



**GULF STATES UTILITIES COMPANY**

POST OFFICE BOX 2951 • BEAUMONT, TEXAS 77704

AREA CODE 409 833-6631

December 8, 1983

RBG-16,511  
File No. G9.5

Director of Nuclear Reactor Regulation  
Attention: Mr. A. Schwencer, Chief  
Licensing Branch No. 2  
Division of Licensing  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Mr. Schwencer:

RIVER BEND STATION UNITS 1 & 2  
DOCKET NOS. 50-458/50-459

Recently representatives of Gulf States Utilities (GSU) met with the Nuclear Reactor Regulation staff to discuss GSU's program for ASME III Subsection NF supports. Enclosed you will find a description of the program discussed and comparison tables that define its application. This information will be appropriately included in a future amendment to the FSAR.

GSU requests that your comments concerning Load Case 3 be addressed separately. Should you have any further comments, please contact me.

Sincerely,

J. E. Booker  
Manager-Engineering  
Nuclear Fuels & Licensing  
River Bend Nuclear Group

JEB/LAE/tf  
Enclosures

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PDR ADOCK 05000458  
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1/1

## GSU ASME III SUBSECTION NF SUPPORTS

The ASME III Subsection NF application for River Bend extends from the ASME III pipe transmitting loads up to at least the first structural member or pipe support components and include the welds attaching these members or components to plates, other structural shapes, building steel, etc. Structures, frames, plates, etc., beyond these members or components are defined as part of the building structures. This boundary applies to pipe supports associated with all sizes of ASME Code Class 1, 2 and 3 pipe. Example applications of the proposed subsection NF boundary are illustrated on the attached sketches.

For that portion of the design designated as ASME III, the load combinations will be in accordance with FSAR Table 3.9A-13 and the allowable stresses will be in compliance with the rules of ASME III. For that portion of the design designated as AISC, the load combinations will also be in accordance with FSAR 3.9A-13. However, the allowable stresses will meet the requirements of both ASME III and AISC. Therefore, the design of that portion designated AISC will always be at least as conservative as if that same design were considered as ASME III subsection NF.

The attached tables compare the ASME III and AISC application relative to the River Bend design. It is important to note that AISC could have lower allowable stresses than ASME for load conditions 3, 4 and 5. For these cases the actual loads will be compared with the lower AISC allowable to ensure compliance with AISC requirements. It also can be seen that ASME is always more conservative than AISC for buckling. Buckling requirements frequently govern the final design of pipe support members. The allowable stresses for load conditions 1 and 2 for ASME III and AISC are essentially the same. However, as discussed above, the design of that portion designated as AISC will be reviewed to show compliance with the most stringent allowable stresses of either AISC or ASME III.

The ASME III boundary will be clearly indicated on the ASME III Control Drawing unless the entire support shown on the drawing is within the ASME III boundary. For those cases where existing designs are modified to reflect the ASME boundary described above, supporting Quality Assurance Category I calculations will be revised to document compliance with both ASME and AISC allowables.

The Authorized Nuclear Inspector (ANI) will continue to review ASME Control Drawings which will indicate inspection hold points on that portion of the design designated as ASME III. No hold points will be required for that portion designated AISC. However, a 10% surveillance by the ANI will be performed. This surveillance will be in addition to 100% Construction Control and Completion Program (CCCP) inspection, S&W Field Quality Control surveillance inspection and GSU Quality Assurance audits.

TABLE 1

<u>Criteria</u>	<u>ASME III Program</u>	<u>Category I/AISC Program</u>
<u>DESIGN</u>	Per ASME III	Support designed to ASME III NF requirements. Calculations for portion designated non-ASME will be checked for compliance with AISC. Load combinations will be in accordance with FSAR Table 3.9A-13. Allowable stresses will meet AISC requirements.
<u>MATERIAL</u>		
Weld Filler Metal	Procured ASME III	Procured ASME III
Structural Material	Procured ASME III	Procured ASME III with option of procuring Category I
Traceability	Batch Numbers	Batch numbers with option of Category I hardmarking
<u>WELDING</u>		
Welders	Qualified to ASME IX	Qualified to AWS D1.1
Procedures/ Weld Techniques	Qualified to ASME IX	Qualified to AWS D1.1 Engineer specifies prequalified weld to be used on technique sheet.
<u>INSPECTORS</u>	Qualified to ASME III	SWEC welding inspection criteria ANSI 45.2.6; QC program ANSI 6.26 SWEC/GSU QA random audit; 10 percent ANI surveillance.
<u>INSPECTION</u>		
Criteria	Per ASME III and SWEC ASME III QA program	Per AWS D1.1 and SWEC Category I program
Attributes	Surveillance of material traceability verification during fabrication	Surveillance of material traceability verification during fabrication
	Material verification at final weld inspection	Material verification at final weld inspections
	100 percent FQC fitup hold points	100 percent CCCP Construction fitup with FQC surveillance

<u>Criteria</u>	<u>ASME III Program</u>	<u>Category I/AISC Program</u>
	Individual weld inspection and documentation per SWEC QA requirements	Weld inspection and documentation per support
<u>EXAMINATION</u>	ASME III NF	ASME III NF
<u>DOCUMENTATION</u>	ASME Control drawing and weld data sheet	CCCP checklist and inspection report
<u>DESIGN CHANGES</u>	Engineering approval per SWEC procedures	Engineering approval per SWEC procedures
	Field changes via CCRN and control drawing revision	Field changes via CCRN and control drawing revision
<u>AS-BUILD PROGRAM</u>	Design verification and SWEC QA requirements	Design verification and SWEC QA requirements
<u>ANI INVOLVEMENT</u>		
In-Process	Undefined surveillance weld inspection via hold points per SWEC QA requirements	10 percent maximum surveillance without hold points
Documentation	100 percent review per SWEC QA requirements	Surveillance with inspection documented on SIS report
<u>INSERVICE INSPECTION</u>	ASME Section XI for entire structure	ASME Section XI for entire structure



TABLE 2  
COMPARISON OF ASME III  
AND  
AISC REQUIREMENTS FOR PIPE SUPPORTS

Load Condition	Plant Condition	Load Combination Description	A S M E *		A I S C (7TH ED.)	
			Allowable Stresses		Load Conditions & Load Construction	Allowable Stresses
1	Normal	DL	ASME Appendix XVII-XVII-2000		Same combinations as ASME	AISC Manual (which is identical to those for ASME load Condition 1&2)
2	Upset	DL+SRSS (OBEI,OCCU)	Same as above		Same combinations as ASME	AISC Manual (which is identical to those for ASME load Condition 1&2)
3	Upset	DL+Ther+SRSS (OBET,OCCU)	Tension Shear Axial Tension + Bending	Increase/ allowables for load cond. 1,2 by load factor N**	Same combinations as ASME	Increased allowables by 1/3 (or N=1.33)
4	Emergency	DL+SRSS (OBEI,OCCE)	Axial compression	2/3 of the critical buckling stress	Same combinations as ASME	Increased allowables by 1/3 (or N=1.33)
5	Faulted	DL+SRSS (SSEI,OCCF)	Compression Flange Buckling in flexural member Axial, com- pression + bending	always less than 1.33x allowable in load cond. 1&2	Same combinations as ASME	Increased allowables by 1/3 (or N=1.33)
		* See FSAR Table 3.9A- 13 and ASME NF-3110	** N=3 for load cond. 3 N=4 for load cond. 4 $\frac{3}{3}$ N= lesser of 2 or 1.16 SU/SY for load combination 5			

ASME III criteria which will remain unchanged under the proposed program:

1. Design (including design change control) with the exception of the jurisdictional boundary between NF and AISC.
2. Material - all procured to ASME III requirements
  - . Weld filler metal
  - . Structural material
  - . Traceability
3. Inspector's personnel qualifications
4. Inspection
  - . 100% inspection of fit-up and final weld by construction supervision
  - . 100% final visual inspection by FOC
5. Design verification

ASME III criteria which will be modified under the proposed program:

CAT I/AISC

ASME III NF

1. Inspection

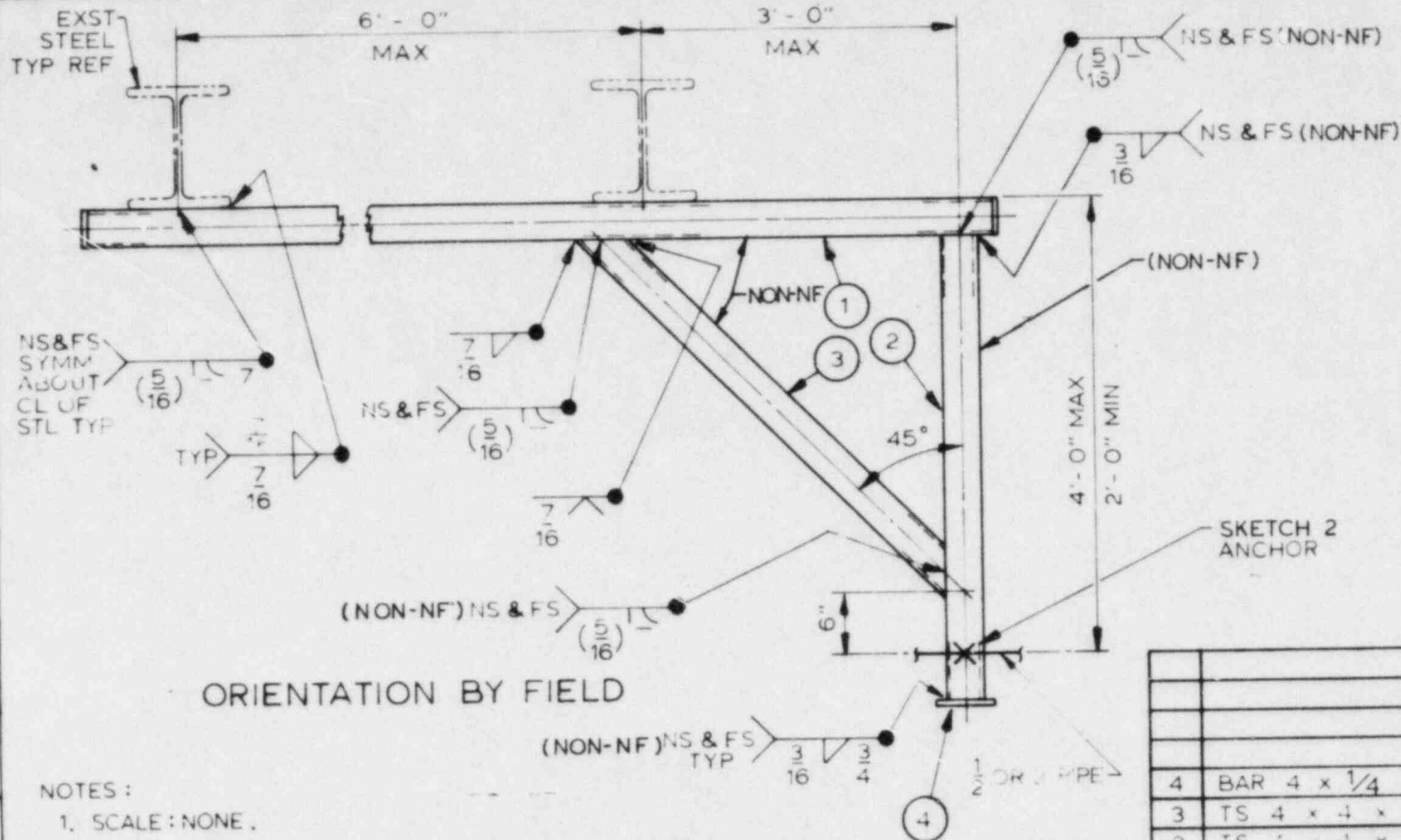
- |   |  |
|---|--|
| . Surveillance inspection of weld fit-up by FQC and ANI                                   | . 100% weld fit-up inspection by FQC with pre-established ANI surveillance hold points       |
| . ANI surveillance inspection without documentation review or pre-established hold points | . ANI surveillance inspection with 100% documentation review and pre-established hold points |

2. Documentation

- |  |  |
|--|--|
| . Inspection attribute checklist in association with Engineering production drawing and FQC Inspection Reports | . ASME Control Drawing and Weld/Bolted Joint Data Sheets |
|--|--|

3. Code Data Report and N Stamp

- |   |   |
|---|---|
| . None - all associated documentation becomes part of Permanent Plant documentation | . Preparation of Code Data Report and N-stamping of piping system |
|---|---|



### ORIENTATION BY FIELD

#### NOTES:

1. SCALE: NONE.
2. FOR GENERAL NOTES SEE 12210-BZ-350B, SH1 OF 1.
3. THIS SUPPORT IS QUALIFIED FOR 1" PIPE AS SHOWN.

ITEM NO	DESCRIPTION	QTY	MATL DESG
4	BAR 4 x 1/4 x 4 1/2" L	3	SA - 36
3	TS 4 x 4 x 3/8	1	A500 GR B
2	TS 4 x 4 x 3/8	1	A500 GR B
1	TS 4 x 4 x 3/8	1	A500 GR B

### NUCLEAR SAFETY RELATED QA CAT I & II

DOCUMENT USER  
CONSULT E&DCR/N&D  
LISTING FOR CHANGES

PCT	AREAS	LEVELS	WORK PKG
100	ALL		

NO	DESCRIPTION	CHKD	DATE	APPD	DATE
4					
3					
2					
1	FAB & CONSTR				
STONE & WEBSTER ENGINEERING CORP CHERRY HILL, N J					

PIPE SUPPORT DETAIL ONE-PIPE ANCHOR	
RIVER BEND STATION UNIT I GULF STATES UTILITIES CO	
ASME III NF BOUNDARY SKETCH 1 SHEET 1 OF 1	

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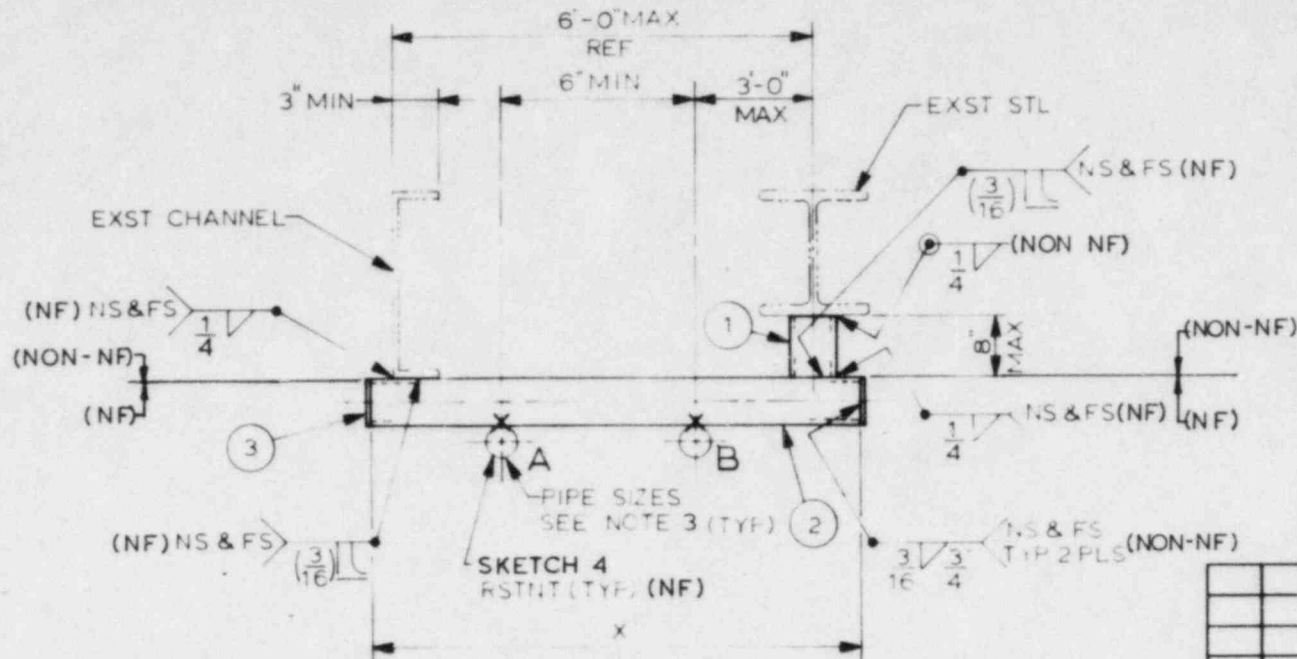
DESIGNED BY: B. KLINE

DRAWN BY: A. FERRANTE DSGN CHK'D BY: S. GEE

CHK'D BY: W. WANNER







ORIENTATION BY FIELD

NOTES:

1. SCALE: NONE.
2. FOR GENERAL NOTES SEE 12210-BZ-350B, SH1 OF 1.
3. THIS SUPPORT IS QUALIFIED FOR (2) PIPES 2" OR UNDER.

