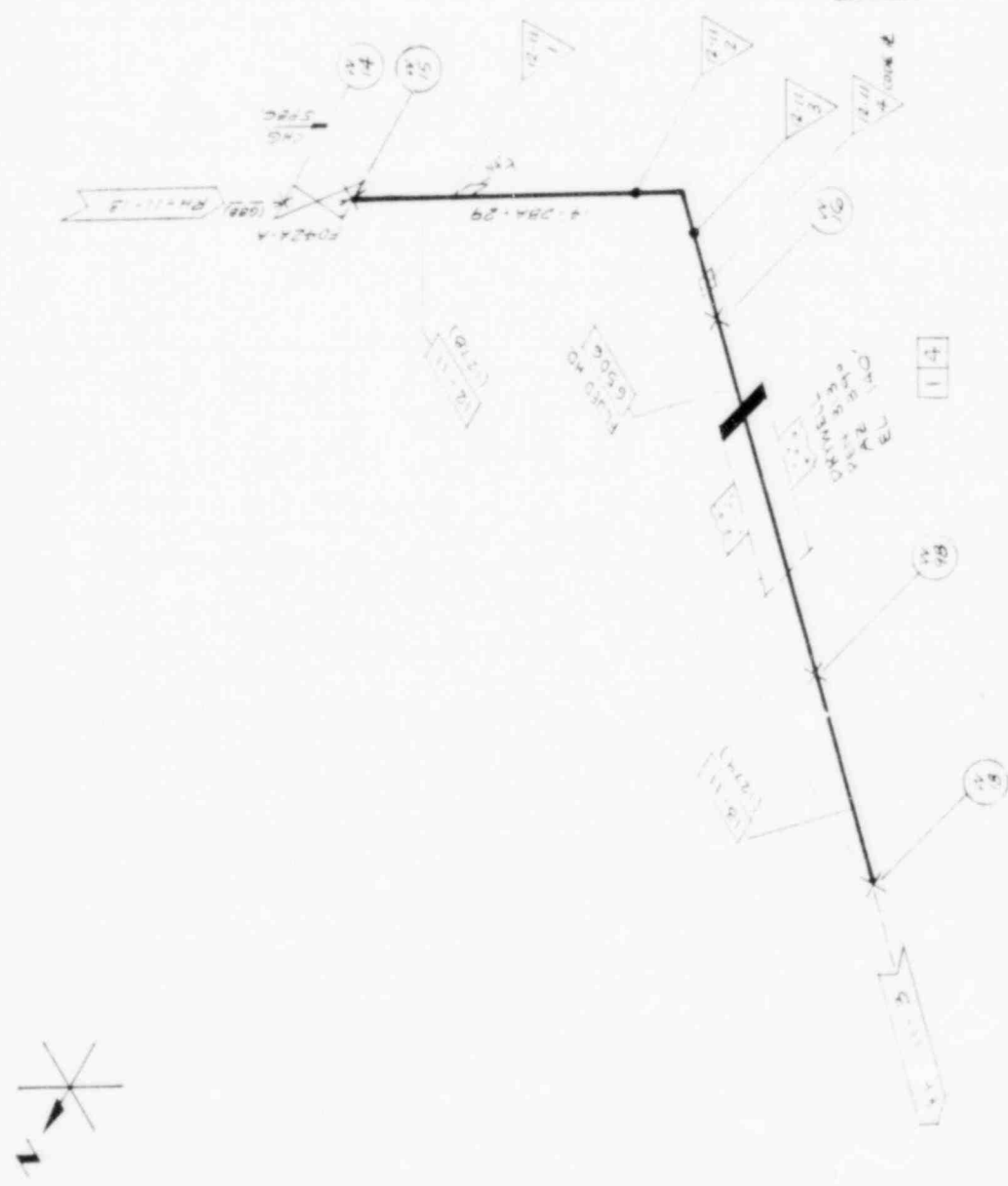
MPD NR 1812 6015	WELD DESCR	CODE CAT	TYPE BEAM	BEAM TIME PERIOD	ACCESS SATIS	I D MARK CONAP
W 19	"G"	BJ	UT	09-07-79		YES
W 20	"G"	BJ	UT	09-07-79		YES
W 21	"G"	BJ	UT	09-07-79		YES
15-11-2	"C"	BJ	UT	09-07-79		YES
15-11-1	"C"	BJ	UT	09-07-79		YES
W 22	"C"	BJ	UT	09-12-79		YES
W 19	"G"	BJ	PT	PBT		YES
W 20	"G"	BJ	PT	PBT		YES
W 21	"G"	BJ	PT	PBT		YES
15-11-2	"C"	BJ	PT	TEXAS PIPE		YES
15-11-1	"C"	BJ	PT	TEXAS PIPE		YES
W 22	"C"	BJ	PT	TEXAS PIPE		YES
W 77	"H"	BJ	PT	PBT		YES
W 78	"H"	BJ	PT	PBT		YES
H04-D HANGER	BK-2		VT			N/A
R 21-A HANGER	BK-2		VT			N/A
WELVE F04A	BOLTS(36)	B-G-2	VT	06-23-81		N/A

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MPBL RHR LPCI	GG-1 LOCATION DRYWELL	(JB-1) REF ISO M-1348F	OWN S GRAUS REF P&ID M-1085B	IBSE NSO ATLANTA DMS. NR RH-II	PAGE 1 of 1
MPBL	GG-1	(JB-1)	S GRAUS	ATLANTA	3

MPL NO (SIZING)	WELD DESCR	CODE CAT	TYPE EXAM	EXAM TIME PERIOD	AGERS SATS	I D MARK COMP
W 14	"G"	CF	UT	09-11-79		YES
W 15	"G"	BJ	UT	09-07-79		YES
12-11-2	"C"	BJ	UT	09-07-79		YES
12-11-3	"C"	BJ	UT	07-15-80		YES
W 16	"E"	BJ	UT	09-11-79		YES
W 98	"G"	BJ	UT	09-06-79		YES
W 18	"E"	BJ	UT	09-06-79		YES
W 14	"G"	CF	PT	PBT		YES
W 15	"G"	BJ	PT	PBT		YES
12-11-2	"C"	BJ	PT	TEXAS PIPE		YES
12-11-3	"C"	BJ	PT	TEXAS PIPE		YES
W 16	"E"	BJ	PT	PBT		YES
W 98	"G"	BJ	PT	PBT		YES
W 18	"E"	BJ	PT	01-27-81		YES

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MPBL	GG-1	(JB-1)	ISSUE NO	2
SYSTEM	LOCATION	REP	DATE	1981
RHR LPCF	DRY WELL	M-1348F	RH-11	
LOOP "A"	& CTMT	(RH-O-2C)	SK-M-1593	PAGE 1 of 1

[illegible]

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GENERAL ELECTRIC

PROJECT	MPBL	GG-1	(JB-1)	DATE BY ATLANTA	DATE BY S GAUS	DATE BY M1085 B	DATE BY RH-II	DATE BY PAGE 10f1
SUBJECT	R H R	CMT B	M-1348F	REF DESK				
		AUX BLDG						

RH-0-2C

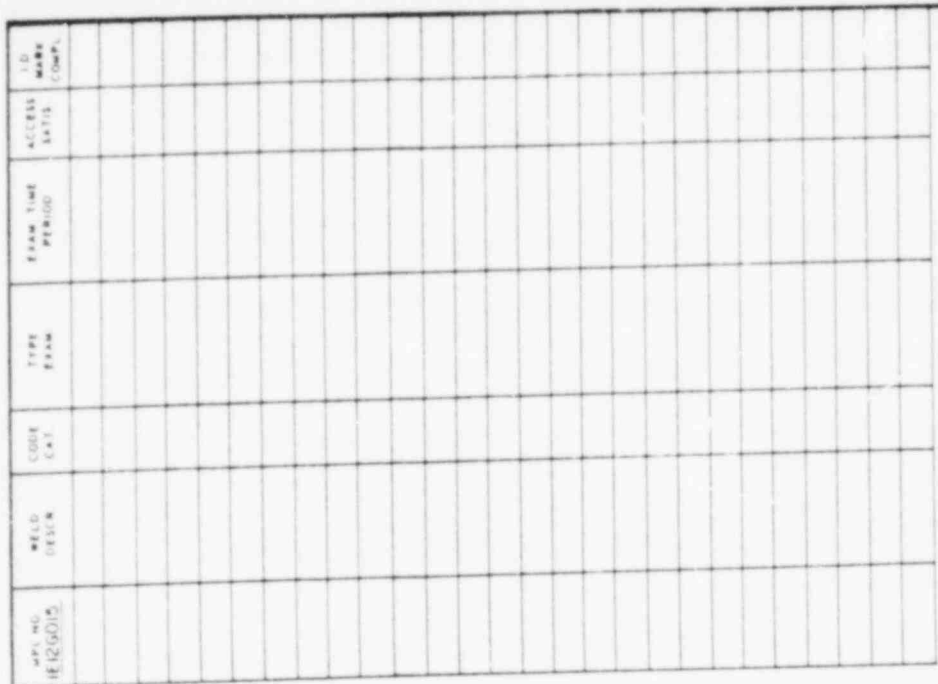
[illegible]

ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

GENERAL ELECTRIC

PROJECT	MPBL	GG-1	(JB-1)	DATE	1958-07-19	105E-N50	15
SYSTEM	RHR	CINT	M-1348F	NO. OF PAGES	M-1085B	RH-11	15
					SK-M-1533	PAGE 10811	

RW-0-2C

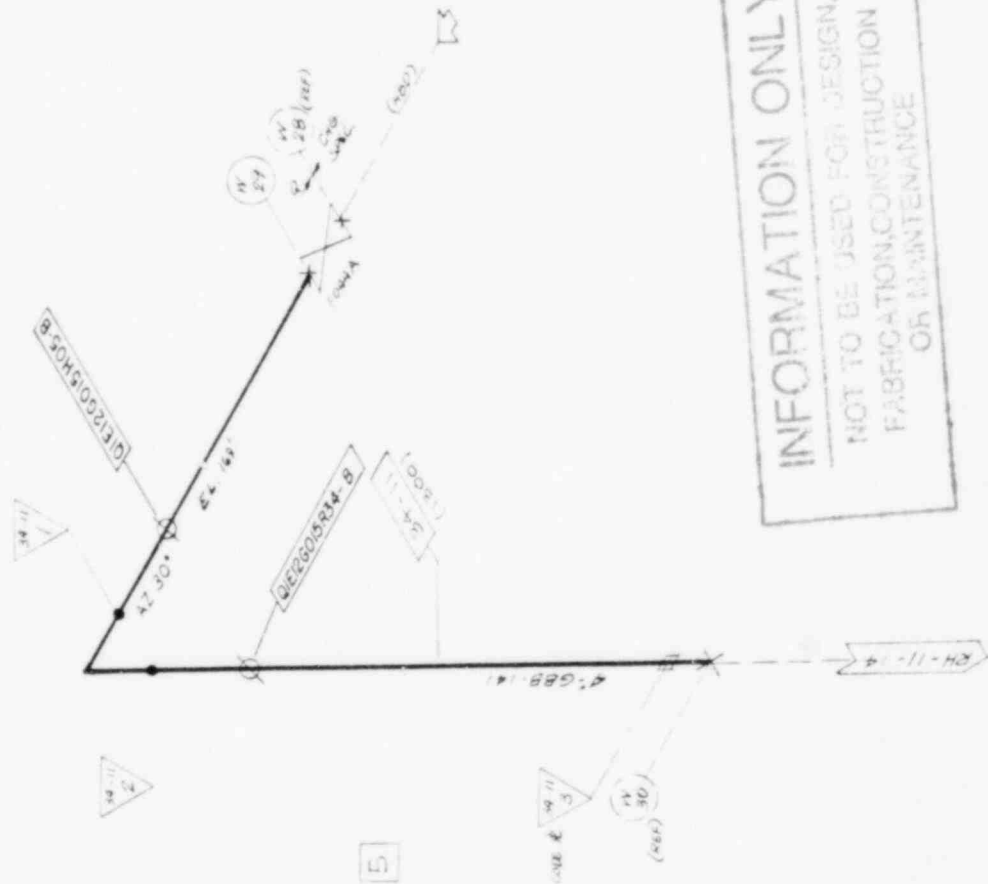


ORIGINAL COPY WHEN THIS IMPRINT IN REQ 3

GENERAL ELECTRIC

PROJECT	GG-1	(JB-1)	ORDER NO. 09-05-79	BASE-NSO
MP&L	CTMT	M 1348F	S GRAVIS	AVLAWM
RRR			M-1085B	RH-11
			SK M-1593	PAGE 10FI

RH-0-2C



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OR MAINTENANCE

ORIGINAL COPY WHEN THIS IMPRINT IN RED

PROJECT		MP8L		GG-1		(JB-1)	
SYSTEM		RHR		LOCATION		CTMT	
MADE BY		S. GRAUS		REP. NO.		M-1085B	
MADE BY		MSE-NZO		REP. NO.		RH-11	
MADE BY		ATLANTA		REP. NO.		SK-M-1593	
MADE BY		PAGE 10f1		PAGE 10f1		PAGE 10f1	

RH-O-2C



[illegible]

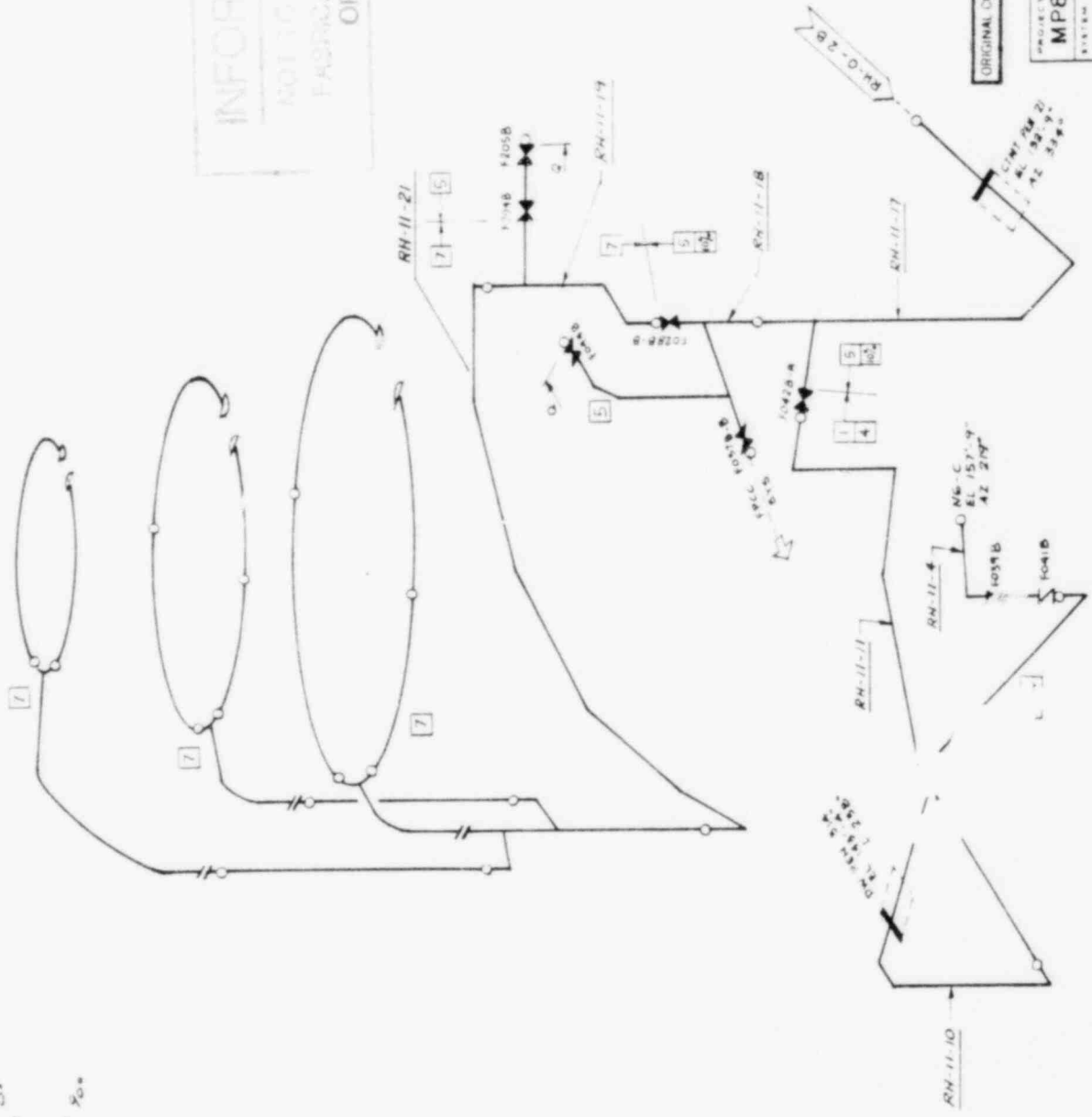
ORIGINAL COPY WHEN THIS IMPRINT IN RED	3
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GENERAL ELECTRIC

PROJECT	MPBL	(GG-1)	JB-1	MADE AT	185E - NSO ATLANTA
SYSTEM	R.H.R.	LOCATION	REF. ENG.	S.GRAUS	
		CTMT	M-134SF	REV. 0-0	
				M-1085-B	RH-II
				SK.M-1093	PAE I of I

94-0-2C





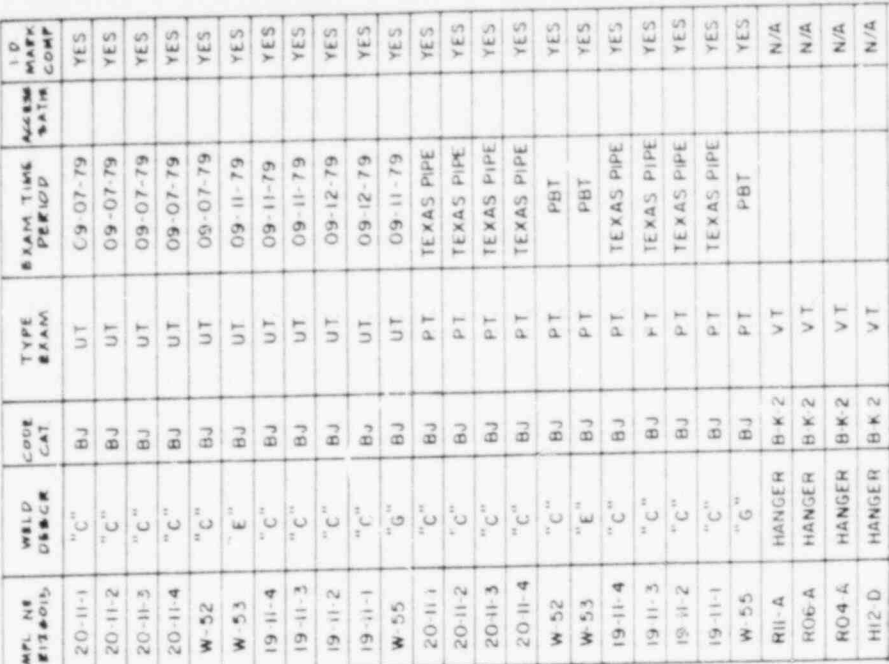
INFORMATION ONLY  
NOT TO BE USED FOR DESIGN,  
FABRICATION, CONSTRUCTION  
OR MAINTENANCE

- No Pipe Spools \_\_\_\_\_
- No Pipe Shop Welds \_\_\_\_\_
- No Pipe Field Welds \_\_\_\_\_
- No Hgrs Restraints \_\_\_\_\_
- TOTAL NO WELDS \_\_\_\_\_

ORIGINAL COPY WHEN THIS IMPRINT IN RED

PROJECT		GENERAL ELECTRIC		2	3
MP8L	GG-1	(JB-1)	MADE BY	185E-NSO	2
			S GRAUS	ATLANTA	3
SYSTEM	RH-11-10	CTMT	REF. NO.	M-1085A	RH-11-10
			REF. NO.	M-1348G	PAGE 10/11

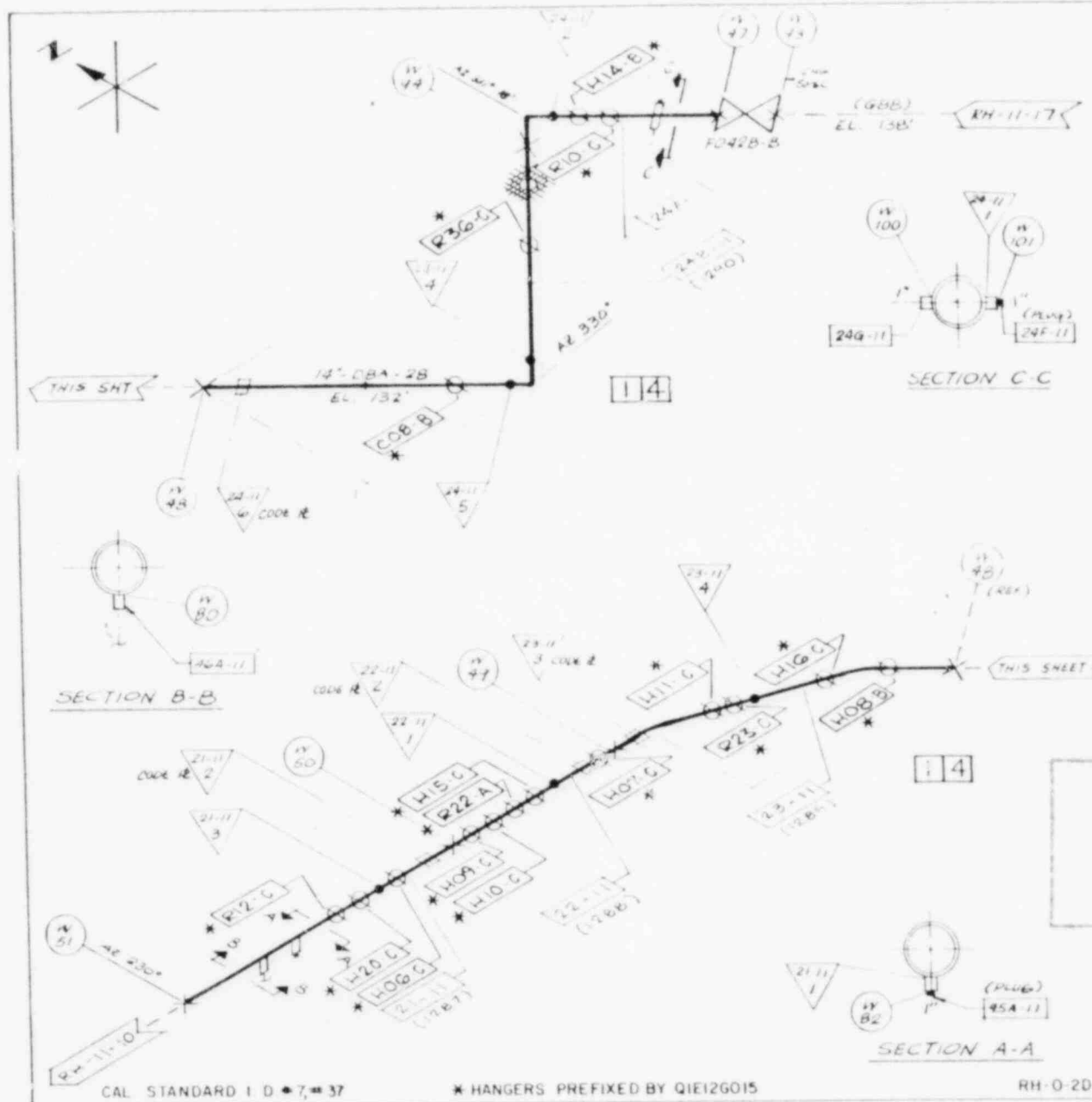




ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

[illegible]

RH-0-20



MPL NO 1E12G015	WELD DESCR	CODE CAT	TYPE EXAM	EXAM TIME PERIOD	ACCESS SATIS	ID MARK COMP
23-11-4	"E"	BJ	UT	09-06-79		YES
W-49	"E"	BJ	UT	09-06-79		YES
22-11-1	"E"	BJ	UT	09-06-79		YES
W-50	"E"	BJ	UT	09-06-79		YES
21-11-3	"E"	BJ	UT	09-06-79		YES
W-51	"C"	BJ	UT	09-07-79		YES
W-93	"G"	CF	UT	09-11-79		YES
W-47	"G"	BJ	UT	09-05-79		YES
24-11-2	"C"	BJ	UT	01-24-80		YES
W-94	"C"	BJ	UT	01-24-80		YES
24-11-4	"C"	BJ	UT	09-05-79		YES
24-11-5	"C"	BJ	UT	09-05-79		YES
W-48	"E"	BJ	UT	09-05-79		YES
23-11-4	"E"	BJ	PT	TEXAS PIPE		YES
W-49	"E"	BJ	PT	PBT		YES
22-11-1	"E"	BJ	PT	TEXAS PIPE		YES
W-50	"E"	BJ	PT	TEXAS PIPE		YES
21-11-3	"E"	BJ	PT	TEXAS PIPE		YES
W-51	"C"	BJ	PT	PBT		YES
W-93	"G"	CF	PT	PBT		YES
W-47	"G"	BJ	PT	PBT		YES
24-11-2	"C"	BJ	PT	TEXAS PIPE		YES
W-94	"C"	BJ	PT	PBT		YES
24-11-4	"C"	BJ	PT	TEXAS PIPE		YES
24-11-5	"C"	BJ	PT	TEXAS PIPE		YES
W-48	"E"	BJ	PT	PBT		YES

## INFORMATION ONLY

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FABRICATION, CONSTRUCTION  
OR MAINTENANCE

ORIGINAL COPY WHEN THIS IMPRINT IN RED

MP&L	GG-1 (JB-1)	DWN 09-19-78 S. GRAUS	IBSEN SO ATLANTA
SYSTEM RHR' LPCI LOOP B	LOCATION CTMT.	REF. P&ID M-1085A	DWG. NO RH-11
	REF. ISO M-1348F	SK-M-1593	PAGE 1 of 2

CAL STANDARD I D \* 7, = 37

\* HANGERS PREFIXED BY QIE12G015

RH-0-20

REV  
DATE  
11

WFL NO. (B2/G015)	WELD DESCR.	CODE CAT.	TYPE EXAM.	EXAM TIME PERIOD	ACCESS SATIS.	I.D. MARK COMPL.
H14-B	HANGER	BK-2	VT			N/A
R10-C	HANGER	BK-2	VT			N/A
R36-C	HANGER	BK-2	VT			N/A
C08-B	HANGER	BK-2	VT			N/A
H08-B	HANGER	BK-2	VT			N/A
H16-C	HANGER	BK-2	VT			N/A
R23-C	HANGER	BK-2	VT			N/A
H11-C	HANGER	BK-2	VT			N/A
H07-C	HANGER	BK-2	VT			N/A
H15-C	HANGER	BK-2	VT			N/A
R22-A	HANGER	BK-2	VT			N/A
H10-C	HANGER	BK-2	VT			N/A
H06-C	HANGER	BK-2	VT			N/A
H20-C	HANGER	BK-2	VT			N/A
R12-C	HANGER	BK-2	VT			N/A
H09-C	HANGER	BK-2	VT			N/A

ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

GENERAL ELECTRIC

PROJECT	GG-1		MADE BY	DATE-NOW
MP&L	(JB-1)		06-01-81	ATLANTA
SYSTEM	LOCATION	REP USE	REP NO	REP NO
RHR LPCI	CTMT	M-1348F	M-1085A	RH-11
LOOP B			SK-M-1593	PAGE OF 2

\* HANGERS PREFIXED BY QIEI2G015

BM-O-20





ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

GENERAL ELECTRIC

PROJECT	MPBL	GG-1	(JB-1)	WAS 79 GRAUS	13E-N50 ATLANTA	2
SYSTEM	RHR	CTMT	M-1348F	REP NO 85A SK-M-1593	RH-11	1E
				REP NO 85C	PAGE 1 of 1	

RH-0-2 D



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ORIGINAL COPY WITH THIS IMPRINT IN RED 3

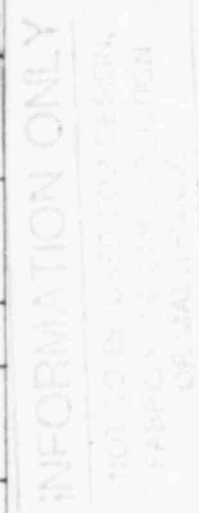
**GENERAL ELECTRIC**

PROJECT	MPBL GG-1 (JB-1)	WORK BY	MAE-N50
SYSTEM	LOCATION	PROJECT	ATLANTA
R.H.R.	CTMT	M-1085A	21
		SK-M-1593	PAGE 1 of 1

RW-0-2D







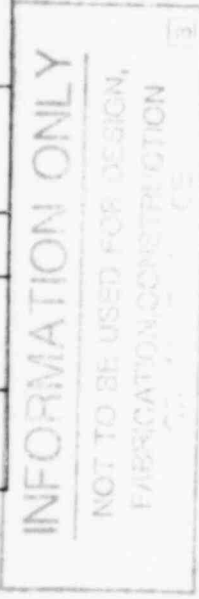
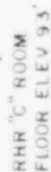
ORIGINAL COPY WHEN THIS IMPRINT IN RED 3		GENERAL ELECTRIC		DATE
PROJECT	MPBL	GG-1 (JB-1)	JOHN F. S. GRAUS	183E-N50 ATLANTA
SYSTEM	RHR	LOCATION	REF ID	REF ID
		AUX BLDG.	M-13.4BS	REF ID
			M-1035A	REF ID
			SK-M-1593	REF ID
			PAGE 10	2

ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

GENERAL ELECTRIC

94-0-3



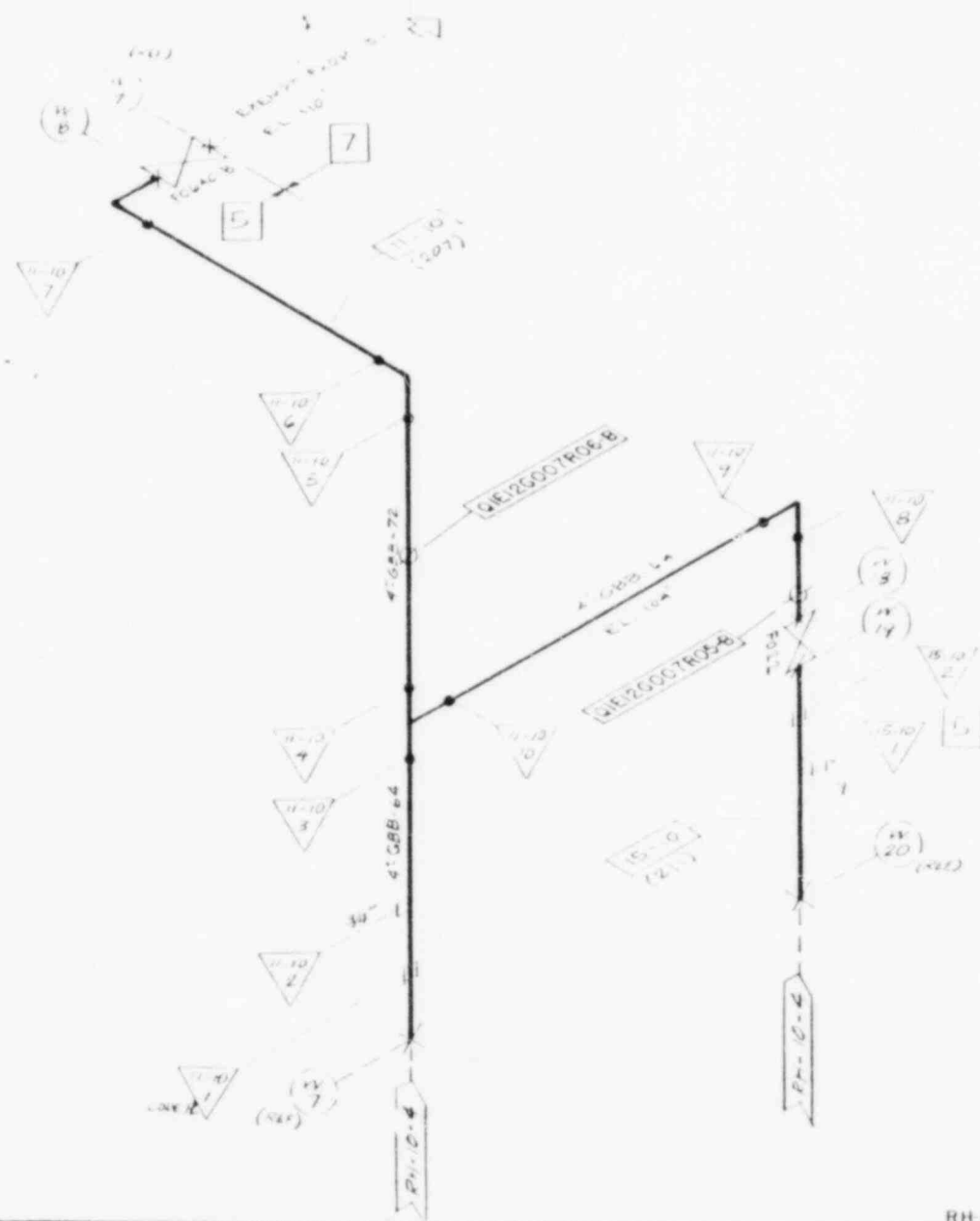
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ORIGINAL COPY WHEN THIS IMPRINT IMR 3

PROJECT	MPAL	GG-1	(JG-1)	MADE IN U.S.A.	ISSUE-N50	17
SYSTEM	RHR	LOCATION		SGRAUS	PLANTS	18
		AUX BLDG		REP ORG	REVISION	19
			M 1348S	M-1085A	RH-10	4
				SK-M 1593	PAGE 1 of 1	

RM-0-3





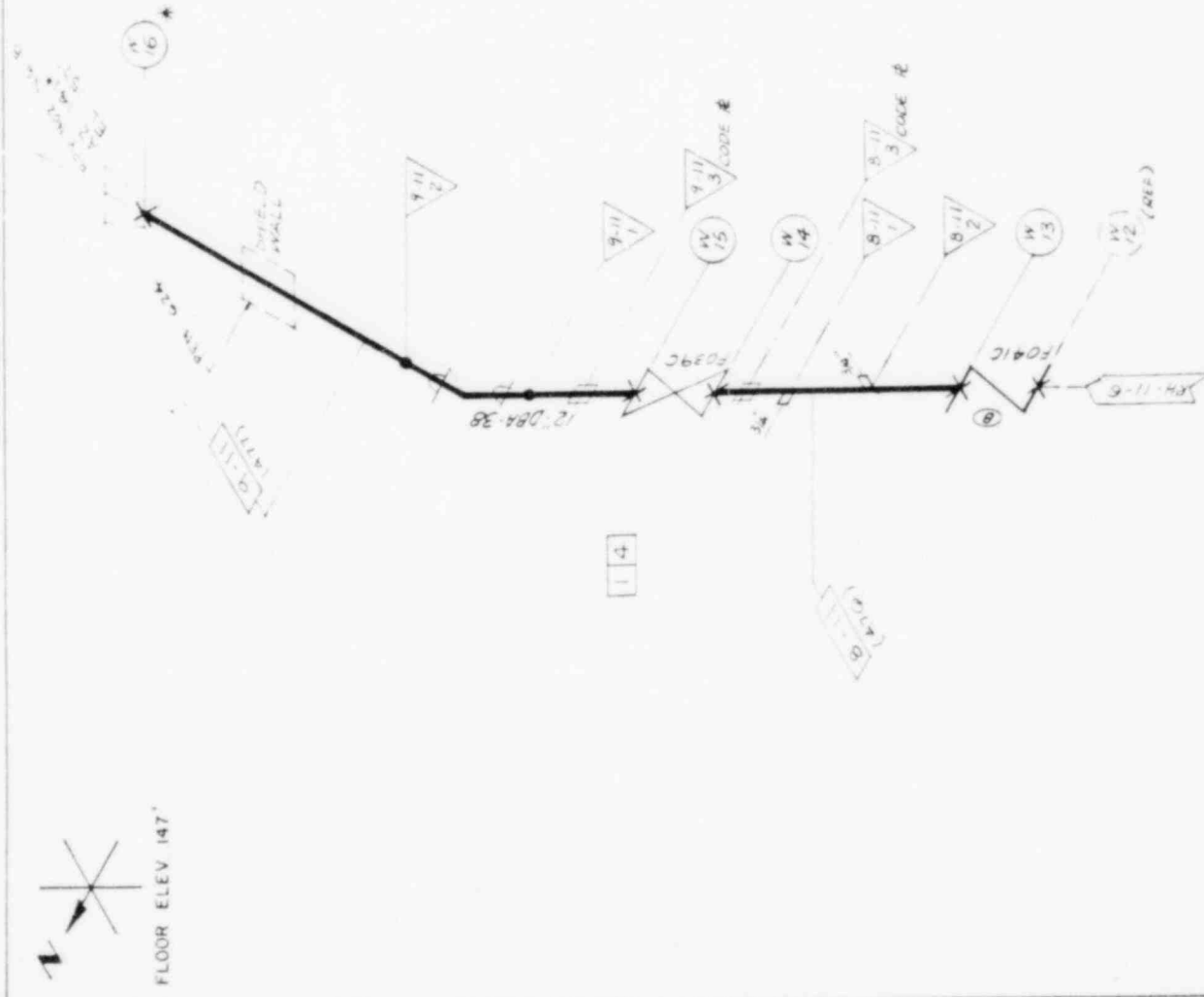
INFORMATION ONLY

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FABRICATION, CONSTRUCTION  
OR MAINTENANCE

3

GENERAL  ELECTRIC

PROJECT MP&L GG-1 (JB-1)			MADE BY 09-U 79 S GRAUS		1&5E-N50 ATLANTA	U M F D
SYSTEM RHR	LOCATION AUX BLDG	REF DWG M-13485	REF PRD M 1085A SK M-1593	ISSUING RH 10 PAGE 1 of 1	SH NO 5	



**INFORMATION ONLY**  
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 FABRICATION, CONSTRUCTION  
 OR MAINTENANCE

WELD NO. 1512 G016	WELD DESCR	CODE CAT	TYPE EXAM	EXAM TIME PERIOD	ACCESS SATIS	ID MARK COMP
W-13	"G"	BJ	UT	08-21-79		YES
W-14	"G"	BJ	UT	07-21-80		YES
W-15	"G"	BJ	UT	07-21-80		YES
9-11-1	"C"	BJ	UT	07-21-80		YES
9-11-2	"C"	BJ	UT	07-21-80		YES
W-16	"D"	BJ	UT	08-11-80		YES
W-13	"G"	BJ	PT	PBT		YES
W-14	"G"	BJ	PT	PBT		YES
W-15	"G"	BJ	PT	PBT		YES
9-11-1	"C"	BJ	PT	TEXAS PIPE		YES
9-11-2	"C"	BJ	PT	TEXAS PIPE		YES
W-16	"D"	BJ	PT	PBT		YES
VALVE FOALC	BOLTS(20)	B-G-2	VT	06-23-81		N/A

ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

DWN 04-20-77  
 S. GRAUS  
 REP PAID M-1085A  
 SK-M-1593

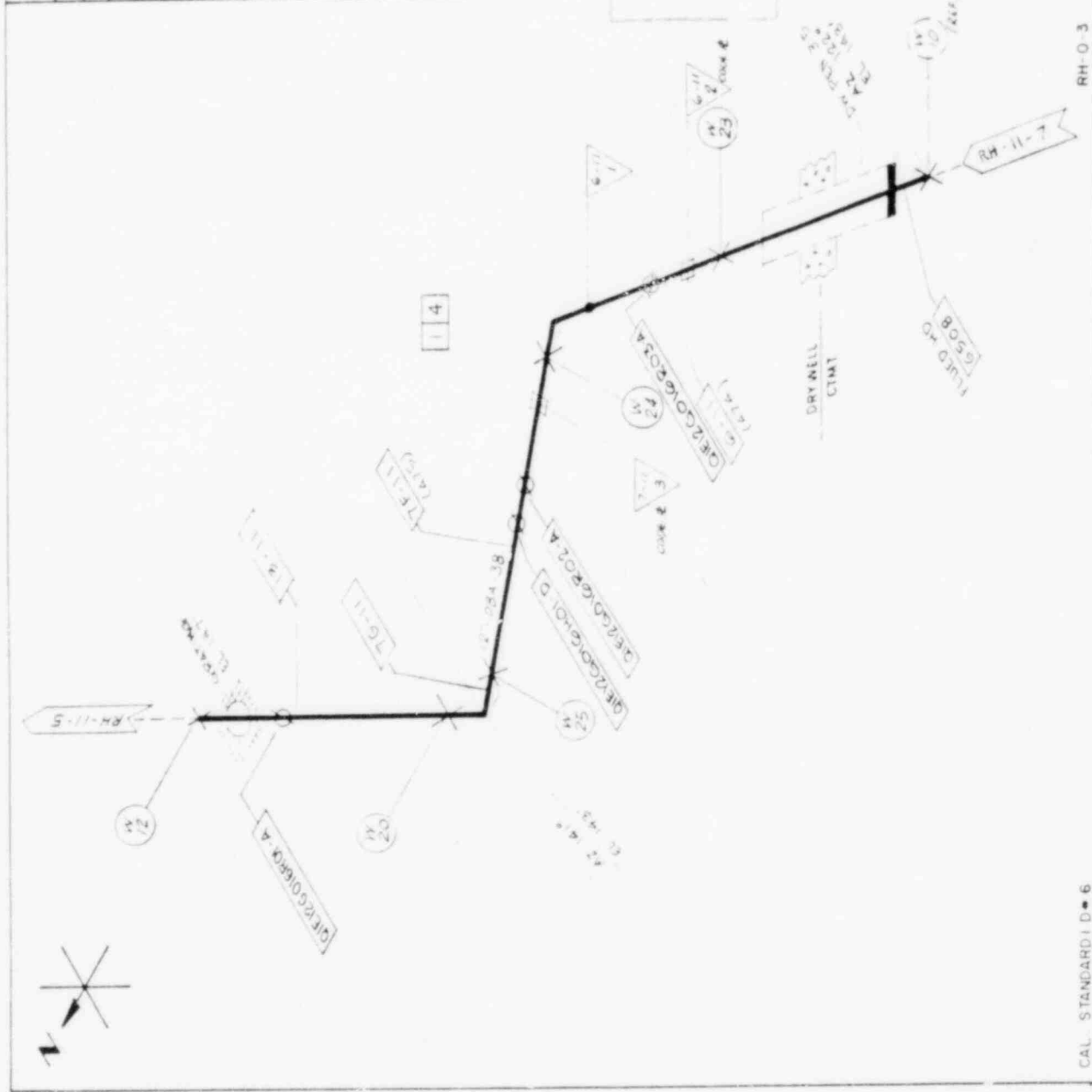
MP8L GG-1 (JB-1)  
 LOCATION DRYWELL  
 REP ISO M-1348T  
 SYSTEM RHR-LPCI LOOP C

