



GPU Nuclear
 100 Interstate Parkway
 Parsippany New Jersey 07054
 201 263-6510
 TELEX 136 482
 Writer's Direct Dial Number:

March 19, 1986

Mr. John A. Zwolinski, Director
 BWR Project Directorate No. 1
 Division of BWR Licensing
 U.S. Nuclear Regulatory Commission
 Washington, D. C. 20555

Dear Mr. Zwolinski:

Subject: Oyster Creek Nuclear Generating Station
 Docket No. 50-219
 SEP Topic III-6 Seismic Design Considerations
 (Piping Evaluation)

GPUN letter dated July 1, 1985 transmitted Material Nonconformance Reports (MNCRs), marked-up support and isometric drawings for Control Rod Drive Return, Liquid Poison, Main Steam, Core Spray, Feedwater and Isolation Condenser system piping which were generated during our IE Bulletin 79-14 re-inspection effort. These six piping systems were reviewed under the Systematic Evaluation Program (SEP).

The July 1, 1985 letter and GPU letter dated October 28, 1985 to Mr. Stewart D. Ebnetter, Director-Division of Reactor Safety, NRC, stated that our assessment of the MNCRs indicated that the deviations shown in the MNCRs have no effect or only a negligible effect on the results of the SEP piping stress analysis that had been submitted previously.

The October 28, 1985 letter also stated that only the accessible portions of the SEP piping systems inside containment (i.e., Main Steam, Core Spray and Feedwater Systems) were re-inspected during the June, 1985 forced outage.

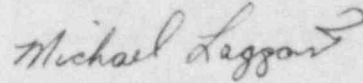
The remaining portions of these systems inside containment were re-inspected during 10M (October/November 1985) outage, and additional MNCRs and marked-up support and isometric drawings were generated.

8603250163 860319
 PDR ADOCK 05000219
 G PDR

Handwritten: Aool 11/11
 Printed Dist

At a recent request of your staff, we are transmitting the MNCRs and marked-up drawings to you and Mr. M. Nitzel of EG&G, Idaho.

Very truly yours,



M. W. Laggart
Manager, BWR Licensing

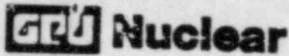
MWL:gpa
3073f

cc: Administrator, Region 1
U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

Mr. Jack N. Donohew, Project Manager
U.S. Nuclear Regulatory Commission
7920 Norfolk Avenue
Bethesda, Maryland 20014
Mail Stop #314

NRC Resident Inspector
Oyster Creek Nuclear Generating Station
Forked River, New Jersey 08731

OYSTER CREEK
CORE SPRAY SYSTEM
MNCR'S
(INSIDE CONTAINMENT)



Material Nonconformance Report

MNCR Number

ML 10/11/85
85-113-09
85-113-1P
10/21/85

 Unit: TMI-1 TMI-2 Oyster Creek

 RECNO _____
 REV _____
 DATE _____
 RECTYPE _____
 LOCATION _____
 FORMNO A _____
 RETENTION _____

1. Identification

 Originator: KEVIN McCauley / ROWLEY-BIDWELL Date/Time: 10/22/85 3:26 PM
 Material, Part, Component, etc.: N/A CORE SPRAY SYSTEM

 Location: DRYWELL EIU 66'

 Manufacturer (Name): N/A Code: N/A

 P.R.#: N/A Line #: N/A Spec #: N/A

 System: CORE SPRAY System Tag No. N/A

 Dwg No. TCP-19440/R3 S&T 10 of 11 Heat Code No. N/A Other: N/A

 Nonconforming to (requirements): DIMENSIONAL / CONFIGURATION DE DWT

 Description of Nonconformance: SEE DISCREPANCIES / DISPOSITION SHEET ATTACHED

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

Important To Safety	POTENTIALLY REPORTABLE:				
	10CFR50	10CFR21	10CFR71	10CFR73.71	L.E.R.
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

 Evaluated By (Name): Kevin McCauley Date/Time: 10-22-85 5:00 PM
 QC Mgr. Validation: Frank McCallister Date/Time: 10-23-85/1722

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

 Unit Management Notified: YES NO Date/Time: _____

 Licensing Notified: YES NO Date/Time: _____

 Hold Tags Issued: YES NO No. of Tags: _____

 Tags Installed By (Name): NA Date/Time: _____

 Material Segregation Required: YES NO

 Segregation Verified By (Name): NA Date/Time: _____

 ACTION PARTY (Name): J. MALONEY Dept: PLANT MATERIAL

Forward to responsible individual/department (Action Party).

85-113-009
M.C. 12/11/85

3. Action Party Evaluation & Disposition

- *Repair
- *Use-as-is
- Rework
- Scrap
- Other

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: Provide engineering determination as to adequacy of as built configuration. EC
Adjust repair drawing to reflect as built. Pay particular attention to work string from N2-3 54
and N2-3 53. If adequate repair drawing to reflect as built.

Evaluation/Disposition By (Name): [Signature]

Dept: Plant Material
Date: 10-23-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

- Repair
- Use-as-is
- Rework
- Scrap
- Other

Justification: (Include applicable work documents, limitations, re-test requirements, etc.)

SEE ATTACHED SHEET FOR JUSTIFICATION

Re-inspection/Retest Requirements (As Applicable)

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

- Design
- Procedure
- Specification
- As-Built Drawing
- FSAR
- Manual
- Tech. Spec.

Document No.:

Dept: T.F. ENG. MECH
Date: 10-23-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER:

[Signature]

Date: 10-24-85

Conditional Release Issued:

- YES
- NO

Reject Tags Issued:

- YES
- NO

AI/ANI Concurrence: YES
 NO

Signature: MA

Date:

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method:

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____

Work/Shipping Order No.: _____ Other: _____

Verified By (Name/Title/Date): _____

Tags/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager:

Date:

THAN ... DRUMMELL ... WORK DOWN

MN... 85-113

DWG. # JEP-19440-R3
SHT. 10 OF 1

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

DIMENSIONAL - SEE ATTACHED DRAWING

DIMENSIONAL DISCREPANCIES
ARE ACCEPTABLE
WILL BE USED IN STRESS ANALYSIS
CHANGE DWG.

* 1'7" LENGTH OF PIPE DOES NOT
EXIST BETWEEN TEE + VALVE AS SHOWN
ON TOP OF LOOP

DOES NOT AFFECT STRUCTURAL
INTEGRITY
CHANGE DWG.

ARE STRIKES ON PIPE + LUGS
AT HANGER NZ-3 S3
NZ-3 S4

DOES NOT AFFECT STRUCTURAL
INTEGRITY
Are strikes will be characterized by NDE
personnel and evaluated on MUR 85-229

Creek - OC

Reviewed: *Bl. Till*

SUPPORT # N/A VALVE # N/A
 ISO DWG # JCP-19440 R3 SHH 10 of 11
 IHO DWG # N/A
 SUPPORT DWG # N/A

85-113-009 M.C. 12/11/85
~~MNCR 85-113-009~~ *M.C.*
 10/28/85

ITEM	Y	N	N/A	REM
1. Proper Valve Orientation				
2. Skin Temperature _____ °F (C.R.)(PYR)			✓	
3. Components identified in accordance with the appropriate drawing.		✓		
4. Component location is within drawing tolerances.		✓		
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.			✓	
6. Verify that all welds are completed.			✓	
7. Piping and supports are free of arc strikes.			✓	
8. Snubbers and spring hangers are installed in accordance with drawing.			✓	
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5% _____			✓	
10. Record the amount of snubber extension from the fully compressed position. T or C = _____			✓	
11. If the springs and snubbers are within: 1/4" from the topped/bottomed out position for springs, and 1/4" from the fully compressed/fully extended position for snubbers, it shall be reported.			✓	
12. Verify piping sizes.			✓	
13. Hanger location in building (General area) { Description: <i>DRYWELL E10.66</i> }				

85-113-9

Creek - OC

SUPPORT # 2/A

ITEM	Y	N	N/A	REM
Hanger hardware:				
A. Clips			✓	
B. Clevis			✓	
C. Cotter Pins			✓	
D. Turnbuckles			✓	
E. Nuts/Bolts (Check all attachments for double nut requirements)			✓	
F. Spring Conisters			✓	
G. Locking Tabs on Nuts			✓	
H. Washers			✓	
I. Swivels			✓	
5. Hanger configuration in accordance with applicable drawings:				
A. Dimensions			✓	
B. Angles of support to system and base plate			✓	
C. All hanger attachments i.e., clips, brackets, etc. orientated correctly.			✓	
D. Strut or Snubber pin to pin distance _____			✓	
6. Weld locations:				
A. Proper weld location			✓	
B. Proper weld spacing			✓	
C. Proper number of welds			✓	
D. Thru paint (average value _____)			✓	
7. Anchor Bolts:				
A. Type			✓	
B. Size _____ number _____			✓	
C. Thread engagement			✓	
D. Bolt c/c spacing			✓	
E. C/C from anchors to closet anchor _____			✓	
18. Gaps @ stops:				
A. At U-bolts or Restraints			✓	
B. At pipe penetrations			✓	

***TOLERANCES FOR MEASUREMENT ACCURACY**

Measurement	Tolerance
0" - 2"	± 1/16"
≥ 2" - 12"	± 1/8"
≥ 12" - 36"	± 1"
≥ 36" - ∞	± 3"

* Unless otherwise shown on the dwg.

M. Rowley 10/22/85
R. Bidwell 10-22-85
QC INSPECTOR(S) **DATE**

Oyster Creek - QC

SUPPORT # NA

PER MNCR 85-113-1

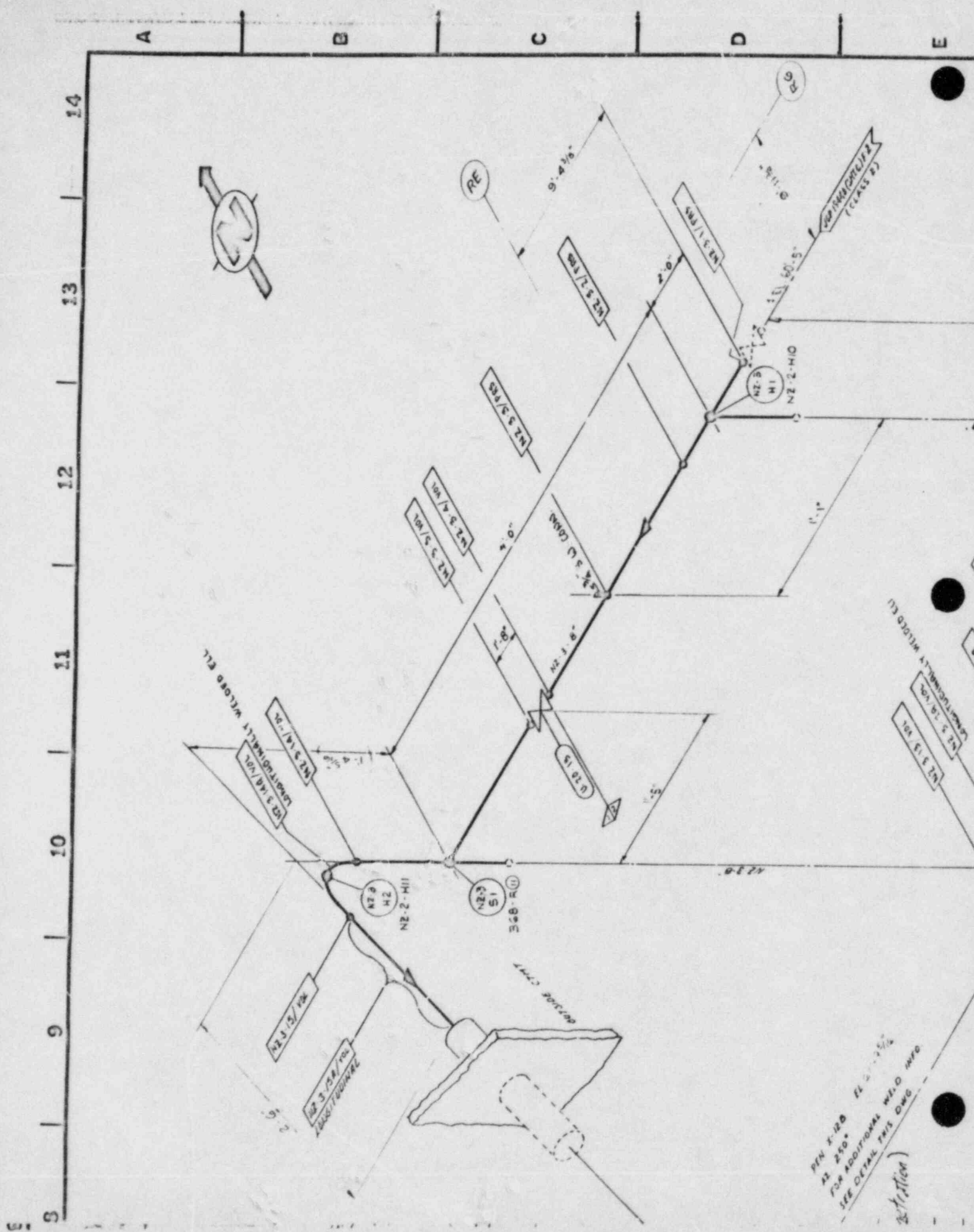
SUPPORT DWG# _____

Y	N	N/A	REM
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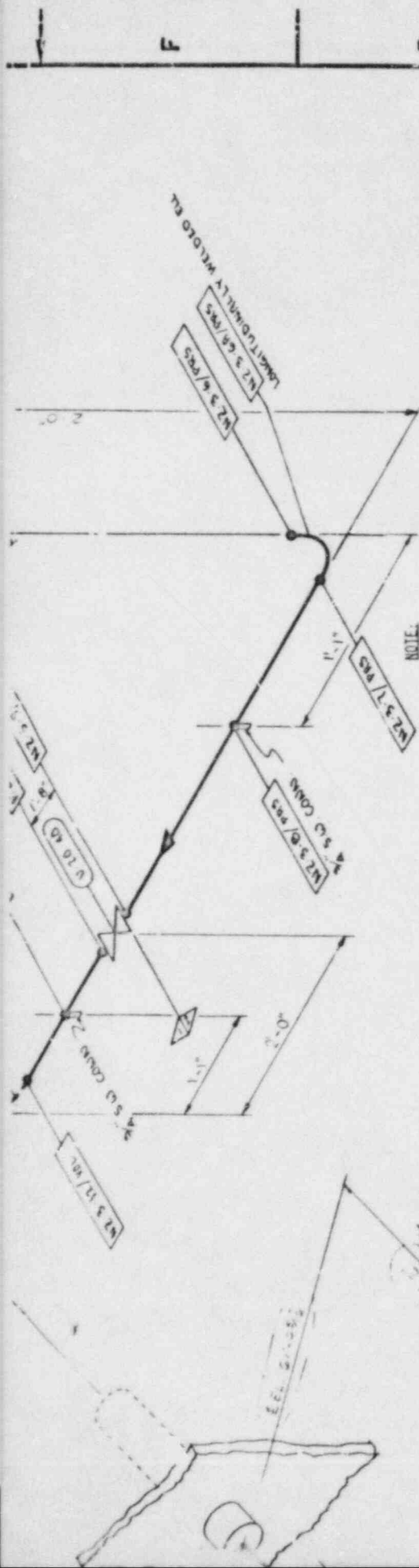
19. Confirm pipe clamp figure no. If not possible, fill in appropriate form attached. ✓
20. Baseplate attachments location recorded on the anchor plate verification sheet. ✓
21. For valves noted in the walkdown, record their location & orientation on the isometric drawing. Describe orientation by stating (1) direction observer is facing, and (2) angle of valve ϕ to pipe ϕ to nearest 30 degrees (such as hours on a clock with 12:00 being direction facing the observer). ✓ SEE DWG
22. For hangers where other systems (i.e. piping, conduit, etc.) are also supported, give size of this system and describe type of support and distance to upstream and downstream hangers supporting that system. ✓

Other items as specified by calculation sheet request attached.

M. Rowley 10/22/85
Z. Bidwell 10/22/85
 QC Inspector(s)/Date



PEN 1-20 EL 2-1 1/2
 AL 250
 FOR ADDITIONAL WILD INFO
 SEE DETAIL THIS DWG
 (Signature)



NOTE:
 THE WELD BETWEEN THE SUPPORT AND THE PRESSURE RETAINING PART SHALL BE SUBJECT TO SURFACE EXAMINATION ONLY IF THE ADJACENT PIPE WELDS ARE SUBJECT TO VOLUMETRIC OR SURFACE EXAMINATION. OTHERWISE, THE SUPPORT-TO-PRESSURE RETAINING PART WELD SHALL BE VISUALLY EXAMINED IN THE SAME MANNER AS THE ADJACENT PIPE WELDS DURING HYDROSTATIC, PRESSURE, OR FLOW TESTS, AS APPROPRIATE.

REFERENCE DWG'S
 15D

JCP-19422 REV 0
 JCP-19431 REV 2 SYMBOLS AND LEGEND FOR ISD
 AND ISOMETRIC DRAWINGS

No.	DATE	REVISIONS	BY	CHKD	APPV
0	2/24/79	ISSUED FOR ISD ONLY	BY	BY	BY
1	3/14/79	FOR J.P.F.L REVIEW	BY	BY	BY
2	3/25/79	FIELD VERIFICATION FOR NUC. I.C. E.P.T. 79-18	BY	BY	BY
3	3/15/79	REVISION FROM (CHECKED STAMP)	BY	BY	BY

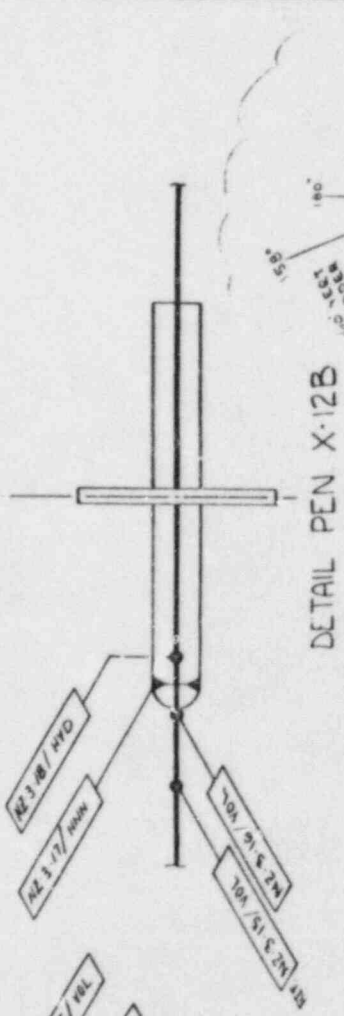
Scale ~ Designed ~ Drawn ~
GENERAL PHYSICS CORPORATION
 COLUMBIA, MARYLAND

JERSEY CENTRAL POWER & LIGHT CO.
OYSTER CREEK NUCLEAR GENERATING STATION

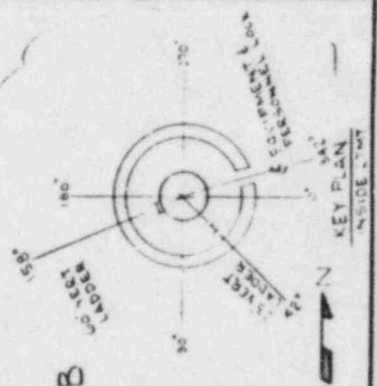
PIPING ISOMETRIC
 CORE SPRAY SYS.

Contract No.	Drawing No.	Rev.
N-14159	JCP-19440	F

OUTSIDE CTMT INSIDE CTMT



DETAIL PEN X-12B

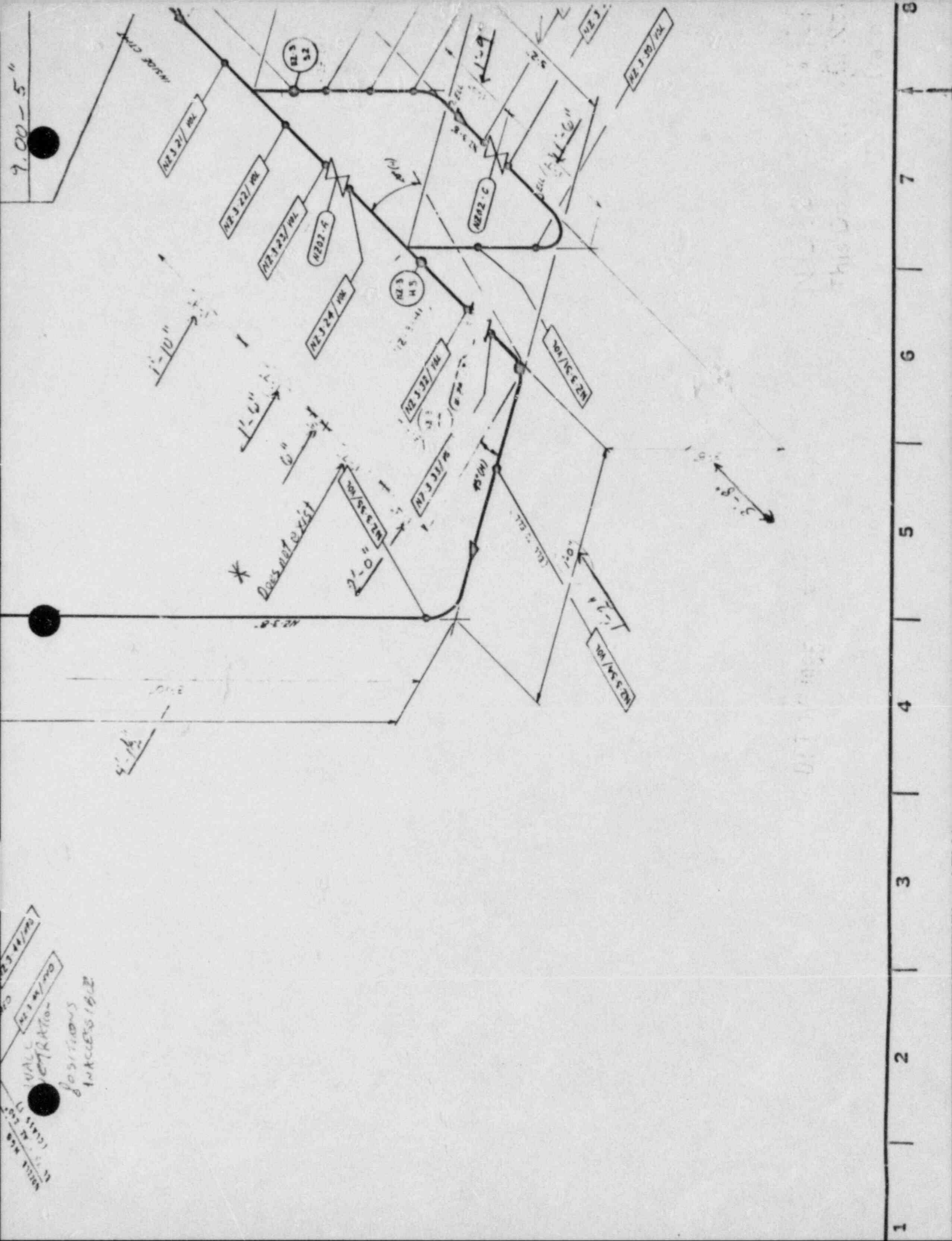


THIS DWG CONTAINS LINES
 NZ-3-B

VERIFIED CORRECT BY
 JCP & L CO.
 DATE 3-28-79

FILED
 No Kept

F G H J K
 9 10 11 12 13 14



7.00-5"

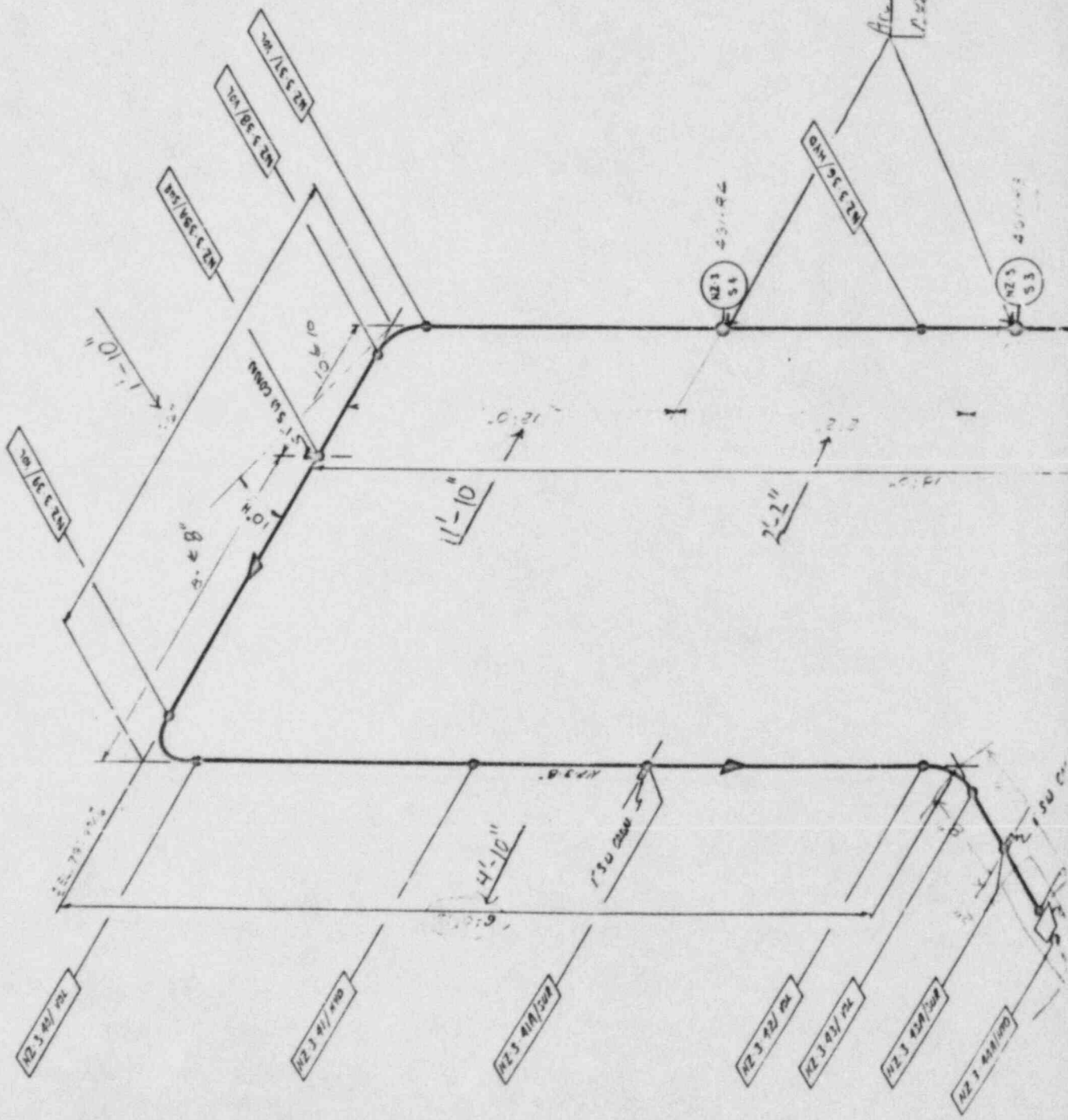
VALVE
 OPERATOR
 POSITIONS
 INDICATED

* Does not exist

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7

DRAWING NO. JCP-19440
SHEET 10 OF 11



Perforation Locations	Measurements (Copy Positions)
	12.00 - 5 1/2"
	3.00 - 6"

Unit: TMI-1 TMI-2 Oyster Creek

RECNO: _____
REV: _____
DATE: _____
RECTYPE: _____
LOCATION: _____
FORMNO A: _____
RETENTION: _____

1. Identification

Originator: FRANK WARD / ED GASHLIN Date/Time: 10/23/85-0500HRS
Material, Part, Component, etc.: SNUBBER ASSEMBLY, SUPPORT # B.P: 461-R3
- G.P: N7-3-53

Location: 55' ELEVATION IN DRYWELL
Manufacture: (Name): N/A Code: N/A
P.R.#: N/A Line #: N/A Spec #: N/A
System: CORE SPRAY System Tag No: N/A
Dwg No. B.P. DWS # 200 / REY I Heat Code No: N/A Other: N/A

Nonconforming to (requirements): CONFIGURATION, MATERIAL AND WELDING AS SHOWN
ON ATTACHED MARKED UP DRAWING AND CHECKLIST. ALSO, DIMENSIONAL DISCREPANCIES
FOUND AS SHOWN.

Description of Nonconformance: SEE ATTACHED DISCREPANCIES / DISPOSITION SHEET.

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

POTENTIALLY REPORTABLE:

Important To Safety	10CFR50	10CFR21	10CFR71	10CFR73.71	L.E.R.
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Evaluated By (Name): Ed Gashlin Date/Time: 10/23/85 0750
QC Mgr. Validation: Frank Ward Date/Time: 10-23-85 / 1244

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to Licensing.

Unit Management Notified: YES NO Date/Time: _____
Licensing Notified: YES NO Date/Time: _____
Hold Tags Issued: YES NO No. of Tags: _____
Tags Installed By (Name): NA Date/Time: _____
Material Segregation Required: YES NO
Segregation Verified By (Name): NA Date/Time: _____

ACTION PARTY (Name): J.P. Maloney Dept: Plant Material

Forward to responsible individual/department (Action Party).

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: ① ② ④ Provide engineering determination as to adequacy of as built configuration. If inadequate revise drawings to reflect as built. ③ Add similar lug to the side of pipe or weld clamp to prior IOW drawings. ⑤ Tighten nut

Evaluation/Disposition By (Name): [Signature]

Dept: Plant Material
Date: 11-23-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (include applicable work documents, limitations, re-test requirements, etc.)

SEE ATTACHED SHEET FOR JUSTIFICATION

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No.: _____

Evaluated By (Name): W.C. [Signature]

Dept: To E. ENGR. MECH
Date: 10-23-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: _____

Date: _____

Conditional Release Issued: YES NO Reject Tags Issued: YES NO

AI/ANI Concurrence: YES NO Signature: _____ Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____

Work/Shipping Order No.: _____ Other: _____

Verified By (Name/Title/Date): _____

Tags/Segregation Removed By (Name/Title/Date): _____

Final Package Review

Quality Control Manager: _____ Date: _____



3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: _____

Evaluation/Disposition By (Name): _____ Dept: _____
Date: _____

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (include applicable work documents, limitations, re-test requirements, etc.)

SEE ATTACHED SHEET FOR JUSTIFICATION

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No.: _____

Evaluated By (Name): *W. C. HAAS* Dept: *T.F. ELY, PECH.*
Date: *10-25-85*

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: *David Merrill* Date: *10/28/85*

Conditional Release Issued: YES NO
Reject Tags Issued: YES NO

AI/ANI Concurrence: YES NO
Signature: *NA* Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____
Work/Shipping Order No.: _____ Other: _____
Verified By (Name/Title/Date): _____
Tags/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____ Date: _____

FORM 1001 ADM 7215 01 1

Unit: TMI-1 TMI-2 Oyster Creek

MNCR Number

RECNO _____
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORMNO A _____
RETENTION _____

1. Identification

Originator: _____ Date/Time: _____
Material, Part, Component, etc.: _____

Location: _____

Manufacturer (Name): _____ Code: _____

P.R.# _____ Line # _____ Spec # _____

System: _____ System Tag No. _____

Dwg No. _____ Heat Code No. _____ Other _____

Nonconforming to (requirements): _____

Description of Nonconformance: _____

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

POTENTIALLY REPORTABLE:

Important To Safety	<u>10CFR50</u>	<u>10CFR21</u>	<u>10CFR71</u>	<u>10CFR73.71</u>	<u>L.E.R.</u>
YES: <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Evaluated By (Name): _____ Date/Time: _____

QC Mgr. Validation: _____ Date/Time: _____

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____

Licensing Notified: YES NO Date/Time: _____

Hold Tags Issued: YES NO No. of Tags: _____

Tags Installed By (Name): _____ Date/Time: _____

Material Segregation Required: YES NO

Segregation Verified By (Name): _____ Date/Time: _____

ACTION PARTY (Name): _____ Dept: _____

Forward to responsible individual/department (Action Party).

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

① AS FOUND "T" DIMENSION ON SNUBBER RECORDED AT 3 7/8" (OUT OF DESIGN SETTING)
AS FOUND "B" DIMENSION ON SNUBBER RECORDED AT > 9" (OUT OF DESIGN SETTING)

DOES NOT AFFECT STRUCTURAL INTEGRITY

② AS FOUND CONFIGURATION OF SNUBBER NOT PER DESIGN DRAWING. (SPACER PLATE ADDED, TURNBUCKLE ADDED, THREADED ROD ADDED, BOLTS MISSING)

NEEDED FOR INSTALLATION STRUCTURALLY ACCEPT. CHANGE DWG.

③ "LUG" FOUND WELDED TO PIPE AT BOTTOM AND WELDED TO PIPE CLAMP AT TOP, NOT AS SHOWN PER DESIGN DRAWING. (SEE AS FOUND SKETCH), WELDING NOT PER DESIGN DRAWING FOR PIPE CLAMP TO PIPE.

~~ADD SAME LUG TO OTHER SIDE OF PIPE OR WELD CLAMP TO PIPE PER DWG. LUG IS WELDED TO PIPE AND CLAMP STRUCTURALLY ACCEPT. WELD. 10-25-85~~

④ BAD WELDS FOUND ON WELDED BEAM ATTACHMENT WITH ARC STRIKES, WELD DRIPPING (etc) AND OVERSIZED WELD AREAS.

ARC STRIKES, DRIPPING WELD AND OVERSIZE WELDS ARE STRUCTURALLY ACCEPT.

⑤ LOOSE NUT FOUND ON LOAD BOLT FOR SNUBBER @ WELDED BEAM ATTACHMENT.

TIGHTEN LOOSE NUT

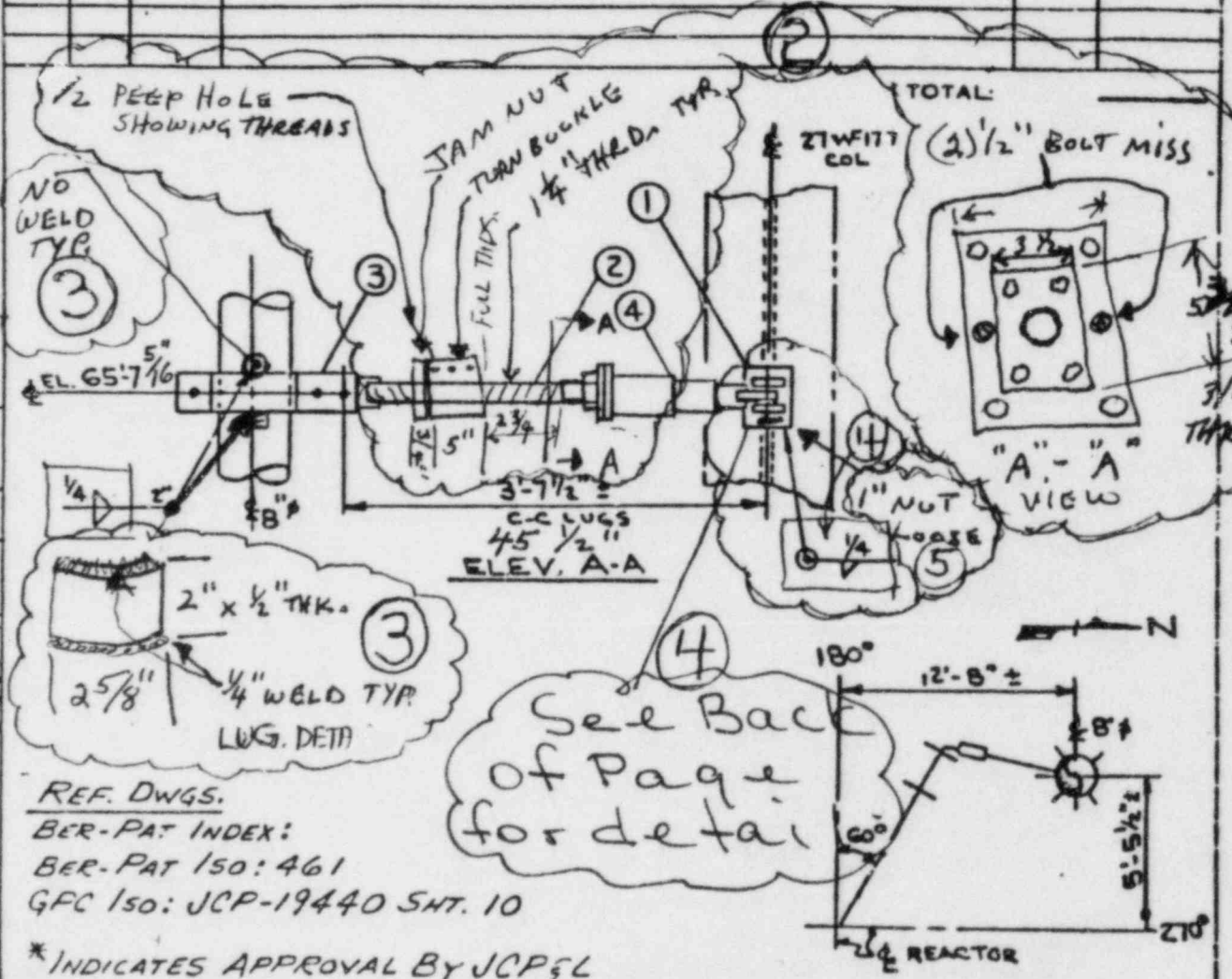
ENCLOSURE: ON SNUBBER
 6" STROKE
 P5A-10
 159
 S/N-2177
 TAG-N20-3
 TAG-NZ 3-53

G.P.-NZ-3-53
 B.P.-461-R (3)
 MNCR# 85-113-10 (4)

ITEM NO	NO REQD	PART NO	DESCRIPTION	WGT
1	1	64101	PART EA1-A	
2	1	252	6" STROKE B=4" T=3 7/8" (SEE ITEM 4)	
3	1	64109	PART EA3-B	
4	1		PACIFIC SCIENTIFIC SNUBBER DWG. 1801107 (ADAPTED TO EXISTING PARTS)	

STROKE READING 3 7/8
 TEMP - 98° off pipe

WELD ATTACHING TO CLAMP



See Back of Page for detail

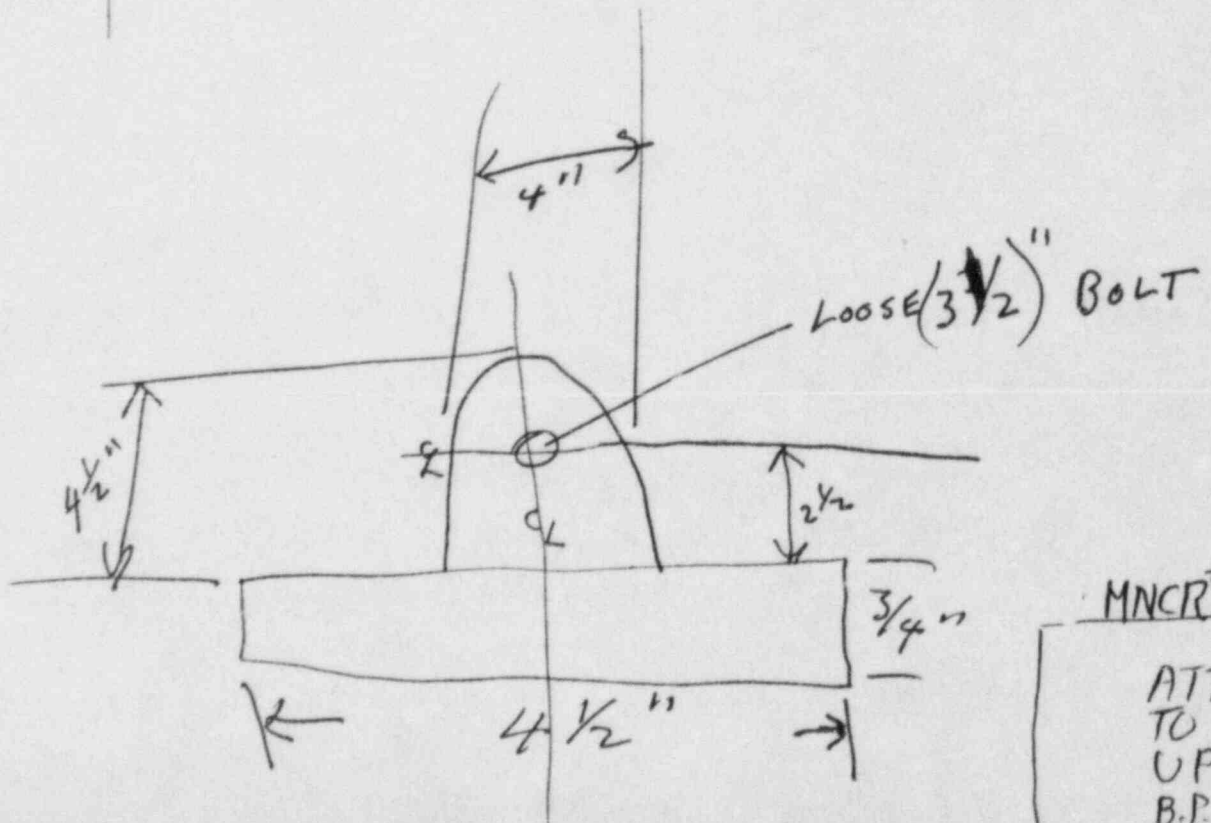
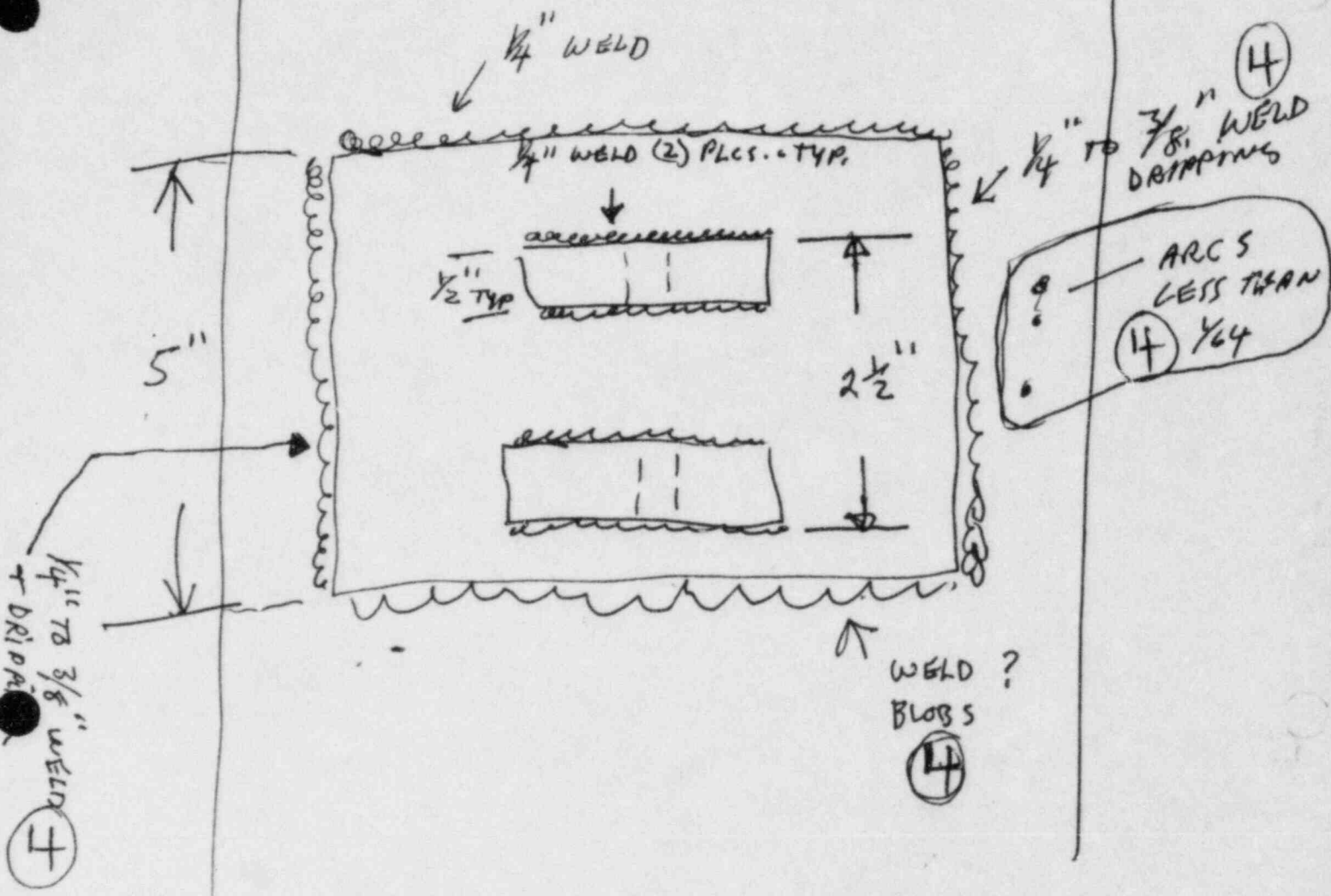
LOC. PLAN

F=645#

BURNS & ROE, INC., P. O. #BR-2299-104 CUSTOMER	PIPING SYSTEM CORE SPRAY
BURNS & ROE, INC. ENGINEER	REFERENCE DWG. B & R DWG: 2138
OYSTER CREEK STA. UNIT #1 CONSUMER	MARK NO 461-R (3) NO. REQD. 1

BERGEN-PATERSON PIPESUPPORT CORP.

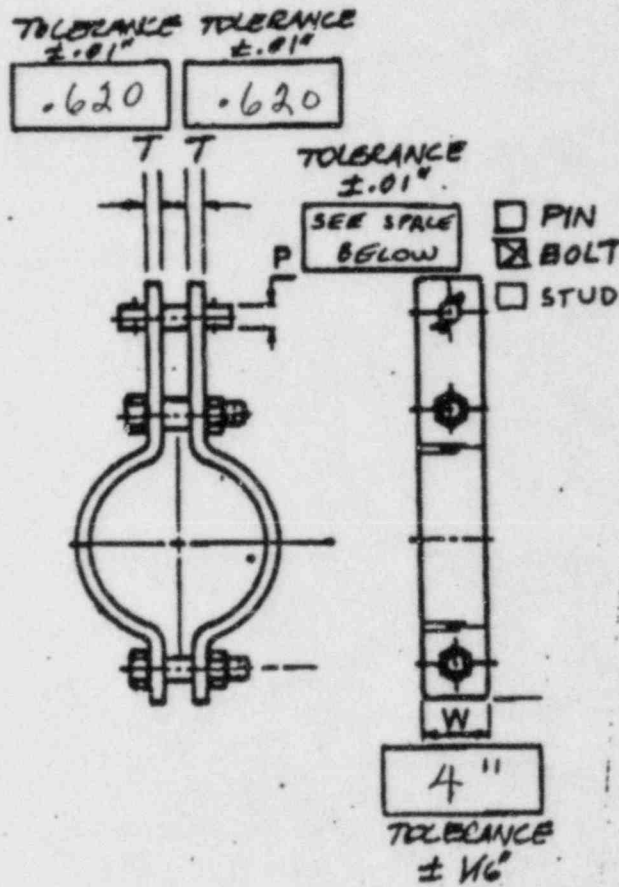
DRAWN	CHK'D	APP'VD	DATE
JRS	EL		30 NOV 67
JOB NO P-66-1262-X1			
DWG NO 200			



MNCR # 85-113-10
 ATTACHMENT
 TO MARKED
 UP DRAWING
 B.P. 200/R-1
 B.P. HGR # 461-R3

SYSTEM CORE SPRAY

3 BOLT CLAMP



P = LOAD BOLT SIZE/LENGTH 1" X 4" LG.

Creek - OC

Reviewed: *Bl Tibb*

SUPPORT #

G.P: N2-3-S3

VALVE #

N/A

ISO DWG #

BP: 461-R3

ORTHO DWG #

JCP-19440, SHT 10

SUPPORT DWG #

N/A

BP-200/REV-1

MINCR # 85-113-10

ITEM	Y	N	N/A	REM
1. Proper Valve Orientation			✓	
2. Skin Temperature <u>98</u> °F (C.R.) (PYR) <i>CONTACT THERMOMETER OFF PIPE</i>	✓			
3. Components identified in accordance with the appropriate drawing.			✓	
4. Component location is within drawing tolerances.			✓	
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.			✓	
6. Verify that all welds are completed.		✓		
7. Piping and supports are free of arc strikes.		✓		
8. Snubbers and spring hangers are installed in accordance with drawing.		✓		
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5%			✓	
10. Record the amount of snubber extension from the fully compressed position. T or C = <u>3 7/8"</u> <i>(T - DIMENSION FOR SNUBBER AS SHOWN ON HGR DWG = 3 3/4")</i>	✓		✓	
11. If the springs and snubbers are within: 1/2" from the topped/bottomed out position for springs, and 1/2" from the fully compressed/fully extended position for snubbers, it shall be reported.			✓	
12. Verify piping sizes. <u>8" PIPE</u>	✓			
13. Hanger location in building (General area) { Description: <u>65' ELEVATION IN DRYWELL</u> }	✓			

DM
10/23/85

Creek - OC

SUPPORT # BP: 461-R3 / GP: N7-3-53

ITEM MNCR# 85-113-10

Y N N/A REM

4. Hanger hardware:

- A. Clips
- B. Clevis
- C. Cotter Pins
- D. Turnbuckles
- E. Nuts/Bolts (Check all attachments for double nut requirements)
- F. Spring Canisters
- G. Locking Tabs on Nuts
- H. Washers
- I. Swivels

				✓
✓				
				✓
	✓			
				✓
				✓
				✓
				✓

5. Hanger configuration in accordance with applicable drawings:

- A. Dimensions
- B. Angles of support to system and base plate
- C. All hanger attachments i.e., clips, brackets, etc. orientated correctly.
- D. Strut or Snubber pin to pin distance 45 1/2"

27M/10/23/85

				✓
✓				
				✓
✓				

6. Weld locations:

- A. Proper weld location
- B. Proper weld spacing
- C. Proper number of welds
- D. Thru paint (average value SEE DRAWINGS)

				✓
				✓
✓				
				✓

27M/10/23/85

7. Anchor Bolts:

- A. Type
- B. Size _____ number _____
- C. Thread engagement
- D. Bolt c/c spacing
- E. C/C from anchors to closet anchor _____

				✓
				✓
				✓
				✓
				✓

18. Gaps @ stops:

- A. At U-bolts or Restraints
- B. At pipe penetrations

				✓
				✓
				✓

***TOLERANCES FOR MEASUREMENT ACCURACY**

Measurement	Tolerance
0" - 2"	± 1/16"
2" - 12"	± 1/8"
12" - 36"	± 1"
36" - ∞	± 3"

* Unless otherwise shown on the dwg. *E. J. ...* for John Ward 10/22/85
QC INSPECTOR(S) DATE

(B.P.)

Oyster Creek - QC

SUPPORT # 461-R3

PER MNCR # 85-113-10

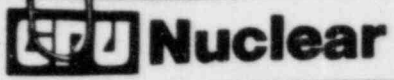
SUPPORT DWG# 200/R-1

	Y	N	N/A	REM
19. Confirm pipe clamp figure no. If not possible, fill in appropriate form attached. <u>3-BOLT CLAMP</u>	✓			
20. Baseplate attachments location recorded on the anchor plate verification sheet.			✓	
21. For valves noted in the walkdown, record their location & orientation on the isometric drawing. Describe orientation by stating (1) direction observer is facing, and (2) angle of valve ϵ to pipe ϵ to nearest 30 degrees (such as hours on a clock with 12:00 being direction facing the observer).			✓	
22. For hangers where other systems (i.e. piping, conduit, etc.) are also supported, give size of this system and describe type of support and distance to upstream and downstream hangers supporting that system.			✓	
Other items as specified by calculation sheet request attached.				

E. Maselli for

John Ward 10/23/85

QC Inspector(s)/Date



Maintenance and Construction Short Form

M

Work Request No
28871

Work Request

Work Request Originator		Date	Time	Approval		Date	Priority
W. C. HAAS		10.23.85	9 AM				O 10-M
Sta	Unit	Component Ident.		Bldg	Elev.	Grid Loc.	Budget Activity
(0C)	(1)	PIPE CLAMP 461-R 3 DEWELL 6574					

Description of Work Requested
**ADD WELD PIPE CLAMP TO PIPE PER DWG.
 ALTERNATE ACCEPTABLE METHOD ADD SHEAR LAG
 SAME AS ON LOWER SIDE OF CLAMP**

Technical Specifications	Req'd Comp. Date and Time	OCL/QASL	Comments
Yes No <input type="checkbox"/> <input checked="" type="checkbox"/>	Pre to dry well cleanup	No Yes ISI IST <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	MNCK 85-113-10

[Signature]
 Date Mo/Day/Year

Work Authorization

If yes, see applicable section or attachment	Yes	No	See Att #	Work Order/Sub Order Chg. to No.
Is job important to safety?	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Procedure No.
Is fire barrier breached?	<input type="checkbox"/>	<input type="checkbox"/>		References
Are welding documents req'd?	<input type="checkbox"/>	<input type="checkbox"/>		Attachments
Are grinding or burning permits req'd?	<input type="checkbox"/>	<input type="checkbox"/>		A
Is R/NR stamp req'd?	<input type="checkbox"/>	<input type="checkbox"/>		B
Is ALARA review req'd?	<input type="checkbox"/>	<input type="checkbox"/>		C
Is post maint./install. testing req'd?	<input type="checkbox"/>	<input type="checkbox"/>		D
Is switching, tagging, or draining req'd?	<input type="checkbox"/>	<input type="checkbox"/>		E
Is temporary variation req'd?	<input type="checkbox"/>	<input type="checkbox"/>		F
Are QC hold/witness points req'd?	<input type="checkbox"/>	<input type="checkbox"/>		G
Is trouble shooting cont. data sht. req'd?	<input type="checkbox"/>	<input type="checkbox"/>		H
Do zone 1 or 2 req'ts of Proc 119 apply?	<input type="checkbox"/>	<input type="checkbox"/>		I
Is NRP req'd?	<input type="checkbox"/>	<input type="checkbox"/>		J
Are security provisions altered or modified?	<input type="checkbox"/>	<input type="checkbox"/>		K
	<input type="checkbox"/>	<input type="checkbox"/>		L

Special ITS Req'ts

Special Safety and Work Condition Requirements - ITS **(1)**

Job Order

Approval		Date	
Job Seq	Job Sequence - Description/Special Instructions	Skill	Men x Hours
			Total Est. Manhours

Job Planner	Ext	Date	Grp. Maint./Job Supv	Approval (GSS) to Start Work	Date	Area Supv.	Date
-------------	-----	------	----------------------	------------------------------	------	------------	------

Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORMNO A _____
RETENTION _____

1. Identification

Originator: JOHN MATRIVNICH / ED GASHIAN
Material, Part, Component, etc.: SNUBBER ASSEMBLY, HANGER # BP: 461-R4 Date/Time: 10/23/85 - 0630HRS
- GP: A7-3-S4
Location: 46' ELEVATION IN DRYWELL
Manufacturer (Name): N/A Code: N/A
P.R.# N/A Line # N/A Spec # N/A
System: CORE SPRAY System Tag No. N/A
Dwg No. B.P.: 201/REV 1 Heat Code No. N/A Other N/A
Nonconforming to (requirements): CONFIGURATION / DIMENSIONAL / AS SHOWN ON
ATTACHED DRAWING-

Description of Nonconformance: SEE ATTACHED DISCREPANCY / DISPOSITION SHEET

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

Important To Safety	POTENTIALLY REPORTABLE:				
	10CFR50	10CFR21	10CFR71	10CFR73.71	L.E.R.
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Evaluated By (Name): E. Gashian Date/Time: 10-23-85 0730
QC Mgr. Validation: David M. Hall Date/Time: 10-23-85 1242

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____
Licensing Notified: YES NO Date/Time: _____
Hold Tags Issued: YES NO No. of Tags: _____
Tags Installed By (Name): NA Date/Time: _____
Material Segregation Required: YES NO
Segregation Verified By (Name): NA Date/Time: _____

ACTION PARTY (Name): J. P. Maloney Dept: Plant Material

Forward to responsible individual/department (Action Party).