ITEM NO	DESCRIPTION	QTY	MATL DESG
3	BAR 3x1/4x3 1/2 LG	2	SA-36
2	TS 3 x 3 x 250	1	A500GRB
1	TS 3 x 3 x 250	1	A500GRB

ASME III CODE CLASS

DOCUMENT USER  
CONSULT E&DCR/N&D  
LISTING FOR CHANGES

NUCLEAR SAFETY RELATED  
QA CAT I & II

SUPPORT MARK NUMBER

PIPE SUPPORT DETAIL  
TWO PIPE RESTRAINT

RIVER BEND STATION UNIT I  
GULF STATES UTILITIES CO

ASME III NF BOUNDARY  
SKETCH 3  
SHEET 1 OF 1

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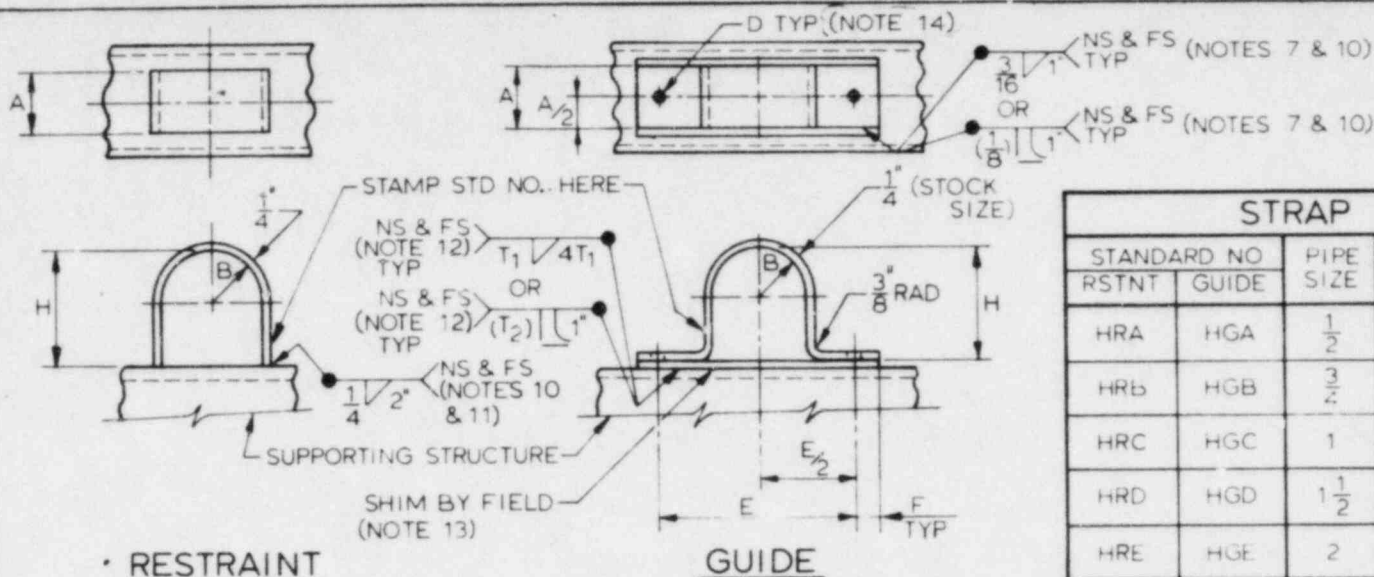
PCT	AREAS	LEVELS	WORK PKG
100	ALL		

STONE & WEBSTER ENGINEERING CORP  
CHERRY HILL, N.J.

DESIGNED BY V. HSIANG DRAWN BY R. TEOLI

DESK CHK'D BY B. MINE CHK'D BY A. FRICK

DATE: 1988 R. HARRIS  
C. TSAI



STRAP DESIGNATION TABLE								
STANDARD NO	PIPE SIZE	A	B	H	D	E	F	BOLT SIZE
HRA	HGA	1/2	2"	15/32	15/16	3"	5/8	3/8
HRB	HGB	3/4	2"	9/16	1 1/8	3"	5/8	3/8
HRC	HGC	1	2"	1 1/8	7/8	3 1/2	5/8	3/8
HRD	HGD	1 1/2	3"	1"	7/8	4 1/4	5/8	3/8
HRE	HGE	2	3"	1 1/4	2 7/8	4 3/4	5/8	3/8

\* NOTE: DIM. A TO BE 2 1/2" ON 1/2", 3/4", & 1" PIPE SIZES WHEN USED AS A CLAMP ANCHOR (BZ-350AG).

#### NOTES:

- FOR GENERAL NOTES & REFERENCES SEE 12210-BZ-350B SH 1 OF 1.
- THIS DRAWING ISSUED ON TITLE SHEET 12210-BZ-350A SH 42.
- TOLERANCE TO BE  $\pm 1/16$ " FOR DIMENSIONS A, D, & F AND  $\pm 1/32$ " FOR H, B, & E.
- MATERIAL: CARBON STEEL SA-36.
- REMOVE ALL SHARP EDGES AND BURRS.
- MARK STANDARD NO ON THE STRAP AS SHOWN.
- WELD GUIDE ON NON BOLTED APPLICATIONS ONLY.
- WHEN SPACE IS LIMITED, SUBSTITUTE ABOVE GUIDE WITH ALTERNATE GUIDE SHOWN ON 12210-BZ-350S SH 1 OF 1.
- ABOVE GUIDE CAN BE SUBSTITUTED FOR A RESTRAINT.
- WELD TO SUPPORTING STRUCTURE OR SHIM.
- WHEN SHIM IS REQD BETWEEN RESTRAINT & SUPPORTING STRUCTURE SEE SPECIFICATION 228.312.
- WELD  $T_1$  &  $T_2$ ;  $T_1$  TO BE MIN SIZE PER ASME TABLE XVII-2452.1-1 BUT NOT LESS THAN 3/16".  $T_2$ =SUPPORTING TUBE THICKNESS LESS 1/16".

13. SHIM DIMENSIONS: A DIM. PLUS 5/8" OR 1/2" WIDER PER SIDE THAN SUPPORTING TUBE STEEL (TO ACCOMMODATE WELDING) BY E DIM. PLUS 2F LIMS. BY 1/4" MIN (OR NO SHIM).

14. FOR BOLTING OPTION, BOLT THROUGH THE SUPPORT MEMBER USING (2) 3/8"-16UNC-2A HEX HD BOLTS (LENGTH BY FIELD) SA-193 B7, (4) 3/8"-16UNC-2B HEX NUTS SA-194 2H, & (2) 3/8" WSHR AMER STD TYPE R PLAIN ANSI B18.22.1. TORQUE TO  $5 \pm 1$  FT LBS.

DOCUMENT USER CONSULT  
E&DCR/N&D LISTING FOR CHANGES NUCLEAR SAFETY RELATED  
QA CAT I, II  
(ALL NF)

5	ADDED NOTE 14	DES	CHK	APP	DATE
4	REVISED & REDRAWN	DES	CHK	APP	DATE
3	SUPERSEDED BY DRAWING BZ-350H-4	DES	CHK	APP	DATE
2	REVISED TABLE AND ADDED ALTERNATE TO ECONOMIZE	DES	CHK	APP	DATE
1	FAB & CONSTR	DES	CHK	APP	DATE

PIPE SUPPORT DETAIL  
STD STRAP RSTNT & GUIDE

RIVER BEND STATION UNIT I  
GULF STATES UTILITIES CO

ASME III NF BOUNDARY  
SKETCH 4  
SHEET 1 OF 1

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PCT	AREAS	LEVELS	WORK PKG
100	ALL		

STONE & WEBSTER ENGINEERING CORP  
CHERRY HILL, N J

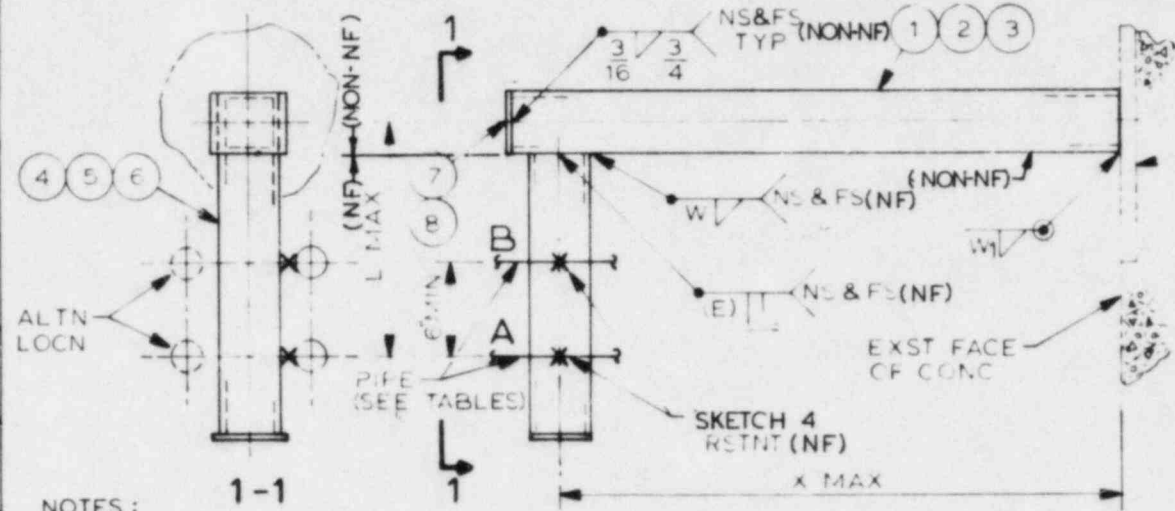
DESIGNED BY C.TSAI

DRAWN BY W.SITTNER

CHK'D BY J.CHANG APP'D BY A.FRICK

TABLE A						
PIPE SIZE	ITEM NO.	L MAX	X MAX	WELD SIZE		
				(E)	W	W1
1/2	(1)(4)(7)	1'-3"	4'-0"	(3/16)	3/16	1/4
3/4	(1)(4)(7)	1'-3"	4'-0"	(3/16)	3/16	1/4
1	(1)(4)(7)	1'-3"	4'-0"	(3/16)	1/4	5/16
1 1/2	(2)(5)(8)	1'-3"	4'-0"	(3/16)	1/4	3/8
2	(3)(6)(8)	1'-3"	3'-0"	(5/16)	5/16	1/2

TABLE B						
PIPE SIZE	ITEM NO.	L MAX	X MAX	WELD SIZE		
				(E)	W	W1
1/2	(1)(4)(7)	3'-6"	2'-0"	(3/16)	3/16	1/4
3/4	(1)(4)(7)	3'-6"	2'-0"	(3/16)	3/16	1/4
1	(1)(4)(7)	3'-6"	2'-0"	(3/16)	1/4	5/16
1 1/2	(2)(5)(8)	3'-6"	2'-0"	(3/16)	1/4	3/8
2	(3)(6)(8)	2'-2"	2'-0"	(5/16)	5/16	1/2



NOTES :

1. SCALE : NONE.
2. FOR GENERAL NOTES SEE 12210-BZ-350B, SH 1 OF 1.
3. THIS SUPPORT IS QUALIFIED FOR (2) PIPES AS SHOWN IN TABLES.

ORIENTATION BY FIELD

ITEM NO.	DESCRIPTION	QTY	MATL DESG
8	BAR 4 x 1/4 x 4 1/2 L	2	SA-36
7	BAR 3 x 1/4 x 3 1/2 L	2	SA-36
6	TS 4 x 4 x .375	1	A500 GRB
5	TS 4 x 4 x .250	1	A500 GRB
4	TS 3 x 3 x .250	1	A500 GRB
3	TS 4 x 4 x .375	1	A500 GRB
2	TS 4 x 4 x .250	1	A500 GRB
1	TS 3 x 3 x .250	1	A500 GRB

ASME III CODE CLASS

DOCUMENT USER  
CONSULT E&DCR/N&D  
LISTING FOR CHANGES

NUCLEAR SAFETY RELATED  
QA CAT I & II

SUPPORT MARK NUMBER

ISSUE	DESCRIPTION	CHD	CORR	APPR	DATE
4					
3					
2					
1	FAB & CONSTR				

PIPE SUPPORT DETAIL  
TWO-PIPE RESTRAINT

RIVER BEND STATION UNIT I  
GULF STATES UTILITIES CO

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PCT	AREAS	LEVELS	WORK PKG
100	ALL		

STONE & WEBSTER ENGINEERING CORP  
CHERRY HILL, N.J.