RH-11-5  
 RH-11-6  
 RH-11-7  
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 RH-11-98  
 RH-11-99  
 RH-11-100

CAL STANDARD I.D. 6 \* GE BECHTEL INTERFACE WELD RH-O-3

MPL NE ISIS016	WBLD DESCR	CODE CAT	TYPE EXAM	EXAM TIME PERIOD	ACCESS SATIS	ID MARK COMP
W23	"C"	BJ	UT	01-30-80		YES
6-11-1	"C"	BJ	UT	08-16-79		YES
W24	"C"	BJ	UT	01-30-80		YES
W25	"E"	BJ	UT	01-30-80		YES
W20	"C"	BJ	UT	09-28-79		YES
W12	"G"	BJ	UT	09-28-79		YES
W23	"C"	BJ	PT	PBT		Y
6-11-1	"C"	BJ	PT	TEXAS PIPE		YES
W24	"C"	BJ	PT	PBT		YES
W25	"E"	BJ	PT	PBT		YES
W20	"C"	BJ	PT	PBT		YES
W12	"G"	BJ	PT	PBT		YES
03A	HANGER BK2	VT	VT			N/A
R02A	HANGER BK2	VT	VT			N/A
H01-D	HANGER BK2	VT	VT			N/A
R01-A	HANGER BK2	VT	VT			N/A

INFORMATION ONLY  
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 OR MAINTENANCE



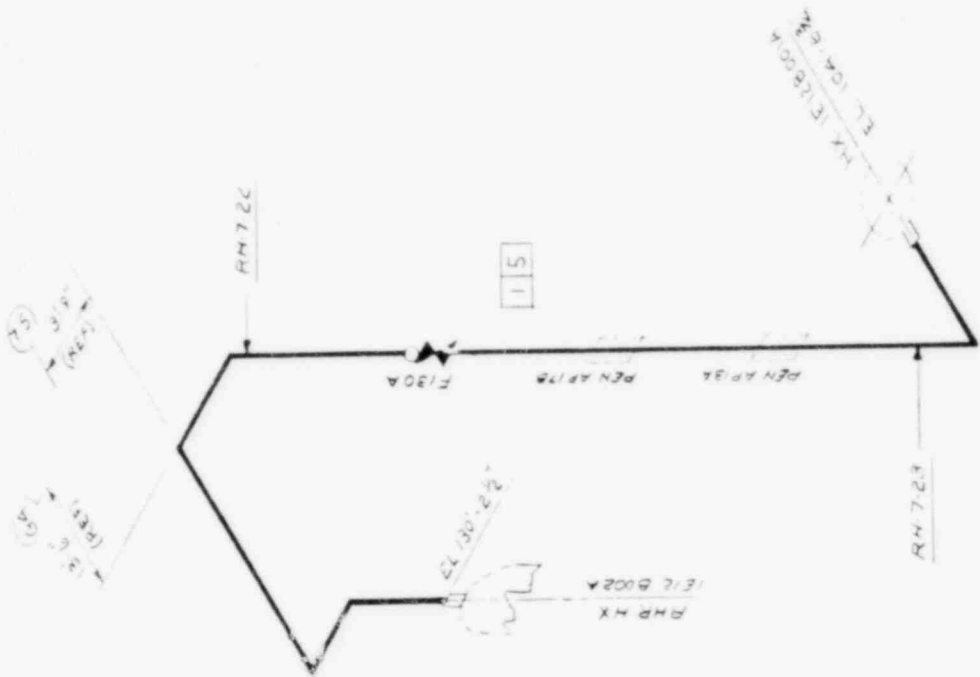
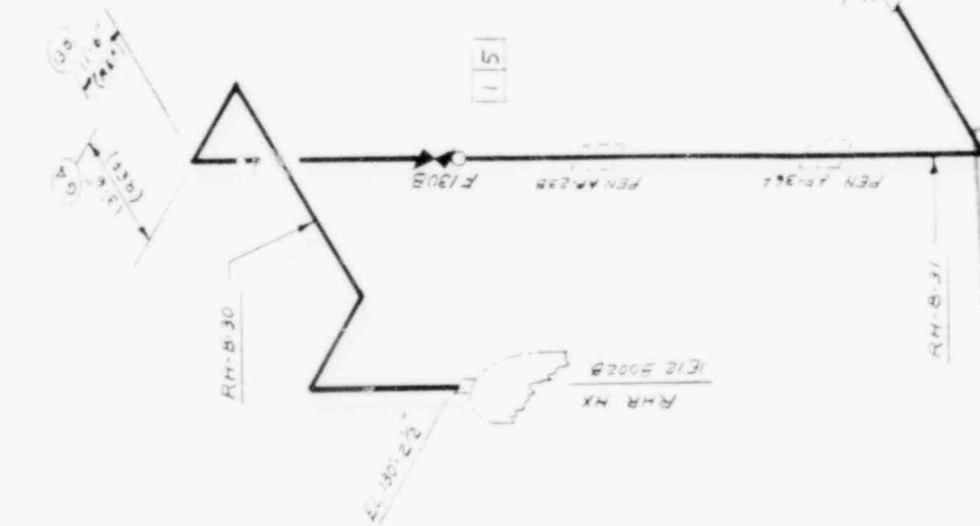
SYSTEM RHR-LPCI	LOCATION DRYWELL	REF IGO M-134BT	REF P&ID M-1085A	DWG NO RH-11	BASE NSO ATLAP A	BASE NSO PAGE 1 of 1
GG-1	(JB-1)					

ORIGINAL COPY WHEN THIS IMPRINT IN RED  
 CAL STANDARD I D-6  
 RH-0-3





REF MPL-1E12



**INFORMATION ONLY**  
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 FABRICATION, CONSTRUCTION  
 OR MAINTENANCE

No. Pipe Spools \_\_\_\_\_  
 No. Pipe Shop Welds \_\_\_\_\_  
 No. Pipe Field Welds \_\_\_\_\_  
 No. Pipe Couplings \_\_\_\_\_  
 TOTAL PIP. WELDS \_\_\_\_\_

ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

PROJECT		GG-1 (JB-1)		DESIGN BY SULLIVAN	185E-N50 ATLANTA	4
MPBL				REVISION	185E-N50	
SYSTEM		LOCATION		REVISION	185E-N50	
RHR HX		AUX BLDG		M-1085	RH-0	
BOOK ABB TO		BOOK ABB		SK-M-1593	PAGE 1 of 1	

WELD NO	WELD DESIG	CODE	TYPE	EXAM TIME	ACCESS	I.D.
10120009						MARK
B-7-1	"C"	CF	UT	06-23-80		COMPL
W-22	"C"	CF	UT	06-20-80		YES
W-5	"C"	CF	UT	06-20-80		YES
9-7-2	"C"	CF	UT	06-20-80		YES
9-7-1	"C"	CF	UT	06-20-80		YES
W-6	"C"	CF	UT	06-20-80		YES
10-7-1	"C"	CF	UT	06-23-80		YES
10-7-3	"C"	CF	UT	06-23-80		YES
10-7-4	"C"	CF	UT	06-23-80		YES
W-7	"D"	CF	UT	06-23-80		YES
B-7-1	"C"	CF	MT	03-03-81		YES
W-22	"C"	CF	MT	03-03-81		YES
W-5	"C"	CF	MT	03-03-81		YES
9-7-2	"C"	CF	MT	03-03-81		YES
9-7-1	"C"	CF	MT	03-03-81		YES
W-6	"C"	CF	MT	03-03-81		YES
10-7-1	"C"	CF	MT	03-03-81		YES
10-7-3	"C"	CF	MT	03-03-81		YES
10-7-4	"C"	CF	MT	03-03-81		YES
W-7	"D"	CF	MT	03-03-81		YES
R03-A	HANGER	CE	VT			N/A
H02-D	HANGER	CE	VT			N/A
R04-A	HANGER	CE	VT			N/A

INFORMATION ONLY

NOT TO BE USED FOR DESIGN  
FACILITY - THIS IS A DESIGNATION

ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

PROJECT	MPBL	GG-1 (JB-1)	MADE BY	MADE BY	MADE BY
SYSTEM	RHR	AUX BLDG	M-1085B	SK M 1593	SK M 1593
LOCATION	AUX BLDG	M-1348C	MADE BY	MADE BY	MADE BY
LOCATION	AUX BLDG	M-1348C	MADE BY	MADE BY	MADE BY
LOCATION	AUX BLDG	M-1348C	MADE BY	MADE BY	MADE BY

GENERAL ELECTRIC

LINE NO. W THKNS.

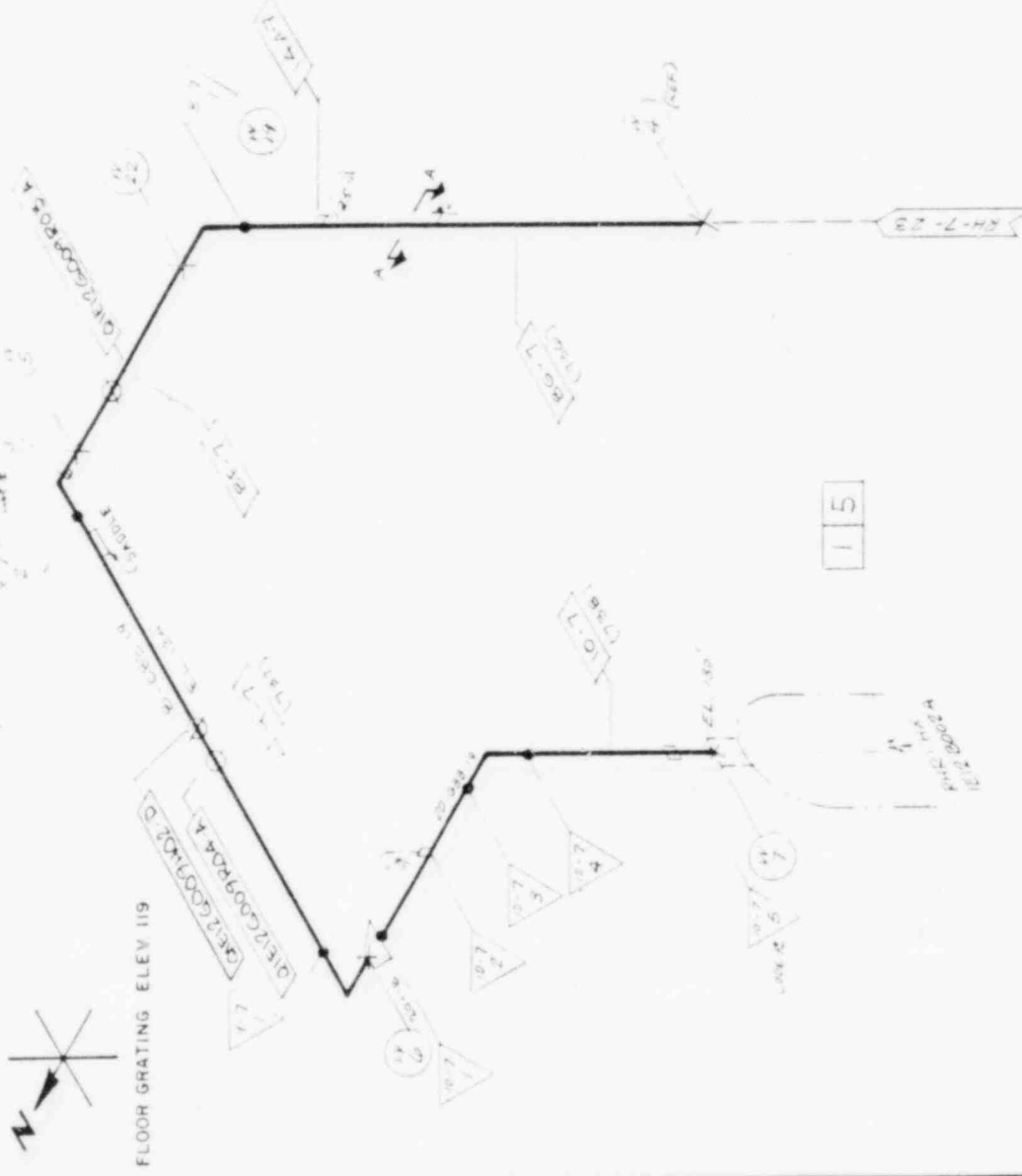
20" GBB-19 438"

18" GBB-19 594"

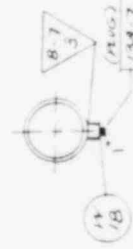
ISI DUE TO BECHTEL NOTE 17 RH-0-4

SECTION 4-A

CAL STANDARD I.D. #39, #40

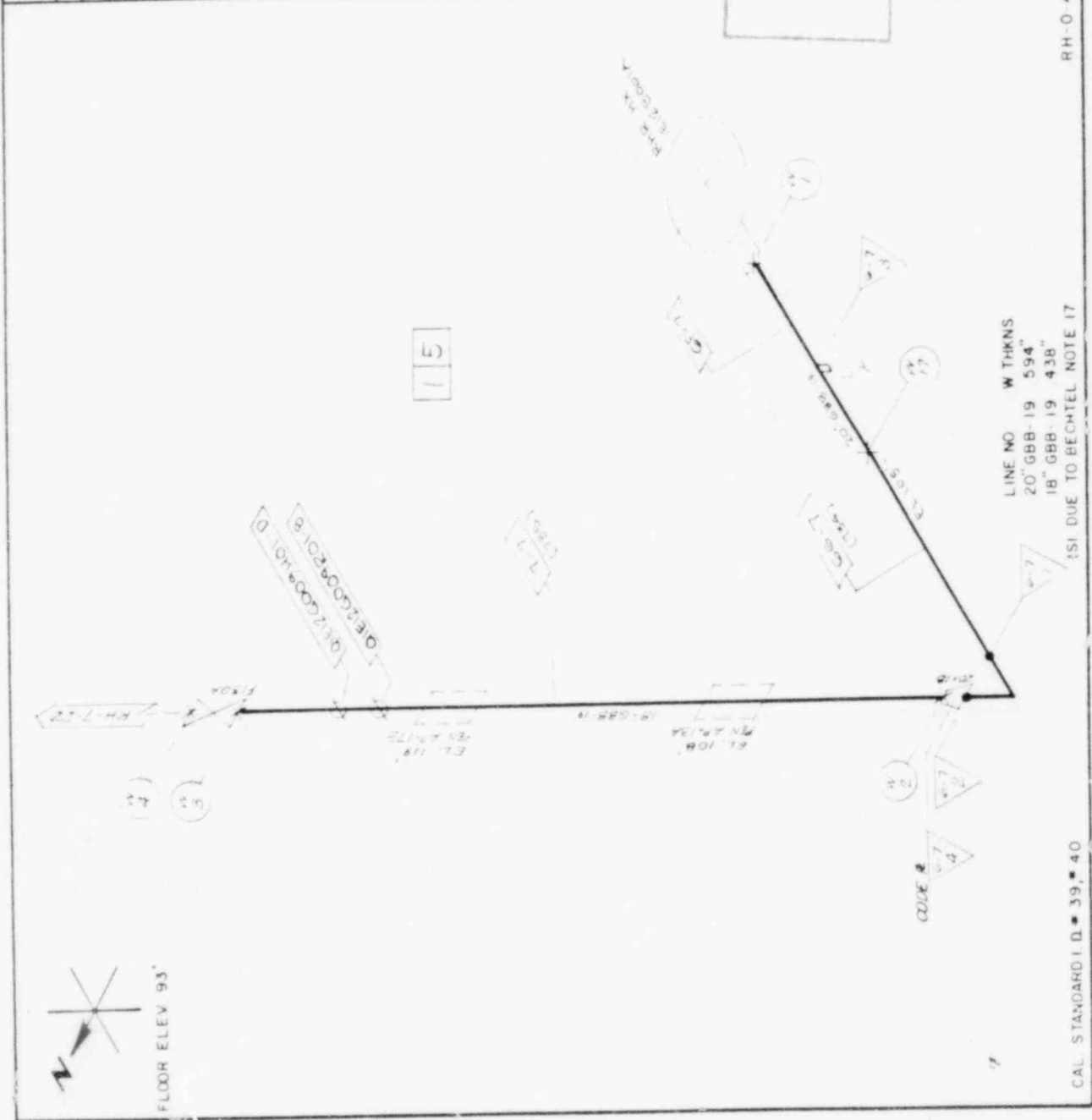


15



WELD NO.	WELD DESCR.	CODE CAT.	TYPE EXAM.	EXAM TIME PERIOD	ACCESS	I.D. MARK COMPL.
W-1	"C"	CF	UT	06-23-80		YES
W-17	"E"	CF	UT	06-23-80		YES
6-7-1	"C"	CF	UT	06-23-80		YES
6-7-2	"J"	CF	UT	06-23-80		YES
W-2	"C"	CF	UT	06-23-80		YES
W-3	"G"	CF	UT	06-23-80		YES
W-4	"G"	CF	UT	06-23-80		YES
W-1	"C"	CF	UT	06-23-80		YES
W-17	"E"	CF	UT	06-23-80		YES
6-7-1	"C"	CF	UT	06-23-80		YES
6-7-2	"J"	CF	UT	06-23-80		YES
W-2	"C"	CF	UT	06-23-80		YES
W-3	"G"	CF	UT	06-23-80		YES
W-4	"G"	CF	UT	06-23-80		YES
ROI-B	HANGER	CE	VT			N/A
HOI-D	HANGER	CE	VT			N/A
HOI-D	LUGS (4)	CC	PT	PBT		N/A

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 FABRICATION, CONSTRUCTION  
 OR MAINTENANCE



ORIGINAL COPY WHEN THIS IMPRINT IN RED

PROJECT: MPBL GG-1 (JB-1)  
 SYSTEM: RHR  
 LOCATION: AUX BLDG  
 REF. DES: M-1348C  
 REF. DES: M-1085B  
 REF. DES: RH-7  
 SK-M-1593  
 PAGE 1 of 1

GENERAL ELECTRIC  
 MADE IN U.S.A.  
 S. GRAUS  
 ATLANTA, GA

CAL. STANDARD I.D. # 39, # 40







CAL STANDARD 10-39.40 ISI DUE TO BECHTEL NOTE 17

RH-0-4

CRITICAL COPY WITHIN THIS IMPRINT IN WED 13

GENERAL ELECTRIC

MP&amp;L GG-1 (JB-1)

5 GRAUS

I&SE - NSO  
ATLANTA, GA

HH-B  
PAGE 1041

# LP - L PCS SYSTEM - E2I

INFORMATION ONLY

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FABRICATION, CONSTRUCTION  
OR MAINTENANCE

3











# DRAWING SYMBOLS

# LETTER SYMBOLS

WELDING CONFIGURATION



PIPING SYSTEMS

<p>CC - CONTAMINANT COOLING</p> <p>CD - CONDENSATE</p> <p>CG - COMBUSTIBLE GAS</p> <p>CH - CHILLED WATER</p> <p>CS - COND. IN STORAGE &amp; TRANSFER</p> <p>CO - REACTOR WATER CLEANUP</p> <p>CW - COMP. COOLING WATER</p> <p>DG - DIESEL GENERATOR</p> <p>DR - FLOOR &amp; EQUIPMENT DRAINS</p> <p>DW - DOMESTIC WATER</p> <p>FC - FUEL POOL COOLING &amp; CLEANUP</p> <p>FD - FILTER DRAIN (FPCU)</p> <p>FW - FEEDWATER</p> <p>HP - HIGH PRESSURE CORE SPRAY</p> <p>IA - INSTRUMENT AIR</p>	<p>LC - STANDBY LIQUID COOLING</p> <p>LD - LEAK DETECTION</p> <p>LP - LOW PRESSURE CORE SPRAY</p> <p>LR - LEAK RATE TEST SYSTEM</p> <p>MS - MAIN STEAM</p> <p>RD - REACTOR ROD DRIVE</p> <p>RF - FILTER DRAIN (RUCU)</p> <p>RH - RESIDUAL HEAT REMOVAL</p> <p>RI - REACTOR CORE EROSION COOLING</p> <p>RR - REACTOR REPRODUCTION</p> <p>RV - MAIN STEAM RELIEF VALVE</p> <p>SA - SERVICE AIR</p> <p>SC - SUPPRESSION POOL CLEAN UP</p> <p>SD - MAIN STEAM DRAINS</p> <p>SM - SUPPLY POOL MAKE UP</p> <p>SW - PLANT SERVICE WATER</p> <p>WE - STANDBY SERVICE WATER</p>
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 <p>TEE</p>	 <p>STUB-IN FITTING (N.W., S.W., E.W.)</p>	 <p>ALIGNED STUB-IN</p>	 <p>WELD CAP</p>	 <p>SCREWED CAP</p>	 <p>PLAIN END</p>	 <p>VENDOR CORE TAG &amp; SHOP WELD NO.</p>	 <p>PENETRATION SLEEVE</p>	 <p>PENETRATION SLEEVES IN FLARED HEAD OR SEAL PLATE</p>	 <p>IN-LINE PENETRATION</p>	 <p>LIMIT OF SAFETY RELATED PIPING &amp; COMPONENTS</p>	 <p>POINT OF DESIGN SPECIFICATION CHANGE</p>
------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------

# MANIFIERS

<p>AUX - AUXILIARY</p> <p>BDG - BUILDING</p> <p>CL - CENTERLINE</p> <p>CL - CLASS</p> <p>COMP - COMPLETE CONTAINMENT</p> <p>CONT - CONTAINMENT</p> <p>DW - DRYWELL</p> <p>DWG - DRAWING</p> <p>EL - ELEVATION</p> <p>FLG - FLANGE</p> <p>HD - HEAD</p> <p>HX - HEAT EXCHANGER</p> <p>ID - IDENTIFICATION</p> <p>ISI - INSERVICE INSPECTION</p> <p>MPL - MASTER PARTS LIST</p> <p>N - NORTH OR NOZZLE</p> <p>PEN - PENETRATION</p>	<p>REV - REVISION</p> <p>RFV - REACTOR VESSEL</p> <p>RY - REACTOR</p> <p>SCH - SCHED. 40</p> <p>SHT - SHEET</p> <p>STD - STANDARD</p> <p>THD - THREADED</p> <p>TURB - TURBINE</p> <p>WEL - WELDED</p>
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 <p>VALVE &amp; I.D. NO.</p>	 <p>ANNUATES PRESSURE RETAINING BOLTING</p>	 <p>CHECK VALVE &amp; I.D. NO.</p>	 <p>FLS. BUTTERFLY VALVE &amp; I.D. NO.</p>	 <p>ELL</p>	 <p>REDUCER</p>
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INFORMATION ONLY  
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<p>SCALE</p> <p>JB-1</p> <p>CONTRACT NO.</p> <p>360474002</p> <p>DATE FOR</p> <p>10/15/55</p> <p>POWER &amp; LIGHT</p>	<p>FILE</p> <p>LEGEND FOR</p> <p>ISI ISOMETRIC</p> <p>DRAWINGS</p> <p>PROJECT</p> <p>BRAND GULF</p> <p>NUCLEAR PLANT</p>	<p>GENERAL ELECTRIC</p> <p>NUCLEAR SERVICE OPERATION</p> <p>REACTOR &amp; SERVICE ENGINEERING</p> <p>ATLANTA, GEORGIA</p> <p>DESIGNED BY</p> <p>BSINT9B0006</p> <p>REVISED</p> <p>A</p>
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# ISI EXAMINATION REQUIREMENTS

- 1 VOLUMETRIC EXAMINATION OF CLASS 1 AND 2 COMPONENTS PER ASME SECTION XI, IWB-2500 AND IWC-2500
- 10% VOLUMETRIC EXAMINATION OF 10% OF THE CLASS 2 PIPING WELDS IN ECCS SYSTEMS WHICH ARE PRESSURIZED LESS THAN 200 PSI DURING NORMAL PLANT OPERATION AND ARE NOT EXEMPTED BY OTHER CRITERIA
- 2 SURFACE EXAMINATION OF CLASS 1 COMPONENTS PER ASME SECTION XI, IWB-2500 AND IWC-2500
- 3 VISUAL EXAMINATION OF CLASS 1 AND 2 COMPONENTS PER ASME SECTION XI, IWB-2500 AND IWC-2500
- 4 SYSTEM LEAKAGE AND HYDROSTATIC PRESSURE TESTS AND VISUAL EXAMINATION OF CLASS 1 COMPONENTS PER ASME SECTION XI, IWA-5000 AND IWB-5000
- 5 SYSTEM PRESSURE TESTS AND VISUAL EXAMINATION OF CLASS 2 COMPONENTS PER ASME SECTION XI, IWA-5000 AND IWB-5000
- 6 SYSTEM PRESSURE TESTS AND VISUAL EXAMINATION OF CLASS 3 COMPONENTS PER ASME SECTION XI, IWA-5000 AND IWB-5000
- 7 ASME CLASS 2 AND 3 COMPONENTS EXEMPT FROM ANY ISI PER ASME SECTION XI

## INFORMATION ONLY

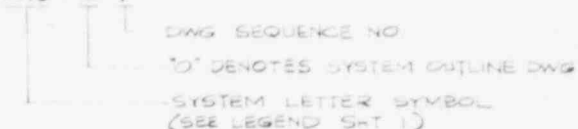
NOT TO BE USED FOR DESIGN,  
FABRICATION, CONSTRUCTION  
OR MAINTENANCE

3

# DWG. NUMBERING SYSTEM

## I. SYSTEM OUTLINE DRAWINGS (ISOMETRICS)

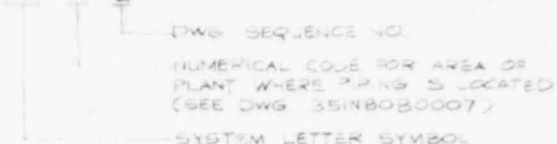
EXAMPLE: MS-0-1



## II. WELD IDENTIFICATION DWGS (ISOMETRICS)

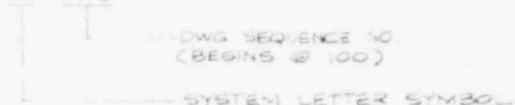
### A. ASME CLASS 1 & 2 SYSTEMS

EXAMPLE: FW-11-2



### B. CLASS 3 SYSTEMS

EXAMPLE: CU-103



ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

SCALE NONE	JOB NO JB-1	TITLE LEGEND FOR ISI ISOMETRIC DRAWINGS	GENERAL ELECTRIC NUCLEAR SERVICE OPERATION INSTALLATION & SERVICE ENGINEERING DIV. ATLANTA, GEORGIA
CONTRACT NO B60N74002	MADE FOR MISSISSIPPI POWER & LIGHT	PROJECT GRAND GULF NUCLEAR PLANT	DRAWING NO 35479B00006 REV A
			SHT NO 2 OF 3

PIPE CLASSES ARE DESIGNATED BY A THREE LETTER CODE. THE FIRST LETTER INDICATES THE PRIMARY FLANGE PRESSURE RATING, THE SECOND LETTER, THE TYPE OF MATERIAL, AND THE THIRD LETTER, THE CODE TO WHICH THE PIPING IS DESIGNED.

#### FIRST LETTER - PRIMARY PRESSURE RATING

(UNLESS OTHERWISE NOTED, ALL RATINGS ARE IN ACCORDANCE WITH ANSI B16.5)

A. SPECIFIC PRESSURE AT SPECIFIC TEMPERATURE

B. 2500#

C. 1500#

D. 900#

E. 600#

F. 400#

G. 300#

H. 150#

J. 125# (ANSI B16.1)

K. 175# WOG UNDERWRITERS' LABORATORIES, INC.

L. 250# (ANSI B16.1)

X. GRAVITY RATING

Y. ROCK DRAINS, GRAVITY RATING

#### ADDITIONAL PRESSURE RATINGS:

M. 200# (MANUFACTURER'S RATING)

N. 150# WOG

P. 100# (MANUFACTURER'S RATING)

R. 75# (MANUFACTURER'S RATING)

S. 50# WOG

T. 25# AWWA (OR MANUFACTURER'S RATING)

Z. GENERAL USE AS DESIGNATED ON PIPING CLASS SHEETS

V. 150# (MANUFACTURER'S RATING)

#### SECOND LETTER - MATERIAL

A. ALLOY STEEL

B. CARBON STEEL

C. AUSTENITIC STAINLESS STEEL

D. COPPER, BRASS or BRONZE

E. ALUMINUM

F. CARBON STEEL - COPPER BEARING

G. CARBON STEEL - SARAN LINED

H. CAST IRON

K. PVC

M. DURIUM

N. CARBON STEEL - GALVANIZED

P. CAST IRON - CEMENT LINED

R. CARBON STEEL - EPOXY LINED

S. DUCTILE IRON - CEMENT LINED

T. DELETED

V. FRP

W. CARBON STEEL - TEFLON LINED

#### THIRD LETTER - APPLICABLE CODES

A. NUCLEAR POWER PLANT COMPONENTS  
ASME B31.1 CODE, SECTION III, CLASS 1

B. NUCLEAR POWER PLANT COMPONENTS  
ASME B31.1 CODE, SECTION III, CLASS 2

C. NUCLEAR POWER PLANT COMPONENTS  
ASME B31.1 CODE, SECTION III, CLASS 3

D. POWER PIPING CODE, ANSI B31.1

F. NATIONAL FIRE PROTECTION ASSOCIATION CODE

G. SOUTHERN STANDARD PLUMBING CODE

H. POWER BOILERS, ASME B31.1 CODE, SECTION I

J. AMERICAN WATER WORKS ASSOCIATION STANDARDS

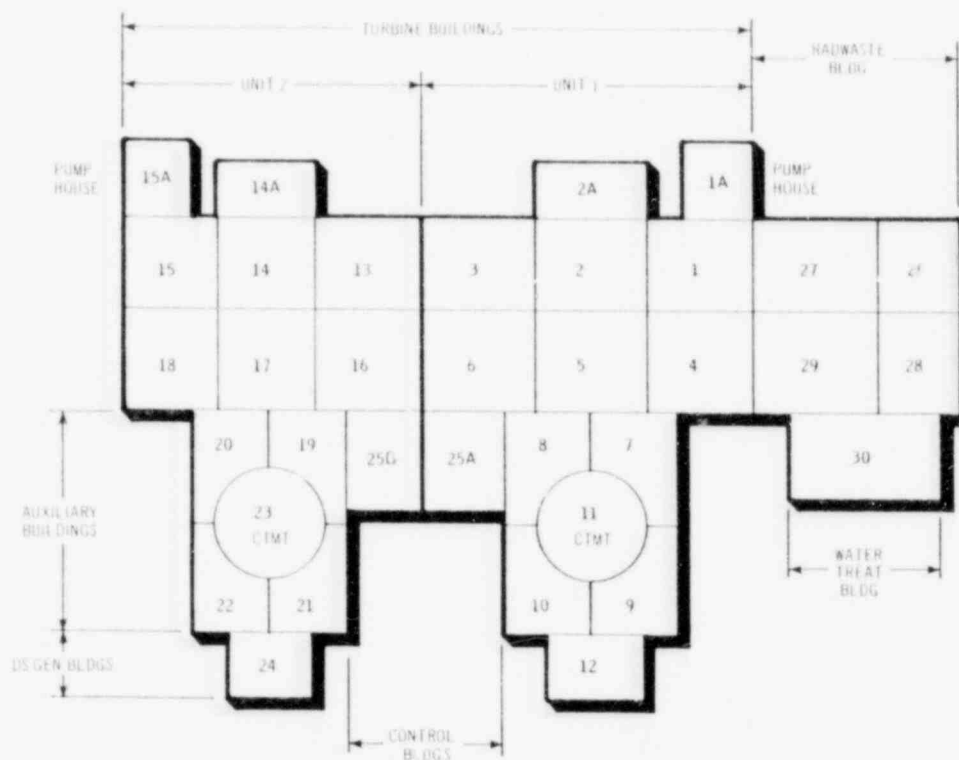
Z. FABRICATED, INSPECTED AND INSTALLED PER ASME  
SECTION III, CLASS 3. DESIGNED PER ANSI B31.1.  
N-STAMPING, SEISMIC ANALYSIS AND Q-LISTING ARE  
NOT REQUIRED.

INFORMATION ONLY

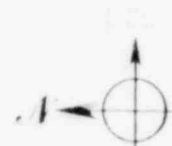
FOR THE USE OF THE  
FEDERAL BUREAU OF INVESTIGATION  
OF MAINTENANCE

ORIGINAL COPY WHEN THIS IMPRINT IN RED

SCALE NONE	JOB NO. JB-1	TITLE LETTER CODE FOR PIPING		GENERAL ELECTRIC NUCLEAR SERVICE OPERATION INSTALLATION & SERVICE ENGINEERING DIV. ATLANTA, GEORGIA	
CONTRACT NO. 360N74002		PROJECT GRAND GULF NUCLEAR PLANT		DRAWING NO. 35IN79B0006 SHEET NO. 3 OF 3	
MADE FOR MISSISSIPPI POWER & LIGHT CO.				REV. A	



GRAND GULF NUCLEAR STATION UNITS 1 AND 2  
PORT GIBSON, MISSISSIPPI  
MISSISSIPPI POWER & LIGHT COMPANY



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FABRICATION, CONSTRUCTION  
OR MAINTENANCE

ORIGINAL COPY WHEN THIS IMPRINT IN RED

SCALE NONE	JOB NO. JB-1	TITLE KEY PLAN AREA LOCATIONS	GENERAL ELECTRIC NUCLEAR SERVICE OPERATION INSTALLATION & SERVICE ENGINEERING DIV. ATLANTA, GEORGIA
CONTRACT NO. 360N74002	MADE FOR MISSISSIPPI POWER & LIGHT	PROJECT GRAND GULF NUCLEAR PLANT	DRAWING NO. 35IN8030007 REV. 1

# INDEX TO ISOS FOR E-2I SYSTEM

REV	
A	COMPOSITE: LP-0-1
A	FOR ISOS: LP-9-1
A	LP-9-2
A	LP-9-3

REV	
A	COMPOSITE: LP-0-2
A	FOR ISOS: LP-9-4
A	LP-9-5
A	LP-9-6
A	LP-9-7
A	LP-9-8
A	LP-9-9
A	LP-9-10
A	LP-9-11
A	LP-11-1
A	LP-11-2
A	LP-11-3
A	LP-11-4
A	LP-11-5

INFORMATION ONLY

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FABRICATION, OR CONSTRUCTION

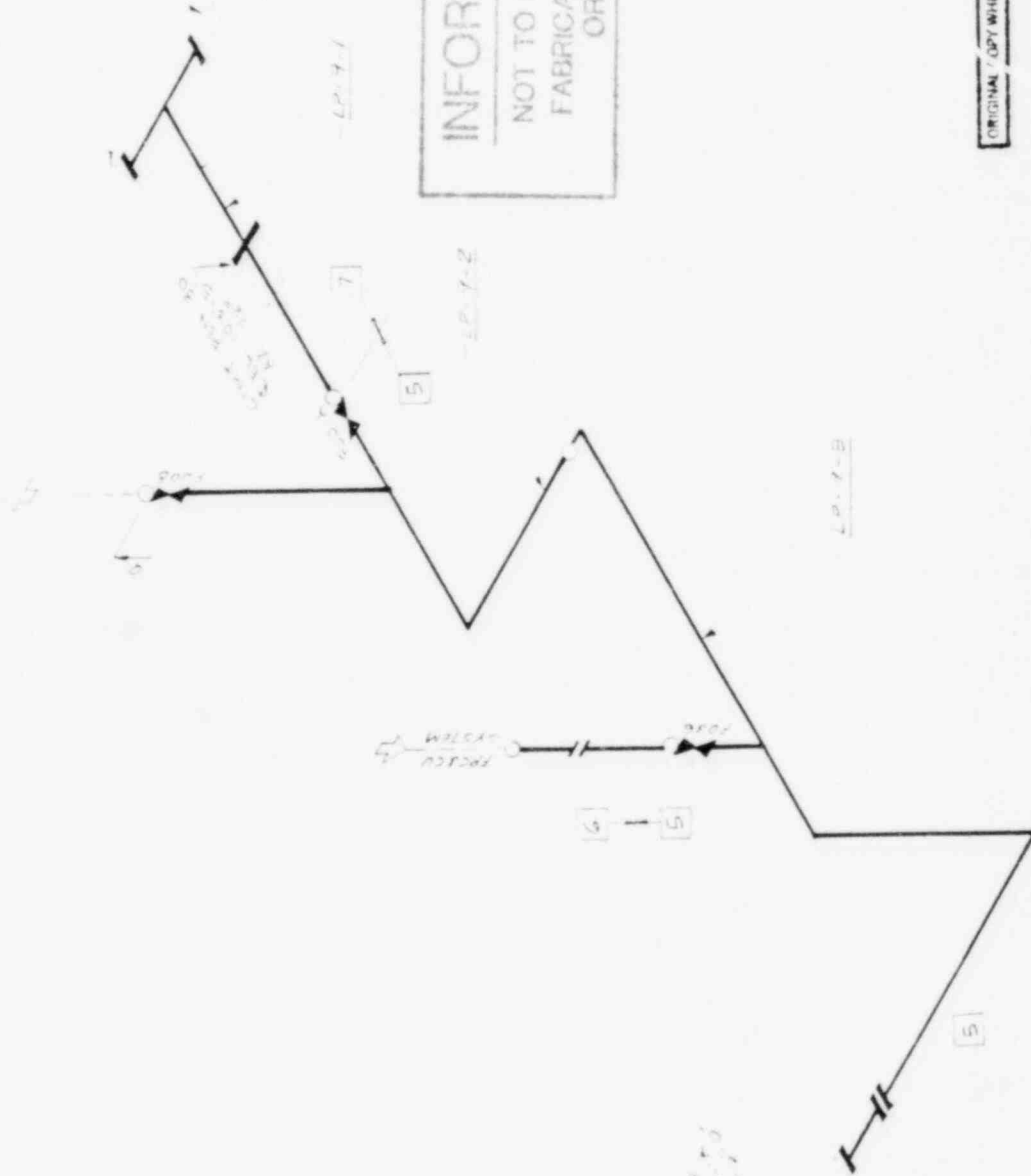
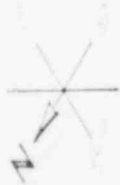
3

ORIGINAL COPY WHEN THIS IMPRINT IS USED

REV	DATE
A	10/1/81



REF. MFL 11-B-2



No. Pipe Spools	
No. Pipe Shop Welds	
No. Pipe Field Welds	
No. High Pressure Joints	
TOTAL NO. AIDS	

ORIGINAL / COPY WHEN THIS IMPRINT IN RED 3

GENERAL ELECTRIC			
PROJECT	DATE	ISSUE	NO.
NPBL	01-02-79	ISSUE	1
LPCS	5 GRAVS	ATLANTA	2
PUMP	M-1087	LP-0	3
SUCTION	M-1350A	SK M-1594	4

[illegible]

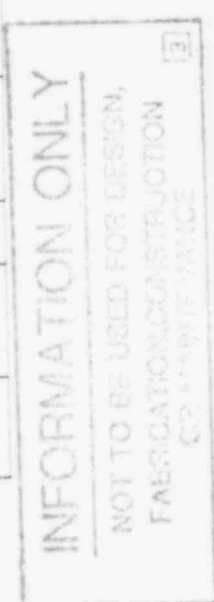
ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