Nuclear

Material Nonconformance Report Cont'd

MNCR Number 85-113-11

3. Action Party Evaluation & Disposition

- *Repair
- *Use-as-is
- Rework
- Scrap
- Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: ①②④⑤⑥ *Provide engineering determination as to adequacy of as built configuration. If adequate revise drawing to reflect as built. (3) weld clamp to pipe IAW drawing.*

Evaluation/Disposition By (Name): [Signature] Dept: Plant material
Date: 10-22-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

- Repair
- Use-as-is
- Rework
- Scrap
- Other _____

Justification: (Include applicable work documents, limitations, re-test requirements, etc.)

SEE ATTACHED SHEETS FOR JUSTIFICATION

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

- Design
- Procedure
- Specification
- As-Built Drawing
- FSAR
- Manual
- Tech. Spec.
- Document No.: _____

Evaluated By (Name): W.C. [Signature] Dept: T.E. ELY, MECH
Date: 10-22-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: [Signature] Date: 10-23-85

Conditional Release issued: YES NO
Reject Tags issued: YES NO

AI/ANI Concurrence: YES NO
Signature: NA Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Completes following as appropriate:

Inspection Report No.: _____ Test Report No.: _____
Work/Shipping Order No.: _____ Other: _____
Verified By (Name/Title/Date): _____
Tags/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____ Date: _____

10-27-85

REVERIFICATION

SCAFFOLD WAS MOVED
AND LUGS MADE
ACCESSIBLE.

T. A. Langston

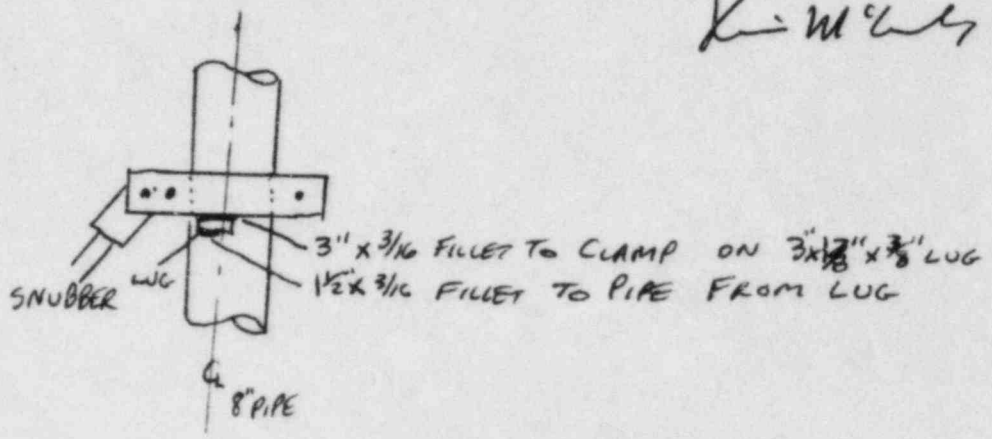
B.P. DWG 201 REV. 1

K. M. W. REVIEW

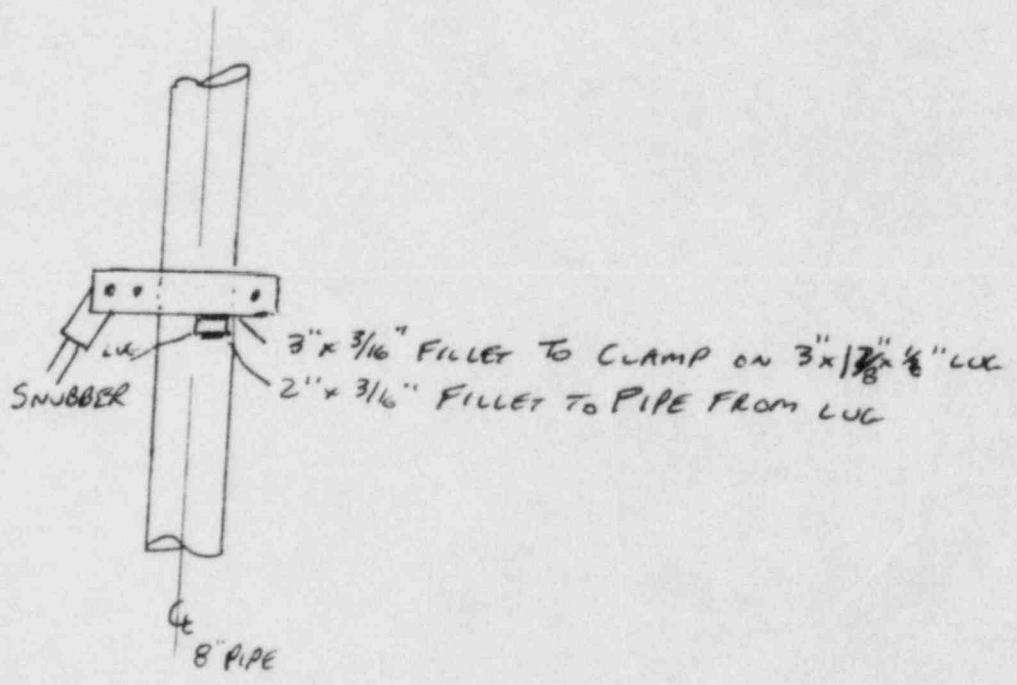
461-R4

MNCR 85-113-11

ELEV. A-A PER



ELEV A-A REVERSE SIDE



WELDS ON CLAMP WITH LUG IS
STAGGERED PER 3 BOLT CLAMP
DATA SHEET ATTACHED TO MNCR.

HAN
S.P. 461-B4
N7-3-54

MICR# 85-113

DWG. # BP-201/R-1

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

① CONFIGURATION OF WELDED BEAM ATTACHMENT DOES NOT CONFORM TO DRAWING WITH RESPECT TO ATTACHMENT LOCATION.

WELDED TO BIR SHIELD STEEL PLATE IS ACCEPTABLE.

CHANGE DWG.

AS FOUND

② CONFIGURATION OF SNUBBER ASSEMBLY DOES NOT CONFORM TO DRAWING. (TURNBUCKLE NOT SHOWN)

Structurally Acceptable
TURNBUCKLE NEEDED FOR ADJUSTMENT

CHANGE DWG.

NEW SKETCH 10-27-85 INSPECTION SHOWS SHEAR LUG WELDED TO CLAMP + PIPE ACCEPT

③ WELDING DETAIL, FOR PIPE CLAMP TO PIPE, WELD DOES NOT CONFORM TO DRAWING AS SHOWN. NO LUG DETAIL IS GIVEN

WELD PER DWG. EXCEPT WHERE -
SHEAR LUGS ARE LOCATED.
SHEAR LUGS ARE ACCEPT IN PLACE OF WELD

④ SNUBBER "T" DIMENTION AS FOUND IN FIELD = 3" OUT OF DESIGNED SETTING.

DIMENSIONS ARE NOTED
ACCEPT

⑤ SNUBBER CONFIGURATION, AS FOUND IN FIELD, IS REVERSED WITH "SNUBBER" INSTALLED OPPOSITE AS SHOWN ON DRAWING.

SNUBBER WILL WORK EQUALLY
WELL IN REVERSED POSITION

⑥ DIMENSIONAL MEASUREMENTS AS FOUND IN FIELD, VARY WITH THOSE AS SHOWN ON DESIGN DRAWING FOR PIN-TO-PIN ON SNUBBER AND ϕ OF PIPE TO ϕ OF WELD BEAM ATTACHMENT.

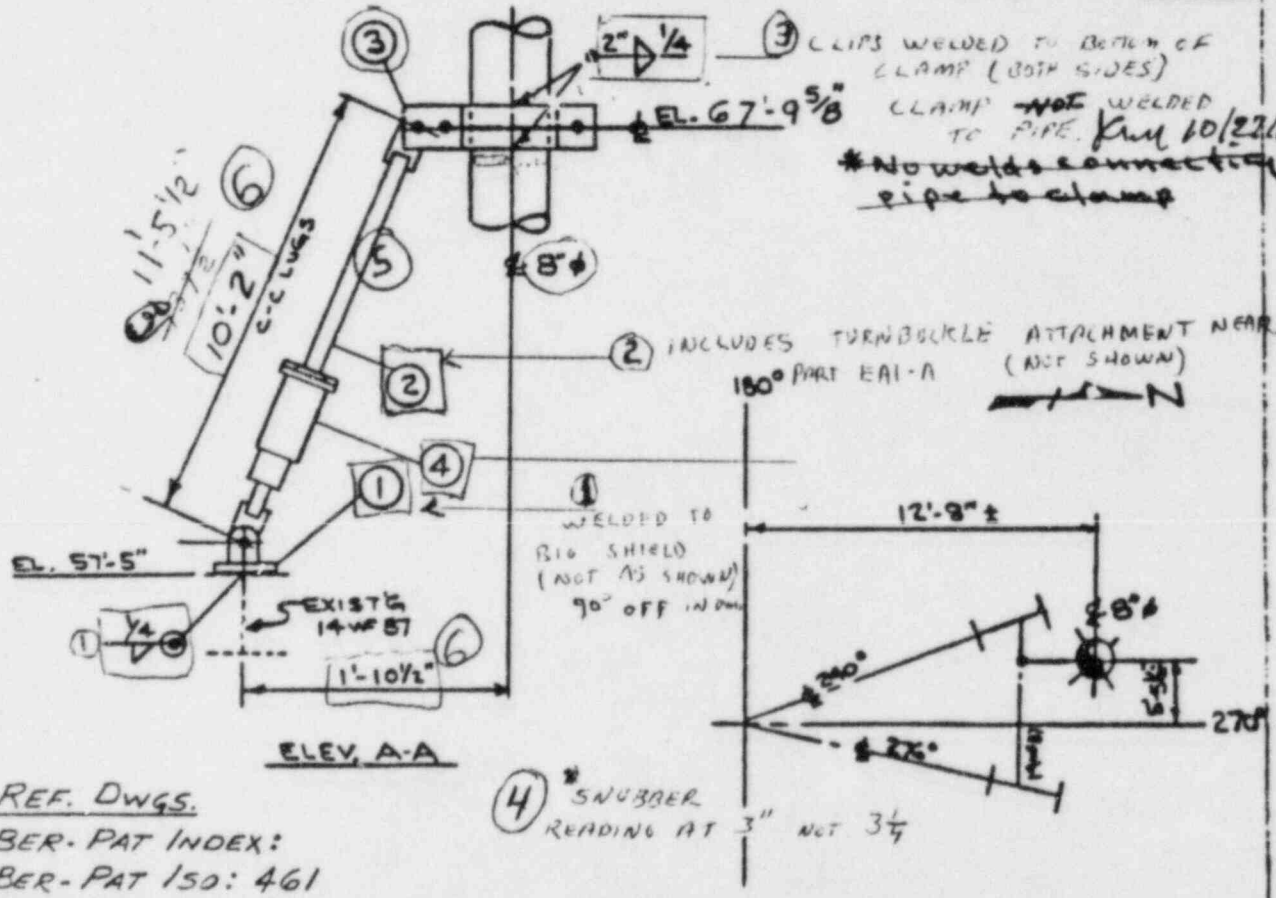
DIMENSIONAL DISCREPANCIES DO NOT AFFECT STRUCTURAL INTEGRITY
CHANGE DWG.

Item 4 is not a snubber

MNCR# 85-113-11(4)

APP	ITEM NO	NO REQ	PART NO	DESCRIPTION	WGT.
	1	1	64101	PART EA1-A (2)	T = 3" (11)
	2	1	252	6" STROKE B=C=8 3/8" T = 3/4"	SEE DET "A" DWG: 208 (SEE ITEM 4)
	3	1	64109	PART EA3-8	
	4	1		PACIFIC SCIENTIFIC SNUBBER DWG. 1801107 (ADAPTED TO EXISTING PARTS.)	
TAG INFO: MODEL PSA II					

TOTAL



REF. DWGS.
 BER-PAT INDEX:
 BER-PAT 150: 461
 GPC 150: JCP-19440 SHT. 10

* INDICATES APPROVAL BY JCPFL

(4) * SNUBBER READING AT 3" NOT 3 1/4"

(5) * SYSTEM INSTALLED IN REVERSE. WITH SNUBBER NEAR 10°

F=471*

6P-NZ354

BURNS & ROE, INC., P. O. #BR-2299-104
 BURNS & ROE, INC.
 OYSTER CREEK STA. UNIT #1

PIPING SYSTEM CORE SPRAY
 REFERENCE DWG. BSR DWG: 2138
 MARK NO. 461-R(4) NO. REQD. 1

FIELD VERIFICATION FOR MNCR IFE BLTN 79-14
 ADDED REF. DWGS. UPDATED AS ENCLOSED
 DATE 11-19-67
 BY ENGR. APP. REV. DATE
 DESCRIPTION

BERGEN-PATERSON PIPESUPPORT CORP.
 CAMBRIDGE, MASS HADDONVILLE, N. J.
 HILLSBOROUGH, N. J. HEMPSTEAD, N. Y.
 SAN FRANCISCO, CALIF.

DRAWN	CHEK	APPVD	DATE
JRS	EF		30 NOV 67
JOB NO	P-66-1262-X1		
DWG. NO	201		

Oyster Creek - QC

SUPPORT# 461 R4
SUPPORT DWG# BP 201

REF. MNCR 85-113-11

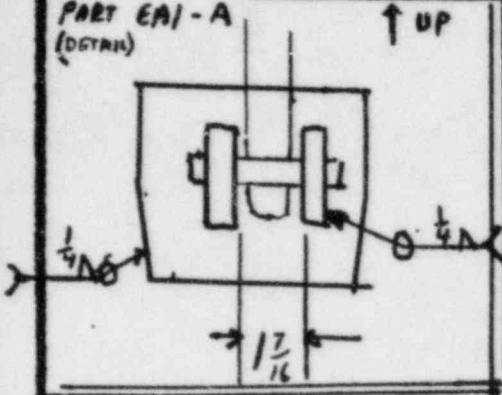
REV 1

(5)

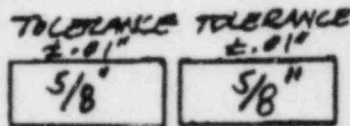
SYSTEM

CORE SPRAY

PART EA1-A
(DETAIL)

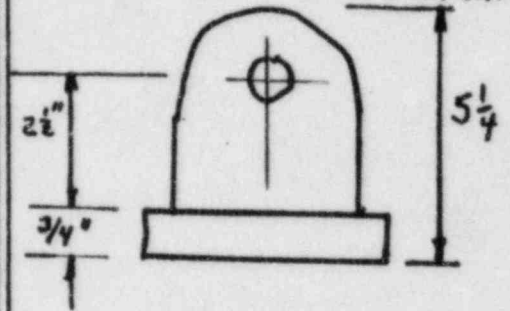


3 BOLT CLAMP

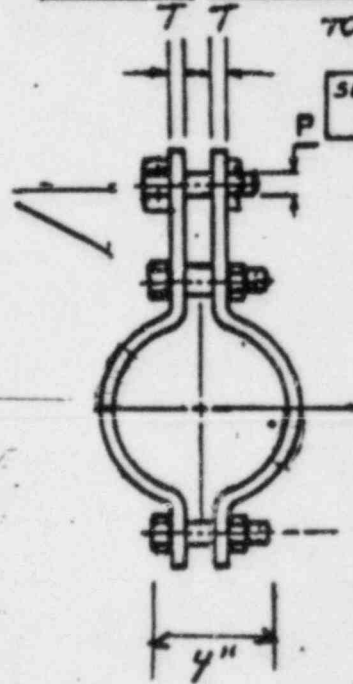


"DETAIL"

PART EA1-A



4 1/2
BOLTS



TOLERANCE ±.01"

SEE SPACE BELOW

- PIN
- BOLTS (3)
- CTWD

4"
TOLERANCE ± 1/16"

(3)
CLAMP WELDED TO BOTTOM SIDE OF CLAMP

3" x 1 1/2" x 3/8"

P = LOAD BOLT SIZE/LENGTH

4 1/2" / 7/8"

at Creek - QC

Reviewed: *Bl Likh*

SUPPORT # 461-R(4) 6RA2354 VALVE # N/A
 ISO DWG # BP ISO : 461 / JCP-19440 SH10
 ORTHO DWG # N/A
 SUPPORT DWG # BP 201 rev1

MNCR # 85-113-11

ITEM	Y	N	N/A	REM
1. Proper Valve Orientation			X	
2. Skin Temperature <u>98</u> °F (C.R.) (PYR) ^{10/23/85} CONTACT THERMOMETER ON PIPE	X			
3. Components identified in accordance with the appropriate drawing.			X	
4. Component location is within drawing tolerances.			X	
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.		X		
6. Verify that all welds are completed.		X		
7. Piping and supports are free of arc strikes.	X			
8. Snubbers and spring hangers are installed in accordance with drawing.		X	X	
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5%			X	
10. Record the amount of snubber extension from the fully compressed position. T or C = <u>3"</u>		✓		
11. If the springs and snubbers are within: 1/4" from the topped/bottomed out position for springs, and 1/4" from the fully compressed/fully extended position for snubbers, it shall be reported.				✓
12. Verify piping sizes. <u>8" PIPE</u>	X			
13. Hanger location in building (General area) {Description: <u>DRY WELL (57'-67')</u> }		X		

Creck - OC

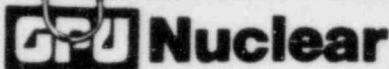
SUPPORT # 461-R4

ITEM MNCR# 85-113-11

ITEM	Y	N	N/A	REM
14. Hanger hardware:				
A. Elips (<u>PIPE LUGS</u>)	<i>JM</i> <i>10/23/85</i>			
B. Clevis			X	
C. Cotter Pins			X	
D. Turnbuckles	<i>JM</i> <i>10/23/85</i>		X	
E. Nuts/Bolts (Check all attachments for double nut requirements)	X			
F. Spring Canisters			X	
G. Locking Tabs on Nuts			X	
H. Washers			X	
I. Swivels			X	
15. Hanger configuration in accordance with applicable drawings:				
A. Dimensions			X	
B. Angles of support to system and base plate			X	
C. All hanger attachments i.e., clips, brackets, etc. orientated correctly.			X	
D. Strut or Snubber pin to pin distance <u>11'-5 1/2"</u>	<i>JM</i> <i>10/23/85</i>		X	
16. Weld locations:				
A. Proper weld location			X	
B. Proper weld spacing			X	
C. Proper number of welds	<i>JM</i> <i>10-23-85</i>		X	
D. Thru point (average value <u>1/4"</u>)			X	
17. Anchor Bolts:				
A. Type			X	
B. Size _____ number _____			X	
C. Thread engagement _____			X	
D. Bolt c/c spacing _____			X	
E. C/C from anchors to closet anchor _____			X	
18. Gaps @ stops:				
A. At U-bolts or Restraints			X	
B. At pipe penetrations			X	
*TOLERANCES FOR MEASUREMENT ACCURACY				
<u>Measurement</u>				<u>Tolerance</u>
0" - 2"				± 1/16"
2" - 12"				± 1/8"
12" - 36"				± 1"
36" - ∞				± 3"
* Unless otherwise shown on the dwg.				
<u>JOHN MATRUNKH</u>			<u>10-23-85</u>	
QC INSPECTOR(S)			DATE	

	Y	N	N/A	REM
19. Confirm pipe clamp figure no. If not possible, fill in appropriate form attached. 3 BOLT TYPE	X			
20. Baseplate attachments location recorded on the anchor plate verification sheet.			X	
21. For valves noted in the walkdown, record their location & orientation on the isometric drawing. Describe orientation by stating (1) direction observer is facing, and (2) angle of valve ϵ to pipe ϵ to nearest 30 degrees (such as hours on a clock with 12:00 being direction facing the observer).			X	
22. For hangers where other systems (i.e. piping, conduit, etc.) are also supported, give size of this system and describe type of support and distance to upstream and downstream hangers supporting that system.			X	
Other items as specified by calculation sheet request attached.				

JOHN MATRUNKH 10-22-85
QC Inspector(s)/Date



Maintenance and Construction Short Form

M

Work Request No. 28872

Work Request

Work Request Originator W.C. HAAS		Date 10.23.85	Time 9AM	Approval		Date	Priority				
Sta OC	Unit 1	Component Ident. PIPE CLAMP 461-P4 DRYWELL 67'		Bldg.	Elev.	Grid Loc.	Budget Activity Auth. Funding				
Description of Work Requested ADD WELL TO PIPE CLAMP ITEM 3 TOP PORTION PER DWG. ALTERNATE METHOD ADD SHEAR LUG SAME AS ATTACHED BOTTOM OF CLAMP											
Technical Specifications		Req'd Comp. Date and Time		OCL/QASL		Comments					
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	prior to drywell clamp		No <input type="checkbox"/>	Yes <input checked="" type="checkbox"/>	ISI <input type="checkbox"/>	IST <input type="checkbox"/>				
<table border="1"> <tr> <td colspan="4">Reg. Mgr./Supv.</td> </tr> </table>								Reg. Mgr./Supv.			
Reg. Mgr./Supv.											

Work Authorization

If yes, see applicable section or attachment		Yes	No	See Att #	Work Order/Sub Order Chg. to No.
Is job important to safety?		<input checked="" type="checkbox"/>			Procedure No.
Is fire barrier breached?					References
Are welding documents req'd?					Attachments
Are grinding or burning permits req'd?					A
Is R/NR stamp req'd?					B
Is ALARA review req'd?					C
Is post maint./install. testing req'd?					D
Is switching, tagging, or draining req'd?					E
Is temporary variation req'd?					F
Are QC hold/witness points req'd?					G
Is trouble shooting cont. data sht. req'd?					H
Do zone 1 or 2 reqmts of Proc 119 apply?					I
Is NRP req'd?					J
Are security provisions altered or modified?					K
					L

Special ITS Req'm'ts

Special Safety and Work Condition Requirements - ITS

Job Order

Job Seq		Job Sequence - Description/Special Instructions			Approval	Date
					Skill	Men x Hours
						Est. M/H
				Total Est. Manhours		

Job Planner	Ext.	Date	Grp Maint./Job Supv.	Approval (GSS) to Start Work	Date	Area Supv.	Date
-------------	------	------	----------------------	------------------------------	------	------------	------

D

Unit: TMI-1 TMI-2 Oyster Creek

MNCR Number 85-113-12

RECNO _____
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORMNO A _____
RETENTION _____

1. Identification

Originator: J. Vance / K. McCauley
Material, Part, Component, etc.: SUPPORT X12B-55-1

Date/Time: 10-23-85 01020

Location: DRYWELL EL 46' 1/2"
Manufacturer (Name): NA Code: NA
P.R.# NA Line # NA Spec # NA
System: CORE SPRAY System Tag No. NA
Dwg No. JCO 19440 S4T10 103R1 Heat Code No. NA Other NA
Nonconforming to (requirements): Dimension / Configuration as shown

Description of Nonconformance: see attached discrepancy sheet

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/weekend).

2. Evaluation & Validation

Important To Safety	POTENTIALLY REPORTABLE:				
	10CFR50	10CFR21	10CFR71	10CFR73.71	LER
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Evaluated By (Name): K. McCauley Date/Time: 10-23-85 600 Am
QC Mgr. Validation: David [Signature] Date/Time: 10-24-85 / 1700

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____
Licensing Notified: YES NO Date/Time: _____
Hold Tags Issued: YES NO No. of Tags: _____
Tags Installed By (Name): _____ Date/Time: _____
Material Segregation Required: YES NO
Segregation Verified By (Name): _____ Date/Time: _____

ACTION PARTY (Name): J. Maloney Dept: Plant Material

Forward to responsible individual/department: (Action Party).

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: Remove insulation to allow inspection of shear lug. If shear lug is welded to clamp, replace insulation and revise drawing to reflect as built. If shear lug is not welded to clamp, provide engineering evaluation as to whether as found is adequate or if a weld repair is required. If required submit MCR sheet form to weld shear lug to clamp

Evaluation/Disposition By (Name): _____

[Signature]

Dept: Plant material

Date: 10-21-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (include applicable work documents, limitations, re-test requirements, etc.)

SEE ATTACHED SHEET FOR JUSTIFICATION
NEEDS WELD OR SHEAR LUG TOP OF CLAMP ITEM 5

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No: _____

Evaluated By (Name): _____

W. C. HAAS

Dept: T.F. EM

Date: 10-24-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: _____

[Signature]

Date: 10/27/85

Conditional Release Issued: YES NO Reject Tags Issued: YES NO

AI/ANI Concurrence: YES NO

Signature: _____

Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____

Work/Shipping Order No.: _____ Other: _____

Verified By (Name/Title/Date): _____

Tags/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____

Date: _____

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition:

*Notes
all 10/24/85*

Evaluation/Disposition By (Name):

Dept:

Date:

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other

Justification: (include applicable work documents, limitations, re-test requirements, etc.)

SEE ATTACHED SHEETS FOR JUSTIFICATION

Re-inspection/Retest Requirements (As Applicable)

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No.:

Evaluated By (Name):

W. C. MAAS

Dept:

T. F. BOX, MCH

Date:

10-28-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER:

[Signature]

Date:

10-30-85

Conditional Release Issued:

YES

NO

Reject Tags Issued: YES

NO

AI/ANI Concurrence: YES

NO

Signature:

NA

Date:

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method:

Complete following as appropriate:

Inspection Report No.:

Test Report No.:

Work/Shipping Order No.:

Other:

Verified By (Name/Title/Date):

Tags/Segregation Removed By (Name/Title/Date):

7. Final Package Review

Quality Control Manager:

Date:

FORM 1000-100M 7/75 01 1

RECNO _____
 REV _____
 DATE _____
 RECTYPE _____
 LOCATION _____
 FORMNO A _____
 RETENTION _____

Unit: TMI-1 TMI-2 Oyster Creek

1. Identification

Originator: _____ Date/Time: _____

Material, Part, Component, etc.: _____

Location: _____

Manufacturer (Name): _____ Code: _____

P.R.# _____ Line # _____ Spec # _____

System: _____ System Tag No. _____

Dwg No. _____ Heat Code No. _____ Other _____

Nonconforming to (requirements): _____

Description of Nonconformance: _____

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

POTENTIALLY REPORTABLE:

Important To Safety	<u>10CFR50</u>	<u>10CFR21</u>	<u>10CFR71</u>	<u>10CFR73.71</u>	<u>L.E.R.</u>
YES: <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Evaluated By (Name): _____ Date/Time: _____

QC Mgr. Validation: _____ Date/Time: _____

If evaluated to be potentially reportable, notify Unit Management and send copy of MNCR to licensing.

Unit Management Notified: YES NO Date/Time: _____

Licensing Notified: YES NO Date/Time: _____

Hold Tags Issued: YES NO No. of Tags: _____

Tags Installed By (Name): _____ Date/Time: _____

Material Segregation Required: YES NO

Segregation Verified By (Name): _____ Date/Time: _____

ACTION PARTY (Name): _____ Dept: _____

Forward to responsible individual/department (Action Party).

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

1. Undersize fillet weld not as per DWG

1/8" Filler is sufficient for loads shown

2. Item #8 non accessible because of insulation X 10/23/87

ITEMS 1 & 2 ARE PART OF SUBBER ASSEMBLY. NEEDED FOR "AS BUILT" STRUCTURALLY ACCEPT.

② ITEMS #1 & #2 ARE NOT AS LISTED. THEY ARE STRUTS NOT SNUBBERS.

CHANGE DWG.

NEEDS REPAIR

~~WELD ON TOP OF CLAMP SECTION TO PIPE~~
~~OR~~ ATTACH SHEAR LUG WCHT 10.26.85
~~OR~~ WELD PRESENT SHEAR LUGS TO CLAMP 10.28.85

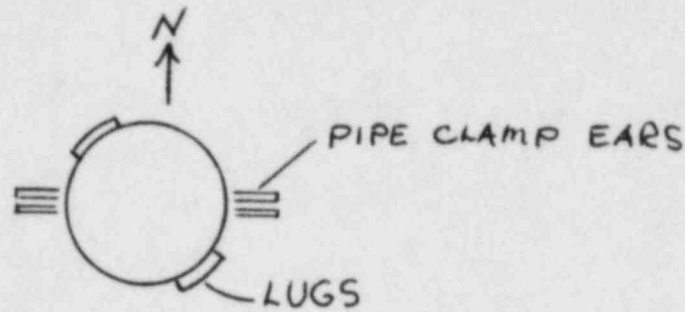
PRESENT SHEAR LUG IS WELDED TO CLAMP PER LATEST Q.C. INSPECTION AFTER REMOVAL OF INSULATION.

ACCEPT. WCHT 10-28-85
CHANGE DWG.

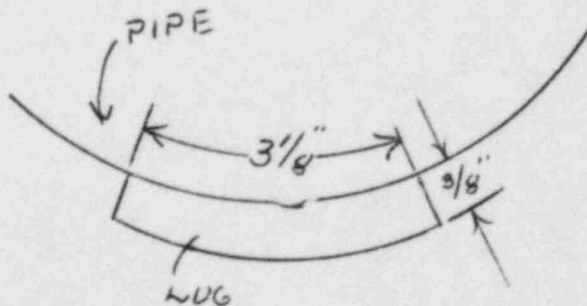
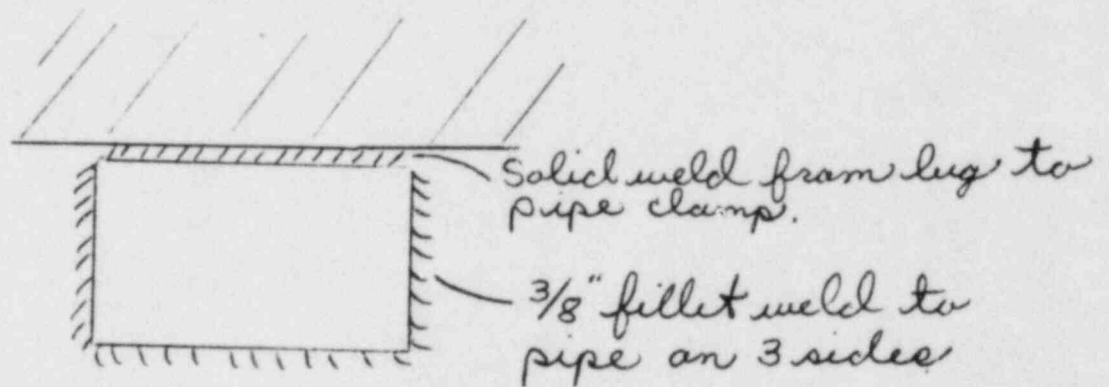
W.C. Heas

10-24-85

1) 2 lugs ($3/8'' \times 1/4'' \times 3/8''$) are attached to the pipe as shown:



2) lugs are welded to pipe and pipe clamp as shown:



R.E. Timm
10/28/85

Oyster Creek - QC

SUPPORT # X12B-SS-1

PER MNCR 85-113-12

SUPPORT DWG# 103 Rev 1

	Y	N	N/A	REM
19. Confirm pipe clamp figure no. If not possible, fill in appropriate form attached.			✓	
20. Baseplate attachments location recorded on the anchor plate verification sheet.			✓	
21. For valves noted in the walkdown, record their location & orientation on the isometric drawing. Describe orientation by stating (1) direction observer is facing, and (2) angle of valve ϵ to pipe ϵ to nearest 30 degrees (such as hours on a clock with 12:00 being direction facing the observer).			✓	
22. For hangers where other systems (i.e. piping, conduit, etc.) are also supported, give size of this system and describe type of support and distance to upstream and downstream hangers supporting that system.			✓	

Other items as specified by calculation sheet request attached.

Reinspected pipe lugs as per attached drawings.

RE Timm 10/28/85
 QC Inspector(s)/Date

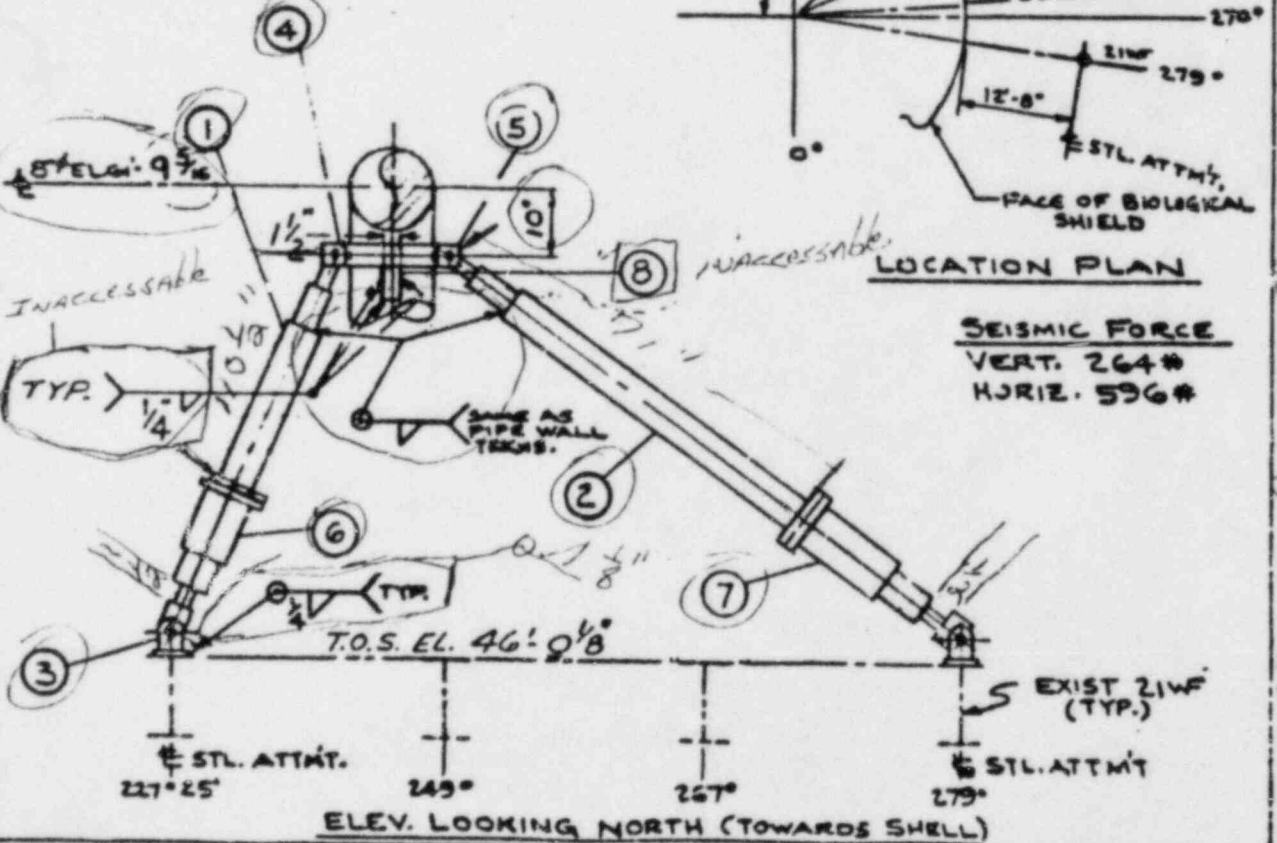
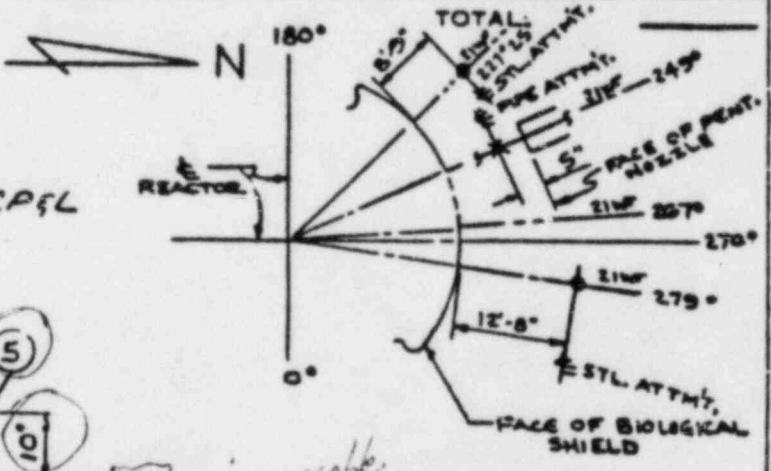
VANCE

MAXR
85-11312 (1)

APP NO	NO REQ'D	PART NO	DESCRIPTION	WGT
(1)	1	SP252	K52-10 6" STROKE T = 3 3/4" SEE DWG. 1003	(SEE ITEM 6)
(2)	1	SP252	K52-10 6" STROKE T = 3 3/4" SEE DWG. 1003	(SEE ITEM 7)
(3)	2		EAI STL. ATTACHMENT	
(4)	1		8" F SPEAS PIPE ATTACHMENT (316 S.S.)	
(5)	1		SPECL CLAMP ATTACHMENT SEE DWG. 1004	
(6)	1		PACIFIC SCIENTIFIC SNUBBER DWG. 1801107 (ADAPTED TO EXISTING PARTS)	
(7)	1		PACIFIC SCIENTIFIC SNUBBER DWG. 1801107 (ADAPTED TO EXISTING PARTS)	
(8)	2	-	R 1 1/2" x 3/8" x 3" LG. (316 S.S.)	

RADIATION USAGE

REF. DWGS
 BER-PAT INDEX: 100
 BER-PAT 150: 461 (SEE G2)
 GPC 150: JCP-19440 SNT. 10
 * INDICATES APPROVAL BY JCP&L



SEISMIC FORCE
 VERT. 264#
 HORIZ. 596#

APP NO	REV	DATE	DESCRIPTION
1	1	12-9-68	DESIGNATION FOR NRC IN 15M TO 14
			APPROVED BY: [Signature]

BURNS & ROE, INC., P.O. # BR-2299-60B
 CUSTOMER
 BURNS & ROE, INC.
 ENGINEER
 CYSTER CREEK STA. UNIT #1

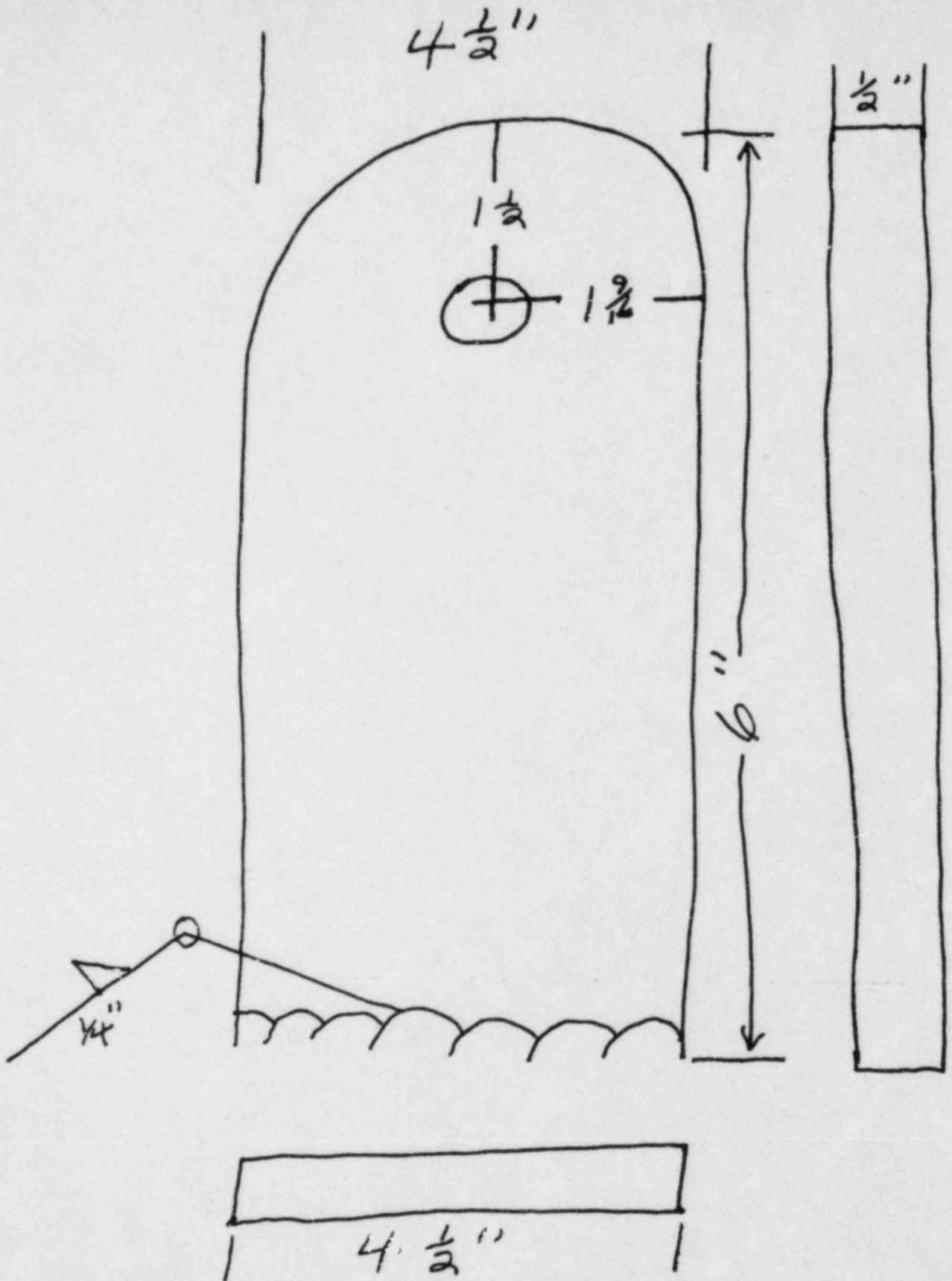
PIPING SYSTEM: CORE SPRAY
 REFERENCE DWG: PENETRATION X12B
 MARK NO. X12B-55-1 NO. REQ'D. 1

BERGEN-PATERSON PIPESUPPORT CORP.

DRAWN	CHK'D	APPVD	DATE
WD	HRE	HRE	12-9-68
JOB NO. P-66-1262-X5			
DWG NO. 103			

136 Pin to Pin setting 2

1878 Pin to Pin setting 2 1/2



System: Core SPRAY
Support: X12B-55-1
Dwg #: 103.R1

Oyster Creek - QC

SUPPORT DWG # X128-55-1

REF. MNCR 85-113-12

SUPPORT DWG # 103 R1

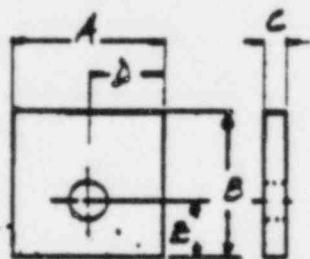
SYSTEM CORE SPRAY

PROVIDE DIMENSIONS FOR ITEMS CHECKED OFF BELOW:

ALL DIMENSIONS $\pm 1/32$ " TOLERANCE

WELDING LUG

Bolt $4\frac{1}{2}$ " Lg.
 $1\frac{3}{16}$ " HEX HEAD



A = D =
 B = E =
 C =

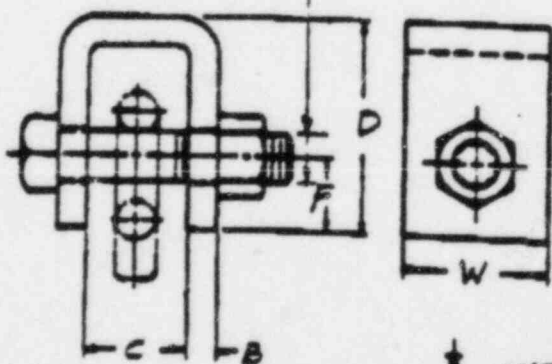
WASHER PLATE



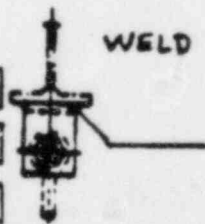
A =
 B =
 C =

WELDED BEAM ATTACHMENT

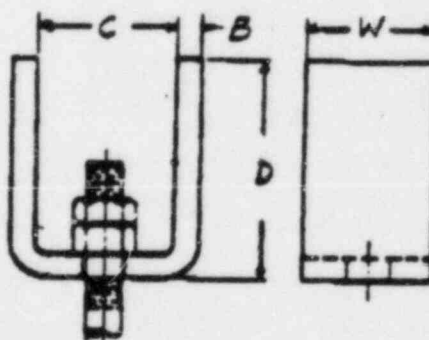
BOLT DIA., A



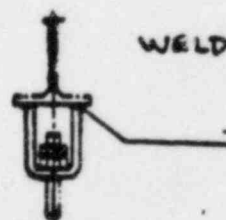
A = D =
 B = E =
 C = F =
 W =



ADJUSTABLE WELDED BEAM ATTACHMENT



B =
 C =
 D =
 W =



Oyster Creek - DC

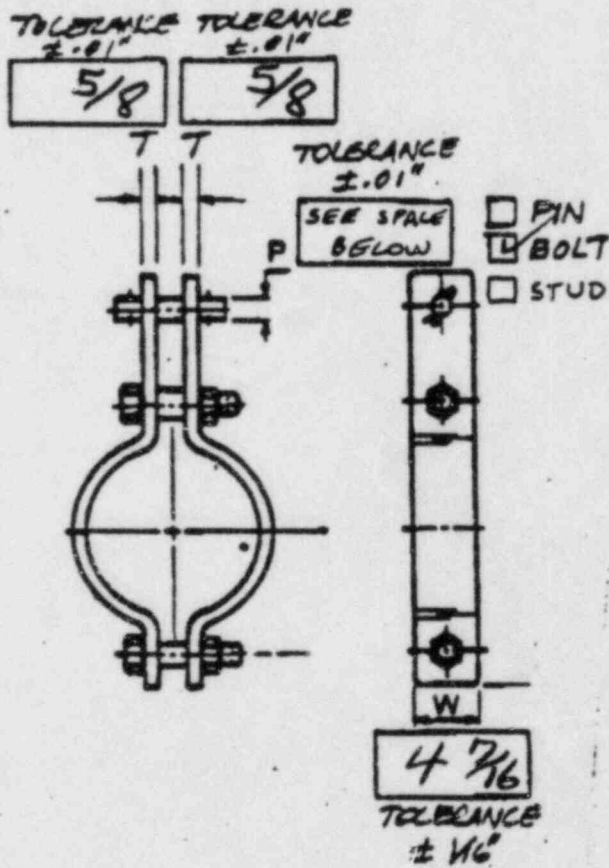
SUPPORT # X128-55-1

REF. MNCR 85-113-12

SUPPORT DWG # 103 R1

SYSTEM CORE SPRAY

3 BOLT CLAMP

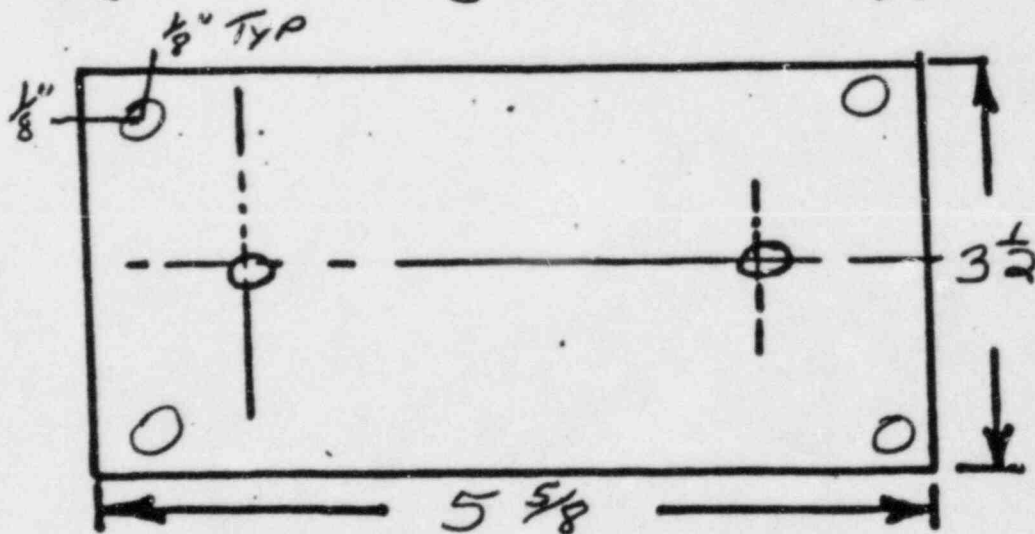
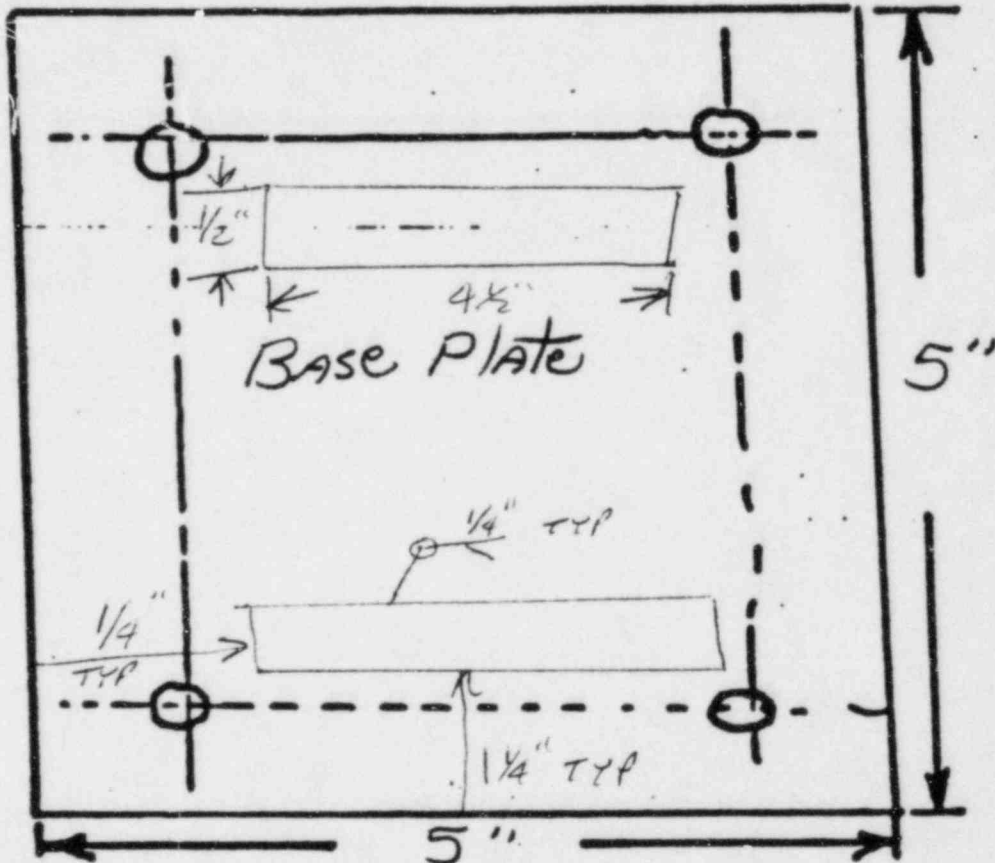


P = LOAD BOLT SIZE/LENGTH 1 $\frac{9}{16}$ " Hex
4 $\frac{1}{2}$ " Lg.

of Creek - QC

SUPPORT # X12B-55-1

ANCHORS: NO. NA SIZE NA
WASHERS YES NA NO NA



Record anchor bolt projection above plate and note if skewness is greater than 6°.