ASME III NF BOUNDARY  
SKETCH 5  
SHEET 1 OF 1

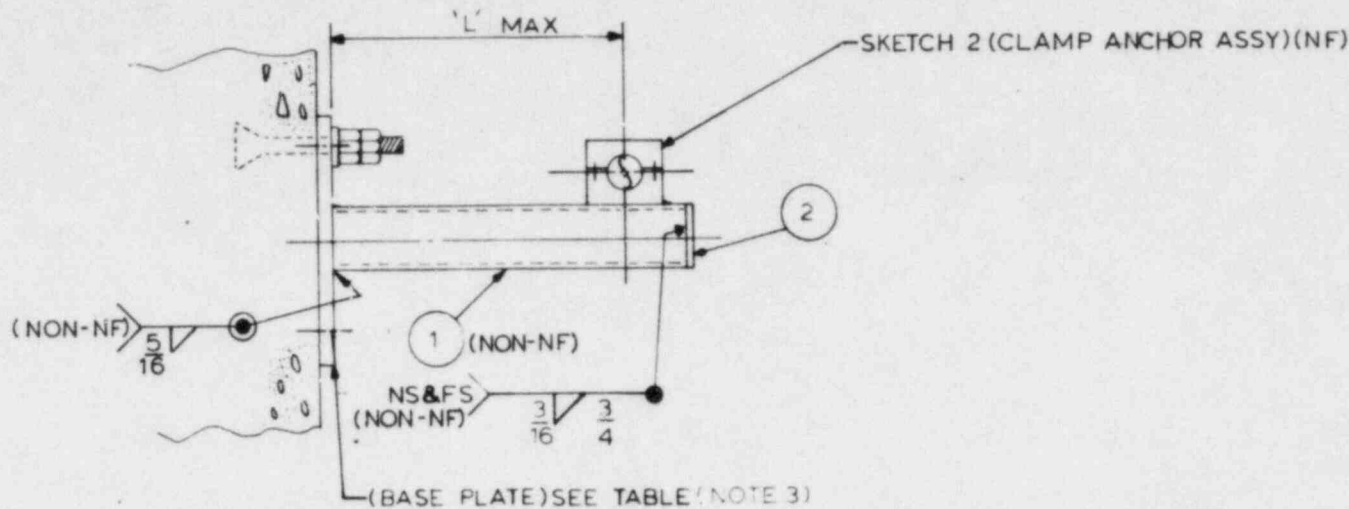
DESIGNED BY B.MINE DRAWN BY R.TEOLI CHECKED BY S.GEE CON'D BY B.FISCHER











*BASE PLATE NO	BZ-350 AU-A	BZ-350 AU-B	BZ-350 AU-C	BZ-350 AU-D
1 1/2" PIPE L MAX	4'-0"	3'-1"	2'-0"	1'-0"
3/4" PIPE L MAX	4'-0"	3'-1"	2'-0"	1'-0"
1" PIPE L MAX	3'-4"	1'-8"	1'-1"	0'-5"
1 1/2" PIPE L MAX	1'-10"	0'-9"	0'-6"	—
2" PIPE L MAX	0'-11"	—	—	—

#### NOTES

1. SCALE NONE.
2. FOR GENERAL NOTES SEE 12210-BZ-350B SH1 OF 1.
3. FOR BASE PL. NO. SEE 12210-BZ-350AU.

\* 4. OPTIONAL USE OF BASE PLATES TYPES 1, 3, 5 PER BZ-350JD MAY BE USED IN LIEU OF BZ-350AU-C&D, BZ-350AU-B, BZ-350AU-A RESPECTIVELY IS ACCEPTABLE.

DOCUMENT USER  
CONSULT E&DCR/N&D  
LISTING FOR CHANGES

ITEM NO	DESCRIPTION	QTY	MATL	DESG	IDENT NO	FW	ISSUED	COMPLETE
2	BAR 3x1/4x3 1/2 LG	1	SA-36					
1	TS 3x3x.250	1	A500GRB					
ASME III CODE CLASS					FOR FIELD USE ONLY			

NUCLEAR SAFETY RELATED  
QA CAT I, II

SUPPORT MARK NUMBER

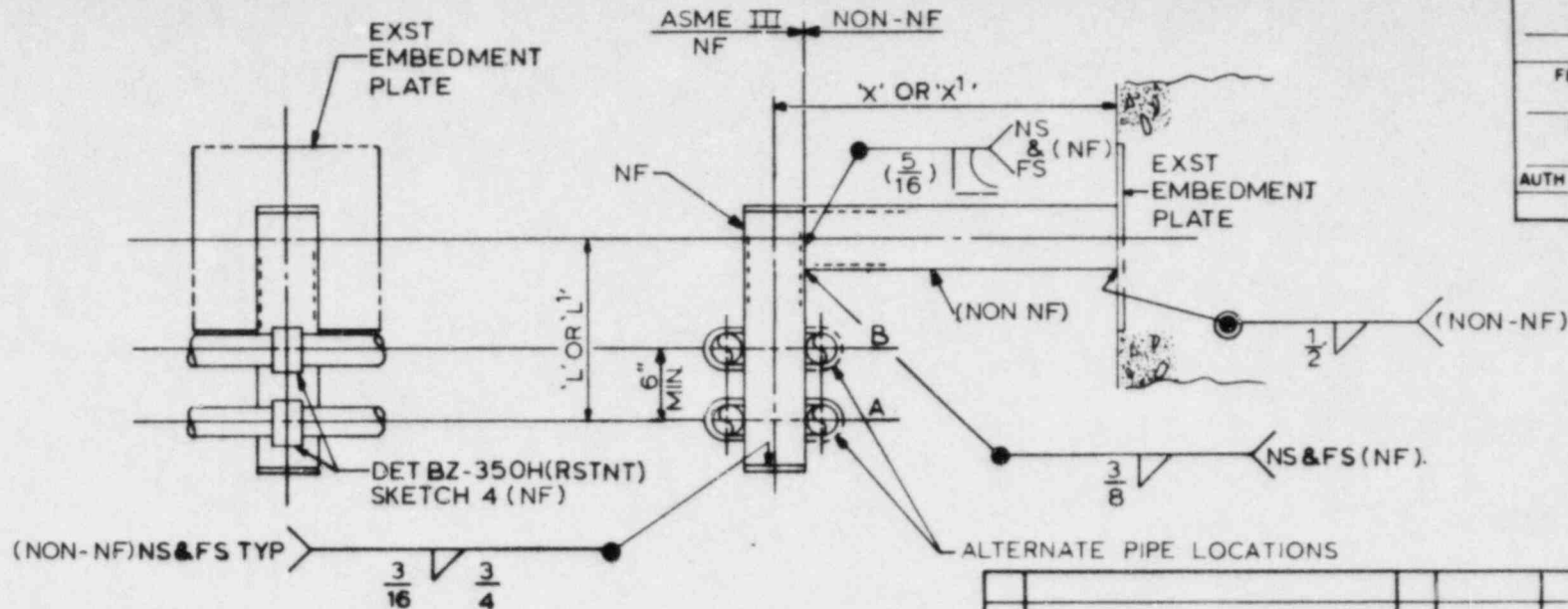
4					STANDARD ONE-PIPE ANCHOR (BASE PLATE)
3					
2	ADDED NOTE 4 PER ENGRG REQUIREMENT	11/2	10/8	1/14	12/87
1	FAB & CONSTR	10/25	10/25	10/25	12/87
RIVER BEND STATION UNIT I GULF STATES UTILITIES CO					
STONE & WEBSTER ENGINEERING CORP CHERRY HILL, N.J.					ASME III NF BOUNDARY SKETCH 8 SHEET 1 OF 1

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PCT	AREAS	LEVELS	WORK PKG
100	1,3,4,5		

100% 100%

ISSUE  
APP CARD



PIPE SIZE	X MAX	L MAX	X <sup>1</sup> MAX	L <sup>1</sup> MAX
1/2"	4'-0"	1'-3"	2'-0"	3'-6"
3/4"	4'-0"	1'-3"	2'-0"	3'-6"
1"	4'-0"	1'-3"	2'-0"	3'-6"
1 1/2"	4'-0"	1'-3"	2'-0"	3'-6"
2"	3'-0"	1'-3"	2'-0"	2'-0"

NOTES:  
 1.SCALE NONE  
 2.FOR GENERAL NOTES SEE  
 12210-BZ-350B SH 10F1

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 LISTING FOR CHANGES

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PCT	AREAS	LEVELS	WORK PKG
100	13,4,5		

ITEM NO	DESCRIPTION	QTY	MATL DESG	IDENT NO	FW	ISSUED	COMPLETE
2	BAR 4x1/4x4 1/2 LG	2	SA-36				
1	TS 4x4x.375	2	A500GRE				

ASME III CODE CLASS

FOR FIELD USE ONLY

**COPY** SAFETY RELATED  
 QA CAT I,II

SUPPORT MARK NUMBER

ISSUE	DESCRIPTION	CHKD	CRD	APPD	DATE
3	SEE RCD OF HOLDS FORM AHZ-350C-2				
2	FAB & CONSTR. SEE RCD OF HOLDS AHZ-350C-1				
1					

TWO-PIPE RESTRAINT

RIVER BEND STATION UNIT I  
 GULF STATES UTILITIES CO.

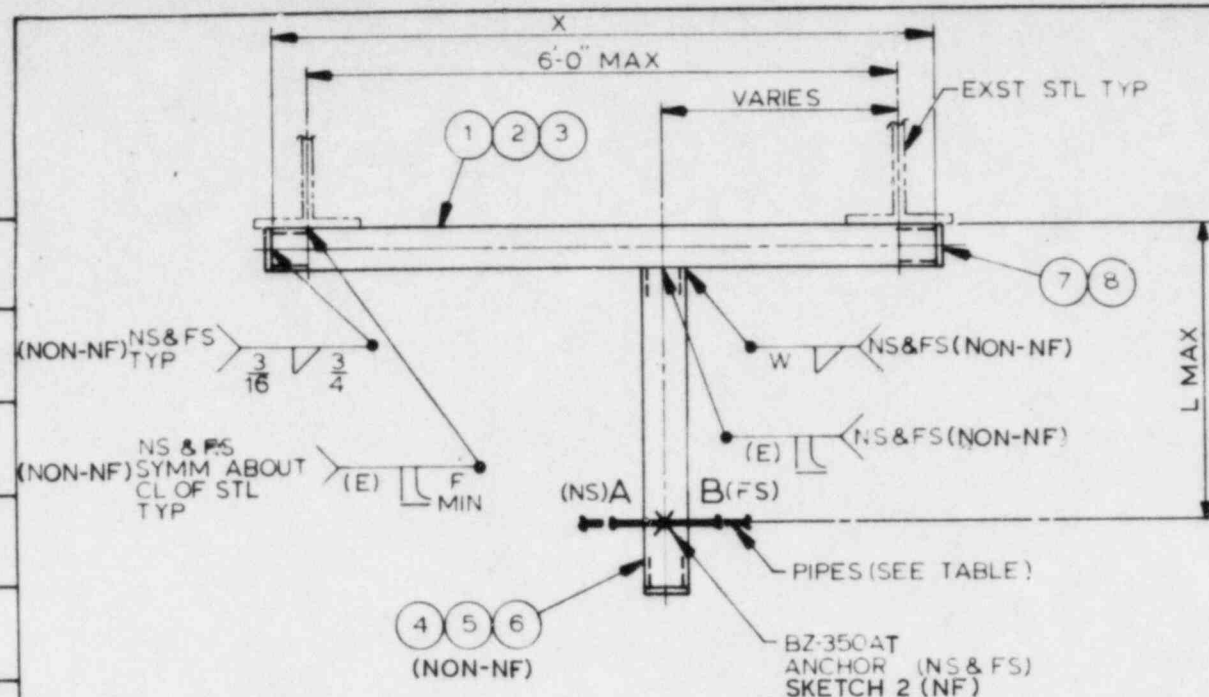
STONE & WEBSTER ENGINEERING CORP  
 CHERRY HILL, N.J.



ASME III NF BOUNDARY  
 SKETCH 9  
 SHEET 1 OF 1

DESIGNED BY WE Jones DRAWN BY WE Jones CHECKED BY R August

COMPLETED INSTALLATION	
CONSTR SUPV	DATE
FINAL INSPECTION COMPLETE	
FIELD QC REP	DATE
AUTH NUCLEAR INSPECTOR	DATE
FOR FIELD USE ONLY	



### ORIENTATION BY FIELD

#### NOTES:

1. SCALE: NONE.
2. FOR GENERAL NOTES SEE 12210-BZ-350B, SH 1 OF 1.
3. THIS SUPPORT IS QUALIFIED FOR (2) PIPES AS SHOWN IN TABLE.

PIPE SIZE	ITEM NO.	L MAX	WELD SIZE		F
			(E)	W	
1/2	(3) (6) (8)	2'-9"	(3/16)	5/16	7
	(2) (5) (7)	4'-0"	(3/16)	1/4	7
3/4	(3) (6) (8)	2'-9"	(3/16)	5/16	7
	(2) (5) (7)	4'-0"	(3/16)	1/4	7
1	(2) (5) (7)	2'-2"	(3/16)	1/4	7
	(1) (4) (7)	3'-6"	(5/16)	3/8	7
1 1/2	(1) (4) (7)	2'-0"	(5/16)	3/8	7
2	(1) (4) (7)	1'-4"	(5/16)	3/8	7 1/2

8	BAR 3x1/4 x 3 1/2" L	3	SA-36
7	BAR 4x1/4 x 4 1/2" L	3	SA-36
6	TS 3x3 x 250	1	A500 GRB
5	TS 4x4 x 250	1	A500 GRB
4	TS 4x4 x 375	1	A500 GRB
3	TS 3x3 x 250	1	A500 GRB
2	TS 4x4 x 250	1	A500 GRB
1	TS 4x4 x 375	1	A500 GRB
ITEM NO.	DESCRIPTION	QTY	MATL DESG

ASME III CODE CLASS

NUCLEAR SAFETY RELATED  
QA CAT I & II

DOCUMENT USER  
CONSULT E&DCR/N&D  
LISTING FOR CHANGES

SUPPORT MARK NUMBER

4					
3					
2					
1	FAB & CONSTR				
ISSUE	DESCRIPTION	CHG#	CORR	APPR	DATE

PIPE SUPPORT DETAIL  
TWO-PIPE ANCHOR

RIVER BEND STATION UNIT I  
GULF STATES UTILITIES CO



ASME III NF BOUNDARY  
SKETCH 10  
SHEET 1 OF 1

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REPAIR OF THE PLANT FACILITY DESCRIBED IN THE  
TITLE BLOCK

PCT	AREAS	LEVELS	WORK PKG
100	ALL		

STONE & WEBSTER ENGINEERING CORP  
CHERRY HILL, N.J.

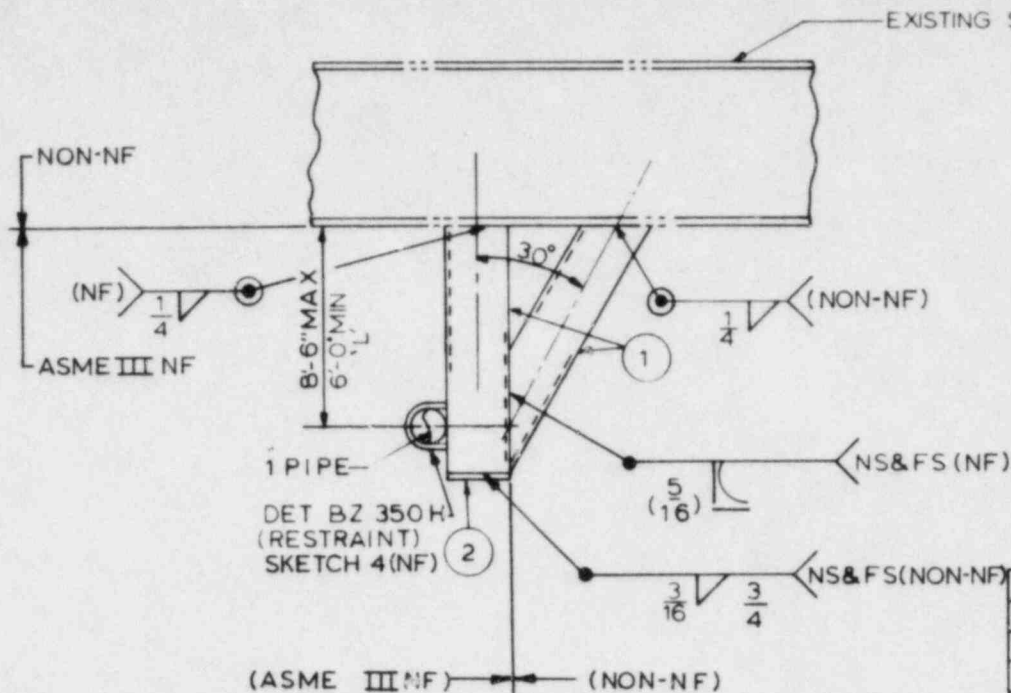
DESIGNED BY S.GEE

DRAWN BY T.BONGIORNO

CHECKED BY M.MAKH

APPROVED BY B.FISCHER

AFRICK  
C.TSAI



- NOTES:  
 1. SCALE: NONE  
 2. FOR GENERAL NOTES  
 SEE 12210-BZ-350B SHT 1 OF 1

COMPLETED INSTALLATION	
CONSTR SUPV	DATE
FINAL INSPECTION COMPLETE	
FIELD QC REP	DATE
AUTH NUCLEAR INSPECTOR	DATE
FOR FIELD USE ONLY	