GENERAL ELECTRIC

MAPAL	GG-1	(JB-1)	DR CO-78 5 GRADES	BASE ISO
LPCS	AUX RDG	M-1350A	M-1087	LP 9
			SK M-1094	PAGE 1 of 1

LP-0-1





ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

GENERAL ELECTRIC

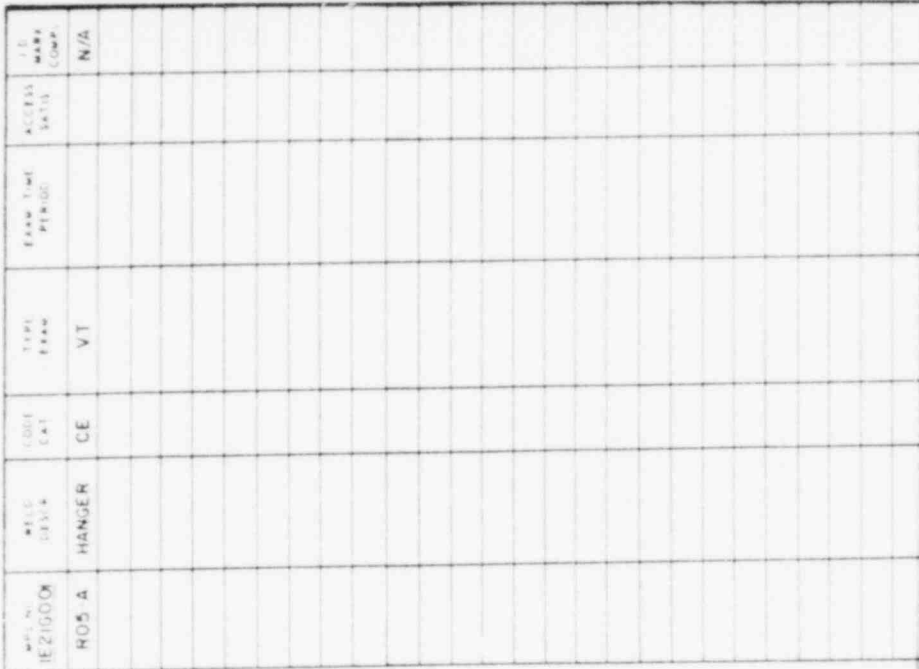
MODEL NO.	BASE - NSO
SERIAL NO.	
DATE OF PURCHASE	
NAME OF USER	
ADDRESS	
CITY	
STATE	
PIN CODE	
TELEPHONE NO.	
FAX NO.	
E-MAIL ADDRESS	
REMARKS	

LP-01

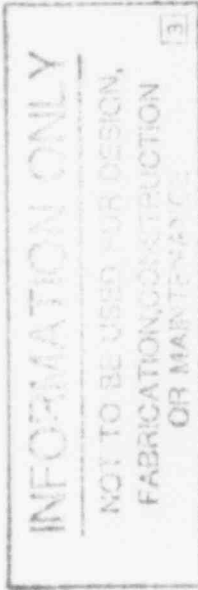
CM STANDARD 1 D ■ BT002







ORIGINAL COPY WHEN THIS IMPRINT IN RED		GENERAL ELECTRIC	
MP8L	GG-1 (JB-1)	MS-NSO	5
LPCS	AUX BLDG	LP 9	
		SK M-1594	PAGE 101

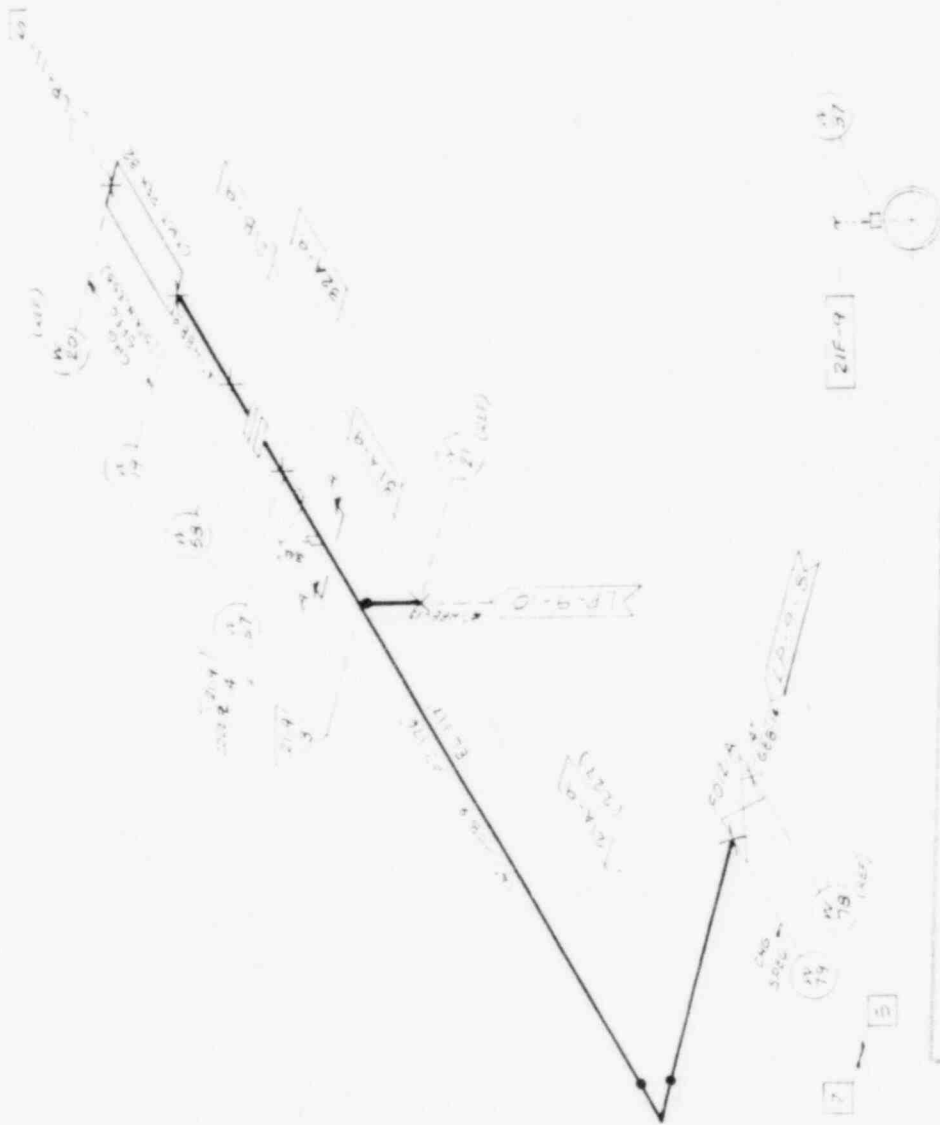
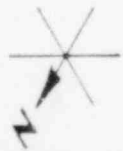


PROJECT		GC-1 (JB-1)		GENERAL ELECTRIC	
MPAL	GC-1	100' 0" 79	185E-N50	100' 0" 79	185E-N50
LPCS	AUX BLDG	M 1087	LP-9	M 1087	LP-9
		SK M-1294		PAGE 1 OF 1	









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EXCEPT FOR INFORMATION  
ON THE DRAWING

SECTION A-A

ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

GENERAL ELECTRIC		PAGE 10/11	
PROJECT	MPBL GG-1 (JB-1)	DATE	1856-NSO ATLANTA
SYSTEM	LPCS	REVISION	M 1087 LP-9
LOCATION	AUX BLDG	DATE	SA M 1594

LP-02







FLOOR GRATING ELEV 147'

E AZ 120°  
ELEV 142'

NS-A

W-14

W-16

W-24

W-25

W-16

W-14

W-15

W-14

W-15

W-14

W-15

W-14

W-15

W-14

W-15

W-14

W-15

W-14

W-15

W-14

W-15

W-14

W-15

W-14

W-15

W-14

W-15

(REF) W-13 7-11/2 CODE 2

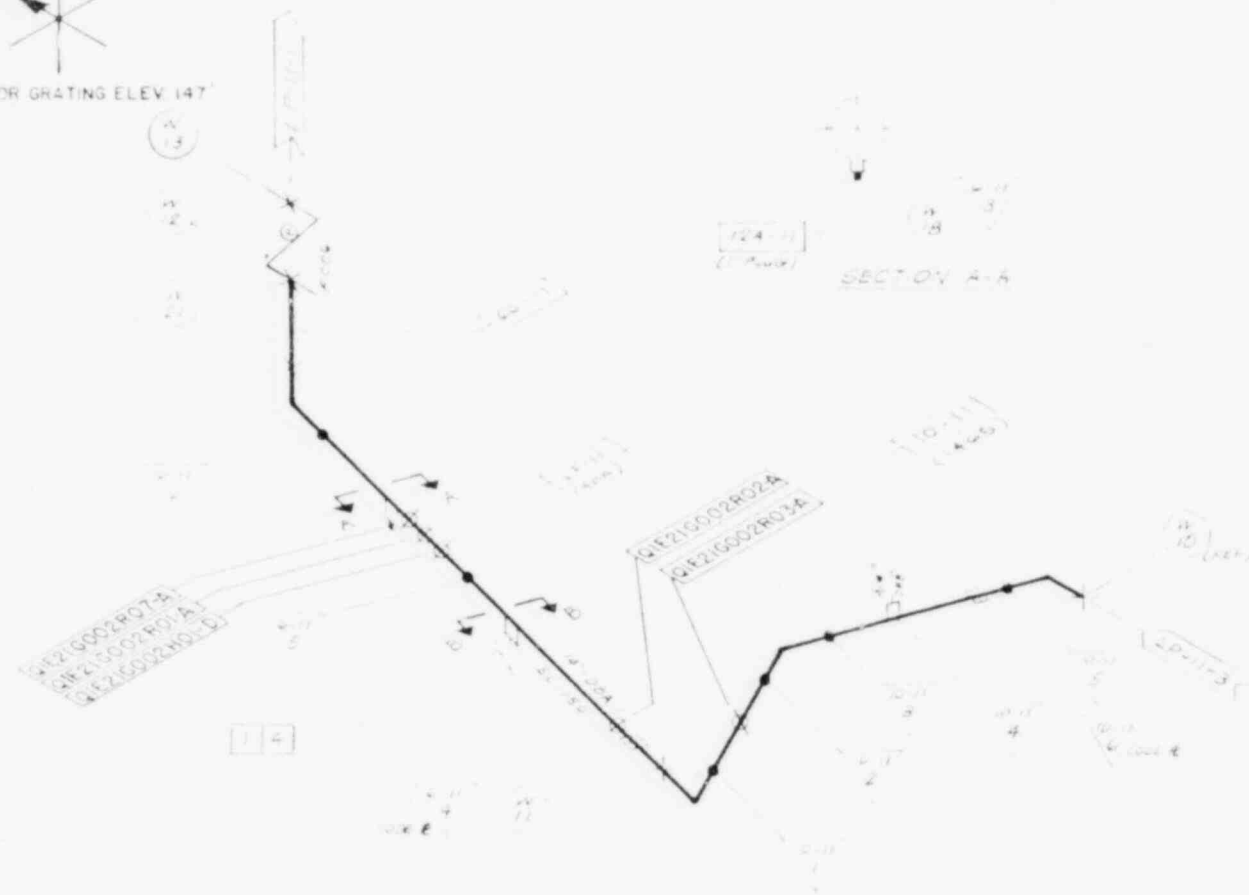
MPL NO REVISION	WELD DESIGN	CODE CAT	TYPE EXAM	EXAM TIME PERIOD	ACCESS SATIS	I.D. MARK COMP
W-14	"G"	BJ	UT	06-12-79		YES
W-15	"G"	BJ	UT	08-11-80		YES
B-II-1	"C"	BJ	UT	08-11-80		YES
W-25	"C"	BJ	UT	08-11-80		YES
W-24	"G"	BJ	UT	08-11-80		YES
W-16	"G"	BJ	UT	08-11-80		YES
W-14	"G"	BJ	PT	PBT		YES
W-15	"G"	BJ	PT	PBT		YES
B-II-1	"C"	BJ	PT	TEXAS PIPE		YES
W-25	"C"	BJ	PT	PBT		YES
W-24	"G"	BJ	PT	PBT		YES
W-16	"G"	BJ	PT	PBT		YES
<div> <div>INFORMATION ONLY</div> <div>NOT TO BE USED FOR DESIGN, FABRICATION, CONSTRUCTION OR MAINTENANCE</div> </div>						

ORIGINAL COPY WHEN THIS IMPRINT IN RED

MP&L	GG-1	(JB-1)	DWN 04-21-77 S. GRAUS	18 SE NSO ATLANTA	DATE 2/24/80
SYSTEM LPCS	LOCATION CTMT	REF ISO M-1350B	REF P&ID M-1087	DWG NO LP-11	SHT 1
			SK-M-1594	PAGE 1 of 1	

\* GE/BECHTEL INTERFACE WELD  
CAL STANDARD I.D. = 7.756


LP-0-2



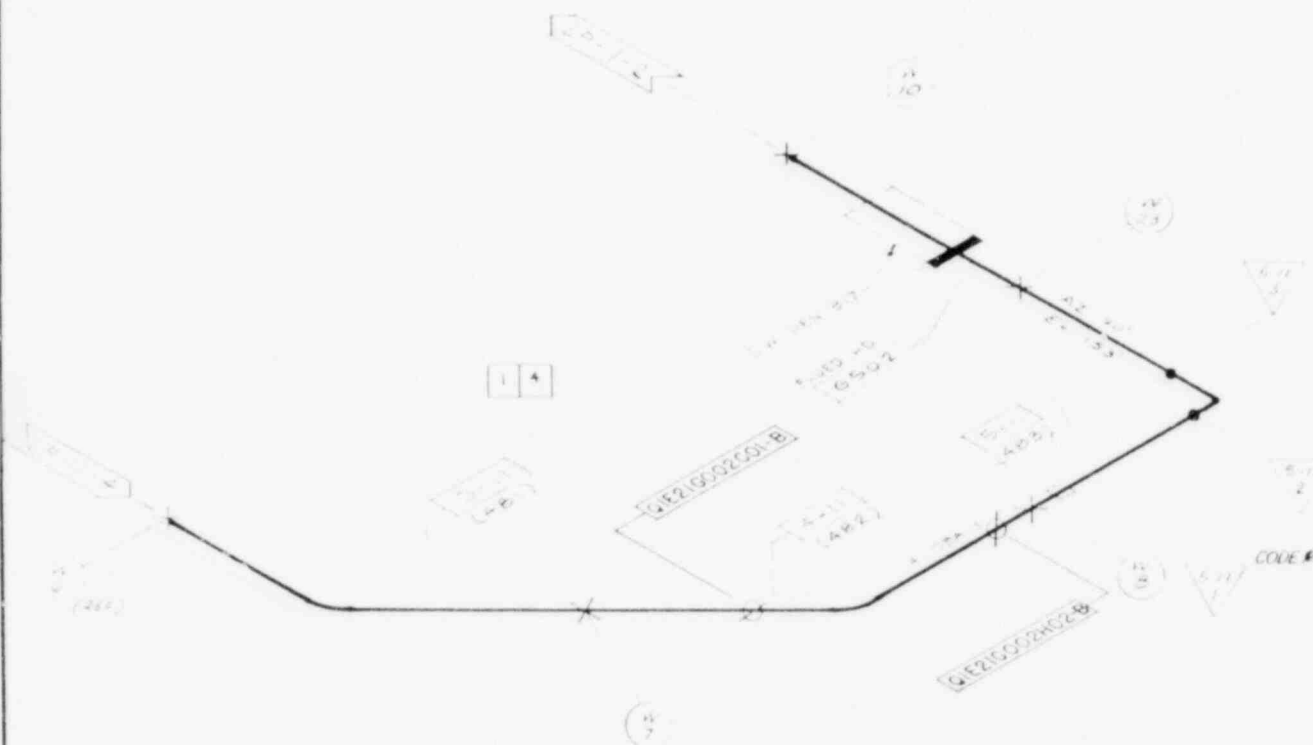
CAL. STANDARD: U = 7

WFL NO IE200002	WELD DESCR	CODE CAT	TYPE EXAM	EXAM TIME PERIOD	ACCESS SATIS	IG MARK COMPL
IO-II-5	"C"	BJ	UT	05-08-80		YES
IO-II-3	"C"	BJ	UT	05-08-80		YES
IO-II-2	"C"	BJ	UT	05-08-80		YES
IO-II-1	"C"	BJ	UT	05-08-80		YES
W-II	"C"	BJ	UT	08-14-79		YES
6-II-5	"E"	BJ	UT	06-14-79		YES
6-II-2	"C"	BJ	UT	05-08-80		YES
W-21	"C"	BJ	UT	05-08-80		YES
W-12	"G"	BJ	UT	06-12-79		YES
W-13	"G"	BJ	UT	08-14-79		YES
IO-II-5	"C"	BJ	PT	TEXAS PIPE		YES
IO-II-3	"C"	BJ	PT	TEXAS PIPE		YES
IO-II-2	"C"	BJ	PT	TEXAS PIPE		YES
IO-II-1	"C"	BJ	PT	TEXAS PIPE		YES
W-II	"C"	BJ	PT	PBT		YES
6-II-5	"E"	BJ	PT	TEXAS PIPE		YES
6-II-2	"C"	BJ	PT	TEXAS PIPE		YES
W-21	"C"	BJ	PT	PBT		YES
W-12	"G"	BJ	PT	PBT		YES
W-13	"G"	BJ	PT	PBT		YES
VALVE FLOOR	BOLTING (36)	B-G-2	VT			
R03-A	HANGER	B-K-2	VT			N/A
R02-A	HANGER	B-K-2	VT			N/A
H01-D	HANGER	B-K-2	VT			N/A
R01-A	HANGER	B-K-2	VT			N/A
R07-A	HANGER	B-K-2	VT			N/A

ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

GENERAL  ELECTRIC


PROJECT	MP&L	GG-I	(JB-I)	MADE BY D. S. W S. GRAUS	BASE - NSO ATLANTA	DATE
SYSTEM	LPCS	LOCATION	CTMT	REF. NO. M-1087	ISS. NO. LP-II	REV.
				SK. M-1594	PAGE 1 of 1	2

[illegible]

CAL. STANDARD ID # 7

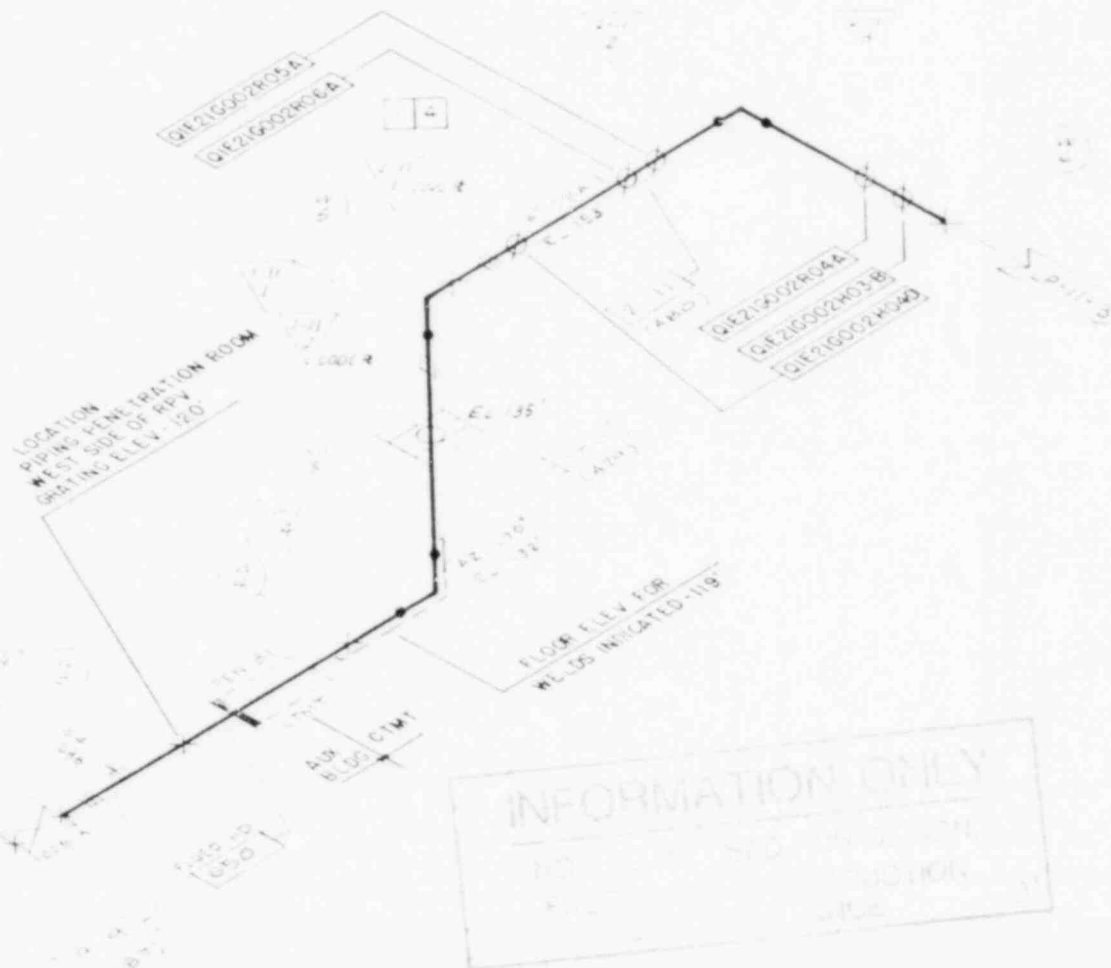
LP-Q-2

ORIGINAL COPY WHEN THIS IMPRINT IN RED

GENERAL  ELECTRIC

PROJECT	MP&L	GG-I	(JB I)	DESIGN BY	01-05-79	ISE - NSO	DATE
				S. GRAUS		ATLANTA	
SYSTEM	COLLATION	REF. CWS	REF. FILE	NO. CWS AND			
LPCS	CTMT	M-1350B	M-1087	LP-II			
			SK-M-1594	PAGE	1 of 1		





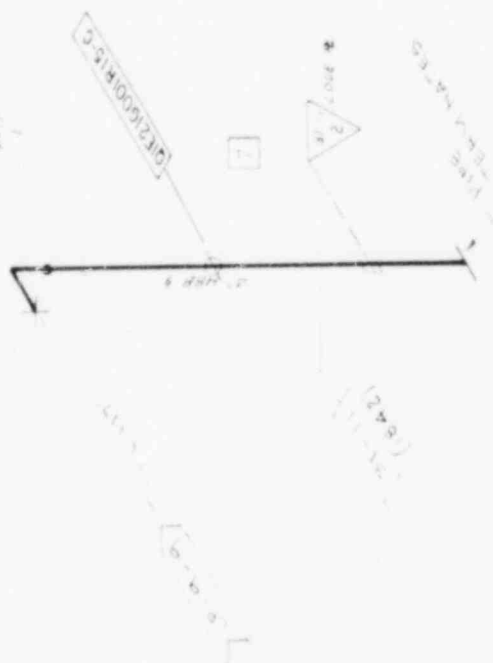
INFORMATION ONLY

WEL NO	WEL DESIGN	CODE CAT	TYPE EXAM	EX W TIME PERIOD	ACCESS SATIS	IS MARK COMPL
GE21G002						
W-1	"G"	CF	UT	08-28-79		YES
W-2	"G"	BJ	UT	08-15-79		YES
W-3	"C"	BJ	UT	08-15-79		YES
W-4	"E"	BJ	UT	06-07-79		YES
I-II-4	"C"	BJ	UT	08-14-79		YES
I-II-3	"C"	BJ	UT	08-14-79		YES
I-II-1	"C"	BJ	UT	08-14-79		YES
W-5	"C"	BJ	UT	05-08-80		YES
2-II-2	"C"	BJ	UT	05-08-80		YES
2-II-3	"C"	BJ	UT	05-06-80		YES
W-6	"E"	BJ	UT	06-13-79		YES
W-1	"G"	CF	PT	01-27-81		YES
W-2	"G"	BJ	PT	PBT		YES
W-3	"C"	BJ	PT	PBT		YES
W-4	"E"	BJ	PT	PBT		YES
I-II-4	"C"	BJ	PT	TEXAS PIPE		YES
I-II-3	"C"	BJ	PT	TEXAS PIPE		YES
I-II-1	"C"	BJ	PT	TEXAS PIPE		YES
W-5	"C"	BJ	PT	PBT		YES
2-II-2	"C"	BJ	PT	TEXAS PIPE		YES
2-II-3	"C"	BJ	PT	TEXAS PIPE		YES
W-6	"E"	BJ	PT	PBT		YES
HO4-D	HANGER	B-K-2	VT			N/A
RO6-A	HANGER	B-K-2	VT			N/A
RO5-A	HANGER	B-K-2	VT			N/A
RO4-A	HANGER	B-K-2	VT			N/A
HO3-B	HANGER	B-K-2	VT			N/A

ORIGINAL COPY WHEN THIS IMPRINT IN RED

GENERAL ELECTRIC

PROJECT	MP&L	GG-1	(JB-1)	DATE BY	01-03-79	DATE - NSO	ATLANTA	REV	A
SYSTEM	LPCS	LOCATION	CTMT	REF NO	M-1087	REF NO	LP-II	REV	4
			M-1350B	SK M-1594	PAGE	1 of 1			

ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

GENERAL ELECTRIC

PROCESS	MPBL	GG-1	(JB-1)	DATE FC 10-08-79	USE-N50 ATLANTA
SYSTEM	LPCS	CTMT	M1350A	S. GAUS	
				M10B7	N. GARD
				SK-M-1594	PAGE 1 of 1

LP-0-2

**HP - HPCS SYSTEM - E22**

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OR MAINTENANCE

3



## ISI EXAMINATION REQUIREMENTS

- 1 VOLUMETRIC EXAMINATION OF CLASS 1 AND 2 COMPONENTS PER ASME SECTION XI, IWB-2600 AND IWC-2600
- 10% VOLUMETRIC EXAMINATION OF 10% OF THE CLASS 2 PIPING WELDS IN ECCS SYSTEMS WHICH ARE PRESSURIZED LESS THAN 200 PSI DURING NORMAL PLANT OPERATION AND ARE NOT EXEMPTED BY OTHER CRITERIA
- 2 SURFACE EXAMINATION OF CLASS 1 COMPONENTS PER ASME SECTION XI, IWB-2600 AND IWC-2600
- 3 VISUAL EXAMINATION OF CLASS 1 AND 2 COMPONENTS PER ASME SECTION XI, IWB-2600 AND IWC-2600
- 4 SYSTEM LEAKAGE AND HYDROSTATIC PRESSURE TESTS AND VISUAL EXAMINATION OF CLASS 1 COMPONENTS PER ASME SECTION XI, IWA-5000 AND IWB-5000
- 5 SYSTEM PRESSURE TESTS AND VISUAL EXAMINATION OF CLASS 2 COMPONENTS PER ASME SECTION XI, IWA-5000 AND IWC-5000
- 6 SYSTEM PRESSURE TESTS AND VISUAL EXAMINATION OF CLASS 3 COMPONENTS PER ASME SECTION XI, IWA-5000 AND IWC-5000
- 7 ASME CLASS 2 AND 3 COMPONENTS EXEMPT FROM ANY ISI PER ASME SECTION XI

### INFORMATION ONLY

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FABRICATION, CONSTRUCTION  
OR MAINTENANCE

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## DWG. NUMBERING SYSTEM

### I. SYSTEM OUTLINE DRAWINGS (ISOMETRICS)

EXAMPLE: MS-0-1

DWG. SEQUENCE NO.

"0" DENOTES SYSTEM OUTLINE DWG.

SYSTEM LETTER SYMBOL  
(SEE LEGEND SHEET 1)

### II. WELD IDENTIFICATION DWGS (ISOMETRICS)

#### A. ASME CLASS 1 & 2 SYSTEMS

EXAMPLE: FW-11-2

DWG. SEQUENCE NO.

NUMERICAL CODE FOR AREA OR  
PLANT WHERE PIPING IS LOCATED  
(SEE DWG. 35INB0800007)

SYSTEM LETTER SYMBOL

#### B. CLASS 3 SYSTEMS

EXAMPLE: CU-103

DWG. SEQUENCE NO.  
(BEGINS @ 100)

SYSTEM LETTER SYMBOL

ORIGINAL COPY WHEN THIS IMPRINT IN RED

SCALE NONE	OR NO JB-1	TITLE LEGEND FOR ISI ISOMETRIC DRAWINGS	GENERAL ELECTRIC NUCLEAR SERVICE OPERATION INSTALLATION & SERVICE ENGINEERING DIV ATLANTA, GEORGIA
CONTRACT NO. 560474002		PROJECT GRAND GULF NUCLEAR PLANT	
MADE FOR MISSISSIPPI POWER & LIGHT		DRAWING NO. 35IN79B0006	REV. A
		SHEET NO. 2 OF 3	

PIPE CLASSES ARE DESIGNATED BY A THREE LETTER CODE. THE FIRST LETTER INDICATES THE PRIMARY FLANGE PRESSURE RATING, THE SECOND LETTER, THE TYPE OF MATERIAL, AND THE THIRD LETTER, THE CODE TO WHICH THE PIPING IS DESIGNED.

#### FIRST LETTER - PRIMARY PRESSURE RATING

(UNLESS OTHERWISE NOTED, ALL RATINGS ARE IN ACCORDANCE WITH ANSI B16.5)

A SPECIFIC PRESSURE AT SPECIFIC TEMPERATURE

B 2500\*

C 1500\*

D 900\*

E 600\*

F 400\*

G 300\*

H 150\*

J 125\* ANSI B16.1

K 175\* WOG UNDERWRITERS' LABORATORIES, INC.

L 250\* ANSI B16.1

X GRAVITY RATING

Y ROOF DRAINS, GRAVITY RATING

#### ADDITIONAL PRESSURE RATINGS:

M 200\* (MANUFACTURER'S RATING)

N 150\* WOG

P 100\* (MANUFACTURER'S RATING)

R 75\* (MANUFACTURER'S RATING)

S 50\* WOG

T 25\* AWWA (OR MANUFACTURER'S RATING)

Z GENERAL USE AS DESIGNATED ON PIPING CLASS SHEETS

V 150\* (MANUFACTURER'S RATING)

#### SECOND LETTER - MATERIAL

A ALLOY STEEL

B CARBON STEEL

C AUSTENITIC STAINLESS STEEL

D COPPER, BRASS or BRONZE

E ALUMINUM

F CARBON STEEL - COPPER BEARING

G CARBON STEEL - SARAN LINED

H CAST IRON

K PVC

M DURIUM

N CARBON STEEL - GALVANIZED

P CAST IRON - CEMENT LINED

R CARBON STEEL - EPOXY LINED

S DUCTILE IRON - CEMENT LINED

T DELETED

V FRP

W CARBON STEEL - TEFLON LINED

#### THIRD LETTER - APPLICABLE CODES

A NUCLEAR POWER PLANT COMPONENTS  
ASME B31.1 CODE, SECTION III, CLASS 1

B NUCLEAR POWER PLANT COMPONENTS  
ASME B31.1 CODE, SECTION III, CLASS 2

C NUCLEAR POWER PLANT COMPONENTS  
ASME B31.1 CODE, SECTION III, CLASS 3

D POWER PIPING CODE, ANSI B31.1

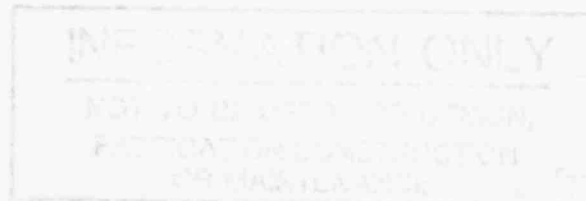
F NATIONAL FIRE PROTECTION ASSOCIATION CODE

G SOUTHERN STANDARD PLUMBING CODE

H POWER BOILERS, ASME B31.1 CODE, SECTION I

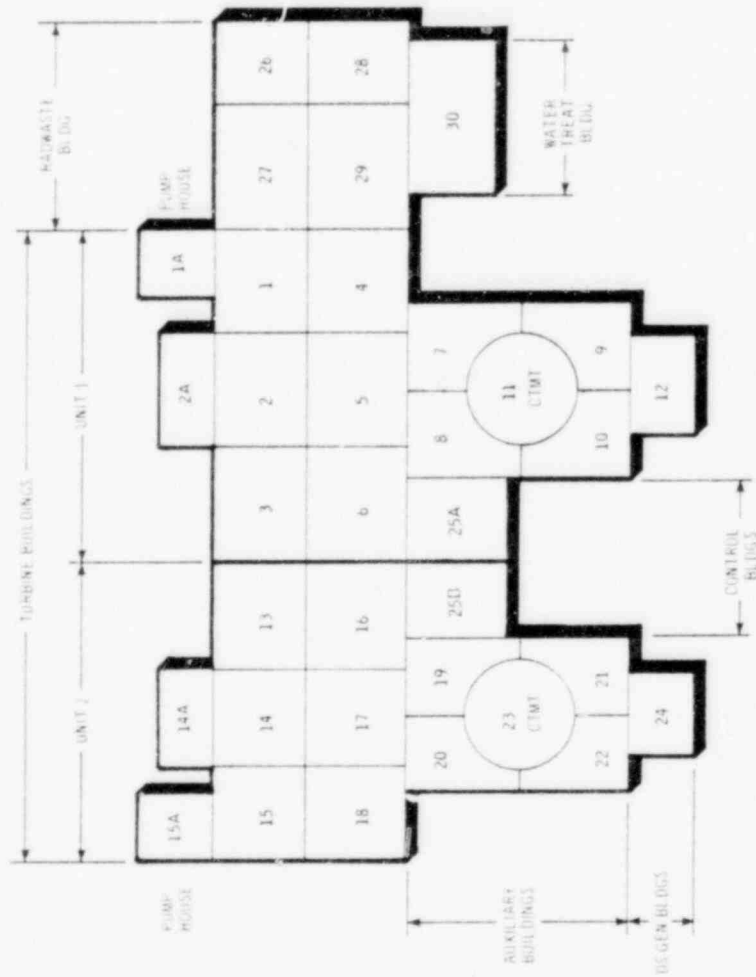
J AMERICAN WATER WORKS ASSOCIATION STANDARDS

Z FABRICATED, INSPECTED AND INSTALLED PER ASME  
SECTION III, CLASS 3. DESIGNED PER ANSI B31.1  
N-STAMPING, SEISMIC ANALYSIS AND Q-LISTING ARE  
NOT REQUIRED.



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SCALE NONE	JOB NO. JB-1	TITLE <b>LETTER CODE FOR PIPING</b>		<b>GENERAL ELECTRIC</b> NUCLEAR SERVICE OPERATION INSTALLATION & SERVICE ENGINEERING DIV. ATLANTA, GEORGIA
CONTRACT NO. 360N74002		PROJECT GRAND GULF NUCLEAR PLANT	DRAWING NO. 35IN79B0006	
MADE FOR MISSISSIPPI POWER & LIGHT CO.		REV. A	EXT. NO. 1-113	



GRAND GULF NUCLEAR STATION UNITS 1 AND 2

PORT GARDEN, MISSISSIPPI  
MISSISSIPPI POWER & LIGHT COMPANY

FOR INFORMATION ONLY  
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OR MAINTENANCE

ORIGINAL COPY WHEN THIS IMPRINT IN RED

DATE	JOB NO.	TITLE	GENERAL ELECTRIC
NONE	JOB-1	KEY PLAN	NUCLEAR SERVICE OPERATION
CONTRACT NO.	360N74002	AREA LOCATIONS	INSTALLATION & SERVICE ENGINEERING DIV.
MADE FOR	MISSISSIPPI POWER & LIGHT	PROJECT	ATLANTA, GEORGIA
		GRAND GULF NUCLEAR PLANT	DRAWING NO. 55N8030007
			REV. A

# INDEX TO ISOS FOR E-22 SYSTEM

	REV
COMPOSITE: HP-0-1	A
FOR ISOS: HP-8-1	A
HP-8-2	A
HP-8-3	A
HP-8-4	A
HP-8-5	A
HP-8-6	A
HP-8-7	A
HP-8-8	A
HP-8-9	A
HP-8-10	A
HP-II-1	A
HP-II-2	A
HP-II-3	A
HP-II-4	A

	REV
COMPOSITE: HP-0-2	A
FOR ISOS: HP-8-11	A
HP-8-12	A
HP-8-13	A
HP-II-5	A

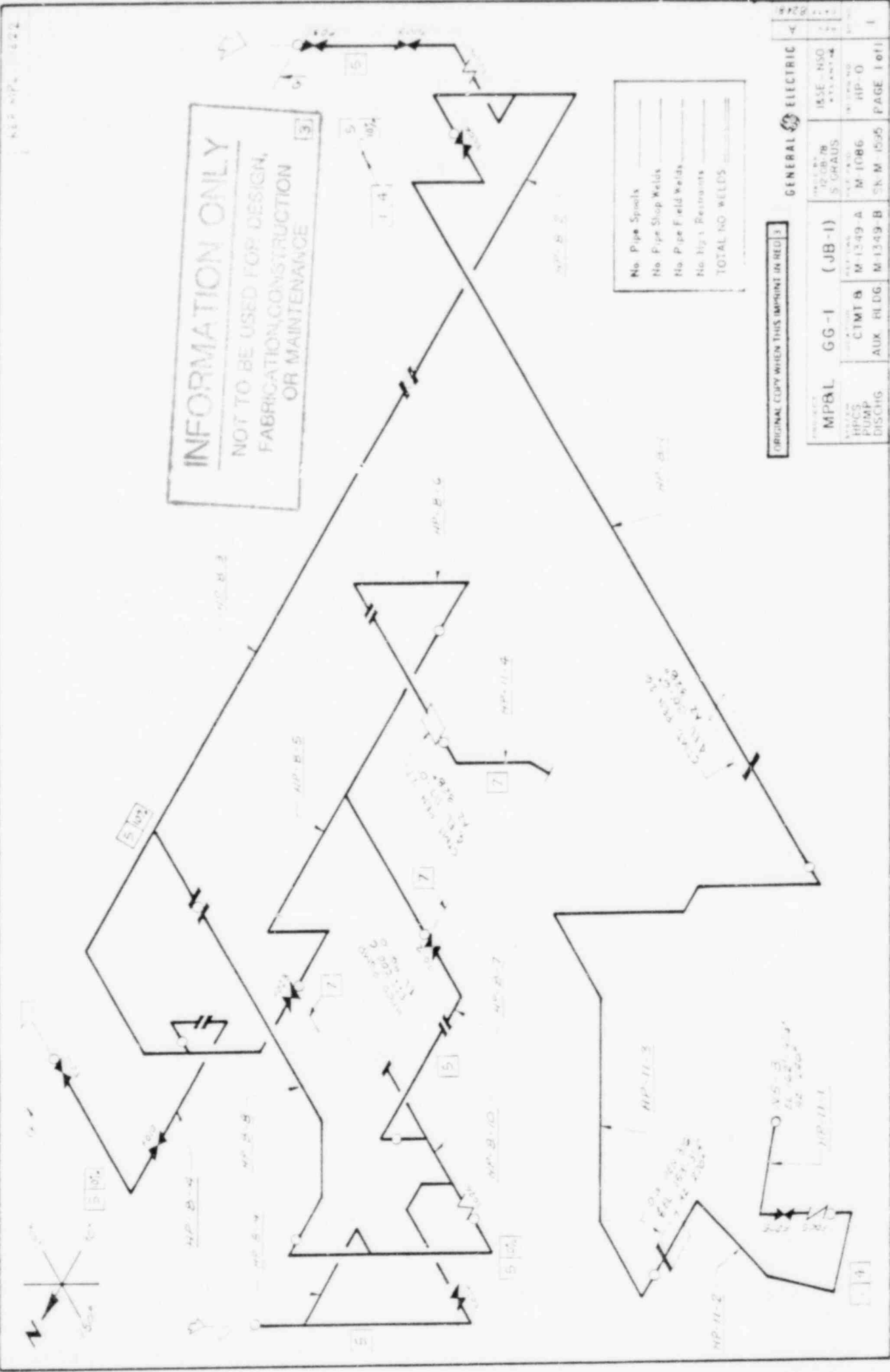
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FABRICATION CONSTRUCTION  
OR MAINTENANCE

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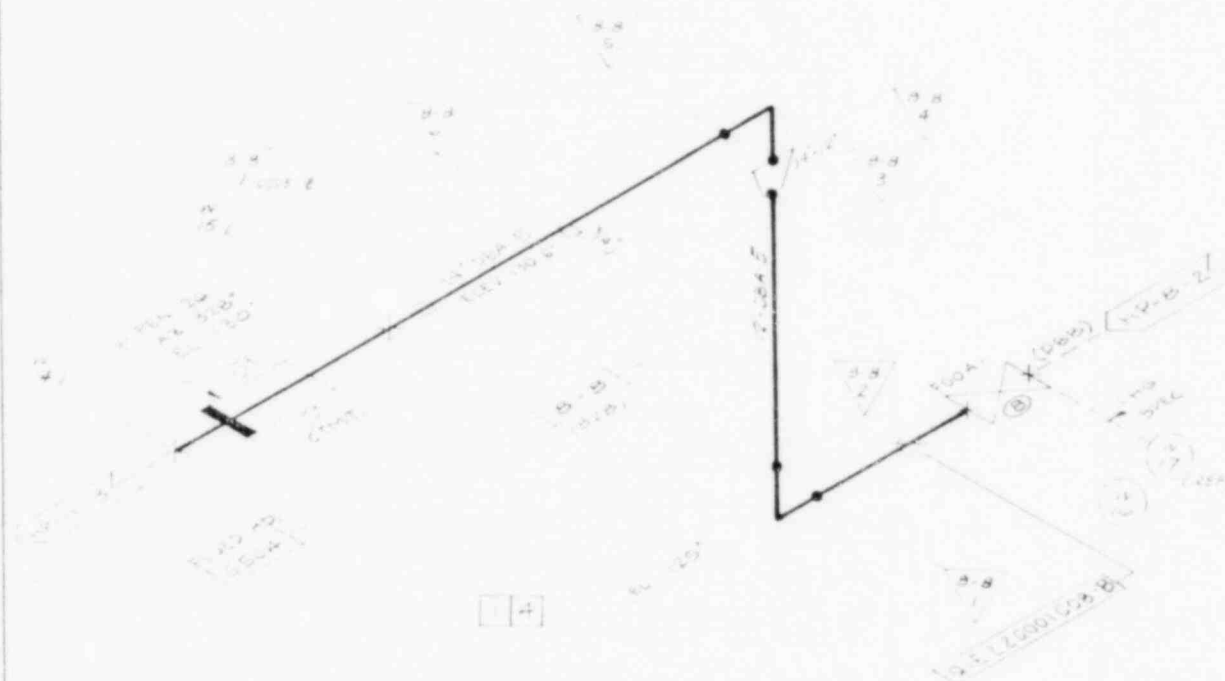
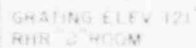
REV A  
DATE 4-80