COMMENTS

11 Creek - OC

Revised by: *Bl. Jilka*

SUPPORT # X128-55-1
 ISO DWG # JCP 19440 SHT 10
 ORTHO DWG # _____
 SUPPORT DWG # 103 R1

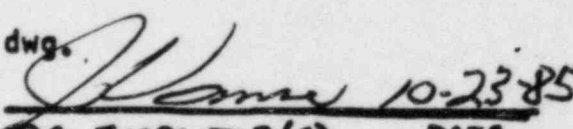
VALVE # NA

MNCR
85-113-12

ITEM	Y	N	N/A	REM
1. Proper Valve Orientation				✓
2. Skin Temperature <u>126</u> °F (C.R.)(PYR)	/			
3. Components identified in accordance with the appropriate drawing.	/			
4. Component location is within drawing tolerances.	/			
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.	/			
6. Verify that all welds are completed.	/			
7. Piping and supports are free of arc strikes.	/			
8. Snubbers and spring hangers are installed in accordance with drawing.	/			
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5% <u>NA</u>				✓
10. Record the amount of snubber extension from the fully compressed position. T or C = <u>2</u>	/			
11. If the springs and snubbers are within: 1/4" from the topped/bottomed out position for springs, and 1/4" from the fully compressed/fully extended position for snubbers, it shall be reported.				✓
12. Verify piping sizes.	/			
13. Hanger location in building (General area) {Description: _____ }				

Creek - OC

SUPPORT # X12B-55-1

ITEM	Y	N	N/A	REM
4. Hanger hardware:				
A. Clips	✓			
B. Clevis			/	
C. Cotter Pins			/	
D. Turnbuckles			/	
E. Nuts/Bolts (Check all attachments for double nut requirements)	✓			
F. Spring Canisters			/	
G. Locking Tabs on Nuts			/	
H. Washers			/	
I. Swivels			/	
5. Hanger configuration in accordance with applicable drawings:				
A. Dimensions	/			
B. Angles of support to system and base plate	/			
C. All hanger attachments i.e., clips, brackets, etc. orientated correctly.	/			
D. Strut or Snubber pin to pin distance <u>187 1/2"</u>	/			
5. Weld locations:				
A. Proper weld location	/			
B. Proper weld spacing	/			
C. Proper number of welds	/			
D. Thru paint (average value <u>NA</u>)	/			
7. Anchor Bolts:				
A. Type				/
B. Size <u>NA</u> number <u>NA</u>				/
C. Thread engagement				/
D. Bolt c/c spacing				/
E. C/C from anchors to closet anchor <u>NA</u>				/
8. Gaps @ stops:				
A. At U-bolts or Restraints				/
B. At pipe penetrations				/
*TOLERANCES FOR MEASUREMENT ACCURACY				
<u>Measurement</u>	<u>Tolerance</u>			
0" - 2"	± 1/16"			
≥ 2" - 12"	± 1/8"			
≥ 12" - 36"	± 1"			
≥ 36" - ∞	± 3"			
* Unless otherwise shown on the dwg.				
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">  QC INSPECTOR(S) </div> <div style="text-align: center;"> <u>10-23-85</u> DATE </div> </div>				

Oyster Creek - QC

SUPPORT # X128-55-1

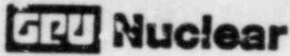
PER MNCR 85-119-12

SUPPORT DWG# 103 RI

	Y	N	N/A	REM
19. Confirm pipe clamp figure no. If not possible, fill in appropriate form attached.	/			
20. Baseplate attachments location recorded on the anchor plate verification sheet.			/	
21. For valves noted in the walkdown, record their location & orientation on the isometric drawing. Describe orientation by stating (1) direction observer is facing, and (2) angle of valve \angle to pipe \angle to nearest 30 degrees (such as hours on a clock with 12:00 being direction facing the observer).			✓	
22. For hangers where other systems (i.e. piping, conduit, etc.) are also supported, give size of this system and describe type of support and distance to upstream and downstream hangers supporting that system.			/	

Other items as specified by calculation sheet request attached.

J. L. ... 10-23-85
 QC Inspector(s)/Date



Material Nonconformance Report

MNCR Number 85-113-13

Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
 REV _____
 DATE _____
 RECTYPE _____
 LOCATION _____
 FORMNO A _____
 RETENTION _____

1. Identification

Originator: Ray C James / Ed Gashin

Date/Time: 10/24/85

Material, Part, Component, etc.: Hanger BP-NZ-3-H1/GP-H3

Location: DRYWELL 17-16

Manufacturer (Name): N/A

Code: N/A

P.R.# N/A

Line # N/A

Spec # N/A

System: CORE SPRAY

System Tag No. N/A

Dwg No. BP-NZ-3-H1 R11

Heat Code No. N/A

Other N/A

Nonconforming to (requirements): DIMENSIONAL / CONFIGURATION AS SHOWN

Description of Nonconformance: SEE DISCREPANCIES / DISPOSITION SHEET ATTACHED

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

Important To Safety	POTENTIALLY REPORTABLE:				
	10CFR50	10CFR21	10CFR71	10CFR73.71	LER.
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Evaluated By (Name): E. Gashin

Date/Time: 10/24/85 0700

QC Mgr. Validation: [Signature]

Date/Time: 10-29-85 / 1320

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO

Date/Time: _____

Licensing Notified: YES NO

Date/Time: _____

Hold Tags Issued: YES NO

No. of Tags: _____

Tags Installed By (Name): N/A

Date/Time: _____

Material Segregation Required: YES NO

Segregation Verified By (Name): N/A

Date/Time: _____

ACTION PARTY (Name): J.P. Maloney

Dept: Plant Material

Forward to responsible individual/department (Action Party).

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: Provide engineering evaluation as to adequacy of as built configuration. If adequate reuse drawings to reflect as built.

Evaluation/Disposition By (Name): _____

[Signature]

Dept: Plant Material

Date: 10-31-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (Include applicable work documents, limitations, re-test requirements, etc.)

SEE ATTACHED SHEET FOR JUSTIFICATION

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No.: _____

Evaluated By (Name): W.C. HARRIS

Dept: T.O.F. ENG. MATH.

Date: 10-31-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: _____

[Signature]

Date: 11-1-85

Conditional Release Issued: YES NO

Reject Tags Issued: YES NO

AI/ANI Concurrence: YES NO

Signature: [Signature]

Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____

Test Report No.: _____

Work/Shipping Order No.: _____

Other: _____

Verified By (Name/Title/Date): _____

Tags/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____

Date: _____

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

① where noted welds are not per design
see attached pictures. Item #5 to Item #3
is underfilled.

REF photo # 1+2, 3, 4+5

FOR WELD INFO SEE
MNCR 85-113-15
WELD IS ACCEPT.
CHANGE DWG.

② Item #1 (where item #2 welds to item #1), ^{at existing 14WF} item #4
item 17 + item #18 are not installed.

WELDED TO 14WF DIRECT.
SEE MNCR 85-113-15 FOR WELD $\frac{1}{2}$ WELD
SIZES.
STRUCTURALLY ACCEPT.
CHANGE DWG.

③ REF ATTACHED picture. Clip not per design
photo #1

FULL PENETRATION BUTT WELD IS ACCEPT.
CHANGE DWG. TO "AS BUILT"

④ The ELEVATION @ the top of item #2
is specified AS 71'-9". ACTUAL IS 70'- $\frac{1}{2}$ "

ELEVATION DISCREPANCY HAS NO STRUCT.
IMPACT. — ACCEPT.
CHANGE DWG.

Wett

10-31-85

HAND

BP-NZ-3-H1/4P-H2

MNCR#

85-1173

DWG.#

456 REV. 1

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

⑤ Item #9 has a specified length of 1'-9"
Actual is 1'-1 1/2"

LENGTH OF ROD IS "AS BUILT" AND
STRUCTURALLY ACCEPTABLE.
CHANGE DWG.

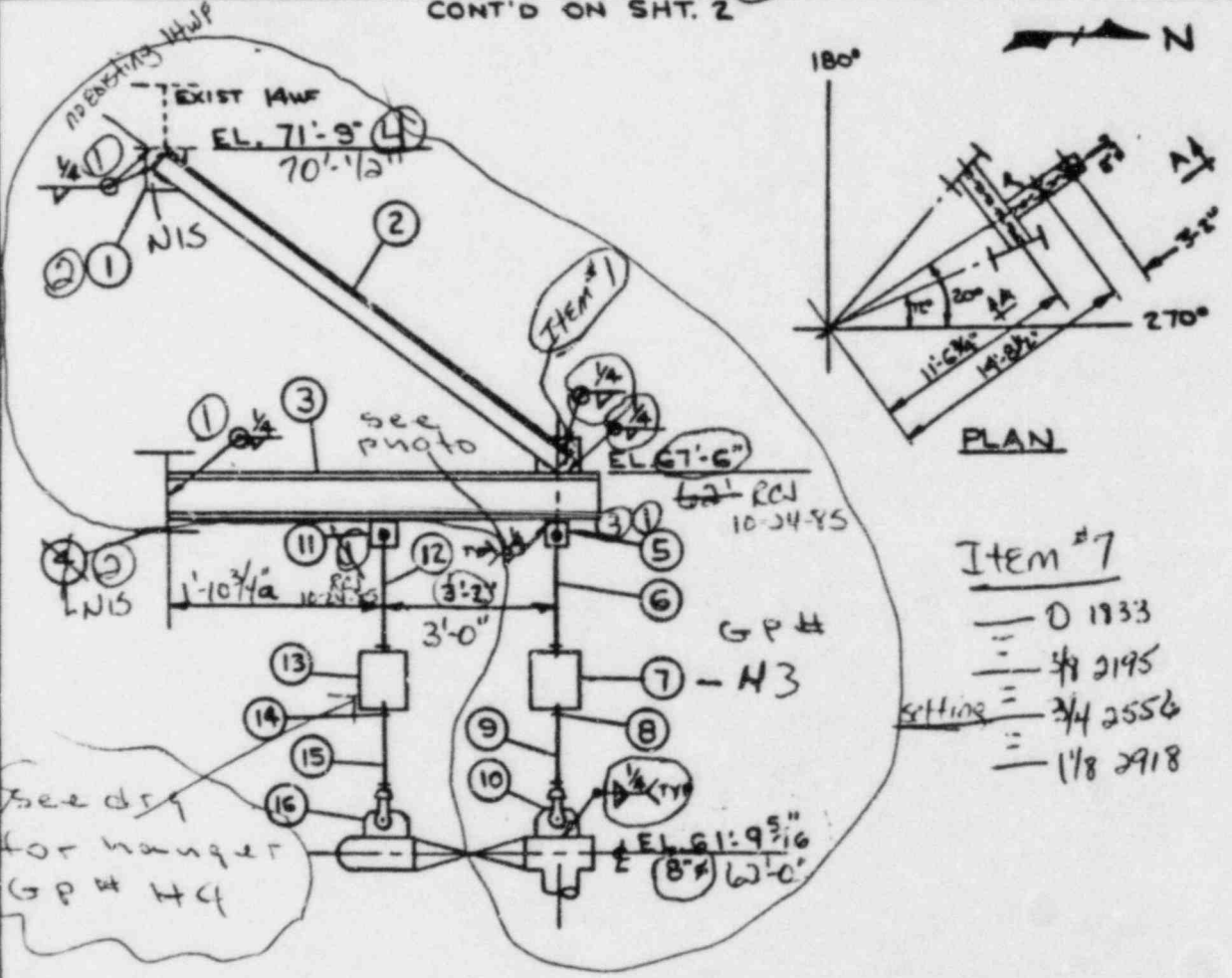
W.C. Haas

10-31-85

MNCR 85-113-13 (4)

APP	ITEM NO	NO REQ'D	DESCRIPTION	QTY OR PART NO	REMARKS
	1	21	R 5 x 1/2 x 5		
	2	2	L ¹ 2 1/2 x 2 1/2 x 1/4 x 7'-6" LG 2" 1/2 x 1/4" 6'-5"	66	
	3	1	GW 18.5 x 6'-7" LG. α = 3'-1 1/4" Δ 5'-3"	1001	
NIS	4	1	10WF21 S = 2'-2" (SEE DETASHT 2)		
	5	1	PART 814	7	
	6	1	1" EYEROD x (1'-10" LG THD = 6"	61	
	7	1	VSIA-13 HL = 2300 CL = 602 MVT. 5/16 UP		
	8	3	1" HN		
	9	1	1" ROD x 1'-9" LG TBE 6" 1'-1/2"		
	10	1	PART 8TP4S LUG TO BE 304 (S/S)	35	

CONT'D ON SHT. 2



- Item #7
- O 1933
 - 48 2195
 - setting = 3/4 2556
 - 1/8 2918

SECT. A-A

REF. DWGS.
 BER-PAT INDEX: 455
 BER-PAT 150: 461
 GPC 150: JCP-19440 SHT. 10

TOTAL OPER. & HYDRO. LBS 4175*

*INDICATES APPROVAL BY JCP&L

SHEET 1 OF 2

BURNS & ROE, INC., P. O. #BR-2299-104		PIPING SYSTEM CORE SPRAY	
BURNS & ROE, INC.		REF LOCATION PLAN B&R DWG: 2138	
OYSTER CREEK STA. UNIT #1		MARK NO NZ-3-H1 NO REQD. 1	
DRAWN	CHKD	APPROV	DATE
JRS	ES		1-3-67
BERGEN-PATERSON PIPESUPPORT CORP CAMBRIDGE MASS		OR NO	ISSUING NO
WOODBRIDGE NJ		REG-1263	456

FIELD VERIFICATION FOR NRC USE B/TN 79-14
 ADDED REF. DWGS. UPDATED AS APPLICABLE

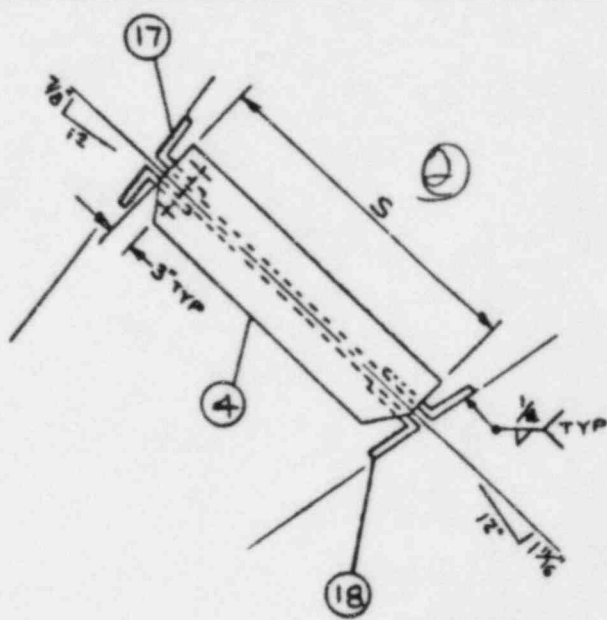
DATE	REV
10-29-67	6

APP	REV
WHI	1
WPS	2
ENG	3

DESCRIPTION	DATE
1	

MARK 65-113-13 (5)

ITEM NO	NO REQD	DESCRIPTION	QTY	REMARKS
11	1	PART 7H	7	
12	1	7/8" EYEROD x 1'-10" LG THD = 6"	61	
13	1	VSIA-12 HL=1875 CL=2102 MVT=5/16" UP		
14	1	7/8" HN		
15	1	7/8" ROD x 1'-9" LG TBE = 6"		
16	1	7TP45 LUG TO BE 304 S/S	35	
17	2	BENT P'S NIS	1001	DET. A
18	2	BENT P'S 5 1/2 x 3/8 x 7 1/2 NIS		



DETAIL A

* INDICATES APPROVAL BY J.C.P. & L.CO.

SHT 2 OF 2

FIELD VERIFICATION FOR NRC ICE BLTN 79-14
UPDATED AS ENCIRCLED

BURNS & ROE, INC., P. O. # BR-2299-104			PIPING SYSTEM <u>CORE SPRAY</u>		
BURNS & ROE, INC.			REF. LOCATION PLAN <u>BER DWG: 2138</u>		
OYSTER CREEK STA. UNIT #1			MARK NO. <u>NZ-3-H1</u> NO REQD <u>1</u>		
DATE	CHKD	APPRD	DATE	CHKD	APPRD
1-3-67	JRS	BP	1-3-67	BP	456

BP

Creek - OC

Reviewed: *Bl Likh*

SUPPORT # BP-NZ-3-H1 / GP-H3
 ISO DWG # JCP-19440 SHT 10
 ORTHO DWG # N/A
 SUPPORT DWG # 456 REV. 1

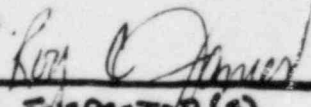
VALVE # N/A

NUCLOR 85-113-13

ITEM	Y	N	N/A	REM
1. Proper Valve Orientation			X	
2. Skin Temperature <u>91.7</u> °F (C.R.) (PYR) on pipe <i>surface therm.</i>	X			
3. Components identified in accordance with the appropriate drawing.	X			
4. Component location is within drawing tolerances.			X	
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.			X	
6. Verify that all welds are completed.		X		
7. Piping and supports are free of arc strikes.	X			
8. Snubbers and spring hangers are installed in accordance with drawing.	X	X		<i>10.2V</i>
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5% <i>2556 recorded</i>	X			
10. Record the amount of snubber extension from the fully compressed position. T or C = _____			X	
11. If the springs and snubbers are within: 1/4" from the topped/bottomed out position for springs, and 1/4" from the fully compressed/fully extended position for snubbers, it shall be reported.			X	
12. Verify piping sizes.	X			
13. Hanger location in building (General area) { Description: <i>Drywell 67-6'EL</i>		X		

Creek - OC

SUPPORT # 117-3H1 (H3)

ITEM	Y	N	N/A	REM
4. Hanger hardware:				
A. Clips			X	
B. Clevis	X			
C. Cotter Pins	X			
D. Turnbuckles			X	
E. Nuts/Bolts (Check all attachments for double nut requirements)	X			
F. Spring Canisters	X			
G. Locking Tabs on Nuts			X	
H. Washers			X	
I. Swivels			X	
5. Hanger configuration in accordance with applicable drawings:				
A. Dimensions			X	
B. Angles of support to system and base plate	X			
C. All hanger attachments i.e., clips, brackets, etc. orientated correctly.	X	X		RCJ 10-24-85
D. Strut or Snubber pin to pin distance <u>n/a</u>			X	
6. Weld locations:				
A. Proper weld location			X	
B. Proper weld spacing			X	
C. Proper number of welds ^{RCJ 10-24-85} <u>& see</u>			X	
D. Thru-paint (average value <u>& more</u>)			X	
			X	
7. Anchor Bolts:				
A. Type			X	
B. Size <u>n/a</u> number <u>n/a</u>			X	
C. Thread engagement			X	
D. Bolt c/c spacing			X	
E. C/C from anchors to closet anchor <u>n/a</u>			X	
18. Gaps @ stops:				
A. At U-bolts or Restraints			X	
B. At pipe penetrations			X	
			X	
*TOLERANCES FOR MEASUREMENT ACCURACY				
<u>Measurement</u>	<u>Tolerance</u>			
0" - 2"	± 1/16"			
N 2" - 12"	± 1/8"			
N 12" - 36"	± 1"			
N 36" - ∞	± 3"			
* Unless otherwise shown on the dwg.				
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">  QC INSPECTOR(S) </div> <div style="text-align: center;"> <u>10-24-85</u> DATE </div> </div>				

Oyster Creek - QC

SUPPORT # N73H1 ^(H3)

PER MNCR 83-113-13

SUPPORT DWG# 456

	Y	N	N/A	REM
19. Confirm pipe clamp figure no. If not possible, fill in appropriate form attached.			X	
20. Baseplate attachments location recorded on the anchor plate verification sheet.			X	
21. For valves noted in the walkdown, record their location & orientation on the isometric drawing. Describe orientation by stating (1) direction observer is facing, and (2) angle of valve \perp to pipe \perp to nearest 30 degrees (such as hours on a clock with 12:00 being direction facing the observer).			X	
22. For hangers where other systems (i.e. piping, conduit, etc.) are also supported, give size of this system and describe type of support and distance to upstream and downstream hangers supporting that system.			X	

Other items as specified by calculation sheet request attached.

Ray C. [Signature] 10-24-85
 QC Inspector(s)/Date

Oyster Creek - QC

SUPPORT # BC-N2-311/GF-H3

REF. MNCR 85-113-13

SUPPORT DWG # 456 R1

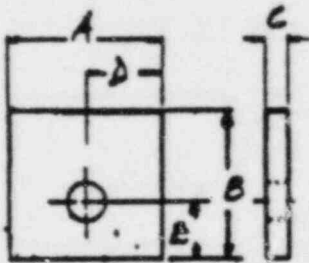
(9)

SYSTEM _____

PROVIDE DIMENSIONS FOR ITEMS CHECKED OFF BELOW:

ALL DIMENSIONS $\pm 1/32$ " TOLERANCE

WELDING LUG



A = D =
 B = E =
 C =

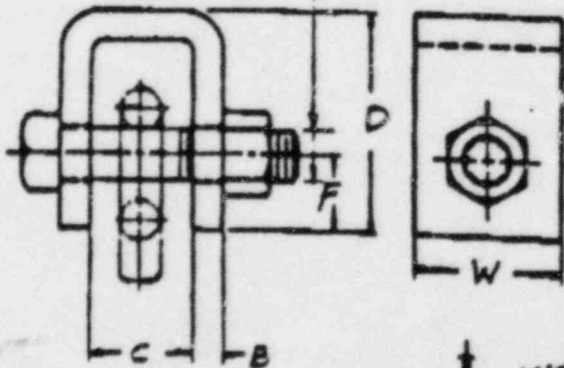
WASHER PLATE



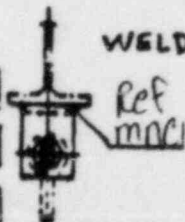
A =
 B =
 C =

WELDED BEAM ATTACHMENT

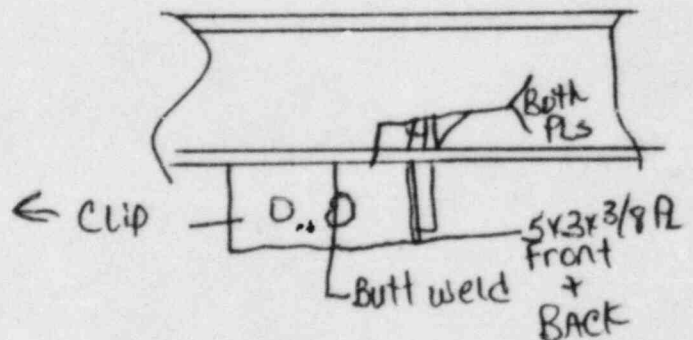
REF Photo #1
 BOLT DIA., A



A = 1" D = 4"
 E = 1/2" F = 1 1/2"
 C = 2 1/8" W = 3"



REF Photo #1
 Item to the left in photo #1
 is the clip. Clip dimensions
 ARE:



MNCC 85-113-130

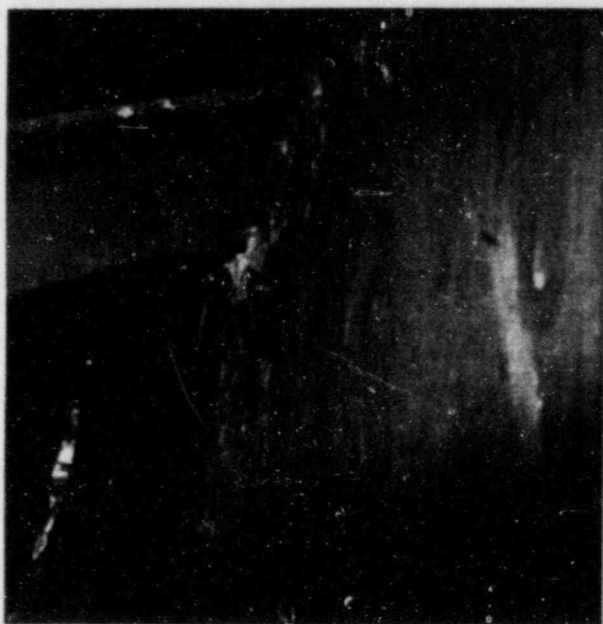


Photo #5
Item #2 to Bio-shield

NAAC 82-117-1 (1)

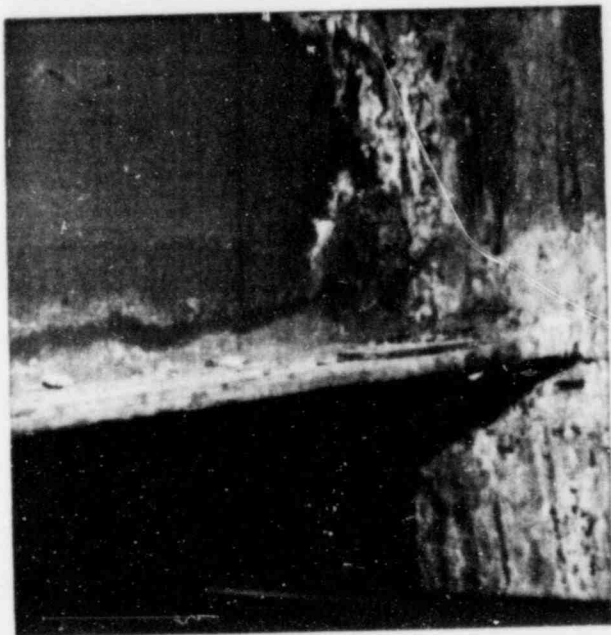
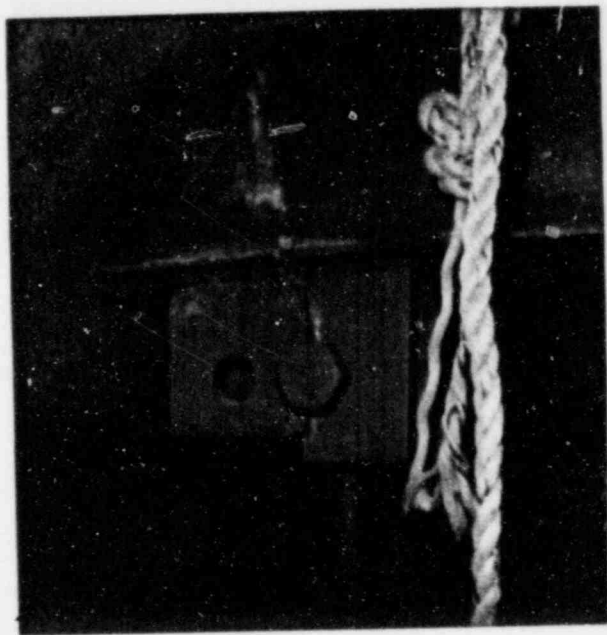


Photo #1

Photo #2
inside of item 3 to Black shell

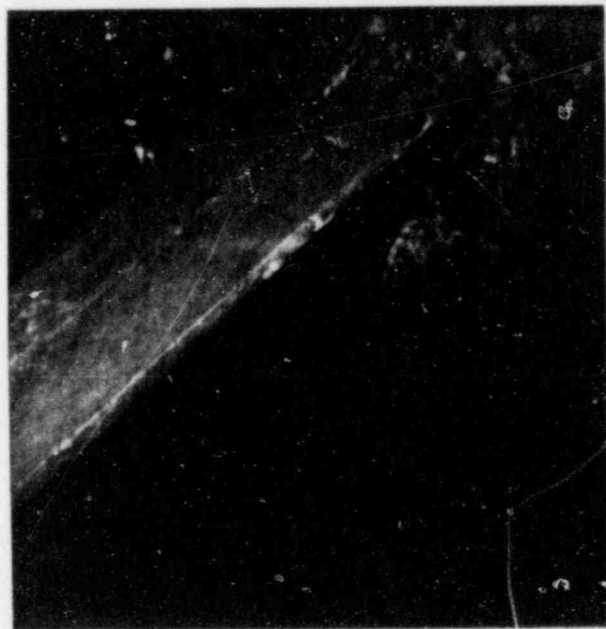
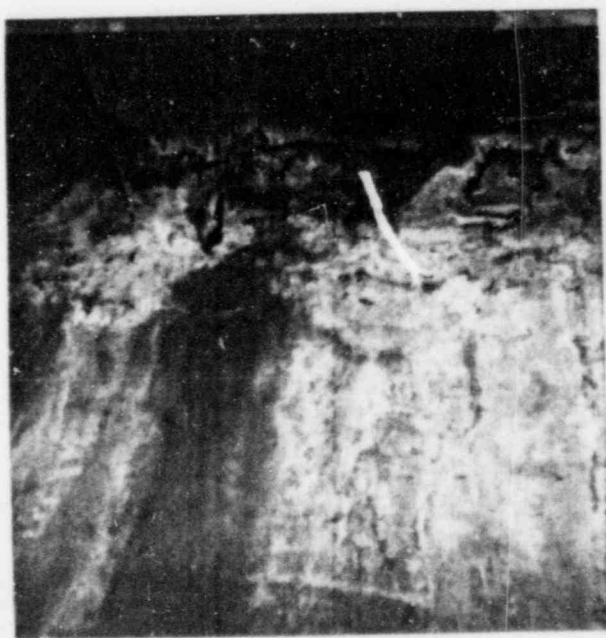


Photo #3
Bottom of item #3 to shell

Photo #4
Item #2 to Black shell

MNCR Number 85-113-14

Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORMNO A _____
RETENTION _____

1. Identification

Originator: ROY C JAMES / ED GASHLIN
Material, Part, Component, etc.: HANGER BP-NZ-3-H1/6P-H4

Date/Time: 10-24-85/0200

Location: DEWELL 676'
Manufacturer (Name): N/A Code: N/A
P.R.#: N/A Line #: N/A Spec #: N/A
System: CORE SPRAY System Tag No: N/A
Dwg No. 456 Rev: 1 Heat Code No: N/A Other: N/A

Nonconforming to (requirements): DIMENSIONAL / CONFIGURATION AS SHOWN

Description of Nonconformance: SEE DISCREPANCIES / DISPOSITION SHEET ATTACHED

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

Important To Safety	POTENTIALLY REPORTABLE:				
	10CFR50	10CFR21	10CFR71	10CFR73.71	L.E.R.
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

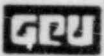
Evaluated By (Name): Ed Gashlin Date/Time: 10/24/85 0550
QC Mgr. Validation: David Marshall Date/Time: 10-25-85

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____
Licensing Notified: YES NO Date/Time: _____
Hold Tags Issued: YES NO No. of Tags: _____
Tags Installed By (Name): NA Date/Time: _____
Material Segregation Required: YES NO
Segregation Verified By (Name): NA Date/Time: _____

ACTION PARTY (Name): J.P. Maloney Dept: Plant Material

Forward to responsible individual/department (Action Party).



3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: Please engineering determination as to adequacy of as built configuration -
It adequate revise drawings to reflect as built.

Evaluation/Disposition By (Name): [Signature]

Dept: Plant Material
Date: 10-25-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is: _____

Repair Use-as-is Rework Scrap Other _____

Justification: (include applicable work documents, limitations, re-test requirements, etc.)

SEE ATTACHED SHEETS FOR JUSTIFICATION

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No: _____

Evaluated By (Name): W. C. HAAS

Dept: T. F. ENG. MECH.
Date: 10-25-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: [Signature] Date: 10-28-85

Conditional Release Issued: YES NO Reject Tags Issued: YES NO

AI/ANI Concurrence: YES NO Signature: NA Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____
Work/Shipping Order No.: _____ Other: _____
Verified By (Name/Title/Date): _____
Tags/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____ Date: _____

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

① Item #15 HAS 1 specified length of 1'-9"
ACTUAL IS 1'-1 1/2"

NEED TO ASSEMBLE SUPPORT

@ CHANGE Dwg.

Structurally Accept.

RC 10-24-85

② Item #511 to item #3 HAS A specified
weld size of 1/4" weld in groove
of clip is underfilled. REF photo #6

Item 3 is Supporting only 1/2 of LOAD
ADDITIONAL BRACKETS TAKES THE OTHER 1/2 LOAD
Structurally Accept.

CHANGE Dwg.

③ Clip is not installed per detail.
REF ~~item~~ Photo #6

RC 10-24-85

EXM PL shown in photo #6 is 5/4 x 5/4 x 3/8
weld with A 3/16" fillet 2 sides.



SAME RESOLUTION AS ABOVE

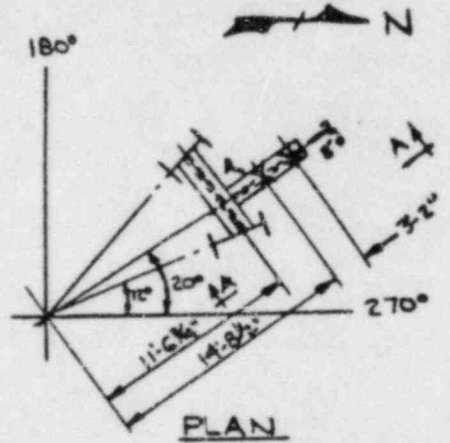
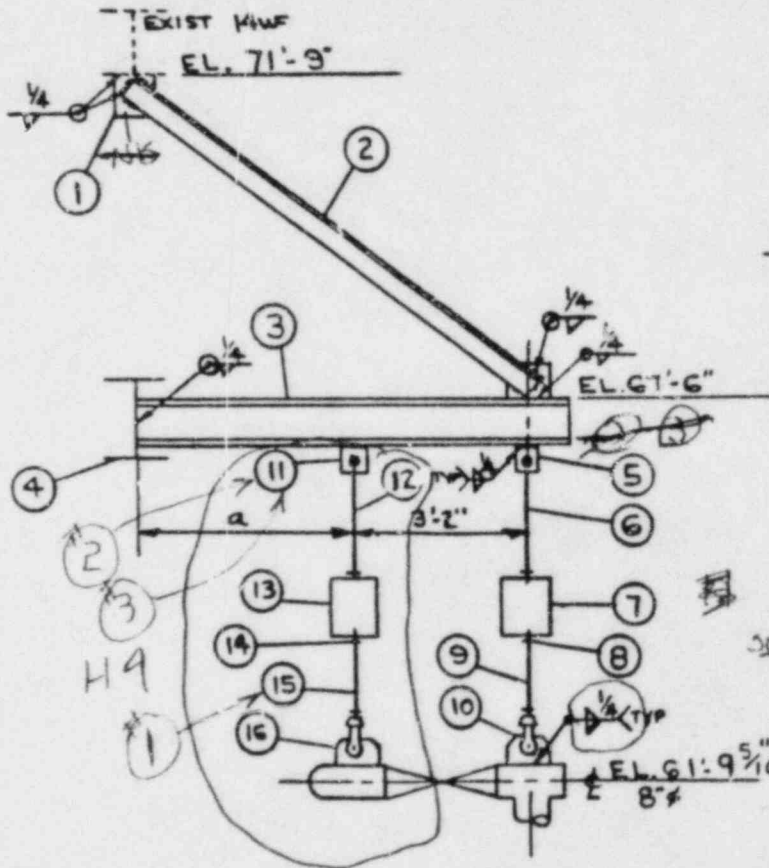
W.C. Haas 10-25-85

770 *note 721*

MNCR¹¹ 85-113-14 (3)

ITEM NO.	QTY	DESCRIPTION	ALIAS PART NO.	REMARKS
1	2	R 5 x 3/8 x 5		
2	2	L = 2 1/2 x 2 1/2 x 1/4 x 7'-6" LG		
3	1	6WF15.5 x 6'-7" LG. $\alpha = 3'-1 3/4"$	1001	
4	1	10WF21 S = 2'-2" (SEE DETASHT ?)		
5	1	PART 8H	7	
6	1	1" ϕ EYEROD x 1'-10" LG THD = 6"	61	
7	1	VSIA-13 HL = 2300 CL = 2602 MVT. 5/16 UP		
8	3	1" ϕ HN		
9	1	1" ϕ ROD x 1'-9" LG TBE 6"		
10	1	PART 8TP4S LUG TO BE 304 S/S	35	

CONT'D ON SHT. 2



Item 13
 --- 0 #33 1379
 --- 1/8 1651
 settings --- 1/4 1923
 --- 1/8

FOR ITEMS CITED
 SEE GP 11-2-11-3
 AND MNCR¹¹ 85-113-14

SECT. A-A

REF. DWGS.
 BER-PAT INDEX: 455
 BER-PAT 150: 461
 GPC 150: JCP-19440 SHT. 10

TOTAL OPER. & HYDRO. LD.: 4175*

*INDICATES APPROVAL BY JCP&L

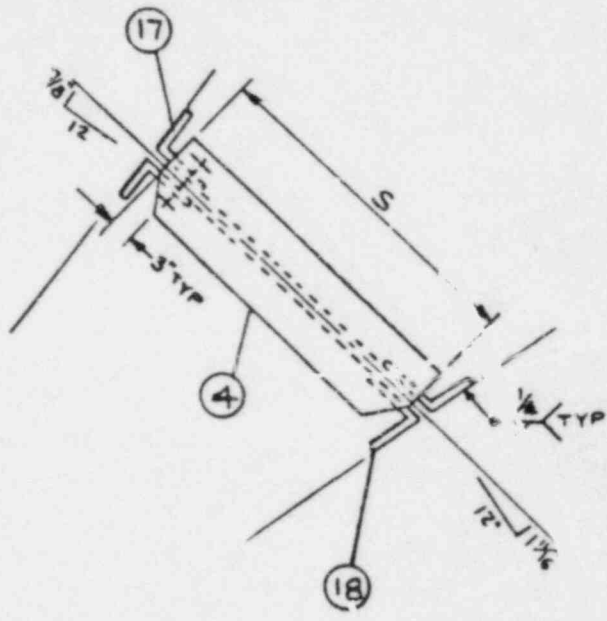
SHEET 1 OF 2

BURNS & ROE, INC., P. O. #BR-2299-104		PIPING SYSTEM <u>CORE SPRAY</u>	
BURNS & ROE, INC.		REF. LOCATION PLAN <u>B&R DWG: 2138</u>	
<u>OYSTER CREEK STA. UNIT #1</u>		MARK NO <u>NZ-3-H1</u>	NO RECD <u>1</u>
DRAWN <u>JRS</u>	CHECKED <u>ES</u>	BERGEN-PATERSON PIPESUPPORT CORP CAMBRIDGE MASS	DATE <u>1-3-67</u> OR. NO. <u>RG6-1263</u> TRADING NO. <u>456</u>

FIELD VERIFICATION FOR NRC SEE B.T.N. 79-14
 ADD'D REF. DWGS. VERIFIED AND APPROVED
 8/22/82
 JRS
 APP. REV. 6
 10 31 5 7

MNCR # 85-113-14 (M)

ITEM NO	NO REQD	DESCRIPTION	QTY	REMARKS
11	1	PART 7H	7	(2) (3)
12	1	7/8" Ø EYEROD x 1'-10" LG THD = 6"	6	
13	1	VSIA-12 HL=1875 CL=2102 MVT=5/16" UP		
14	1	7/8" Ø HN → 1'-1 1/2"		
15	1	7/8" Ø ROD x 1'-9" LG TBE = 6"		
16	1	7TP45 LUG TO BE 304 (S/S)	35	
17	2	BENT R'S	1001	DET. A
18	2	BENT R'S 5 1/2 x 3/8 x 7 1/2		



DETAIL A

THIS INFO ON
G.P. 143

* INDICATES APPROVAL BY J.C.P. & CO.

SHT 2 OF 2

FIELD VERIFICATION FOR NRC ICE BLTN 79/4
UPDATED AS ENCIRCLED

BURNS & ROE, INC., P. O. # BR-7299-104
BURNS & ROE, INC.
OYSTER CREEK STA. UNIT #1

PIPING SYSTEM CORE SPRAY
LOCATION PLAN BER DWG: 213B
MARK NO NZ-3-HI NO REQD 1

REV	DATE	BY	CHKD	APP'D	DESCRIPTION	DATE	NO	NO REQD
1		JRS			BERGEN-PATERSON PIPESUPPORT CORP CAMBRIDGE MASS	1-3-67	REG-1262	456

33 Creek - OC

Reviewed: *Bl. Likh*

SUPPORT # BP-NZ-3-H1/GP-H4
 ISO DWG # JCP-19440 SHT 10
 ORTHO DWG # N/A
 SUPPORT DWG # 456 REV. 1

VALVE # NI
A

MNCR # BS-1B-14

ITEM	Y	N	N/A	REM
1. Proper Valve Orientation			X	
2. Skin Temperature <u>91.7</u> °F (C.R.) ^{surface therm} (PYR) on pipe	X			
3. Components identified in accordance with the appropriate drawing.	X		✓	
4. Component location is within drawing tolerances.			X	
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.			X	
6. Verify that all welds are completed.		X		
7. Piping and supports are free of arc strikes.	X			
8. Snubbers and spring hangers are installed in accordance with drawing.	X			
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5% <u>As recorded on dwg.</u>	X			
10. Record the amount of snubber extension from the fully compressed position. T or C = <u>N/A</u>			X	
11. If the springs and snubbers are within: 1/4" from the topped/bottomed out position for springs, and 1/4" from the fully compressed/fully extended position for snubbers, it shall be reported.			X	
12. Verify piping sizes. <u>8" PIPE.</u>	X			
13. Hanger location in building (General area) {Description: <u>Drywell 67-6'EL</u>	X			

at Creek - OC

Reviewed: *Bl. Tilk*

SUPPORT # BP-NZ-3-H1/GP-H4
 ISO DWG # JCP-19440 Sht 10
 ORTHO DWG # N/A
 SUPPORT DWG # 456 REV.1

VALVE # N/A
A

MNCR # BS-1B-14

ITEM	Y	N	N/A	REM
1. Proper Valve Orientation			X	
2. Skin Temperature <u>91.7</u> ^{surface therm} °F (C.R.) (PYR) on pipe	X			
3. Components identified in accordance with the appropriate drawing.	X		✓	
4. Component location is within drawing tolerances.			X	
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.			X	
6. Verify that all welds are completed.		X		
7. Piping and supports are free of arc strikes.	X			
8. Snubbers and spring hangers are installed in accordance with drawing.	X			
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5% <u>AS recorded on dwg.</u>	X			
10. Record the amount of snubber extension from the fully compressed position. T or C = <u>N/A</u>			X	
11. If the springs and snubbers are within: 1/4" from the topped/bottomed out position for springs, and 1/4" from the fully compressed/fully extended position for snubbers, it shall be reported.			X	
12. Verify piping sizes. <u>8" PIPE.</u>	X			
13. Hanger location in building (General area) {Description: <u>DRYWELL 67-6' EL</u> }	X			

Creek - OC

SUPPORT # BP-NZ-3-H1 / GP-H4

ITEM MNCR# BS-113-14

Y	N	N/A	REM
---	---	-----	-----

4. Hanger hardware:

- A. Clips
- B. Clevis
- C. Cotter Pins
- D. Turnbuckles
- E. Nuts/Bolts (Check all attachments for double nut requirements)
- F. Spring Canisters
- G. Locking Tabs on Nuts
- H. Washers
- I. Swivels

		X	
X			
X			
X		X	
X			
		X	
		X	
		X	

15. Hanger configuration in accordance with applicable drawings:

- A. Dimensions
- B. Angles of support to system and base plate
- C. All hanger attachments i.e., clips, brackets, etc. orientated correctly.
- D. Strut or Snubber pin to pin distance N/A

	X		
X			
	X		
		X	

16. Weld locations:

- A. Proper weld location
- B. Proper weld spacing
- C. Proper number of welds
- D. Thru paint (average value see mack)

X			
	X		
X			
		X	

17. Anchor Bolts:

- A. Type
- B. Size n/a number n/a
- C. Thread engagement
- D. Bolt c/c spacing
- E. C/C from anchors to closet anchor n/a

		X	
		X	
		X	
		X	
		X	

18. Gaps @ stops:

- A. At U-bolts or Restraints
- B. At pipe penetrations

		X	
		X	
		X	

*TOLERANCES FOR MEASUREMENT ACCURACY

Measurement	Tolerance
0" - 2"	± 1/16"
≥ 2" - 12"	± 1/8"
≥ 12" - 36"	± 1"
≥ 36" - ∞	± 3"

* Unless otherwise shown on the dwg.

Ray C. [Signature] 10-24-85
QC INSPECTOR(S) DATE

Oyster Creek - QC

SUPPORT # EV-2-3-11
GP-14

PER MNCR 85-113-14

SUPPORT DWG# 456 R/1

Y	N	N/A	REM
---	---	-----	-----

19. Confirm pipe clamp figure no. If not possible, fill in appropriate form attached.
20. Baseplate attachments location recorded on the anchor plate verification sheet.
21. For valves noted in the walkdown, record their location & orientation on the isometric drawing. Describe orientation by stating (1) direction observer is facing, and (2) angle of valve \perp to pipe \perp to nearest 30 degrees (such as hours on a clock with 12:00 being direction facing the observer).
22. For hangers where other systems (i.e. piping, conduit, etc.) are also supported, give size of this system and describe type of support and distance to upstream and downstream hangers supporting that system.

		X	
		X	
		X	
		X	

Other items as specified by calculation sheet request attached.

--	--	--	--

Ray C. Jones 10-24-85
QC Inspector(s)/Date

GPU Nuclear

PIPING AND SUPPORT VERIFICATION

Oyster Creek - QC

SUPPORT # BP-N2-3-H1 / GP-H4

REF. MNCR 85-113-14

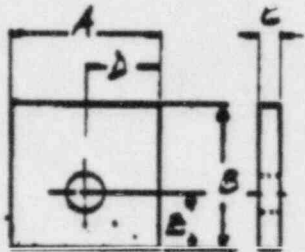
SUPPORT DWG # 456 R1

SYSTEM _____

PROVIDE DIMENSIONS FOR ITEMS CHECKED OFF BELOW:

ALL DIMENSIONS $\pm 1/32"$ TOLERANCE

WELDING LUG



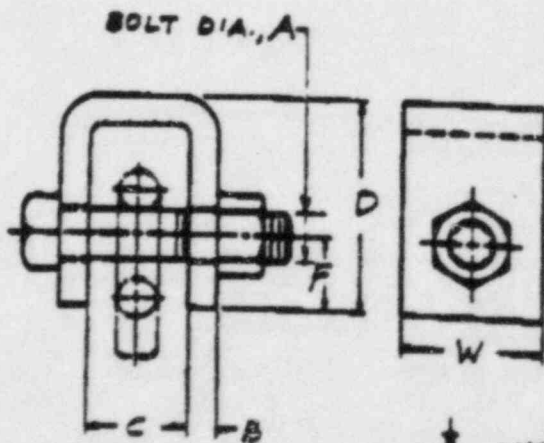
A = D =
 B = E =
 C =

WASHER PLATE

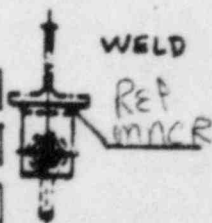


A =
 B =
 C =

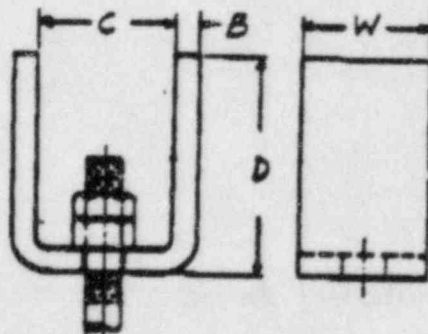
WELDED BEAM ATTACHMENT



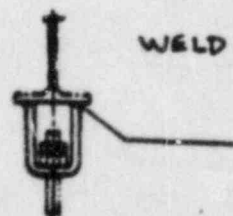
A = D =
 E = F =
 C = W =



ADJUSTABLE WELDED BEAM ATTACHMENT



B =
 C =
 D =
 W =



Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORMNO A _____
RETENTION _____

1. Identification

Originator: ROY C. JAMES / ED GASHLIN
Material, Part, Component, etc.: HANGER / BP-NZ-3-H1 / GP-13

Date/Time: 10-31-85 / 0230

Location: DRYWELL 51-E1
Manufacturer (Name): N/A Code: N/A
P.R.#: N/A Line #: N/A Spec #: N/A
System: COKE SPRAY System Tag No: N/A
Dwg No. 456 Rev. 1 Heat Code No: N/A Other: N/A

Nonconforming to (requirements): CONFIGURATION AS SHOWN

Description of Nonconformance: SEE DISCREPANCIES / DISPOSITION SHEET ATTACHED

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

Important To Safety	POTENTIALLY REPORTABLE:				
	10CFR50	10CFR21	10CFR71	10CFR73.71	LE.R.
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

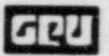
Evaluated By (Name): Ed Gashlin Date/Time: 10/31/85 0315
QC Mgr. Validation: Handwritten Signature Date/Time: 10-31-85 / 1323

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____
Licensing Notified: YES NO Date/Time: _____
Hold Tags issued: YES NO No. of Tags: _____
Tags Installed By (Name): NA Date/Time: _____
Material Segregation Required: YES NO
Segregation Verified By (Name): NA Date/Time: _____

ACTION PARTY (Name): J.P. Maloney Dept: Plant Material

Forward to responsible individual/department (Action Party).



Nuclear

Material Nonconformance Report Cont'd

MNCR Number 85-113-15

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: Needs engineering evaluation as to adequacy of as-built configuration. In preparation review drawing to reflect as built.

Evaluation/Disposition By (Name): _____

[Signature]

Dept: Plant Material

Date: 10-31-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (Include applicable work documents, limitations, re-test requirements, etc.)

See attached sheet for justification

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No.: B.P. DWG # 456

Evaluated By (Name): S. VIRDI

Dept: TF/Engineering Mechanics

Date: 10-31-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: _____

[Signature]

Date: 11-1-85

Conditional Release Issued: YES NO

Reject Tags Issued: YES NO

AI/ANI Concurrence: YES NO

Signature: NA

Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____

Work/Shipping Order No.: _____ Other: _____

Verified By (Name/Title/Date): _____

Tags/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____

Date: _____

Q.C. OBS./DISCREPANCIES

① REF ATTACHED DRAWING - Inspected welds after scale removal under SF 2877 - see attached marked up dsq. and photo's for discrepancies.

ENGINEERING DISPOSITION

i) WELD BETWEEN B10 SHIELD & ITEM ②
 $w = \frac{(3459 + 3159)}{2} \div 6955$
 $2 \times 2.5 \times 70 \times 1800 = 0.13" < 1/4" \text{ o.k.}$

ii) WELD BETWEEN ITEM ③ AND B10 SHIELD WALL
 $w = \left[\frac{(1380)^2 + (2924)^2}{4} \right]^{1/2} = 0.11" < 1/8" - 3/16" \text{ o.k.}$
207 x 1800

CHANGE DWG TO REFLECT AS BUILT CONFIGURATION.
 (ALSO SEE MINOR # 85-113-13)

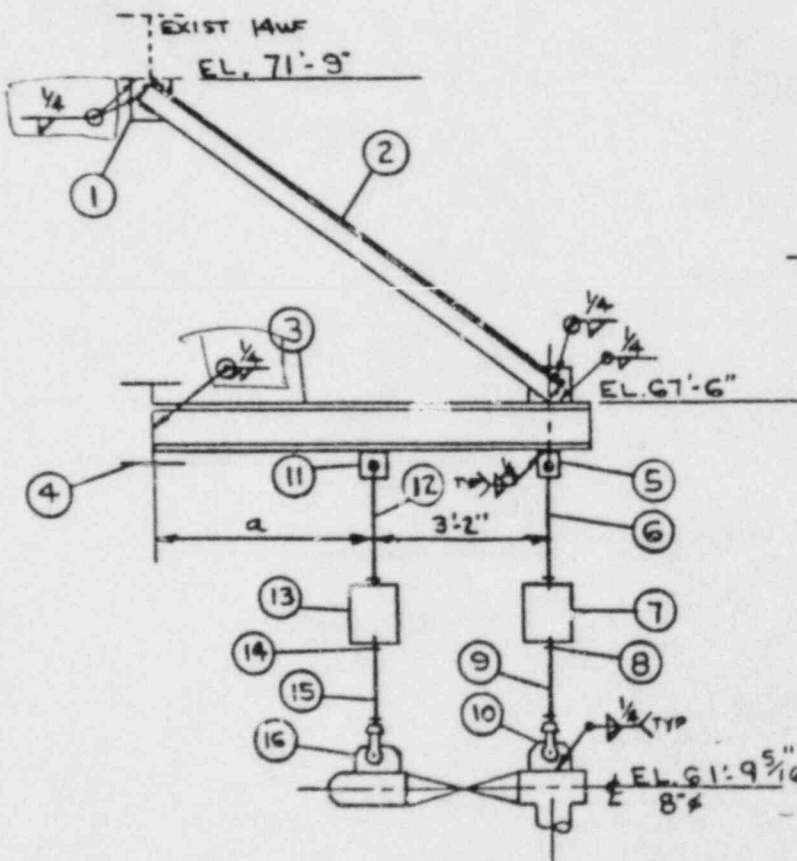
S. Nich.

10/31/85

MNCE 85-113-15

NO	QTY	DESCRIPTION	REMARKS
1	2	R 5 x 3/8 x 5	
2	2	L 2 1/2 x 2 1/2 x 1/4 x 7'-6" LG	
3	1	GW 15.5 x 6'-7" LG. α = 3'-1 3/4"	1001
4	1	10WF21 S = 2'-2" (SEE DETASHT 2)	
5	1	PART 8H	7
6	1	1" EYEROD x 1'-10" LG THD = 6"	61
7	1	VSIA-13 HL = 2300 CL = 2602 MVT = 5/16 UP	
8	3	1" HN	
9	1	1" ϕ ROD x 1'-9" LG TBE 6"	
10	1	PART 8TP4S LUG TO BE 304 S/S	35

CONT'D ON SHT. 2



SECTION A-A

G.P. NZ-3-H3

REF. DWGS.
 BER-PAT INDEX: 455
 BER-PAT 150: 461
 GPC 150: JCP-19440 SHT. 10

TOTAL OPER. HYDRO. LDI 4175*

*INDICATES APPROVAL BY JCP&L

SHEET 1 OF 2

BURNS & ROE, INC., P. O. #BR-2299-104
 BURNS & ROE, INC.
 OYSTER CREEK STA. UNIT #1

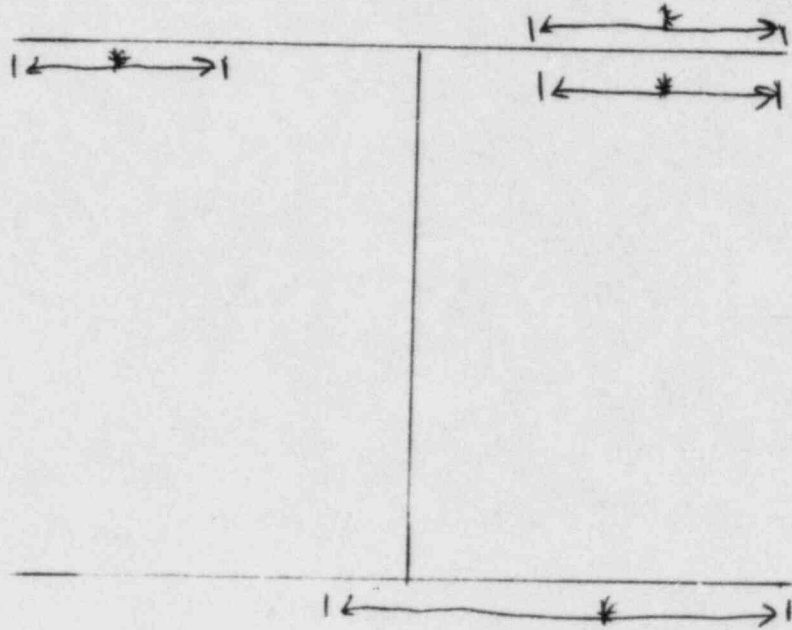
PIPING SYSTEM CORE SPRAY
 SEE LOCATION PLAN BER DWG: 2138
 MARK NO. NZ-3-H1 NO. RECD. 1

FIELD VERIFICATION FOR NRC ISEE BY TN 79-14
 ADDED REF. DWGS. VERIFIED AS ENCIRCLED
 BY ENGR. B.S.