ITEM NO	DESCRIPTION	QTY	MATL	DESIG	IDENT NO	FW	ISSUED	COMPLETE
2	BAR 4x1/4 x 4 1/2 LG	1	SA-36					
1	TS 4x4x.375	2	A500GRB					
ASME III CODE CLASS					FOR FIELD USE ONLY			

DOCUMENT USER  
 CONSULT E&DCR/N&D  
 LISTING FOR CHANGES

NUCLEAR SAFETY RELATED  
 QA CAT I & II

SUPPORT MARK NUMBER

4					
3					
2	DELETED NS&FS PER ENGRG REQ	1/2	1/2	1/2	9/02
1	FAB & CONSTR	1/2	1/2	1/2	4/5/02
ISSUE	DESCRIPTION	CHKD	COM	APPR	DATE

ONE-PIPE RESTRAINT  
 OFF STRUCTURAL STEEL

RIVER BEND STATION UNIT I  
 GULF STATES UTILITIES CO



ASME III NF BOUNDARY  
 SKETCH 11  
 SHEET 1 OF 1

THE INFO ON THIS DWG MAY NOT BE COPIED OR USED FOR  
 OTHER THAN THE CONSTRUCTION, MAINTENANCE OR  
 REPAIR OF THE PLANT FACILITY DESCRIBED IN THE  
 TITLE BLOCK

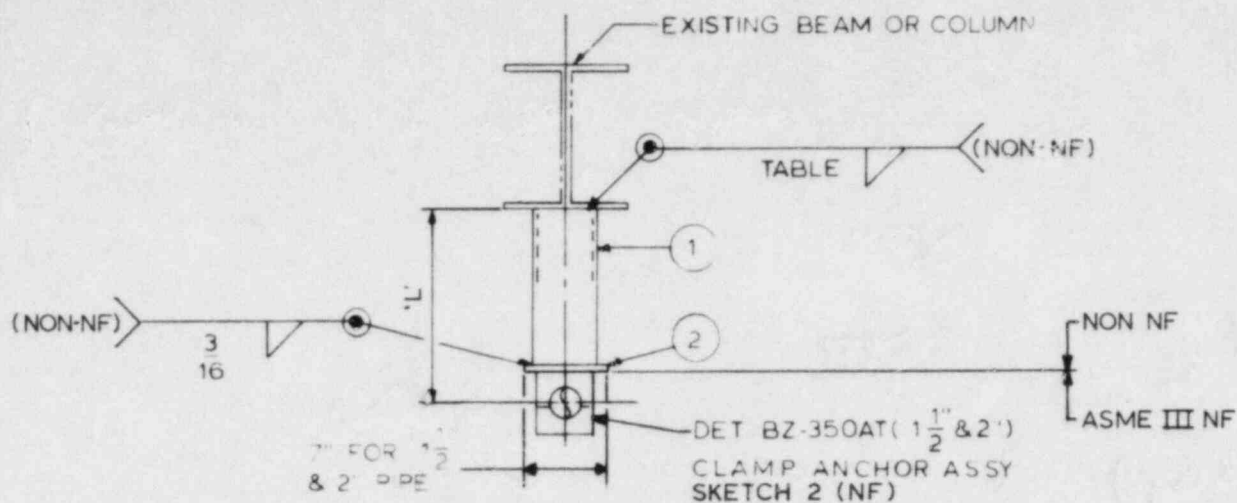
PCT	AREAS	LEVELS	WORK PKG
100	1,3,4,5		

STONE & WEBSTER ENGINEERING CORP  
 CHERRY HILL, N J

DESIGNED BY WE Jones DRAWN BY WE Jones

DESK CHK'D BY R. August CHK'D BY R. August





PIPE SIZE	L MAX	WELD SIZE	ITEM 1	ITEM 2
1 1/2"	4'-0"	3/8"	TS 3x3x.250	5x 1/4 x 5
3/4"	4'-0"	3/8"	TS 3x3x.250	5x 1/4 x 5
1"	4'-0"	3/8"	TS 3x3x.250	5x 1/4 x 5
1 1/2"	4'-0"	1/2"	TS 4x4x.250	5x 3/8 x 7
2"	3'-0"	1/2"	TS 4x4x.375	5x 3/8 x 7

#### NOTES

- 1 SCALE NONE
  - 2 FOR GENERAL NOTES
- SEE 12210-BZ-350B SH 1 OF 1

THE INFO ON THIS DWG MAY NOT BE COPIED OR USED FOR OTHER THAN THE CONSTRUCTION, MAINTENANCE OR REPAIR OF THE PLANT FACILITY DESCRIBED IN THE TITLE BLOCK

PCT	AREAS	LEVELS	WORK PKG
100	1,3,4,5		

ITEM NO	DESCRIPTION	QTY	MATL	DESIG	IDENT NO	FW	ISSUED	COMPLETE
2	TABLE FOR SIZE	1	SA-36					
1	TABLE FOR SIZE	1	500GRB					
ASME III CODE CLASS					FOR FIELD USE ONLY			

DOCUMENT USER  
CONSULT E&DCR/N&D  
LISTING FOR CHANGES

NUCLEAR SAFETY RELATED  
QA CAT I,II

SUPPORT MARK NUMBER

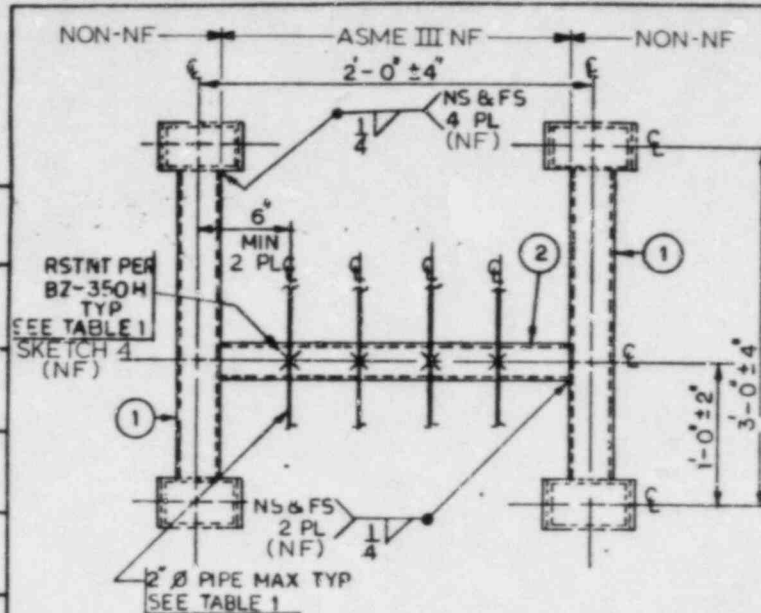
4								
3								
2								
1	FAB & CONSTR							
STONE & WEBSTER ENGINEERING CORP CHERRY HILL, N J								

ONE PIPE ANCHOR  
OFF STEEL  
RIVER BEND STATION UNIT I  
GULF STATES UTILITIES CO

ASME III NF BOUNDARY  
SKETCH 12  
SHEET 1 OF 1

COMPLETED INSTALLATION	
CONSTR SUPV	DATE
FINAL INSPECTION COMPLETE	
FIELD QC REP	DATE
AUTH NUCLEAR INSPECTOR	DATE
FOR FIELD USE ONLY	





# NOTES:

1. SCALE: NONE.
2. FOR GENERAL NOTES SEE 12210-BZ-350B
3. FOR DETAILS OF THE INSERTS REFER TO DRAWING 12210-BZ-351AW
4. THIS DRAWING ISSUED ON TITLE SHEET 12210-BZ-351 A SHT 4:
5. SPACING BETWEEN PIPES SHALL BE IN ACCORDANCE WITH SPEC 12210-228.312.

DOCUMENT USER CONSULT E&DCR/N&D LISTING FOR CHANGES

THE INFO ON THIS DWG MAY NOT BE COPIED OR USED FOR OTHER THAN THE CONSTRUCTION, MAINTENANCE OR REPAIR OF THE PLANT FACILITY DESCRIBED IN THE TITLE BLOCK

PCT	AREAS	LEVELS	WORK PHS
100	ALL		

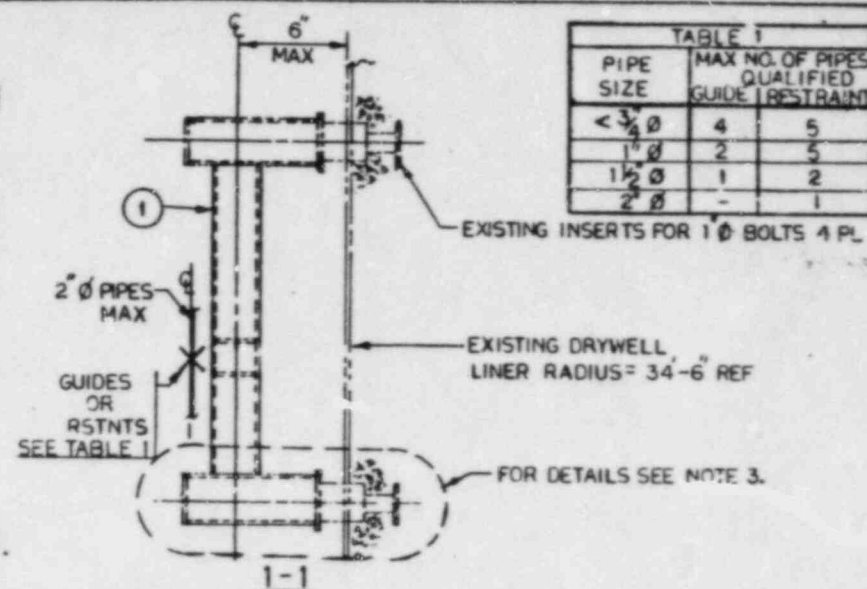


TABLE 1		
PIPE SIZE	MAX NO. OF PIPES QUALIFIED GUIDE   RESTRAINT	
< 3/4 Ø	4	5
1" Ø	2	5
1 1/2" Ø	1	2
2" Ø	-	1

ITEM NO.	DESCRIPTION	QTY	MATL DESG.
2	TS 4 x 4 x .375	1	A500 GR B
1	TS 4 x 4 x .375	2	A500 GR B

ASME III CODE, CLASS 1, 2 OR 3

NUCLEAR SAFETY RELATED  
QA CAT I, II & III

FIELD FABRICATE

4				
3				
2				
1	FAB & CONSTR	177	187	242
	DESCRIPTION	CHG	COPIES	DATE

PIPE SUPPORT DETAIL  
INSERT MOUNTING

RIVER BEND STATION UNIT 1  
GULF STATES UTILITIES CO.

STOWE & WEBSTER ENGINEERING CORP  
CHERRY HILL, N.J.

ASME III NF BOUNDARY  
SKETCH 13  
SHEET 1 OF 1

DESIGNED BY R. THANSE DRAWN BY J. KENNEDY

CHECKED BY S. BANDYOPADHYAY

Technical drawing of a vertical shaft assembly. The drawing includes the following callouts and features:

- NF**: A note with a symbol indicating a specific condition or material.
- ASME III NF**: A note indicating compliance with ASME III NF standards.
- DET BZ-350H (RSINT) SKETCH 4 (NF)**: A note identifying the component as DET BZ-350H (RSINT) SKETCH 4 (NF).
- 1**: A circled number pointing to a component on the shaft.
- 2**: A circled number pointing to a component on the shaft.
- A** and **B**: Labels for specific points or components on the shaft.
- 3/16** and **3/4**: Fractional values, likely representing dimensions or tolerances.
- MAX**: A label indicating a maximum value or dimension.

PIPE SIZE	RESTRAINT L MAX	GUIDE L MAX
1/2"	4'-0"	4'-0"
3/4"	4'-0"	4'-0"
1"	4'-0"	4'-0"
1 1/2"	4'-0"	4'-0"
2"	4'-0"	2'-6"

NOTES  
1 SCALE NONE  
2 FOR GENERAL NOTES  
SEE 12210-BZ-350B SH 1 OF 1

DOCUMENT USER  
CONSULT E&DCR/N&D  
LISTING FOR CHANGES

2	BAR 4x1/4x4 1/2 LG	1	SA-36						
1	TS 4x4x 3/8	1	A500GRB						
ITEM NO	DESCRIPTION	QTY	MAT'L	DESIG	IDENT NO	FW	ISSUED	COMPLETE	
ASME III CODE CLASS					FOR FIELD USE ONLY				

NUCLEAR SAFETY RELATED  
QA CAT I, II

**SUPPORT MARK NUMBER**

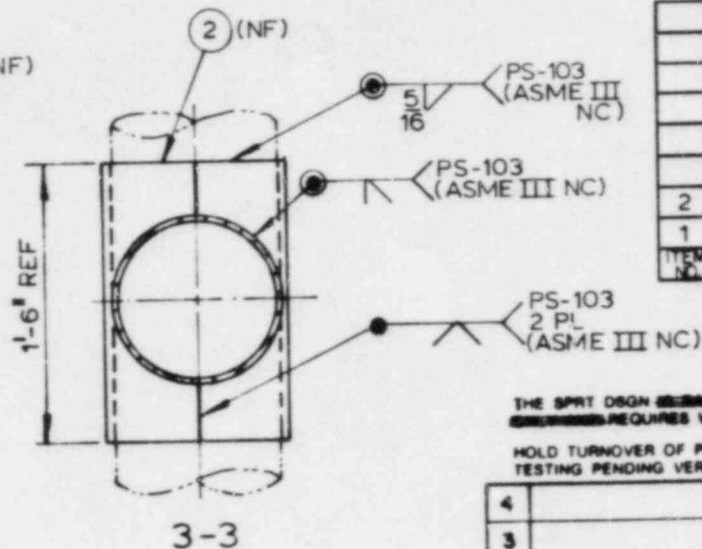
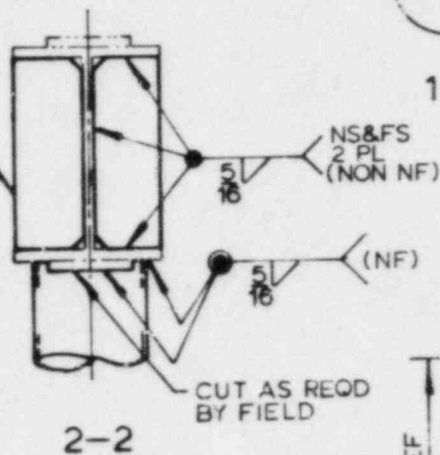
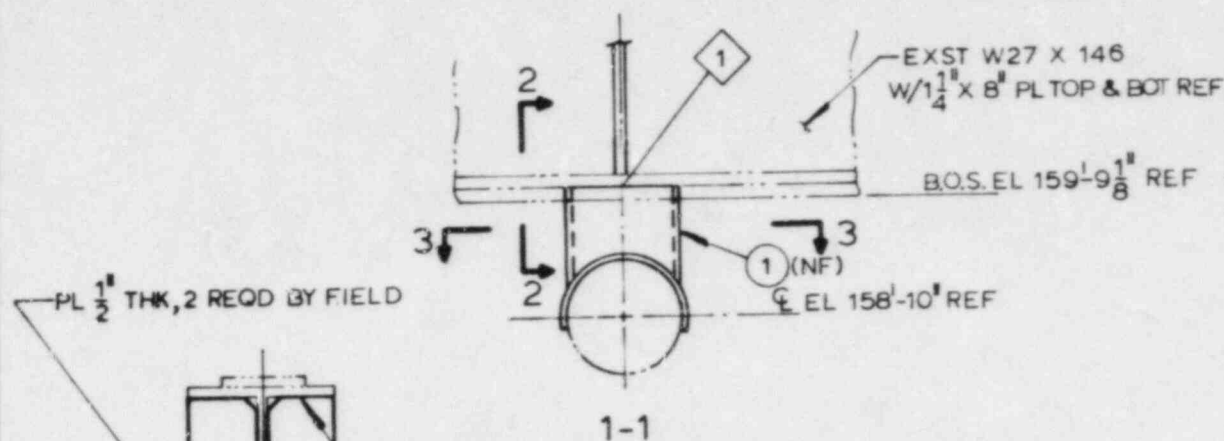
4						TWO PIPE GUIDE / RESTRAINT OFF STRUCTURAL STEEL
3						
2						RIVER BEND STATION UNIT I
1	FAB & CONSTR	REV	APP	DATE		GULF STATES UTILITIES CO
ISSUE	DESCRIPTION	CHD	CORR	APPR	DATE	
STONE & WEBSTER ENGINEERING CORP CHERRY HILL, N J						ASME III NF BOUNDARY SHEET 14 SHEET 1 OF 1