ORIGINAL COPY WHEN THIS IMPRINT IN RED

GENERAL ELECTRIC			
PROJECT	MP&L	GG-1	(JB-1)
DESIGN	CTMT B	M 1349-A	
PUMP	AUX. HLDG.	M 1349-B	
DISCHG.			
DATE			
BY			
CHECKED			
APPROVED			
ISSUE NO.	1		
HP-O			
PAGE	1 of 1		



CAL STANDARD: 0-6, -15, -7

HP-0-1

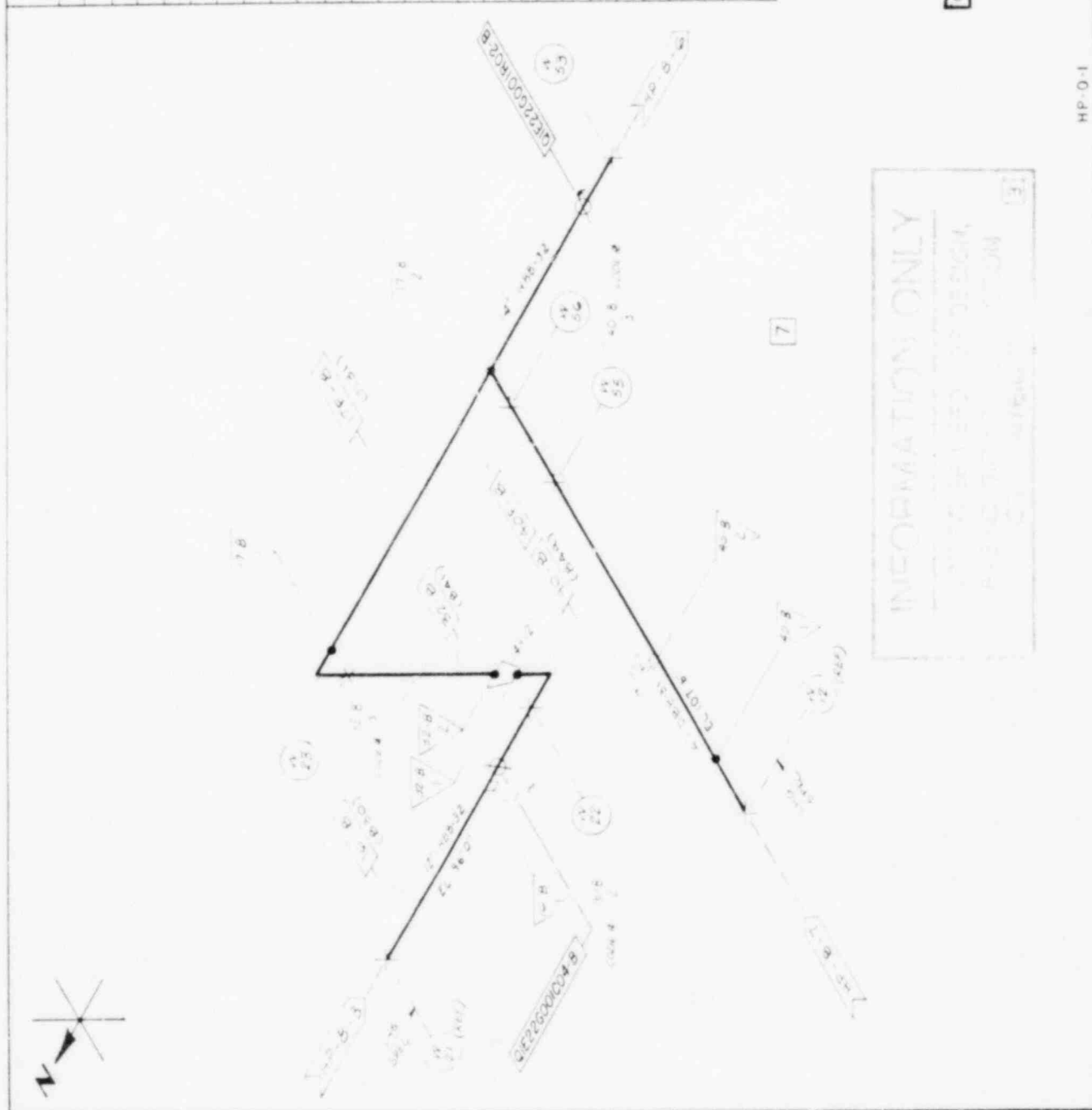
ORIGINAL COPY WHEN THIS IMPRINT IN RED	3
----------------------------------------	---

MP&L	GG-1	(JB-1)	OWN 09-20-78 S GRAUS	BASE NSO ATLANTA	2
SYSTEM	LOCATION	REF ISO	REF PAID	OWN NE	SUT
HPCS	AUX BLDG	M-1349A	M-1086	HP-8	
			SK-M-13-25	PAGE 10 of 1	









ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

GENERAL ELECTRIC

PROJECT	MPBL	GG-1	(JB-1)
SYSTEM	HPCS	AUX. BLDG.	M-1349A

HP-0-1





ORIGINAL COPY WHEN THIS IMPRINT IN RED 3		GENERAL ELECTRIC		12-14-79	12-14-79	12-14-79	12-14-79
MP8L	GG-1	(JB-1)		5 GAUS	HP-8	HP-8	HP-8
HPCS	AUX BLDG	M 13.49A		M-1086	HP-8	HP-8	HP-8
				SRM-1595	PAGE 1 of 1	PAGE 1 of 1	PAGE 1 of 1

MP&L	GG-1	(JB-1)
HPCS	AUX BLDG	M-1349A

HP-O-I







ORIGINAL COPY WHEN THIS IMPRINT IN RED		GENERAL ELECTRIC		7
MP8L	GG-1 (JB-1)	12-3.78 S GRAUS	185E-N50 AT-100	2
HPCS	AUX BLDG	M 1086	HP-8	9
		M 13494	PAGE 101	

ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

GENERAL ELECTRIC

MP&amp;L GG-1 (JB-1)

[illegible]

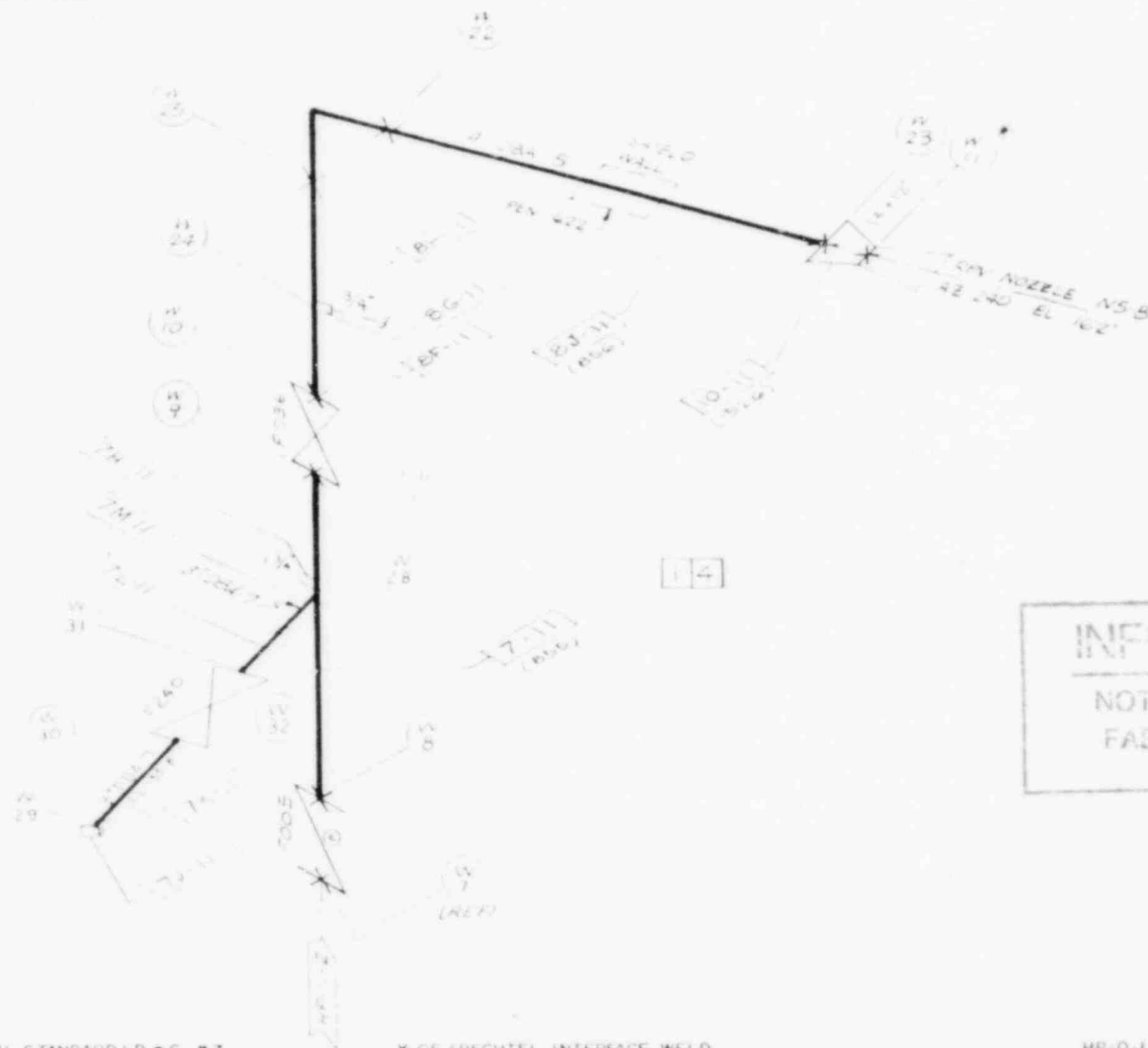
NO. 1086	HP-8
----------	------

SK-M-1595	PAGE 1 of 1
-----------	-------------

HP-O-1



GRATING ELEV 147'



MPL NR 1E22G005	WELD DESCR	CODE CAT	TYPE EXAM	EXAM TIME PERIOD	ACCESS DATE	I D MARK COMP
W-8	"G"	BJ	UT	08-15-79		YES
W-28	"G"	BJ	UT	04-23-81		YES
W-9	"G"	BJ	UT	08-15-79		YES
W-10	"G"	BJ	UT	08-11-80		YES
W-25	"C"	BJ	UT	08-11-80		YES
W-22	"C"	BJ	UT	08-11-80		YES
W-23	"C"	BJ	UT	08-13-80		YES
W-11	"J"	BJ	UT	08-13-80		YES
W-32	"C"	BJ	PT	PBT		YES
W-31	"G"	BJ	PT	PBT		YES
W-30	"G"	BJ	PT	PBT		YES
W-29	"C"	BJ	PT	PBT		YES
W-8	"G"	BJ	PT	PBT		YES
W-28	"G"	BJ	PT	PBT		YES
W-9	"G"	BJ	PT	PBT		YES
W-10	"G"	BJ	PT	PBT		YES
W-25	"C"	BJ	PT	PBT		YES
W-22	"C"	BJ	MT	PBT		YES
W-23	"C"	BJ	PT	PBT		YES
W-11	"J"	BJ	PT	PBT		YES
VALVE F005	BOLTS(36)	B-G 2	VT	06-23-81		N/A

INFORMATION ONLY

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OR MAINTENANCE

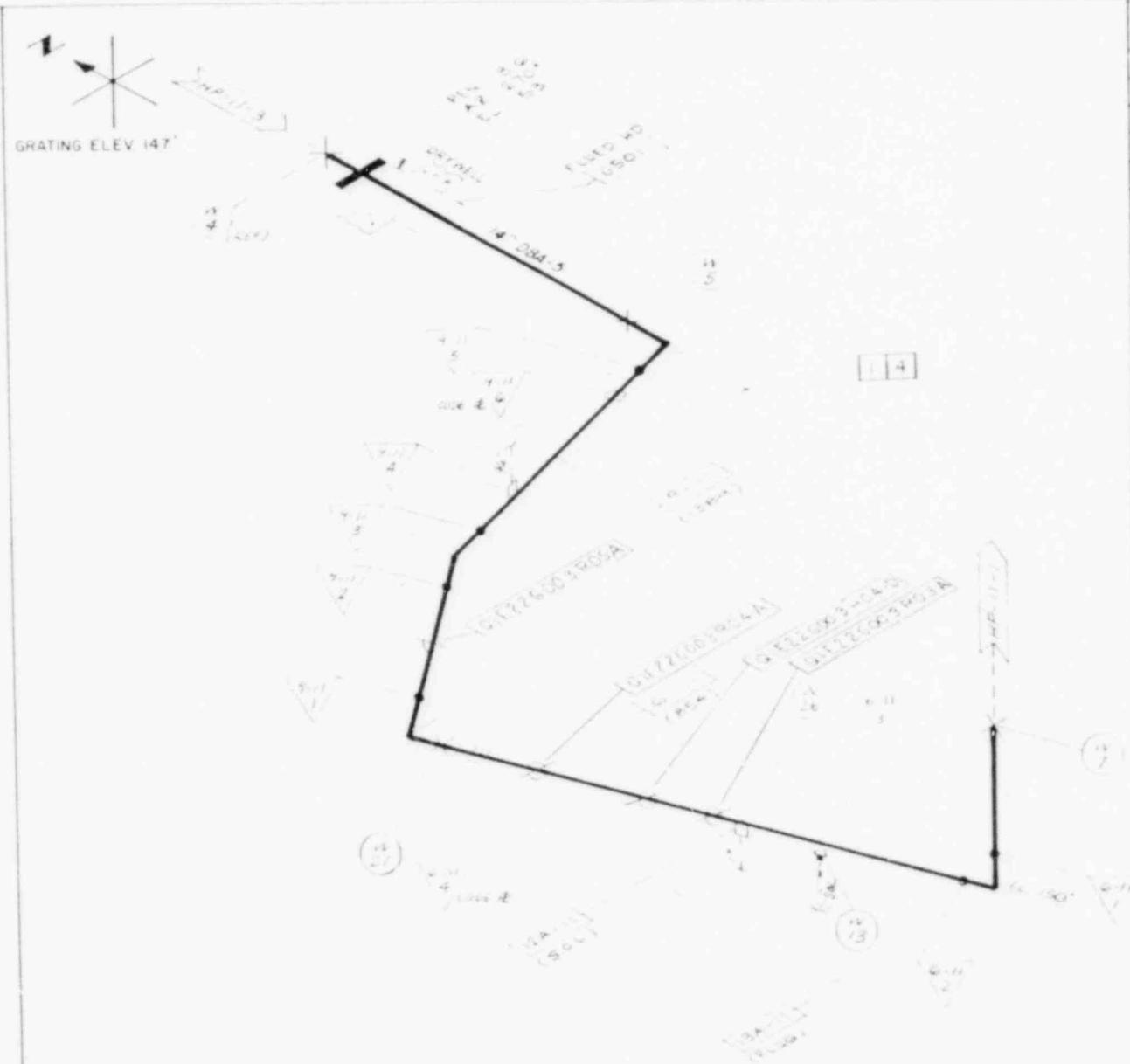
ORIGINAL COPY WHEN THIS IMPRINT IN RED

CAL STANDARD ID #6, #7

\* GE/BECHTEL INTERFACE WELD

HP-0-1

MP&L	GG-1	(JB-1)	OWN 04-21-77 S GRAUS	IE 3E NSO ATLANTA	REV A	DATE 6/24/81
SYSTEM HPCS	LOCATION DRY WELL	REF ISO M-1349B	REF P&ID M-1086 SK-M-1595	DWG NR HP-11 PAGE 10/1	SHT 1	

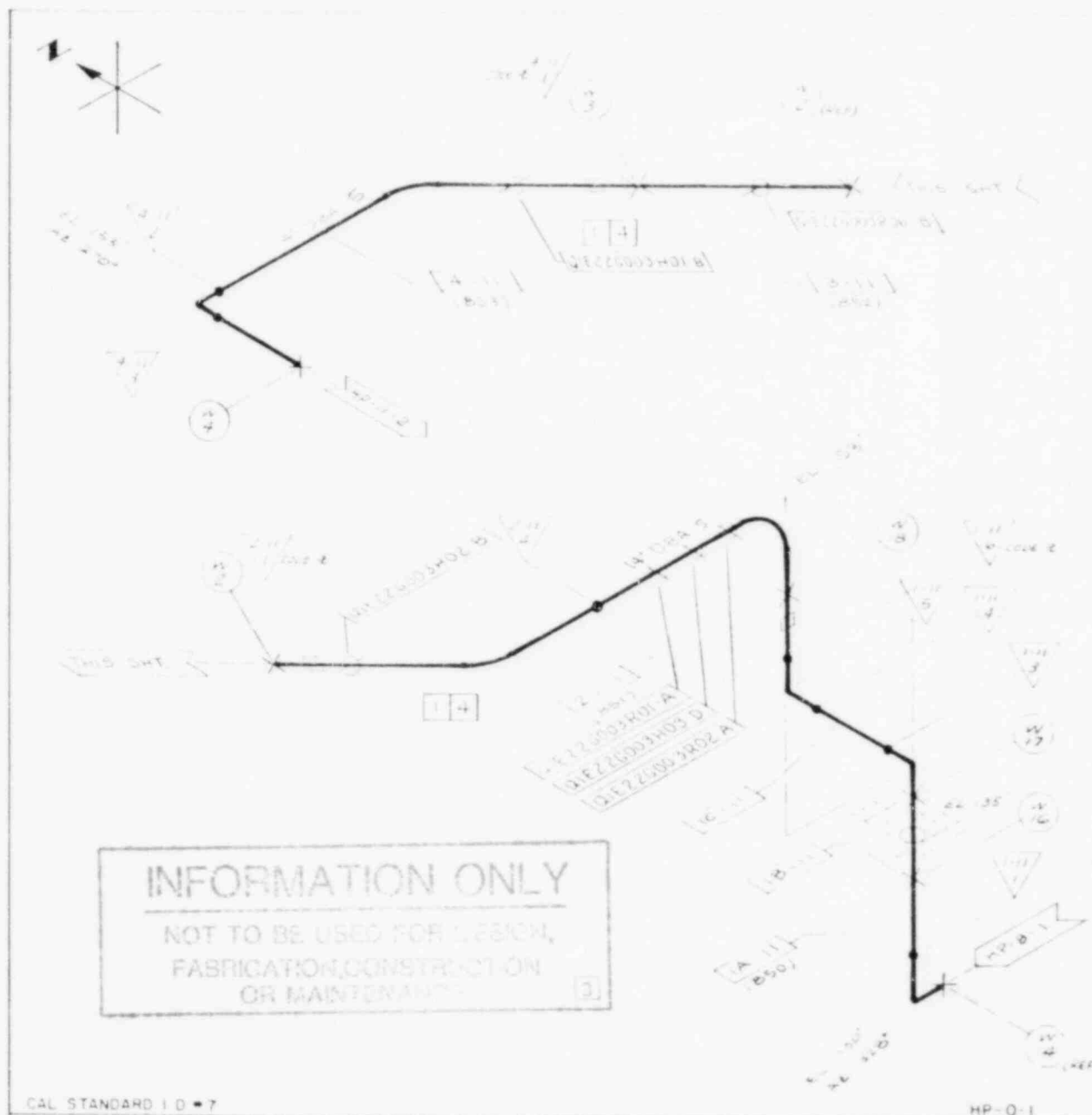


WELL NO (SEE GOOD)	WELD DESIGN	CODE CAT	TYPE EXAM	EXAM TIME PERIOD	ACCESS RATIO	I.D. MARK COMPL
W-5	"C"	BJ	UT	05-12-80		YES
9-II-5	"C"	BJ	UT	05-12-80		YES
9-II-3	"C"	BJ	UT	05-12-80		YES
9-II-2	"C"	BJ	UT	05-12-80		YES
9-II-1	"C"	BJ	UT	05-12-80		YES
W-21	"C"	BJ	UT	11-25-80		YES
6-II-2	"C"	BJ	UT	05-12-80		YES
6-II-1	"C"	BJ	UT	05-12-80		YES
W-7	"G"	BJ	UT	08-15-79		YES
W-5	"C"	BJ	MT	PBT		YES
9-II-5	"C"	BJ	PT	TEXAS PIPE		YES
9-II-3	"C"	BJ	PT	TEXAS PIPE		YES
9-II-2	"C"	BJ	PT	TEXAS PIPE		YES
9-II-1	"C"	BJ	PT	TEXAS PIPE		YES
W-21	"C"	BJ	PT	PBT		YES
6-II-2	"C"	BJ	PT	TEXAS PIPE		YES
6-II-1	"C"	BJ	PT	TEXAS PIPE		YES
W-7	"G"	BJ	PT	PBT		YES
R05 A	HANGER	B K-2	VT			N/A
R04 A	HANGER	B K-2	VT			N/A
H04 D	HANGER	B K-2	VT			N/A
R03 A	HANGER	B K-2	VT			N/A

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OR MAINTENANCE

ORIGINAL COPY WHEN THIS IMPRINT IN RED

MP&L	GG-1	(JB-1)	DWG 18-10-78 S GRAUS	IBSE NSO ATLANTA	REV DATE
SYSTEM	LOCATION	REF ISO	REF P&ID	DWG NO	SHT
HPCS	DRYWELL	M-13498	M-1086 SK-M-1595	HP-II	2
				PAGE 1 of 1	



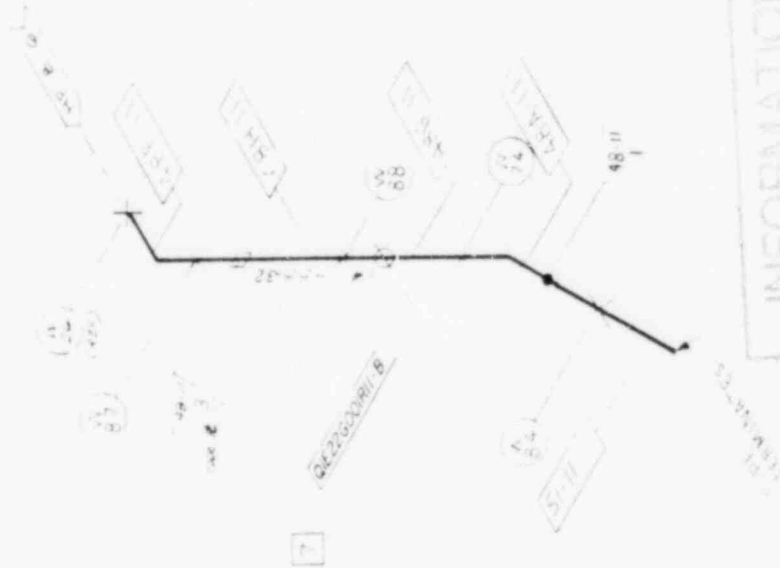
INFORMATION ONLY

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FABRICATION, CONSTRUCTION  
OR MAINTENANCE

DPL NO 1822 0003	WELD DESCR	CODE CAT	TYPE EXAM	EXAM TIME PERIOD	ACCESS SATIS	I.D. MARK COMP
I-II-1	"C"	BJ	UT	08-13-79		YES
W-16	"E"	BJ	UT	08-13-80		YES
W-17	"C"	BJ	UT	08-13-80		YES
I-II-3	"C"	BJ	UT	08-09-79		YES
I-II-4	"C"	BJ	UT	08-09-79		YES
I-II-5	"C"	BJ	UT	08-09-79		YES
W-18	"C"	BJ	UT	08-09-79		YES
2-II-4	"E"	BJ	UT	08-09-79		YES
W-2	"E"	BJ	UT	08-08-79		YES
W-3	"E"	BJ	UT	08-08-79		YES
4-II-2	"C"	BJ	UT	05-13-80		YES
4-II-3	"C"	BJ	UT	05-13-80		YES
W-4	"E"	BJ	UT	05-13-80		YES
I-II-1	"C"	BJ	PT	TEXAS PIPE		YES
W-16	"E"	BJ	PT	PBT		YES
W-17	"C"	BJ	P*	PBT		YES
I-II-3	"C"	BJ	PT	TEXAS PIPE		YES
I-II-4	"C"	BJ	PT	TEXAS PIPE		YES
I-II-5	"C"	BJ	PT	TEXAS PIPE		YES
W-18	"C"	BJ	PT	PBT		YES
2-II-4	"E"	BJ	PT	TEXAS PIPE		YES
W-2	"E"	BJ	PT	PBT		YES
W-3	"E"	BJ	PT	PBT		YES
4-II-2	"C"	BJ	PT	TEXAS PIPE		YES
4-II-3	"C"	BJ	PT	TEXAS PIPE		YES
W-4	"E"	BJ	PT	PBT		YES
RO2-A	HANGER	B-K-2	VT			N/A
HO3-D	HANGER	B-K-2	VT			N/A
RO1-A	HANGER	B-K-2	VT			N/A
HO2-B	HANGER	B-K-2	VT			N/A
RO6-B	HANGER	B-K-2	VT			N/A
HO1-B	HANGER	B-K-2	VT			N/A

ORIGINAL COPY WHEN THIS IMPRINT IN RED

MP&L	GG-1	(JB-1)	OWN	18 SE NSO
SYSTEM	LOCATION	REF ISO	08-10-78	ATLANTA
HPCS	CTMT	M-1349B	S GRAUS	
			REF P&ID	OWN
			M-1086	HP-II
			SK-M-1595	PAGE 10/1
				5



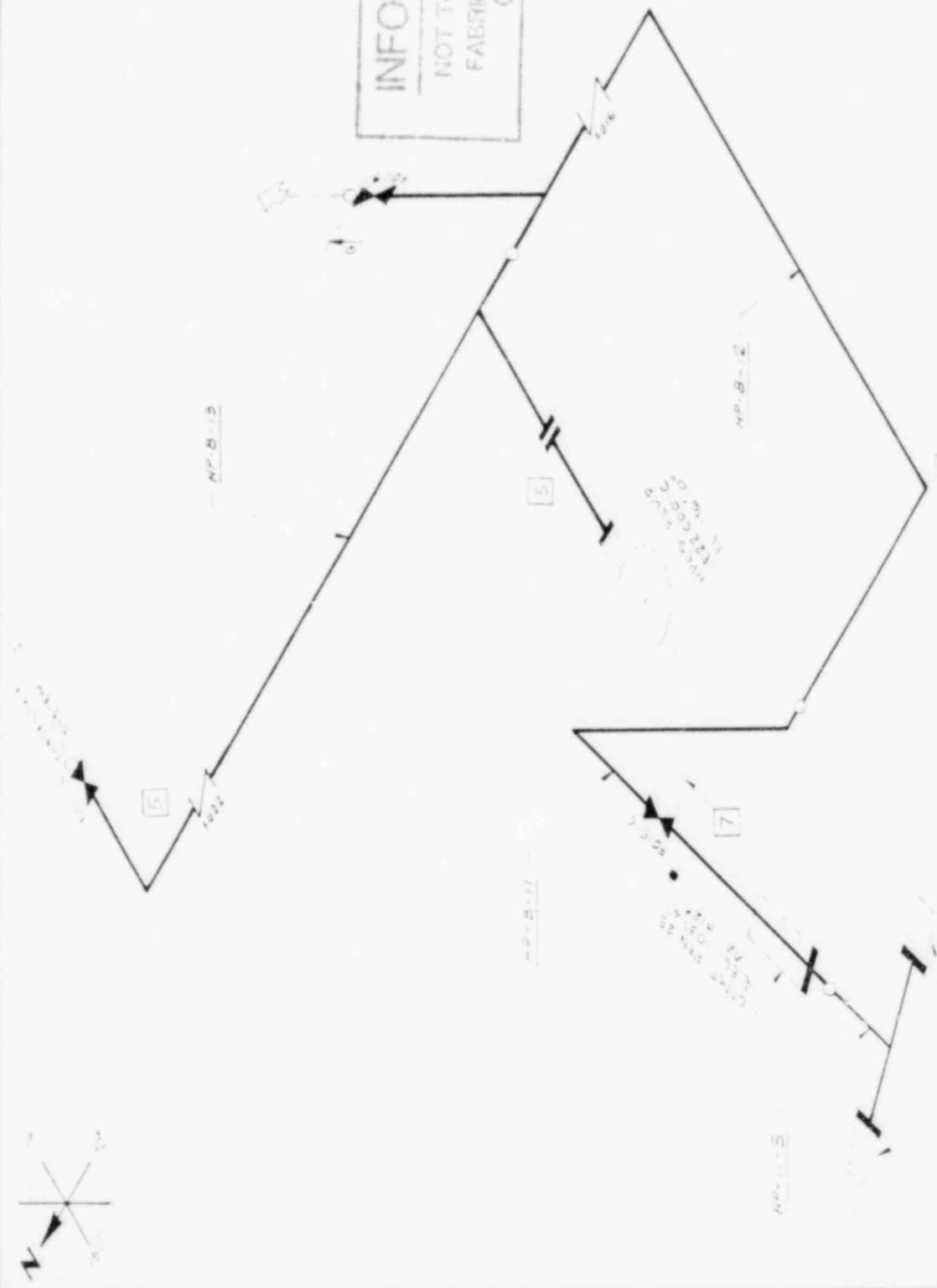
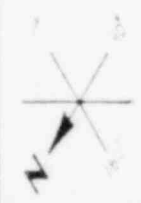
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HP-Q-1[illegible]

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GENERAL  ELECTRIC

PROJECT	MP&L	GG-1	(JB-1)	DATE REC'D 12-18-78	DATE-MSO ATLANTA	4
SUBJECT	HPCS	CTMT	M-1359A	M-1086	HP-II	
				SK M-1595	PAGE 1 of 1	

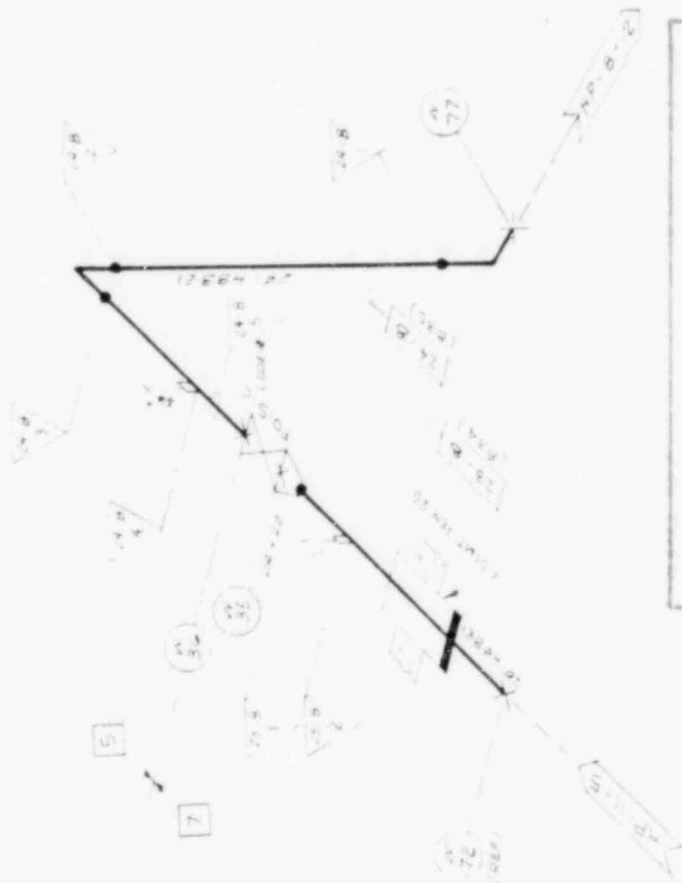


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No. Pipe Spools	_____
No. Pipe Shop Welds	_____
No. Pipe Field Welds	_____
No. High Restraints	_____
TOTAL NO. WELDS	_____

ORIGINAL COPY WHEN THIS IMPRINT IN RED		GENERAL ELECTRIC	
PROJECT	MP&L GG-1 (JB-1)	12-18-78	185E-N50
DESIGN	CTMT B	W-1086	ATLANTA
PUMP	AUX BLDG	M-13494	HP-O
SECTION		SK-M-1595	PAGE 1 of 1





ORIGINAL COPY WHEN THIS IMPRINT APPEARS		GENERAL ELECTRIC		DATE
PROJECT	MP&L GG-1 (JB-1)	REVISED	185E-N50 S GRAUS	1
SYSTEM	HPCS	REV. NO.	M-1086	2
LOCATION	AUX. BLDG.	REV. NO.	SK-M-1595	3
DESCRIPTION	M-1349A	REV. NO.	HP-B	4
REVISIONS		REV. NO.	PAGE 1 of 1	5

GENERAL ELECTRIC

GENERAL ELECTRIC

CENTRAL

100

MINOR SILL

ALL COPY/RIGHTS

ORNG

1000



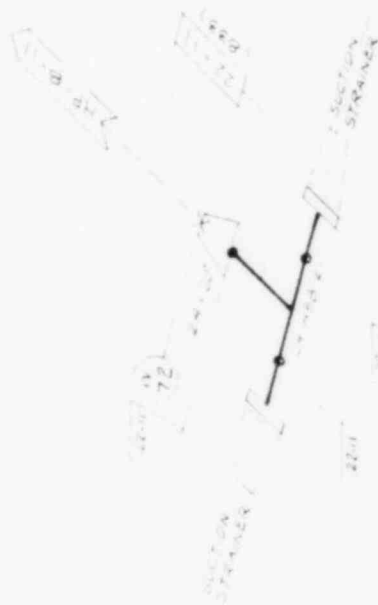
100

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HP-0-2







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HP-0-2

FWLC - FEEDWATER LEAKAGE  
CONTROL SYSTEM-E38

INFORMATION ONLY

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## DRAWING

## SYMBOLS



SPPOOL I.D. NO.  
VENDOR DWG NO.  
IN PARENTHESES



LINE SIZE &  
SPECIFICATION  
DESIGNATION

SHOP WELD  
I.D. NO.



FIELD WELD  
I.D. NO.



LONGITUDINAL SEAM  
WELD I.D. NO.



DWG CONTINUATION  
(ARROW POINTS IN  
DIRECTION OF FLOW)



WELD COUNTED ON  
CONTINUATION SHEET  
AND SHOWN THIS  
SHEET FOR REFERENCE



VALVE & I.D. NO.



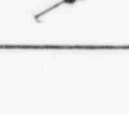
INDICATES PRESSURE  
RETAINING BOLTING



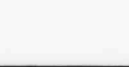
CHECK VALVE  
& I.D. NO.



FLG. BUTTERFLY  
VALVE &  
I.D. NO.



ELL



REDUCER



TEE



STUB-IN FITTING  
(WEL, SOL, ETC)



PLUGGED STUB-IN



WELD CAP



SCREWED CAP



PLAIN END



VENDOR CODE TAG  
& SHOP WELD NO.



PENETRATION  
SLEEVE



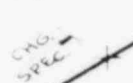
PENETRATION  
SLEEVE W/ FLUED  
HEAD OR SEAL  
PLATE



"IN-LINE"  
PENETRATION



LIMIT OF SAFETY  
RELATED PIPE  
& COMPONENTS



POINT OF DESIGN  
SPECIFICATION  
CHANGE

## LETTER

## SYMBOLS

## PIPING SYSTEMS

CC - CONTAINMENT COOLING  
CD - CONDENSATE  
CG - COMBUSTIBLE GAS  
CR - CHILLED WATER  
CS - COND/RW STORAGE & TRANSFER  
CU - REACTOR WATER CLEANUP  
CW - COMP COOLING WATER  
DG - DIESEL GENERATOR  
DR - FLOOR & EQUIPMENT DRAINS  
DW - DOMESTIC WATER  
EC - FUEL POOL COOLING & CLEANUP  
FD - FILTER DEMIN (FPCU)  
FW - FEEDWATER  
HP - HIGH PRESSURE CORE SPRAY  
IA - INSTRUMENT AIR

LC - STANDBY LIQUID CONTROL  
LD - LEAK DETECTION  
LP - LOW PRESSURE CORE SPRAY  
LR - LEAK RATE TEST SYSTEM  
MS - MAIN STEAM  
RD - CONTROL ROD DRIVE  
RF - FILTER DEMIN (RWCU)  
RH - RESIDUAL HEAT REMOVAL  
RI - REACTOR CORE ISOLATION COOLING  
RR - REACTOR RECIRCULATION  
RV - MAIN STEAM RELIEF VALVE  
SA - SERVICE AIR  
SC - SUPPRESSION POOL CLEAN UP  
SD - MAIN STEAM DRAINS  
SM - SUPP POOL MAKE UP  
SW - PLANT SERVICE WATER  
WS - STANDBY SERVICE WATER

## WELDING CONFIGURATION

A - LONGITUDINAL SEAM  
B - PIPE TO ATTACHMENT  
C - PIPE TO FITTING  
D - PIPE TO NOZZLE  
E - PIPE TO PIPE  
F - PIPE TO PUMP  
G - PIPE TO VALVE  
H - PIPE TO WELDLET  
I - FITTING TO FITTING  
K - FITTING TO PUMP  
L - FITTING TO VALVE  
M - VALVE TO VALVE  
N - PIPE TO SWEEPLET  
P - PIPE TO SODCLET  
R - CODE TAG WELD

## ABBREVIATIONS

AUX - AUXILIARY  
BLDG - BUILDING  
CL - CENTERLINE  
CL - CLASS  
COMP - COMPLETE OR COMPLET  
CTMT - CONTAINMENT  
DW - DRYWELL  
DWG - DRAWING  
EL - ELEVATION  
FLG - FLANGE  
HD - HEAD  
HX - HEAT EXCHANGER  
ID - IDENTIFICATION  
ISI - INSERVICE INSPECTION  
MPL - MASTER PARTS LIST  
N - NORTH OF NOZZLE  
PEN - PENETRATION

REV - REVISION  
RPV - REACTOR VESSEL  
RX - REACTOR  
SCH - SCHEDULE  
SHT - SHEET  
SOL - SODCLET  
STD - STANDARD  
STM - STEAM  
TDL - THREADED  
TURB - TURBINE  
WOL - WELDLET

## HANS RS

A - S' R  
B - RIGID STRUT  
C - BOX OR GUIDE  
D - SPRING  
E - COMBINATION  
F - ANCHOR  
PWR

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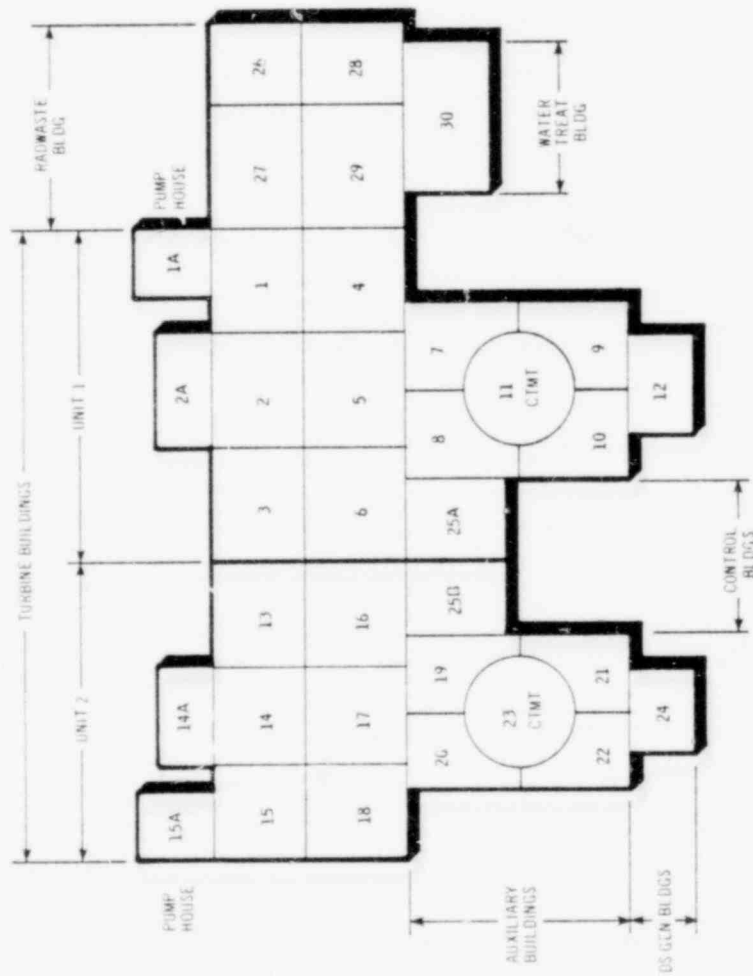
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SCALE NONE	JOB NO. JB-1	TITLE LEGEND FOR ISI ISOMETRIC DRAWINGS
CONTRACT NO. 360N74002		PROJECT GRAND GULF NUCLEAR PLANT
MADE FOR MISSISSIPPI POWER & LIGHT		

GENERAL ELECTRIC

NUCLEAR SERVICE OPERATION  
INSTALLATION & SERVICE ENGINEERING DIV.  
ATLANTA, GEORGIA

DRAWING NO.  
351N79B0006  
REV  
A



INFORMATION ONLY  
 NOT TO BE USED FOR DESIGN,  
 FABRICATION, OR CONSTRUCTION  
 OF ANY PART OF THE PLANT

GRAND GULF NUCLEAR STATION UNITS 1 AND 2  
 PORT GIBSON, MISSISSIPPI  
 MISSISSIPPI POWER & LIGHT COMPANY

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SCALE NONE	JOB NO. JB-1	TITLE KEY PLAN AREA LOCATIONS	GENERAL ELECTRIC NUCLEAR SERVICE OPERATION INSTALLATION & SERVICE ENGINEERING DIV. ATLANTA, GEORGIA
CONTRACT NO. 360N74002	WORK FOR MISSISSIPPI POWER & LIGHT	PROJECT GRAND GULF NUCLEAR PLANT	DRAWING NO. 35IN8000007 REV. 1

PIPE CLASSES ARE DESIGNATED BY A THREE LETTER CODE. THE FIRST LETTER INDICATES THE PRIMARY FLANGE PRESSURE RATING; THE SECOND LETTER, THE TYPE OF MATERIAL; AND THE THIRD LETTER, THE CODE TO WHICH THE PIPING IS DESIGNED.