1	JRS	EL	BERGEN-PATERSON PIPESUPPORT CORP CAMBRIDGE MASS	DATE 1-3-67	OR NO. RCG-1262	ISSUING NO. 456
---	-----	----	--	-------------	-----------------	-----------------

Item #3

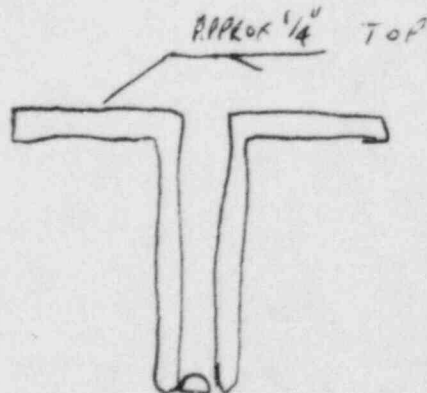
MNCR 85-113-15



* No WELD

Other welded areas on W-member are globed. There is no uniformity. No specific size exist (REF attached pictures 1, 2, 3 & 4) - $\frac{1}{8}$ " to $\frac{3}{16}$ " welds

Item #2



Hole in Bio-shield Approx $\frac{3}{16}$ " depth (REF Picture #)

Welded areas are globed. No uniformity exist. No specific weld size. (REF pictures 5, 6 & 7)



RIGHT SIDE of item 2 #5



Top of item 2 #6

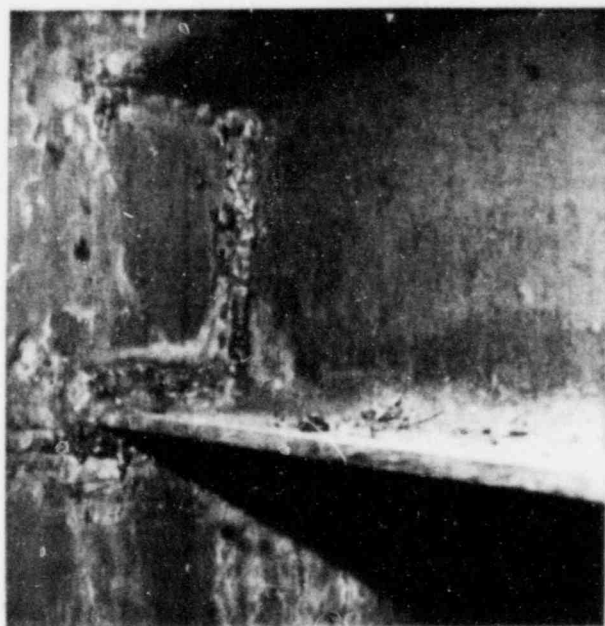


Left side of item 2 #7

MINOR- (B)
85-113-15



Top of item #3 #1



Left side of item #3 #2



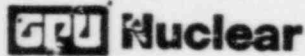
Right side of item #3 #3



Bottom of item #3 #4

MNCR
85-113-15 (6)

OCT 24 1985



Material Nonconformance Report

MNCR Number 85-110-9

Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORMNO A _____
RETENTION _____

1. Identification

Originator: Ed Gashlin / JAMES W. COLE Date/Time: 10/20/85/0430
Material, Part, Component, etc.: MECHANICAL SNUBBER S-13
GP # MSI-S13 BP # V-2A-55-1
Location: 23'6" DRYWELL
Manufacturer (Name): PACIFIC SCIENTIFIC Code: N/A
P.R.# N/A Line # N/A Spec # N/A
System: MAIN STEAM System Tag No. N/A
Dwg No. B.P. III SHE. 1 & 2 REV1 Heat Code No. N/A Other N/A
Nonconforming to (requirements): DIMENSIONAL CONFIGURATION AS SHOWN.
SNUBBER COLD SETTING "T" AS SHOWN.

Description of Nonconformance: SEE DISCREPANCYS / DISPOSITION SHEET
ATTACHED.

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

POTENTIALLY REPORTABLE:

Important To Safety	10CFR50	10CFR21	10CFR71	10CFR73.71	LER.
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Evaluated By (Name): E. Gashlin Date/Time: 10-20-85 0545
QC Mgr. Validation: [Signature] Date/Time: 10-21-85/0845

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____
Licensing Notified: YES NO Date/Time: _____
Hold Tags Issued: YES NO No. of Tags: _____
Tags Installed By (Name): NA Date/Time: _____
Material Segregation Required: YES NO NA
Segregation Verified By (Name): _____ Date/Time: _____
ACTION PARTY (Name): J.P. Maloney Dept: Plant Material

Forward to responsible individual/department (Action Party).

FORM 1000-ADM. 11-01-1



3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: Provide Engineering determination as to adequacy of AS built configuration, if Adequate revise drawings to reflect AS built

Evaluation/Disposition By (Name): [Signature]

Dept: Plant Majord
Date: 10-20-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (Include applicable work documents, limitations, re-test requirements, etc.)

SEE ATTACHED SHEET FOR JUSTIFICATION

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No: _____

Evaluated By (Name): W. C. [Signature]

Dept: T.F. ENGR. MECH.
Date: 10-20-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: [Signature] Date: 10-21-85
Conditional Release Issued: YES NO
Reject Tags Issued: YES NO

AI/ANI Concurrence: YES NO
Signature: NA Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.
Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____

Work/Shipping Order No.: _____ Other: _____

Verified By (Name/Title/Date): _____

Tags/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____ Date: _____

HAN X-2A-55-1

85-110-9
MNCR#

DWG. # A.P. III sht. 1#2

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

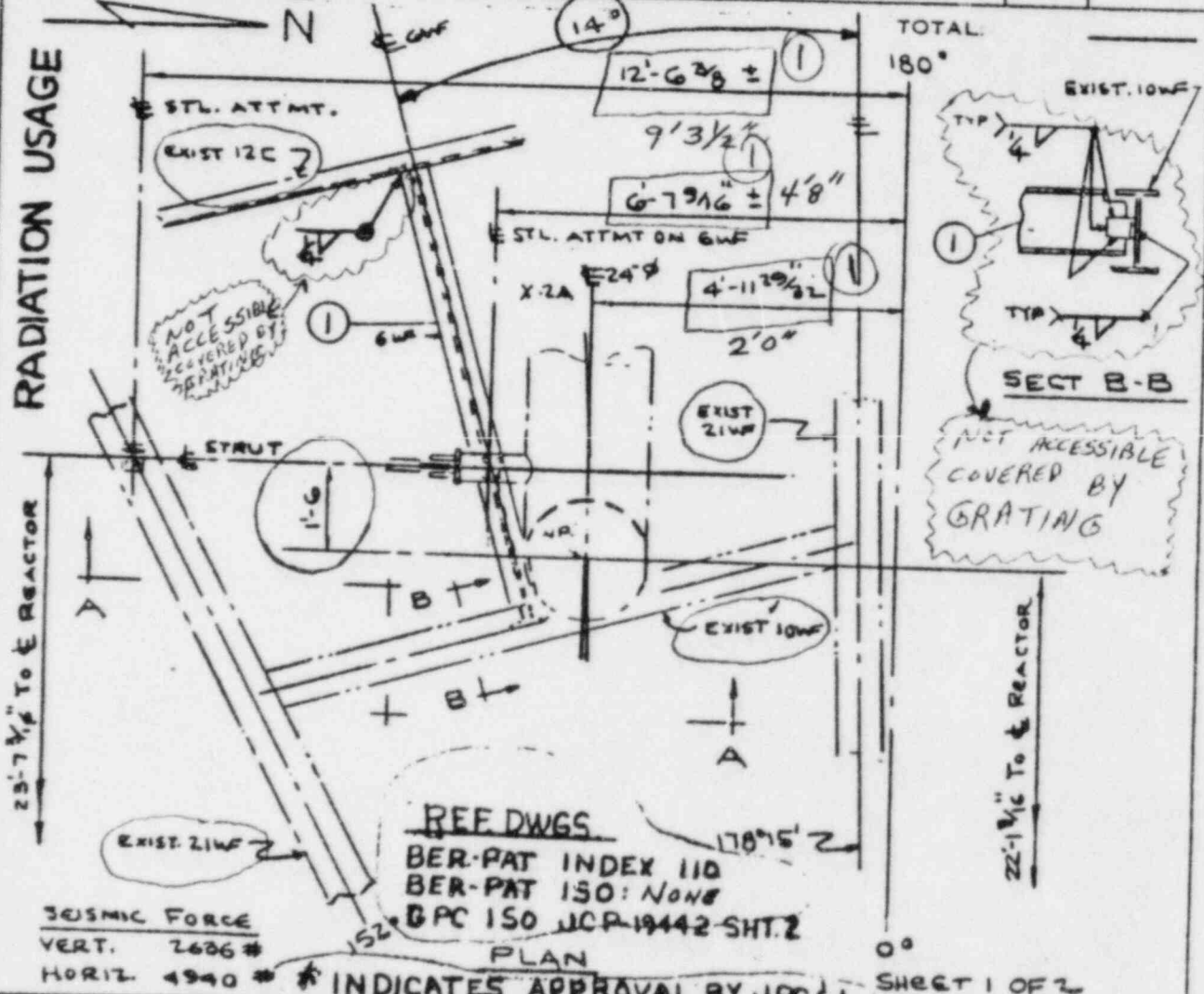
① THREE FRAMING * BEAM GEOMETRY DIMENSIONS ON DRAWING # III SHT. 1 ARE OUT OF TOLERANCE.

"AS BUILT" DIMENSIONS DO NOT AFFECT STRUCTURAL INTEGRITY CHANGE Dwg.

② COLD SETTING ON SNUBBER ITEM # 8 - "T" DIMENSION IS OUT OF TOLERANCE.

"AS BUILT" SETTING IS ACCEPTABLE. - NO CHANGE OF SETTING SEE JEFF. SOMMERMAN MEMO

ITEM NO	NO REQD	PART NO	DESCRIPTION	WGT
1	1		BG 6WF155 (S: 8' 5 3/4") COPG TOP FLG. O.E. 4"x1" DP. (DWG 602) (WR)	
2	1	SP251	H6GA-10 6" STROKE MTG A, T=3 3/4" SUPPLY W/ SPEC. PART 64107A (MAKE "L" DIM. = 13 1/2") (SEE ITEM 7)	
3	1	252	H6GA-10 6" STROKE T=3 3/4" B=3' 6" T=2 3/4" (SEE ITEM 8)	
4	1		EAT-A STL. ATTACHMENT	
5	1		PIPE ATTACHMENT SP HR 24 6" φ S/40 X 8" LG SEE DWG. 2007 (NOT ACCESSIBLE) DUE TO INSULATION	
6	1		SP EN-A STL. ATTACHMENT SEE DWG. 2007	
7	1		PACIFIC SCIENTIFIC SNUBBER DWG 1801107 (ADAPTED TO EXISTING PARTS)	
8	1		PACIFIC SCIENTIFIC SNUBBER DWG 1801107-01 (ADAPTED TO EXISTING PARTS)	



SEISMIC FORCE
 VERT. 2686 #
 HORIZ. 4940 #

REF DWGS
 BER-PAT INDEX 110
 BER-PAT 150: NONE
 GPC 150 JCR-19442-SHT.2

PLAN

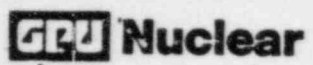
00 SHEET 1 OF 2

FIELD VERIFICATION FOR NRC 11/21/74
 ADDED REF. DWGS UPDATED AS ENCIRLED
 DATE: 11/21/74
 BY: ENG

BURNS & ROE INC. P.O. # BR-2299-60B		PIPING SYSTEM MAIN STEAM	
BURNS & ROE INC.		REFERENCE DWG PENETRATION X-2A	
OSTER CREEK STA UNIT # 1		5-13 MARK NO X-2A-65-1 NO REQD 1	
BERGEN-PATERSON PIPESUPPORT CORP.		DATE 12-24-68	
BOSTON HOPKINSON SAN FRANCISCO		DRAWN BY WD CHECKED BY SR DATE 12-24-68 JOB NO P-66-1262-X5 DWG NO 111 SHEET 1 OF 2	

* ITEMS 5 SUPPLIED WITH HANGER # X-2A-55-1 (514)

OCT 24 1985



Material Nonconformance Report

MNCR Number 85-110-10

Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
 REV _____
 DATE _____
 RECTYPE _____
 LOCATION _____
 FORMNO A _____
 RETENTION _____

1. Identification

Originator: JOHN T. MATRUMICH Date/Time: 10/20/85 0430
 Material, Part, Component, etc.: MECHANICAL SNUDDER S-14
BP X-2A-SS-1 GPH MS-1-S14
 Location: 23' EL. DRYWELL
 Manufacturer (Name): PACIFIC SCIENTIFIC Code: N/A
 P.R.# N/A Line # N/A Spec # N/A
 System: MAIN STEAM System Tag No. N/A
 Dwg No. B.P. III (SHEETS 1 & 2) Heat Code No. N/A Other N/A
 Nonconforming to (requirements): DIMENSIONAL CONFIGURATION AS SHOWN

Description of Nonconformance: SEE DISCREPANCIES / DISPOSITION SHEET ATTACHED

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/weekend).

2. Evaluation & Validation

POTENTIALLY REPORTABLE:

Important To Safety	10CFR50	10CFR21	10CFR71	10CFR73.71	LE.R.
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Evaluated By (Name): E. S. S. S. S. Date/Time: 10-20-85 0550
 QC Mgr. Validation: [Signature] Date/Time: 10-21-85 / 0728

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____
 Licensing Notified: YES NO Date/Time: _____
 Hold Tags Issued: YES NO No. of Tags: _____
 Tags Installed By (Name): N/A Date/Time: _____
 Material Segregation Required: YES NO
 Segregation Verified By (Name): N/A Date/Time: _____

ACTION PARTY (Name): J.P. Maloney Dept: Plant Material

Forward to responsible individual/department (Action Party).



3. Action Party Evaluation & Disposition

Repair Use-as-is Rework Scrap Other _____

Requires Engineering approval & evaluation/justification.

Evaluation/Disposition: Provide Engineering Determination as to Adequacy of as built configuration.
If Adequate revise drawing to reflect as built.

Evaluation/Disposition By (Name): [Signature]

Dept: Plant Material
Date: 10-20-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (Include applicable work documents, limitations, re-test requirements, etc.)

SEE ATTACHED SHEETS FOR JUSTIFICATION

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No.:

Evaluated By (Name): W.C. HAAS

Dept: T.F. ENG. MECH.
Date: 10-20-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: [Signature] Date: 10-21-85

Conditional Release Issued: YES NO
Reject Tags Issued: YES NO

AI/ANI Concurrence: YES NO
Signature: NA Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____

Work/Shipping Order No.: _____ Other: _____

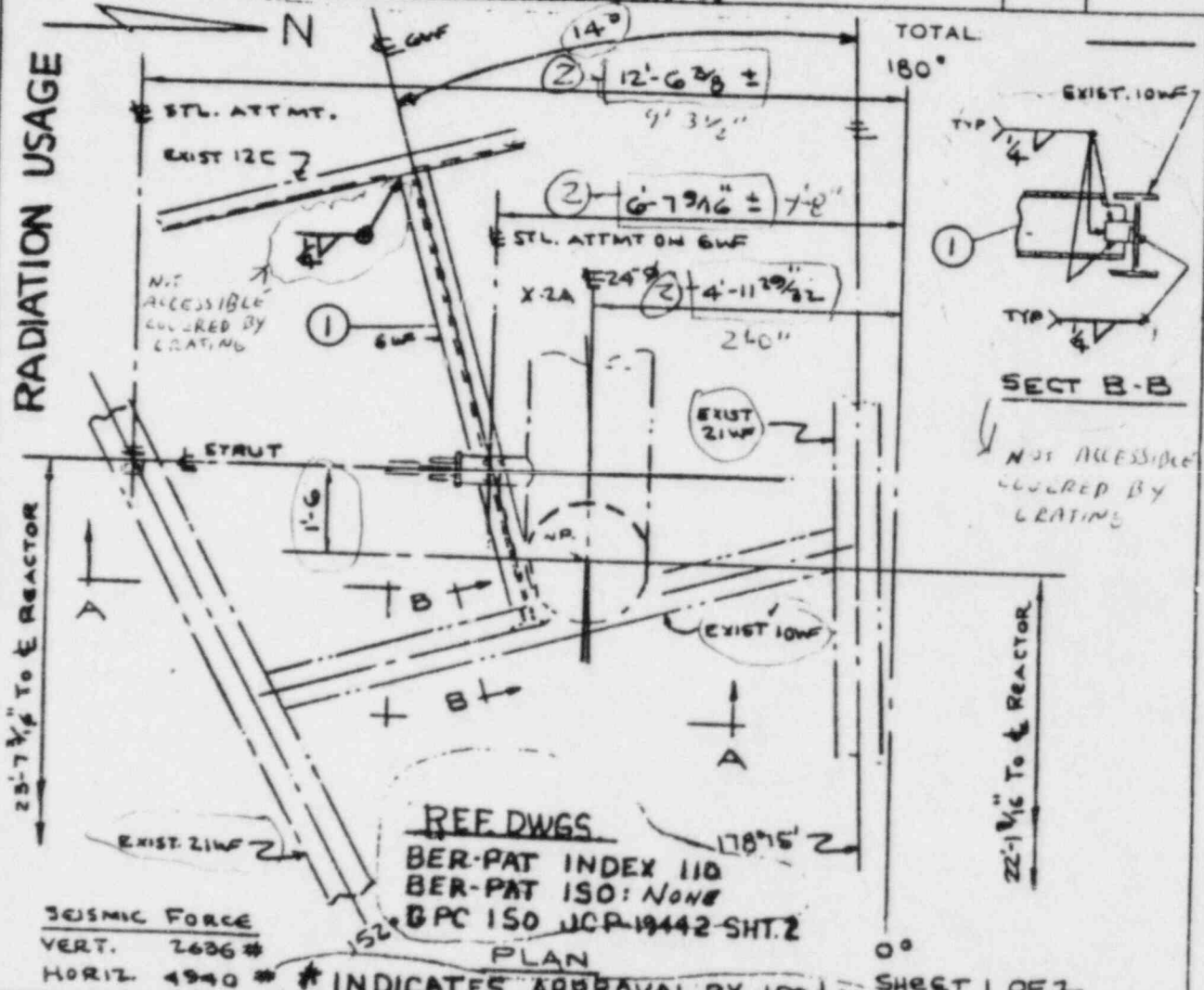
Verified By (Name/Title/Date): _____

Tags/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____ Date: _____

ITEM NO	NO REQD	PART NO	DESCRIPTION	WGT
1	1		BG 6WF155 5:8.5 3/4" COPE TOP FLG. O.R. 4"x1" DP. (DWG 602) (WR)	
2	1	SP251	HSSA TO 6" STROKE MTG A T=3 3/4" SUPPLY W/ 3/4" (SEE ITEM 7)	
3	1	252	HSSA TO 6" STROKE T=3 3/4" B=3'6" (SEE ITEM 8)	
4	1		EAT-A STL. ATTACHMENT	
5	1		PIPE ATTACHMENT SP HR 24 6" φ S/40 X 8' LG	N.T. ACCESSIBLE COVERED BY INSULATION
6	1		SEE DWG. 2007	
7	1		SP EAT-A STL. ATTACHMENT SEE DWG. 2007	
8	1		PACIFIC SCIENTIFIC SNUBBER DWG 1801107-01 (ADAPTED TO EXISTING PARTS)	
9	1		PACIFIC SCIENTIFIC SNUBBER DWG 1801107 (ADAPTED TO EXISTING PARTS)	



FIELD VERIFICATION FOR NRC USE IN THE
ADDED REF. DWGS UP DATED AS ENCIRCLED

BURNS & ROE INC. P.O. # BR-2299-60B
C-OWNER
BURNS & ROE INC.
ENGINEER
OYSTER CREEK STA UNIT # 1

PIPING SYSTEM MAIN STEAM
REFERENCE DWG. PENETRATION X-2A
5-14
MARK NO X-2A-55-1 NO REQD 1

REV	DATE	BERGEN-PATERSON PIPESUPPORT CORP.		CREAN	CHKD	APPRV	DATE
				WD	EL		12-24-68
				JOB NO P-66-1262-X5		DWG NO 111 SHEET 1 OF 2	

MS FOR 5-13
X-2A-55-1

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

1. $3/8$ " WELD AROUND ITEM ② NOT SHOWN IN DRAWING. (BUTT WELD ON EXTENSION TUBE) OF STRUT NOT THE SNUBBER.

PART OF SNUBBER
NOT IN SUPPORT INSPECTION SCOPE

2. THREE DIMENSIONS SHOWN ON DWG. NO. III (SHEET 1) w/1. ARE OUT OF TOLERANCE

DIMENSIONS ~~ARE~~ NOT AFFECT STRUCTURAL INTEGRITY
DO (w/1)
CHANGE DIM DETAIL

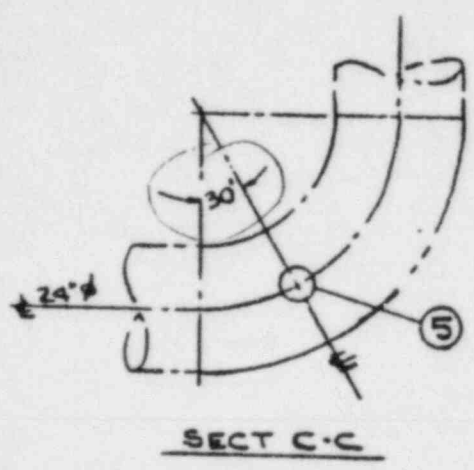
3. COLD SETTING ON ITEM # ⑦ ; $T = 1\frac{3}{4}$ " IS OUT OF TOLERANCE

T Dimension is Actual Dim.
WILL NOT BE CHANGED. SEE J. SOMMERMAN MEMO.

MARK 8 85-110-10

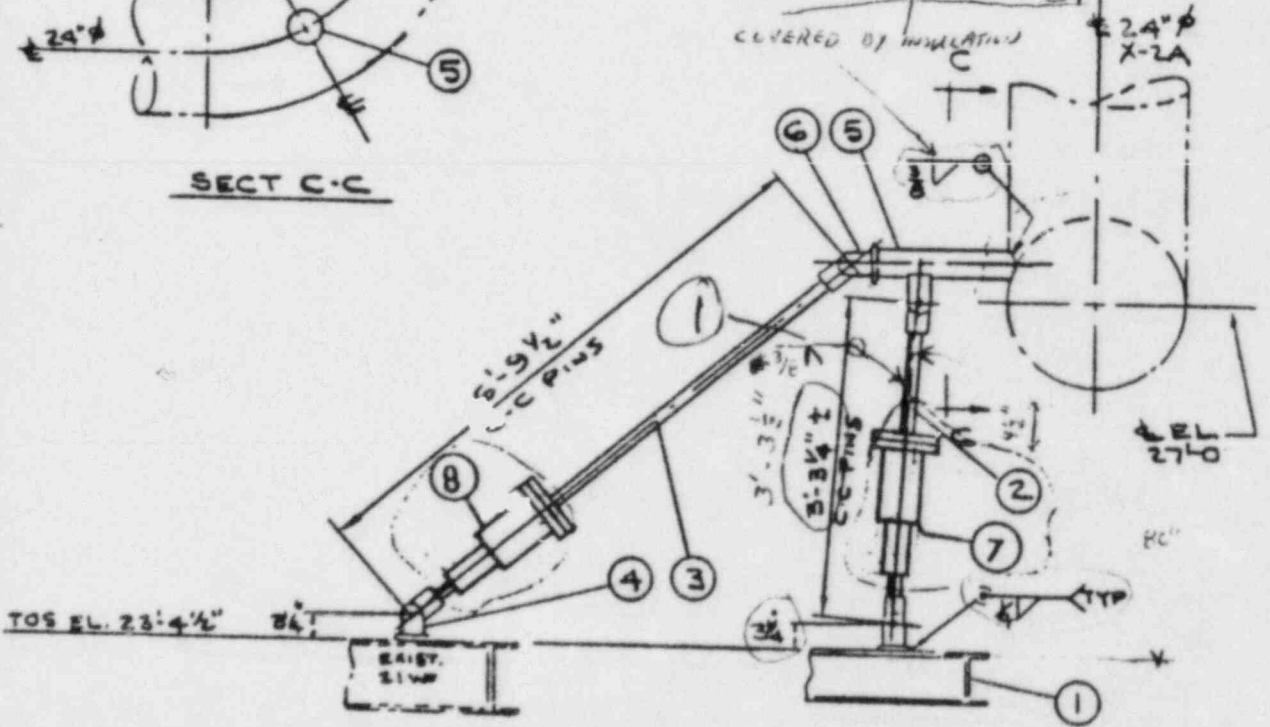
ITEM NO	NO REC'D	PART NO	TAG INFO	DESCRIPTION	ACT
			5-17	SERIAL # 112	
				MODEL PSA 10	
				LOAD 11,000 LBS.	

FORM NO 2
 DESCRIPTION
 DATE
 REV
 ENG APP
 FIELD VERIFICATION FOR NRC 14E
 DLN 75-14
 4-80



* INDICATES APPROVAL BY JCP&L

	7	8
COLD SET - T =	1 3/4"	NA
A T TEMP	99.9° F	NA
TEMP?	OFF 112(5)	



RA DIATION USAGE

* 3/8 weld (type unknown) 4 1/2" FROM BOTTOM OF EXTENSION TUBES
 SECT. A-A

SHEET 2 OF 2

BURNS & ROE INC. P.O #BR-229960B	PIPING SYSTEM	MAIN STEAM
BURNS & ROE INC.	REFERENCE DWG	PENETRATION X-2A
OYSTER CREEK STA. UNIT # 1	MARK NO	X-2A-SS-1 NO RECD

BERGEN-PATERSON PIPESUPPORT CORP.

WB	EP	12-24-68
P-66-1262-XS		
SHEET 2 OF 2		

Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORMNO A _____
RETENTION _____

1. Identification

Originator: Kevin McCauley / R.E. Timon

Material, Part, Component, etc.: MSH-2

Date/Time: 10/23/85

Location: 49' 3 3/8" ELV. DRYWELL

Manufacturer (Name): N/A

Code: N/A

P.R.# N/A

Line # N/A

Spec.# N/A

System: Main Steam

System Tag No. N/A

Dwg No. N/A 329

REV 3

Heat Code No. N/A

Other N/A

Nonconforming to (requirements): Dimensional / Configuration, as shown

Description of Nonconformance: See Discrepancies / Disposition Sheet (Attached)

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

Important To Safety

POTENTIALLY REPORTABLE:

10CFR50

10CFR21

10CFR71

10CFR73.71

L.E.R.

YES:

NO:

Evaluated By (Name): Kevin McCauley

Date/Time: 10-24-85 2:00 PM

QC Mgr. Validation: [Signature]

Date/Time: 10-25-85 / 0724

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO

Date/Time: _____

Licensing Notified: YES NO

Date/Time: _____

Hold Tags Issued: YES NO

No. of Tags: _____

Tags Installed By (Name): NA

Date/Time: _____

Material Segregation Required: YES NO

Segregation Verified By (Name): NA

Date/Time: _____

ACTION PARTY (Name): J. Maloney

Dept: Plant Material

Forward to responsible individual/department (Action Party).



3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: *Provide engineering determination as to adequacy of as built configuration. If adequate, revise drawing to reflect as built.*

Evaluation/Disposition By (Name): _____

[Signature]

Dept: *Plant Material*

Date: *10-24-85*

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (Include applicable work documents, limitations, re-test requirements, etc.)

See attached sheet for justification.

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No. _____

Evaluated By (Name): *[Signature]* *Lew*

Dept: *TFEM*

Date: *10-24-85*

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: _____

[Signature]

Date: *10-25-85*

Conditional Release Issued: YES NO

Reject Tags Issued: YES NO

AI/ANI Concurrence: YES NO

Signature: *NA*

Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____

Work/Shipping Order No.: _____ Other: _____

Verified By (Name/Title/Date): _____

Tags/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____

Date: _____

HANGER MSH-2

MHCN-85-10-11

DWG. # 328 R4

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

① added additional items 6 & 7.
see attached drawing.

PLATES SEE COMPRESSION ONLY. : : O.K.
REV. DWG.

② Welding as shown on attached drawing.

WELDS SEE COMPRESSION. : : O.K.

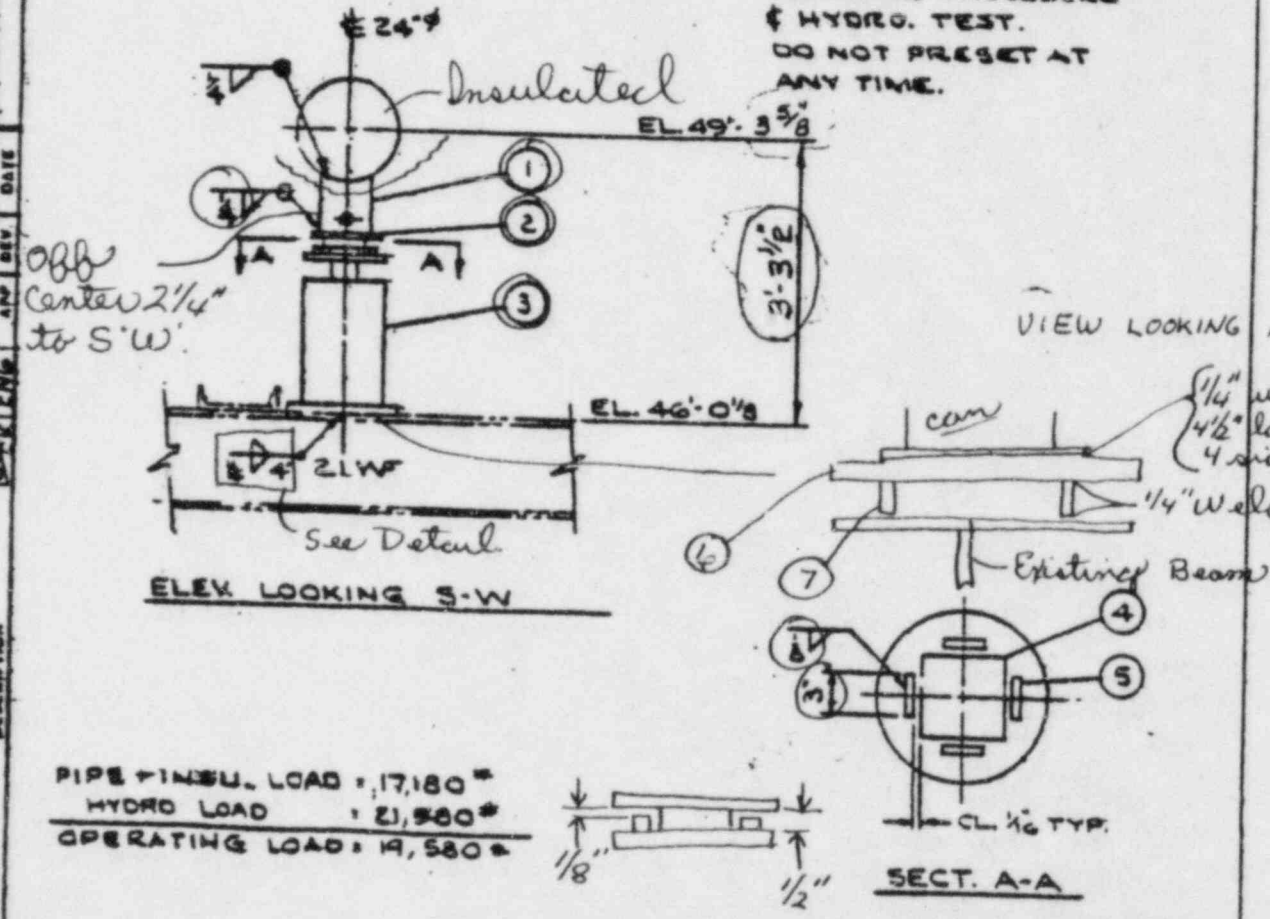
ITEM NO.	NO. REQ'D.	DESCRIPTION	PART NO.	REMARKS
1	1	6" ϕ 5/40 PIPE x 10" LG. HR-C4		
2	1	8 x 1/2 x 8" PL		
3	1	VBIF-20 H.L. = 19,580 [#] C.L. = 19,800 [#] MVT. = 1/32" UP		
4	1	5 x 1/2 x 5 LUBRITE PL		
5	4	3/8" SQ x 3" LG. BAR		
6	1	1/6 x 1/6 x 3/4" Plates		
7	2	8 x 2 1/4 x 1/2 Plates		

REF. DWGS. BER-PAT INDEX 325
 BER-PAT 150 340
 GPC ISO JCP 19442 SHT. 1

Load 21335
 Temp 920°F

* INDICATES APPROVAL BY JCP & L

FIELD NOTE:
 DO NOT PRESET HANGER DURING CLEANING PROCEDURE & HYDRO. TEST.
 DO NOT PRESET AT ANY TIME.



FIELD VERIFICATION FOR NRG ILE BATH 79-4 CD
 ADDED REF. DWGS. UPDATER AS ENCLOSURE
 PRESET NOTE ADDED
 REV'D LOADS & SPRING SIZE
 REV'D AS SHOWN

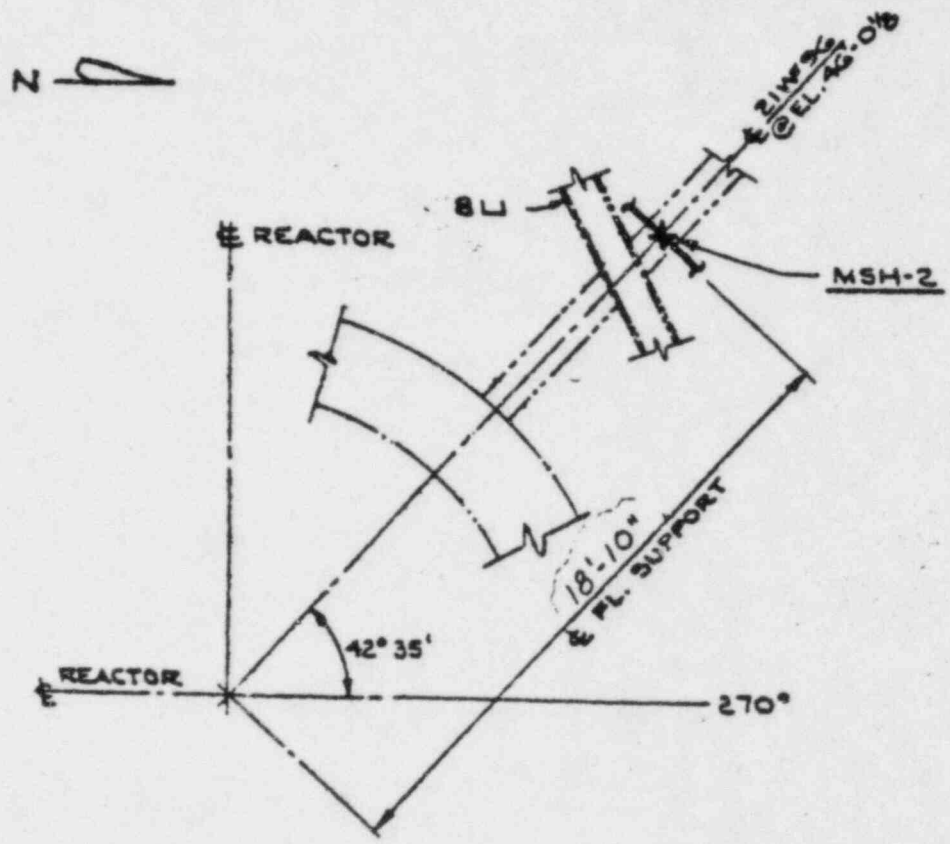
ALMIRALL & CO., INC. P. O. #7248 CAPTIONED BURNS & ROE, INC.			PIPING SYSTEM MAIN STEAM		
OYSTER CREEK STA. #1.			LOCATION PLAN DWG. 329		
MARK NO. MSH-2			NO. REQ'D. 1		
DRAWN WD	CHD E	APP'D [Signature]	BERGEN-PATERSON PIPESUPPORT CORP. CAMBRIDGE, MASS.	DATE 9-9-66	JOB NO. R66-1070
				DRAWING NO. 328	

85-110-11

ITEM NO.	NO. REQ'D	DESCRIPTION	QWG OR PART NO.	REMARKS

ID	WS	REV	DATE	DESCRIPTION
10		0		
9		0		
8		0		
7		0		
6		0		
5		0		

REVISIONS SHEET FOR OYSTER CREEK STA. #1
 FIELD VERIFICATION FOR NRC USE BY TN, 7-9-14
 APPROV. REV. DWGS. UPDATED AS ENTERED
 8-10-14 REV. AS SHOWN



PLAN

REF. DWGS.
 BER-PAT INDEX: 325
 BER-PAT 150: 340
 GPC 150: JCP-19442 SHT. 1
 * INDICATES APPROVAL BY JCP&L

ALMIRALL & CO., INC. P. O. #7248
 CUSTOMER
 BURNS & ROE, INC.
 DRAWER
 OYSTER CREEK STA. #1.
 CONSUMER

PIPING SYSTEM MAIN STEAM
 REF.
 LOCATION PLAN BER DWG. 2103
 MARK NO. MSH-2
 NO. REQ'D.

BERGEN-PATERSON PIPESUPPORT CORP. CAMBRIDGE, MASS.	WOOD-RIDGE, N. J.	DATE 9-9-66	JOB NO. P66-1070	DRAWING NO. 329
---	-------------------	----------------	---------------------	--------------------

NC
 This

Creek - OC


Reviewed: *Bl. Tibb*

SUPPORT # MSH-2
 ISO DWG # JCP 19442 SHT 1
 ORTHO DWG # N/A
 SUPPORT DWG # 328 Rev 4

VALVE # N
A

MNCR 85-110-U

ITEM	Y	N	N/A	REM
1. Proper Valve Orientation			✓	
2. Skin Temperature <u>92</u> °F (C.R.)(PYR)	✓			
3. Components identified in accordance with the appropriate drawing.			✓	
4. Component location is within drawing tolerances.			✓	
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.	✓			
6. Verify that all welds are completed.				INSULATED
7. Piping and supports are free of arc strikes.	✓			
8. Snubbers and spring hangers are installed in accordance with drawing.	✓			
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5% <u>21335 LBS.</u>	✓			
10. Record the amount of snubber extension from the fully compressed position. T or C = <u>N/A</u>				✓
11. If the springs and snubbers are within: 1/4" from the topped/bottomed out position for springs, and 1/4" from the fully compressed/fully extended position for snubbers, it shall be reported.	✓			
12. Verify piping sizes.				INSULATED
13. Hanger location in building (General area) {Description: <u>49' 3 5/8" ELV DRYWELL</u> }	✓			

ITEM	Y	N	N/A	REM
14. Hanger hardware:				
A. Clips			✓	
B. Clevis			✓	
C. Cotter Pins			✓	
D. Turnbuckles			✓	
E. Nuts/Bolts (Check all attachments for double nut requirements)	✓		✓	
F. Spring Canisters			✓	
G. Locking Tabs on Nuts			✓	
H. Washers			✓	
I. Swivels			✓	
15. Hanger configuration in accordance with applicable drawings:				
A. Dimensions	✓			
B. Angles of support to system and base plate			✓	
C. All hanger attachments i.e., clips, brackets, etc. orientated correctly.			✓	
D. Strut or Snubber pin to pin distance <u>N/A</u>			✓	
16. Weld locations:				
A. Proper weld location				INSULAT
B. Proper weld spacing		✓		
C. Proper number of welds		✓		
D. Thru paint (average value <u>N/A</u>)				✓
17. Anchor Bolts:				
A. Type				✓
B. Size <u>N/A</u> number <u>N/A</u>				✓
C. Thread engagement				✓
D. Bolt c/c spacing				✓
E. C/C from anchors to closet anchor <u>N/A</u>				✓
18. Gaps @ stops:				
A. At U-bolts or Restraints				✓
B. At pipe penetrations				✓
*TOLERANCES FOR MEASUREMENT ACCURACY				
<u>Measurement</u>	<u>Tolerance</u>			
0" - 2"	± 1/16"			
2" - 12"	± 1/8"			
12" - 36"	± 1"			
36" - ∞	± 3"			
* Unless otherwise shown on the dwg.				
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">  QC INSPECTOR(S) </div> <div style="text-align: center;"> 10/24/85 DATE </div> </div>				

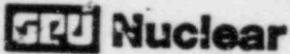
Oyster Creek - QC

SUPPORT # MSH-2
SUPPORT DWG# 328 R4

PER MNCR 85-110-11

	Y	N	N/A	REM
19. Confirm pipe clamp figure no. If not possible, fill in appropriate form attached.			✓	
20. Baseplate attachments location recorded on the anchor plate verification sheet.			✓	
21. For valves noted in the walkdown, record their location & orientation on the isometric drawing. Describe orientation by stating (1) direction observer is facing, and (2) angle of valve \perp to pipe \perp to nearest 30 degrees (such as hours on a clock with 12:00 being direction facing the observer).			✓	
22. For hangers where other systems (i.e. piping, conduit, etc.) are also supported, give size of this system and describe type of support and distance to upstream and downstream hangers supporting that system.			✓	
Other items as specified by calculation sheet request attached.				

R. E. Simon 10/23/85
QC Inspector(s)/Date



Material Nonconformance Report

MNCR Number 85-11012

RECNO _____
 REV _____
 DATE _____
 RECTYPE _____
 LOCATION _____
 FORMNO A _____
 RETENTION _____

Unit: TMI-1 TMI-2 Oyster Creek

1. Identification

Originator: K. McCauley / R. Pierce Date/Time: 10/29/85
 Material, Part, Component, etc.: MS4-1 MAINSTREAM
 Location: 4' DRY WELL
 Manufacturer (Name): N/A Code: N/A
 P.R.# N/A Line # N/A Spec # N/A
 System: MAINSTREAM System Tag No. N/A
 Dwg No. 306 Rev 4 1989E SA1 Heat Code No. N/A Other N/A
 Nonconforming to (requirements): Dimension & Configuration as shown

Description of Nonconformance: SEE DISCREPANCY DISCUSSION SHEET ATTACH.

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/weekend).

2. Evaluation & Validation

Important To Safety	POTENTIALLY REPORTABLE:				
	10CFR50	10CFR21	10CFR71	10CFR73.71	LER
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Evaluated By (Name): Kim McCall Date/Time: 10-24-85 2:00pm
 QC Mgr. Validation: David Marshall Date/Time: 10-25-85/0726

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____
 Licensing Notified: YES NO Date/Time: _____
 Hold Tags Issued: YES NO No. of Tags: _____
 Tags Installed By (Name): NA Date/Time: _____
 Material Segregation Required: YES NO
 Segregation Verified By (Name): NA Date/Time: _____

ACTION PARTY (Name): J. MALONEY Dept: PLANT MATERIAL

Forward to responsible individual/department (Action Party).

FORM 1000-ADM-7215 01-1



3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: Provide engineering determination as to adequacy of as built configuration. If adequate issue drawing to reflect as built.

Evaluation/Disposition By (Name): _____

[Signature]

Dept: Plant Material

Date: 10-24-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (include applicable work documents, limitations, re-test requirements, etc.)

see attached sheet for justification

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No: B.P. DWG # 326

Evaluated By (Name): S. Virdi

Dept: I.F. / Engineering Mechanics

Date: 10-24-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: _____

[Signature]

Date: 10/25/85

Conditional Release Issued: YES NO Reject Tags Issued: YES NO

AI/ANI Concurrence: YES NO

Signature: NA

Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____

Work/Shipping Order No.: _____ Other: _____

Verified By (Name/Title/Date): _____

Tags/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____

Date: _____

HANGER # MSH-1

MNCR# 85-110-12

DWG. # 326 Rev A

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

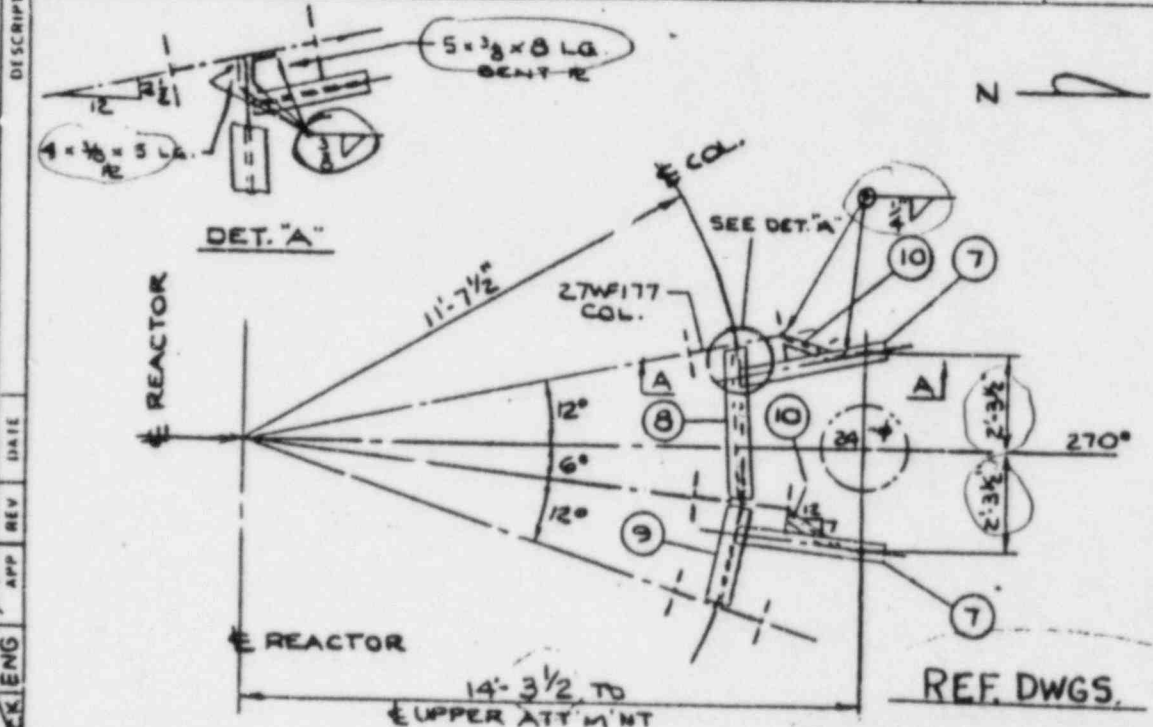
① DIMENSION NOT AS SHOWN ON ITEM "3"

ROD LENGTH 20" INSTEAD OF 10 3/8"
AS ROD DIA IS SAME AND IS
TENSION ONLY ∴ NO IMPACT
∴ ACCEPTABLE
CHANGE DWG TO AS BUILT CONFIGURATION

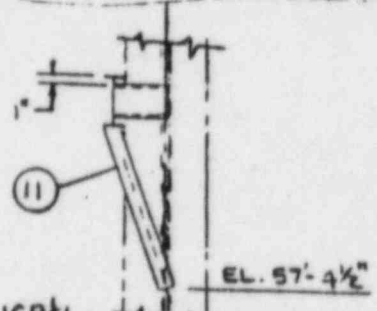
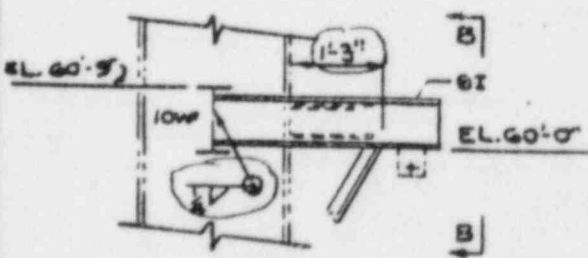
S. Yuchi

10/24/85

ITEM NO	NO REQD	DESCRIPTION	DWG OR PART NO	REMARKS
7	2	8 I 18.4 x 3.6 LG. BEVEL THE FLANGES O.E.		
8	1	10WF21, S 13.7 BEVEL THE FLANGES		SEE DET. "A"
9	1	10WF21, S 2.44 BEVEL THE FLANGES		SIM. DET. "A"
10	2	GC 8.2 x 1.5 LG. BEVEL AS SHOWN		
11	2	(3x3) TEE 6.7 x 3.0 LG.		



BER-PAT INDEX 325
 BER-PAT 150-340
 GPC 150 JCP 19442 SHT.1



SECT. A-A INDICATES APPROVAL BY JCP/L
 LOCATION PLAN

ALMIRALL & CO., INC. P. O #7248 BURNS & ROE, INC.		PIPING SYSTEM MAIN STEAM REF. BER DWG. 2103	
OYSTER CREEK STA #1		MARK NO. MSH-1 NO REQD 1	
DRAWN WD CHECK EF	BERGEN-PATERSON PIPESUPPORT CORP. CAMBRIDGE MASS WOODRIDGE N J	DATE 9-9-66	JOB NO AGG-1070 DRAWING NO 327

FIELD VERIFICATION FOR NRC HE BIRTH 79-14 CP
 ADDED REF. DWGS. UPDATED AS ENCLOSURE
 BY [Signature]

DESCRIPTION

DATE

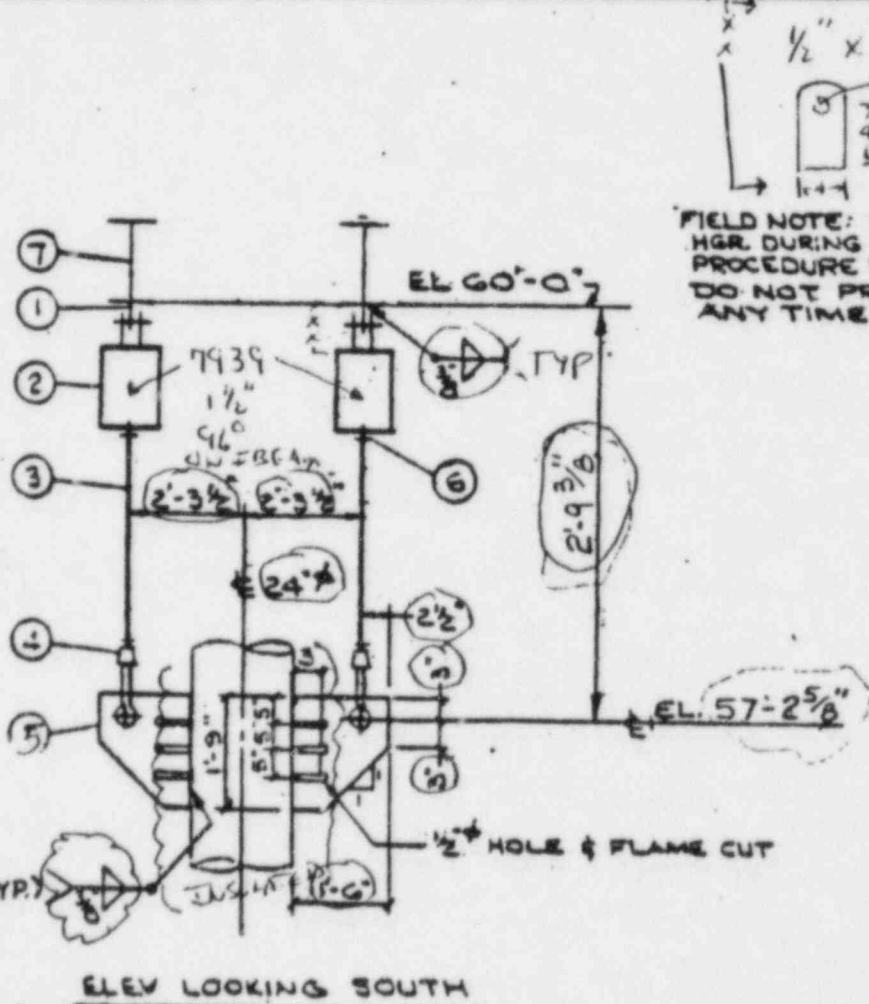
REV

DESCRIPTION

REV

ITEM NO	NO REQ'D	DESCRIPTION	BERGEN DWG OR PART NO	REMARKS
1	2	PART 12W 1" X 5" X 5" / 1 1/4" X 5 1/2" R.I.T	14	ASTM A7
2	2	BERGEN V92C-17 H.L. 7580 C.L. 8050 M.V.R. 1/16" UP		
3	2	1/2" Ø ROD x 10" L.G. 20 TOE 3" TOE 3"		ASTM A107
4	2	3/8" CLEVIS T.P.C. = 1 1/2" 8" X 2 3/4" / 1 1/4" X 3 1/2" L.D.		ASTM A235
5	2	1'-6" X 1/4" X 1'-9" R (C.S.)		ASTM A7
6	4	1 1/2" W. NUT		ASTM A307
7		SEE DWG. 32"		

FIELD VERIFICATION FOR NRC I.E. BLTN. 79-14 CD
 ADDED REF. DWGS. UPDATED AS ENCIRCLED
 BY: J.M.B. 5/1/86



1/2" X 4 1/2" RADIUS
 TYP
 +1 1/2"
 FIELD NOTE: DO NOT PRESET HGR. DURING CLEANING PROCEDURE (HYDRO TEST). DO NOT PRESET AT ANY TIME.

REF. DWGS.
 BER-PAT INDEX 325
 BER-PAT 150-340
 GPC 150 JCP-19442 SHT. 1
 * INDICATES APPROVAL BY J.C.P.L.