TH. INFO ON THIS DWG MAY NOT BE COPIED OR USED FOR  
OTHER THAN THE CONSTRUCTION, MAINTENANCE OR  
REPAIR OF THE PLANT FACILITY DESCRIBED IN THE  
TITLE BLOCK

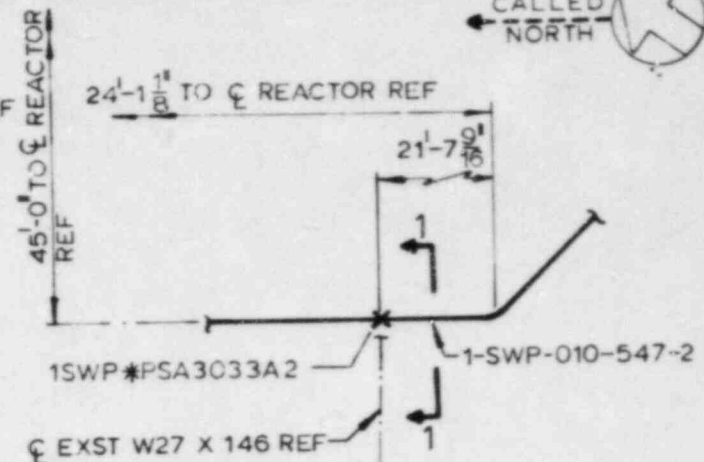
PCT	AREAS	LEVELS	WORK PKG
100	1,3,4,5		

STONE & WEBSTER ENGINEERING CORP  
CHERRY HILL, N. J.

DESIGNED BY GGANDOLFI DRAWN BY GGANDOLFI DEER CUB 1 BY R AUGUST CUB 2 BY R AUGUST

CALLED  
NORTH

FIELD FABRICATE



LOCATION PLAN

ITEM NO.	DESCRIPTION	QTY	MATL DESG
2	PL 3/8 X 10 1/2 X 18	2	SA-515 GR 65
1	10" SCH 40 PIPE X 1'-0 3/8" L	1	SA-106 GR B

ASME III CODE CLASS 2

NUCLEAR SAFETY RELATED  
QA CAT ISUPPORT MARK NUMBER  
1SWP\*PSA3033A2PIPE SUPPORT DETAIL  
SERVICE WATER PIPING  
REACTOR BLDGRIVER BEND STATION UNIT I  
GULF STATES UTILITIES CO.ASME III NF BOUNDARY  
SKETCH 15  
SHEET 1 OF 1

## NOTES:

1. SCALE: NONE
2. FOR GENERAL NOTES & REFERENCES, SEE 12210-BZ-19B
3. THE PIPE SUPPORT DETAILED ON THIS SHEET IS SHOWN ON LOCATION DRAWING 12210-EZ-19ZT
4. DLS BZ-19C
5. THIS DRAWING ISSUED ON TITLE SHEET 12210-BZ-19A SH 103

THE INFO ON THIS DWG MAY NOT BE COPIED OR USED FOR OTHER THAN THE CONSTRUCTION, MAINTENANCE OR REPAIR OF THE PLANT FACILITY DESCRIBED IN THE TITLE BLOCK

PCT	AREAS	LEVELS	WORK PKG
90	1		

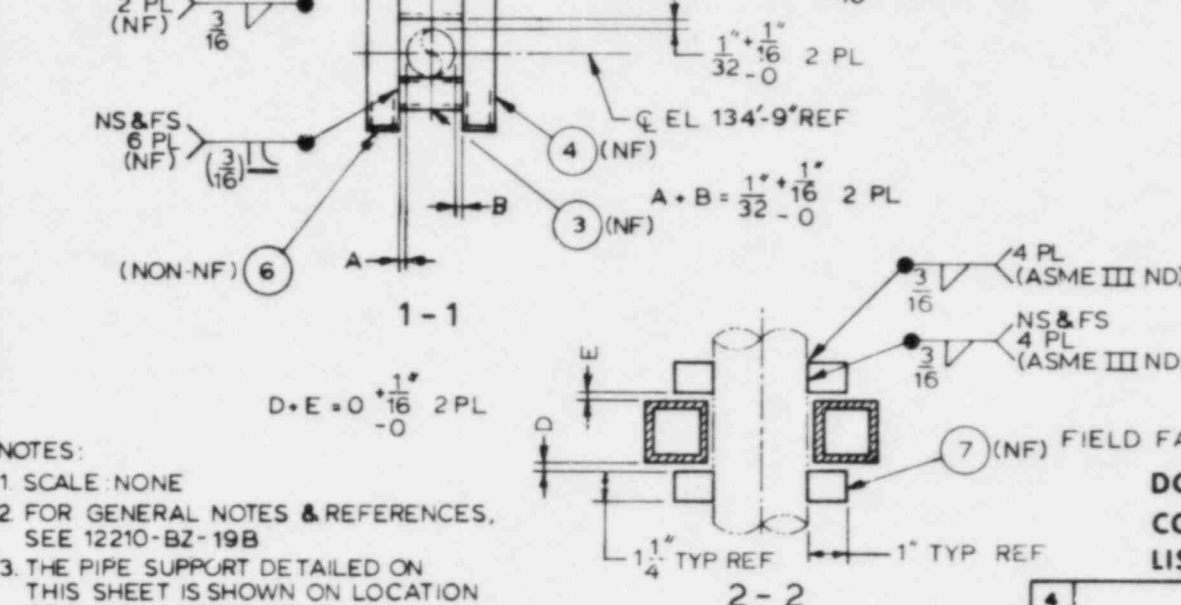
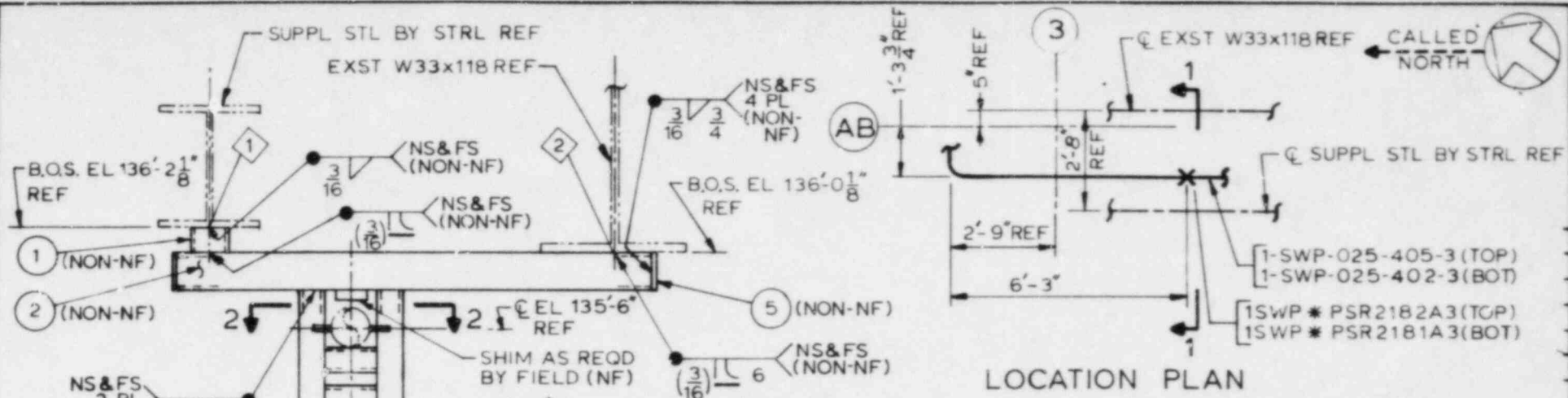
THE SPRT DSGN IS BASED ON STONE & WEBSTER ENGINEERING CORP. REQUIREMENTS FOR FINAL LOADS. HOLD TURNOVER OF PIPING SYSTEM TO AD OPS FOR TESTING PENDING VERIFICATION OF FINAL LOADS.

NO.	DESCRIPTION	DATE
4		
3		
2		
1	FAB & CONSTR	4/1/82

STONE & WEBSTER ENGINEERING CORP  
CHERRY HILL, N.J.

DESIGNED BY SKVIRSKY DRAWN BY WKROUJA

CHECKED BY C. BUTT DRAWN BY P. GRADY



ITEM NO.	DESCRIPTION	QTY	MATL. DESG.
7	PL 3/8 x 1 x 1 1/4	4	SA515, GR65
6	BAR 2 x 1/4 x 2 1/2 L	2	SA-36
5	BAR 3 x 1/4 x 3 1/2 L	2	SA-36
4	TS 2 x 2 x .250 x 1'-4 9/16 L	2	A500, GR B
3	TS 2 x 2 x .250 x 2'-15/16 L	3	
2	TS 3 x 3 x .250 x 3'-1 1/2 L	1	
1	TS 3 x 3 x .250 x 2' L	1	

NOTES:

1. SCALE: NONE
2. FOR GENERAL NOTES & REFERENCES, SEE 12210-BZ-19B
3. THE PIPE SUPPORT DETAILED ON THIS SHEET IS SHOWN ON LOCATION DRAWING 12210-EZ-19ZQ
4. DLS BZ-19C
5. THIS DRAWING ISSUED ON TITLE SHEET 12210-BZ-19A SH 97

THE INFO ON THIS DWG MAY NOT BE COPIED OR USED FOR OTHER THAN THE CONSTRUCTION, MAINTENANCE OR REPAIR OF THE PLANT FACILITY DESCRIBED IN THE TITLE BLOCK

PCT	AREAS	LEVELS	WORK PKG
100	5		

**DOCUMENT USER**  
CONSULT E&DCR/N&D  
LISTING FOR CHANGES

4				
3				
2				
1	FAB & CONSTR			
DATE	DESCRIPTION	CHKD	CORR	APPR DATE

STONE & WEBSTER ENGINEERING CORP  
CHERRY HILL, N.J.

**NUCLEAR SAFETY RELATED  
QA CAT I**

**SUPPORT MARK NUMBER**  
1SWP \* PSR2181A3  
1SWP \* PSR2182A3

**PIPE SUPPORT DETAIL  
SERVICE WATER PIPING  
AUXILIARY BLDG**

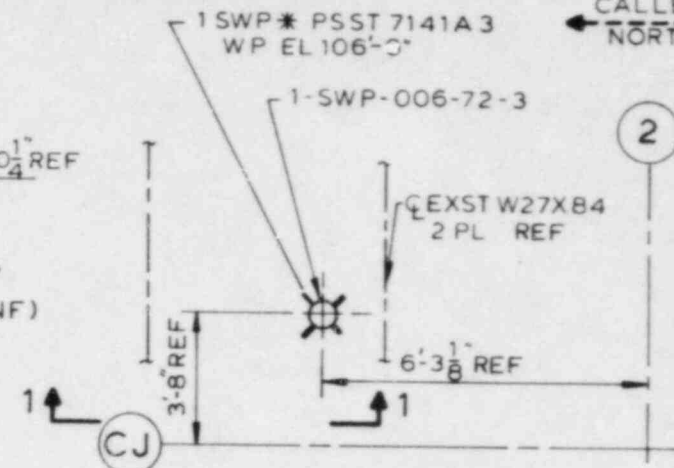
**RIVER BEND STATION UNIT I  
GULF STATES UTILITIES CO**

ASME III NF BOUNDARY  
SKETCH 16  
SHEET 1 OF 1

DESIGNED BY: J. BUNE      DRAWN BY: J. PIFCHOCKI      CHECKED BY: J. DRISCOLL      INCH'D BY: P. GRADY

J. HEFCHER      ALEONARD





5	PL 1X1X3	■	8 SA-515 GR 65
4	PT 72255-R/O - 2.5	■	1 N/A
3	PT 2602 - 2.5-R/1 - 6		1 N/A
2	BAR 6X <sup>1</sup> / <sub>4</sub> X 6 <sup>1</sup> / <sub>2</sub> L	■	2 SA-36
1	TS 6X 6X 250 X 6'-0" L	■	1 A500 GR B
ITEM NO.	DESCRIPTION	QTY	MATL DESG

NUCLEAR SAFETY RELATED  
QA CAT I

**SUPPORT MARK NUMBER**

1 SWP \* PSST 7141 A3

PIPE SUPPORT DETAIL  
SERVICE WATER PIPING  
CONTROL BUILDING

RIVER BEND STATION UNIT 1  
GULF STATES UTILITIES CO.