#### FIRST LETTER - PRIMARY PRESSURE RATING

(UNLESS OTHERWISE NOTED, ALL RATINGS ARE IN ACCORDANCE WITH ANSI B16.5)

A SPECIFIC PRESSURE AT SPECIFIC TEMPERATURE

B 2500#

C 1500#

D 900#

E 600#

F 400#

G 300#

H 150#

J 125# ANSI B16.1

K 175# WOG UNDERWRITERS' LABORATORIES, INC

L 250# ANSI B16.1

X GRAVITY RATING

Y ROOF DRAINS, GRAVITY RATING

#### ADDITIONAL PRESSURE RATINGS:

M 200# (MANUFACTURER'S RATING)

N 150# WOG

P 100# (MANUFACTURER'S RATING)

R 75# (MANUFACTURER'S RATING)

S 50# WOG

T 25# AWWA (OR MANUFACTURER'S RATING)

Z GENERAL USE AS DESIGNATED ON PIPING CLASS SHEETS

V 150# (MANUFACTURER'S RATING)

#### SECOND LETTER - MATERIAL

A ALLOY STEEL

B CARBON STEEL

C AUSTENITIC STAINLESS STEEL

D COPPER, BRASS or BRONZE

E ALUMINUM

F CARBON STEEL - COPPER BEARING

G CARBON STEEL - SARAN LINED

H CAST IRON

K PVC

M DURIUM

N CARBON STEEL - GALVANIZED

P CAST IRON - CEMENT LINED

R CARBON STEEL - EPOXY LINED

S DUCTILE IRON - CEMENT LINED

T DELETED

V FRP

W CARBON STEEL - TEFLON LINED

#### THIRD LETTER - APPLICABLE CODES

A NUCLEAR POWER PLANT COMPONENTS  
ASME BBPV CODE, SECTION III, CLASS 1

B NUCLEAR POWER PLANT COMPONENTS  
ASME BBPV CODE, SECTION III, CLASS 2

C NUCLEAR POWER PLANT COMPONENTS  
ASME BBPV CODE, SECTION III, CLASS 3

D POWER PIPING CODE, ANSI B31.1

F NATIONAL FIRE PROTECTION ASSOCIATION CODE

G SOUTHERN STANDARD PLUMBING CODE

H POWER BOILERS, ASME BBPV CODE, SECTION I

J AMERICAN WATER WORKS ASSOCIATION STANDARDS

Z FABRICATED, INSPECTED AND INSTALLED PER ASME  
SECTION III, CLASS 3. DESIGNED PER ANSI B31.1.  
N-STAMPING, SEISMIC ANALYSIS AND Q-LISTING ARE  
NOT REQUIRED.

INFORMATION ONLY

NOT TO BE USED FOR DESIGN,  
FABRICATION OR CONSTRUCTION  
OR FOR ANY OTHER PURPOSE

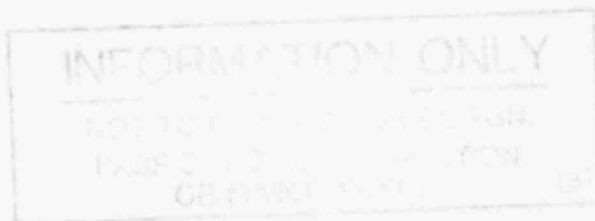
ORIGINAL COPY WHEN THIS IMPRINT IN RED

SCALE NONE	JOB NO. JB-1	TITLE LETTER CODE FOR PIPING	GENERAL ELECTRIC NUCLEAR SERVICE OPERATION INSTALLATION & SERVICE ENGINEERING DIV. ATLANTA, GEORGIA	
CONTRACT NO. 360N74002		PROJECT GRAND GULF NUCLEAR PLANT	DRAWING NO. 35IN7980006	REV. A
MADE FOR MISSISSIPPI POWER & LIGHT CO.			SHEET NO. 3 OF 3	



## ISI EXAMINATION REQUIREMENTS

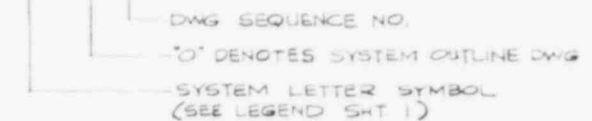
- 1 VOLUMETRIC EXAMINATION OF CLASS 1 AND 2 COMPONENTS PER ASME SECTION XI, IWB-2600 AND IWC-2600.
- 10% VOLUMETRIC EXAMINATION OF 10% OF THE CLASS 2 PIPING JOINTS IN ECCS SYSTEMS WHICH ARE PRESSURIZED LESS THAN 200 psig DURING NORMAL PLANT OPERATION AND ARE NOT EXEMPTED BY OTHER CRITERIA
- 2 SURFACE EXAMINATION OF CLASS 1 COMPONENTS PER ASME SECTION XI, IWB-2600 AND IWC-2600
- 3 VISUAL EXAMINATION OF CLASS 1 AND 2 COMPONENTS PER ASME SECTION XI, IWB-2600 AND IWC-2600
- 4 SYSTEM LEAKAGE AND HYDRO-STATIC PRESSURE TESTS AND VISUAL EXAMINATION OF CLASS 1 COMPONENTS PER ASME SECTION XI, IWA-5000 AND IWB-5000
- 5 SYSTEM PRESSURE TESTS AND VISUAL EXAMINATION OF CLASS 2 COMPONENTS PER ASME SECTION XI, IWA-5000 AND IWC-5000
- 6 SYSTEM PRESSURE TESTS AND VISUAL EXAMINATION OF CLASS 3 COMPONENTS PER ASME SECTION XI, IWA-5000 AND IWC-5000
- 7 ASME CLASS 2 AND 3 COMPONENTS EXEMPT FROM ANY ISI PER ASME SECTION XI



## DWG. NUMBERING SYSTEM

### I. SYSTEM OUTLINE DRAWINGS (ISOMETRICS)

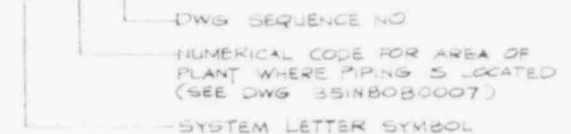
EXAMPLE: MS-0-1



### II. WELD IDENTIFICATION DWGS. (ISOMETRICS)

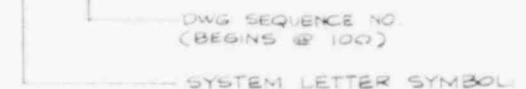
#### A. ASME CLASS 1 & 2 SYSTEMS

EXAMPLE: EW-11-2



#### B. CLASS 3 SYSTEMS

EXAMPLE: CU-103



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SCALE NONE	JOB NO. JB-1	TITLE LEGEND FOR ISI ISOMETRIC DRAWINGS		GENERAL ELECTRIC NUCLEAR SERVICE OPERATION INSTALLATION & SERVICE ENGINEERING DIV. ATLANTA, GEORGIA	
CONTRACT NO. 360N74002		PROJECT GRAND GULF NUCLEAR PLANT		DRAWING NO. 35IN79B0006	REV. A
MADE FOR M195153PPI POWER & LIGHT				SHT NO 2 OF 3	

# INDEX TO ISOS FOR E-38 SYSTEM

COMPOSITE: FWLC-0-1  
ISOS: FWLC-8-1

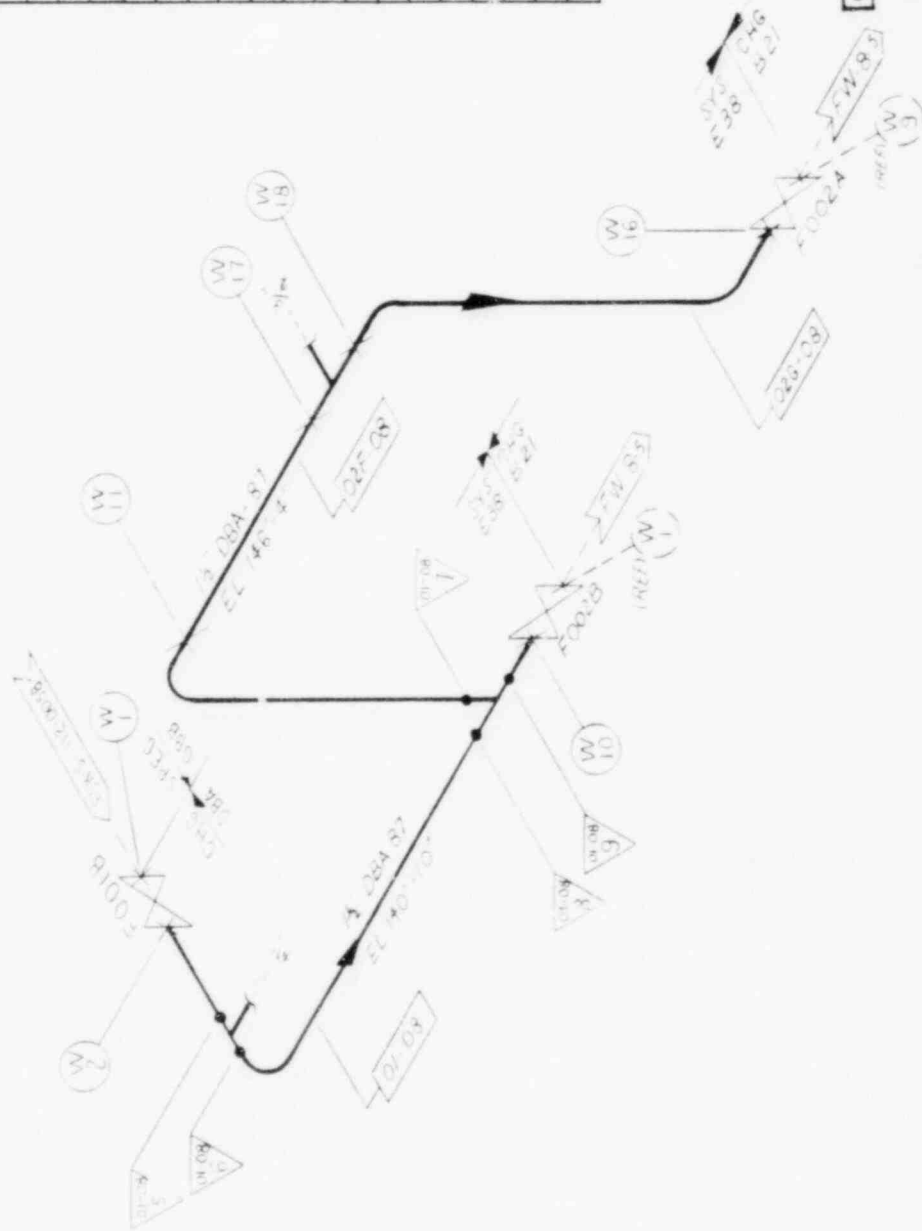
REV
A
A

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FABRICATION CONSTRUCTION  
OR MAINTENANCE

ORIGINAL COPY WHEN THIS IMPRINT IN RED

REV	DATE
A	1966





ORIGINAL COPY WHEN THIS IMPRINT IN RED		GENERAL ELECTRIC		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 	
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GENERAL ELECTRIC

FWIC-0-1

MSIV - MAIN STEAM ISOLATION  
VALVE LEAKAGE CONTROL SYSTEM - E32

INFORMATION ONLY

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FABRICATION, CONSTRUCTION  
OR MAINTENANCE

3

## DRAWING

## SYMBOLS

## LETTER

## SYMBOLS

## PIPING SYSTEMS

## WELDING CONFIGURATION

CC - CONTAINMENT COOLING  
 CD - CONDENSATE  
 CG - COMBUSTIBLE GAS  
 CR - CHILLED WATER  
 CS - COND./HW STORAGE & TRANSFER  
 CU - REACTOR WATER CLEANUP  
 CW - CUMP COOLING WATER  
 DG - DIESEL GENERATOR  
 DR - FLOOR & EQUIPMENT DRAINS  
 DW - DOMESTIC WATER  
 FC - FUEL POOL COOLING & CLEANUP  
 FD - FILTER/DEMIN (FPCCU)  
 FW - FEEDWATER  
 HP - HIGH PRESSURE CORE SPRAY  
 IA - INSTRUMENT AIR

LC - STANDBY LIQUID CONTROL  
 LD - LEAK DETECTION  
 LP - LOW PRESSURE CORE SPRAY  
 LR - LEAK RATE TEST SYSTEM  
 MS - MAIN STEAM  
 RD - CONTROL ROD DRIVE  
 RF - FILTER/DEMIN (RWCU)  
 RH - RESIDUAL HEAT REMOVAL  
 RI - REACTOR CORE ISOLATION COOLING  
 RR - REACTOR RECIRCULATION  
 RV - MAIN STEAM RELIEF VALVE  
 SA - SERVICE AIR  
 SC - SUPPRESSION POOL CLEANUP  
 SD - MAIN STEAM DRAINS  
 SM - SUPP POOL MAKE UP  
 SW - PLANT SERVICE WATER  
 WS - STANDBY SERVICE WATER

A - LONGITUDINAL SEAM  
 B - PIPE TO ATTACHMENT  
 C - PIPE TO FITTING  
 D - PIPE TO NOZZLE  
 E - PIPE TO PIPE  
 F - PIPE TO PUMP  
 G - PIPE TO VALVE  
 H - PIPE TO WELDCLET  
 J - FITTING TO FITTING  
 K - FITTING TO PUMP  
 L - FITTING TO VALVE  
 M - VALVE TO VALVE  
 N - PIPE TO SWEEPolet  
 P - PIPE TO SOCKOLET  
 R - CODE TAG WELD

## ABBREVIATIONS

## HANGERS

AUX - AUXILIARY  
 BLDG - BUILDING  
 CL - CENTERLINE  
 CL - CLASS  
 COMP - COMPLETE or COMPONENT  
 CTMT - CONTAINMENT  
 DW - DRYWELL  
 DWG - DRAWING  
 EL - ELEVATION  
 FLG - FLANGE  
 HD - HEAD  
 HX - HEAT EXCHANGER  
 ID - IDENTIFICATION  
 ISI - INSERVICE INSPECTION  
 MPL - MASTER PARTS LIST  
 N - NORTH or NOZZLE  
 PEN - PENETRATION

REV - REVISION  
 RPV - REACTOR VESSEL  
 RX - REACTOR  
 SCH - SCHEDULE  
 SHT - SHEET  
 SOL - SOCKOLET  
 STD - STANDARD  
 STM - STEAM  
 TOL - THROLOLET  
 THRB - TURBINE  
 WOL - WOLOLET

A - SNUBBER  
 B - RIGID STRUT  
 C - BOX OR GUIDE  
 D - SPRING  
 E - COMBINATION  
 F - ANCHOR  
 P - PWR

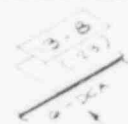
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SCALE  
 NONE  
 JOB NO.  
 JB-1  
 CONTRACT NO.  
 360N74002  
 MADE FOR  
 MISSISSIPPI  
 POWER &  
 LIGHT

TITLE  
 LEGEND FOR  
 ISI ISOMETRIC  
 DRAWINGS  
 PROJECT  
 GRAND GULF  
 NUCLEAR PLANT

GENERAL ELECTRIC  
 NUCLEAR SERVICE OPERATION  
 INSTALLATION & SERVICE ENGINEERING DIV.  
 ATLANTA, GEORGIA

DRAWING NO.  
 351N79B0006  
 REV  
 A  
 SHEET NO. 1 OF 3



SPOOL I.D. NO.  
 IN VENDOR DWG NO.  
 IN PARENTHESES



LINE SIZE &  
 SPECIFICATION  
 DESIGNATION



SHOP WELD  
 I.D. NO.



FIELD WELD  
 I.D. NO.



LONGITUDINAL SEAM  
 WELD I.D. NO.



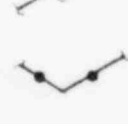
DWG. CONTINUATION  
 (ARROW POINTS IN  
 DIRECTION OF FLOW)



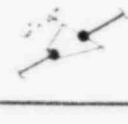
WELD COUNTED ON  
 CONTINUATION SHEET  
 AND SHOWN THIS  
 SHEET FOR REFERENCE



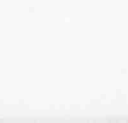
VALVE & I.D. NO.



INDICATES PRESSURE  
 RETAINING BOLTING



CHECK VALVE  
 & I.D. NO.



FLG. BUTTERFLY  
 VALVE &  
 I.D. NO.



ELL



REDUCER



TEE



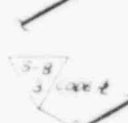
STUB-IN FITTING  
 (WOL, SOL, ETC.)



PLUGGED STUB-IN



WELD CAP



SCREWED CAP



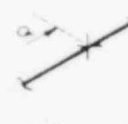
PLAIN END



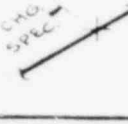
VENDOR CODE TAG  
 & SHOP WELD NO.



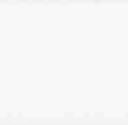
PENETRATION  
 SLEEVE



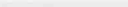
PENETRATION  
 SLEEVE w/ FLUED  
 HEAD OR SEAL  
 PLATE



"IN-LINE"  
 PENETRATION



LIMIT OF SAFETY  
 RELATED PIPING  
 & COMPONENTS



POINT OF DESIGN  
 SPECIFICATION  
 CHANGE

## ISI EXAMINATION REQUIREMENTS

- 1 VOLUMETRIC EXAMINATION OF CLASS 1 AND 2 COMPONENTS PER ASME SECTION XI, IWB-2600 AND IWC-2600.
- 10% VOLUMETRIC EXAMINATION OF 10% OF THE CLASS 2 PIPING WELDS IN ECCS SYSTEMS WHICH ARE PRESSURIZED LESS THAN 200 PSI DURING NORMAL PLANT OPERATION AND ARE NOT EXEMPTED BY OTHER CRITERIA
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### INFORMATION ONLY

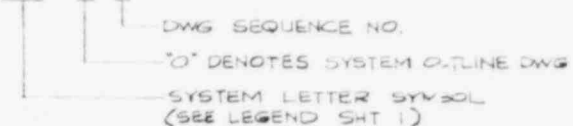
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OR MAINTENANCE

13

## DWG. NUMBERING SYSTEM

### I. SYSTEM OUTLINE DRAWINGS (ISOMETRICS)

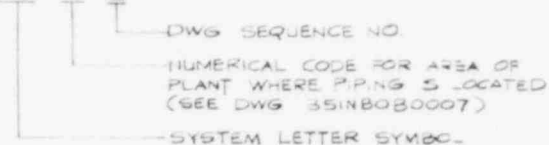
EXAMPLE: MS-0-1



### II. WELD IDENTIFICATION DWGS. (ISOMETRICS)

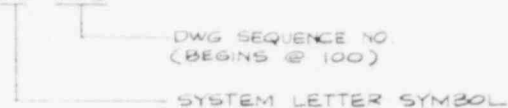
#### A. ASME CLASS 1 & 2 SYSTEMS

EXAMPLE: FW-11-2



#### B. CLASS 3 SYSTEMS

EXAMPLE: CV-103



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SCALE NONE	JOB NO JB-1	TITLE LEGEND FOR ISI ISOMETRIC DRAWINGS	GENERAL ELECTRIC NUCLEAR SERVICE OPERATION INSTALLATION & SERVICE ENGINEERING DIV. ATLANTA, GEORGIA
CONTRACT NO 360N74002	MADE FOR MISSISSIPPI POWER & LIGHT	PROJECT GRAND GULF NUCLEAR PLANT	DRAWING NO 35IN79B0006 REV A
			SHEET NO 2 OF 3

PIPE CLASSES ARE DESIGNATED BY A THREE LETTER CODE. THE FIRST LETTER INDICATES THE PRIMARY FLANGE PRESSURE RATING, THE SECOND LETTER, THE TYPE OF MATERIAL, AND THE THIRD LETTER, THE CODE TO WHICH THE PIPING IS DESIGNED.

#### FIRST LETTER - PRIMARY PRESSURE RATING

(UNLESS OTHERWISE NOTED, ALL RATINGS ARE IN ACCORDANCE WITH ANSI B16.5)

A SPECIFIC PRESSURE AT SPECIFIC TEMPERATURE

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D 900#

E 600#

F 400#

G 300#

H 150#

J 125# ANSI B16.1

K 175# WOG UNDERWRITERS' LABORATORIES, INC

L 250# ANSI B16.1

X GRAVITY RATING

Y ROOF DRAINS, GRAVITY RATING

#### ADDITIONAL PRESSURE RATINGS

M 200# (MANUFACTURER'S RATING)

N 150# WOG

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R 75# (MANUFACTURER'S RATING)

S 50# WOG

T 25# AWWA (OR MANUFACTURER'S RATING)

Z GENERAL USE AS DESIGNATED ON PIPING CLASS SHEETS

V 150# (MANUFACTURER'S RATING)

#### SECOND LETTER - MATERIAL

A ALLOY STEEL

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E ALUMINUM

F CARBON STEEL - COPPER BEARING

G CARBON STEEL - SARAN LINED

H CAST IRON

K PVC

M DURIUM

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P CAST IRON - CEMENT LINED

R CARBON STEEL - EPOXY LINED

S DUCTILE IRON - CEMENT LINED

T DELETED

V FRP

W CARBON STEEL - TEFLON LINED

#### THIRD LETTER - APPLICABLE CODES

A NUCLEAR POWER PLANT COMPONENTS  
ASME BBPV CODE, SECTION III, CLASS I

B NUCLEAR POWER PLANT COMPONENTS  
ASME BBPV CODE, SECTION III, CLASS 2

C NUCLEAR POWER PLANT COMPONENTS  
ASME BBPV CODE, SECTION III, CLASS 3

D POWER PIPING CODE, ANSI B31.1

F NATIONAL FIRE PROTECTION ASSOCIATION CODE

G SOUTHERN STANDARD PLUMBING CODE

H POWER BOILERS, ASME BBPV CODE, SECTION I

J AMERICAN WATER WORKS ASSOCIATION STANDARDS

Z FABRICATED, INSPECTED AND INSTALLED PER ASME  
SECTION III, CLASS 3. DESIGNED PER ANSI B31.1  
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NOT REQUIRED.

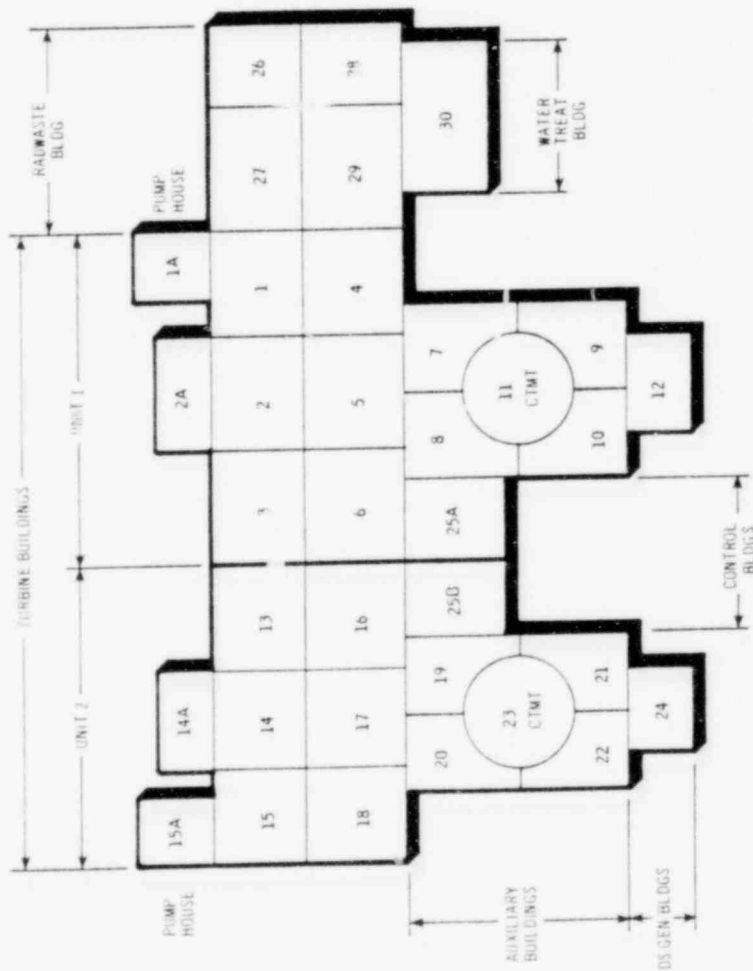
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OF PIPING

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SCALE NONE	JOB NO. JB-1	TITLE <b>LETTER CODE FOR PIPING</b>		<b>GENERAL ELECTRIC</b>	
CONTRACT NO. 360N74002		PROJECT GRAND GULF NUCLEAR PLANT		NUCLEAR SERVICE OPERATION	
MADE FOR MISSISSIPPI POWER & LIGHT CO.				INSTALLATION & SERVICE ENGINEERING DIV. ATLANTA, GEORGIA	
		DRAWING NO. 351N79B0006		REV A	





GRAND GULF NUCLEAR STATION UNITS 1 AND 2

PORT GIBSON, MISSISSIPPI  
MISSISSIPPI POWER & LIGHT COMPANY

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SCALE	JOB NO.	TITLE	GENERAL ELECTRIC
NONE	JB-1	KEY PLAN	NUCLEAR SERVICE OPERATION
CONTRACT NO.	360N7400Z	AREA LOCATIONS	INSTALLATION & SERVICE ENGINEERING DIV.
MADE FOR	MISSISSIPPI POWER & LIGHT	PROJECT	ATLANTA, GEORGIA
		GRAND GULF NUCLEAR PLANT	DESIGNED BY
			35IN 8030007
			REV. A

# INDEX TO ISOS FOR E-32 SYSTEM - MSIV LEAKAGE CONTROL

COMPOSITE : MSIV-0-1

ISOS : MSIV-8-1

MSIV-8-2

MSIV-8-3

MSIV-8-4

REV
A
A
A
A
A

INFORMATION ONLY

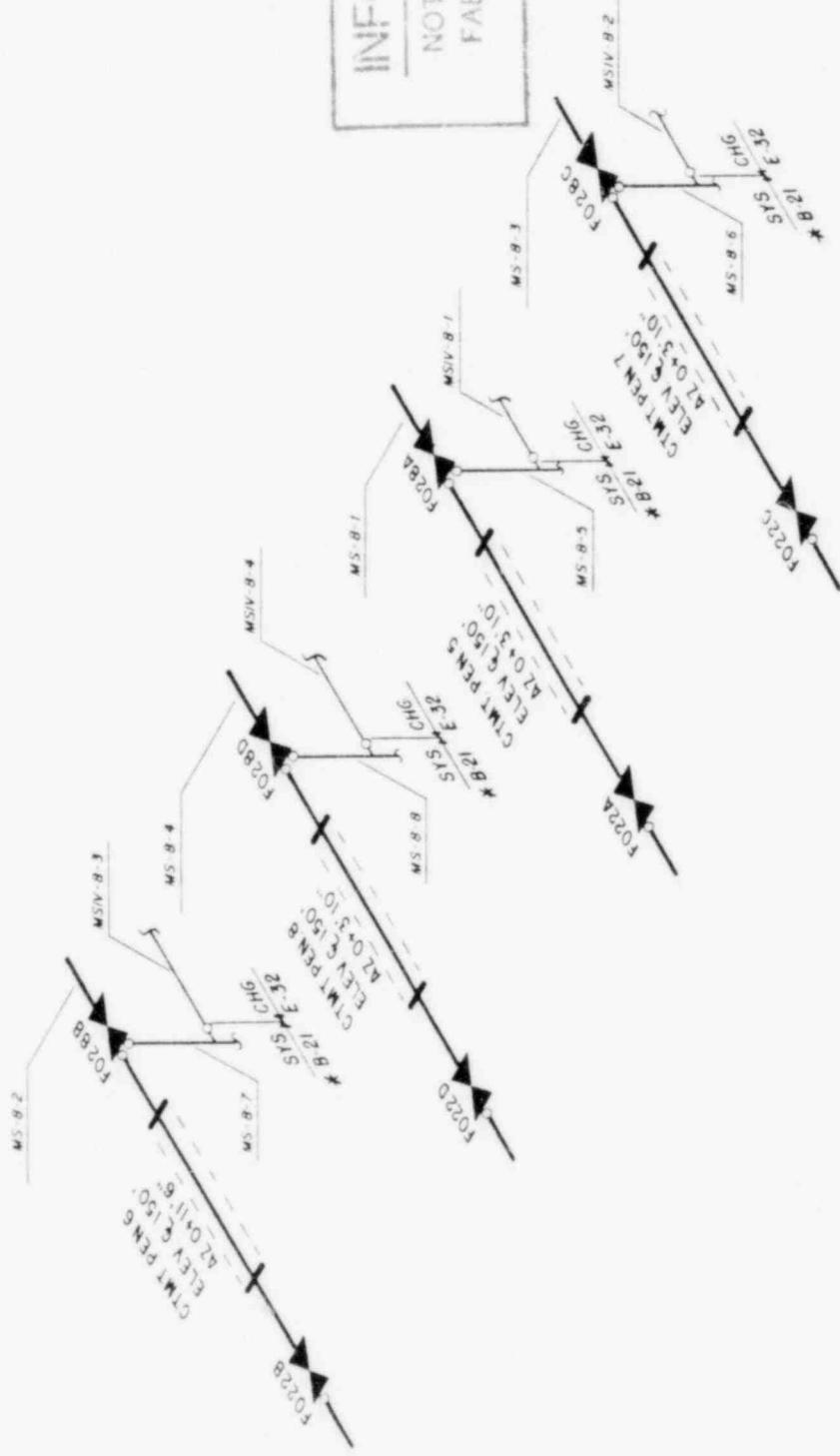
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FABRICATION, CONSTRUCTION  
OR MAINTENANCE

3

ORIGINAL COPY WHEN THIS IMPRINT IN RED

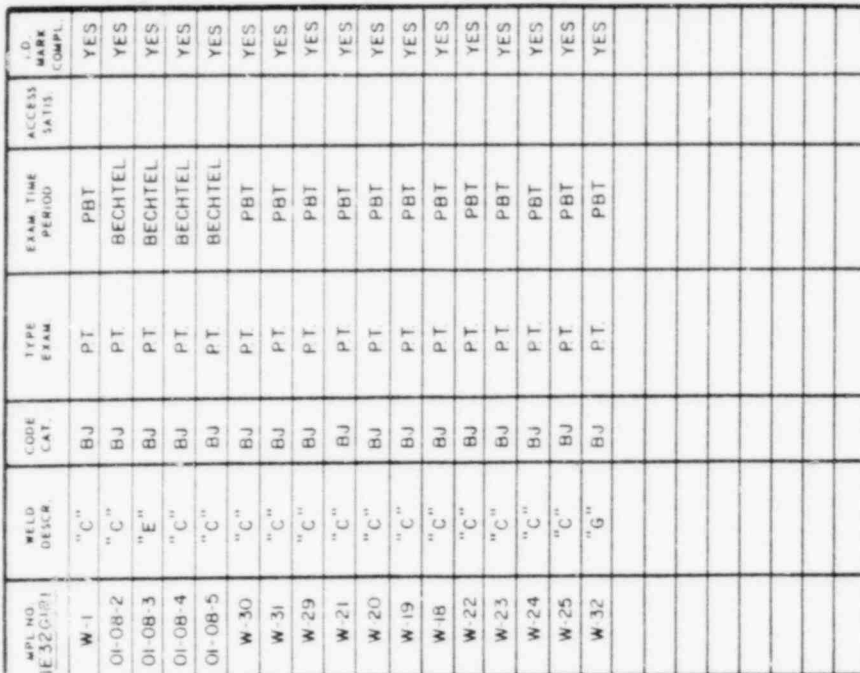
REV	A
DATE	10/10/01

INFORMATION ONLY  
NOT TO BE USED FOR DESIGN,  
FABRICATION, CONSTRUCTION  
OR MAINTENANCE



ORIGINAL COPY WHEN THIS IMPRINT IS RED 3

PROJECT		MP&L	GG-1	(JB-1)	MADE BY	IBSE-NSO
SYSTEM		MSIV	CTMT 8	REF DWS	U.S. 20-86	ATLANTA
LEAKAGE CONTROL		AUX BLOC	762E950	REF P.B.D	R DILL	2.8
				REF P.B.D	M-1077A	3.8
				REF P.B.D	SK-M-1599	3.8
					MSIV-O	1
					PAGE 10/1	

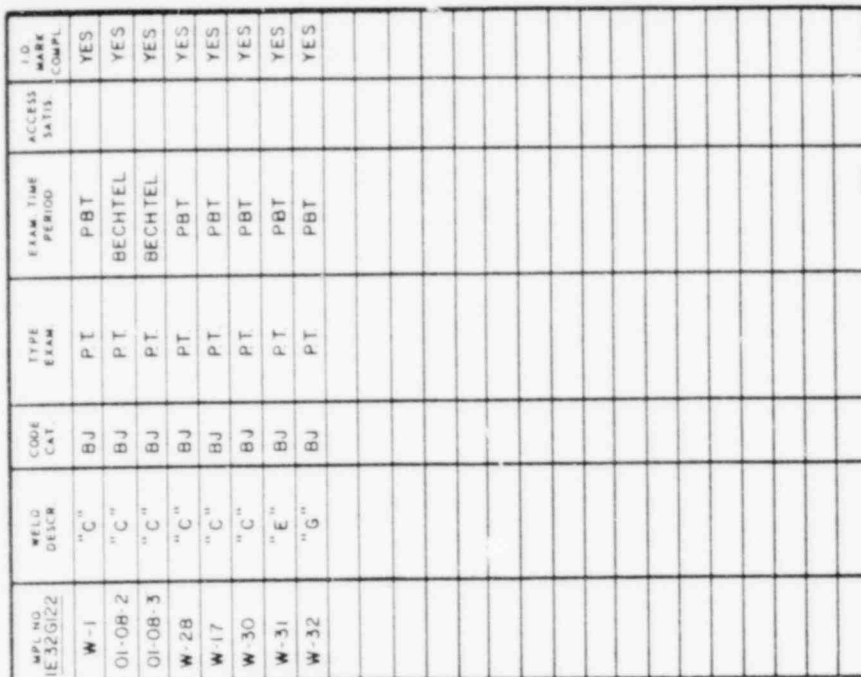


ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

GENERAL ELECTRIC

PROJECT	MP8L		GG-1	(JB-1)	MADE BY DILL	185E-N50 ATLANTA	185E	185E
SYSTEM	MSIV	LOCATION	MS-5	MS-8	REF. NO.	1810MS-8	1810MS-8	1810MS-8
LEAKAGE CONTROL	AUX BLDG		FSK-S-021B		M-1097	MSIV-8	MSIV-8	MSIV-8
						PAGE 1 of 1		

MSIV-0-1

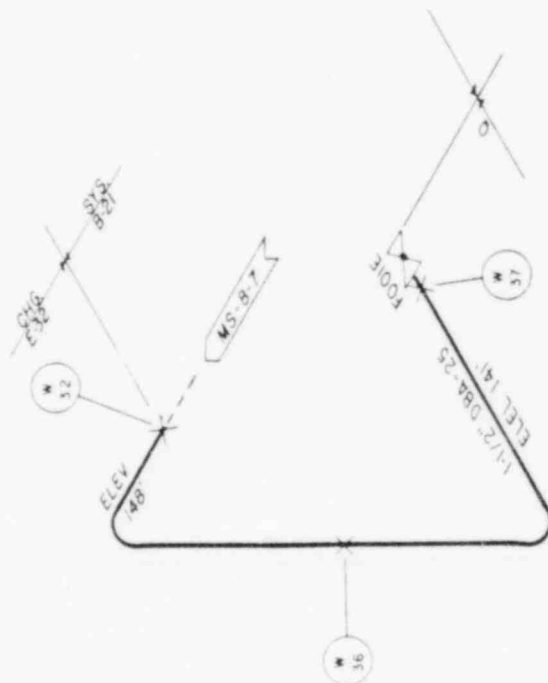


ORIGINAL COPY WHEN THIS IL-PRINT IN RED 3

**GENERAL ELECTRIC**

PROJECT MP&L	GG-1 (JB-1)	MADE BY G-2 B R DILL	BASE - NSO ATLANTA	REV 2
SYSTEM MSIV	LOCATION AUX BLDG	REP DES MS - 6	MSIV - B	
		REP PLO M - 1097	PAGE 011	

MSIV-0-1

[illegible]

ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

PROJECT	MP8L		GG-1	(JB-1)	MADE BY C-14-B R DILL	BASE-NSO ATLANTA	DATE
SYSTEM	AUX BLDG		LOCATION	REF DES MS-8-7	REF PRD M-1079	13. DES MSIV-8	3
LEAKAGE CONTROL				FSK-S-019B		PAGE 1 of 1	

MSIV-0-1



MPL NO	WELD DESC	CODE CAT	TYPE	EXAM	EXAM TIME PERIOD	ACCESS MARK	I.D. COMP
1E32G120	"C"	BJ	PT	PBT	YES		
W-1	"C"	BJ	PT	BECHTEL	YES		
01-08-13	"C"	BJ	PT	PBT	YES		
W-34	"G"	BJ	PT	PBT	YES		
W-35	HANGER	B-K-2	VT		N/A		
C01-B	HANGER	B-K-2	VT		N/A		
C02-B	HANGER	B-K-2	VT		N/A		
H01-B	HANGER	B-K-2	VT		N/A		
C03-B	HANGER	B-K-2	VT		N/A		

ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

PROJECT	MPAL		GG-1 (JB-1)		MADE BY	IBSE NSO	DATE
EXTD TO	MSIV	LOCATION	REF DWS	REF P&ID	131 DWS NO	ATLANTA	REV
LEAKAGE CONTROL	AUX BLDG	MS-8-B	MS-8-B	M-1097	MSIV-8		4
			FSK-S-020B		PAGE 1 of 1		

MSIV-0-1

# RI - RCIC SYSTEM - E51

INFORMATION ONLY

NOT TO BE USED IN DESIGN,  
FABRICATION, OR TESTING ON  
OR PARTS THEREOF

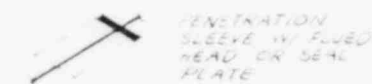
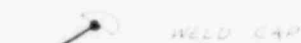
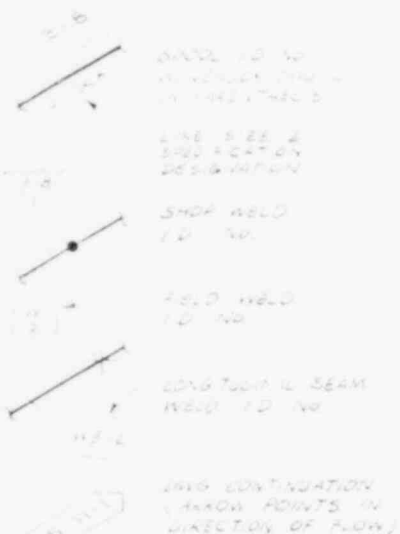
(3)



## DRAWING

## SYMBOLS

## LETTER SYMBOLS



CC - CONTAINMENT COOLING  
CD - CONDENSATE  
CG - COMBUSTIBLE GAS  
CH - CHILLED WATER  
CS - COND. W. STORAGE & TRANSFER  
CU - REACTOR WATER CLEANUP  
CW - COMP. COOLING WATER  
DG - DIESEL GENERATOR  
DR - FLOOR & EQUIPMENT DRAINS  
DW - DOMESTIC WATER  
FC - FUEL POOL COOLING & CLEANUP  
FD - FILTER DEMIN (FPCDD)  
FW - FEEDWATER  
HP - HIGH PRESSURE CORE SPRAY  
IA - INSTRUMENT AIR

EC - STANDBY LIQUID CONTROL  
EQ - LEAK DETECTION  
LP - LOW PRESSURE CORE SPRAY  
LR - LEAK RATE TEST SYSTEM  
MS - MAIN STEAM  
RD - CONTROL ROD DRIVE  
RF - FILTER DEMIN (HWCU)  
RH - RESIDUAL HEAT REMOVAL  
RI - REACTOR CORE ISOLATION COOLING  
RR - REACTOR RECIRCULATION  
RV - MAIN STEAM RELIEF VALVE  
SA - SERVICE AIR  
SC - SUPPRESSOR POOL CLEANUP  
SD - MAIN STEAM DRAINS  
SM - SUPP. POOL MAKEUP  
SW - PLANT SERVICE WATER  
WS - STANDBY SERVICE WATER

## WELDING CONFIGURATION

A - LONGITUDINAL SEAM  
B - PIPE TO ATTACHMENT  
C - PIPE TO FITTING  
D - PIPE TO NOZZLE  
E - PIPE TO PIPE  
F - PIPE TO PUMP  
G - PIPE TO VALVE  
H - PIPE TO WELDOLET  
I - FITTING TO FITTING  
K - FITTING TO PUMP  
L - FITTING TO VALVE  
M - VALVE TO VALVE  
N - PIPE TO WELDOLET  
P - PIPE TO SCKOLET  
R - CODE TAG WELD

## ABBREVIATIONS

AUX - AUXILIARY  
BLDG - BUILDING  
CL - CENTERLINE  
CL - CLAS  
COMP - COMPLETE COMPONENT  
CONT - CONTAINMENT  
DW - DEWELL  
ENG - DRAWING  
EL - ELEVATION  
FLG - FLANGE  
HD - HEAD  
HX - HEAT EXCHANGER  
ID - IDENTIFICATION  
ISI - INSERVICE INSPECTION  
MPL - MASTER PARTS LIST  
N - NORTH  
NOZ - NOZZLE  
PEN - PENETRATION  
REV - REVISION  
RV - REACTOR VESSEL  
RX - REACTOR  
SCH - SCHEDULE  
WD - WELD  
WEL - WELDOLET  
STD - STANDARD  
TURB - TURBINE  
WOL - WELDOLET

## TAGS

A - SNUBBER  
B - RIGID STRUT  
C - BOX OR GUIDE  
D - SPRING  
E - COMBINATION  
F - ANCHOR  
P - PWR

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SCALE: NONE  
JOB NO: JB-1  
CONTRACTING: 350N74002  
MADE FOR: MISSISSIPPI POWER & LIGHT

LEGEND FOR  
ISOMETRIC  
DRAWINGS  
PROJECT: GRAND GULF  
NUCLEAR PLANT

GENERAL ELECTRIC

NUCLEAR SERVICE OPERATION  
INSTALLATION & SERVICE ENGINEERING  
ATLANTA, GEORGIA

DRAWING NO: 35IN79B0006  
REV: 1 OF 3  
A

## 5. EXAMINATION REQUIREMENTS

1. VOLUMETRIC EXAMINATION OF CLASS 1 AND 2 COMPONENTS PER ASME SECTION XI, (WB-2601 AND IWC-2601)
10. VOLUMETRIC EXAMINATION OF 10% OF THE CLASS 2 PIPING WELDS IN EGCS SYSTEMS WHICH ARE PRESSURIZED LESS THAN 200 PSI DURING NORMAL PLANT OPERATION AND ARE NOT EXEMPTED BY OTHER CRITERIA
2. SURFACE EXAMINATION OF CLASS 1 COMPONENTS PER ASME SECTION XI, (WB-2601 AND IWC-2601)
3. VISUAL EXAMINATION OF CLASS 1 AND 2 COMPONENTS PER ASME SECTION XI, (WB-2601 AND IWC-2601)
4. SYSTEM LEAKAGE AND HYDROSTATIC PRESSURE TESTS AND VISUAL EXAMINATION OF CLASS 1 COMPONENTS PER ASME SECTION XI, (WA-5001 AND IWB-5001)
5. SYSTEM PRESSURE TESTS AND VISUAL EXAMINATION OF CLASS 2 COMPONENTS PER ASME SECTION XI, (WA-5001 AND IWB-5001)
6. SYSTEM PRESSURE TESTS AND VISUAL EXAMINATION OF CLASS 3 COMPONENTS PER ASME SECTION XI, (WA-5001 AND IWB-5001)
7. ASME CLASS 2 AND 3 COMPONENTS EXEMPT FROM ANY ISI PER ASME SECTION XI

## DWG NUMBERING SYSTEM

### I. SYSTEM OUTLINE DRAWINGS (ISOMETRICS)

EXAMPLE: MS-0-1

DWG SEQUENCE NO.  
OF DENOTES SYSTEM OUTLINE DWG  
SYSTEM LETTER SYMBOL  
(SEE LEGEND 5-T 1)

### II. WELD IDENTIFICATION DWGS (ISOMETRICS)

#### A. ASME CLASS 1 & 2 SYSTEMS

EXAMPLE: FM-11-2

DWG SEQUENCE NO.  
NUMERICAL CODE FOR AREA OF  
PLANT WHERE PIPING IS LOCATED  
(SEE DWG 33IN74B0007)  
SYSTEM LETTER SYMBOL

#### B. CLASS 3 SYSTEMS

EXAMPLE: CU-103

DWG SEQUENCE NO.  
(BEGINS @ 100)  
SYSTEM LETTER SYMBOL

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SCALE NONE	JOB NO. JB-1	TITLE LEGEND FOR ISI ISOMETRIC DRAWINGS		GENERAL ELECTRIC NUCLEAR SERVICE OPERATION INSTALLATION & SERVICE ENGINEERING DIV ATLANTA, GEORGIA	
CONTRACT NO. 330N74002		MADE FOR MISSISSIPPI POWER & LIGHT		DRAWING NO. 33IN74B0006	
		PROJECT GRAND GULF NUCLEAR PLANT		REV A	

REV NO. 2 OF 3

PIPE CLASSES ARE DESIGNATED BY A THREE LETTER CODE. THE FIRST LETTER INDICATES THE PRIMARY FLANGE PRESSURE RATING, THE SECOND LETTER, THE TYPE OF MATERIAL, AND THE THIRD LETTER, THE CODE TO WHICH THE PIPING IS DESIGNED.