PIPE + INSU. LOAD = 6330 #/SPG
 HYDRO LOAD = 8815 #/SPG
 OPERATING LOAD = 7580 #/SPG

REV	DATE	DESCRIPTION
1	25.06.86	REV'D ELEV AND ADDED FIELD NOTE
2	12.23.87	PRESET NOTE ADDED
3	12.23.87	REV LOADS
4	12.23.87	REV'D ELEV. OF LUGS

ALMIRALL & CO., INC. P. O. #7248 BURNS & ROE INC. OYSTER CREEK STA. #1.	PIPING SYSTEM MAIN STEAM LOCATION PLAN DWG. 327 MARK NO. MSH-1 NO. REQ'D. 1
BERGEN PIPESUPPORT CORP. NEW YORK, N. Y.	DATE 3-9-86 JOB NO. GGR66-1070 DRAWING NO. 326

Creek - OC

Reviewed: *Bl. Tikh*

SUPPORT # MSH-1
 ISO DWG # JCP 19442 SHT
 ORTHO DWG # 327
 SUPPORT DWG # 326 Rev 4

VALVE # N/A

MNCR 85-110-12

ITEM	Y	N	N/A	REM
1. Proper Valve Orientation			✓	
2. Skin Temperature <u>96</u> °F (C.R.)(PYR)	✓			
3. Components identified in accordance with the appropriate drawing.	✓			
4. Component location is within drawing tolerances.			✓	
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.			✓	
6. Verify that all welds are completed.	✓			
7. Piping and supports are free of arc strikes. <i>INSULATED</i>			✓	
8. Snubbers and spring hangers are installed in accordance with drawing.	✓			
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5% <i>Both cans 7939 lbs 1 1/2" 96"</i>	✓			
10. Record the amount of snubber extension from the fully compressed position. T or C = _____			✓	
11. If the springs and snubbers are within: 1/4" from the topped/bottomed out position for springs, and 1/4" from the fully compressed/fully extended position for snubbers, it shall be reported.			✓	
12. Verify piping sizes. <i>24" INSULATED</i>	✓			
13. Hanger location in building (General area) {Description: <i>46' DRY WELL</i>	✓			

Creek - OC

SUPPORT # MSH-1

ITEM	Y	N	N/A	REM			
14. Hanger hardware:							
A. Clips				✓			
B. Clevis	✓						
C. Cotter Pins	✓						
D. Turnbuckles			✓				
E. Nuts/Bolts (Check all attachments for double nut requirements)	✓						
F. Spring Canisters	✓						
G. Locking Tabs on Nuts	✓			✓			
H. Washers			✓				
I. Swivels			✓				
15. Hanger configuration in accordance with applicable drawings:							
A. Dimensions	✓			PP 10-21-85			
B. Angles of support to system and base plate	✓						
C. All hanger attachments i.e., clips, brackets, etc. orientated correctly.	✓						
D. Strut or Snubber pin to pin distance _____				✓			
16. Weld locations:							
A. Proper weld location	✓						
B. Proper weld spacing	✓						
C. Proper number of welds	✓						
D. Thru paint (average value <u>3/8"</u>)	✓						
17. Anchor Bolts:							
A. Type				✓			
B. Size _____ number _____				✓			
C. Thread engagement				✓			
D. Bolt c/c spacing				✓			
E. C/C from anchors to closet anchor _____				✓			
18. Gaps @ stops:							
A. At U-bolts or Restraints				✓			
B. At pipe penetrations				✓			
<u>*TOLERANCES FOR MEASUREMENT ACCURACY</u>							
<u>Measurement</u>		<u>Tolerance</u>					
0" - 2"		± 1/16"					
W 2" - 12"		± 1/8"					
W 12" - 36"		± 1"					
W 36" - ∞		± 3"					
* Unless otherwise shown on the dwg.							
<i>Robert B. Lewis</i> 10-21-85 QC INSPECTOR(S) DATE							

Oyster Creek - QC

SUPPORT # MS4-1

PER MNCR 95-110-12

SUPPORT DWG# 326 R-4

	Y	N	N/A	REM
19. Confirm pipe clamp figure no. If not possible, fill in appropriate form attached.			✓	
20. Baseplate attachments location recorded on the anchor plate verification sheet.	✗		✓	REP 10-24-95
21. For valves noted in the walkdown, record their location & orientation on the isometric drawing. Describe orientation by stating (1) direction observer is facing, and (2) angle of valve \angle to pipe \angle to nearest 30 degrees (such as hours on a clock with 12:00 being direction facing the observer).			✓	
22. For hangers where other systems (i.e. piping, conduit, etc.) are also supported, give size of this system and describe type of support and distance to upstream and downstream hangers supporting that system.			✓	
Other items as specified by calculation sheet request attached.			✓	

John B. Lewis
 QC Inspector(s)/Date

Oyster Creek - QC

SUPPORT# M54-1

REF. MNCR 85-110-12

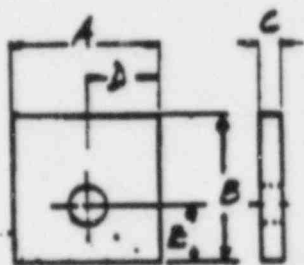
SUPPORT DWG# 326 R4

SYSTEM _____

PROVIDE DIMENSIONS FOR ITEMS CHECKED OFF BELOW:

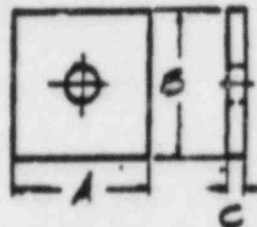
ALL DIMENSIONS $\pm 1/32$ " TOLERANCE

WELDING LUG



A = D =
 B = E =
 C =

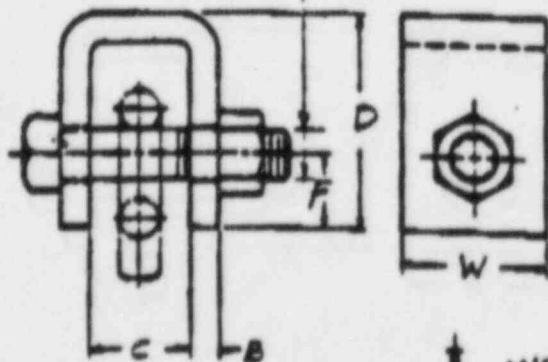
WASHER PLATE



A =
 B =
 C =

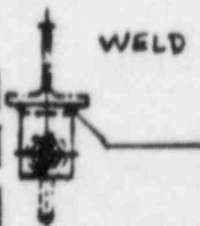
WELDED BEAM ATTACHMENT

BOLT DIA., A

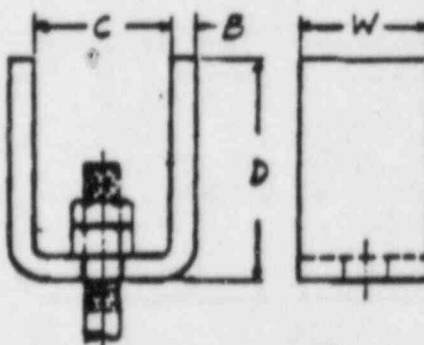


A = D =
 E = F =
 C = W =

WELD

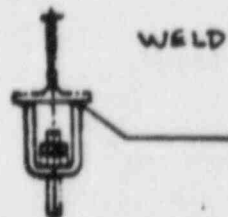


ADJUSTABLE WELDED BEAM ATTACHMENT



B =
 C =
 D =
 W =

WELD



MNCR Number 85-110-13

Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORMNO A _____
RETENTION _____

1. Identification

Originator: Kevin McAuley / RE. Timm
Material, Part, Component, etc.: MS-RR 4

Date/Time: 10/23/85

Location: 49' 3 5/8" Elev. Drywell

Manufacturer (Name): N/A

P.R.# N/A

Line # N/A

Code: N/A

Spec # N/A

System: Main Steam

System Tag No. N/A

Dwg No. 719 Rev 1

Heat Code No. N/A

Other N/A

Nonconforming to (requirements): Dimensional / Configuration as shown.

Description of Nonconformance: See Discrepancies / Disposition Sheet Attached

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

Important To Safety	POTENTIALLY REPORTABLE:				
	10CFR50	10CFR21	10CFR71	10CFR73.71	LER
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Evaluated By (Name): K. McAuley Date/Time: 10-24-85 2:15p
QC Mgr. Validation: James McCall Date/Time: 10-25-85 / 1512

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____
Licensing Notified: YES NO Date/Time: _____
Hold Tags issued: YES NO No. of Tags: _____
Tags Installed By (Name): NA Date/Time: _____
Material Segregation Required: YES NO
Segregation Verified By (Name): _____ Date/Time: _____

ACTION PARTY (Name): J. Maloney Dept: Plant Materials

Forward to responsible individual/department (Action Party).



3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: Provide engineering determination as to adequacy of as-built configuration. If adequate, revise drawing to reflect as built

Evaluation/Disposition By (Name): [Signature]

Dept: Plant Material
Date: 10-25-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (Include applicable work documents, limitations, re-test requirements, etc.)

SEE ATTACHED SHEET FOR JUSTIFICATION

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No.: B.P. DWG. # 719

Evaluated By (Name): S. V. P. DI

Dept: T.E./Engineering Mechanics
Date: 10-25-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: [Signature] Date: 10-26-85

Conditional Release Issued: YES NO
Reject Tags Issued: YES NO

AI/ANI Concurrence: YES NO
Signature: NA Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.
Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____

Work/Shipping Order No.: _____ Other: _____

Verified By (Name/Title/Date): _____

Tags/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____ Date: _____

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

① Item #5 not installed. Items 6 welded directly to item 7 per attached drawings.

SINCE ITEM 6 WELDED DIRECTLY TO ITEM 7 THEREFORE, ITEM 5 NOT INSTALLED WILL NOT AFFECT HANGER PERFORMANCE. ∴ STRUCTURALLY ACCEPTED. WELDS ARE STRONGER. CHANGE DWS. i. D.K.

② Welding sizes per attached drawing.

③ Arc strikes on hanger per attached drawing.

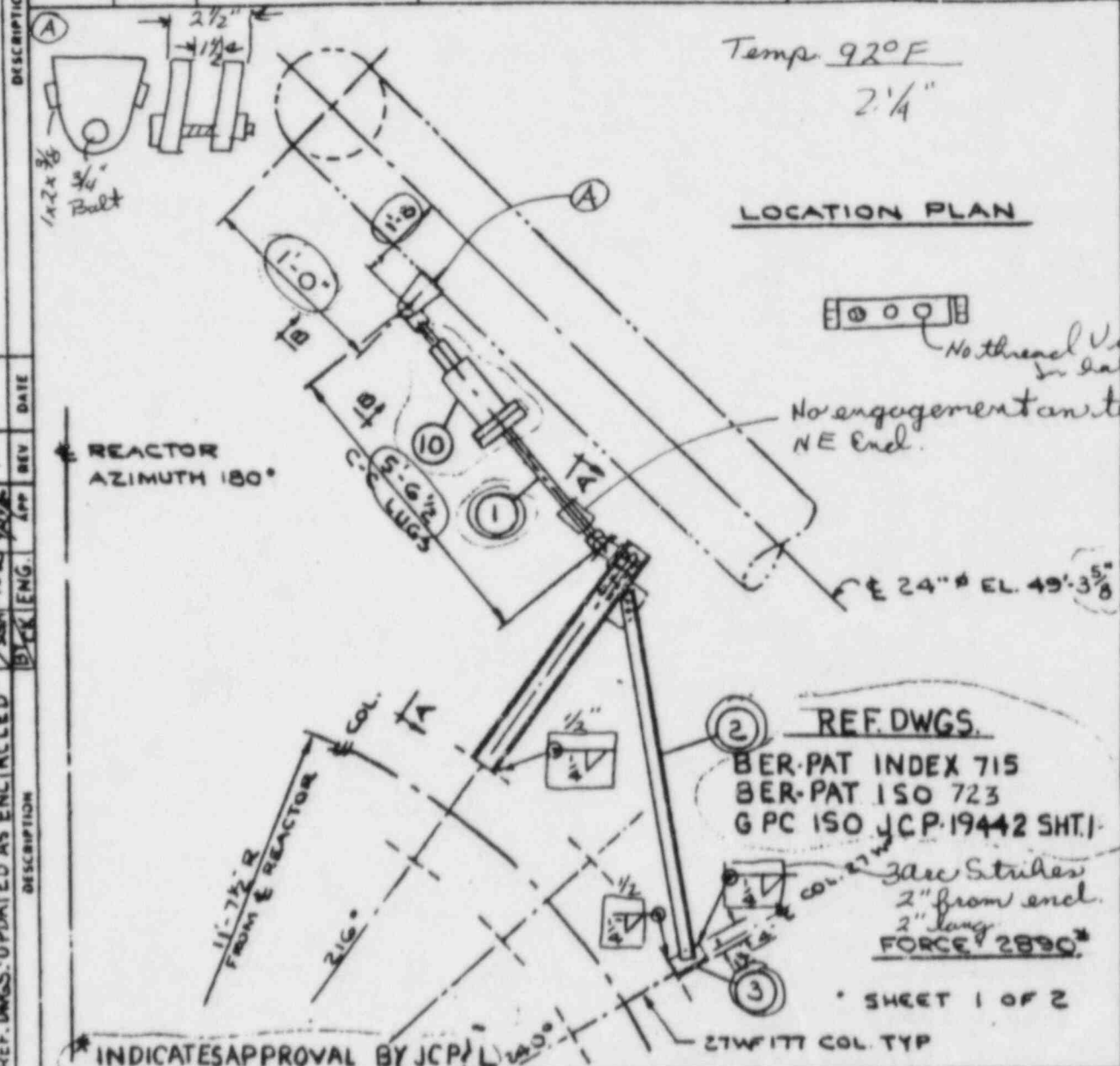
STRUCTURALLY ACCEPTABLE

ON TURNBUCKLE NO THREAD ~~FROM~~ ^{ASIDES} FROM HOLE BUT IS ENGAGED ∴ ACCEPTABLE

S. V. V. V. V.

10/25/05

APP	ITEM NO.	NO. REQD.	DESCRIPTION	DWG. OR PART NO.	REMARKS
	1	1	166A-10 G-STROKE B=2'-2 1/2" C=4 1/4"	252	(SEE ITEM 10 SHT 2)
	2	2	3 x 2 x 1/4 x 7'-0 LG.		
	3	1	4 x 3 x 3/8 L x 7" LG		

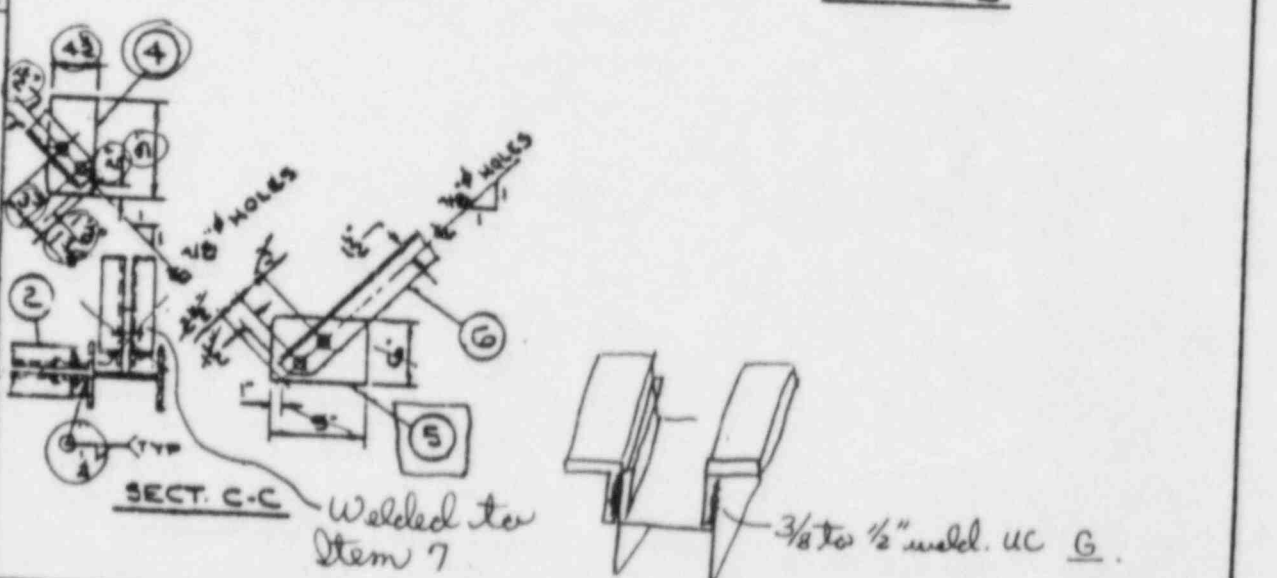
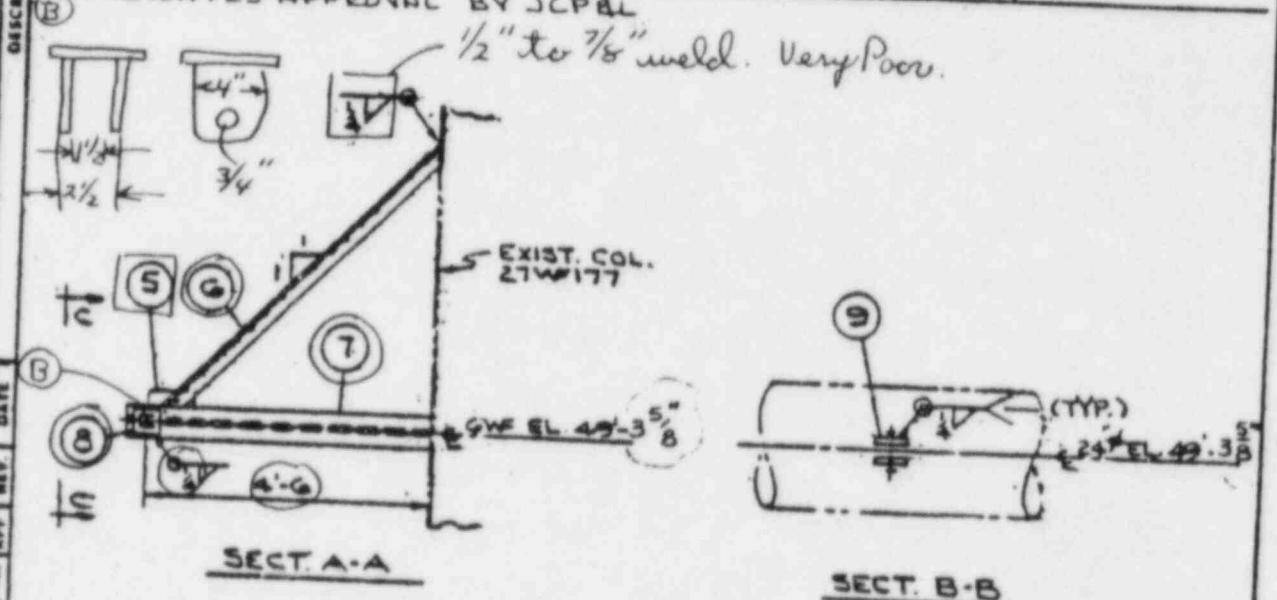


ALMIRALL & CO., INC. P. O. #7248			PIPING SYSTEM MAIN STEAM			
BURNS & ROE, INC.			REF. DWG B & R DWG 2103-4			
OYSTER CREEK STA. #1.			LOCATION PLAN			
CONSUMER			MARK NO. MS-R4 NO. REQD. 1			
DATE	DRAWN	CHKD	APPVD	DATE	JOB NO	DRAWING NO
	WD	W		2-17-67	P66-1070	719
BERGEN-PATERSON PIPESUPPORT CORP. CAMBRIDGE, MASS				WOOD-RIDGE, N. J.		

FIELD VERIFICATION FOR NRC I/E BLTN 79-14 CO
 ADDED REF. DWGS. UPDATED AS ENCIRCLED
 BY CR LENG. APP. DATE
 REV. APP. DATE
 1

NO.	ITEM NO.	NO. REQ'D.	DESCRIPTION	DATE OR PART NO.	REMARKS
4	1	1	4 1/2 x 3/8 x 9" R W/ (2) 3/4" x 2" LG B & N		
5	1	1	6" x 3/4 x 9" R W/ (2) 3/4" x 2" LG B & N		
6	2	2	3" x 2" x 1/4" L x 6" x 2" LG. SEE SECT C-C		Not Installed
7	1	1	GW 15.5 x 4'-10" LG		
8	1	1	PART EA1-A		
9	1	1	PART EA2-A MAKE "A" DIM. = 8" B. 9"	G4101	
10	1	1	PACIFIC SCIENTIFIC SNUBBER DWG. 1801107 (ADAPTED TO EXISTING PARTS)	G4108	

DESCRIPTION: (B) INDICATES APPROVAL BY JCPAL
Welding: 1/2" to 3/8" weld. Very Poor.
Internal Contamination W/repairs.



FIELD VERIFICATION FOR NRC I&E
BLTN 78-14

ALMIRALL G CO., INC P. O. #7248		PIPING SYSTEM MAIN STEAM	
BURNS & ROE, INC.		REF DWG. LOCATION PLAN B&R DWG 2103-4	
OYSTER CREEK STA. #1.		MARK NO. M5-R4	
NO. REQ'D.	DATE	JOB NO.	DRAWING NO.
	2/7/67	166407D	719

BERGEN-PATERSON PIPESUPPORT CORP
CAMBRIDGE, MASS. WOOD-RIDGE, N. J.

Creek - OC

Reviewed: *Bl. Likh*

SUPPORT # MS-R4
 ISO DWG # JCP-19442 SHT 1
 ORTHO DWG # 2103-4
 SUPPORT DWG # 719 Rev 1

VALVE # N/A

MNCR 85-110-13

ITEM	Y	N	N/A	REM
1. Proper Valve Orientation			✓	
2. Skin Temperature <u>92</u> °F (C.R.)(PYR)	✓			
3. Components identified in accordance with the appropriate drawing.			✓	
4. Component location is within drawing tolerances.	✓			
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.	✓			
6. Verify that all welds are completed.				INSULATED
7. Piping and supports are free of arc strikes.		✓		
8. Snubbers and spring hangers are installed in accordance with drawing.				
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5% <u>N/A</u>			✓	
10. Record the amount of snubber extension from the fully compressed position. T or C = <u>2 1/4"</u>	✓			
11. If the springs and snubbers are within: 1/2" from the topped/bottomed out position for springs, and 1/2" from the fully compressed/fully extended position for snubbers, it shall be reported.	✓			
12. Verify piping sizes.				INSULATED
13. Hanger location in building (General area) {Description: <u>49' 3 5/8" ELV. DRYWELL</u> }		✓		

ITEM	Y	N	N/A	REM
14. Hanger hardware:				
A. Clips				✓
B. Clevis				✓
C. Cotter Pins				✓
D. Turnbuckles				✓
E. Nuts/Bolts (Check all attachments for double nut requirements)				✓
F. Spring Canisters				✓
G. Locking Tabs on Nuts				✓
H. Washers				✓
I. Swivels				✓
15. Hanger configuration in accordance with applicable drawings:				
A. Dimensions				✓
B. Angles of support to system and base plate				✓
C. All hanger attachments i.e., clips, brackets, etc. orientated correctly.				✓
D. Strut or Snubber pin to pin distance <u>5'6 1/2"</u>				✓
16. Weld locations:				
A. Proper weld location				INSULATED
B. Proper weld spacing				✓
C. Proper number of welds				INSULATED
D. Thru paint (average value <u>N/A</u>)				✓
17. Anchor Bolts:				
A. Type				✓
B. Size <u>N/A</u> number <u>N/A</u>				✓
C. Thread engagement				✓
D. Bolt c/c spacing				✓
E. C/C from anchors to closet anchor <u>N/A</u>				✓
18. Gaps @ stops:				
A. At U-bolts or Restraints				✓
B. At pipe penetrations				✓
*TOLERANCES FOR MEASUREMENT ACCURACY				
<u>Measurement</u>		<u>Tolerance</u>		
0" - 2"		± 1/16"		
N 2" - 12"		± 1/8"		
N 12" - 36"		± 1"		
N 36" - ∞		± 3"		
* Unless otherwise shown on the dwg.				
<div style="display: flex; justify-content: space-between;"> <u>R. E. Timm</u> <u>10/23/65</u> </div> <div style="display: flex; justify-content: space-between;"> QC INSPECTOR(S) DATE </div>				

	Y	N	N/A	REM
19. Confirm pipe clamp figure no. If not possible, fill in appropriate form attached.			✓	
20. Baseplate attachments location recorded on the anchor plate verification sheet.			✓	
21. For valves noted in the walkdown, record their location & orientation on the isometric drawing. Describe orientation by stating (1) direction observer is facing, and (2) angle of valve ϕ to pipe ϕ to nearest 30 degrees (such as hours on a clock with 12:00 being direction facing the observer).			✓	
22. For hangers where other systems (i.e. piping, conduit, etc.) are also supported, give size of this system and describe type of support and distance to upstream and downstream hangers supporting that system.			✓	
Other items as specified by calculation sheet request attached.				

RET 10/23/85
QC Inspector(s)/Date

Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORMNO A _____
RETENTION _____

1. Identification

Originator: K McCauley / JAMES A DESKINWICZ
Material, Part, Component, etc.: MS-R3 MAINSTREAM

Date/Time: 10/24/85/12:55

Location: 46 DRY WELL

Manufacturer (Name): N/A

Code: N/A

P.R.#: N/A

Line #: N/A

Spec #: N/A

System: MAINSTREAM

System Tag No: N/A

Dwg No. ZIR Rev 2 19442 SHT 1

Heat Code No. N/A

Other: N/A

Nonconforming to (requirements): DEMENSION + CONFIGURATION AS SHOWN

Description of Nonconformance: SEE DISCREPANCIES DISPOSITION SHEET ATTACHED

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

Important To Safety	POTENTIALLY REPORTABLE:				
	10CFR50	10CFR21	10CFR71	10CFR73.71	L.E.R.
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Evaluated By (Name): Ken McCauley Date/Time: 10-24-85 2:15 PM

QC Mgr. Validation: James Maloney Date/Time: 10-25-85/0728

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____

Licensing Notified: YES NO Date/Time: _____

Hold Tags Issued: YES NO No. of Tags: _____

Tags Installed By (Name): NT Date/Time: _____

Material Segregation Required: YES NO

Segregation Verified By (Name): NT Date/Time: _____

ACTION PARTY (Name): J MALONEY Dept: PLANT MATERIAL

Forward to responsible individual/department (Action Party).

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: Grande engineering determination as to adequacy of as built configuration. IL
Adequate revise drawing to reflect as built.

Evaluation/Disposition By (Name): [Signature]

Dept: Plant Material
Date: 10-24-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (Include applicable work documents, limitations, re-test requirements, etc.)

SEE ATTACHED SHEET FOR JUSTIFICATION

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No.: B.P. DWG # 718

Evaluated By (Name): S. VIRDI

Dept: I.P. - Engineering Mechanics
Date: 10-24-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: [Signature]

Date: 10/25/85

Conditional Release Issued: YES NO
Reject Tags Issued: YES NO

AI/ANI Concurrence: YES NO

Signature: MA

Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____

Work/Shipping Order No.: _____ Other: _____

Verified By (Name/Title/Date): _____

Tags/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____

Date: _____

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

1) CONFIGURATION NOTAS SHOWN BRACKET ^{3RD} 10-24-85
(STRUT INSTEAD OF SNUBBER)

STRUT IS PART OF SNUBBER ASSEMBLY
∴ ACCEPTABLE.

2) ITEM #2 BOLT LENGTH DISCREPANCY

CHANGE IN BOLT LENGTH DOES NOT
IMPAIR STRUCTURAL STRENGTH.

CHANGE DWG.

3) ITEM #7 PLATE MISSING. WELDED TO ~~STRUCTURE~~ 1/2" DIA DR
SHIELD WALL

ACCEPTABLE.

CHANGE DRAWING

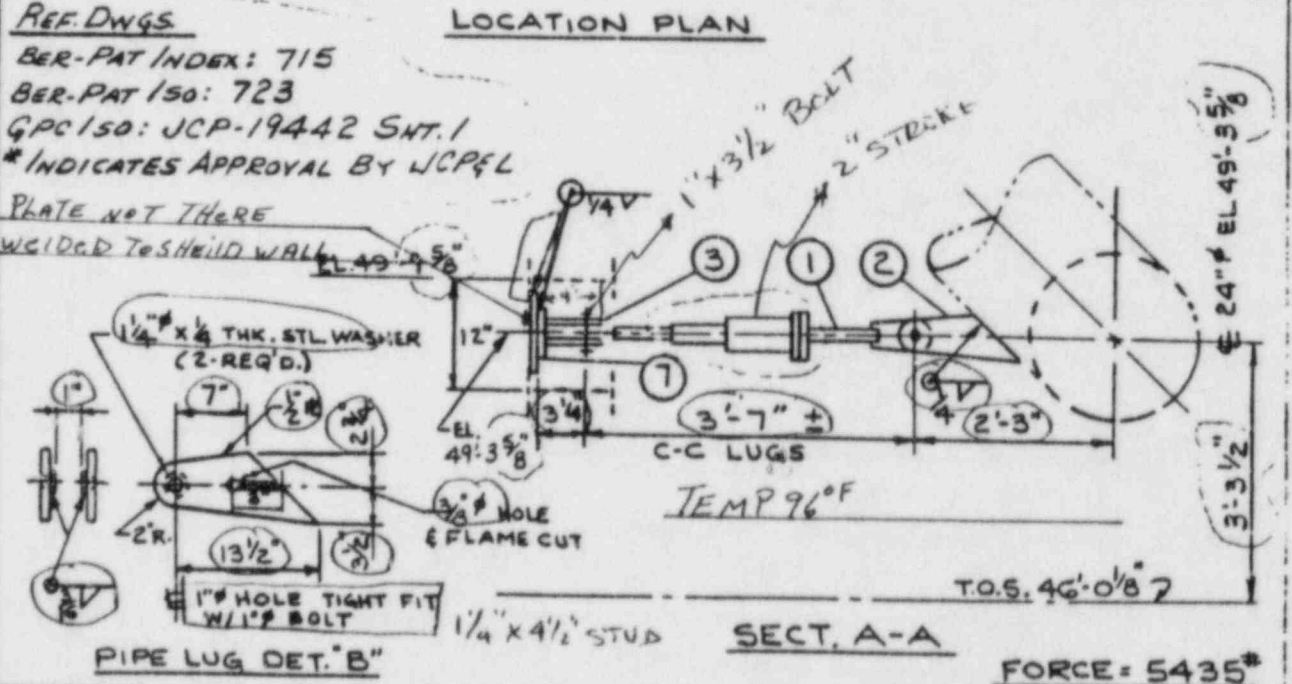
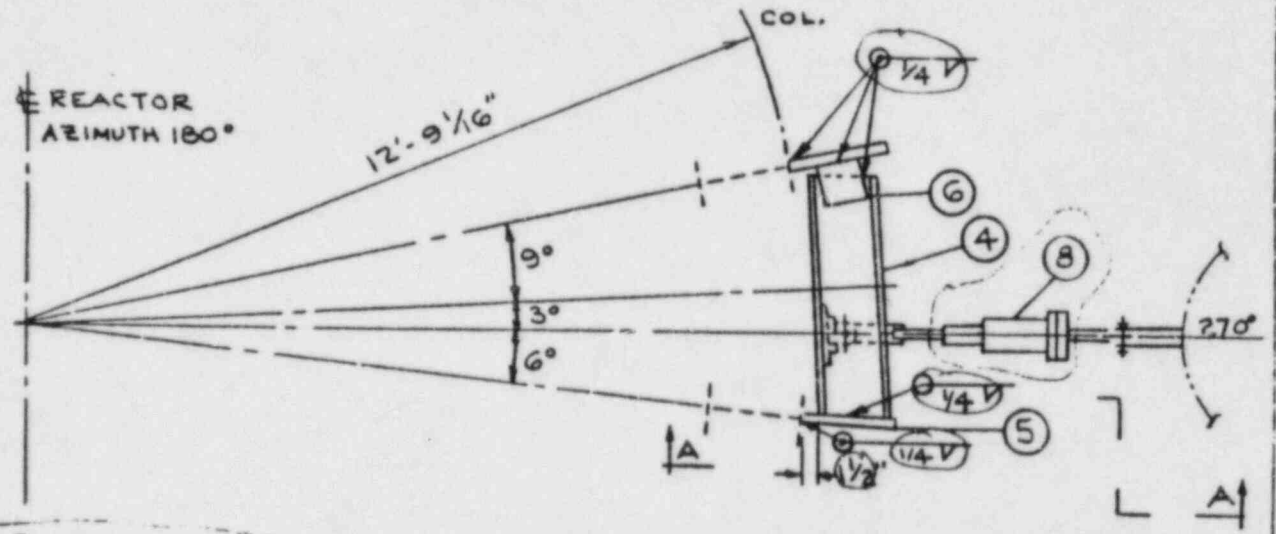
4) ITEM #8 SNUBBER REVERSED

NO IMPACT ON FUNCTIONING OF THE
SNUBBER ∴ ACCEPTABLE

CHANGE DWG

S. T. V. C. L.

1	1	MS-A-10 B = 4" T = 3 1/4" G" STROKE LTB	252	SEE ITEM B
2	2	6/4" x 1/2" x 15 1/2" LG. R W/1" x 3 3/4" LG HEX HD. CAP SCR & NUT		SEE LUG DET. "B"
3	1	PART EA1-A MA. E "C" DIM. = 9 3/4" 5X5 TWP	64101	1" x 9 1/2" STUD
4	2	GW 15.5 X 3'-10" LG.		
5	4	R 9" x 3/8 x 9"		
6	4	R 4" x 3/8 x 4"		
7	11	R 11" x 3/4 x 7"		
8	1	PACIFIC SCIENTIFIC SNUBBER DWG. 1801107 (ADAPTED TO EXISTING PARTS) SNUBBER INSTALLED BACKWARD		



ALMIRALL & CO., INC. P. O. #7248
 BURNS & ROE, INC.
 OYSTER CREEK STA. #1

PIPING SYSTEM MAIN STEAM
 REF DWG B & R DWG. 2103-4
 LOCATION PLAN
 MARK NO. MS-R3 NO REQ'D 1

2	1	WD	EL	BERGEN-PATERSON PIPESUPPORT CORP CAMBRIDGE MASS WOOD-RIDGE	DATE 2-17-67	JOB NO. P46-1070	DRAWING NO. 718
---	---	----	----	---	--------------	------------------	-----------------

FIELD VERIFICATION FOR APRIL 1967 IN 79-14
 ADDED REF. DWGS. UPDATED AS ENCLOSED
 REV'D ST. L. CONN
 APP. REV. DATE
 9
 8
 7
 6
 5
 4
 3
 2
 1

J/M

GPU Nuclear

PIPING AND SUPPORT VERIFICATION

Creek - OC

Reviewed: *Bl. Tilt*

SUPPORT # MS-R3
 ISO DWG # JCP-19442 SAT.1
 ORTHO DWG # B+R 2103-7
 SUPPORT DWG # 718

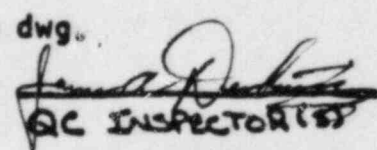
VALVE # N/A

MPCR 85-110-14

ITEM	Y	N	N/A	REM
1. Proper Valve Orientation			✓	
2. Skin Temperature <u>96</u> °F (C.R.) (PYR)	✓			
3. Components identified in accordance with the appropriate drawing.	✓			
4. Component location is within drawing tolerances.			✓	
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.			✓	
6. Verify that all welds are completed.	✓			
7. Piping and supports are free of arc strikes. <i>INSULATED</i>			✓	
8. Snubbers and spring hangers are installed in accordance with drawing. <i>INSTALLED BACKWARDS</i>			✓	
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5% <u>N/A</u>			✓	
10. Record the amount of snubber extension from the fully compressed position. (T) or C = <u>2"</u>	✓			
11. If the springs and snubbers are within: 1/4" from the topped/bottomed out position for springs, and 1/4" from the fully compressed/fully extended position for snubbers, it shall be reported.			✓	
12. Verify piping sizes. <i>INSULATED 24"</i>	✓			
13. Hanger location in building (General area) { Description: <i>46' ELV DRY well</i>				}

Creek - OC

SUPPORT # MS-R3

ITEM	Y	N	N/A	REM
14. Hanger hardware:				
A. Clips			✓	
B. Clevis			✓	
C. Cotter Pins	✓		✓	
D. Turnbuckles	✓			
E. Nuts/Bolts (Check all attachments for double nut requirements)			✓	
F. Spring Canisters			✓	
G. Locking Tabs on Nuts	✓			
H. Washers			✓	
I. Swivels			✓	
15. Hanger configuration in accordance with applicable drawings:				
A. Dimensions			✓	
B. Angles of support to system and base plate	✓			
C. All hanger attachments i.e., clips, brackets, etc. orientated correctly.	✓			
D. Strut or Snubber pin to pin distance <u>3'7"</u>	✓			
16. Weld locations:				
A. Proper weld location	✓			
B. Proper weld spacing	✓			
C. Proper number of welds			✓	
D. Thru paint (average value <u>1/4"</u>)	✓			
17. Anchor Bolts:				
A. Type				✓
B. Size <u>N/A</u> number <u>N/A</u>				✓
C. Thread engagement				✓
D. Bolt c/c spacing				✓
E. C/C from anchors to closet anchor <u>N/A</u>				✓
18. Gaps @ stops:				
A. At U-bolts or Restraints				✓
B. At pipe penetrations				✓
*TOLERANCES FOR MEASUREMENT ACCURACY				
<u>Measurement</u>	<u>Tolerance</u>			
0" - 2"	± 1/16"			
N 2" - 12"	± 1/8"			
N 12" - 36"	± 1"			
N 36" - ∞	± 3"			
* Unless otherwise shown on the dwg.				
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">  QC INSPECTOR </div> <div style="text-align: center;"> <u>10/24/85</u> DATE </div> </div>				

Oyster Creek - QC

SUPPORT # MS-R3

PER MNCR 95-110-14

SUPPORT DWG# 718 R4

	Y	N	N/A	REM
19. Confirm pipe clamp figure no. If not possible, fill in appropriate form attached.			✓	
20. Baseplate attachments location recorded on the anchor plate verification sheet.	✓			
21. For valves noted in the walkdown, record their location & orientation on the isometric drawing. Describe orientation by stating (1) direction observer is facing, and (2) angle of valve ϕ to pipe ϕ to nearest 30 degrees (such as hours on a clock with 12:00 being direction facing the observer).			✓	
22. For hangers where other systems (i.e. piping, conduit, etc.) are also supported, give size of this system and describe type of support and distance to upstream and downstream hangers supporting that system.			✓	
Other items as specified by calculation sheet request attached.				

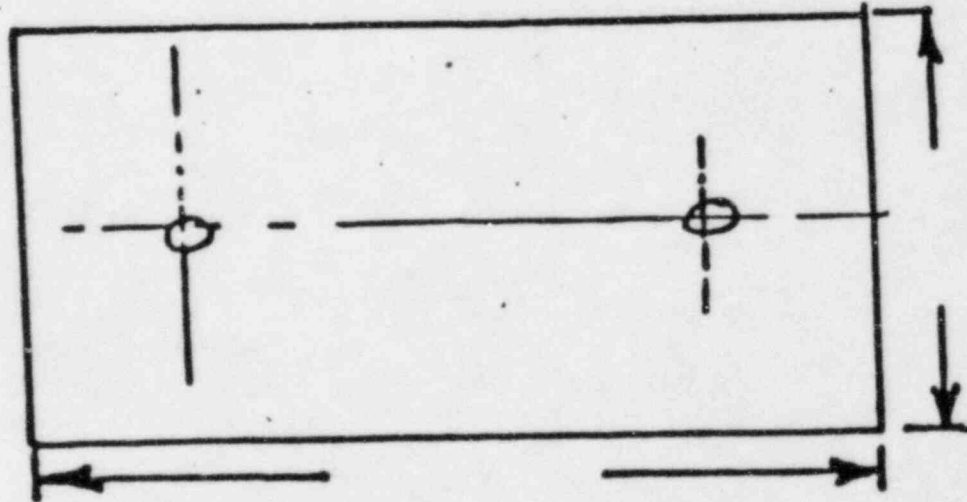
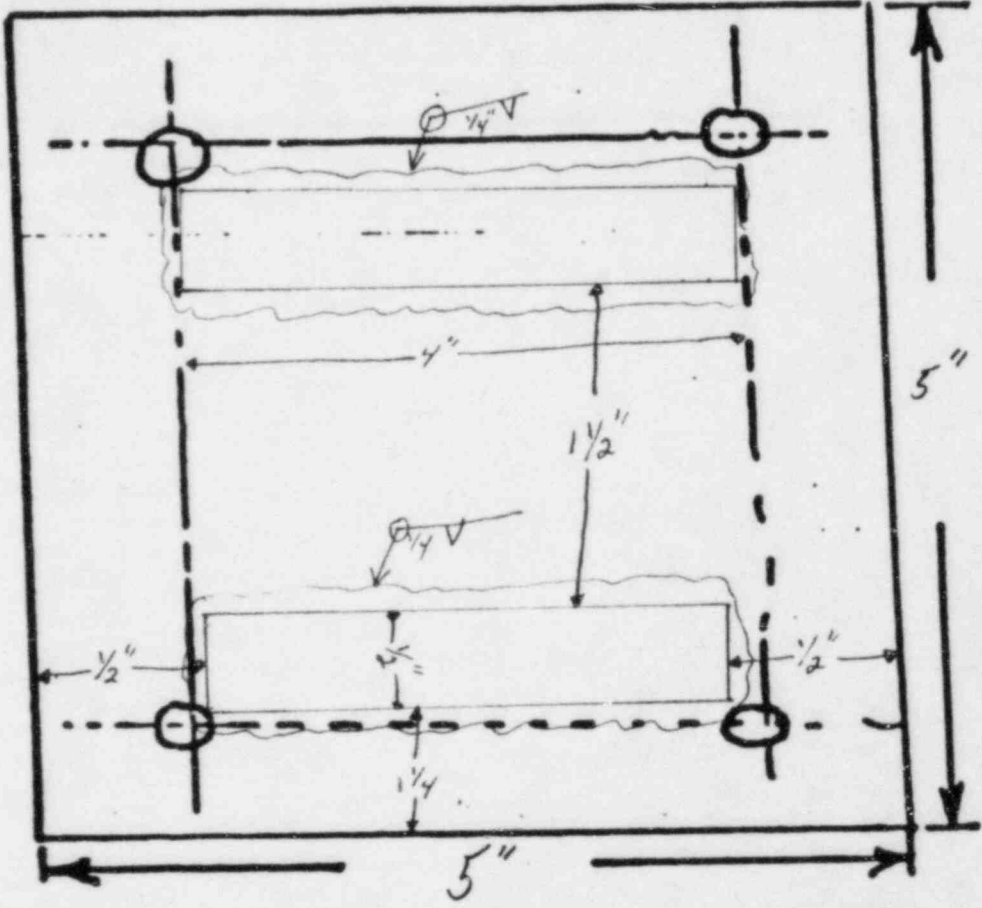
[Signature] 10/24/85
 QC Inspector(s)/Date

1st Creek - DC

SUPPORT # MS-R3

ANCHORS: NO. N/A SIZE N/A

WASHERS YES N/A NO N/A



Record anchor bolt projection above plate and note if

skewness is greater than 6°. N/A

COMMENTS

Blank lines for additional comments.

MNCR Number 85-110-15

Unit: TM-1 TMI-2 Oyster Creek

RECNO _____
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORMNO A _____
RETENTION _____

1. Identification

Originator: K. McCauley / Terence A. Langan
Material, Part, Component, etc.: IMS-R3A

Date/Time: 10/24/85/16:00

Location: Dry well 46' elev.
Manufacturer (Name): N/A Code: N/A
P.R.#: N/A Line #: N/A Spec #: N/A
System: Main Steam System Tag No: N/A
Dwg No. 718A Rev. 2 Heat Code No: N/A Other: N/A

Nonconforming to (requirements): Dimensional / configuration as shown

Description of Nonconformance: See Discrepancy / Disposition Sheet attached.

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

Important To Safety	POTENTIALLY REPORTABLE:				
	10CFR50	10CFR21	10CFR71	10CFR73.71	LER.
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Evaluated By (Name): K. McCauley Date/Time: 10-24-85 5:00pm
QC Mgr. Validation: David [Signature] Date/Time: 10-25-85/1127

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____
Licensing Notified: YES NO Date/Time: _____
Hold Tags Issued: YES NO No. of Tags: _____
Tags Installed By (Name): NA Date/Time: _____
Material Segregation Required: YES NO
Segregation Verified By (Name): NA Date/Time: _____

ACTION PARTY (Name): J. Maloney Dept: Plant Material

Forward to responsible individual/department (Action Party).

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: Engineering evaluate as to adequacy of as built configuration. If adequate revise drawing to reflect as built.

Evaluation/Disposition By (Name): _____

[Signature]

Dept: Plant material
Date: 11-1-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (Include applicable work documents, limitations, re-test requirements, etc.) _____

See attached sheet for justification

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No.: B.P. DWG # 718A

Evaluated By (Name): S. VIRDI

Dept: T-F/Engineering Mechanics
Date: 11-1-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: _____

[Signature]

Date: 11-2-85

Conditional Release Issued:

YES
 NO

Reject Tags Issued: YES
 NO

AI/ANI Concurrence: YES
 NO

Signature: _____

[Signature]

Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____

Test Report No.: _____

Work/Shipping Order No.: _____

Other: _____

Verified by (Name/Title/Date): _____

Tags/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____

Date: _____

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

① Configuration not as shown on Drawing
(Strut instead of snubber)

STRUT IS PART OF SNUBBER ASSEMBLY.
∴ O.K.

② Configuration/Dimensions not as shown on Drawing. Item #3 smaller clevis installed

$\frac{3}{4}$ " ϕ LOAD BOLT. $F_A = 8800" > 5435."$
∴ NEW CONFIGURATION/DIMENSION O.K.

③ ITEM # 4 IS NOT AS SHOWN.
INSTALLED IS TWO 6" I BEAMS
WITH CLEVIS MOUNTING PLATE, AND
TWO 9" SQUARE PLATES TO BIO SHIELD
WALL.
DID TO PROVIDE DETAIL

CHANGE DWG TO REFLECT AS-BUILT
CONFIGURATION.

S. Yurli

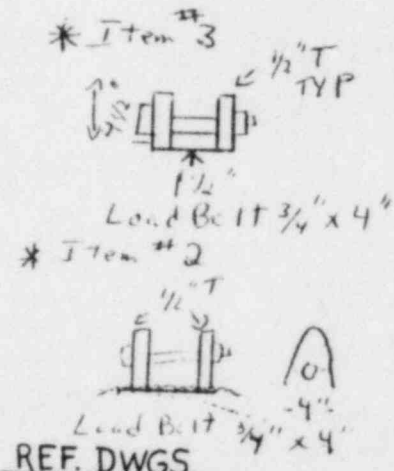
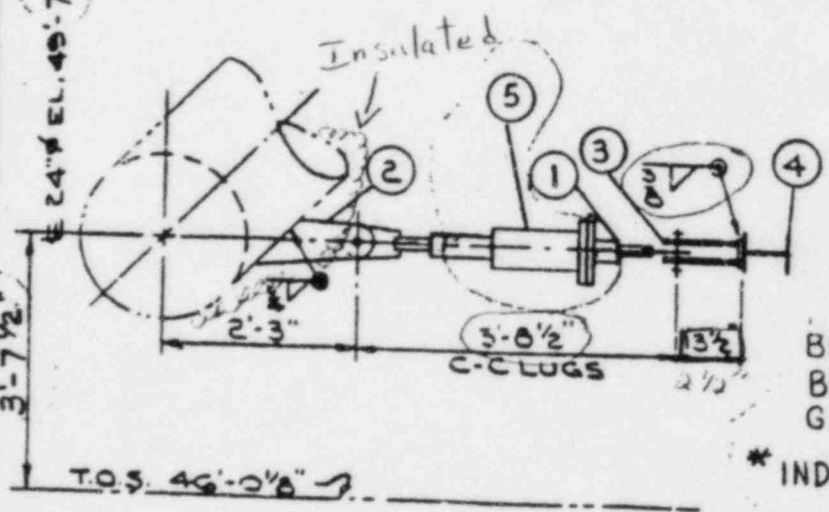
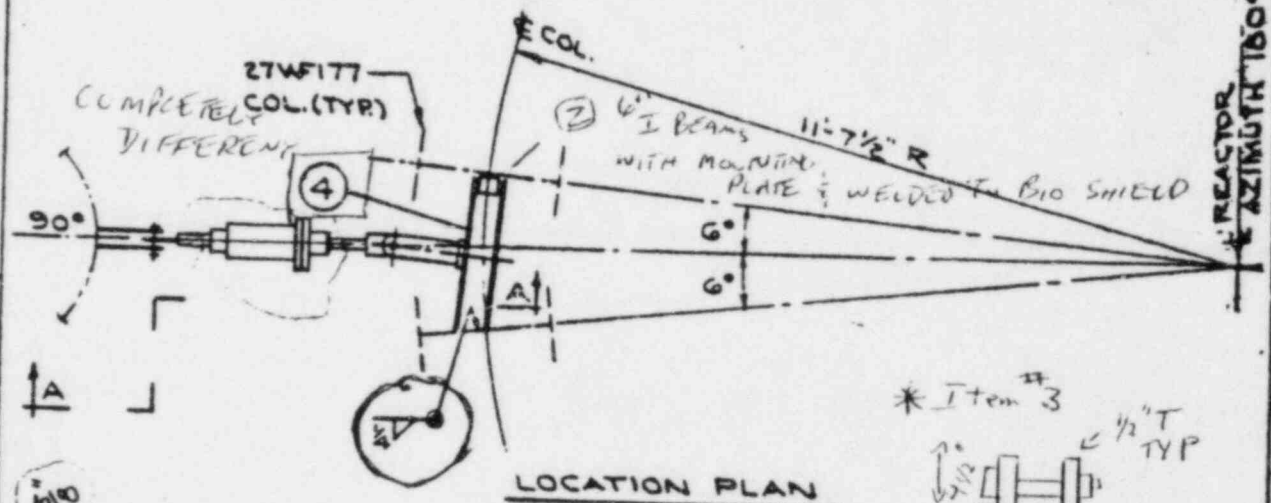
11/1/85

* See Below

MNCR # 85-110-15

APP	ITEM NO	NO. REQ'D	DESCRIPTION	BERGEN DWG OR PART NO	REMARKS
*	1	1	H66A-10 B=5 1/2" T: 3 1/4" G' STROKE	252	(SEE ITEM 5)
*	2	2	SEE DET. 'B' DWG. 718		
	3	1	PART EA1-A MAKE 'C' DIM. 3/12 3/4"	G4101	
	4	1	GW 15.5 x 2'-5" LG. MITER ONE END		SEE DWG. 1001
	5	1	PACIFIC SCIENTIFIC SNUBBER DWG 1801107 (ADAPTED TO EXISTING PARTS)		

92° for pipe support



REF. DWGS.
 BER-PAT INDEX 715
 BER-PAT 150 723
 GPC 150 JCP 19442 SHT.2

* INDICATES APPROVAL BY JCP/L

FORCE-5435#

FIELD VERIFICATION FOR NRC ICRB IN 79-14
 ADDED REF. DWGS. UPDATED AS ENCIRCLED

ALMIRALL & CO., INC. P. O. #7248
 CUSTOMER: BURNS & ROE, INC.
 ENGINEER: OYSTER CREEK STA. #1.
 CONSUMER:

PIPING SYSTEM: MAIN STEAM
 REF. DWG: BER DWG. 2103-4
 LOCATION PLAN
 MARK NO: MS-R3A NO. REQ'D:

REV.	DATE	DESCRIPTION
2		

BERGEN PIPESUPPORT CORP.
 NEW YORK, N. Y.