ASME III NF BOUNDARY  
SKETCH 17  
SHEET 1 OF 1

1. SCALE : NONE
2. FOR GENERAL NOTES & REFERENCES,  
SEE 12210-BZ-19B
3. THE PIPE SUPPORT DETAILED ON  
THIS SHEET IS SHOWN ON LOCATION  
DRAWING 12210-EZ-19ZG
4. DLS BZ-19C
5. THIS DRAWING ISSUED ON TITLE  
SHEET 12210-BZ-19A SHEET 108

THE INFO ON THIS DWG MAY NOT BE COPIED OR USED FOR  
OTHER THAN THE CONSTRUCTION, MAINTENANCE OR  
REPAIR OF THE PLANT FACILITY DESCRIBED IN THE  
TITLE BLOCK

DOCUMENT USER  
CONSULT E&DCR/N&D  
LISTING FOR CHANGES

1-1  
PARTIAL  
FIELD FABRICATE

4					
3					
2					
1	FAB & CONSTR	ADD	ADJ	253	78
ISSUE	DESCRIPTION	CHG	CORR	APPR	DAY

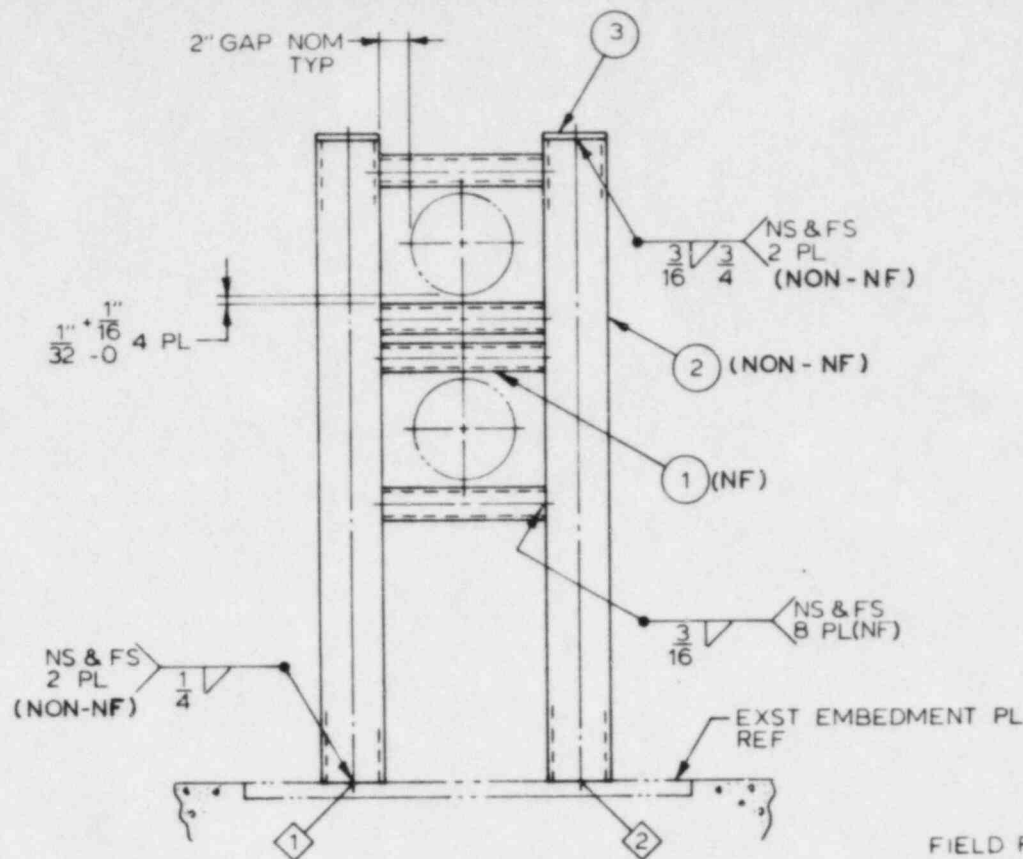
STONE & WEBSTER ENGINEERING CORP  
CHERRY HILL, N.J.

DESIGNED BY J. MEIER      DRAWN BY T. MCCUE

DOMINGO GRADY

PCT	AREAS	LEVELS	WORK PKG
100	4		





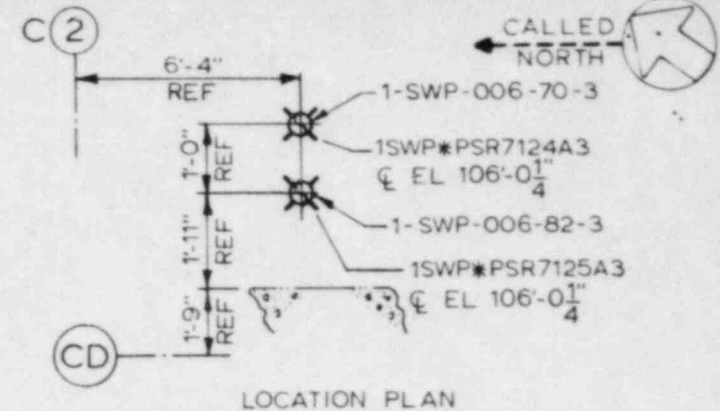
PLAN

NOTES:

1. SCALE: NONE
2. FOR GENERAL NOTES & REFERENCES, SEE 12210-BZ-19B
3. THE PIPE SUPPORT DETAILED ON THIS SHEET IS SHOWN ON LOCATION DRAWING 12210-EZ-19ZG
4. DLS BZ-19C
5. THIS DRAWING ISSUED ON TITLE SHEET 12210-BZ-19A SH 6C

THE INFO ON THIS DWG MAY NOT BE COPIED OR USED FOR OTHER THAN THE CONSTRUCTION, MAINTENANCE OR REPAIR OF THE PLANT FACILITY DESCRIBED IN THE TITLE BLOCK

PCT	AREAS	LEVELS	WORK PKG
100	4		



ITEM NO	DESCRIPTION	QTY	MATL DESG
3	BAR 4 x 1/4 x 4 1/2" LG	2	SA-36
2	TS 4 x 4 x 250 x 3'-5 3/8" LG ▲	2	A500 GR B
1	TS 2 x 2 x 250 x 10 5/8" LG ▲	4	A500 GR B

ASME III CODE CLASS 3

FIELD FABRICATE

**NUCLEAR SAFETY RELATED  
QA CAT I**

**DOCUMENT USER  
CONSULT E&DCR/N&D  
LISTING FOR CHANGES**

**SUPPORT MARK NUMBER**

1SWP\*PSR7124A3  
1SWP\*PSR7125A3

**PIPE SUPPORT DETAIL  
SERVICE WATER PIPING  
CONTROL BLDG**

**RIVER BEND STATION UNIT I  
GULF STATES UTILITIES CO**



**ASME III NF BOUNDARY  
SKETCH 18  
SHEET 1 OF 1**

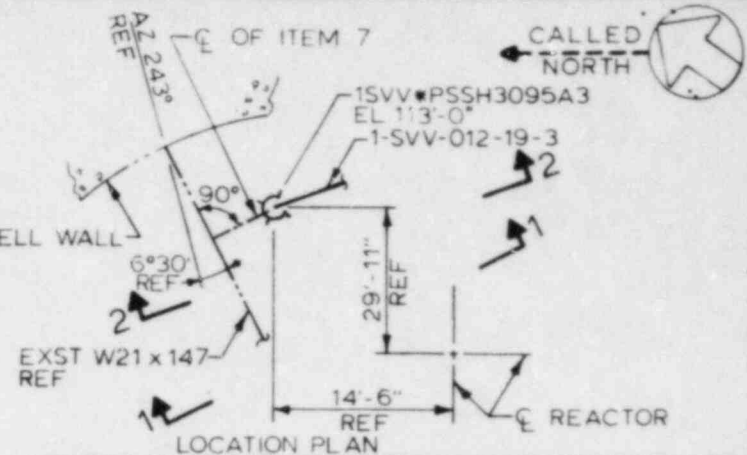
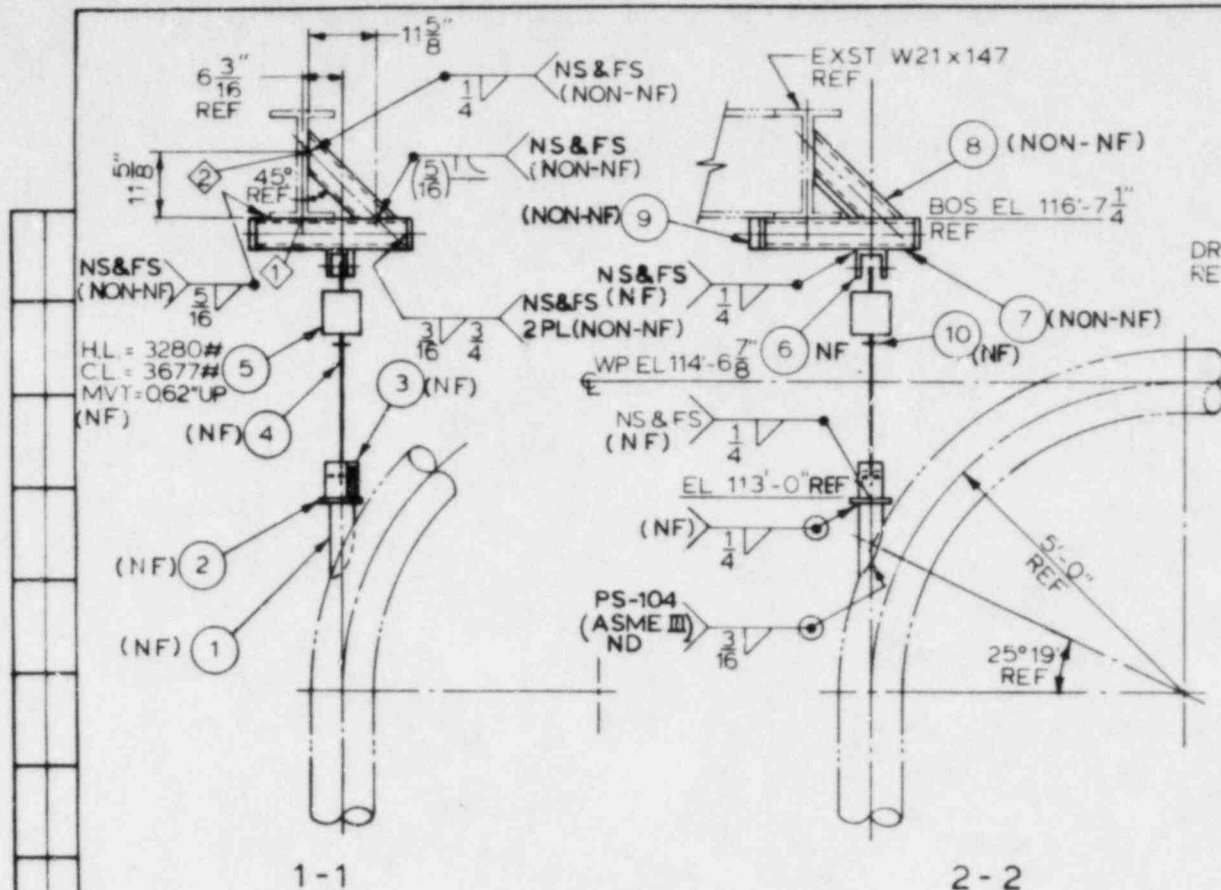
**STONE & WEBSTER ENGINEERING CORP  
CHERRY HILL, N J**

DESIGNED BY J BROWN

DRAWN BY F MADUZIA

DESK CHK'D BY S BASU

CHK'D BY F STEVENSON



ITEM NO.	DESCRIPTION	QTY	MATL DESG
10	1-BUNC-2B HVY HEX NUT	3	SA-307 GR B
9	BAR 6x1/4 x 6 1/2" LG	2	SA-36
8	TS 6x6 x 375 x 1'-10 7/16" LG	1	A500 GR B
7	TS 6x6 x 375 x 2'-0 1/2" LG	1	A500 GR B
6	PT 113-R/6-8	1	N/A
5	PT 3200-B-R/4-14	1	N/A
4	PT 133-R/6-1 x 1'-8 5/8" LG	1	N/A
3	PT 117-R/4-8	1	N/A
2	BAR 6x3/4 x 6" LG	1	SA-36
1	4" STD PIPE x 2'-2" LG ▲	1	SA-106 GR B

ASME III CODE CLASS 3

## NUCLEAR SAFETY RELATED QA CAT I

### SUPPORT MARK NUMBER

1SVV-PSSH3095A3

PIPE SUPPORT DETAIL  
MN ST SAF RLF VALVE DISCH PP  
REACTOR BLDG

RIVER BEND STATION-UNIT I  
GULF STATES UTILITIES CO



ASME III NF BOUNDARY  
SKETCH 19  
SHEET 1 OF 1

### NOTES:

1. SCALE: NONE
2. FOR GENERAL NOTES & REFERENCES, SEE 12210-BZ-11B
3. THE PIPE SUPPORT DETAILED ON THIS SHEET IS SHOWN ON LOCATION DRAWING 12210-EZ-112B
4. DLS BZ-11C
5. THIS DRAWING ISSUED ON TITLE SHEET 12210-BZ-11A SH 5

THE INFO ON THIS DWG MAY NOT BE COPIED OR USED FOR OTHER THAN THE CONSTRUCTION, MAINTENANCE OR REPAIR OF THE PLANT FACILITY DESCRIBED IN THE TITLE BLOCK

**DOCUMENT USER**  
**CONSULT E&DCR/N&D**  
**LISTING FOR CHANGES**

PCT	AREAS	LEVELS	WORK PKG
90	1		

THE SPRT DSGN IS BASED ON STIFFNESS CRITERIA ONLY AND REQUIRES VERIFICATION FOR FINAL LOADS

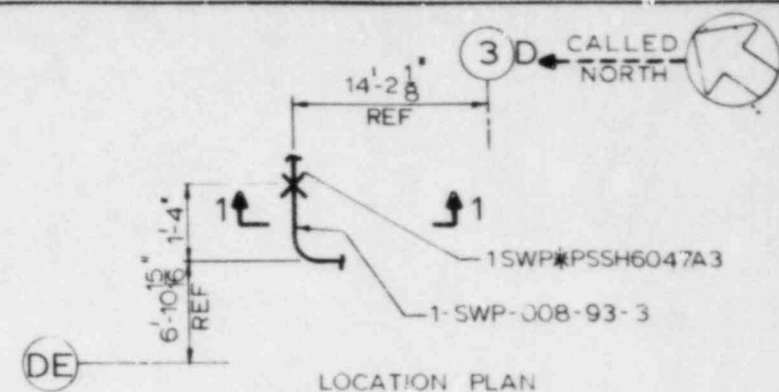
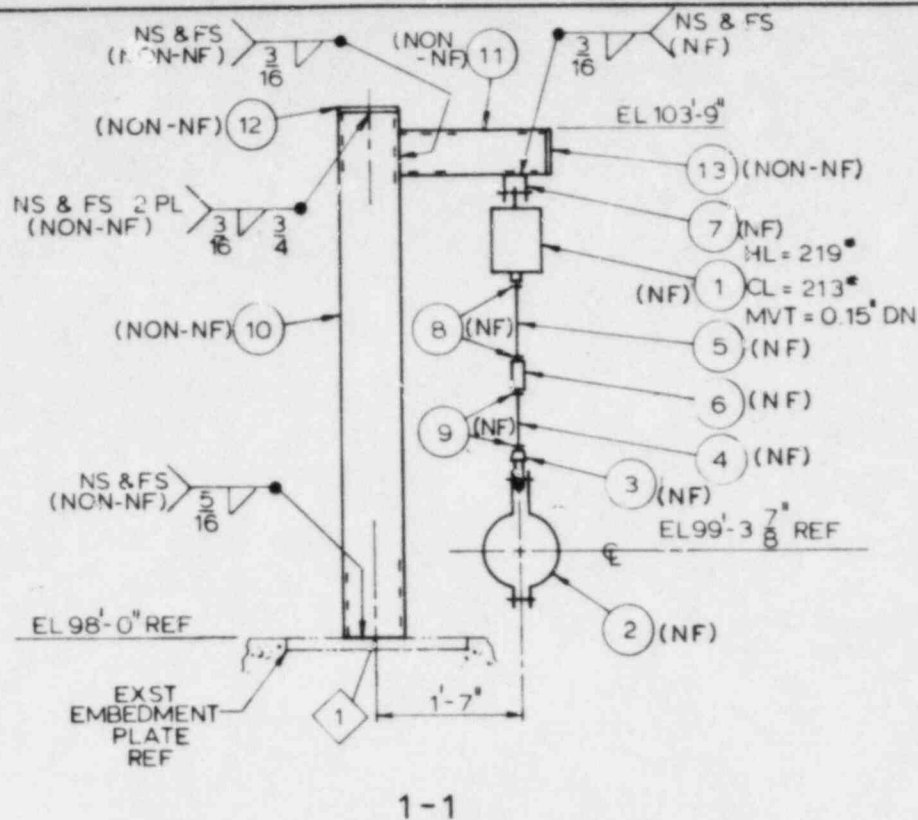
HOLD TURNOVER OF PIPING SYSTEM TO AD OPS FOR TESTING PENDING VERIFICATION OF FINAL LOADS

NO.	DESCRIPTION	CRD	CRD	APP	DATE
1	FAB & CONSTR				

STONE & WEBSTER ENGINEERING CORP  
CHERRY HILL, N.J.