#### FIRST LETTER - PRIMARY PRESSURE RATING

(UNLESS OTHERWISE NOTED, ALL RATINGS ARE IN ACCORDANCE WITH ANSI B16.5)

A SPECIFIC PRESSURE @ SPECIFIC TEMPERATURE

B 2500#

C 1500#

D 900#

E 600#

F 400#

G 300#

H 150#

J 125# ANSI B16.1

K 175# WOG UNDERWRITERS' LABORATORIES, INC.

L 250# ANSI B16.1

X GRAVITY RATING

Y ROOF DRAINS, GRAVITY RATING

#### ADDITIONAL PRESSURE RATINGS:

M 200# (MANUFACTURER'S RATING)

N 150# WOG

P 100# (MANUFACTURER'S RATING)

R 75# (MANUFACTURER'S RATING)

S 50# WOG

T 25# AL. 1/4 (OR MANUFACTURER'S RATING)

Z GENERAL USE AS DESIGNATED ON PIPING CLASS SHEETS

V 150# (MANUFACTURER'S RATING)

#### SECOND LETTER - MATERIAL

A ALLOY STEEL

B CARBON STEEL

C AUSTENITIC STAINLESS STEEL

D COPPER, BRASS or BRONZE

E ALUMINUM

F CARBON STEEL - COPPER BEARING

G CARBON STEEL - SARAN LINED

H CAST IRON

K PVC

M DURIRON

N CARBON STEEL - GALVANIZED

P CAST IRON - CEMENT LINED

R CARBON STEEL - EPOXY LINED

S DUCTILE IRON - CEMENT LINED

T DELETED

V FRP

W CARBON STEEL - TEFLON LINED

#### THIRD LETTER - APPLICABLE CODES

A NUCLEAR POWER PLANT COMPONENTS  
ASME BBPV CODE, SECTION III, CLASS I

B NUCLEAR POWER PLANT COMPONENTS  
ASME BBPV CODE, SECTION III, CLASS 2

C NUCLEAR POWER PLANT COMPONENTS  
ASME BBPV CODE, SECTION III, CLASS 3

D POWER PIPING CODE, ANSI B31.1

F NATIONAL FIRE PROTECTION ASSOCIATION CODE

G SOUTHERN STANDARD PLUMBING CODE

H POWER BOILERS, ASME BBPV CODE, SECTION I

J AMERICAN WATER WORKS ASSOCIATION STANDARDS

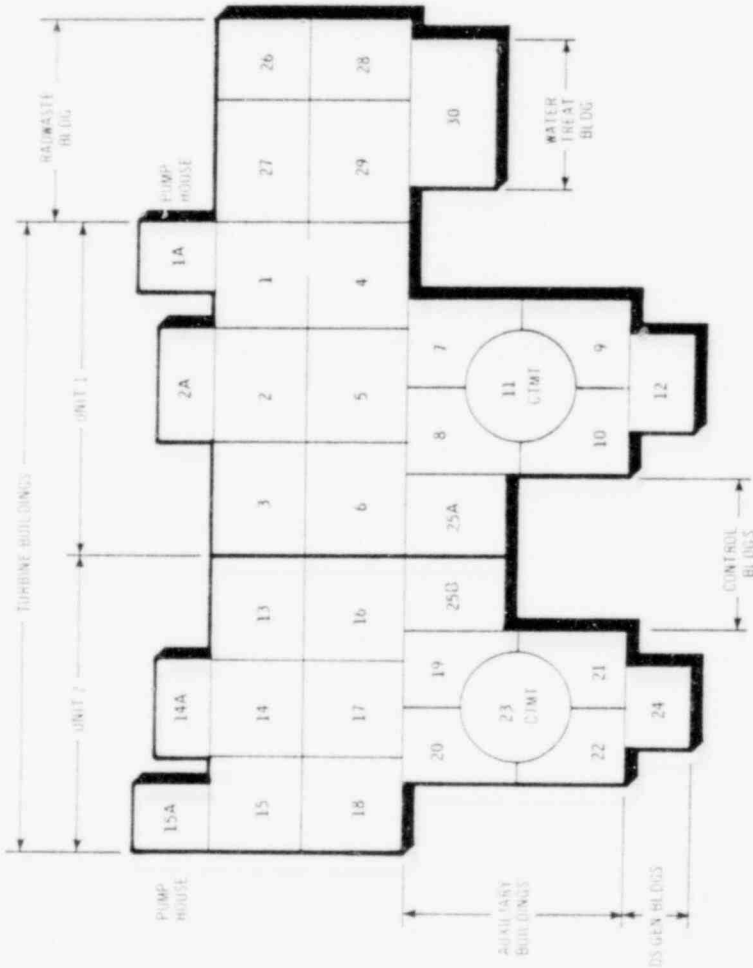
Z FABRICATED, INSPECTED AND INSTALLED PER ASME  
SECTION III, CLASS 3. DESIGNED PER ANSI B31.1  
N-STAMPING, SEISMIC ANALYSIS AND Q-TESTING ARE  
NOT REQUIRED

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SCALE NONE	JOB NO. JB-1	TITLE LETTER CODE FOR PIPING		GENERAL ELECTRIC NUCLEAR SERVICE OPERATION INSTALLATION & SERVICE ENGINEERING DIV. ATLANTA, GEORGIA	
CONTRACT NO. 360N74002		PROJECT GRAND GULF NUCLEAR PLANT		DRAWING NO. 351N79B0006	REV. A
MADE FOR MISSISSIPPI POWER & LIGHT CO.		<div style="text-align: right;"> <small>REV. NO. 3-67</small> </div>			



GRAND GULF NUCLEAR STATION UNITS 1 AND 2  
 POINT GULF, MISSISSIPPI  
 MISSISSIPPI POWER & LIGHT COMPANY

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 OF EQUIPMENT

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SCALE NONE	JOB NO. 48-1	TITLE KEY PLAN AREA LOCATIONS	GENERAL ELECTRIC NUCLEAR SERVICE OPERATION INSTALLATION & SERVICE ENGINEERING DIV. ATLANTA, GEORGIA
CONTRACT NO. 360N74002	DATE FOR MISSISSIPPI POWER & LIGHT	PROJECT GRAND GULF NUCLEAR PLANT	DRAWING NO. 35IN 50130007 REV. A

# INDEX TO ISOS FOR E-5I SYSTEM

COMPOSITE:	RI-0-1	REV
FOR ISOS:	RI-8-9	A
	RI-8-10	A
	RI-8-11	A
	RI-8-12	A
	RI-8-13	A
	RI-11-4	A
	RI-11-5	A
	RI-11-6	A
	RI-11-7	A

COMPOSITE:	RI-0-2	REV
FOR ISOS:	RI-8-1	A
	RI-8-2	A
	RI-8-3	A
	RI-8-4	A
	RI-8-5	A
	RI-8-6	A
	RI-8-7	A
	RI-8-8	A
	RI-8-21	A
	RI-11-1	A
	RI-11-2	A
	RI-11-3	A

COMPOSITE:	RI-0-3	REV
FOR ISOS:	RI-8-14	A
	RI-8-15	A
	RI-8-16	A
	RI-8-17	A
	RI-8-18	A

COMPOSITE:	RI-0-4	REV
FOR ISOS:	RI-7-1	A
	RI-7-2	A
	RI-7-3	A
	RI-7-4	A
	RI-8-19	A
	RI-8-20	A

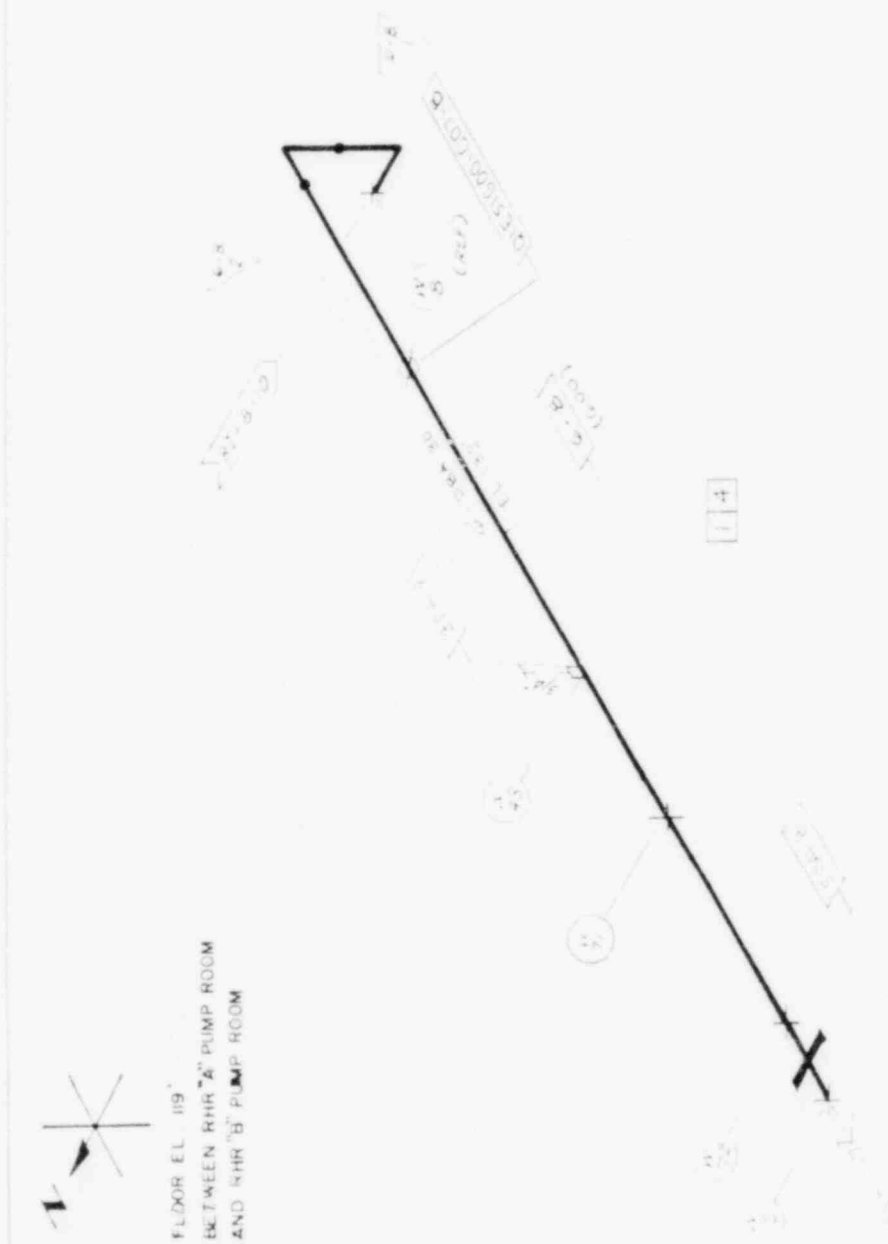
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REV A  
DATE 8-8





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 CAP. 10/1/1990

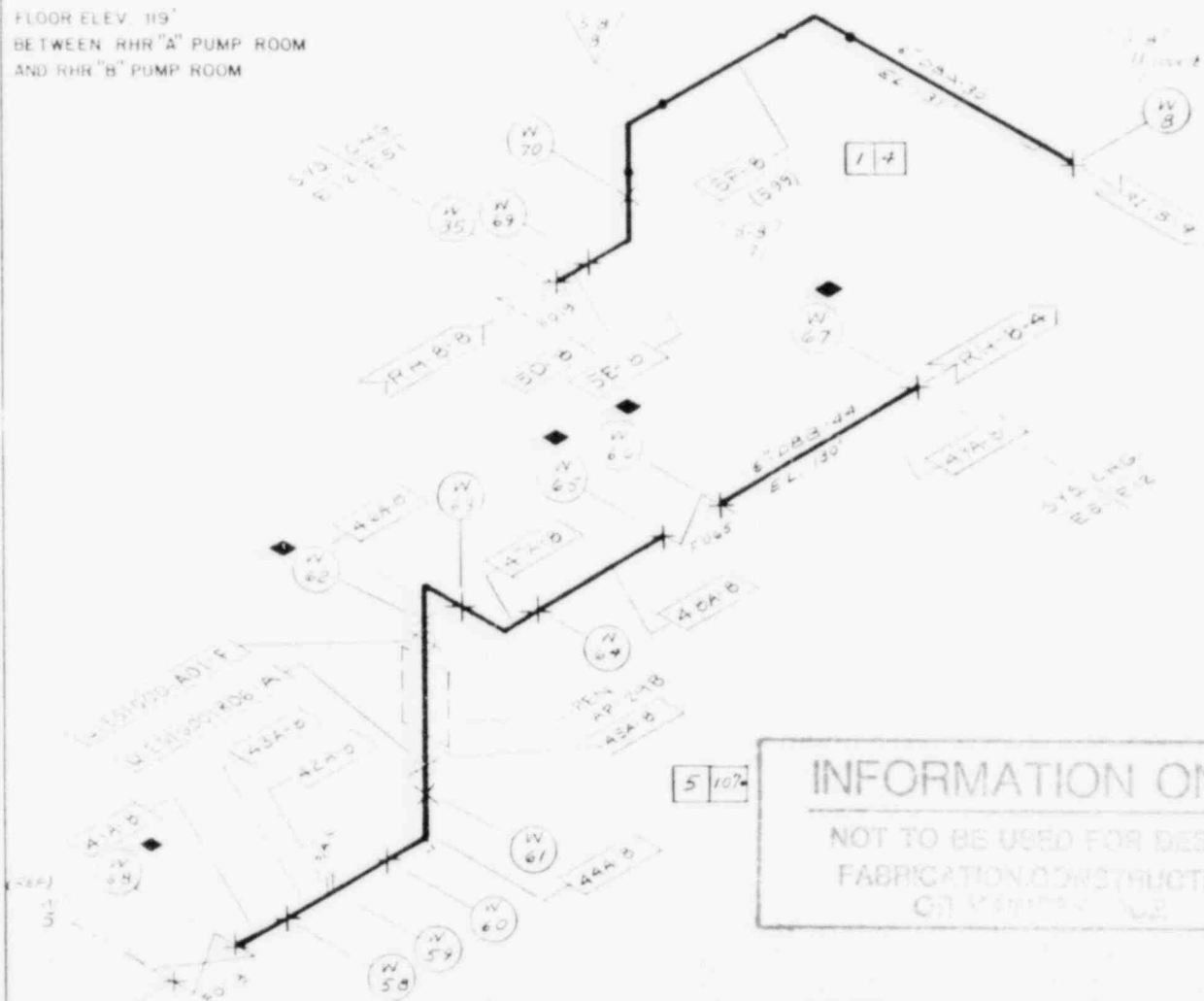
MP. NO. ID#10001	WELD DESCR.	CODE CAT.	TYPE EXAM	EXAM TIME PERIOD	AGE MARK SATIS	ID
6-8-1	"C"	BJ	UT	07-30-79	YES	YES
6-8-2	"C"	BJ	UT	05-08-80	YES	YES
W-71	"E"	BJ	UT	06-10-80	YES	YES
W-72	"C"	BJ	UT	06-10-80	YES	YES
W-12	"C"	BJ	UT	09-13-79	YES	YES
6-8-1	"C"	BJ	PT	01-30-81	YES	YES
6-8-2	"C"	BJ	PT	01-30-81	YES	YES
W-71	"E"	BJ	MT	PBT	YES	YES
W-72	"C"	BJ	MT	PBT	YES	YES
W-12	"C"	BJ	PT	PBT	YES	YES
C075	HANGER	BK2	VT		N/A	N/A

ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

MP8L	GG-1	(JB-1)	DWTS. 8-17-78	BASE NSO
SYSTEM	LOCATION	REF. ISO	S. GRAUS	ATLANTA
RCIC	AUX. BLDG.	M-1346A	REF. P. 10	DWTS. N°
HD SPRAY			M-1085A	AT-2
			SK M-1596	PAGE 1 OF 1



FLOOR ELEV. 119'  
BETWEEN RHR "A" PUMP ROOM  
AND RHR "B" PUMP ROOM



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NOT TO BE USED FOR DESIGN,  
FABRICATION, CONSTRUCTION

ON MARCH 1, 1982

ORIGINAL COPY WHEN THIS IMPRINT IN RED

LINE NO W THKNS

6" DBB-44 432"

RI-0-1

CAL STANDARD ID • 4, • 12

MPLE NR TEST BOOK	WELD DESCR	CODE CAT	TYPE EXAM	EXAM TIME PERIOD	ACCESS SATIS	1 D MARK COMP
W-68	"G"	CF	UT	06-11-80		YES
W-62	"C"	CF	UT	03-03-81		YES
W-65	"G"	CF	UT	03-03-81		YES
W-66	"G"	CF	UT	03-03-81		YES
W-67	"C"	CF	UT	03-03-81		YES
W-35	"G"	BJ	UT	07-30-79		YES
W-69	"C"	BJ	UT	06-10-80		YES
W-70	"C"	BJ	UT	06-10-80		YES
5-B-7	"C"	BJ	UT	05-08-80		YES
5-B-8	"C"	BJ	UT	05-08-80		YES
5-B-9	"C"	BJ	UT	05-08-80		YES
5-B-10	"C"	BJ	UT	05-12-80		YES
W-8	"C"	BJ	UT	05-08-80		YES
W-68	"G"	CF	MT	03-09-81		YES
W-62	"C"	CF	MT	03-03-81		YES
W-65	"G"	CF	MT	03-03-81		YES
W-66	"G"	CF	MT	03-03-81		YES
W-67	"C"	CF	MT	03-03-81		YES
W-35	"G"	BJ	PT	PBT		YES
W-69	"C"	BJ	MT	PBT		YES
W-70	"C"	BJ	MT	PBT		YES
5-B-7	"C"	BJ	PT	TEXAS PIPE		YES
5-B-8	"C"	BJ	PT	TEXAS PIPE		YES
5-B-9	"C"	BJ	PT	TEXAS PIPE		YES
5-B-10	"C"	BJ	PT	TEXAS PIPE		YES
W-8	"C"	BJ	PT	PBT		YES
A01 F	HANGER	CE	VT			N/A
ROG A	HANGER	CE	VT			N/A

MP&L GG-1 (JB-1)

SYSTEM  
RCIC  
HD 500A7

LOCATION  
AUX  
BLDG

REP ISO  
M-1346A

OWN 08-17-80  
S GRAUS  
W-1088A  
W-1088A  
W-1088A  
W-1088A

IBSE-NSO  
ATLANTA  
OWN NR  
RI-B  
PAGE 1 OF 1

REV  
DATE  
10







W. No. (ESIGG)	W. No. E. No.	QDAR CAP	TYPE TEAM	EXAM TIME REMOVED	ACCESS STATUS	W. No. E. No.
41-B-2	"E"	CF	UT	03-04-BI	YES	
W-1	"G"	CF	UT	03-04-BI	YES	
W-2	"G"	CF	UT	03-04-BI	YES	
W-3	"G"	CF	UT	03-03-BI	YES	
41-B-2	"E"	CF	MT	03-09-BI	YES	
W-1	"G"	CF	MT	03-09-BI	YES	
W-2	"G"	CF	MT	03-09-BI	YES	
W-3	"G"	CF	MT	03-03-BI	YES	
H03-B	HANGER	CE	VT		N/A	

ORIGINAL COPY WHEN THIS MESSAGE IS SENT

GENERAL &  CO.

SECTION E-B

SECTION A-11

LINE NO.	WIDTH	THICKNESS
6" DBB 44	562"	

(CAL. STANDARD 10-12)

PROJECT	MP&L GG-1 (JB-1)	WORK ROOM NO.	ISSUE - N50	DATE
SYSTEM	AUX BLDG.	REF. QUA.	S. GRAUS	BY
HCIC			M 1083A	DATE
			SK M-1596	12
			PAGE 1 of 1	





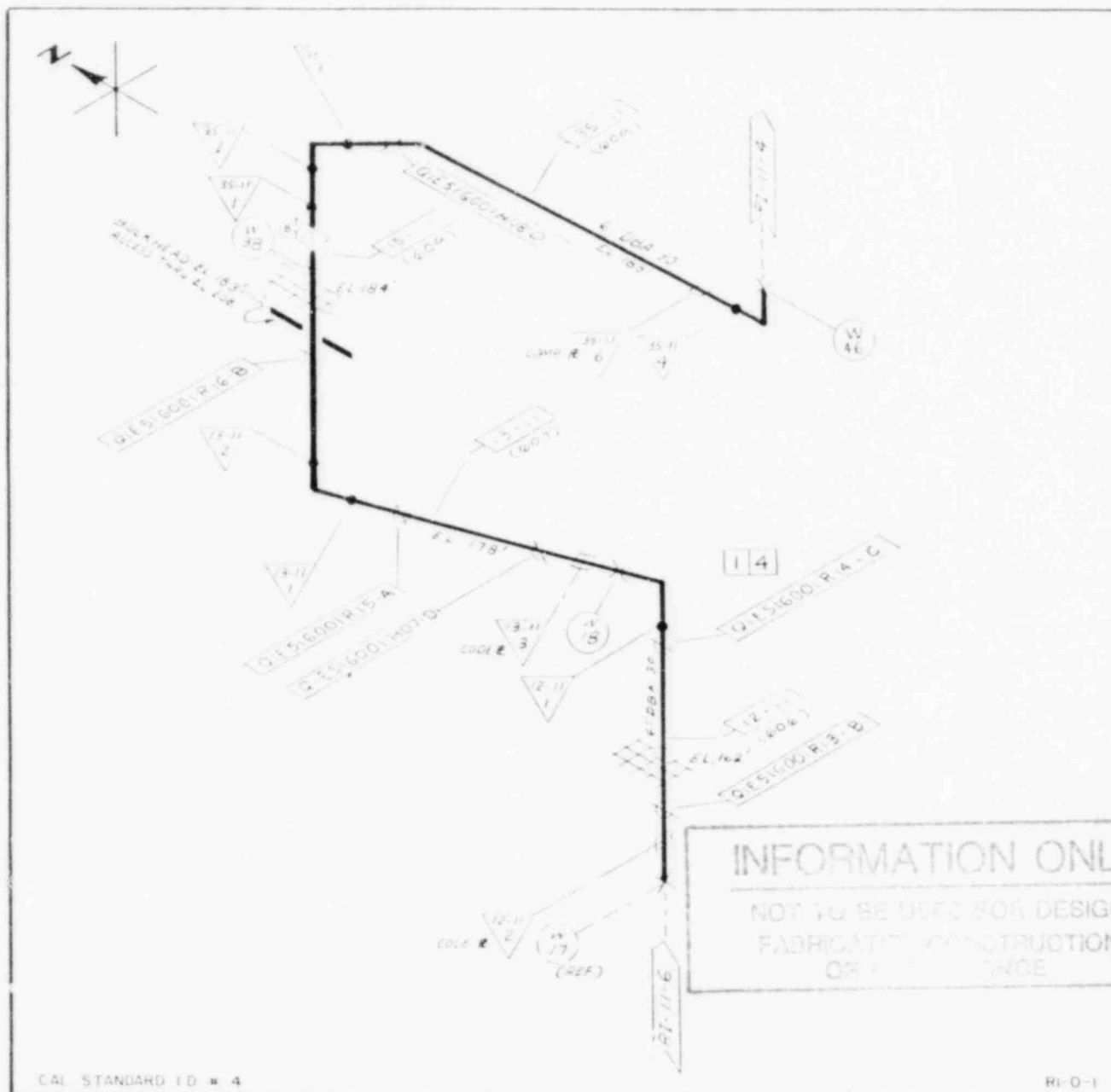


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WELD NO. (E59600)	WELD DESCR	CODE CAT	TYPE EXAM	EXAM TIME PERIOD	ACCESS SATIS	TD MARK COMPL
16-11-1	"C"	BJ	PT	TEXAS PIPE		YES
W-85	"C"	BJ	PT	PBT		YES
27-11-9	"C"	BJ	PT	TEXAS PIPE		YES
27-11-8	"C"	BJ	PT	TEXAS PIPE		YES
27-11-7	"C"	BJ	PT	TEXAS PIPE		YES
27-11-6	"C"	BJ	PT	TEXAS PIPE		YES
27-11-5	"C"	BJ	PT	TEXAS PIPE		YES
27-11-4	"C"	BJ	PT	TEXAS PIPE		YES
27-11-3	"C"	BJ	PT	TEXAS PIPE		YES
27-11-2	"C"	BJ	PT	TEXAS PIPE		YES
27-11-1	"C"	BJ	PT	TEXAS PIPE		YES
W-39	"C"	BJ	PT	01-27-81		YES
W-40	"C"	BJ	PT	01-27-81		YES
28-11-7	"C"	BJ	PT	TEXAS PIPE		YES
28-11-6	"C"	BJ	PT	TEXAS PIPE		YES
28-11-5	"C"	BJ	PT	TEXAS PIPE		YES
28-11-4	"C"	BJ	PT	TEXAS PIPE		YES
W-84	"C"	BJ	PT	01-27-81		YES
28-11-2	"C"	BJ	PT	TEXAS PIPE		YES
28-11-1	"C"	BJ	PT	TEXAS PIPE		YES
R17-A	HANGER	BK2	VT			N/A
R09-D	HANGER	BK2	VT			N/A
R18-A	HANGER	BK2	VT			N/A
R19-A	HANGER	BK2	VT			N/A
VALVE BODY	BOLTS (12)	BG2	VT	06-11-81		N/A
FLANGE BOLTING	BETWEEN W-85 AND R-11	BG2	VT			N/A
FLANGE BOLTING	ATTACHED TO SP. PS. 2054	BG2	VT			N/A

ORIGINAL COPY WHEN THIS MP-PRINT IN RED 3

PROJECT MP8L		GG-1 (JB-1)		GENERAL ELECTRIC	
SYSTEM HCC		LOCATION CTMT		MADE BY: S. GRAUS	
HEAD SPRAY				BASE - NSO	
				ATLANTA	
				REF. NO. M-1077A	
				REF. NO. M-1085A	
				SR. M-1596	
				PAGE 2 of 2	



WELD NO	WELD DESCR	CODE CAT	TYPE EXAM	EXAM TIME PERIOD	ACCESS SATIS	IS MARK COMPL
12-II-1	"C"	BJ	UT	10-04-79		YES
W-18	"C"	BJ	UT	06-30-80		YES
13-II-1	"C"	BJ	UT	05-12-80		YES
13-II-2	"C"	BJ	UT	05-12-80		YES
W-38	"C"	BJ	UT	03-16-81		YES
35-II-1	"C"	BJ	UT	06-25-80		YES
35-II-2	"C"	BJ	UT	06-25-80		YES
35-II-3	"C"	BJ	UT	06-25-80		YES
35-II-4	"C"	BJ	UT	06-25-80		YES
W-46	"C"	BJ	UT	06-25-80		YES
12-II-1	"C"	BJ	PT	TEXAS PIPE		YES
W-18	"C"	BJ	PT	PBT		YES
13-II-1	"C"	BJ	PT	TEXAS PIPE		YES
13-II-2	"C"	BJ	PT	TEXAS PIPE		YES
W-38	"C"	BJ	PT	PBT		YES
35-II-1	"C"	BJ	PT	TEXAS PIPE		YES
35-II-2	"C"	BJ	PT	TEXAS PIPE		YES
35-II-3	"C"	BJ	PT	TEXAS PIPE		YES
35-II-4	"C"	BJ	PT	TEXAS PIPE		YES
W-46	"C"	BJ	PT	PBT		YES
R13-B	HANGER	B-K-2	VT			N/A
R14-C	HANGER	B-K-2	VT			N/A
H07-D	HANGER	B-K-2	VT			N/A
R15-A	HANGER	B-K-2	VT			N/A
R16-B	HANGER	B-K-2	VT			N/A
H08-D	HANGER	B-K-2	VT			N/A
FLANGE BOLTING	BETWEEN W-38 & 35-II-1	B-G-2	VT	06-11-81		N/A

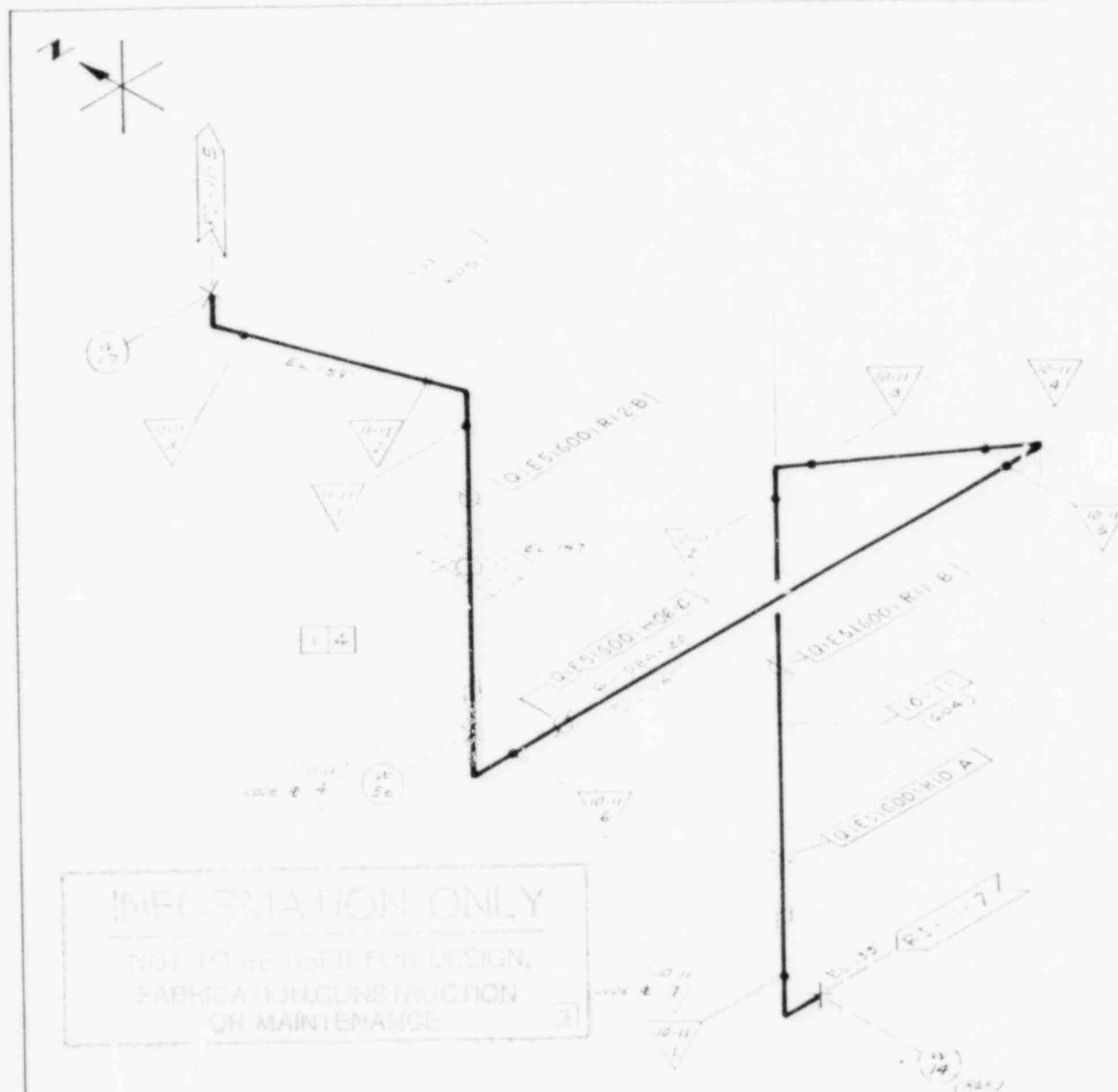
## INFORMATION ONLY

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OR MAINTENANCE

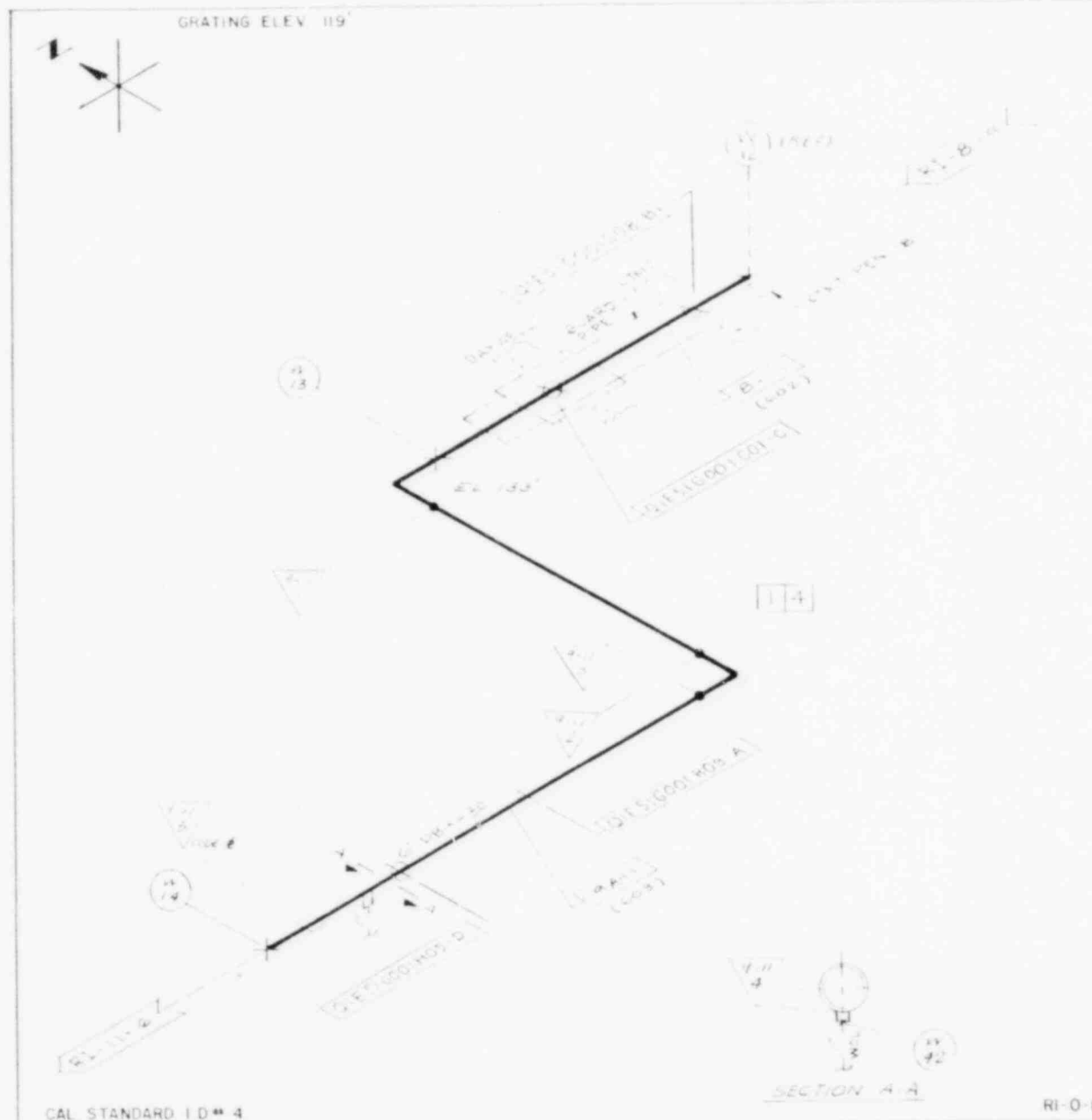
ORIGINAL COPY WHEN THIS IMPRINT IN RED

GENERAL ELECTRIC

PROJECT	MP&L GG-1 (JB-1)	MADE BY	OR 14-78 S GRAUS	1&SE-NSO ATLANTA	REV	10
SYSTEM	RCIC	LOCATION	CTMT	REF NO	M-1085A	SH NO
HEAD SPRAY				SK-M 1596	RI-11	5
				PAGE 1 of 1		