DATE	JOB NO	DRAWING NO
2-17-67	866-1070	718A

Creek - OC

Reviewed: *Bl. Libb*

MNCR # 85-110-15

SUPPORT # MS-R3A
 ISO DWG # JCP 19442 SHT.2
 ORTHO DWG # B+R 2103-4
 SUPPORT DWG # 718A Rev.2

VALVE # N/A

ITEM	Y	N	N/A	REM
1. Proper Valve Orientation			✓	
2. Skin Temperature <u>92</u> °F (C.R.)(PYR) <i>surface Thermometer</i>	✓			
3. Components identified in accordance with the appropriate drawing.		✓		
4. Component location is within drawing tolerances.		✓		
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.			✓	
6. Verify that all welds are completed. <i>Insulated</i>			✓	
7. Piping and supports are free of arc strikes. <i>Insulated</i>			✓	
8. Snubbers and spring hangers are installed in accordance with drawing.	✓			
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5%			✓	
10. Record the amount of snubber extension from the fully compressed position. T or C = <u>3"</u>	✓			
11. If the springs and snubbers are within: $\frac{1}{4}$ " from the topped/bottomed out position for springs, and $\frac{1}{4}$ " from the fully compressed/fully extended position for snubbers, it shall be reported.			✓	
12. Verify piping sizes. <i>Insulated</i>			✓	
13. Hanger location in building (General area) (Description: <i>Drywell 46' elev.</i>)		✓		

ITEM	Y	N	N/A	REM
14. Hanger hardware:				
A. Clips	✓			✓
B. Clevis				
C. Cotter Pins				✓
D. Turnbuckles				✓
E. Nuts/Bolts (Check all attachments for double nut requirements)	✓			
F. Spring Canisters				✓
G. Locking Tabs on Nuts				✓
H. Washers				✓
I. Swivels				✓
15. Hanger configuration in accordance with applicable drawings:				
A. Dimensions	✓			
B. Angles of support to system and base plate				✓
C. All hanger attachments i.e., clips, brackets, etc. orientated correctly.	✓			
D. Strut or Snubber pin to pin distance <u>3' 8 1/2"</u>				
16. Weld locations:				
A. Proper weld location <u>Insulated</u>				✓
B. Proper weld spacing				✓
C. Proper number of welds <u>Insulated</u>				✓
D. Thru paint (average value <u>1/4"</u>)	✓			
17. Anchor Bolts:				
A. Type				✓
B. Size _____ number _____				✓
C. Thread engagement				✓
D. Bolt c/c spacing				✓
E. C/C from anchors to closet anchor _____				✓
18. Gaps @ stops:				
A. At U-bolts or Restraints				✓
B. At pipe penetrations				✓
*TOLERANCES FOR MEASUREMENT ACCURACY				
<u>Measurement</u>	<u>Tolerance</u>			
0" - 2"	± 1/16"			
≥ 2" - 12"	± 1/8"			
≥ 12" - 36"	± 1"			
≥ 36" - ∞	± 3"			
* Unless otherwise shown on the dwg.				
<i>Torance A. Layton</i> QC INSPECTOR(S)			10-24-85 DATE	

Oyster Creek - QC

SUPPORT # MS-R3A PER MNCR 85-110-15
 SUPPORT DWG# 718A Rev 2

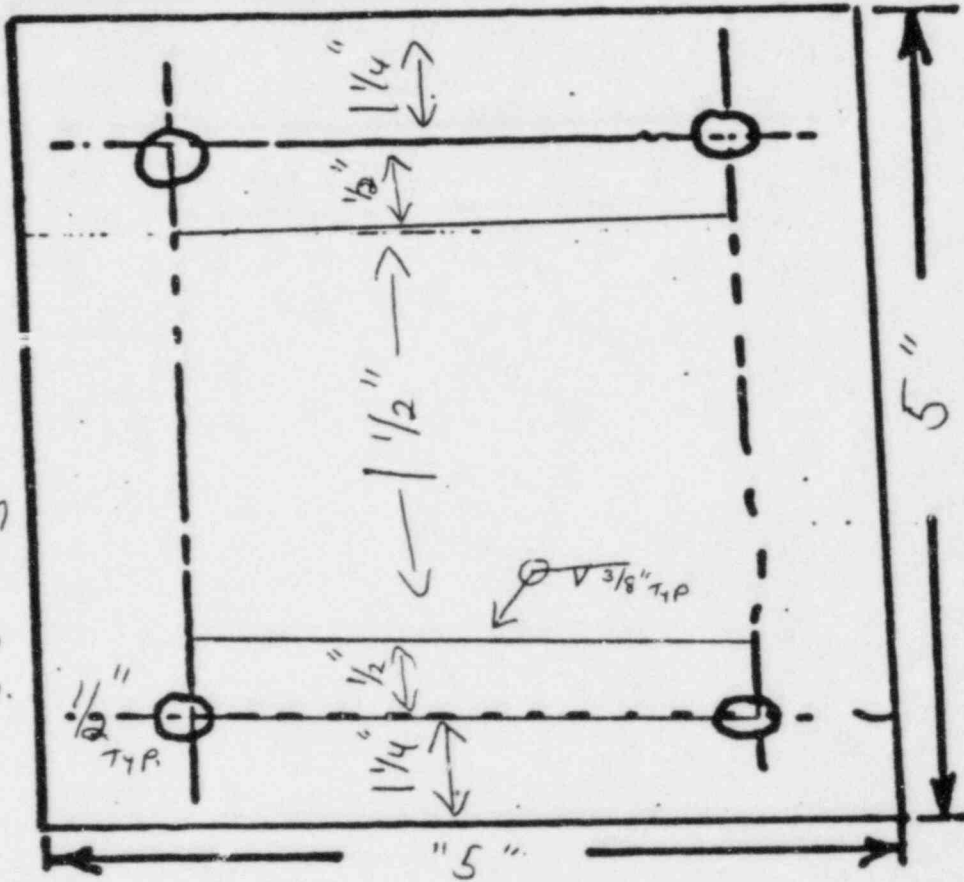
	Y	N	N/A	REM
19. Confirm pipe clamp figure no. If not possible, fill in appropriate form attached.			✓	
20. Baseplate attachments location recorded on the anchor plate verification sheet.			✓	
21. For valves noted in the walkdown, record their location & orientation on the isometric drawing. Describe orientation by stating (1) direction observer is facing, and (2) angle of valve \perp to pipe \perp to nearest 30 degrees (such as hours on a clock with 12:00 being direction facing the observer).			✓	
22. For hangers where other systems (i.e. piping, conduit, etc.) are also supported, give size of this system and describe type of support and distance to upstream and downstream hangers supporting that system.			✓	
Other items as specified by calculation sheet request attached.			✓	

James A. Langon 10-24-85
 QC Inspector(s)/Date

SUPPORT # MS-R3A

ANCHORS: NO. N/A SIZE N/A

WASHERS YES NO ✓



Record anchor bolt projection above plate and note if skewness is greater than 6°.

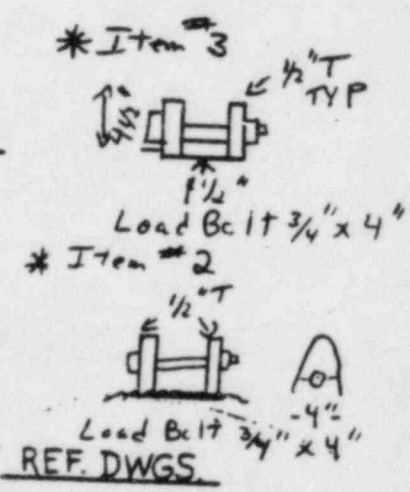
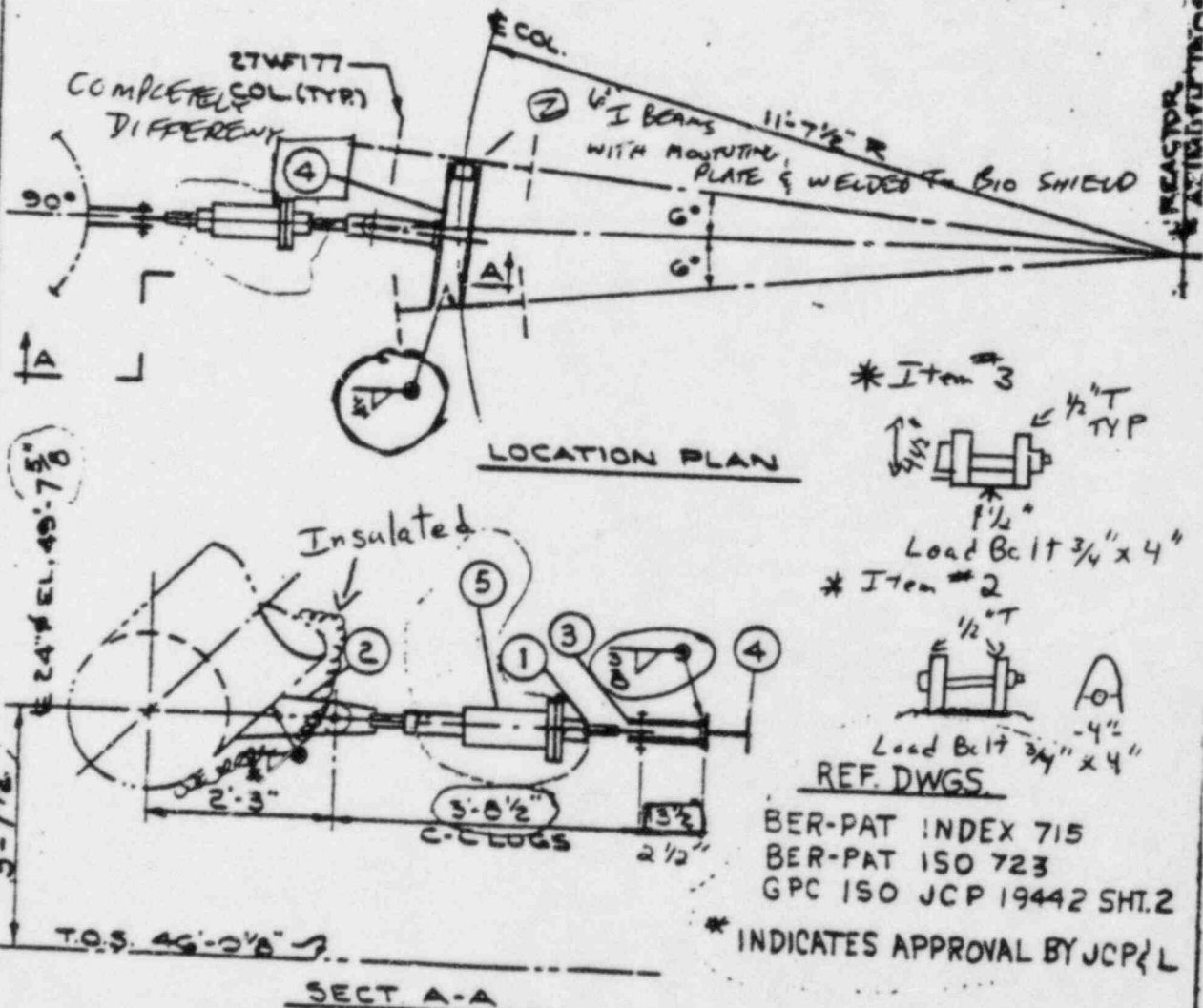
COMMENTS

* See Below

MNCR # 85-110-15

APP	ITEM NO.	NO. REQ'D	DESCRIPTION	BERGEN DWG OR PART NO.	REMARKS
	1	1	HSS ANGLE B-5 1/2" T: 3 1/4" G 1/2" STROKE		
	2	2	SEE DET. 'B' DWG. 718	252	(SEE ITEM 5)
	3	1	PART EA1-A MAKE 'C' DIM. 3/12 1/2"		
	4	1	GW 15.5 x 2.5" LG. MITER ONE END	64101	
	5	1	PACIFIC SCIENTIFIC SNUBBER DWG 1801107 (ADAPTED TO EXISTING PARTS)		SEE DWG. 1001

92° for pipe support



BER-PAT INDEX 715
 BER-PAT 150 723
 GPC 150 JCP 19442 SHI.2
 * INDICATES APPROVAL BY JCP & L

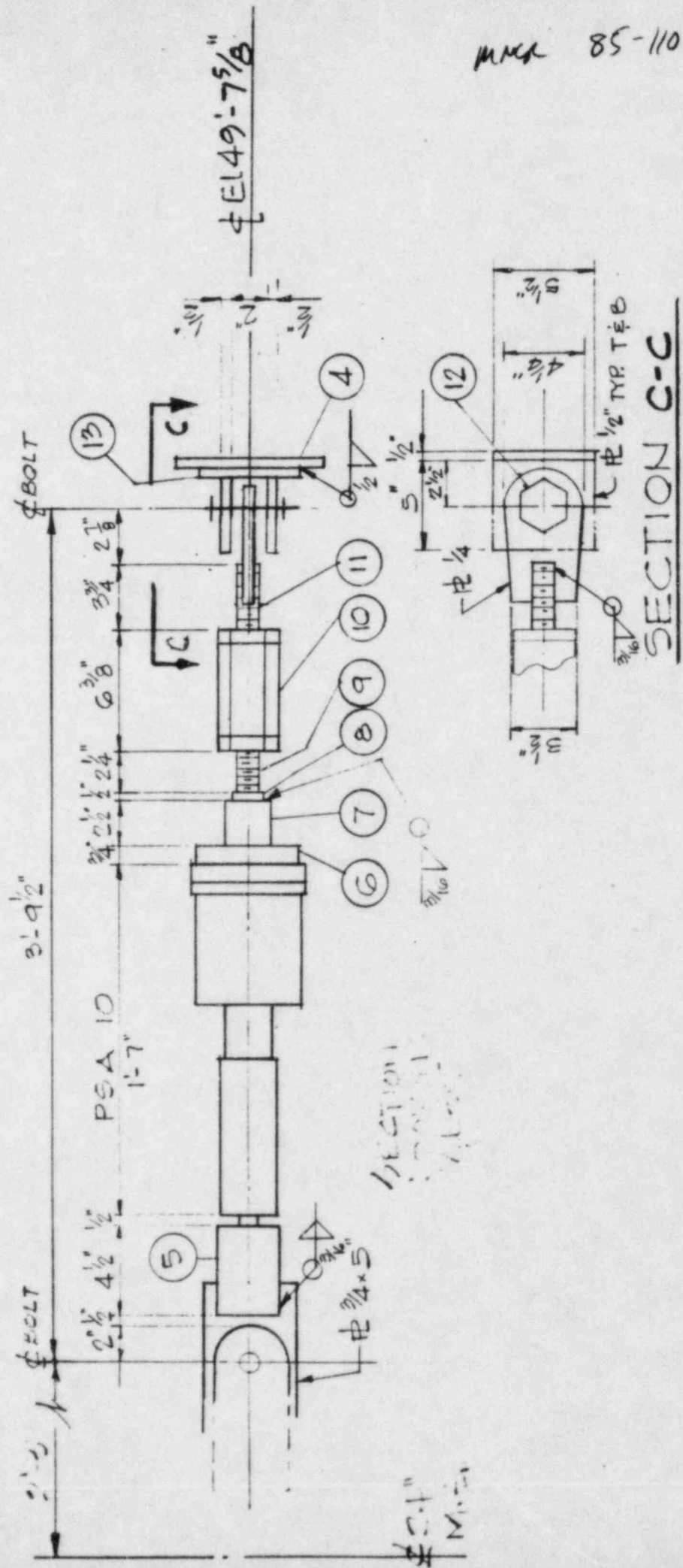
FIELD VERIFICATION FOR NRC (E.B. BLINZ 7-14)
 ADDED REF. DWGS. UPDATED AS ENCIRCLED
 CO. NIP
 2-3-30
 BY ENG
 DATE

ALMIRALL & CO., INC. P. O. #7248
 SUPPORTED BY
 BURNS & ROE, INC.
 ENGINEERED BY
 OYSTER CREEK STA. #1.

PIPING SYSTEM MAIN STEAM
 REF. DWG BIR DWG. 2103-4
 MARK NO. MS-R3A
 NO. REQ'D

REV.	DATE	DRAWN	CHKD	APPVD	BERGEN PIPESUPPORT CORP. NEW YORK, N. Y.	DATE	JOB NO	DRAWING NO
2		WD	sf			2-17-67	P-66-1070	718A

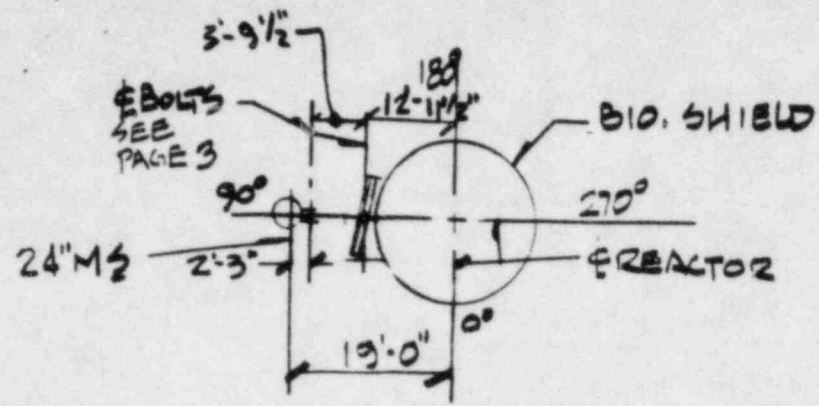
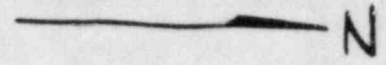
MMA 85-110-15



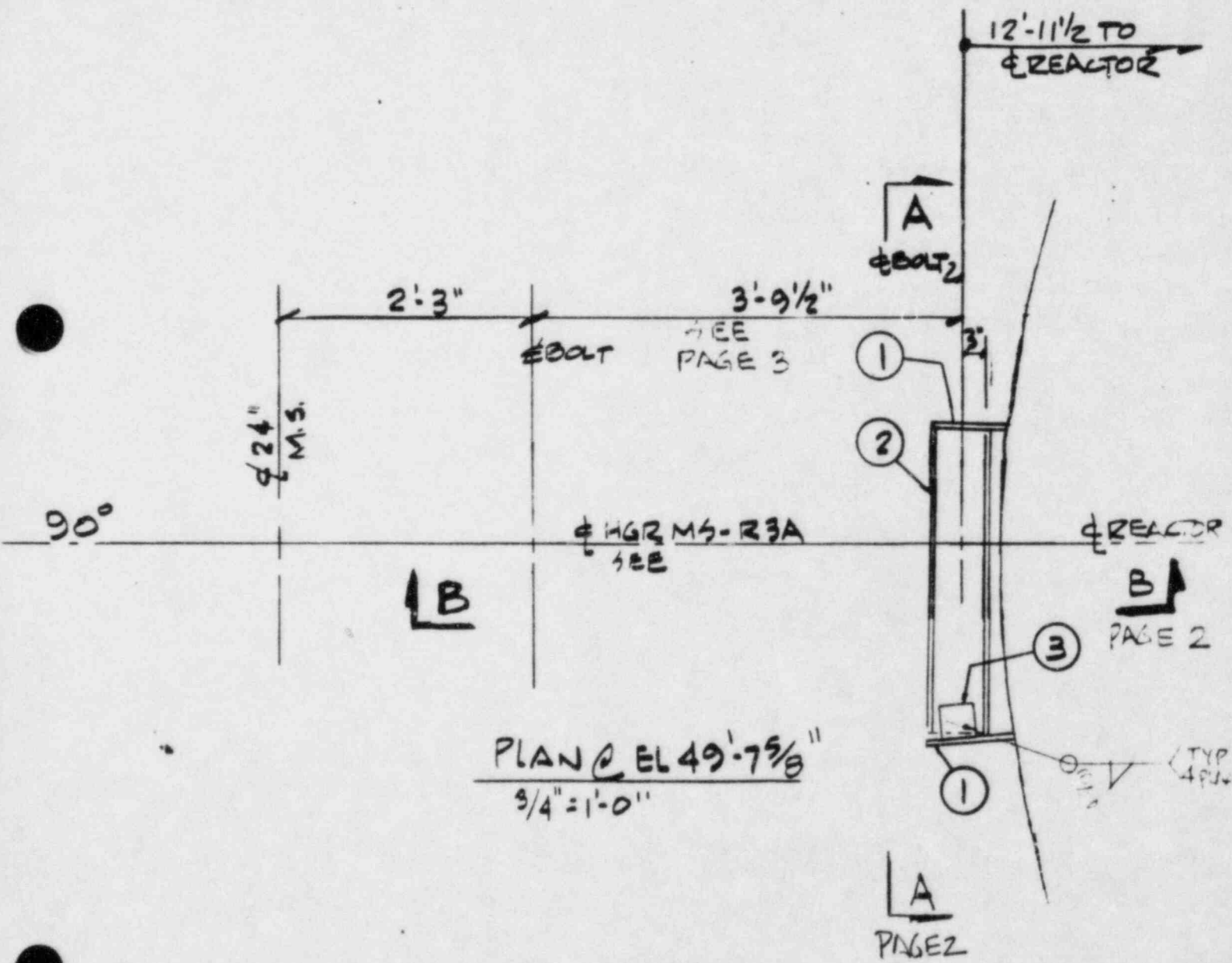
HANGER MK# MS-R3A
PAGE 3 OF 4

SECTION
C-C

1/2"
M.S.A.

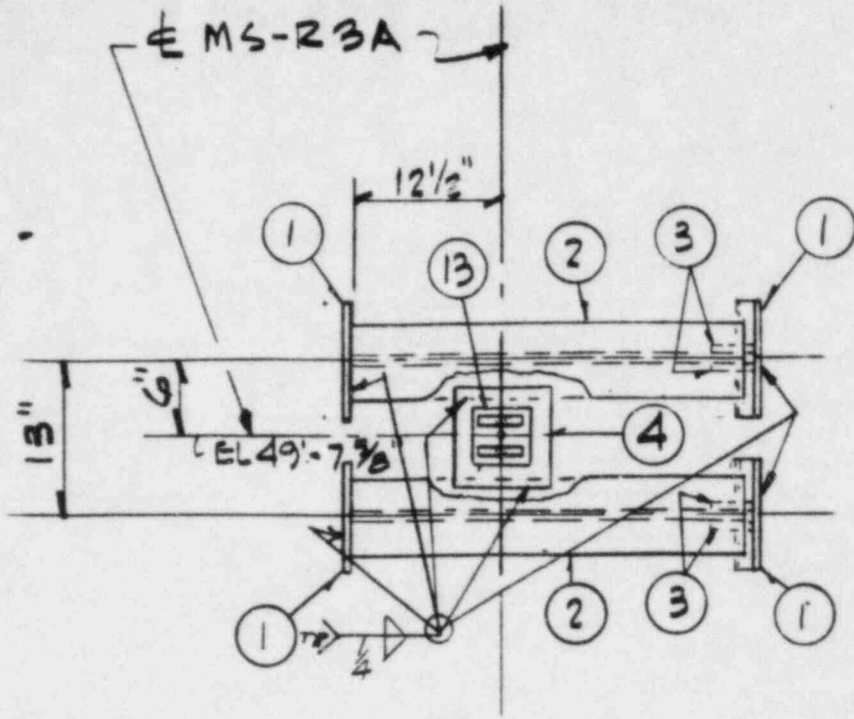


LOCATION PLAN (NO SCALE)



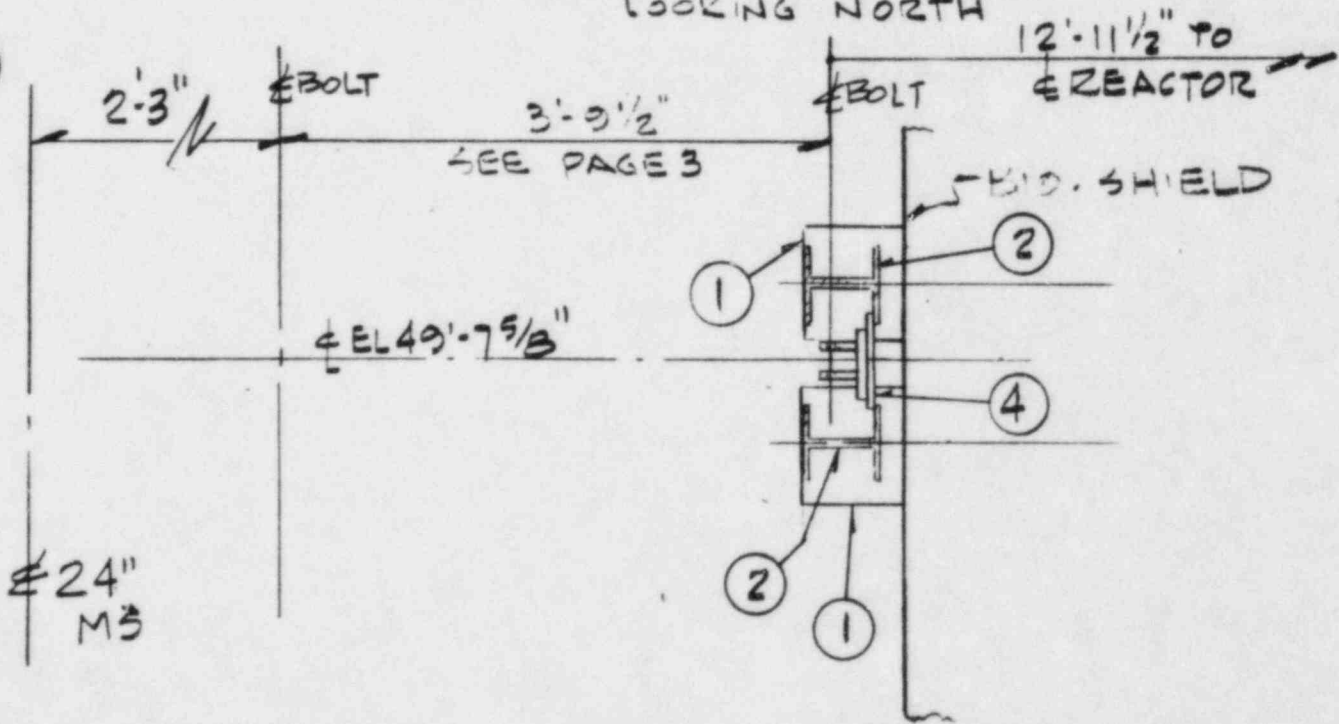
HANGER # MS-R3A

SCALE: AS NOTED



SECTION AA

LOOKING NORTH

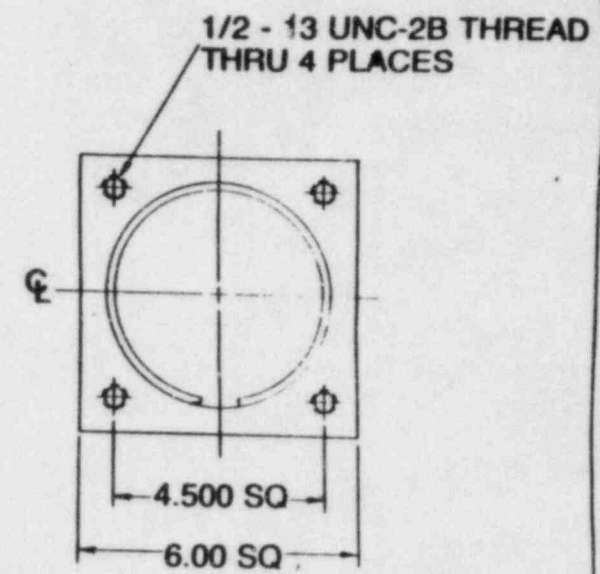
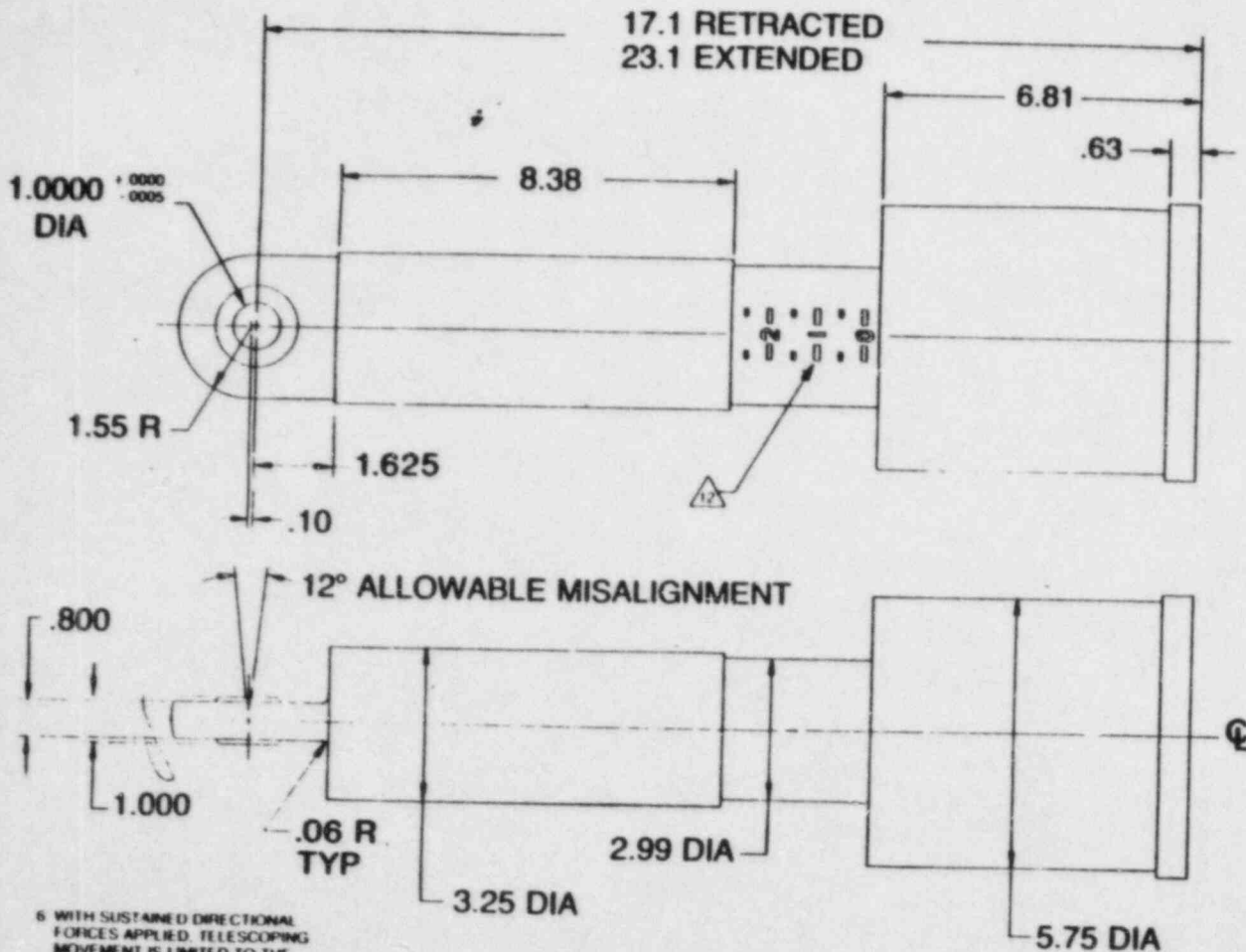


SECTION BB

LOOKING WEST

HANGER # MS-R3A

SCALE 3/4" = 1'-0"



- 6 WITH SUSTAINED DIRECTIONAL FORCES APPLIED, TELESCOPING MOVEMENT IS LIMITED TO THE ACCELERATION LEVEL OF NOTE 3 AND IS RESTRICTED ONLY BY TOTAL TRAVEL LIMITATIONS
- 5 TOTAL TELESCOPING MOVEMENT IS LESS THAN 1.000 WHEN SUBJECTED TO CYCLIC LOADING UP TO RATED LOAD
- 4 ALL PERFORMANCE PARAMETERS ARE MET WHEN SUBJECTED TO CYCLIC LOADING FROM 3 TO 33 HZ
- 3 TELESCOPING ACCELERATION WILL NOT EXCEED .02g WHEN SUBJECT TO LOADS IN COMPRESSION OR TENSION UP TO RATED CAPACITY
- 2 THIS IS AN ACCELERATION SENSITIVE MECHANICAL SHOCK ARRESTOR IT CONTAINS NO FLUIDS AND HAS NO SEALS
- 1 ALL DIMENSIONS ARE NOMINAL EXCEPT THOSE WITH TOLERANCES INDICATED

- 13 FINISHES
EXTERIOR ELECTRO PLATED ZINC AND DIFFUSED NICKEL CADMIUM PLATING
- 12 NUMBERED SCALE INDICATES EXTENSION IN INCHES
- 11 DESIGN/NORMAL/UPSET LOAD IS 15,000 LBS
- 10 BREAKAWAY FRICTION IS 150 LBS MAX
- 9 TOTAL TRAVEL IS 6.0 INCHES
- 8 PERFORMANCE IS UNAFFECTED BY PRESSURE OR AMBIENT TEMPERATURES FROM 20° TO +300°F
- 7 REGARDLESS OF LOAD OR ACCELERATION THIS DEVICE WILL NOT LOCK UP IT WILL ALWAYS PERMIT MOVEMENT IF THERE IS A SUSTAINED FORCE IN EXCESS OF THE BREAKAWAY FRICTION OF NOTE 10

PACIFIC SCIENTIFIC ANAHEIM, CA. 92803	
MECHANICAL SNUBBER	
MODEL PSA 10	1801103-07
DATE 1/81	WT 46.7 LBS

MPCA 85-110-15

TO: ROD BLOUCH

GPU

System Speed Memo

DATE 11/10/85

MESSAGE

MSR3A - MAINSTREAM IN DRYWELL ON SOUTHSIDE
WENT TO D&D AND IS ENCLOSED. THERE WAS
NO D&D ON THE NORTH SIDE FOR THE SAME TYPE
OF SUPPORT

Please reply to:

SIGNED: K. M. Coakley

REPLY

DATE:

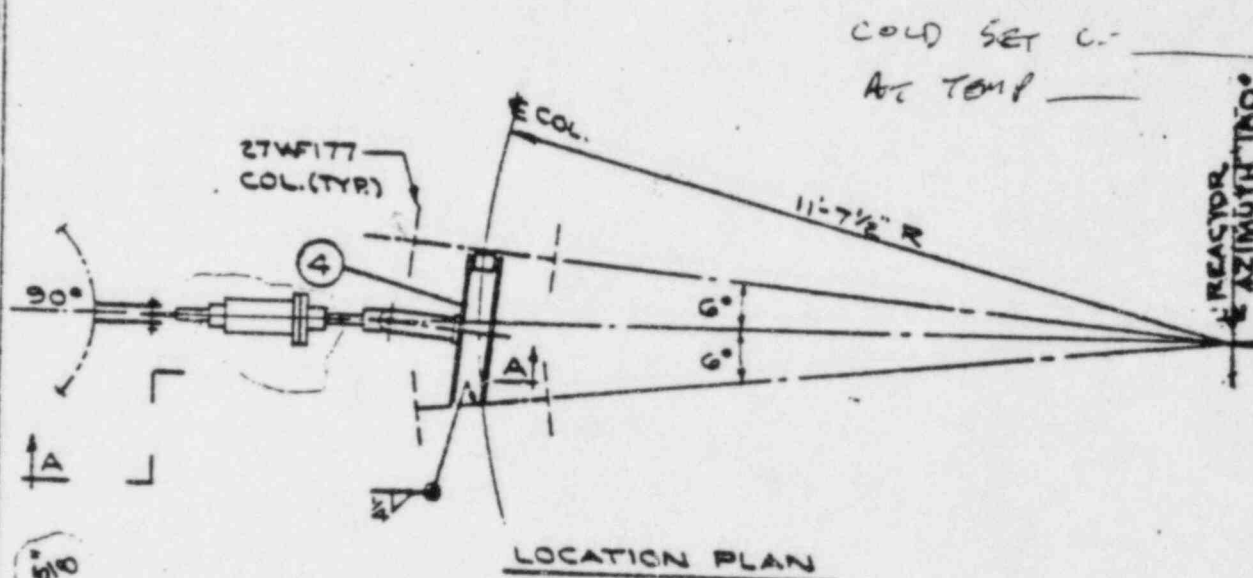
SIGNED:

1st & 2nd copy For person addressed 2nd copy
to be returned to sender.
3rd copy Detach and retain for answer

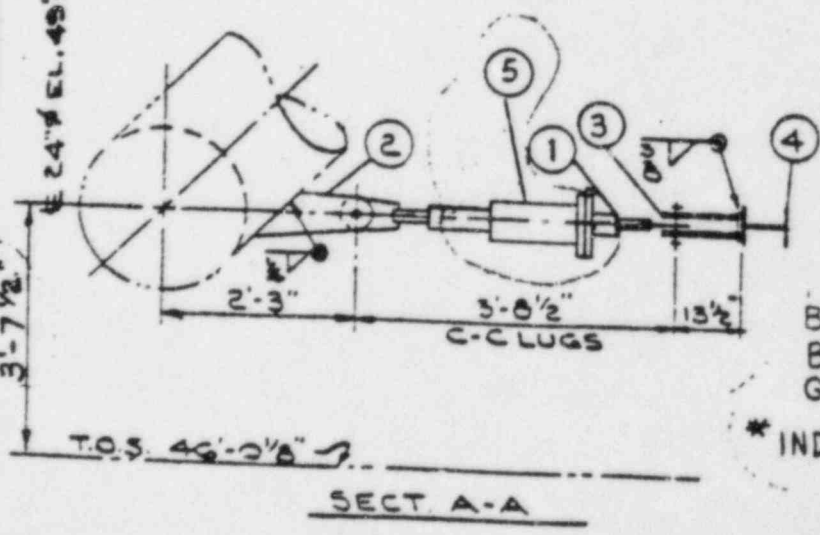
A0001247

FORM NO. 88

APP	ITEM NO.	NO. REQ'D	DESCRIPTION	BERGEN DWG OR PART NO	REMARKS
	1	1	WEGANO B=5 1/2" T=3 1/4" G STROKE		
	2	2	SEE DET. 'B' DWG. 718	252	(SEE ITEM 5)
	3	1	PART EAI-A MAKE 'C' DIM. 12 3/4"	G4101	
	4	1	GW 15.5 x 2.5" LG. MITER ONE END		
	5	1	PACIFIC SCIENTIFIC SNUBBER DWG 1801107 (ADAPTED TO EXISTING PARTS)		SEE DWG. 1001



COLD SET C-
AT TEMP



REF. DWGS.
BER-PAT INDEX 715
BER-PAT 150 723
GPC ISO JCP 19442 SHT. 2
* INDICATES APPROVAL BY JCP & L

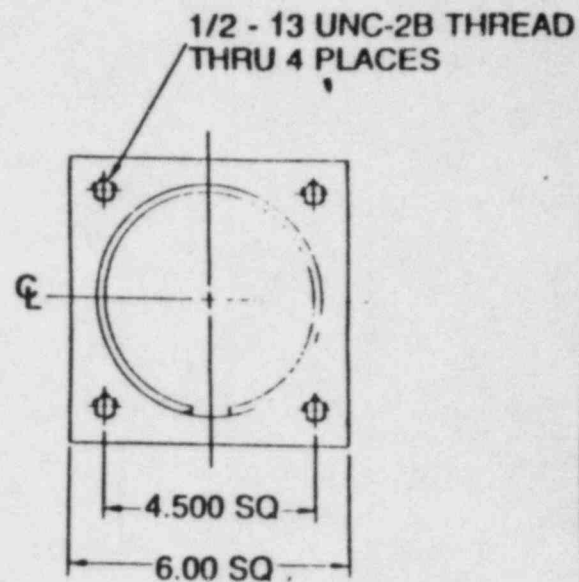
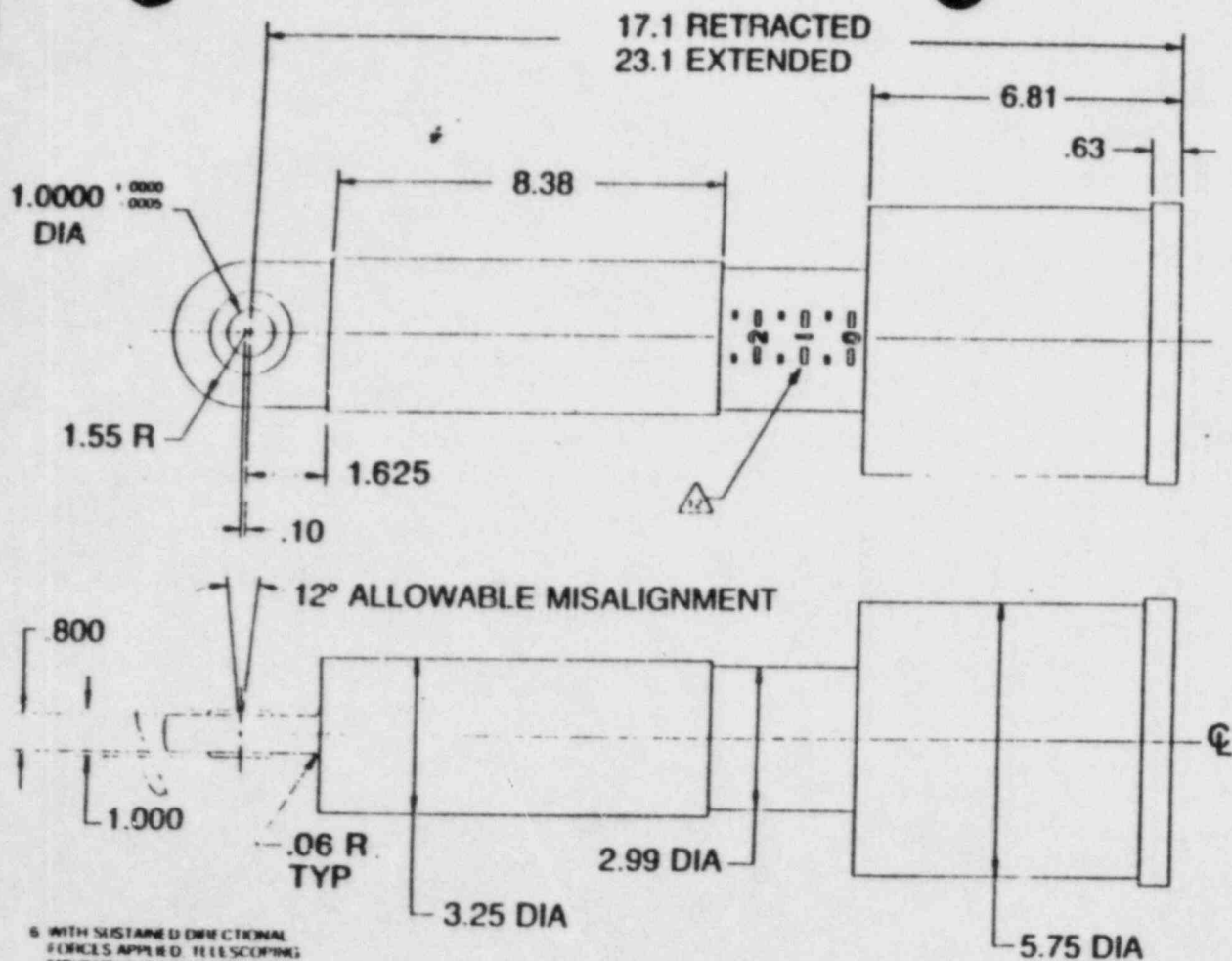
FORCE 5435*

FIELD VERIFICATION FOR NRC (E.B. 1179-14)
 ADDED REF. DWGS. UPDATED AS ENCIRCLED
 BY: [Signature]
 DATE: [Blank]

ALMIRALL & CO., INC. P. O. #7248
 CUSTOMER
 BURNS & ROE, INC.
 ENGINEER
 OYSTER CREEK STA. #1.

PIPING SYSTEM MAIN STEAM
 REF. DWG BER DWG. 2103-4
 LOCATION PLAN
 MARK NO. MS-R3A NO. REQ'D

REV.	DATE	CONSUMED	DRAWN	CHEK	APPVD	BERGEN PIPESUPPORT CORP. NEW YORK, N. Y.	DATE	JOB NO	DRAWING NO
2			WD	SL			2-17-67	746-1070	718A

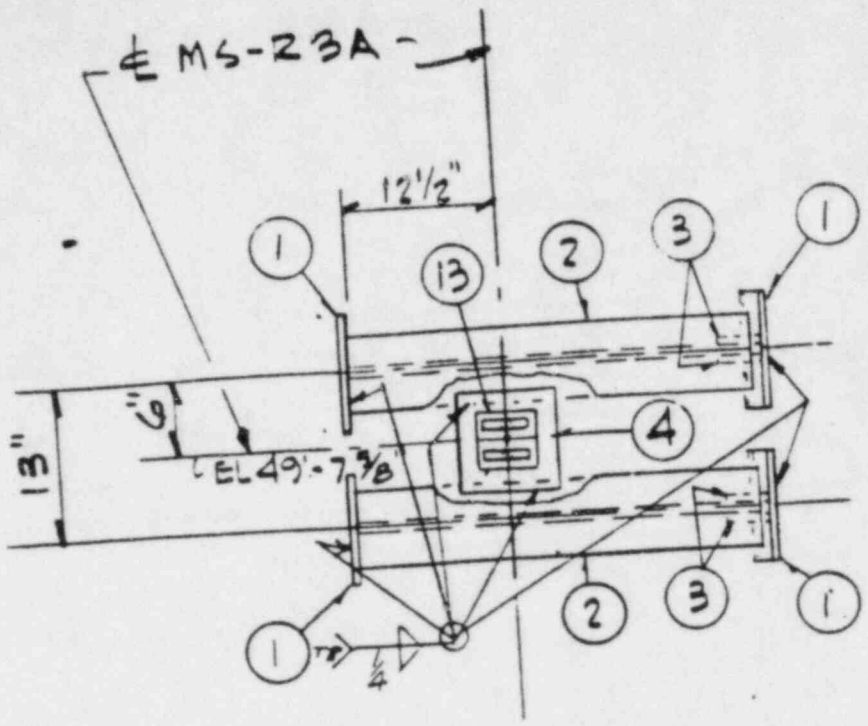


- 6 WITH SUSTAINED DIRECTIONAL FORCES APPLIED, TELESCOPING MOVEMENT IS LIMITED TO THE ACCELERATION LEVEL OF NOTE 3 AND IS RESTRICTED ONLY BY TOTAL TRAVEL LIMITATIONS
- 5 TOTAL TELESCOPING MOVEMENT IS LESS THAN 1.00 WHEN SUBJECTED TO CYCLIC LOADING UP TO RATED LOAD
- 4 ALL PERFORMANCE PARAMETERS ARE MET WHEN SUBJECTED TO CYCLIC LOADING FROM 3 TO 51 HZ
- 3 TELESCOPING ACCELERATION WILL NOT EXCEED 50g WHEN SUBJECTED TO LOADS IN COMPRESSION OR TENSION UP TO RATED CAPACITY
- 2 THIS IS AN ACCELERATION SENSITIVE MECHANICAL SHOCK ABSORBER IT CONTAINS NO FLUIDS AND HAS NO SEALS
- 1 ALL DIMENSIONS ARE NOMINAL UNLESS OTHERWISE SPECIFIED
- NOTE 1:

- 13 FINISHES
EXTERIOR - ELECTRO PLATED ZINC AND DIFFUSED NICKEL CADMIUM PLATING
- 12 NUMBERED SCALE INDICATES EXTENSION IN INCHES
- 11 DESIGN/NORMAL/UPSET LOAD IS 15,000 LBS
- 10 BREAKAWAY FRICTION IS 150 LBS MAX
- 9 TOTAL TRAVEL IS 60 INCHES
- 8 PERFORMANCE IS UNAFFECTED BY PRESSURE OR AMBIENT TEMPERATURES FROM 20° TO +300° F
- 7 REGARDLESS OF LOAD OR ACCELERATION THIS DEVICE WILL NOT LOCK UP IT WILL ALWAYS PERMIT MOVEMENT IF THERE IS A SUFFICIENT FORCE IN EXCESS OF THE BREAKAWAY FRICTION
- NOTE 10:

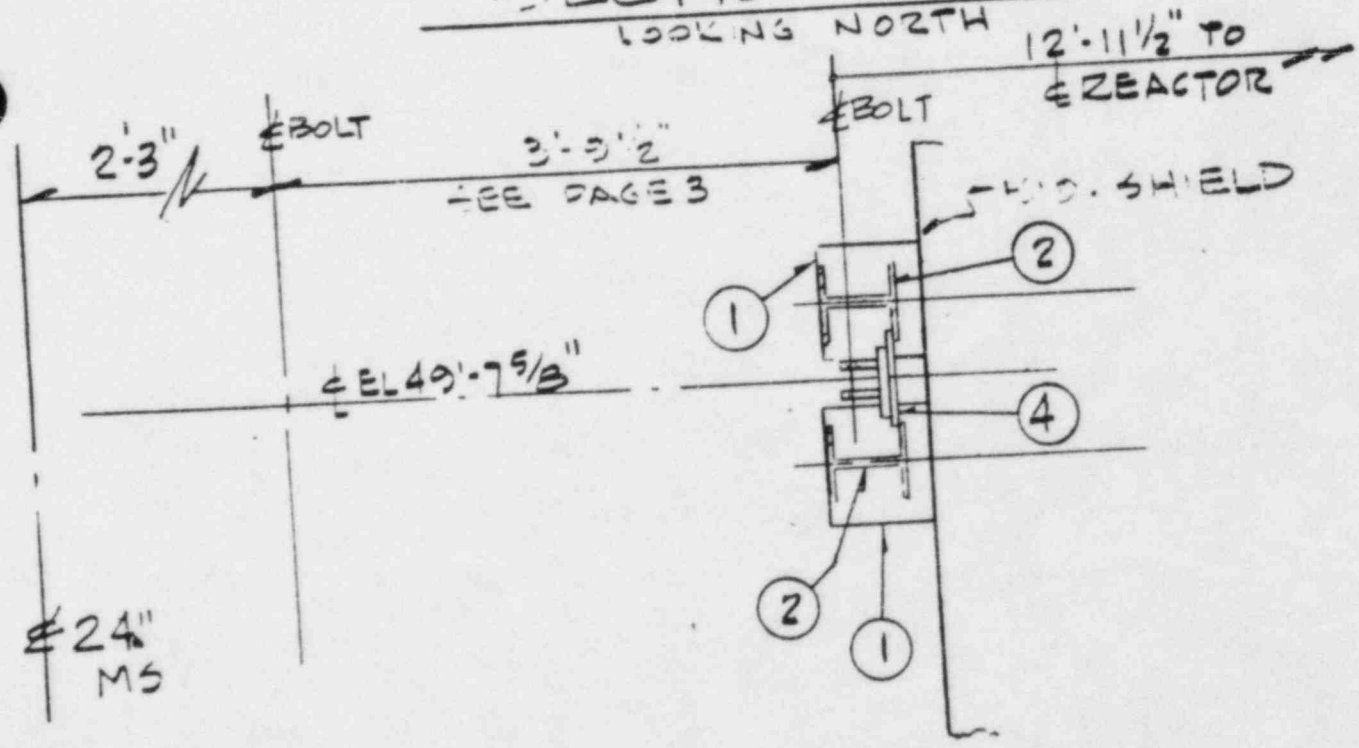
PACIFIC SCIENTIFIC ANAHEIM, CA. 92803	
MECHANICAL SNUBBER	
MODEL PSA 10	1801103-07
DATE 1/81	WT 46.7 LBS

WNA 85-110-15



SECTION AA

LOOKING NORTH

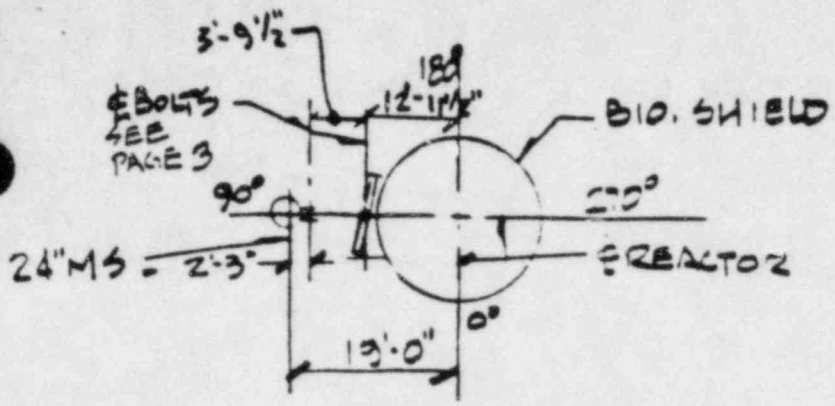


SECTION BB

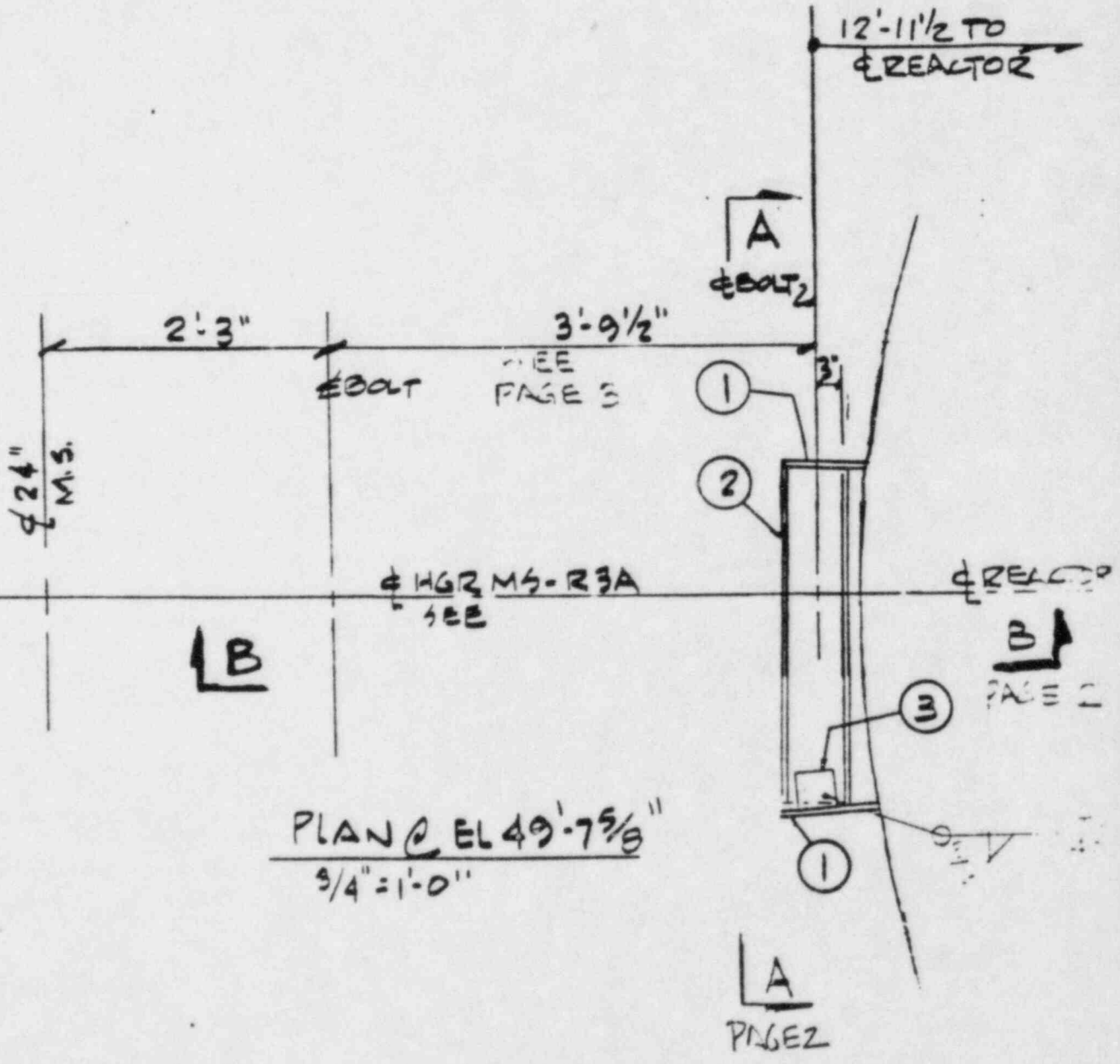
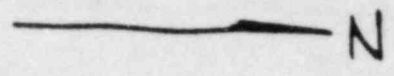
LOOKING WEST

HANGER # MS-23A

SCALE 3/4" = 1'-0"

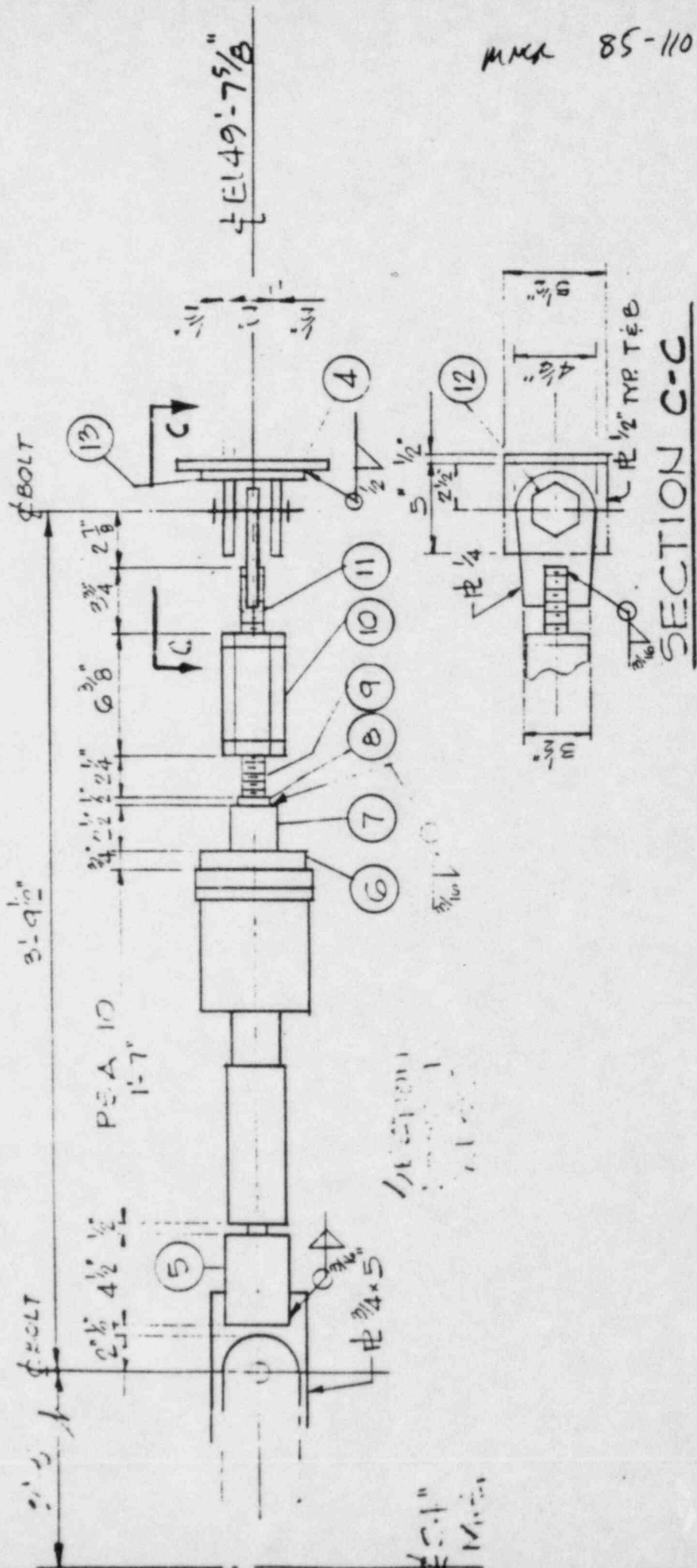


LOCATION PLAN
(NO SCALE)



HANGER # MS-R3A
SCALE: AS NOTED
PAGE 1 OF 4

MMR 85-110-15



HUNGER MK# MS-R3A

MMR 85-110-15

MNCR Number 85-110-16

Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORMNO A _____
RETENTION _____

1. Identification

Originator: MCCAWLEY / F. WIESZ
Material, Part, Component, etc.: MS-R2A / 717A REV-1

Date/Time: 10/24/85 15:38

Location: DRYWELL ELV. 46'
Manufacturer (Name): N/A Code: MA
P.R.# MA Line # N/A Spec # MA
System: MAIN STEAM System Tag No. MA
Dwg No. JCP-19442 SHT. 2 / 717A REV-1 Heat Code No. MA Other MA
Nonconforming to (requirements): DIMENSIONAL / DISCREPANCIES AS SHOWN

Description of Nonconformance: DISCREPANCIES / DISPOSITION ATTACHED

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

Important To Safety	POTENTIALLY REPORTABLE:				
	10CFR50	10CFR21	10CFR71	10CFR73.71	LER.
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Evaluated By (Name): Ki Mc... Date/Time: 10-24-85 4:30 PM
QC Mgr. Validation: David... Date/Time: 10-24-85 0717

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____
Licensing Notified: YES NO Date/Time: _____
Hold Tags Issued: YES NO No. of Tags: _____
Tags Installed By (Name): NA Date/Time: _____
Material Segregation Required: YES NO
Segregation Verified By (Name): NA Date/Time: _____
ACTION PARTY (Name): J. MALONEY Dept: Plant MTLR

Forward to responsible individual/department (Action Party).