DESIGNED BY: CK/IDCV DRAWN BY: KAN/ITA

0000 CHG 15 BY: 11/11/00 CHG 15 BY: 11/11/00



ITEM NO.	DESCRIPTION	QTY	MATL DESG
13	BAR 4 x 1/4 x 4 1/2" LG	1	SA 36
12	BAR 6 x 1/4 x 6 1/2" LG	1	SA 36
11	TS 4 x 4 x 250 x 1'-6" LG	1	A-500GRB
10	TS 6 x 6 x 250 x 5'-10" LG	1	A-500GRB
9	1/2"-13 UNC-2B-HEAVY HEX NUT LH	2	SA-307GRB
8	1/2"-13 UNC-2B-HEAVY HEX NUT	2	SA 307GRB
7	PT 113-R/6-4	1	N/A
6	PT 132-R/1-1/2	1	N/A
5	PT 133-R/6-1/2 x 1'-2 1/4" LG	1	N/A
4	PT 133 R/6 1/2 x 1'-2 1/4" LG THD=LH	1	N/A
3	PT 5131-R/O-4	1	N/A
2	PT 175-R/4-8	1	N/A
1	PT 3200-B-R/4-4	1	N/A

ASME III CODE CLASS 3

## NUCLEAR SAFETY RELATED QA CAT I

### SUPPORT MARK NUMBER

1SWP#PSSH6047A3

PIPE SUPPORT DETAIL  
SERVICE WATER PIPING  
DIESEL GEN BLDG

RIVER BEND STATION UNIT I  
GULF STATES UTILITIES CO

ASME III NF BOUNDARY  
SKETCH 20  
SHEET 1 OF 1

### NOTES:

1. SCALE: NONE
2. FOR GENERAL NOTES & REFERENCES, SEE 12210-BZ-19B
3. THE PIPE SUPPORT DETAILED ON THIS SHEET IS SHOWN ON LOCATION DRAWING 12210-EZ-19ZK
4. DLS BZ-19C
5. THIS DRAWING ISSUED ON TITLE SHEET 12210-BZ-19A SH92

THE INFO ON THIS DWG MAY NOT BE COPIED OR USED FOR OTHER THAN THE CONSTRUCTION, MAINTENANCE OR REPAIR OF THE PLANT FACILITY DESCRIBED IN THE TITLE BLOCK

PARTIAL  
FIELD FABRICATE

DOCUMENT USER  
CONSULT E&DCR/N&D  
LISTING FOR CHANGES

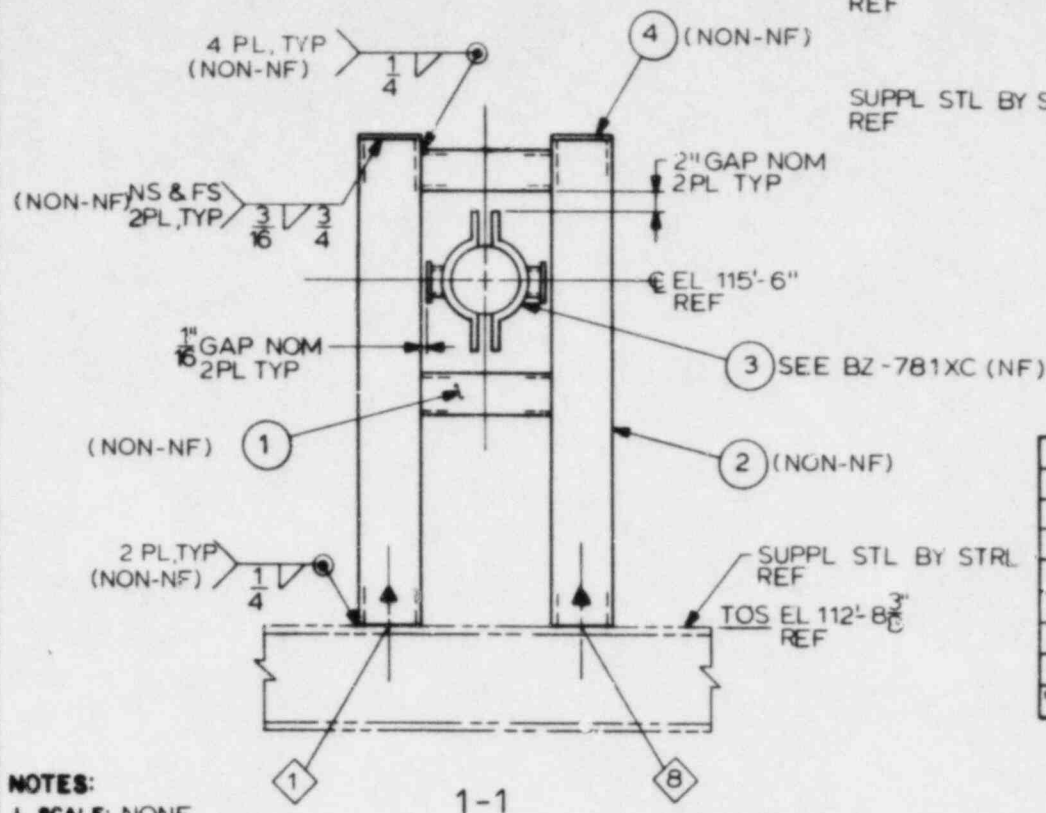
PCT	AREAS	LEVELS	WORK PKG
100	4		

4				
3				
2				
1	FAB & CONSTR			
ISSUE	DESCRIPTION	CHKD	CORR	APPR DATE

STONE & WEBSTER ENGINEERING CORP  
CHERRY HILL, N.J.

DESIGNED BY: [Signature] DRAWN BY: [Signature] CHECKED BY: [Signature] APPR BY: [Signature]

03480 1007 J HEFCHECK  
ALEONARD  
03480 1007 J HEFCHECK



COMPLETED INSTALLATION	
CONSTR SUPV	DATE
FINAL INSPECTION COMPLETE	
FIELD QC REP	DATE
AUTH NUCLEAR INSPECTOR	DATE
FOR FIELD USE ONLY	

[illegible]

**SUPPORT MARK NUMBER**

PIPE SUPPORT DETAIL  
AIR COOLING & PURGING SYS  
REACTOR BLDG

ASME III NF BOUNDARY  
SKETCH 21  
SHEET 1 OF 1

**NOTES:**

THE INFO. ON THIS DWG. MAY NOT BE COPIED OR USED FOR  
OTHER THAN THE CONSTRUCTION, MAINTENANCE OR  
REPAIR OF THE PLANT FACILITY DESCRIBED IN THE  
TITLE BLOCK

PCT	AREAS	LEVELS	WORK PKG
90	1		

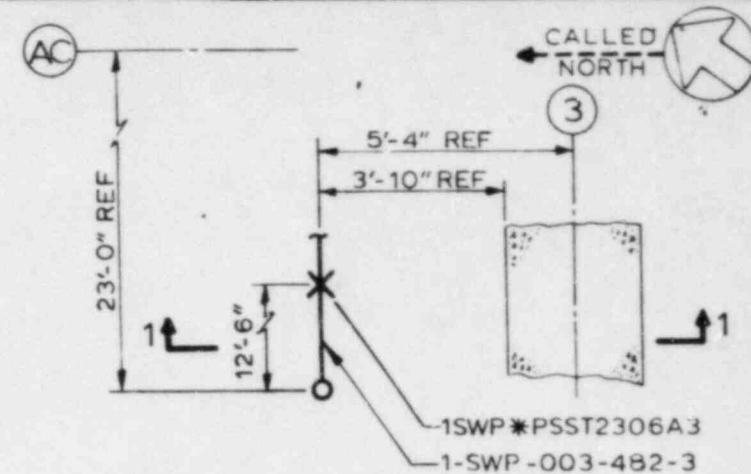
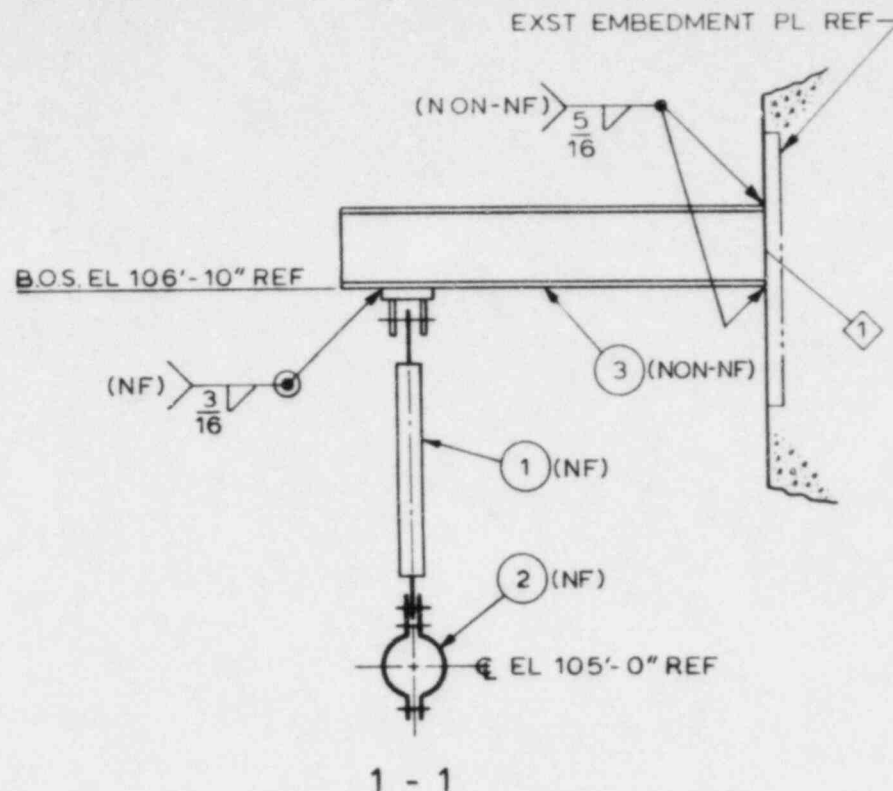
THE SPRT DSGN IS BASED ON STIFFNESS CRITERIA ONLY AND REQUIRES VERIFICATION FOR FINAL LOADS

4				
3				
2				
1	FAB & CONSTR	125	10/27/74	12/27/74
ISSUE	DESCRIPTION	ISS	DATE	DATE

STONE & WEBSTER ENGINEERING CORP  
CHERRY HILL, N.J.

DESIGNED BY JULIANA DRAWN BY P. MURPHY MADE CAR'S BY L. SMITH CAR'S BY J. FISCHER





LOCATION PLAN

ITEM NO.	DESCRIPTION	QTY	MATL DESG
3	W8 x 31 x 4'-2 3/4" L	1	SA-36
2	PT 2600-1.5-R/4-3	1	N/A
1	PT 2010-R/O-1.5-1'-2 1/4"	1	N/A

ASME III CODE CLASS 3

**NUCLEAR SAFETY RELATED  
QA CAT I**

PARTIAL  
FIELD FABRICATE

**SUPPORT MARK NUMBER**

1SWP\*PSST2306A3

PIPE SUPPORT DETAIL  
SERVICE WATER PIPING  
AUXILIARY BUILDING

RIVER BEND STATION UNIT I  
GULF STATES UTILITIES CO.



ASME III NF BOUNDARY  
SKETCH 22  
SHEET 1 OF 1

NOTES:

1. SCALE: NONE
2. FOR GENERAL NOTES & REFERENCES, SEE 12210-BZ-19 B
3. THE PIPE SUPPORT DETAILED ON THIS SHEET IS SHOWN ON LOCATION DRAWING 12210-EZ-19ZAL
4. DLS BZ-19C
5. THIS DRAWING ISSUED ON TITLE SHEET 12210-BZ-19A SH 97

THE INFO ON THIS DWG MAY NOT BE COPIED OR USED FOR OTHER THAN THE CONSTRUCTION, MAINTENANCE OR REPAIR OF THE PLANT FACILITY DESCRIBED IN THE TITLE BLOCK

**DOCUMENT USER  
CONSULT E&DCR/N&D  
LISTING FOR CHANGES**

PCT	AREAS	LEVELS	WORK PKG
100	5		

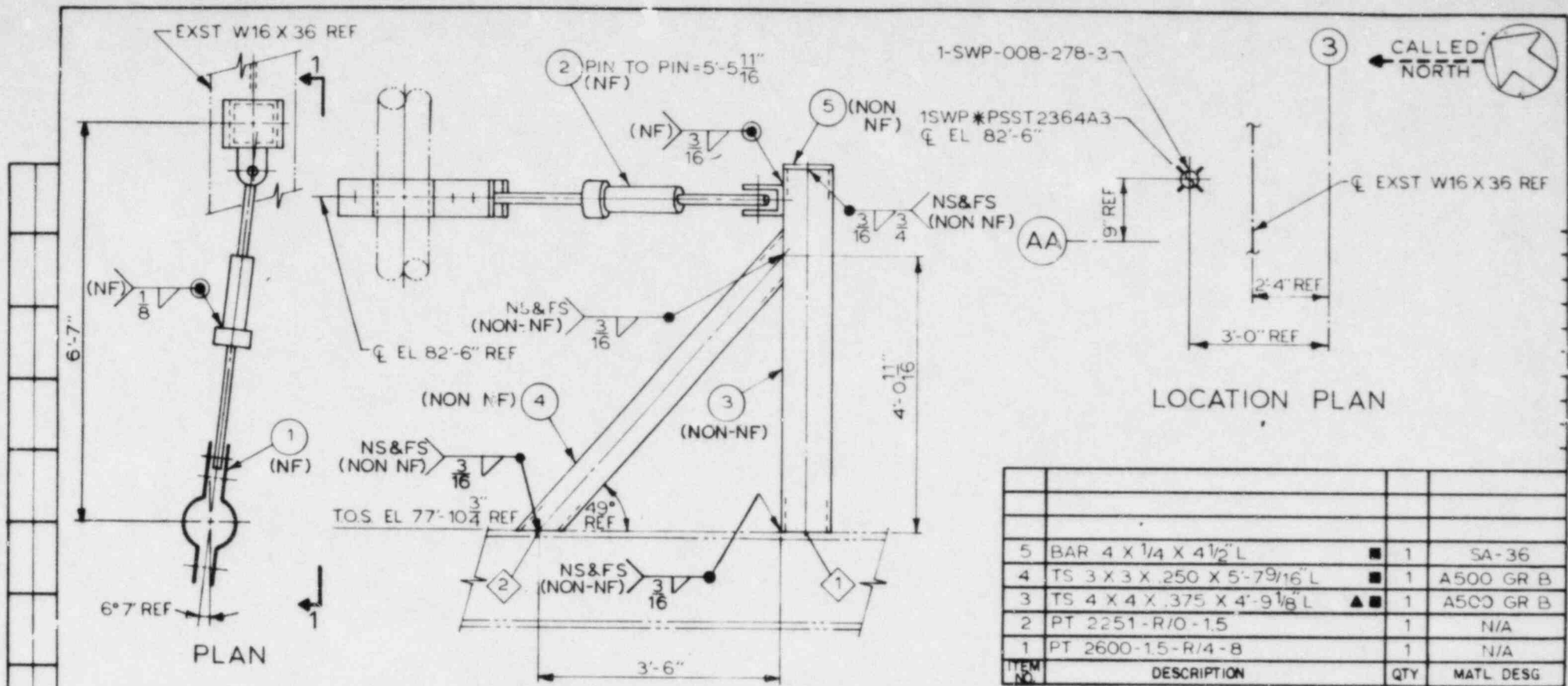
4					
3					
2					
1	FAB & CONSTR				
ISSUE	DESCRIPTION	CHG	CORR	APPR	DATE
	STONE & WEBSTER ENGINEERING CORP				
	CHERRY HILL, N.J.				