MPL NR (E51000)	WELD DESIGN	CODE CAT	TYPE EXAM	EXAM TIME PERIOD	ACCESS PATH	ID MARK COMP
10-11-1	"C"	BJ	UT	05-12-80		YES
10-11-2	"C"	BJ	UT	10-04-79		YES
10-11-3	"C"	BJ	UT	05-12-80		YES
10-11-4	"C"	BJ	UT	05-12-80		YES
10-11-5	"C"	BJ	UT	05-12-80		YES
10-11-6	"C"	BJ	UT	09-12-79		YES
11-11-1	"C"	BJ	UT	05-12-80		YES
11-11-2	"C"	BJ	UT	05-12-80		YES
11-11-3	"C"	BJ	UT	05-12-80		YES
W-17	"C"	BJ	UT	06-30-80		YES
W-56	"C"	BJ	UT	06-30-80		YES
10-11-1	"C"	BJ	PT	TEXAS PIPE		YES
10-11-2	"C"	BJ	PT	TEXAS PIPE		YES
10-11-3	"C"	BJ	PT	TEXAS PIPE		YES
10-11-4	"C"	BJ	PT	TEXAS PIPE		YES
10-11-5	"C"	BJ	PT	TEXAS PIPE		YES
10-11-6	"C"	BJ	PT	TEXAS PIPE		YES
W-56	"C"	BJ	PT	PBT		YES
11-11-1	"C"	BJ	PT	TEXAS PIPE		YES
11-11-2	"C"	BJ	PT	TEXAS PIPE		YES
11-11-3	"C"	BJ	PT	TEXAS PIPE		YES
W-17	"C"	BJ	PT	PBT		YES
RI0-A	HANGER	B-K-2	VT			N/A
RI1-B	HANGER	B-K-2	VT			N/A
HO6-C	HANGER	B-K-2	VT			N/A
RI2-B	HANGER	B-K-2	VT			N/A

INFORMATION ONLY

ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

MP&L	GG-1	(JB-1)	DWIG S. RAUS 08-16-78	18 SE NSO ATLANTA	REV
SYSTEM RCIC	LOCATION CTMT	REF ISO M-1346A	REF PAID M-1085A	DWIG NR RI-11	SHT 7
HD SPRAY			SK M-1596	PAGE 10f1	





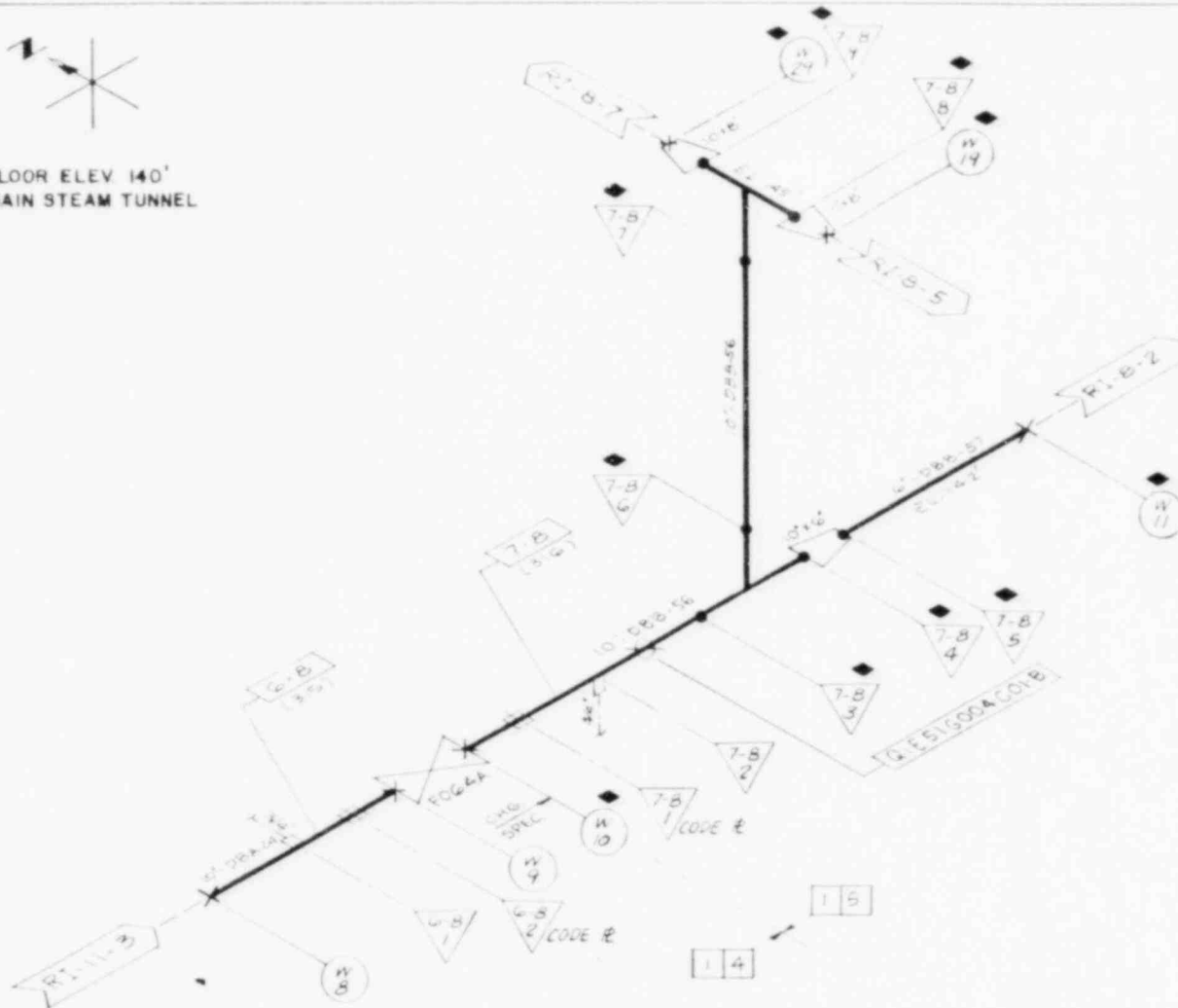
**INFORMATION ONLY**  
 NOT TO BE USED FOR DESIGN,  
 FABRICATION, CONSTRUCTION  
 OR MAINTENANCE

No. Pipe Spools \_\_\_\_\_  
 No. Pipe Shop Welds \_\_\_\_\_  
 No. Pipe Field Welds \_\_\_\_\_  
 No. Hgs. Restrictions \_\_\_\_\_  
 TOTAL NO. WELDS \_\_\_\_\_

PROJECT		GENERAL ELECTRIC		7	2
MP8L	GG-1	(JB-1)	S. GRAUS	BASE - NSO	PAGE 1 of 1
ALC. FROM	PUMP TUB	CTMT B	M-1347A	RI-0	2

ORIGINAL COPY WHEN THIS IMPRINT IN RED

FLOOR ELEV 140'  
MAIN STEAM TUNNEL



MPL NO 1514004	WELD DESCR	CODE CAT	TYPE EXAM	EXAM TIME PERIOD	ACCESS SATIS	I.D. MARK COMP
W-8	"C"	BJ	UT	06-12-80		YES
W-9	"G"	BJ	UT	06-12-80		YES
W-10	"G"	CF	UT	06-26-80		YES
7-8-3	"C"	CF	UT	06-26-80		YES
7-8-4	"C"	CF	UT	06-26-80		YES
7-8-5	"C"	CF	UT	06-27-80		YES
W-11	"C"	CF	UT	06-27-80		YES
7-8-6	"C"	CF	UT	06-26-80		YES
7-8-7	"C"	CF	UT	06-26-80		YES
7-8-8	"C"	CF	UT	06-26-80		YES
7-8-9	"C"	CF	UT	06-26-80		YES
W-29	"C"	CF	UT	06-26-80		YES
W-19	"C"	CF	UT	06-26-80		YES
W-8	"C"	BJ	PT	01-27-81		YES
W-9	"G"	BJ	MT	01-27-81		YES
W-10	"G"	CF	MT	02-06-81		YES
7-8-3	"C"	CF	MT	02-06-81		YES
7-8-4	"C"	CF	MT	02-06-81		YES
7-8-5	"C"	CF	MT	04-28-81		YES
W-11	"C"	CF	MT	04-28-81		YES
7-8-6	"C"	CF	MT	02-06-81		YES
7-8-7	"C"	CF	MT	02-06-81		YES
7-8-8	"C"	CF	MT	02-06-81		YES
7-8-9	"G"	CF	MT	02-06-81		YES
W-29	"C"	CF	MT	04-28-81		YES
W-19	"C"	CF	MT	04-28-81		YES
COI-B	HANGER	CE	VT			N/A

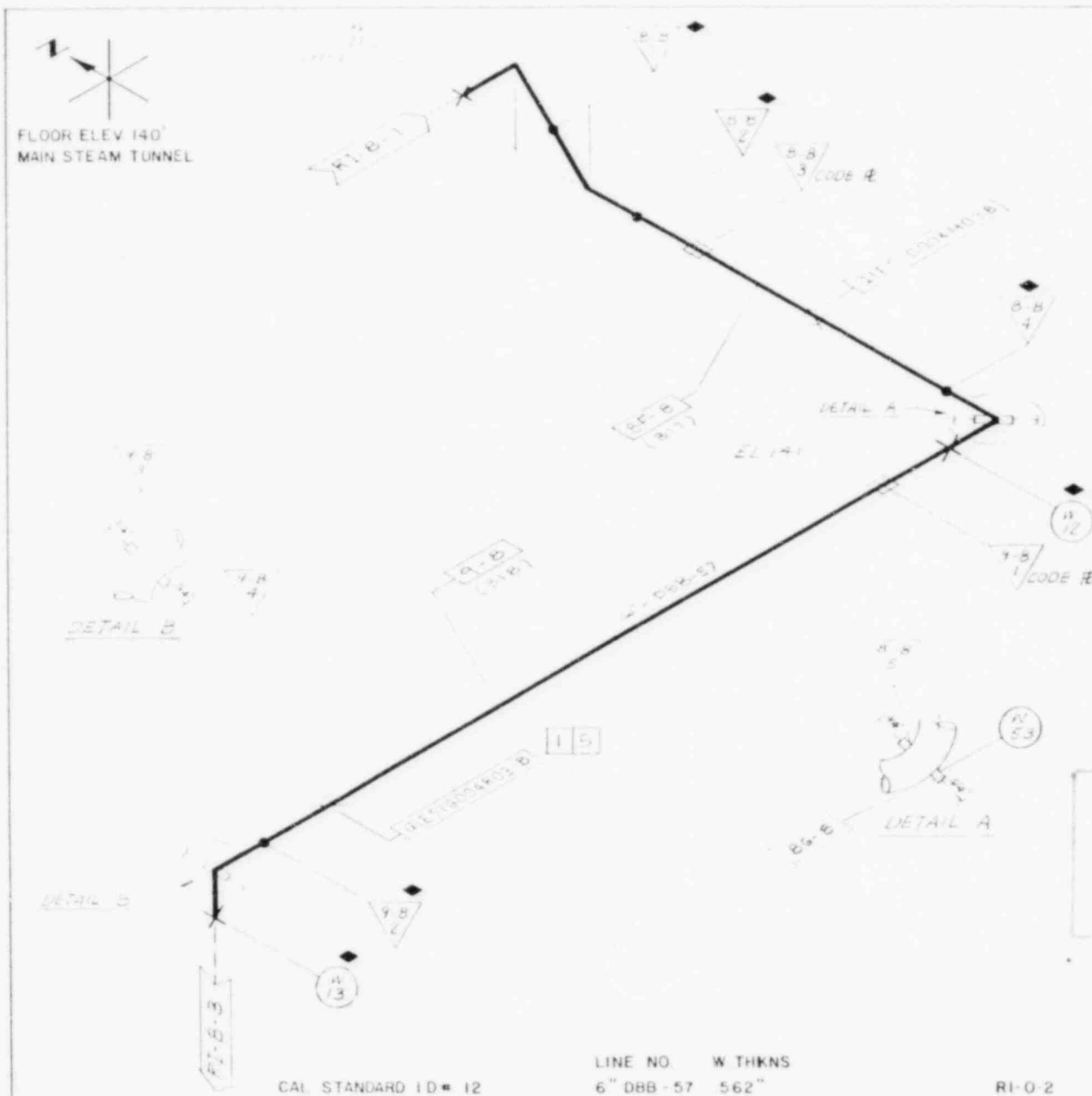
ORIGINAL COPY WHEN THIS IMPRINT IN RED

CAL. STANDARD I.D. 5, 12, 13, 33

LINE NO. W THKNS.  
10 DBB-56 7.19"  
6 DBB-57 .562"

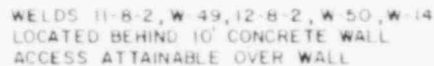
RI-0-2

MP&L GG-1 (JB-1)		DWN S GRAUS 03-08-77	IBSE NSO ATLANTA	DATE
SYSTEM MS TO HCIC TURB	LOCATION AUX. BLDG	REF. ISO M-1347A	REF. P&ID M-1083B SK-M-1596	DWS. NR RI-5 PAGE 1 of 1

[illegible]

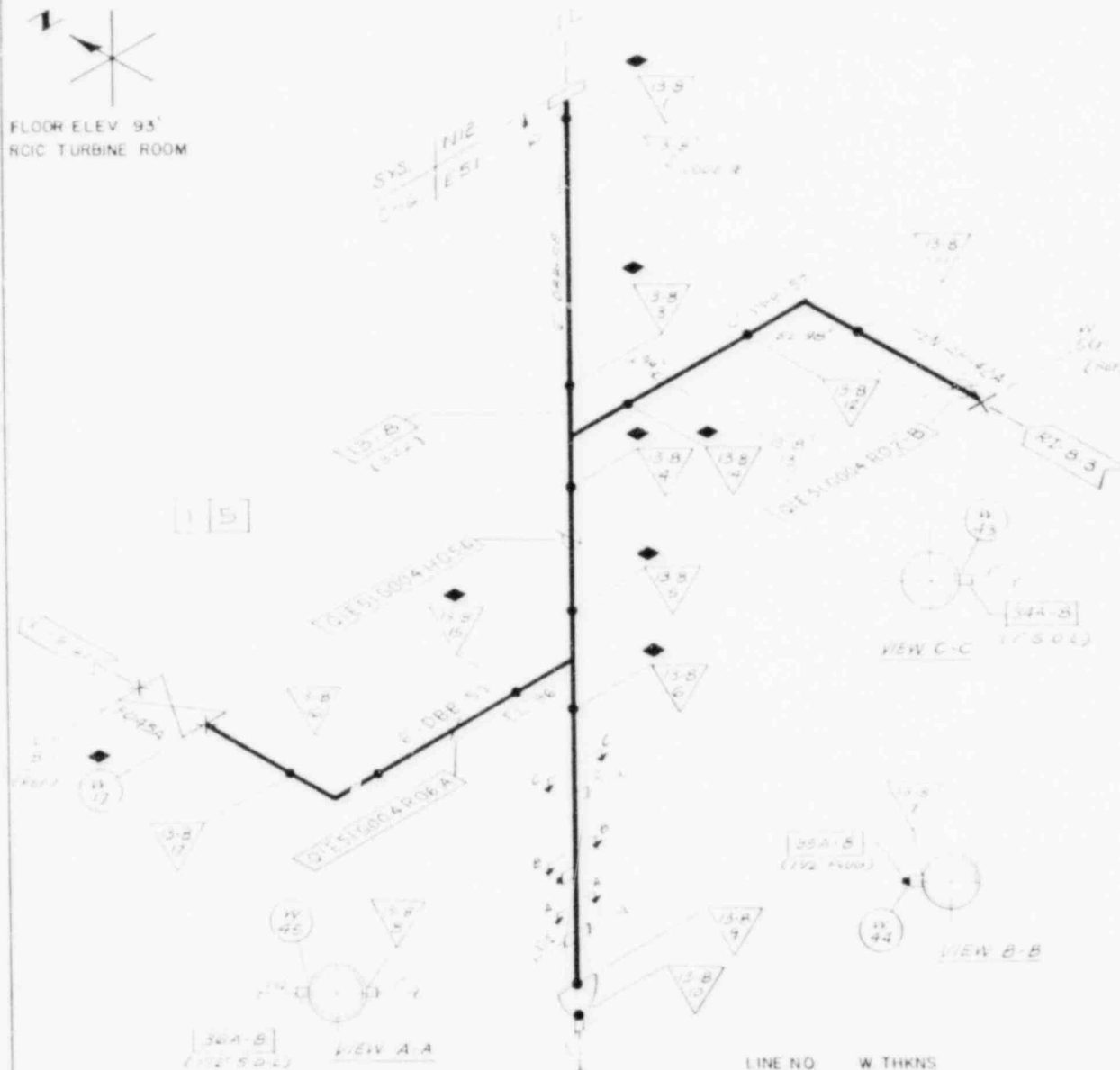
ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

MP&L	GG-1	(JB-1)	DWN 3-9-79 S. GRAUS	BASE NSO ATLANTA	REV 2
SYSTEM MS TO RCIC TURB	LOCATION AUX BLDG	REF. ISO M1347A	REF. PAID M1083B SK-M 1596	DWG. NR RI-8 PAGE 1 of 1	SIT 2



MP&L GG-1 (JB-1)		DWN 3-4-77 S GRAUS		18SE NSO ATLANTA	REV DATE
SYSTEM	LOCATION	REF ID	REF FILE	DWG NO	SHT
RCIC TURB	AUX BLDG	M-1347A	M-1083B SK-M-1596	R1-8 PAGE 1 of 1	3

FLOOR ELEV. 93'  
RCIC TURBINE ROOM



CAL. STANDARD I D # 12

\* DIAMONDS REMOVED PER BECHTEL REVISION

LINE NO. W THKNS  
6" DBB - 57 .562"  
6" DBB - 58 .562"

RI-O-2

MPL NR IESI 6004	WELD DESCR	CODE CAT	TYPE EXAM	EXAM TIME PERIOD	ACCESS SATIS	I D MARK COMP
13-B-1	"C"	CF	UT	05-13-80		YES
13-B-3	"C"	CF	UT	05-13-80		YES
13-B-14	"C"	CF	UT	09-24-79		YES
*13-B-12	"C"	CF	UT	08-28-79		YES
*13-B-11	"C"	CF	UT	08-28-79		YES
13-B-4	"C"	CF	UT	05-13-80		YES
13-B-5	"C"	CF	UT	05-13-80		YES
13-B-15	"C"	CF	UT	08-28-79		YES
*13-B-16	"C"	CF	UT	08-28-79		YES
*13-B-17	"C"	CF	UT	08-28-79		YES
W-17	"G"	CF	UT	09-24-79		YES
13-B-6	"C"	CF	UT	05-13-80		YES
*13-B-9	"C"	CF	UT	08-28-79		YES
13-B-1	"C"	CF	MT	02-09-81		YES
13-B-3	"C"	CF	MT	02-09-81		YES
13-B-14	"C"	CF	MT	02-09-81		YES
13-B-4	"C"	CF	MT	02-09-81		YES
13-B-5	"C"	CF	MT	02-09-81		YES
13-B-15	"C"	CF	MT	02-09-81		YES
W-17	"G"	CF	MT	02-09-81		YES
13-B-6	"C"	CF	MT	02-09-81		YES
RO2-B	HANGER	CE	VT			N/A
HO5-C	HANGER	CE	VT			N/A
RO6-A	HANGER	CE	VT			N/A

INFORMATION ONLY

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ON THE DRAWING

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MP&L GG-1 (JB-1)		DWN 3-4-77 S GRAUS	IBSE NSO ATLANTA	REV A	DATE 7/96
SYSTEM	LOCATION	REF ISO	REF P&ID	DWG NR	SHT
RCIC TURB	AUX BLDG	M-1347A	M-1083B SK-M-1596	RI-8 PAGE 1 of 1	4

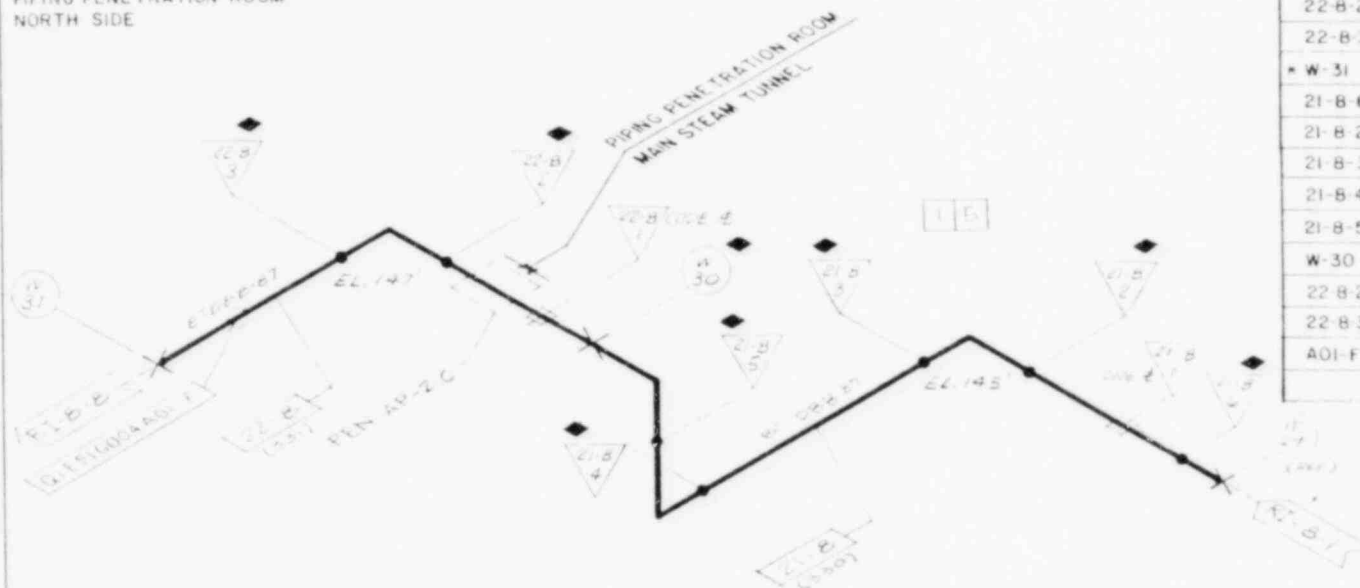






FLOOR ELEV 140'  
MAIN STEAM TUNNEL

FLOOR ELEV 139'  
PIPING PENETRATION ROOM  
NORTH SIDE



MPL NR (EST) 0004	WELD DESCR	CODE CAT	TYPE EXAM	EXAM TIME PERIOD	ACCESS SATIS	I D MARK COMP
21-B-6	"E"	CF	UT	06-26-80		YES
21-B-2	"C"	CF	UT	06-26-80		YES
21-B-3	"C"	CF	UT	06-26-80		YES
21-B-4	"C"	CF	UT	06-26-80		YES
21-B-5	"C"	CF	UT	06-26-80		YES
W-30	"E"	CF	UT	06-26-80		YES
22-B-2	"C"	CF	UT	09-21-79		YES
22-B-3	"C"	CF	UT	08-24-79		YES
* W-31	"E"	CF	UT	08-24-79		YES
21-B-6	"E"	CF	MT	04-28-81		YES
21-B-2	"C"	CF	MT	02-06-81		YES
21-B-3	"C"	CF	MT	02-06-81		YES
21-B-4	"C"	CF	MT	04-28-81		YES
21-B-5	"C"	CF	MT	02-06-81		YES
W-30	"E"	CF	MT	02-06-81		YES
22-B-2	"C"	CF	MT	02-09-81		YES
22-B-3	"C"	CF	MT	02-09-81		YES
A01-F	HANGER	CE	VT			N/A

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OR MAINTENANCE

ORIGINAL COPY WHEN THIS IMPRINT IN RED

LINE NO. W THKNS  
8" DBR-87 594"

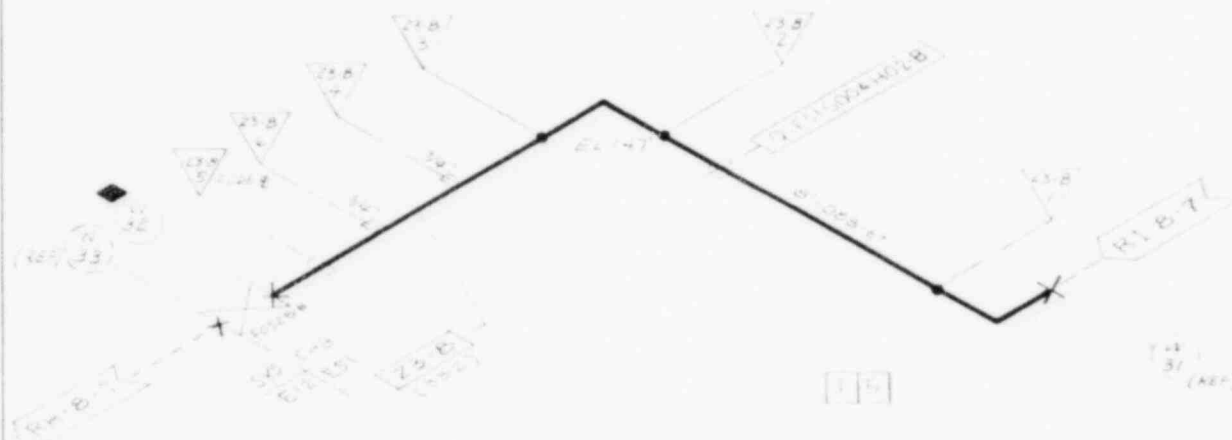
CAL. STANDARD I.D. # 13

\*DIAMONDS REMOVED PER ISI REVISION

RI-0-2

MP&L	GG-1	(JB-1)	DWN 3-7-77	ISSE NSO
			S GRAUS	ATLANTA
SYSTEM REC TO RRR 11X LOOP B	LOCATION AUX BLDG	REF ISO M-1347A	REF P&ID M-1085A SK-M-1596	DWG NO RI-8 PAGE 1 of 1
				SHT 7



[illegible]

ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

LINE NO.	W THKNS
8" DBB-87	594"

\* DIAMONDS REMOVED PER BECHTEL REVISION

RI-0-2

MP&L	GG-1	(JB-1)	DWN 3-B-77 S GRAUS	18SE NSO ATLANTA	REV
SYSTEM RUC TO RHR NK LOOP B	LOCATION AUX BLDG	REF ISO M-13.47A	REF P/ID M-1085A SK-M-1596	DWG N° RI-B PAGE 1 of 1	SHT 8

CAL STANDARD 10-13



CAL STANDARD 1 D 12

RI-0-2

ORIGINAL COPY WHEN THIS MESSAGE IN REQ 3

GENERAL ELECTRIC

PROJECT	MP8L	GG-1 (JB-1)	ISS - NKO ALEXANDRA	21
SYSTEM	RCIC	AUX. BLDG	S. GRAUS	
			NEW PAID	
			M-1083B	
			M-147A	
			SK-M-159B	
			RI-B	
			PAGE 01	

[illegible]

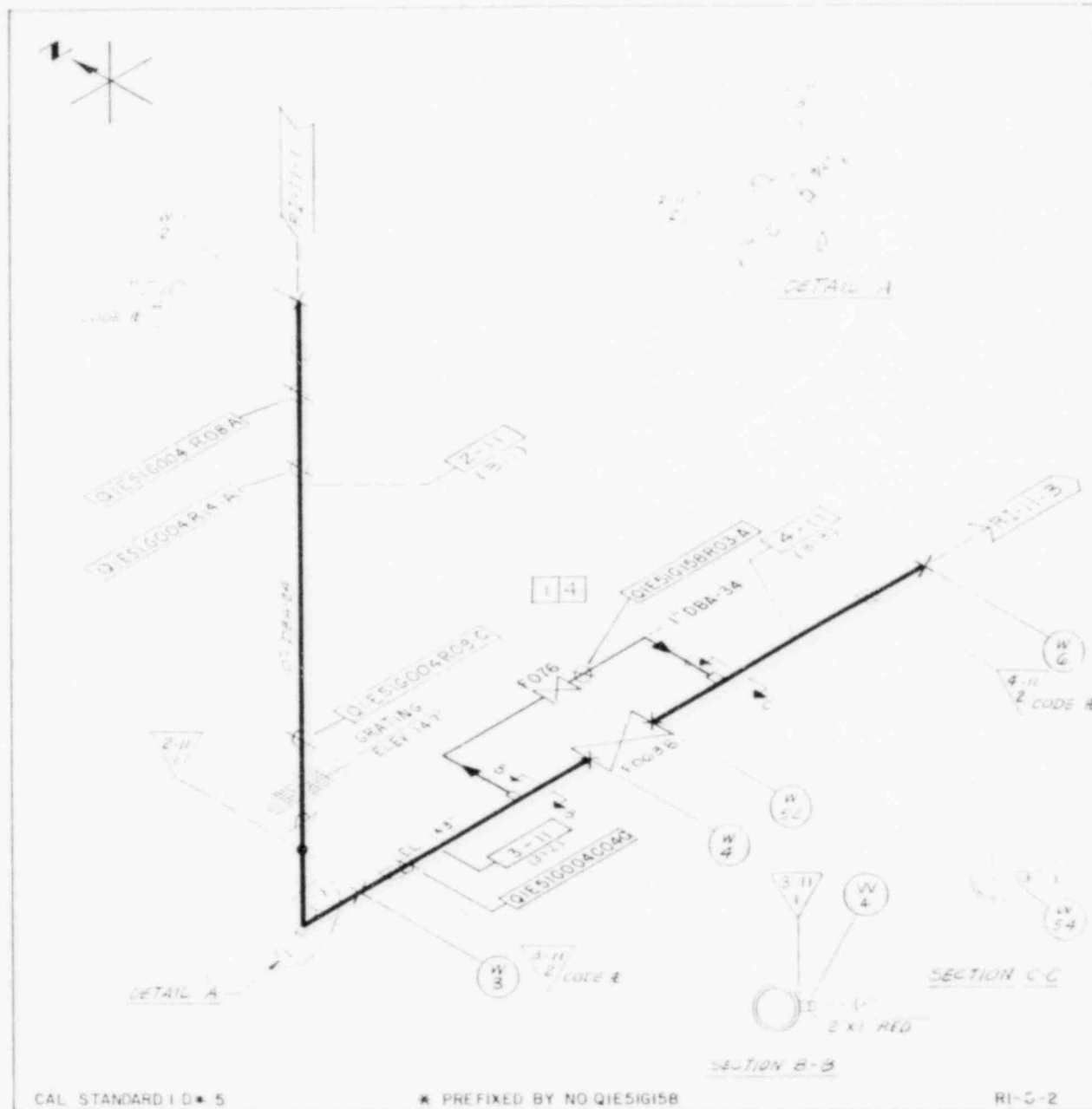
ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

MPBL	GG-1	(JB-1)	REF 150	DATE 3-8-77	BASE NSO
SYSTEM	LOCATION	REF 150	DATE 3-8-77	BASE NSO	
M S TO	CTMT	M-1347A	S GRAUS	ATLANTA	ABR
ACIC TURB			REF 150	DATE 3-8-77	BASE NSO
			M-1083B	R-11	
			SK-M-1596	PAGE 01	

RI-0-2

\* GE/GECCTEL INTERFACE

CAL STANDARD 10-95



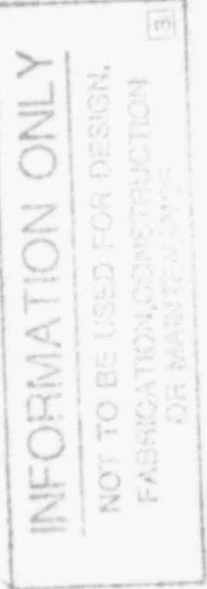
MPL NY 1551 GXX	WELD DESCR	CODE CAT	TYPE EXAM	EXAM TIME PERIOD	ACCESS SATIS	I D MARK COMV
2-II-1	"C"	BJ	UT	06-26-80		YES
W-3	"C"	BJ	UT	06-26-80		YES
W-4	"G"	BJ	UT	06-26-80		YES
W-52	"G"	BJ	UT	06-12-80		YES
W-6	"E"	BJ	UT	06-12-80		YES
2-II-1	"C"	BJ	PT	TEXAS PIPE		YES
W-3	"C"	BJ	MT	PBT		YES
W-4	"G"	BJ	PT	PBT		YES
W-52	"G"	BJ	MT	PBT		YES
W-6	"E"	BJ	MT	PBT		YES
3-II-1	"C"	BJ	PT	TEXAS PIPE		YES
W-4	"C"	BJ	PT	PBT		YES
ROB-A	HANGER	B-K-2	VT			N/A
RI4-A	HANGER	B-K-2	VT			N/A
RO9-C	HANGER	B-K-2	VT			N/A
CO4-C	HANGER	B-K-2	VT			N/A
* RO3-A	HANGER	B-K-2	VT			N/A

INFORMATION ONLY

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OPERATION

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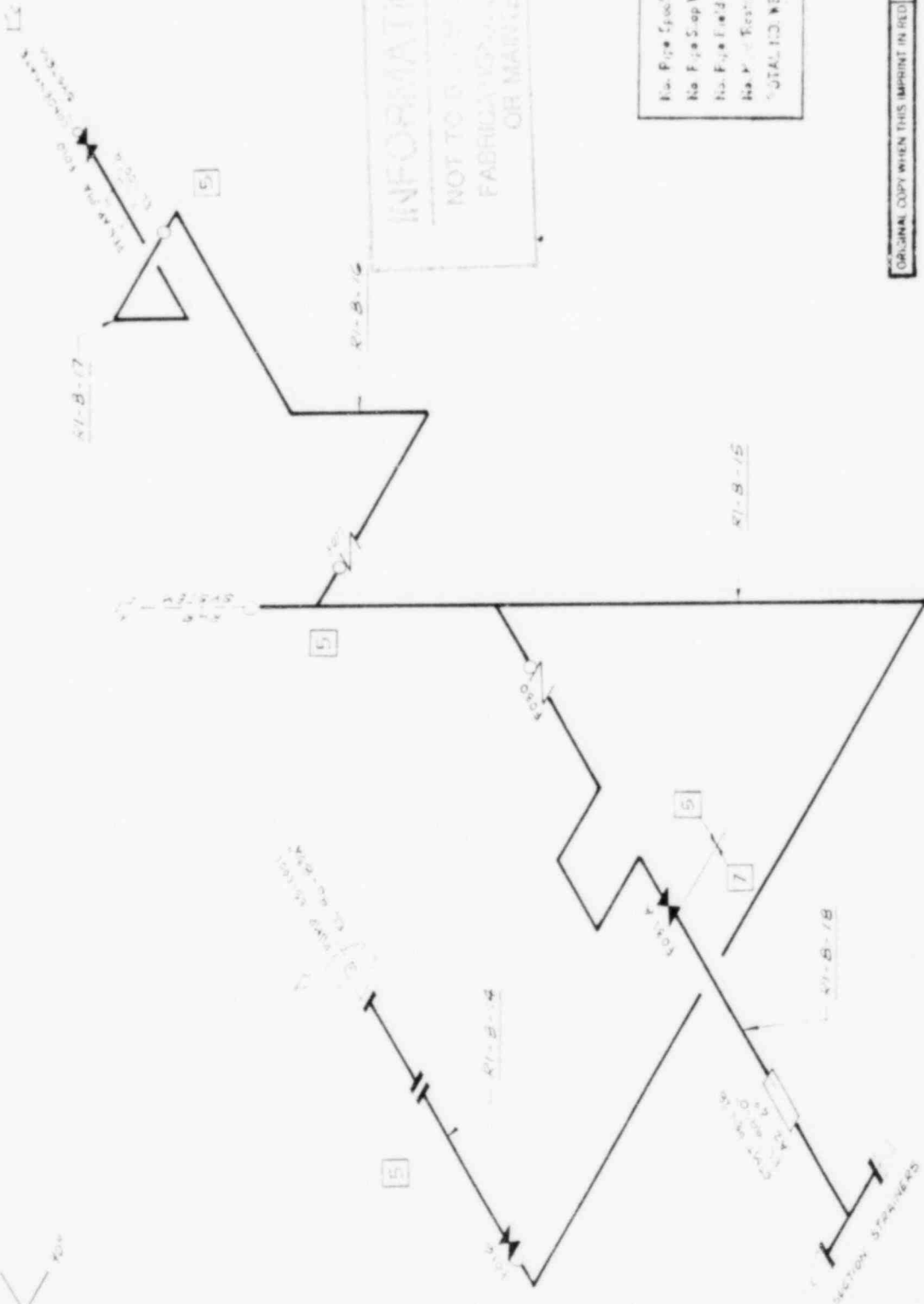
SYSTEM	LOCATION	REF ISO	REF P&ID	DWG NR	REV
MS TO RCIC TURB	CTMT	M-1347A	M-1083B SK-M-1596	RI-II PAGE 1 of 1	2



ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

MPBL	GG-1	(JB-1)	DWN 3-B-77	IBSE NSO
			S GRAUS	ATLANTA
			REF P&ID	DWG NR
			M-1083B	RI-11
			SK-M-1596	PAGE 10/11

REF: MPL-1850



INFORMATION ONLY  
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No. Pipe Spools	
No. Pipe Snap Wells	
No. Pipe Field Wells	
No. Field Test Wells	
TOTAL NO. WELLS	

ORIGINAL COPY WHEN THIS IMPRINT IN RED

GENERAL ELECTRIC

PROJECT	MPBL	GG-1	(JB-1)
SYSTEM	RCIC	PUMP	SUCTION
AUX BLDG	M-1336B		

MADE IN U.S.A.	ISSUE	ISSUE	ISSUE
S. GRAUS	ATLANTA	ATLANTA	ATLANTA
REF. NO.	M-1083A	RI-0	
SK-M-1596	PAGE	1 of 1	3

E-51

**INFORMATION ONLY**  
NOT TO BE USED FOR DESIGN.  
FABRICATION QUALITY CHECK

[illegible]

ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

GENERAL ELECTRIC

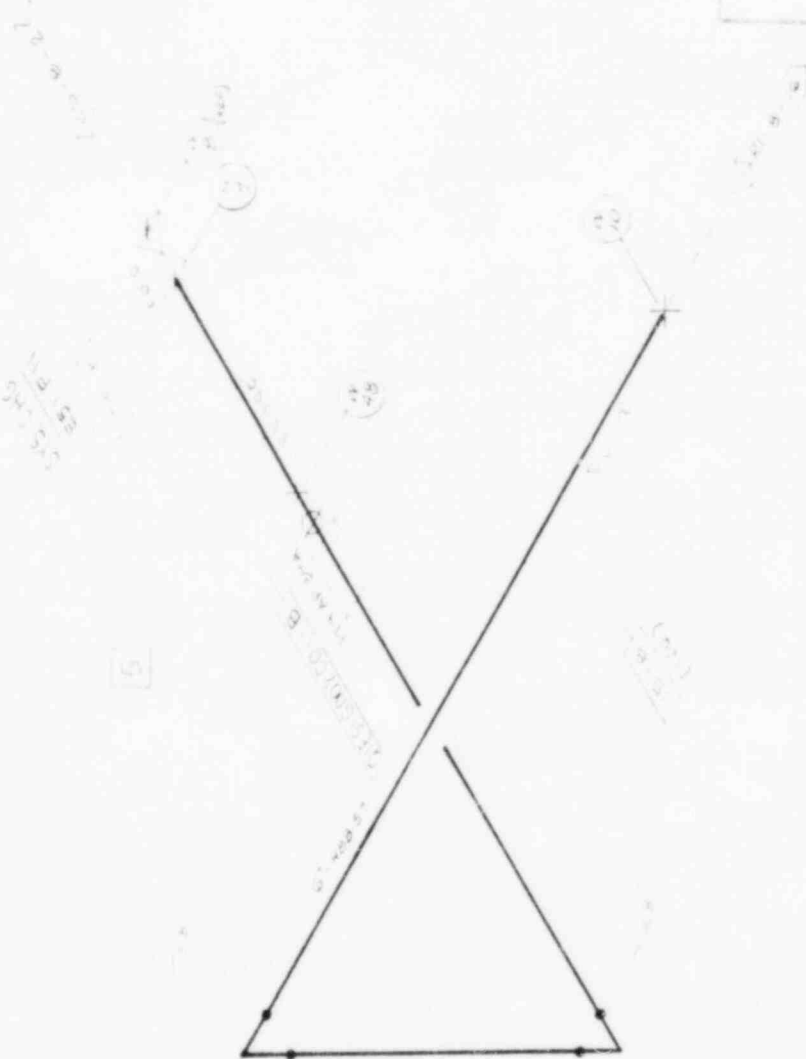
PROJECT	GG-1	(JB-1)	S GRAUS	MSE-NISO STANDARD	170
NO.		REF. NO.	N-P-10834	RI-B	14
LOCATION	AUX BLDG.	M 1336B	SP. M 1596	PAGE 1 of 1	
DATE	12-10-78				