Nuclear

Material Nonconformance Report Cont'd

MNCR Number 85-110-16

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: Provide engineering evaluation of adequacy of as built configuration. If adequate, revise drawings to reflect as built.

Evaluation/Disposition By (Name): [Signature]

Dept: Plant Manager
Date: 10-25-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (Include applicable work documents, limitations, re-test requirements, etc.)

SEE ATTACHED SHEET FOR JUSTIFICATION

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No.: _____

Evaluated By (Name): W.C. HARRIS

Dept: T-E ENG. MECH
Date: 10-25-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: [Signature] Date: 10-26-85

Conditional Release Issued: YES NO
Reject Tags Issued: YES NO

AI/ANI Concurrence: YES NO
Signature: NA Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____

Work/Shipping Order No.: _____ Other: _____

Verified By (Name/Title/Date): _____

Tags/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____ Date: _____

HANGER # 12-2-6-35
MAIN STEAM

MNCR # 82-110-25

DWG. # 1-1-1-1-1-1-1-1-1-1

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

1.) ALTERO BASE PLATE / ATTACHMENT PLATE
SEE DWG.

ALTERO BASE PLATE / ATTACHMENT PLATE
IS ACCEPTABLE
CHANGE DWG.

2. WELD IS $3/16 - 1/4$ " NOT $1/4$ " AS REQUIRED

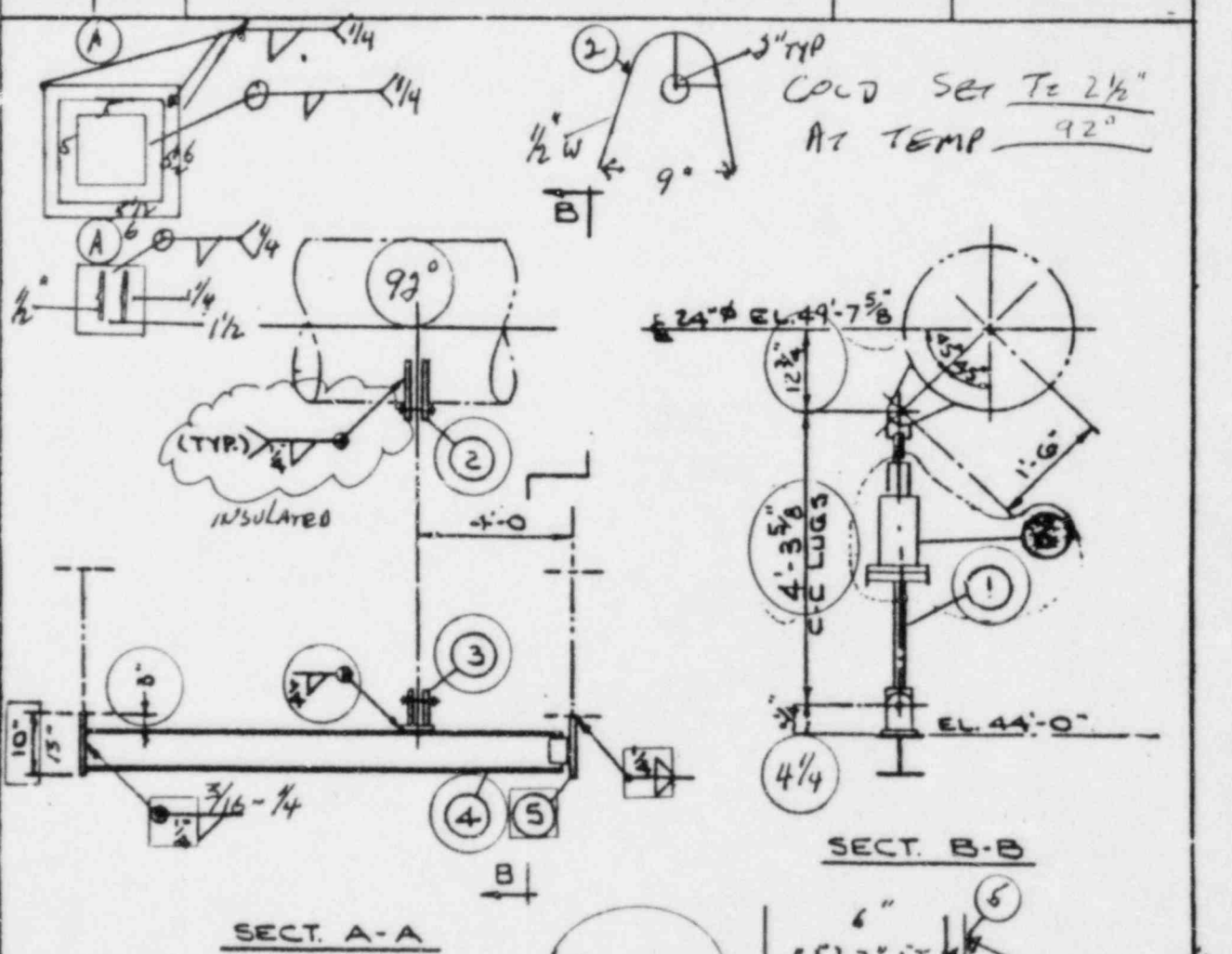
$3/16 + 1/16$ " WELD IS SUFFICIENT
CHANGE DWG.

W.C. Heas

10.25.85

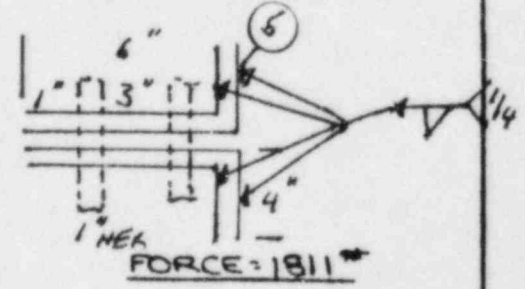
APP	ITEM NO.	NO. REQ'D.	DESCRIPTION	BERGEN DWG OR PART NO.	REMARKS
	1	1	HS-A-B-G STROKE B: 4 1/2" T: 3 9/16"	252	(SEE ITEM 6)
	2	1	PIPE ATTACHMENT SEE DET. C" DWG. 717		
	3	1	PART E-A1-A	64101	
	4	1	GVF 15.5% G: 6 1/2" LG. MITER ONE END		SEE DWG. 1001
	5	2	5 x 1/2 x 10" 8 x 1/2 x 1/2		
	6	1	PACIFIC SCIENTIFIC SNUBBER DWG 1801107 (ADAPTED TO EXISTING PARTS)	2 1/2" STROKE	

DESCRIPTION



REF. DWGS.
 BER: PAT. INDEX 715
 BER: PAT. ISO 723
 GPC ISO JCP 19442 SHT. 2
 * INDICATES APPROVAL BY JCP & L

SECT. B-B



SHEET 1 OF 2

ALMIRALL & CO., INC. P. O. #7248
 BURNS & ROE, INC.
 OYSTER CREEK STA. #1.

PIPING SYSTEM MAIN STEAM
 REF DWG. B&R DWG 2103-4
 MARK NO. M3-R2A NO. REQD. 1

REV.	DATE	DRAWN	CHKD	APPVD	BERGEN PIPESUPPORT CORP. NEW YORK, N. Y.	DATE	JOB NO	DRAWING NO
1		WD	28			2-17-67	R66-1079	717A

VERIFICATION FOR NRC I&E BITN 79-14
 REF. DWGS. - UPDATED AS ENCIRCLED
 APP. REV. DATE
 ENG. APP. REV. DATE
 APP. REV. DATE

1st Creek - DC

Reviewed: *Bob Litch*

SUPPORT # MS-R2A
 ISO DWG # 19442 SHT-2
 ORTHO DWG # 2103-4
 SUPPORT DWG # 717 A REV. 1

VALVE # N/A

MNCR 85-110-16

ITEM	Y	N	N/A	REM
1. Proper Valve Orientation			✓	
2. Skin Temperature <u>92</u> °F (C.R.) (PYR)	✓			
3. Components identified in accordance with the appropriate drawing.	✓			
4. Component location is within drawing tolerances.	✓			
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.			✓	
6. Verify that all welds are completed. <i>INSULATED</i>			✓	
7. Piping and supports are free of arc strikes. <i>INSULATED</i>			✓	
8. Snubbers and spring hangers are installed in accordance with drawing.	✓			
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5%			✓	
10. Record the amount of snubber extension from the fully compressed position. T or C = <u>2 1/2</u>	✓			
11. If the springs and snubbers are within: 1/2" from the topped/bottomed out position for springs, and 1/2" from the fully compressed/fully extended position for snubbers, it shall be reported.			✓	
12. Verify piping sizes.			✓	
13. Hanger location in building (General area) { Description: <u>46' ELV. DRYWELL</u> }	✓			

Creek - OC

SUPPORT # MS-R3A

ITEM	Y	N	N/A	REM
14. Hanger hardware:				
A. Clips	✓			
B. Clevis	✓			
C. Cotter Pins			✓	
D. Turnbuckles	✓			
E. Nuts/Bolts (Check all attachments for double nut requirements)	✓			
F. Spring Canisters			✓	
G. Locking Tabs on Nuts			✓	
H. Washers			✓	
I. Swivels			✓	
15. Hanger configuration in accordance with applicable drawings:				
A. Dimensions	✓			
B. Angles of support to system and base plate	✓			
C. All hanger attachments i.e., clips, brackets, etc. orientated correctly.			✓	
D. Strut or Snubber pin to pin distance <u>51"</u>	✓			
16. Weld locations:				
A. Proper weld location	✓			
B. Proper weld spacing <u>INSULATED</u>			✓	
C. Proper number of welds <u>INSULATED</u>			✓	
D. Thru paint (average value <u>3/16 - 1/4</u>)	✓			
17. Anchor Bolts:				
A. Type			✓	
B. Size _____ number _____			✓	
C. Thread engagement			✓	
D. Bolt c/c spacing			✓	
E. C/C from anchors to closet anchor _____			✓	
18. Gaps @ stops:				
A. At U-bolts or Restraints			✓	
B. At pipe penetrations			✓	
*TOLERANCES FOR MEASUREMENT ACCURACY				
<u>Measurement</u>	<u>Tolerance</u>			
0" - 2"	± 1/16"			
2" - 12"	± 1/8"			
12" - 36"	± 1"			
36" - ∞	± 3"			
* Unless otherwise shown on the dwg.				
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;"> <p><i>Frank P. Wynn</i> QC INSPECTOR(S)</p> </div> <div style="text-align: center;"> <p><u>10-24-1985</u> DATE</p> </div> </div>				

Oyster Creek - QC

SUPPORT # MS-RDA

PER MNCR 85-11016

SUPPORT DWG# 717A Rev-1

Y	N	N/A	REM
---	---	-----	-----

- | | | | | |
|---|--|--|---|--|
| 19. Confirm pipe clamp figure no. If not possible, fill in appropriate form attached. <i>SEE DWG.</i> | | | ✓ | |
| 20. Baseplate attachments location recorded on the anchor plate verification sheet. <i>SEE DWG.</i> | | | ✓ | |
| 21. For valves noted in the walkdown, record their location & orientation on the isometric drawing. Describe orientation by stating (1) direction observer is facing, and (2) angle of valve ϵ to pipe ϵ to nearest 30 degrees (such as hours on a clock with 12:00 being direction facing the observer). | | | ✓ | |
| 22. For hangers where other systems (i.e. piping, conduit, etc.) are also supported, give size of this system and describe type of support and distance to upstream and downstream hangers supporting that system. | | | ✓ | |

Other items as specified by calculation sheet request attached.

Frank P. Ulrich 10-24-1985
 QC Inspector(s)/Date

111 Creek - OC

Reviewed: *Bl. Lill*

SUPPORT #	<u>N/A</u>	VALVE #	<u>V-2-71</u>
ISO DWG #	<u>JCP 19443 SH-3 TRUNION Rm.</u>		<u>V-2-72</u>
ORTHO DWG #	<u>N/A</u>		
SUPPORT DWG #	<u>N/A</u>		

FEED H₂O

ITEM	Y	N	N/A	REM
1. Proper Valve Orientation <u>V-2-71 Looking EAST @ 12:00</u> <u>V-2-72 " " @ 12:00</u>	✓			
2. Skin Temperature <u>90 °F (C.R.) (PYR)</u>	✓			
3. Components identified in accordance with the appropriate drawing.			✓	
4. Component location is within drawing tolerances.	✓			
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.			✓	
6. Verify that all welds are completed.			✓	
7. Piping and supports are free of arc strikes.			✓	
8. Snubbers and spring hangers are installed in accordance with drawing.			✓	
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5%			✓	
10. Record the amount of snubber extension from the fully compressed position. T or C = _____			✓	
11. If the springs and snubbers are within: $\frac{1}{4}$ " from the topped/bottomed out position for springs, and $\frac{1}{4}$ " from the fully compressed/fully extended position for snubbers, it shall be reported.			✓	
12. Verify piping sizes. <u>INSULATED</u>			✓	
13. Hanger location in building (General area) { Description: <u>TRUNION Room Condenser BAY</u> }			✓	

Creek - OC

SUPPORT # N/A

ITEM	Y	N	N/A	REM			
14. Hanger hardware:							
A. Clips				✓			
B. Clevis							
C. Cotter Pins							
D. Turnbuckles							
E. Nuts/Bolts (Check all attachments for double nut requirements)							
F. Spring Canisters							
G. Locking Tabs on Nuts							
H. Washers							
I. Swivels							
15. Hanger configuration in accordance with applicable drawings:							
A. Dimensions							
B. Angles of support to system and base plate							
C. All hanger attachments i.e., clips, brackets, etc. orientated correctly.							
D. Strut or Snubber pin to pin distance _____							
16. Weld locations:							
A. Proper weld location							
B. Proper weld spacing							
C. Proper number of welds							
D. Thru paint (average value _____)							
17. Anchor Bolts:							
A. Type							
B. Size _____ number _____							
C. Thread engagement							
D. Bolt c/c spacing							
E. C/C from anchors to closet anchor _____							
18. Gaps @ stops:							
A. At U-bolts or Restraints							
B. At pipe penetrations							
*TOLERANCES FOR MEASUREMENT ACCURACY							
<u>Measurement</u>		<u>Tolerance</u>					
0" - 2"		± 1/16"					
N 2" - 12"		± 1/8"					
N 12" - 36"		± 1"					
N 36" - ∞		± 3"					
* Unless otherwise shown on the dwg.							
<i>Robert L. Liere</i> 10/24/85 QC INSPECTOR(S) DATE							

Oyster Creek - QC

SUPPORT # _____

PER MNCR _____

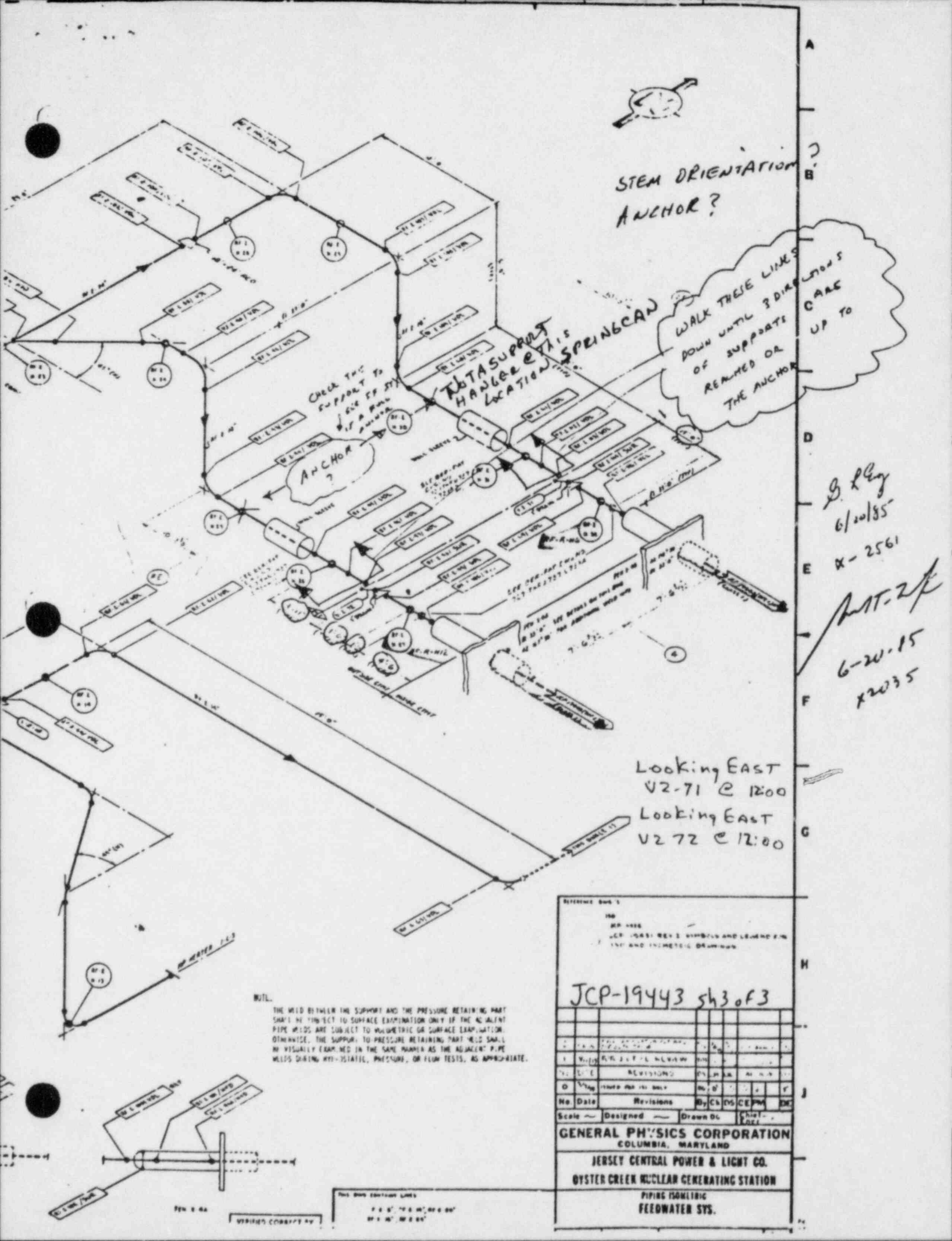
SUPPORT DWG# _____

Y	N	N/A	REM
---	---	-----	-----

19. Confirm pipe clamp figure no. If not possible, fill in appropriate form attached.
20. Baseplate attachments location recorded on the anchor plate verification sheet.
21. For valves noted in the walkdown, record their location & orientation on the isometric drawing. Describe orientation by stating (1) direction observer is facing, and (2) angle of valve \angle to pipe \angle to nearest 30 degrees (such as hours on a clock with 12:00 being direction facing the observer).
22. For hangers where other systems (i.e. piping, conduit, etc.) are also supported, give size of this system and describe type of support and distance to upstream and downstream hangers supporting that system.

Other items as specified by calculation sheet request attached.

Robert P. Jones 10/20/85
QC Inspector(s)/Date



STEM ORIENTATION ANCHOR?

WALK THESE LINES DOWN UNTIL 3 DIAGNOSIS CASE UP TO REMOVED OR THE ANCHOR

CHECK THE SUPPORT TO SEE IF STAY IF A BULL ANCHOR

TBTASUPPORT HANGER LOCATION SPRINGCAN

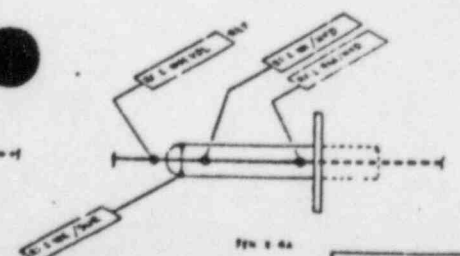
G. P. Ray
6/20/85
X-2561

MT-2
6-20-15
X2035

Looking EAST
V2-71 @ 12:00
Looking EAST
V2-72 @ 12:00

WEL.
THE WELD BETWEEN THE SUPPORT AND THE PRESSURE RETAINING PART SHALL BE SUBJECT TO SURFACE EXAMINATION ONLY IF THE ADJACENT PIPE WELDS ARE SUBJECT TO VOLUMETRIC OR SURFACE EXAMINATION. OTHERWISE, THE SUPPORT TO PRESSURE RETAINING PART WELD SHALL BE VISUALLY EXAMINED IN THE SAME MANNER AS THE ADJACENT PIPE WELDS DURING HYDROSTATIC, PNEUMATIC, OR FLUOR TESTS, AS APPROPRIATE.

REFERENCE SHEET			
JCP-19443			
FOR USE IN REV. 1 SYMBOLS AND LEGEND IN THE ISOMETRIC DRAWING			
JCP-19443 sh3 of 3			
NO.	DATE	BY	CHKD.
1	6/20/85	G.P.R.	
2			
3			
4			
5			
6			
7			
8			
9			
10			
Scale: Designed: Drawn: D.C.			
GENERAL PHYSICS CORPORATION COLUMBIA, MARYLAND			
JERSEY CENTRAL POWER & LIGHT CO. OYSTER CREEK NUCLEAR GENERATING STATION			
PIPING ISOMETRIC FEEDWATER SYS.			



THIS DRAWING CONTAINS
7 1/2" x 10 1/2" x 10 1/2"
11 1/2" x 10 1/2"

W Creek - OC

Reviewed: *Bl. Likh*

SUPPORT #	<u>N/A</u>	VALVE #	<u>U-1-9</u>
ISO DWG #	<u>JCP 1944Z SH1 TRUNION Rm</u>		<u>U-1-10</u>
ORTHO DWG #	<u>N/A</u>		
SUPPORT DWG #	<u>N/A</u>		

mls

ITEM	Y	N	N/A	REM
① Proper Valve Orientation <i>V-1-9 Looking EAST stem @ 1:00</i> <i>V-1-10 " " stem @ 11:00</i>	✓			
2. Skin Temperature <u>90</u> °F (C.R.) (PYR)	✓			
3. Components identified in accordance with the appropriate drawing.			✓	
4. Component location is within drawing tolerances.	✓			
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.			✓	
6. Verify that all welds are completed.				
7. Piping and supports are free of arc strikes.				
8. Snubbers and spring hangers are installed in accordance with drawing.				
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5%				
10. Record the amount of snubber extension from the fully compressed position. T or C = _____				
11. If the springs and snubbers are within: $\frac{1}{4}$ " from the topped/bottomed out position for springs, and $\frac{1}{4}$ " from the fully compressed/fully extended position for snubbers, it shall be reported.				
12. Verify piping sizes.				
13. Hanger location in building (General area) (Description: <i>TRUNION Pm. CONDENSER BAY</i>)			✓	

11 Creek - OC

SUPPORT # N/A

ITEM	Y	N	N/A	REM
14. Hanger hardware:				
<ul style="list-style-type: none"> A. Clips B. Clevis C. Cotter Pins D. Turnbuckles E. Nuts/Bolts (Check all attachments for double nut requirements) F. Spring Canisters G. Locking Tabs on Nuts H. Washers I. Swivels 				✓
15. Hanger configuration in accordance with applicable drawings:				
<ul style="list-style-type: none"> A. Dimensions B. Angles of support to system and base plate C. All hanger attachments i.e., clips, brackets, etc. orientated correctly. D. Strut or Snubber pin to pin distance _____ 				
16. Weld locations:				
<ul style="list-style-type: none"> A. Proper weld location B. Proper weld spacing C. Proper number of welds D. Thru paint (average value _____) 				
17. Anchor Bolts:				
<ul style="list-style-type: none"> A. Type B. Size _____ number _____ C. Thread engagement D. Bolt c/c spacing E. C/C from anchors to closet anchor _____ 				
18. Gaps @ stops:				
<ul style="list-style-type: none"> A. At U-bolts or Restraints B. At pipe penetrations 				
*TOLERANCES FOR MEASUREMENT ACCURACY				
<u>Measurement</u>	<u>Tolerance</u>			
0" - 2"	± 1/16"			
N 2" - 12"	± 1/8"			
N 12" - 36"	± 1"			
N 36" - ∞	± 3"			
* Unless otherwise shown on the dwg.				
<p style="font-size: 1.2em; margin: 0;"><i>Robert Rein</i> 10/20/05</p> <p style="margin: 0;">QC INSPECTOR(S) DATE</p>				

Oyster Creek - QC

SUPPORT # N/A

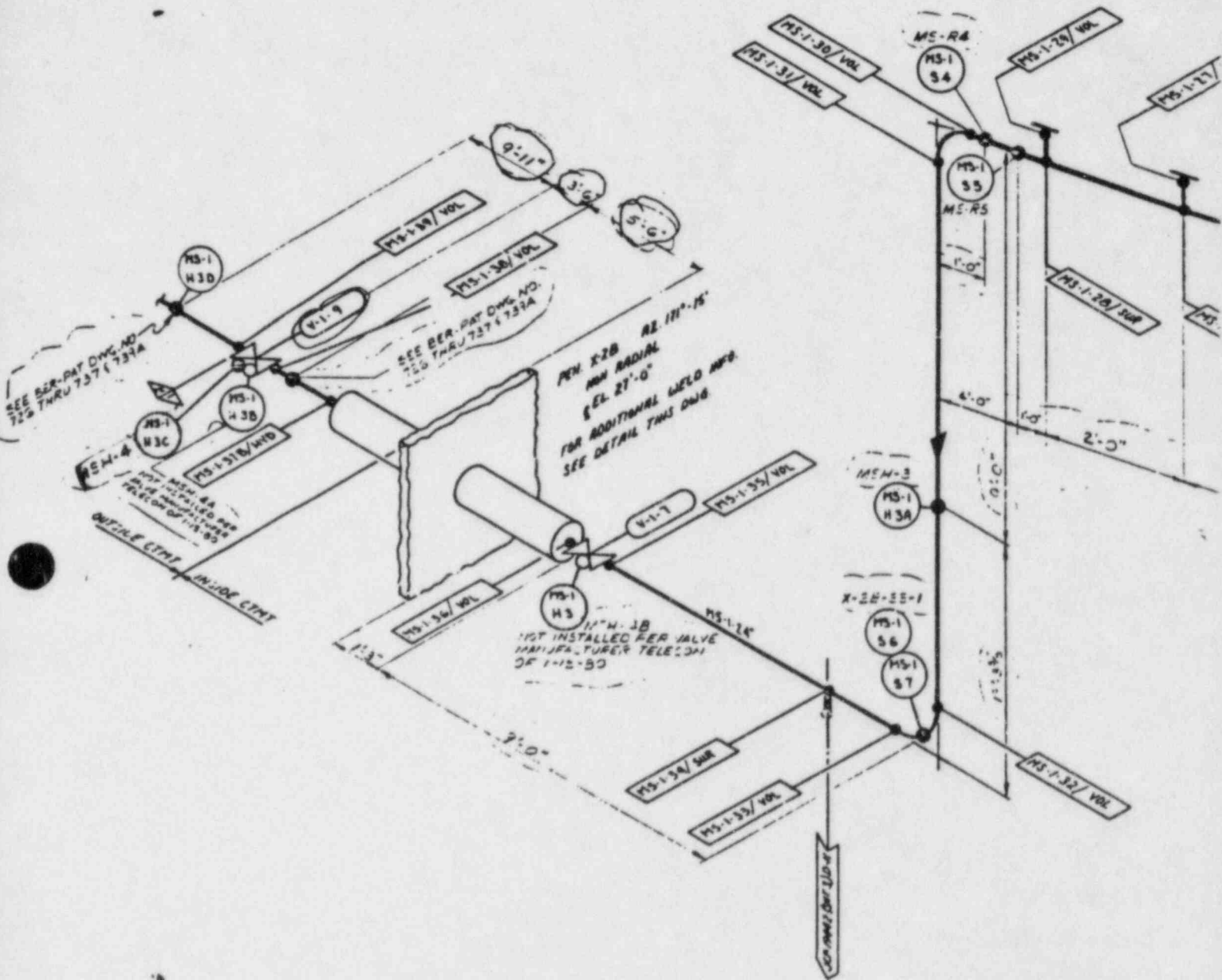
PER MNCR _____

SUPPORT DWG# _____

	Y	N	N/A	REM
19. Confirm pipe clamp figure no. If not possible, fill in appropriate form attached.			✓	
20. Baseplate attachments location recorded on the anchor plate verification sheet.				
21. For valves noted in the walkdown, record their location & orientation on the isometric drawing. Describe orientation by stating (1) direction observer is facing, and (2) angle of valve \perp to pipe \perp to nearest 30 degrees (such as hours on a clock with 12:00 being direction facing the observer).				
22. For hangers where other systems (i.e. piping, conduit, etc.) are also supported, give size of this system and describe type of support and distance to upstream and downstream hangers supporting that system.				
Other items as specified by calculation sheet request attached.			✓	

Robert B. Stein 10/20/85
 QC Inspector(s)/Date

ORIENT STEM OF VALVE

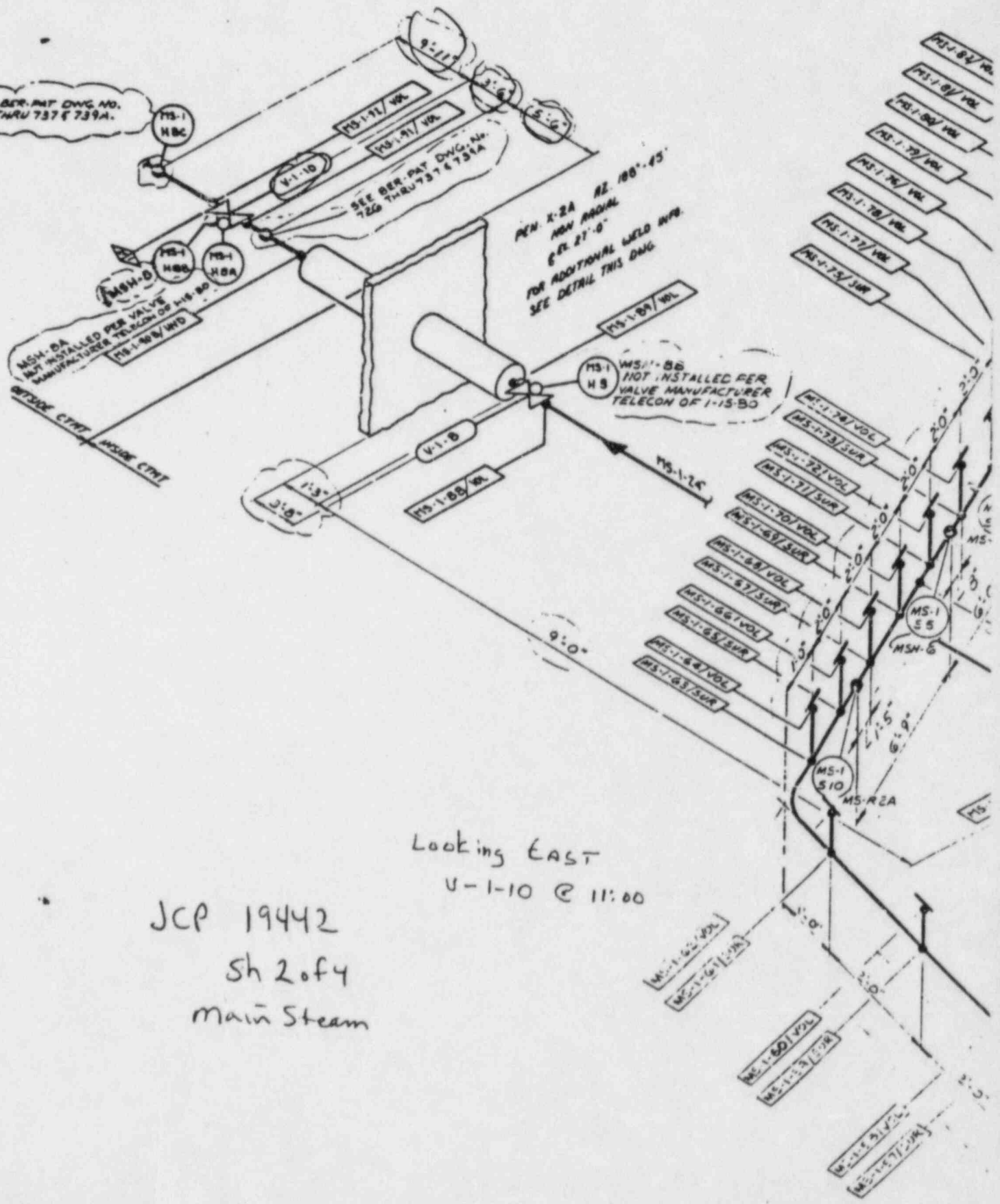


Looking EAST
V-1-9 @ 1:00

JCP 19442
Sh 1 of 4
MAIN STEAM

1 2 3 4 5 6

SEE SER. PAT. DNG. NO. 726 THRU 737 & 739A.



PEN. X-2A RZ. 100°.45"
RDN RADIAL
6 EL. 21'-0"
FOR ADDITIONAL WELD WPS
SEE DETAIL THIS DNG.

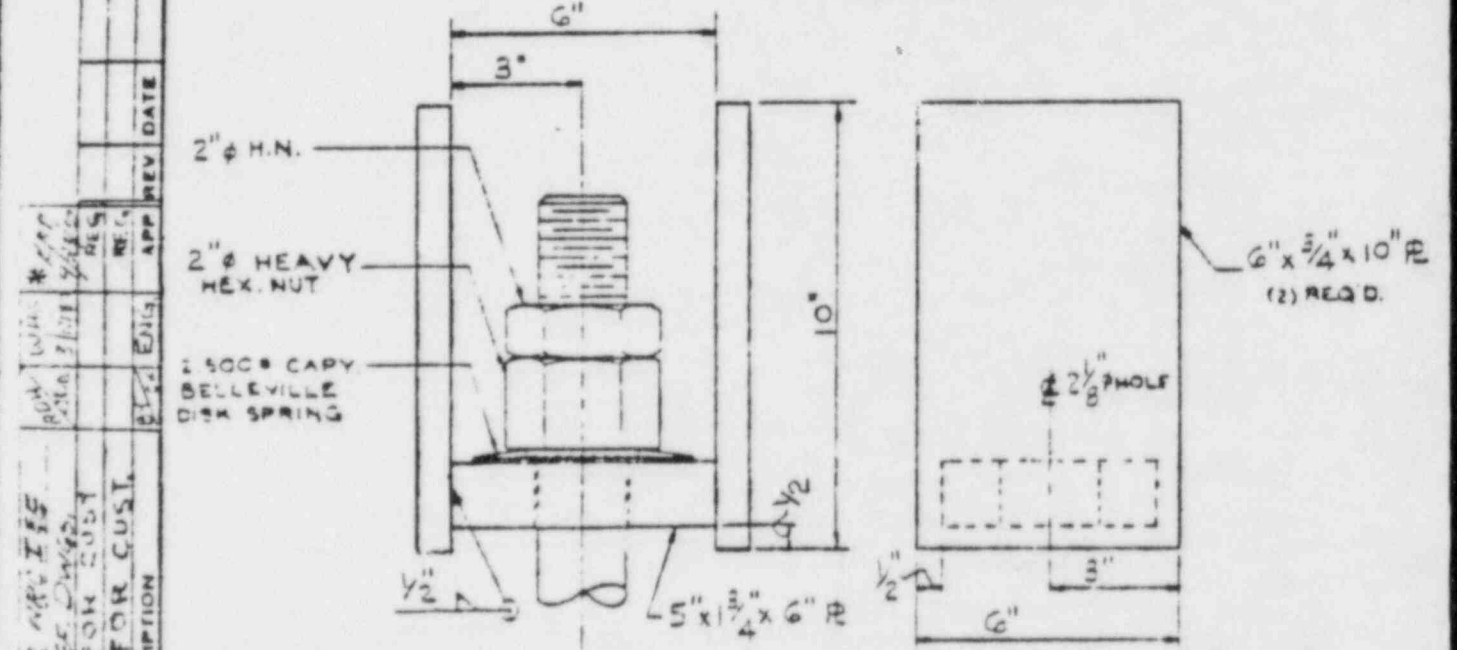
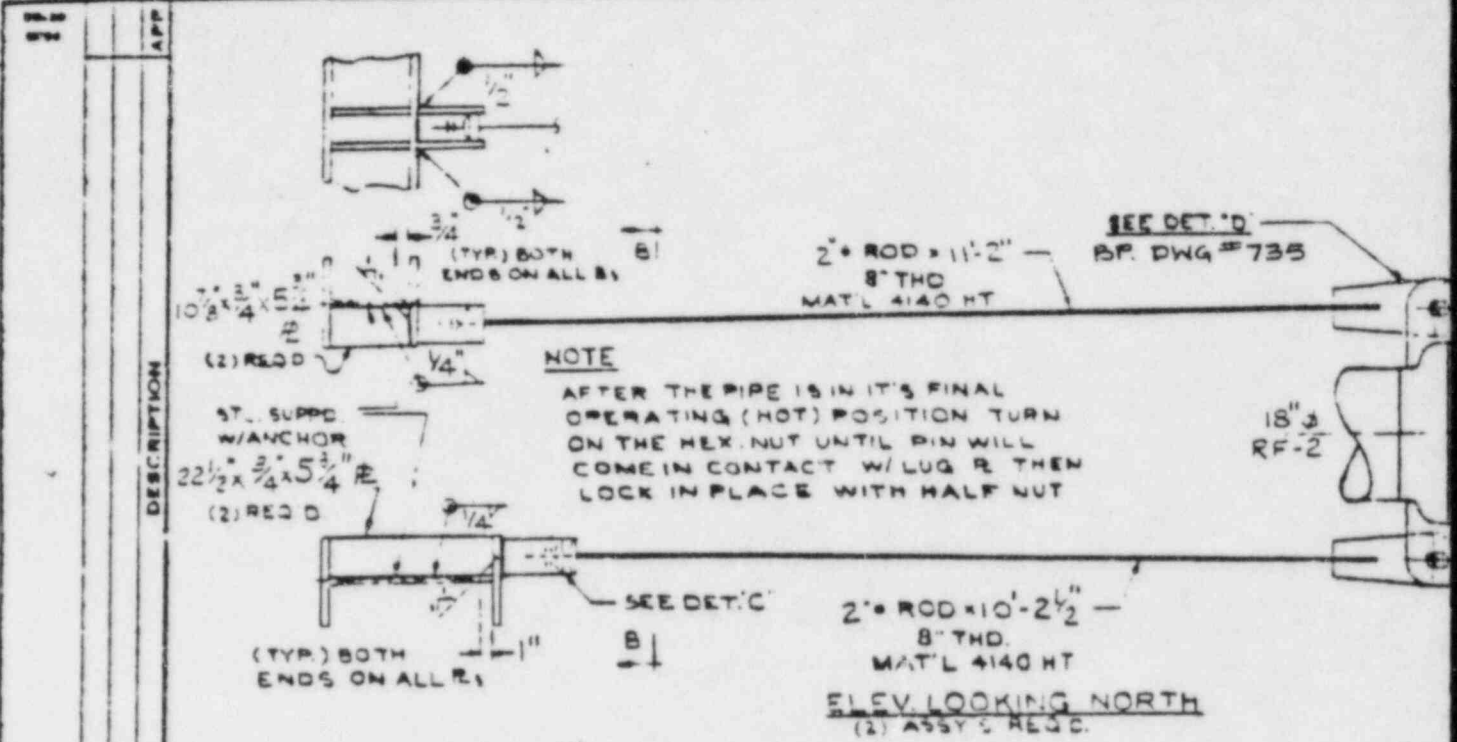
MS-1 H 8
MS-1 H 9
NOT INSTALLED PER
VALVE MANUFACTURER
TELECON OF 1-15-50

MSH-8A
NOT INSTALLED PER VALVE
MANUFACTURER TELECON OF 1-15-50

Looking EAST
U-1-10 @ 11:00

JCP 19442
sh 2 of 4
main Steam

D+D Drawings



DETAIL 'C'

(4) ASSY'S REQ'D

REF. DWGS.
 BER-FAT INDEX: 725
 BER-FAT 150: 72B, 1857
 GPC. 150: JCP. 19448 2K 1/2, 100: 19448 SHT 3
 * INDICATES PARTS TO BE USED

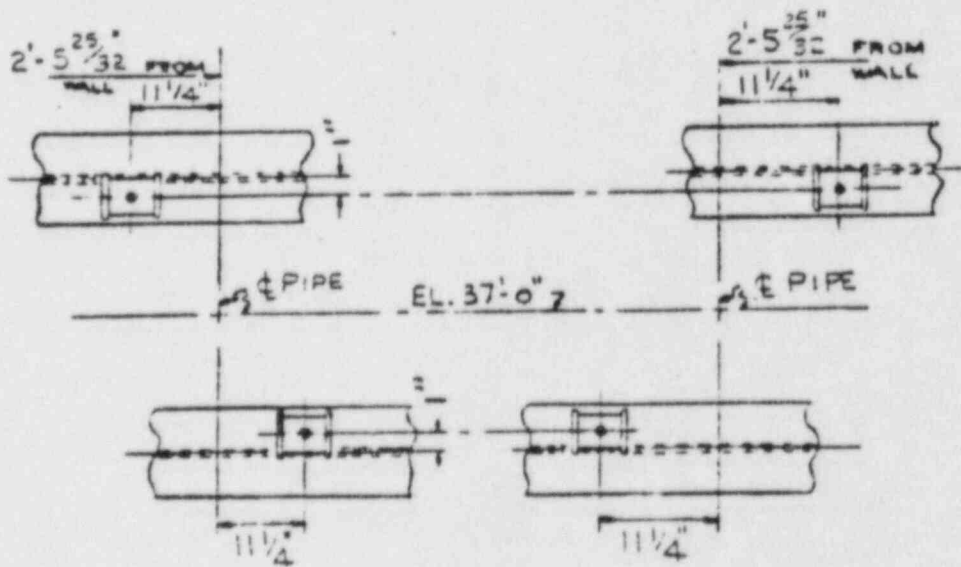
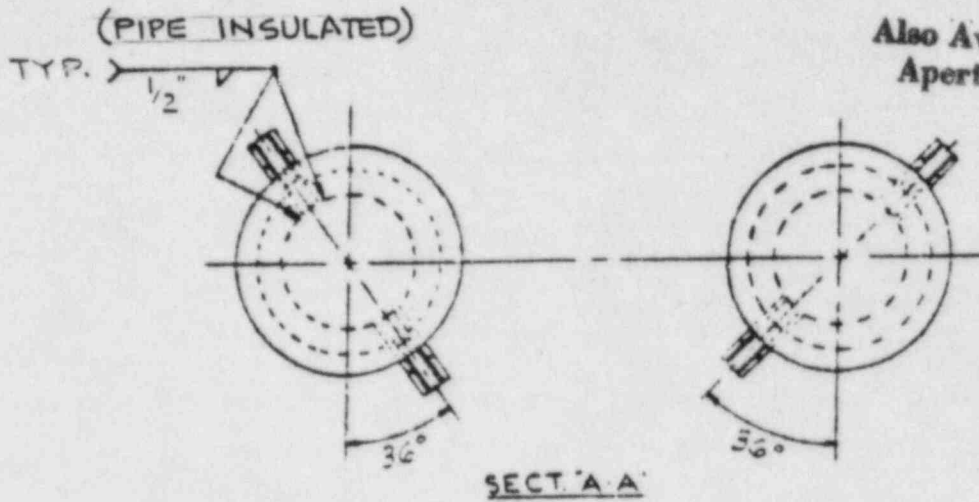
FOR VERIFICATION FOR MR. IIS
 C. TO: 2119 ADDRESSEE DWG.
 REV'D AS SHOWN FOR COST.
 REV'D AS SHOWN FOR COST.

REV	DATE	DESCRIPTION	APP	REV	DATE	DESCRIPTION
1	3-20-68					
2	4-11-68					

REACTOR FEEDWATER
 BER DWG. 2109-3 & B.P. DWG 726
 W. B. BELL & CO., INC. P. C.
 ROE, INC.
 CREEK STA #1

API APERTURE CARD

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 CONSTRUCTION OR MAINTENANCE
 UNLESS VERIFIED TO BE THE
 LATEST REVISION IN ACCORDANCE
 WITH THE DRAWING INDEX.

BERGEN-PATERSON PIPESUPPORT CORP.



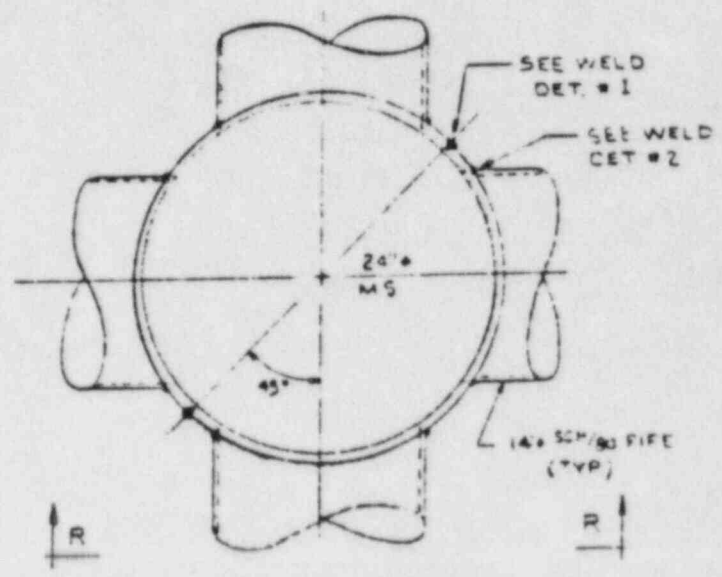
- CAMBRIDGE MASS
- PITTSBURGH PA
- SAN FRANCISCO CALIF
- WOOD BRIDGE N.J.
- HEMPSTEAD N.Y.

DATE
2-24-67
JOB NO. P.66-1070
DWG. NO 734

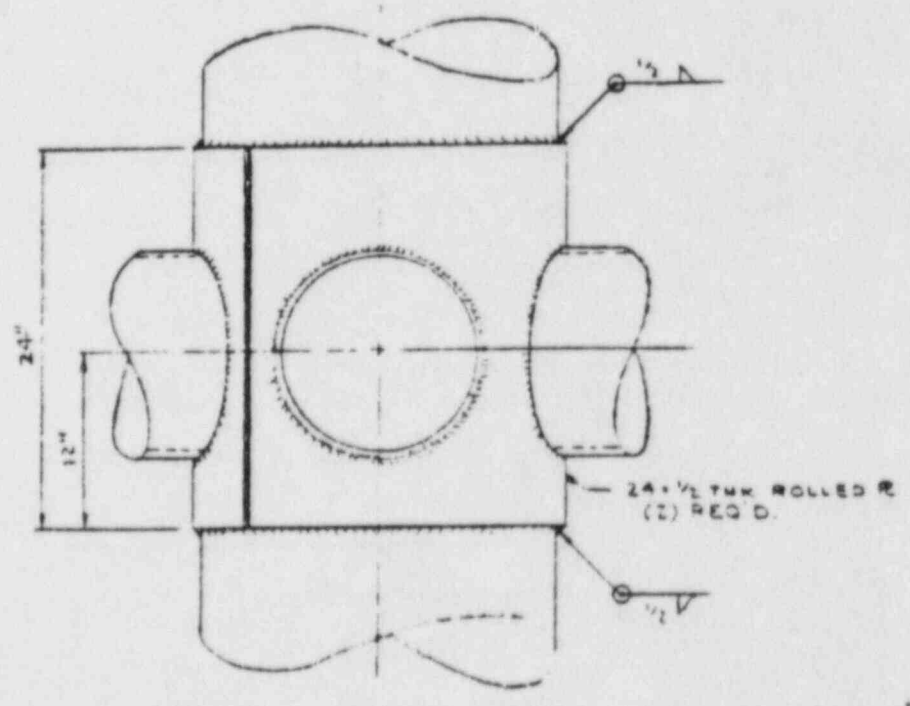
8603250/63-01

REV	DATE	DESCRIPTION	APP
4			
3			
2			
1			

REV'D WELD FOR CUST.