DESIGNED BY K MAD

DRAWN BY KANIGOWSKI

CHK'D BY KVIPOSKY CHK'D BY P GRADY





# NOTES:

1. SCALE: NONE
2. FOR GENERAL NOTES & REFERENCES, SEE 12210-BZ-19B
3. THE PIPE SUPPORT DETAILED ON THIS SHEET IS SHOWN ON LOCATION DRAWING 12210-EZ-19ZM
4. DLS BZ-19C
5. THIS DRAWING ISSUED ON TITLE SHEET 12210-BZ-19A SH 101

THE INFO ON THIS DWG MAY NOT BE COPIED OR USED FOR OTHER THAN THE CONSTRUCTION, MAINTENANCE OR REPAIR OF THE PLANT FACILITY DESCRIBED IN THE TITLE BLOCK

DOCUMENT USER  
CONSULT E&DCR/N&D  
LISTING FOR CHANGES

PCT	AREAS	LEVELS	WORK PKG
100	5		

PARTIAL  
FIELD FABRICATE

NUCLEAR SAFETY RELATED  
QA CAT I

SUPPORT MARK NUMBER

1SWP\*PSST2364A3

PIPE SUPPORT DETAIL  
SERVICE WATER PIPING  
AUX BLDG

RIVER BEND STATION UNIT I  
GULF STATES UTILITIES CO.



ASME III NF BOUNDARY  
SKETCH 23  
SHEET 1 OF 1

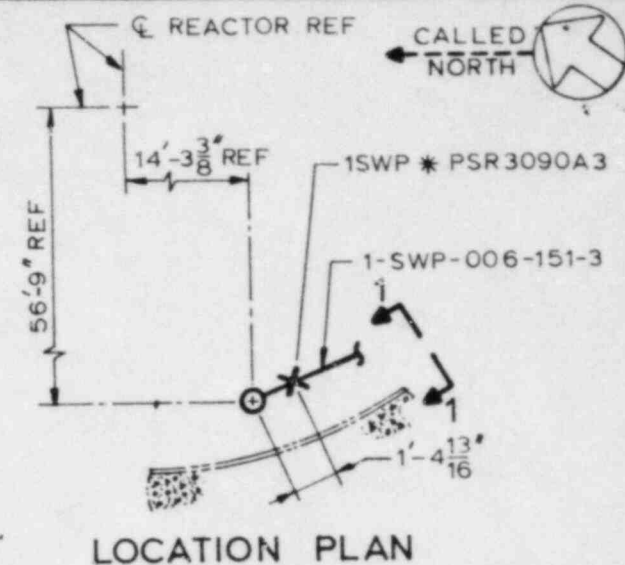
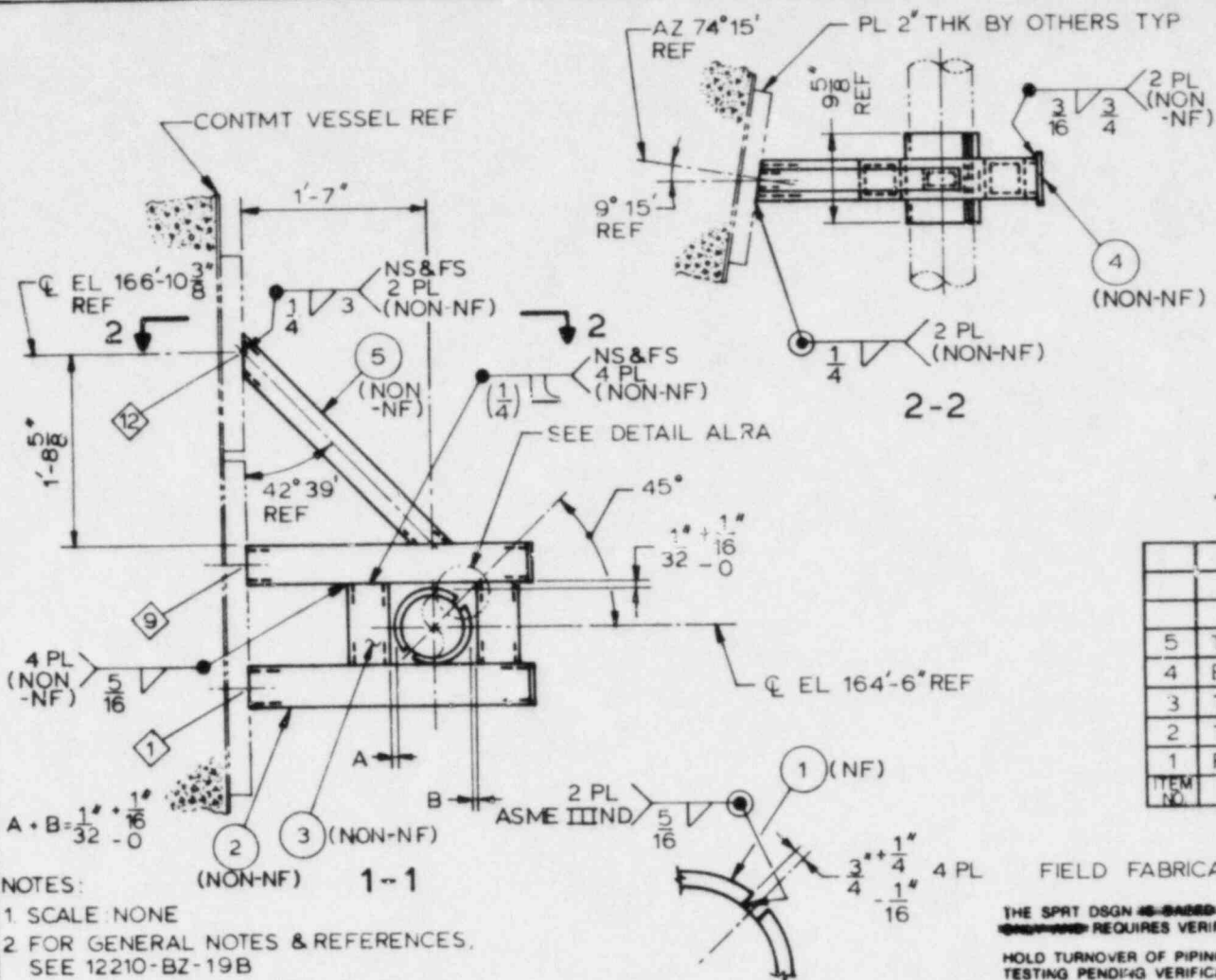
ISSUE	DESCRIPTION	CHG	CORR	APPD	DATE
1	FAB & CONSTR				10-12-84

STONE & WEBSTER ENGINEERING CORP  
CHERRY HILL, N.J.

DESIGNED BY PL AZAROV DRAWN BY EMADUZA

DOCK ONE'S BYD HULLCOLE & BYD COLE

ALFONARD J. HEFCHER



# NOTES:

1. SCALE: NONE
2. FOR GENERAL NOTES & REFERENCES, SEE 12210-BZ-19B
3. THE PIPE SUPPORT DETAILED ON THIS SHEET IS SHOWN ON LOCATION DRAWING 12210-EZ-19ZX
4. DLS BZ-19C
5. THIS DRAWING ISSUED ON TITLE SHEET 12210-BZ-19A SH 101

THE INFO ON THIS DWG MAY NOT BE COPIED OR USED FOR OTHER THAN THE CONSTRUCTION, MAINTENANCE OR REPAIR OF THE PLANT FACILITY DESCRIBED IN THE TITLE BLOCK

## DETAIL ALRA

PCT	AREAS	LEVELS	WORK PKG
90	1		

2-2

FIELD FABRICATE

THE SPRT DSGN IS BASED ON STIFFNESS CRITERIA:  
REQUIRES VERIFICATION FOR FINAL LOADS  
HOLD TURNOVER OF PIPING SYSTEM TO AD OPS. FOR TESTING PENDING VERIFICATION OF FINAL LOADS

3	REVISED & REDRAWN				
2	DWG VOIDED & RENUMBERED BZ-19ALRVD-2				
1	FAB & CONSTR				
ISSUE	DESCRIPTION	CHKD	COOR	APPR	DATE

STONE & WEBSTER ENGINEERING CORP  
CHERRY HILL, N.J.

DESIGNED BY: MARRINGTON DRAWN BY: RIFCHOCKI

## NUCLEAR SAFETY RELATED QA CAT I

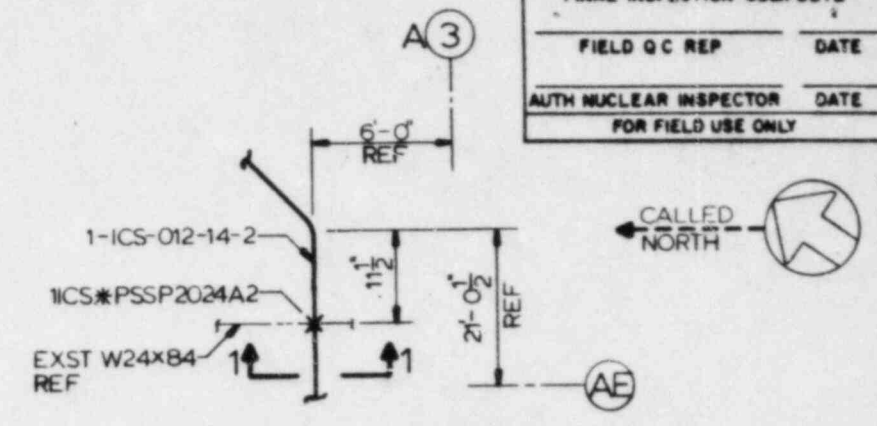
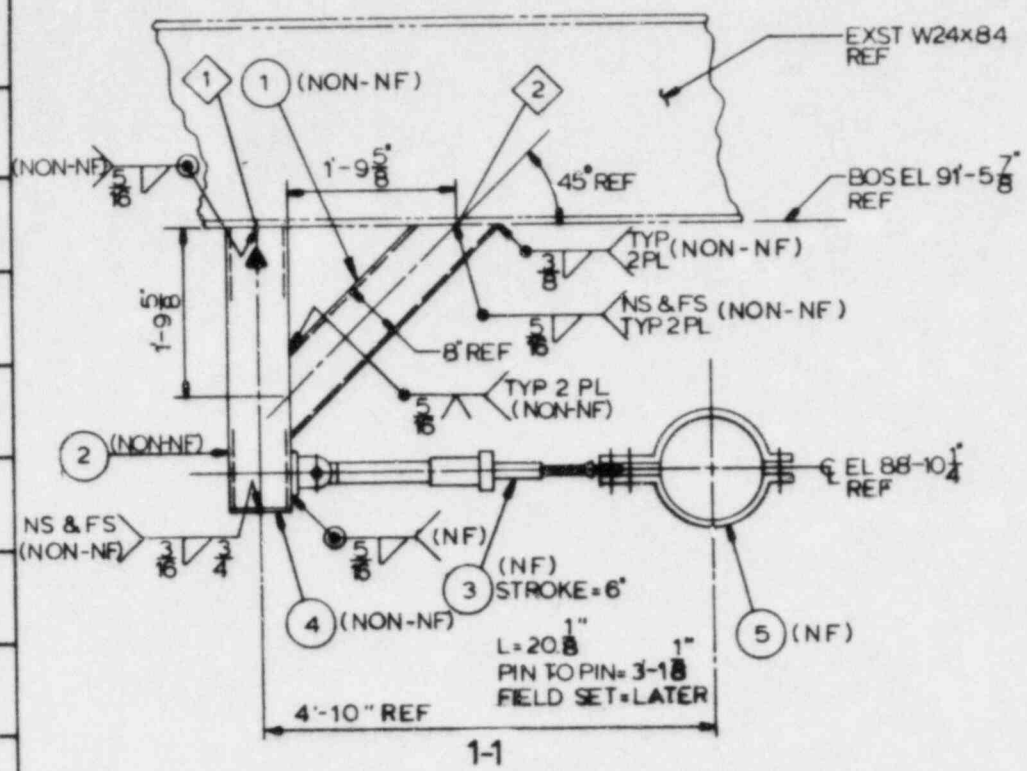
**SUPPORT MARK NUMBER**  
1SWP \* PSR3090A3

**PIPE SUPPORT DETAIL**  
SERVICE WATER PIPING  
REACTOR BLDG

**RIVER BEND STATION UNIT I**  
**GULF STATES UTILITIES CO**

**ASME III NF BOUNDARY**  
SKETCH 24  
SHEET 1 OF 1

DESIGN CHG BY: SCZEPANSKI ESTEVENSO



COMPLETED INSTALLATION	
CONSTR SUPV	DATE
FINAL INSPECTION COMPLETE	
FIELD QC REP	DATE
AUTH NUCLEAR INSPECTOR	DATE
FOR FIELD USE ONLY	

LOCATION PLAN									
ITEM NO.	DESCRIPTION	QTY	MATL	DESG	IDENT NO	P/W	ISSUED	COMPLETE	
5	PT 2640-15-R/2-12	1	NA						
4	PL 1/4 x 8 x 8 1/2	1	SA-36						
3	PT 2540-R/3-15	1	NA						
2	TS 8x8x.375x2'-10 9/16 LG	1	ASME III						
1	TS 8x6x.375x3'-2 9/16 LG	1	ASME III						
ASME III CODE CLASS 2									
								FOR FIELD USE ONLY	

- NOTES:**
1. SCALE: NONE
  2. FOR GENERAL NOTES & REFERENCES, SEE 12210-BZ-13B.
  3. THE PIPE SUPPORT DETAILED ON THIS SHEET IS SHOWN ON LOCATION DRAWING 12210-EZ-13ZB.
  4. DLS BZ-13C.
  5. THIS DRAWING ISSUED ON TITLE SHEET 12210-BZ-13A SHEET 4.
- THE INFO ON THIS DWG MAY NOT BE COPIED OR USED FOR OTHER THAN THE CONSTRUCTION, MAINTENANCE OR REPAIR OF THE PLANT FACILITY DESCRIBED IN THE TITLE BLOCK

PCT	AREAS	LEVELS	WCRK PNO
90	5		

**NUCLEAR SAFETY RELATED QA CAT I**

**SUPPORT MARK NUMBER**  
1ICS#PSSP2024A2

**PIPE SUPPORT DETAIL**  
ISO CLG SYS PP  
AUXILIARY BLDG

**RIVER BEND STATION-UNIT I**  
**GULF STATES UTILITIES CO.**

ASME III NF BOUNDARY  
SKETCH 25  
SHEET 1 OF 1

THE SPRT DSGN IS BASED ON STIFFNESS CRITERIA ONLY AND REQUIRES VERIFICATION FOR FINAL LOADS.

HOLD TURNOVER OF PIPING SYSTEM TO AD OPS. FOR TESTING PENDING VERIFICATION OF FINAL LOADS.

4					
3					
2	FOR RECORD OF DWG CHNG	DATE	BY	APP	
1	FAB & CONSTR	DATE	BY	APP	

STONE & WEBSTER ENGINEERING CORP  
CHERRY HILL, N.J.

DESIGNED BY: A. MARUCCI  
CHECKED BY: G. STATHES