RI-O-3









ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

GENERAL ELECTRIC

A. J. B. C. D. E. F. G. H. I. J. K. L. M. N. O. P. Q. R. S. T. U. V. W. X. Y. Z.

MP8AL GG-I

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99

RI-O-3

 $(\sqrt{B}-1)$ 

0896-8476(200605)24:5;1-B

M-13368

S. GRAUS

M-104-2A  
 100-104-2A

SK-M-1596

18 SE - NSQ  
\* T - 400 T x

01-10-2000

PAGE 1 of 1

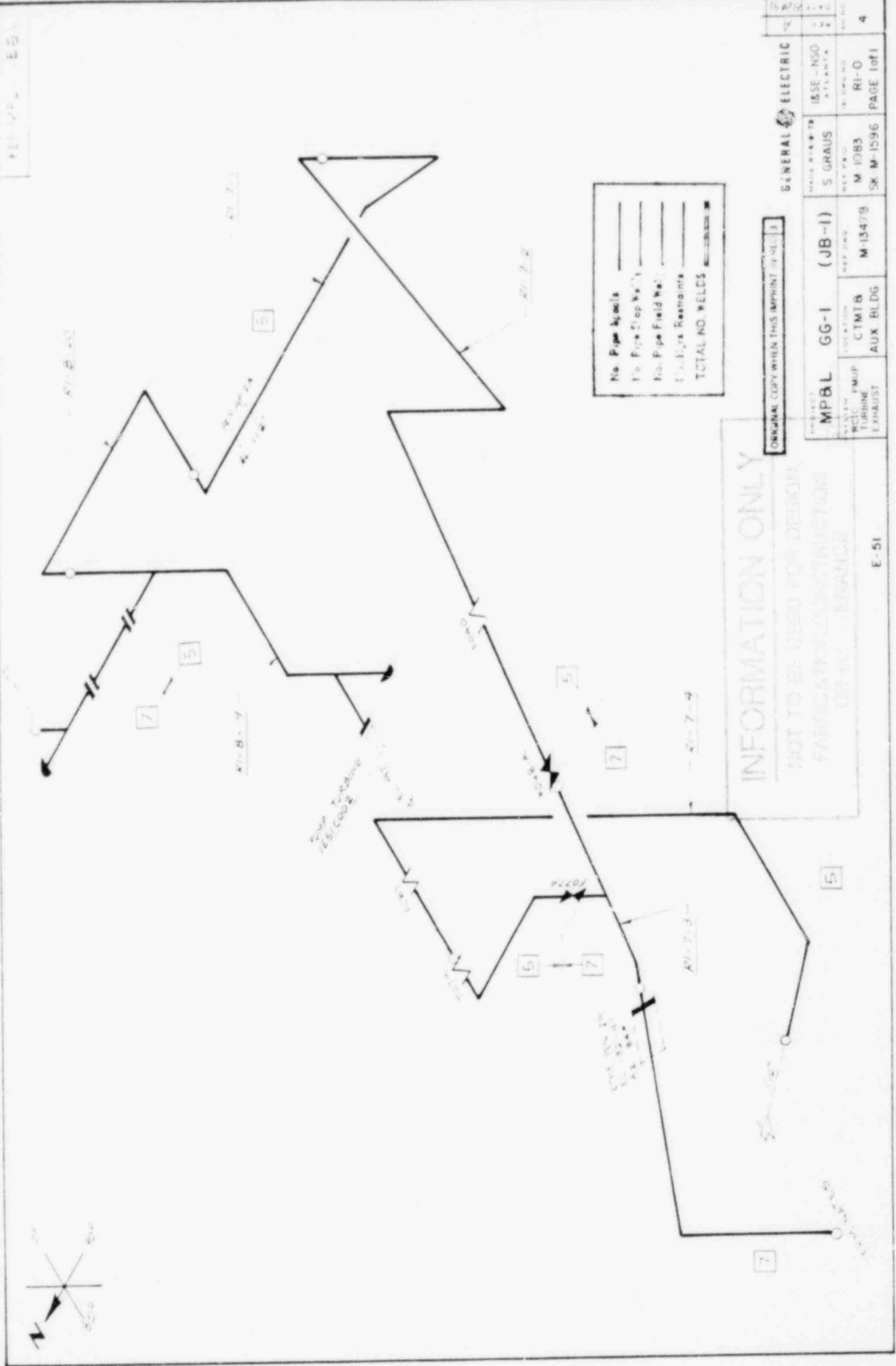




10

17



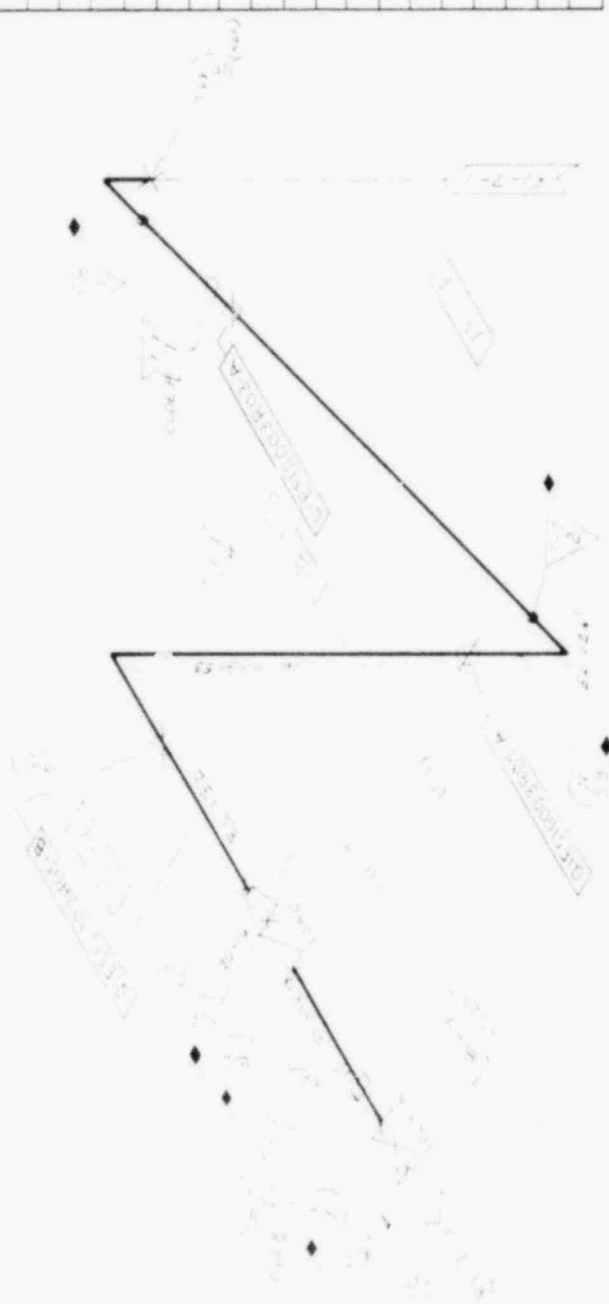
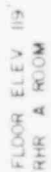


INFORMATION ONLY  
NOT TO BE USED FOR DESIGN  
FABRICATOR'S INSTRUCTIONS  
E-51

No. Pipe Segments	_____
No. Pipe Fittings	_____
No. Pipe Field Welds	_____
No. Pipe Restraints	_____
TOTAL NO. WELDS	_____

PROJECT		MPBL GG-1 (JB-1)		S GRAUS		ISSE-N50		GENERAL ELECTRIC	
NO. OF	PMUP	LOCATION	CTMTB	REF. NO.	M 13478	M 1083	RI-O	RI-O	4
TURBINE	AUX BLDG	AUX BLDG	AUX BLDG	SK M-1596	PAGE 1 of 1				





APP. NO. E-50003	WELD DESCR	CORR CAT	TYPE EXAM	EXAM TIME PERIOD	ACCESS DATE	LD MARK CODE
7-7-1	"E"	CE	MT	03-10-81		YES
7-7-2	"G"	CF	MT	04-28-81		YES
W-59	"G"	CF	MT	03-10-81		YES
W-7	"E"	CF	MT	03-10-81		YES
W-8	"E"	CF	MT	03-10-81		YES
W-9	"G"	CF	MT	03-10-81		YES
RO-4	HANGER	CE	VT			N/A
RO-5	HANGER	CE	VT			N/A
HO-8	HANGER	CE	VT			N/A

ORIGINAL COPY WHEN THIS IMPRINT IN RED 3

GENERAL ELECTRIC

PROJECT	MP8L	GG-1	(JS-1)	MADE BY	S GRAUS	DATE - INO	150
SYSTEM	RCIC	AUX	BLDG	REF WARD	M-10B3A	RI - 7	2
					SK M-1596	PAGE 1 of 1	

LINE NO	W THKNS
20" HBB-53	.375"
16" HBB-53	.375"

RI-O-4



GENERAL ELECTRIC

PROJECT	MP&L GG-1 (JB-1)	MAP NO.	M-1347
SYSTEM	AUX BLDG	LOCATION	
RCIC			

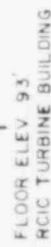
185E-NSO ATLANTA	185E-NSO RI-7
S GRAUS	M-1083

91-0-4







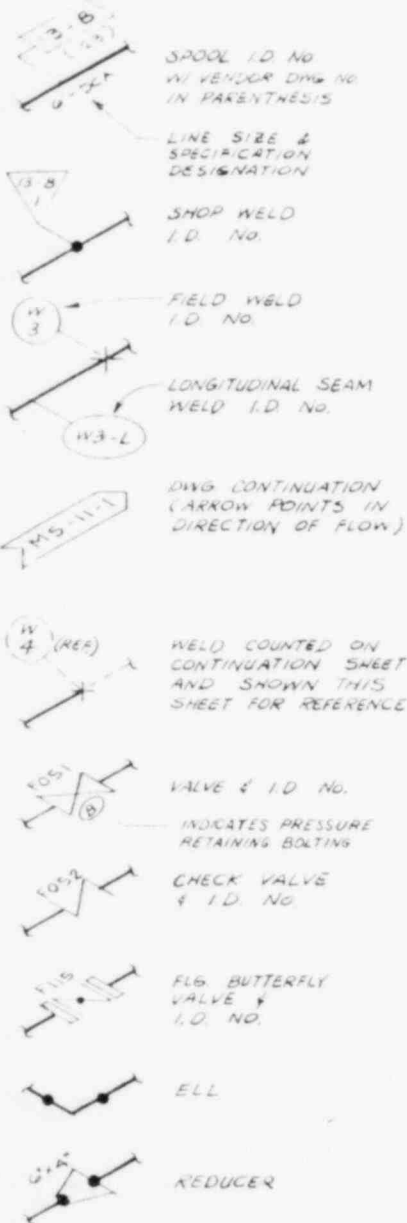
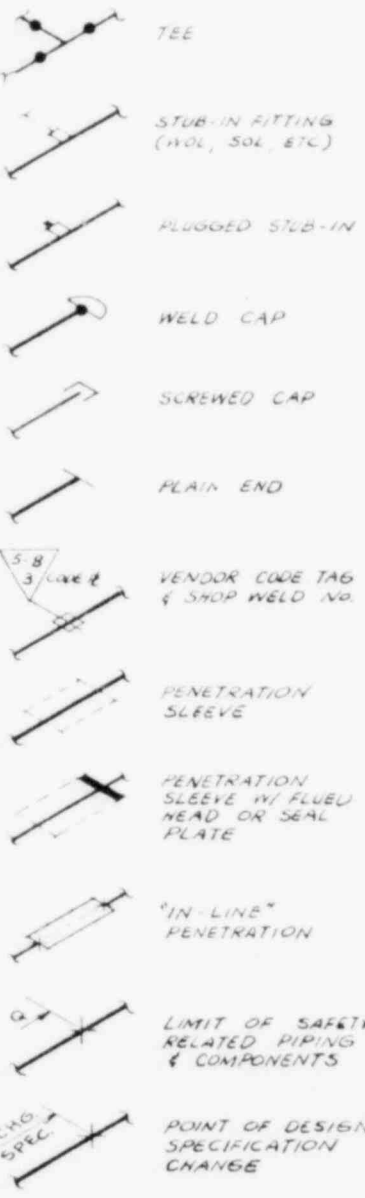


**CG - COMBUSTIBLE GAS - E6I**

INFORMATION ONLY

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FABRICATION/CONSTRUCTION  
OR MAINTENANCE

3

DRAWING	SYMBOLS	LETTER SYMBOLS	SYMBOLS
 <p>SPOOL I.D. NO. W/ VENDOR DWG NO. IN PARENTHESES</p> <p>LINE SIZE &amp; SPECIFICATION DESIGNATION</p> <p>SHOP WELD I.D. NO.</p> <p>FIELD WELD I.D. NO.</p> <p>LONGITUDINAL SEAM WELD I.D. NO.</p> <p>DWG CONTINUATION (ARROW POINTS IN DIRECTION OF FLOW)</p> <p>WELD COUNTED ON CONTINUATION SHEET AND SHOWN THIS SHEET FOR REFERENCE</p> <p>VALVE &amp; I.D. NO. INDICATES PRESSURE RETAINING BOLTING</p> <p>CHECK VALVE &amp; I.D. NO.</p> <p>FLG. BUTTERFLY VALVE &amp; I.D. NO.</p> <p>ELL</p> <p>REDUCER</p>	 <p>TEE</p> <p>STUB-IN FITTING (WOL, SOL, ETC)</p> <p>PLUGGED STUB-IN</p> <p>WELD CAP</p> <p>SCREWED CAP</p> <p>PLAIN END</p> <p>VENDOR CODE TAG &amp; SHOP WELD NO.</p> <p>PENETRATION SLEEVE</p> <p>PENETRATION SLEEVE W/ FLUED HEAD OR SEAL PLATE</p> <p>"IN-LINE" PENETRATION</p> <p>LIMIT OF SAFETY RELATED PIPING &amp; COMPONENTS</p> <p>POINT OF DESIGN SPECIFICATION CHANGE</p>	<p>PIPING SYSTEMS</p> <p>CC - CONTAINMENT COOLING CD - CONDENSATE CG - COMBUSTIBLE GAS CR - CHILLED WATER CS - COND. RW STORAGE &amp; TRANSFER CU - REACTOR WATER CLEANUP CW - COMP COOLING WATER DG - DIESEL GENERATOR DR - FLOOR &amp; EQUIPMENT DRAINS DW - DOMESTIC WATER FC - FUEL POOL COOLING &amp; CLEANUP FD - FILTER/DEMIN (FPCCU) FW - FEEDWATER HP - HIGH PRESSURE CORE SPRAY IA - INSTRUMENT AIR</p> <p>LC - STANDBY LIQUID CONTROL LD - LEAK DETECTION LP - LOW PRESSURE CORE SPRAY LR - LEAK RATE TEST SYSTEM MS - MAIN STEAM RD - CONTROL ROD DRIVE RF - FILTER/DEMIN (RMCU) RH - RESIDUAL HEAT REMOVAL RI - REACTOR CORE ISOLATION COOLING RR - REACTOR RECIRCULATION RV - MAIN STEAM RELIEF VALVE SA - SERVICE AIR SC - SUPPRESSION POOL CLEAN UP SD - MAIN STEAM DRAINS SM - SUPP POOL MAKE UP SW - PLANT SERVICE WATER WS - STANDBY SERVICE WATER</p> <p>ABBREVIATIONS</p> <p>AUX - AUXILIARY BLDG - BUILDING CL - CENTERLINE CL - CLASS COMP - COMPLETE or COMPONENT CTMT - CONTAINMENT DW - DRYWELL DWG - DRAWING EL - ELEVATION FLG - FLANGE HD - HEAD HX - HEAT EXCHANGER ID - IDENTIFICATION ISI - INSERVICE INSPECTION MPL - MASTER PARTS LIST N - NORTH or NOZZLE PEN - PENETRATION</p> <p>REV - REVISION RPV - REACTOR VESSEL RX - REACTOR SCH - SCHEDULE SHT - SHEET SOL - SOCK. LET STD - STANDARD STM - STEAM TOL - THREADOLET TURB - TURBINE WOL - WELDOLET</p> <p>WELDING CONFIGURATION</p> <p>A - LONGITUDINAL SEAM B - PIPE TO ATTACHMENT C - PIPE TO FITTING D - PIPE TO NOZZLE E - PIPE TO PIPE F - PIPE TO PUMP G - PIPE TO VALVE H - PIPE TO WELDOLET J - FITTING TO FITTING K - FITTING TO PUMP L - FITTING TO VALVE M - VALVE TO VALVE N - PIPE TO SWEEPolet P - PIPE TO SOCKLET R - CODE TAG WELD</p> <p>HANGERS</p> <p>A - SNUBBER B - RIGID STRUT C - BOX OR GUIDE D - SPRING E - COMBINATION F - ANCHOR PWR</p> <p>ORIGINAL COPY WHEN THIS IMPRINT IN RED</p>	<p>GENERAL ELECTRIC</p> <p>NUCLEAR SERVICE OPERATION</p> <p>INSTALLATION &amp; SERVICE ENGINEERING DIV. ATLANTA, GEORGIA</p> <p>DRAWING NO. 35IN79B0006</p> <p>REV A</p>

# ISI EXAMINATION REQUIREMENTS

## DWG NUMBERING SYSTEM

VOLUMETRIC EXAMINATION OF CLASS 1 AND 2 COMPONENTS PER ASME SECTION XI, INB-2500 AND INB-2500.

1

VOLUMETRIC EXAMINATION OF 10% OF THE CLASS 2 PIPING WELDS IN ECCS SYSTEMS WHICH ARE PRESSURIZED LESS THAN 200 PSI DURING NORMAL PLANT OPERATION AND ARE NOT EXEMPTED BY OTHER CRITERIA.

10%

SURFACE EXAMINATION OF CLASS 1 COMPONENTS PER ASME SECTION XI, INB-2500 AND INB-2500.

2

VISUAL EXAMINATION OF CLASS 1 AND 2 COMPONENTS PER ASME SECTION XI, INB-2500 AND INB-2500.

3

SYSTEM LEAKAGE AND HYDROSTATIC PRESSURE TESTS AND VISUAL EXAMINATION OF CLASS 1 COMPONENTS PER ASME SECTION XI, INB-2500 AND INB-2500.

4

SYSTEM PRESSURE TESTS AND VISUAL EXAMINATION OF CLASS 2 COMPONENTS PER ASME SECTION XI, INB-2500 AND INB-2500.

5

SYSTEM PRESSURE TESTS AND VISUAL EXAMINATION OF CLASS 3 COMPONENTS PER ASME SECTION XI, INB-2500 AND INB-2500.

6

ASME CLASS 2 AND 3 COMPONENTS EXEMPT FROM ANY ISI PER ASME SECTION XI

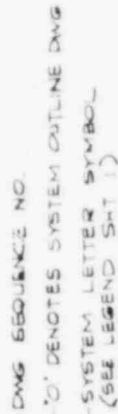
7

### INFORMATION ONLY

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## I. SYSTEM OUTLINE DRAWINGS (ISOMETRICS)

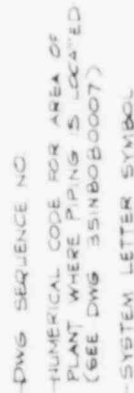
EXAMPLE: MS-0-1



## II. WELD IDENTIFICATION DWGS (ISOMETRICS)

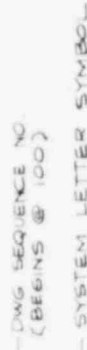
### A. ASME CLASS 1 & 2 SYSTEMS

EXAMPLE: FW-11-2



### B. CLASS 3 SYSTEMS

EXAMPLE: CU-103



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SCALE	JOB NO.	TITLE	GENERAL
None	JB-1	LEGEND FOR ISI ISOMETRIC DRAWINGS	ELECTRIC
CONTRACT NO. B6DN74002			NUCLEAR SERVICE OPERATION
MADE FOR MISSISSIPPI POWER & LIGHT			INSTALLATION & SERVICE ENGINEERING DIV AT LANTA, GEORGIA
		PROJECT GRAND GULF NUCLEAR PLANT	DRAWING NO. 35IN79B0006 REV A

PIPE CLASSES ARE DESIGNATED BY A THREE LETTER CODE. THE FIRST LETTER INDICATES THE PRIMARY FLANGE PRESSURE RATING; THE SECOND LETTER, THE TYPE OF MATERIAL; AND THE THIRD LETTER, THE CODE TO WHICH THE PIPING IS DESIGNED.

#### FIRST LETTER - PRIMARY PRESSURE RATING

(UNLESS OTHERWISE NOTED, ALL RATINGS ARE IN ACCORDANCE WITH ANSI B16.3)

A SPECIFIC PRESSURE at SPECIFIC TEMPERATURE

B 2500#

C 1500#

D 900#

E 600#

F 400#

G 300#

H 150#

J 125# ANSI B16.1

K 175# WOG UNDERWRITERS' LABORATORIES, INC

L 250# ANSI B16.1

X GRAVITY RATING

Y ROOF DRAINS, GRAVITY RATING

#### ADDITIONAL PRESSURE RATINGS:

M 200# (MANUFACTURER'S RATING)

N 150# WOG

P 100# (MANUFACTURER'S RATING)

R 75# (MANUFACTURER'S RATING)

S 50# WOG

T 25# AWWA (OR MANUFACTURER'S RATING)

Z GENERAL USE AS DESIGNATED ON PIPING CLASS SHEETS

V 150# (MANUFACTURER'S RATING)

#### SECOND LETTER - MATERIAL

A ALLOY STEEL

B CARBON STEEL

C AUSTENITIC STAINLESS STEEL

D COPPER, BRASS or BRONZE

E ALUMINUM

F CARBON STEEL - COPPER BEARING

G CARBON STEEL - SARAN LINED

H CAST IRON

K PVC

M DURIUM

N CARBON STEEL - GALVANIZED

P CAST IRON - CEMENT LINED

R CARBON STEEL - EPOXY LINED

S DUCTILE IRON - CEMENT LINED

T DELETED

V FRP

W CARBON STEEL - TEFLON LINED

#### THIRD LETTER - APPLICABLE CODES

A NUCLEAR POWER PLANT COMPONENTS  
ASME B&PV CODE, SECTION III, CLASS 1

B NUCLEAR POWER PLANT COMPONENTS  
ASME B&PV CODE, SECTION III, CLASS 2

C NUCLEAR POWER PLANT COMPONENTS  
ASME B&PV CODE, SECTION III, CLASS 3

D POWER PIPING CODE, ANSI B31.1

F NATIONAL FIRE PROTECTION ASSOCIATION CODE

G SOUTHERN STANDARD PLUMBING CODE

H POWER BOILERS, ASME B&PV CODE, SECTION I

J AMERICAN WATER WORKS ASSOCIATION STANDARDS

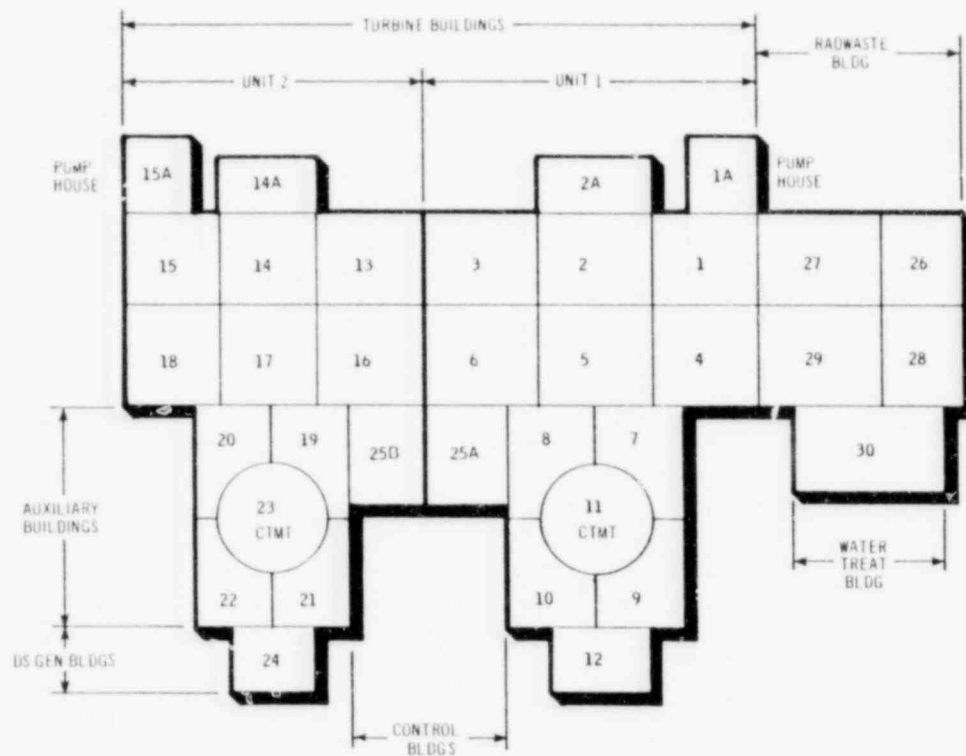
Z FABRICATED, INSPECTED AND INSTALLED PER ASME  
SECTION III, CLASS 3 DESIGNED PER ANSI B31.1  
N-STAMPING, SEISMIC ANALYSIS AND Q-LISTING ARE  
NOT REQUIRED

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SCALE NONE	JOB NO. JB-1	TITLE <b>LETTER CODE FOR PIPING</b>		<b>GENERAL ELECTRIC</b>	
CONTRACT NO. 360N74002		PROJECT GRAND GULF NUCLEAR PLANT		NUCLEAR SERVICE OPERATION INSTALLATION & SERVICE ENGINEERING DIV ATLANTA, GEORGIA	
MADE FOR MISSISSIPPI POWER & LIGHT CO.				DRAWING NO. 351N79B0006 SHEET NO. 3 of 3	
				REV A	



GRAND GULF NUCLEAR STATION UNITS 1 AND 2  
PORT GIBSON, MISSISSIPPI  
MISSISSIPPI POWER & LIGHT COMPANY



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3

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SCALE NONE	JOB NO. JB-1	TITLE KEY PLAN AREA LOCATIONS		GENERAL ELECTRIC NUCLEAR SERVICE OPERATION INSTALLATION & SERVICE ENGINEERING DIV ATLANTA, GEORGIA	
CONTRACT NO. 360N74002		PROJECT GRAND GULF NUCLEAR PLANT		DRAWING NO. 35IN80B0007	REV A
MADE FOR MISSISSIPPI POWER & LIGHT				SHEET NO. 28	

# INDEX TO ISOS FOR E-6I SYSTEM

	REV
COMPOSITE: CG-0-1	A
CG-II-1	A
CG-II-2	A
CG-II-3	A
CG-II-4	A

	REV
COMPOSITE: CG-0-2	A
CG-II-5	A
CG-II-6	A
CG-II-7	A

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OR MAINTENANCE

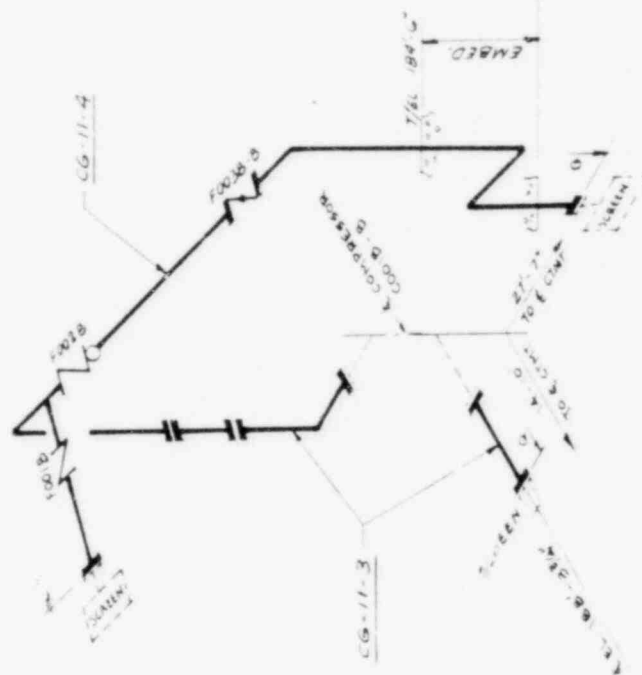
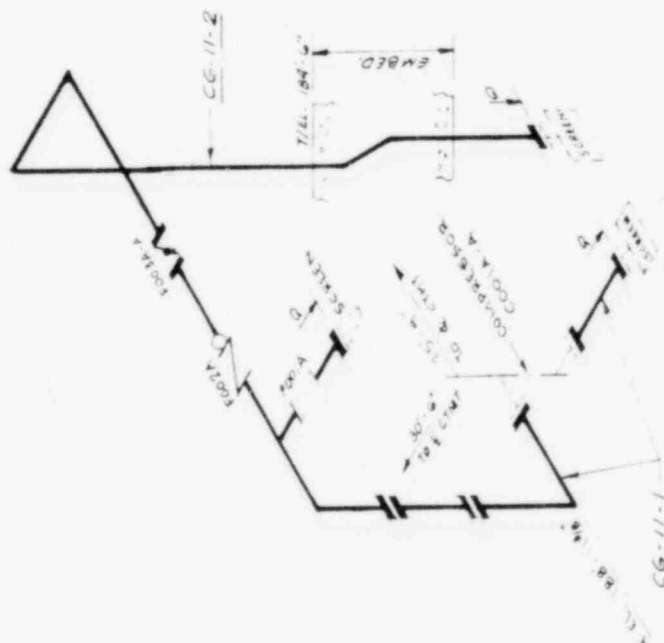
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REV	A
DATE	8/8/81



REF MPL: 1EG1

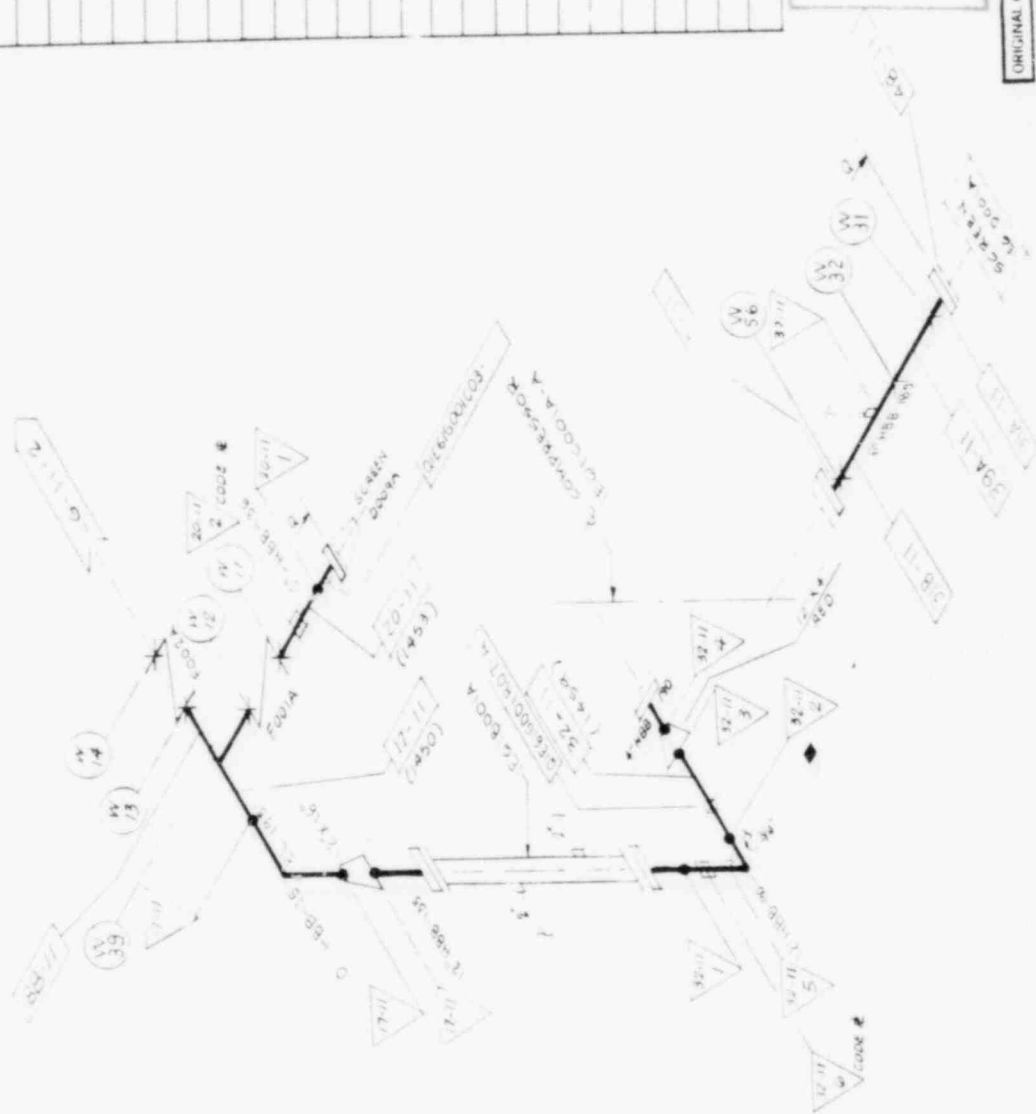


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FASHION FOR CONSTRUCTION

No. Pipe Spools	_____
No. Pipe Shop Welds	_____
No. Pipe Field Welds	_____
No. Hgs. Restraints	_____
TOTAL NO. WELDS	_____

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GENERAL ELECTRIC		DATE	BY	REV
PROJECT		DATE	BY	REV
MPBL	GG-1 (JB-1)	185E-N50	ATLANTA	1
SYSTEM	COMBUSTIBLE	REP DES	REP DES	REP DES
UNIT	CONTROL	CTMT	M-1091	CG-O
PAGE		10/1		



CG-0-1

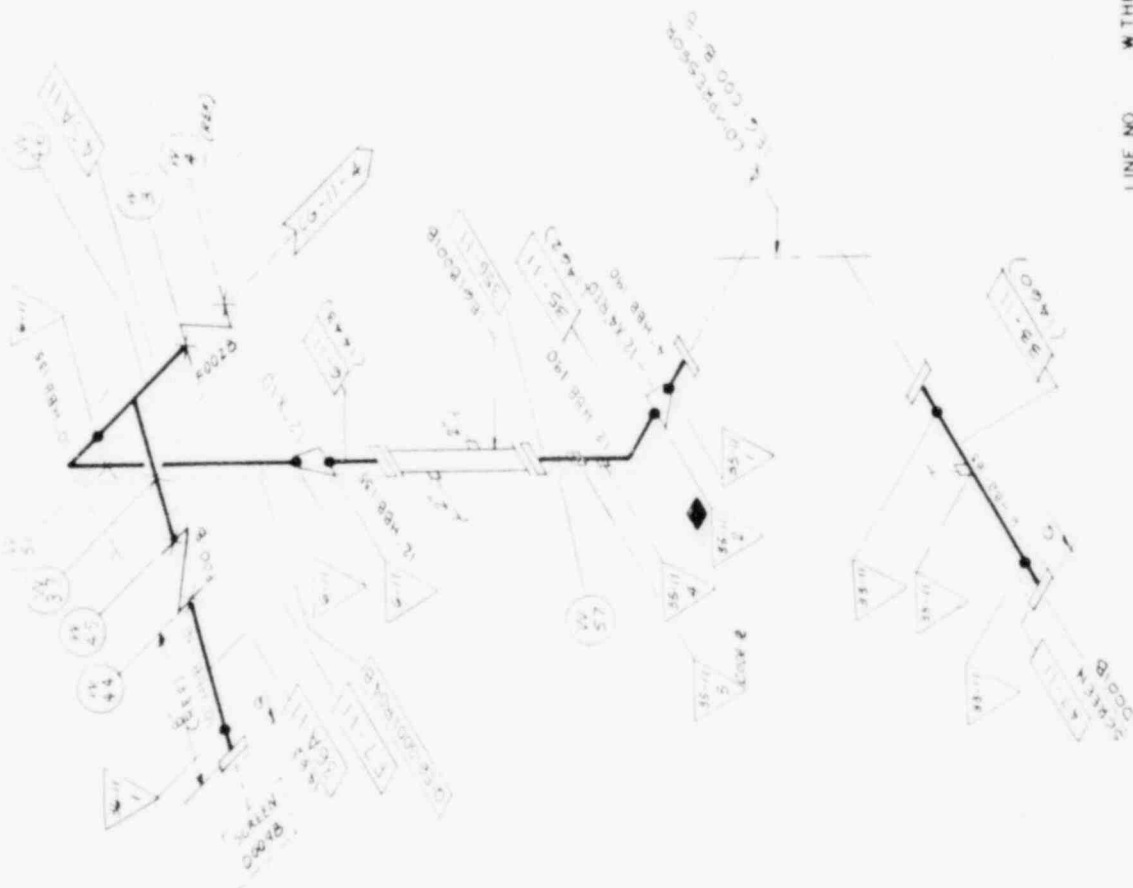
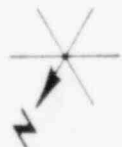
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GENERAL ELECTRIC

PROJECT	MP&L	GG-1	(JB-1)	MOD 279	1&5E-NSO	1
SYSTEM	COMBUSTIBLE	LOCATION	REF. D-G	S. GRAUS	ATLANTA	2
GAS. CONTROL		CTMT	M-1330	REF. PID	CG-11	1
					PAGE 10/11	





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OR MAINTENANCE

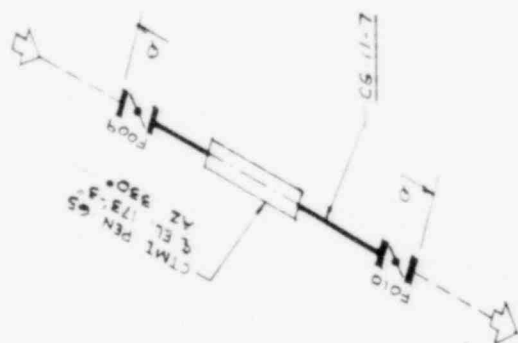
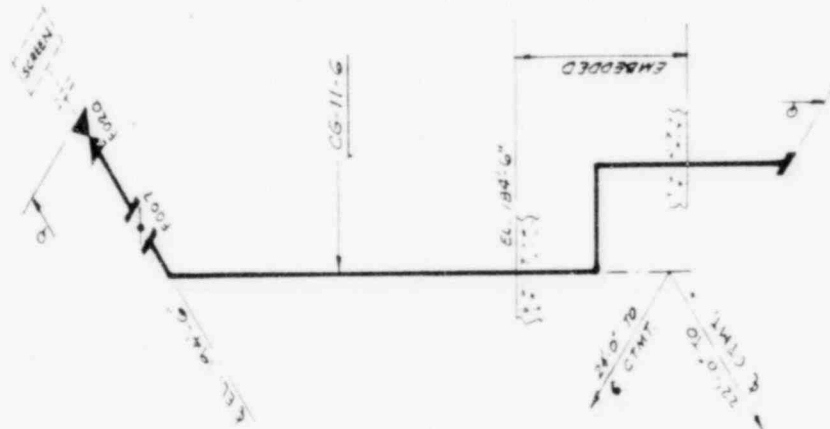
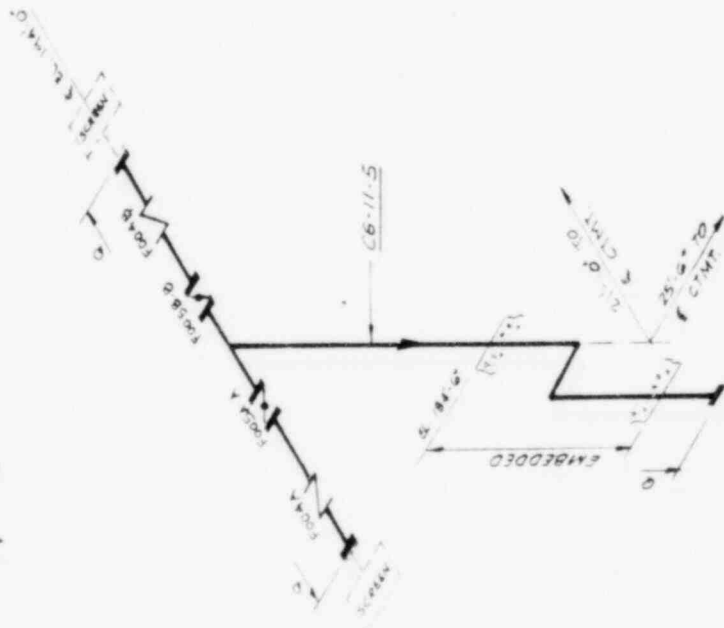
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GENERAL ELECTRIC			
PROJECT	MPBL	GG-1	(JB-1)
DATE	01-24-79	S. GRAUS	BASE - NSO
SYSTEM	CONSISTIBLE	LOCATION	ATLANTA
GAS	CONTROL	CTMT	CG-11
			M-1091
			CG-11
			PAGE 1 of 1

LINE NO. WITHKMS  
12" HBB-190 375"

CG-0-1





No. Pipe Spools	
No. Pipe Shop Welds	
No. Pipe Field Welds	
No. Hgs. Restraints	
TOTAL NO. WELDS	

PROJECT	MPBL	GG-1	(JB-1)	CLASS. BY 01-2778 S GRAUS	1435-NSO ATLANTA	5-PR
SYSTEM	COMPUTING	LOCATION	CTMT	REP. NO.	1435-NSO	2
REAS. CONTROL				REP. PAID	CG-0 PAGE 10	

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