DETAIL "P"
(CLASSY'S REQ'D)



SECT "R-R"

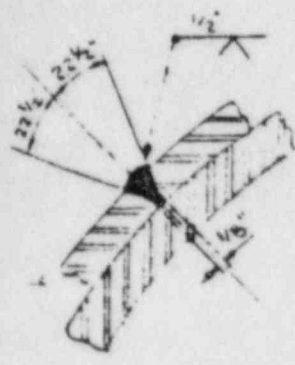
FEED LINE
 BEP PAT INDEXT 725
 BEP PAT ISO : 723, 1857
 GPC 1501 JCP-19443 SHT 1/2,
 JCP-19443 SHT 2

*INDICATE ADDONAL BY JCP/L

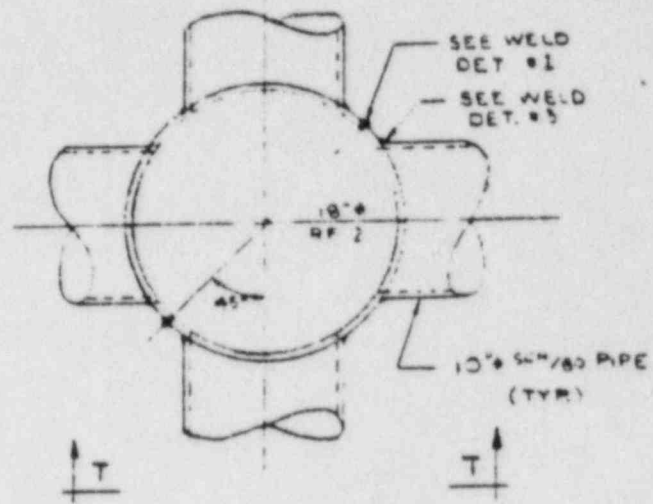
PIPING SYSTEM - MAIN STEAM REACTOR FEEDWATER
 REFERENCE DWG - B-P DWG 725

A.M.I.E.A. ENGINEERING CO. INC.
 BURNS & ROE, INC.
 OYSTER CREEK STA. #1

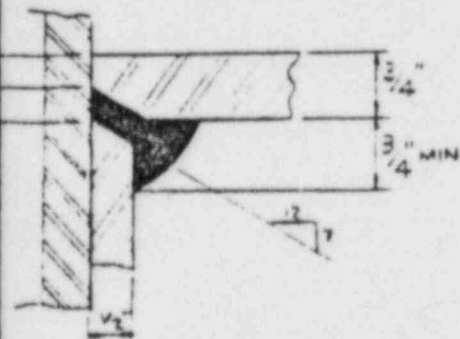
PIPE INSULATED CAN NOT VERIFY WELDS



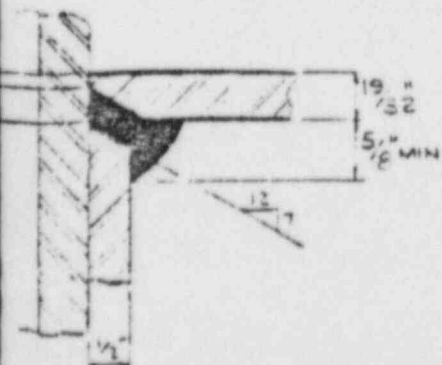
WELD DET #1



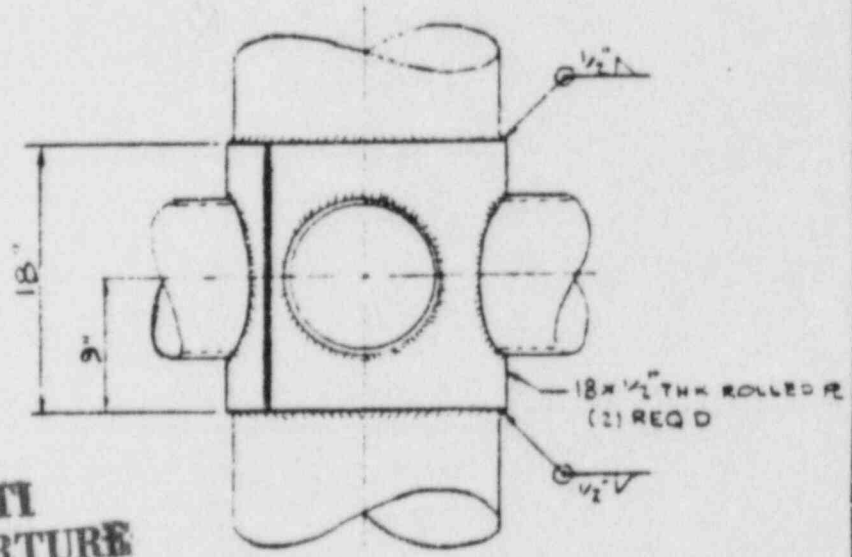
DETAIL 'S'
(2) ASSY'S REQ'D.



WELD DET #2



WELD DET #3



SECT T-T

**TI
APERTURE
CARD**

Also Available On
Aperture Card

AUG 17 1982

7248

BERGEN-PATERSON PIPESUPPORT CORP.

1000 DEL MAR
PITTSBURGH, PA
SAN FRANCISCO, CA

NO. 1000
1000



DESIGN	CHG	APPROV	DATE
REG	59		3-21-67
JOB NO	P-66-1070		
DATE	736		

8603250163 -02

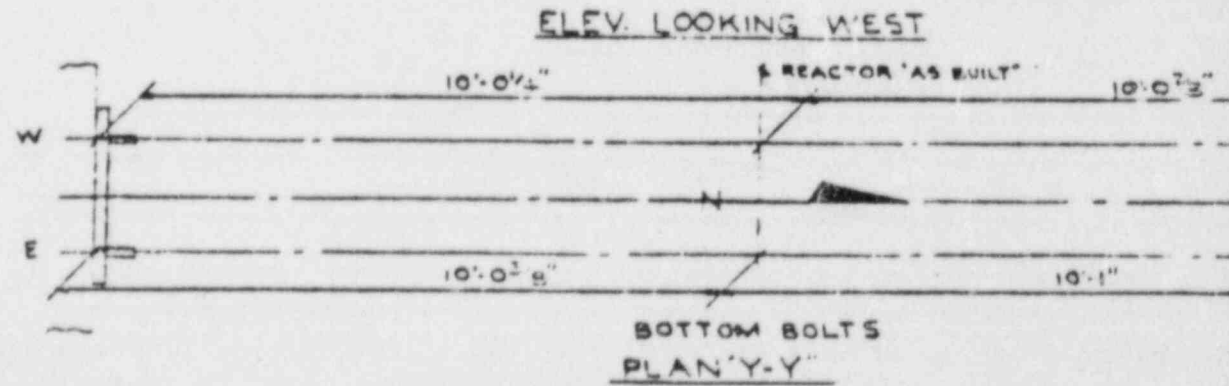
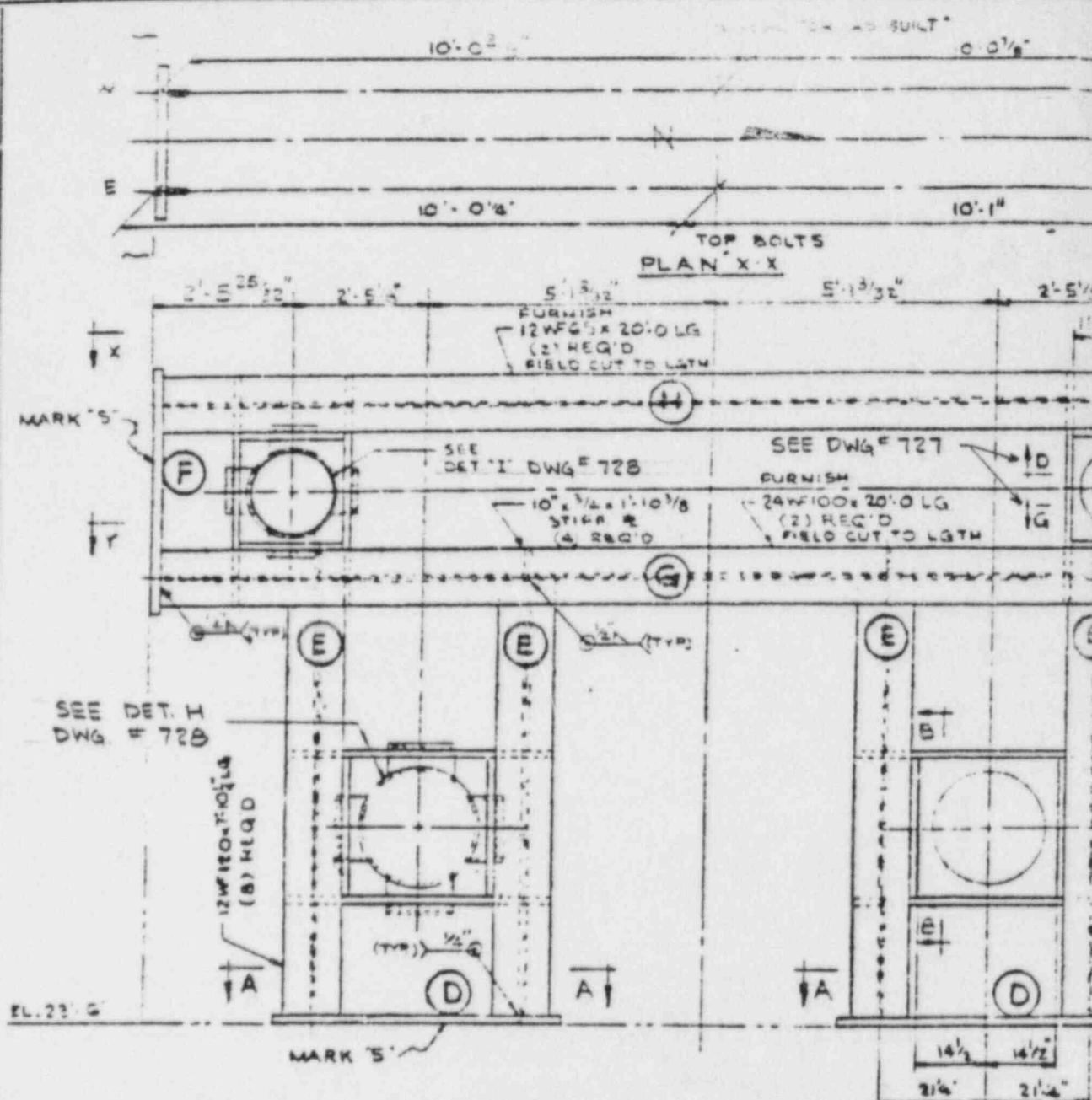
SLIP VERIFICATION FOR NRI USE
 DATE 7/1/68 APPLIED DES. & KINGS
 REV'D AS SHOWN FOR CUST.

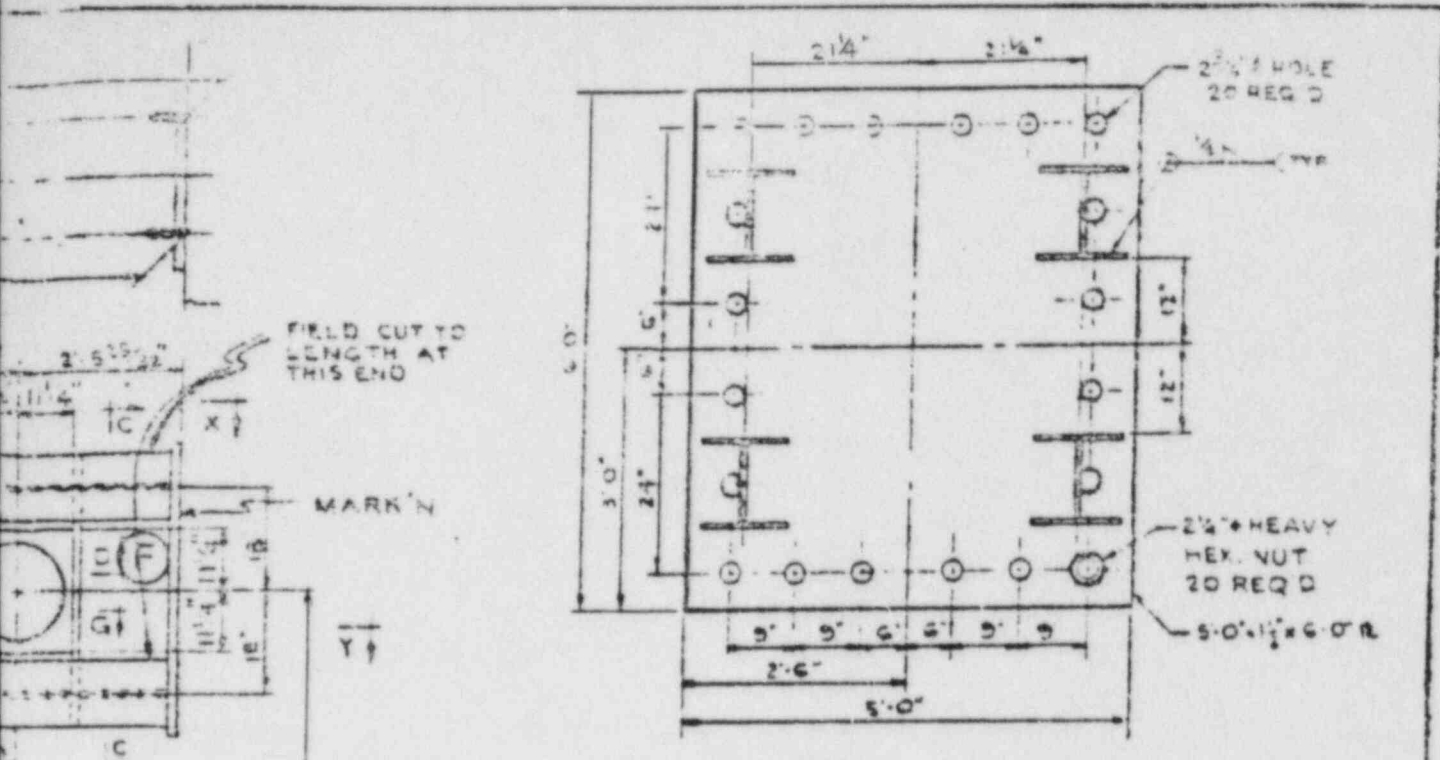
REV	DATE	DESCRIPTION
2	3/20/67	
1		

REV	DATE	DESCRIPTION
4		
3		

PIPING SYSTEM MAIN STEAM REACTOR FEEDWATER
 REFERENCE DWG. B1R DWGS. 2103-34 2105-8

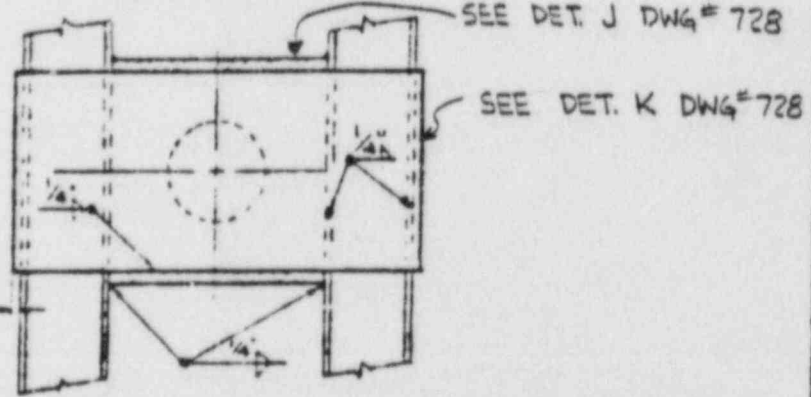
ALMIRALL & CO., INC. P. O. #7
 CUSTOMER
 BURNS & ROE INC.
 ENGINEER
 OYSTER CREEK STA #1





SECT. A-A
 (2) ASSY 5 REQ D.

SHOP NOTE: FOR "AS BUILT" LOCATION OF
 A.B. SEE BAR DWG AB107, SHT. 1



**ATI
 APERTURE
 CARD**

Also Available On
 Aperture Card

SECT. B-B

REF DWG.
 SER - PAT INDEX: 725
 SER - PAT. NO: 25, 1557
 SPC 1501 JCP-19442 SHT 1 & 2, JCP-19443 SHT 3
 * INDICATES APPROVAL BY JOPFL

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 WITH THE DRAWING INDEX.**

248

BERGEN-PATERSON PIPESUPPORT CORP.

- LANGE ONE WAY
- WOOD RIDGE N. J.
- HUNTSVILLE, ALA.
- HENRIEVILLE, N. Y.
- SAN FRANCISCO, CALIF.

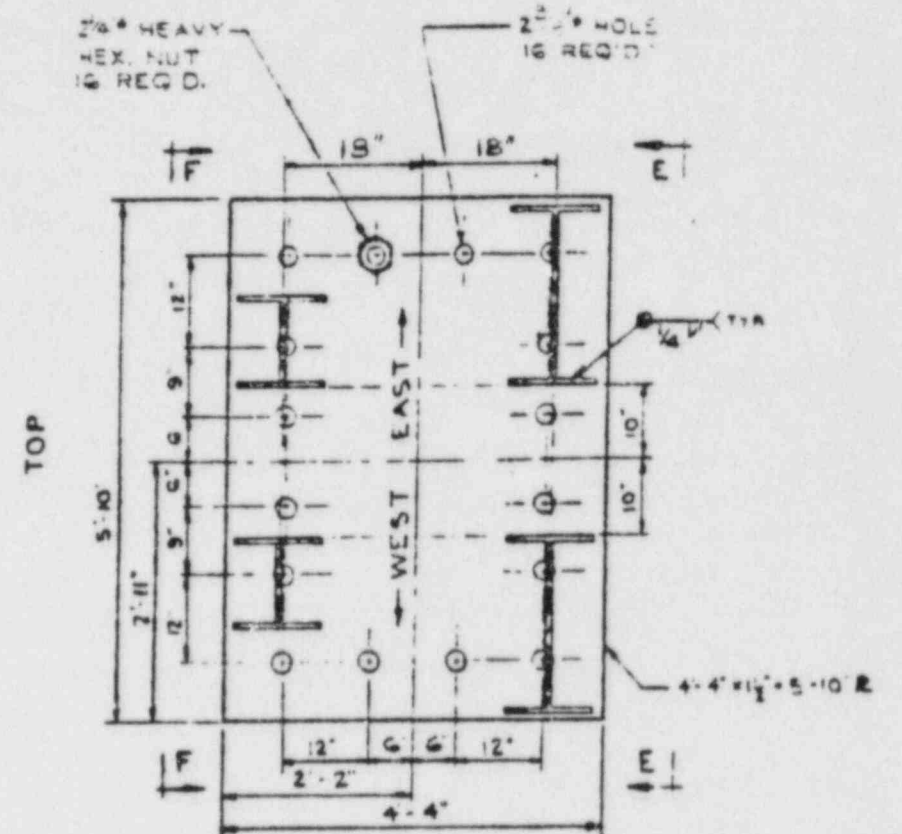


DRAWN	CHK'D	APP'VD	DATE
REG	21		2-24-67
JOB NO. P-66-1070			
DWG. NO. 726			

AUG 17 10

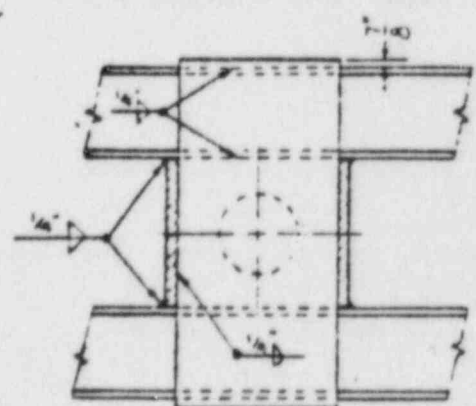
8603250163-03

4200	ADDED LOUFT PLAN	DESCRIPTION	REV	DATE	APP	REV	DATE	DESCRIPTION
1	REV'D AS SHOWN FOR CUST.		3					FIELD VERIFICATION FOR N.E. IFE BLTN. 7/2/74. ADDED REF. DWGS.



SECTION C-C
(GLASSY S REQ'D)

SHOP NOTE: FOR "AS BUILT" LOCATION OF A.B. SEE B/R DWG AB107, SHT. 2



DET. L
SEE DWG # 728

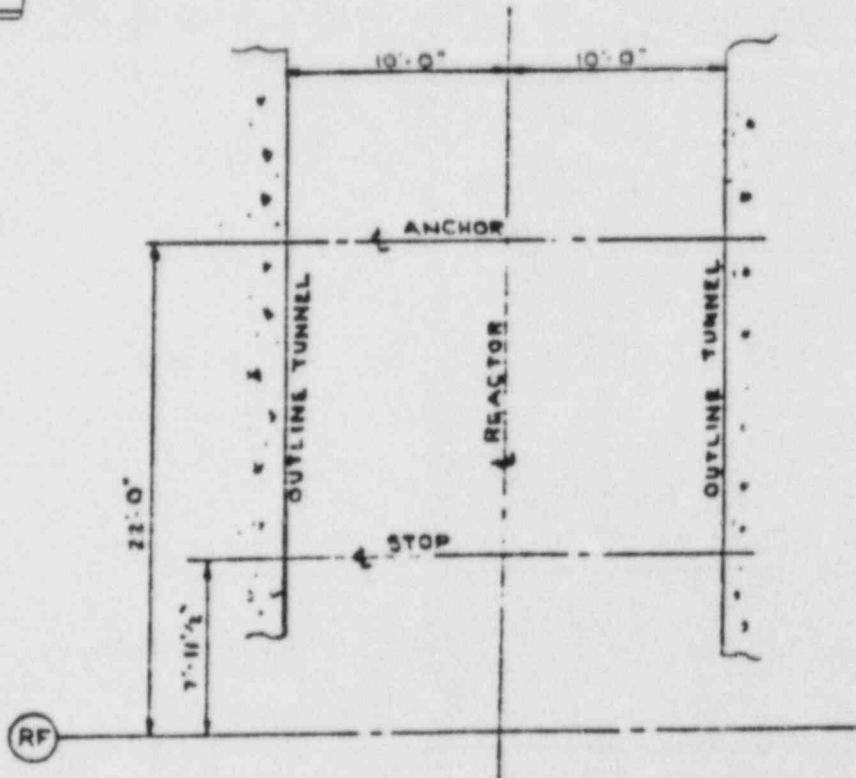
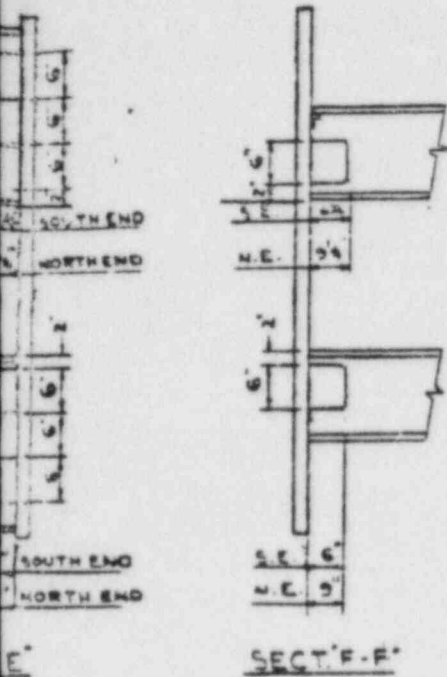
REF DWGS.
SER - PAT INDEX: 725
SER - PAT / SO: 723, 857
GFC / SO: LCP-19442 SHT 1 & 2, LCP-9443 SHT. 3
* INDICATES APPROVAL BY UJFFL

PIPING SYSTEM MAIN STEAM REACTOR FEEDWATER
REFERENCE DWG B-R DWG 726

ADMIRAL & CO., INC. P. O. #7
ENGINEER
BYRNS & ROE, INC.
CONSUMER
SYSTEM CREEK STA #1

TI APERTURE CARD

Also Available On
Aperture Card



PLAN

DET. N
SEE DWG # 728

UNCONTROLLED PRINT
DO NOT USE FOR OPERATION,
CONSTRUCTION OR MAINTENANCE
UNLESS VERIFIED TO BE THE
LATEST REVISION IN ACCORDANCE
WITH THE DRAWING INDEX.

BERGEN-PATERSON PIPESUPPORT CORP.



- CAMBRIDGE MASS.
- PITTSBURGH PA.
- SAN FRANCISCO CALIF.
- WIND RIDGE N. J.
- WASHINGTON D. C.

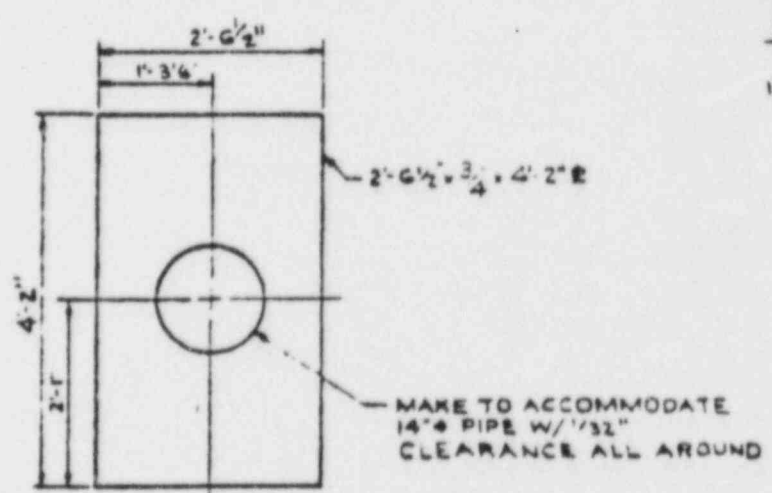
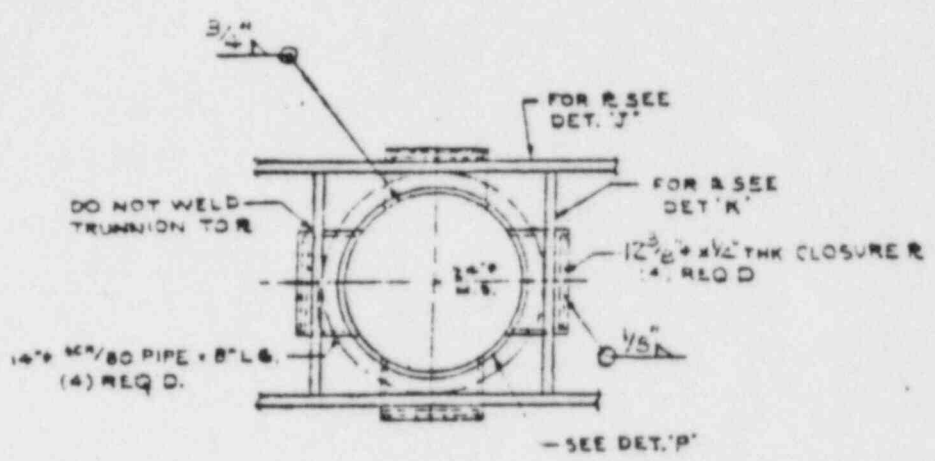


REV. 31 2-24-67
JOB NO. P66-1070
DWG NO. 727

AUG 17 1982

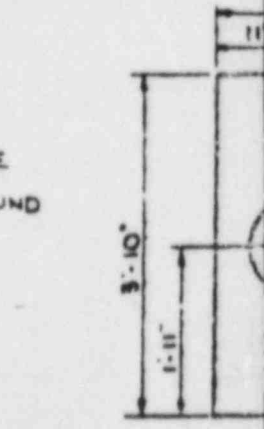
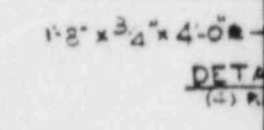
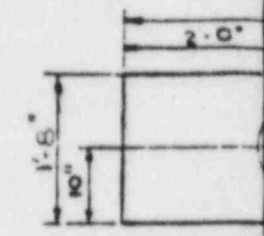
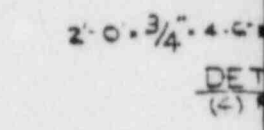
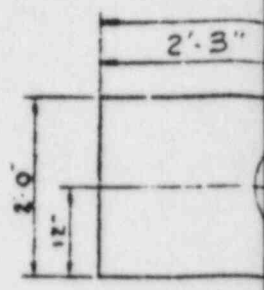
8603250163-04

DATE	DESCRIPTION	APP	REV	DATE
	REV'D AS SHOWN FOR CUST			
		W.H.	1	
		W.H.	2	
		W.H.	3	
		ENG		



INDICATES APPROVAL BY JCP 5/6

REVISIONS
 FOR REV. 1/1/57 T25
 REV. FOR 50: 723. 1857
 DATE 12/1 - JCP-19442 SMT. 182
 JCP-19442 SMT. 3



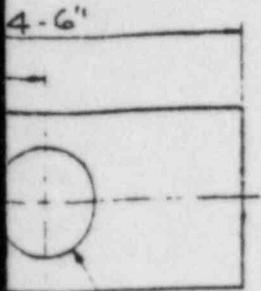
DESCRIPTION: PIPING SYSTEM MAIN STEAM (REACTOR FEEDWATER)

REFERENCE DWG. B-P. DWG 726

ALMIRAL & CO., INC. P. O.
 CUSTOMER
 BURNS & ROE, INC.
 ENGINEER
 OYSTER CREEK STA #1
 CONSUMER

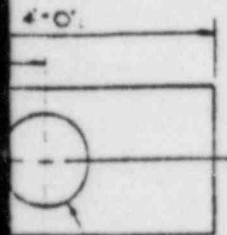
TI APERTURE CARD

Also Available On Aperture Card



- SAME AS DET. K

ALL "J" REQ'D



MAKE TO ACCOMMODATE 10" Ø PIPE W/ 1/32" CLEARANCE ALL AROUND

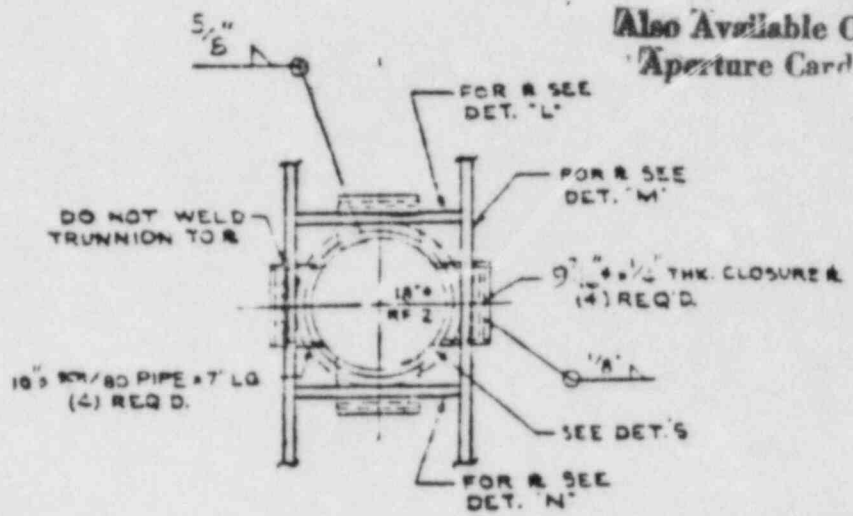
ALL "M" REQ'D



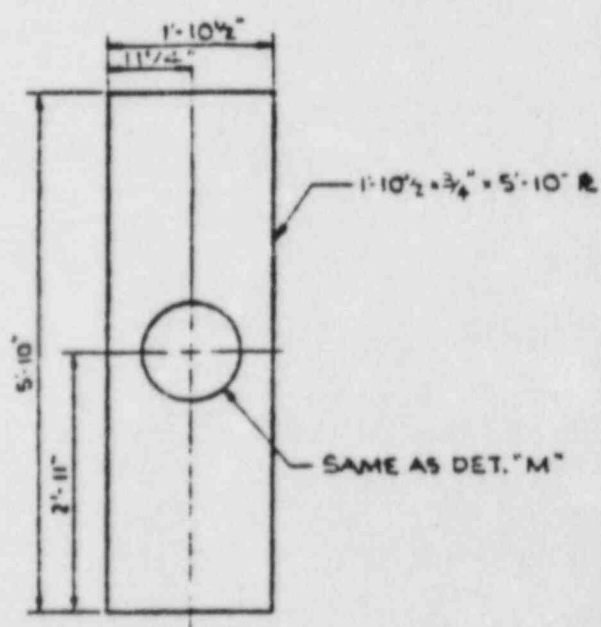
1.10 1/2" ± 3/4" = 3.10" R

- SAME AS DET. "M"

ALL "L" REQ'D



DETAIL "I"
(2) ASSY'S REQ'D.



DETAIL "N"
(2) REQ'D.

SHOP NOTE

MARK EA. & W/ CORRESPONDING TRUNNION PC.

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DO NOT USE FOR OPERATION,
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UNLESS VERIFIED TO BE THE
LATEST REVISION IN ACCORDANCE
WITH THE DRAWING INDEX.

AUG 17 1982

7248



BERGEN-PATERSON PIPE SUPPORT CORP.

CAMBRIDGE, MASS. NEW YORK, N.Y.
PITTSBURGH, PA. PHOENIX, ARIZ.
SAN FRANCISCO, CALIF.



DRAWN	CHEK'D	APPRVD	DATE
REG	SJ		2-24-67
JOB NO	P. 66-1070		
DWG NO	728		

8603250163-05

11
11

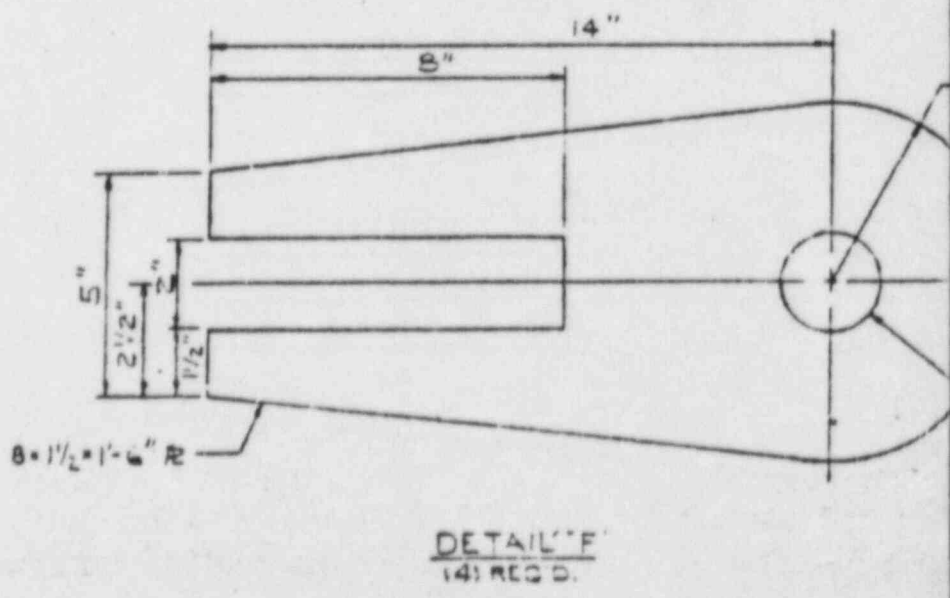
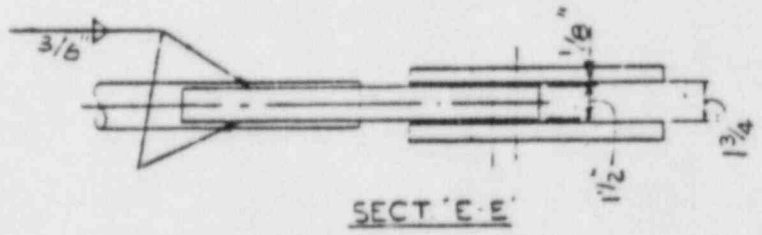
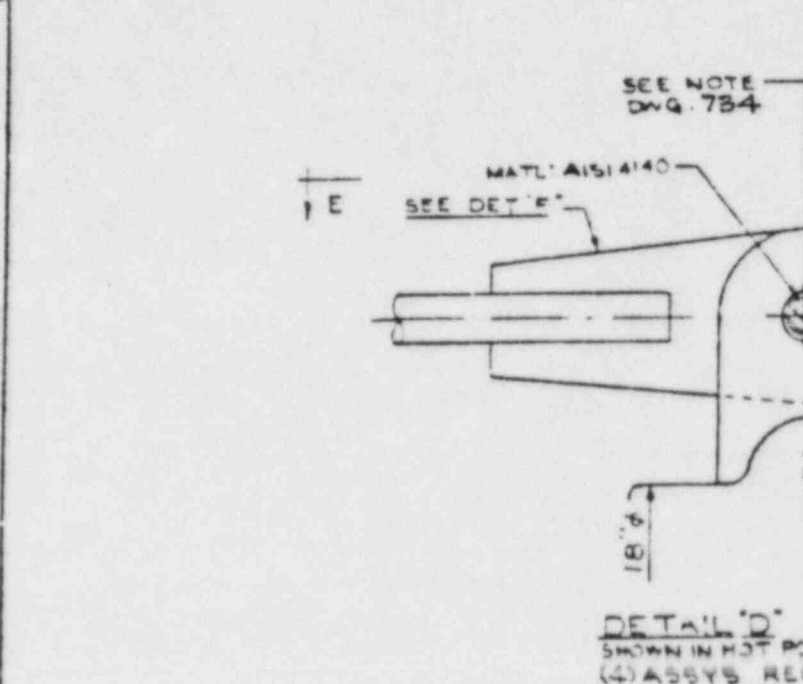
REV	DATE	DESCRIPTION
4		
3		

APP	REV	DATE
	4	
	3	

DESIGNER: [Signature]
 CHECKER: [Signature]
 APPR: [Signature]

FIELD VERIFICATION FOR ARC I/F
 FLTN. 77-18. ADDED SEE DWGS.
 REV'D AS SHOWN FOR CUST

DATE: [Blank]
 REFERENCE DWG: [Blank]

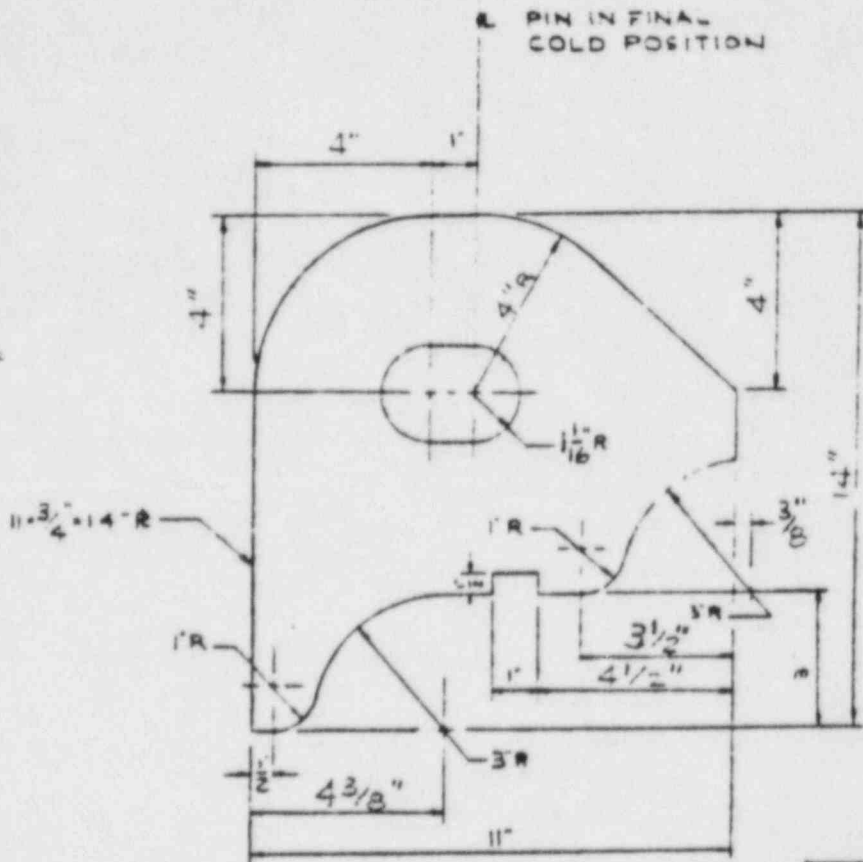


PIPING SYSTEM: REACTOR FEEDWATER
 REFERENCE DWG: E-P DWG 734

ALUMINUM CO., INC. P. C.
 1000 W. 10TH ST.
 PITTSBURGH, PA. #1

TI APERTURE CARD

Also Available On
Aperture Card



DETAIL "G"
(B) REQ'D

UNCONTROLLED PRINT
DO NOT USE FOR OPERATION,
CONSTRUCTION OR MAINTENANCE
UNLESS VERIFIED TO BE THE
LATEST REVISION IN ACCORDANCE
WITH THE DRAWING INDEX.

AUG 17 1982

REF DWGS.

- BER-PAT INDEX: 725
- BER-FAT 150: 723, 1857
- GPC-150: JCP-19442 SHT 1 & 2, JCP-19443 SHT 3
- * INDICATES APPROVAL BY JCP/EL

2" REAMED HOLE FOR
2" x 6" LG PIN & COTTER
W/ (2) 2" WASHERS

#7248

BERGEN-PATERSON PIPESUPPORT CORP.



- CAMBRIDGE MASS
- DIVISION OF
- SAN FRANCISCO



DRAWN	CHK'D	APPROV'D	DATE
REG 41			2-24-82
JOB NO	P-55-1070		
DWG NO	735		

8603250163-06

Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORMNO A _____
RETENTION _____

1. Identification

Originator: Kevin McCullen / Randy Bidwell
Material, Part, Component, etc.: N/A / M Bowler

Date/Time: 10/24/85 4:21 PM

Location: DRYWELL ELEV 23' + 85'
Manufacturer (Name): N/A Code: N/A
P.R.#: N/A Line #: _____ Spec #: N/A
System: MAIN STEAM System Tag No: N/A
Dwg No. JCP 19442 SH1 REV 2 Heat Code No: N/A Other: N/A

Nonconforming to (requirements):
DIMENSIONAL DISCREPANCY
SEE DISCREPANCIES / DISPOSITION SH1 ATTACHED

Description of Nonconformance:
SEE DISCREPANCIES / DISPOSITION SH1 ATTACHED

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

Important To Safety	POTENTIALLY REPORTABLE:					
	10CFR50	10CFR21	10CFR71	10CFR73.71	LE.R.	
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

Evaluated By (Name): D.L. Robertson - Supv. QC Programs Date/Time: 10-25-85 / 0713
QC Mgr. Validation: [Signature] Date/Time: 10-25-85 / 0713

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____
Licensing Notified: YES NO Date/Time: _____
Hold Tags Issued: YES NO No. of Tags: _____
Tags Installed By (Name): NA Date/Time: _____
Material Segregation Required: YES NO
Segregation Verified By (Name): NA Date/Time: _____

ACTION PARTY (Name): J.P. Maloney Dept: Plant Material

Forward to responsible individual/department (Action Party).

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: Grand engineering determination as to adequacy of as-built configuration. IC adequate, revise drawing to reflect as built

Evaluation/Disposition By (Name): [Signature]

Dept: Plant Material
Date: 10-24-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (include applicable work documents, limitations, re-test requirements, etc.)

See attached sheet for justification

Re-inspection/Retest Requirements (As Applicable): _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No.: _____

Evaluated By (Name): [Signature]

Dept: Tech Funct. Eng'g Mach's
Date: 10-24-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: [Signature] Date: 10-24-85

Conditional Release Issued: YES NO Reject Tags Issued: YES NO

AI/ANI Concurrence: YES NO Signature: NA Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____

Work/Shipping Order No.: _____ Other: _____

Verified By (Name/Title/Date): _____

Tags/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____ Date: _____

Set 104

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

1. DIMENSIONAL DISCREPANCIES
PER ATTACHED DRAWING

DOES NOT IMPACT DESIGN :: OK

2. AZIMUTH OF PENETRATION IS 188° NOT
171° AS SHOWN.

DOES NOT IMPACT DESIGN :: OK

3. VALUE V-1-8 IS IN THE LOCATION
OF V-1-7.

DOES NOT IMPACT DESIGN :: OK

notes Per telephone conversation with J.L.
Sullivan, Operations Dept. will switch
tags on next drywell entry. P. J. R. 10/25/85

100 Creek - OC

Reviewed: *Bl. Lick*

SUPPORT # _____ *N/A*
 ISO DWG # _____ *JCP 15442 R2*
 ORTHO DWG # _____ *SHT 10F4*
 SUPPORT DWG # _____ *N/A*

VALVE # _____ *N/A*

MNR 85-110-17

ITEM	Y	N	N/A	REM
1. Proper Valve Orientation	/			
2. Skin Temperature _____ °F (C.R.)(PYR)			/	
3. Components identified in accordance with the appropriate drawing.	/			
4. Component location is within drawing tolerances.			/	<i>Handwritten note</i>
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.	/			
6. Verify that all welds are completed.			/	
7. Piping and supports are free of arc strikes.			/	
8. Snubbers and spring hangers are installed in accordance with drawing.			/	
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5% _____			/	
10. Record the amount of snubber extension from the fully compressed position. T or C = _____			/	
11. If the springs and snubbers are within: ¼" from the topped/bottomed out position for springs, and ¼" from the fully compressed/fully extended position for snubbers, it shall be reported.			/	
12. Verify piping sizes.			/	
13. Hanger location in building (General area) {Description: _____}			/	

Creek - QC

SUPPORT # _____ V/A _____

ITEM	Y	N	N/A	REM
14. Hanger hardware:				
A. Clips				/
B. Clevis				/
C. Cotter Pins				/
D. Turnbuckles				/
E. Nuts/Bolts (Check all attachments for double nut requirements)				/
F. Spring Canisters				/
G. Locking Tabs on Nuts				/
H. Washers				/
I. Swivels				/
15. Hanger configuration in accordance with applicable drawings:				
A. Dimensions				/
B. Angles of support to system and base plate				/
C. All hanger attachments i.e., clips, brackets, etc. orientated correctly.				/
D. Strut or Snubber pin to pin distance _____				/
16. Weld locations:				
A. Proper weld location				/
B. Proper weld spacing				/
C. Proper number of welds				/
D. Thru paint (average value _____)				/
17. Anchor Bolts:				
A. Type				/
B. Size _____ number _____				/
C. Thread engagement				/
D. Bolt c/c spacing				/
E. C/C from anchors to closet anchor _____				/
18. Gaps @ stops:				
A. At U-bolts or Restraints				/
B. At pipe penetrations				/
*TOLERANCES FOR MEASUREMENT ACCURACY				
<u>Measurement</u>		<u>Tolerance</u>		
0" - 2"		± 1/16"		
N 2" - 12"		± 1/8"		
N 12" - 36"		± 1"		
N 36" - "		± 3"		

* Unless otherwise shown on the dwg. *R. Bidwell*

M. Rowley 10/24/85
 QC INSPECTOR(S) DATE

Oyster Creek - QC

SUPPORT # NA

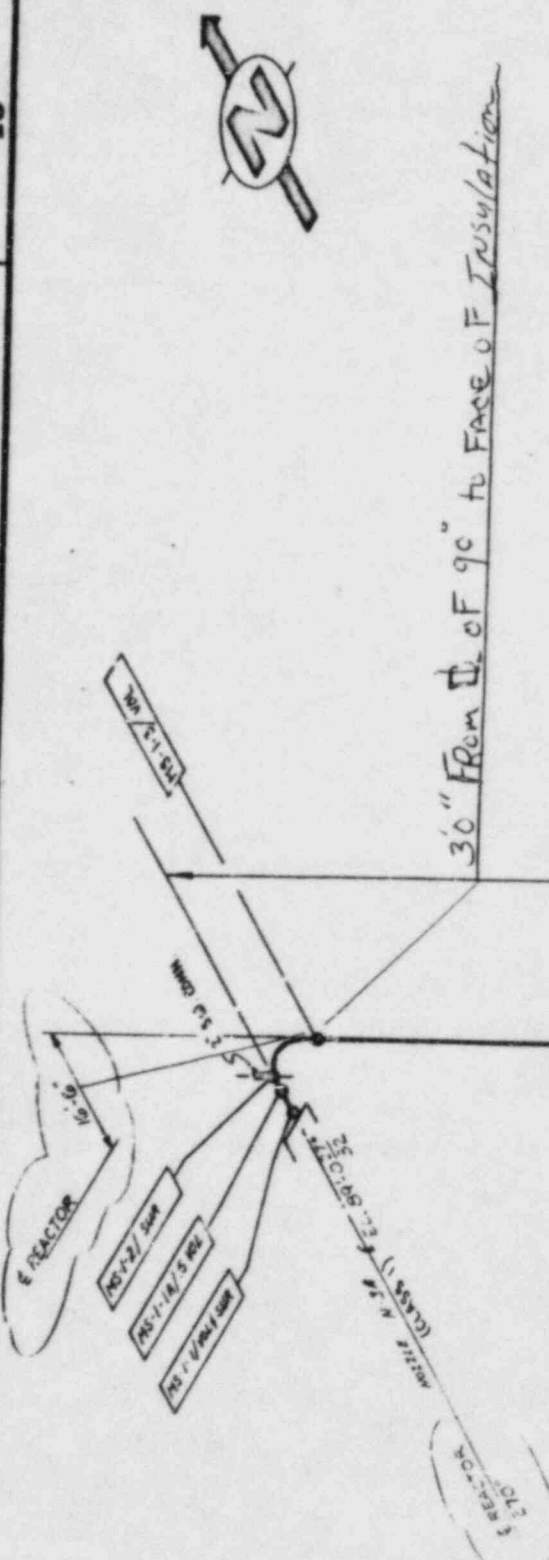
PER MNCR 85-110-17

SUPPORT DWG# NA

	Y	N	N/A	REM
19. Confirm pipe clamp figure no. If not possible, fill in appropriate form attached.			✓	
20. Baseplate attachments location recorded on the anchor plate verification sheet.			✓	
21. For valves noted in the walkdown, record their location & orientation on the isometric drawing. Describe orientation by stating (1) direction observer is facing, and (2) angle of valve ϕ to pipe ϕ to nearest 30 degrees (such as hours on a clock with 12:00 being direction facing the observer).			✓	
22. For hangers where other systems (i.e. piping, conduit, etc.) are also supported, give size of this system and describe type of support and distance to upstream and downstream hangers supporting that system.			✓	
Other items as specified by calculation sheet request attached.				

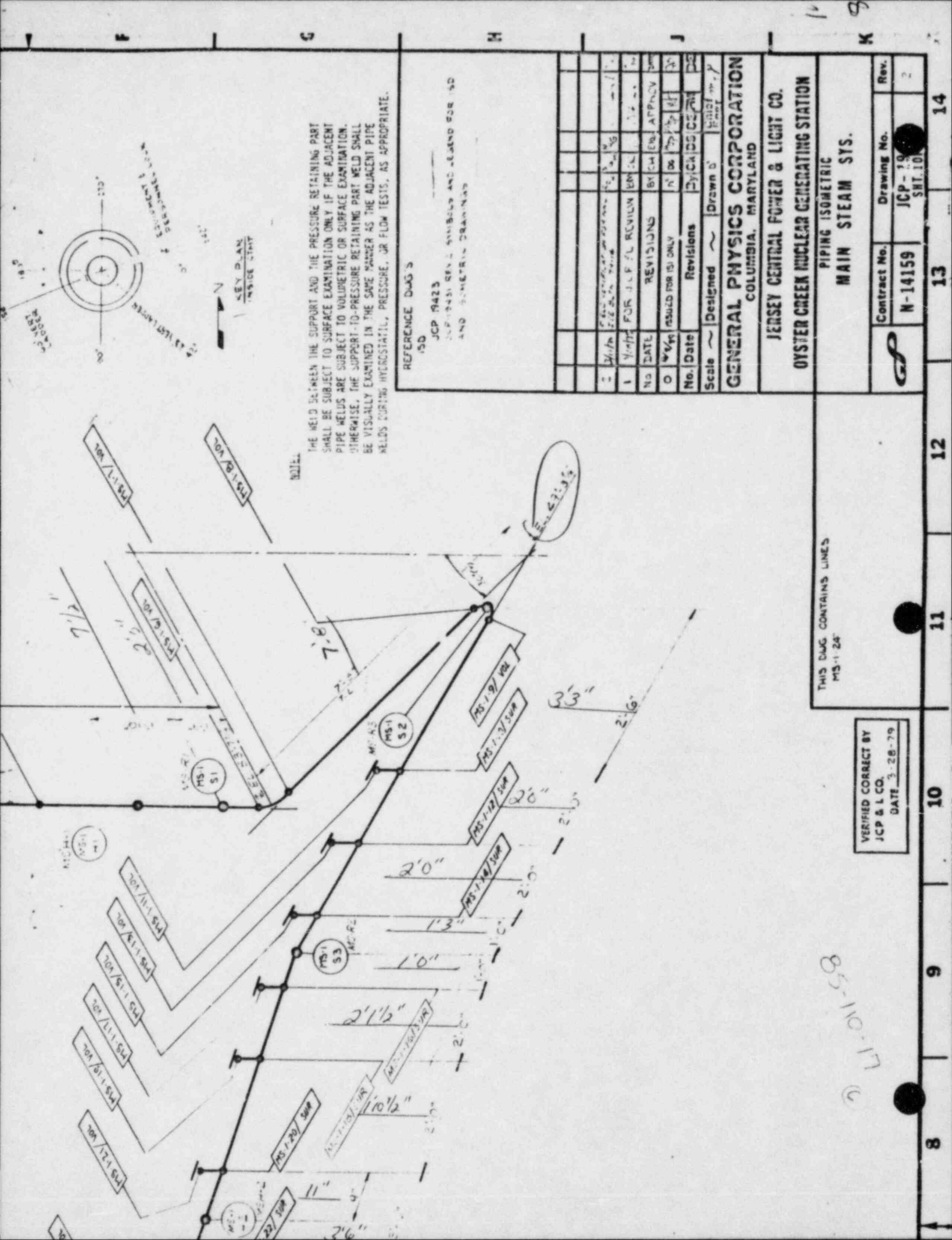
R. Bidwell
M. Bowler 10/24/85
 QC Inspector(s)/Date

8 9 10 11 12 13



NOTE: LINE IS COMPLETELY INSULATED

MS-1-5/5000
MS-1-4/5000



REFERENCE DWG'S
150

JCP 19423
JCP 19431 REV. 1 SYMBOLS AND LEGEND FOR ISD
AND ISOMETRIC DRAWINGS

No.	Date	Revisions	By	Checked	Appr.
1	7/1/79	FOR J.C.P. / L. REVISION	UNL		
0	7/1/79	ISSUED FOR ISD ONLY	N	DE	
Revisions			BY	CHECKED	DATE
Scale ~			Designed ~	Drawn ~	Issued ~

GENERAL PHYSICS CORPORATION
COLUMBIA, MARYLAND

JERSEY CENTRAL POWER & LIGHT CO.
OYSTER CREEK NUCLEAR GENERATING STATION

PIPING ISOMETRIC
MAIN STEAM SYS.

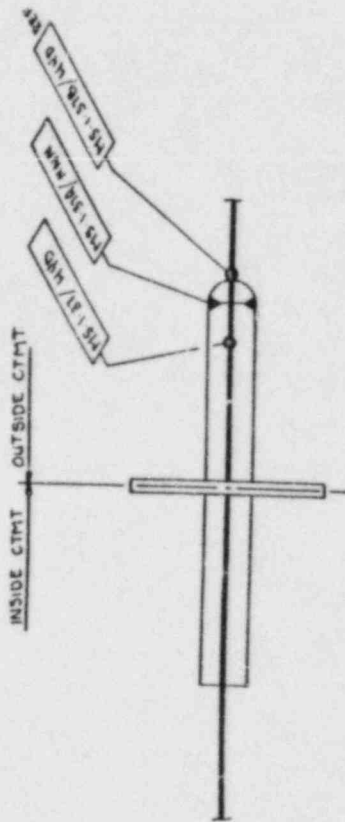
	Contract No.	Drawing No.	Rev.
	N-14159	JCP-19423 SHT. 10	2

THIS DWG CONTAINS LINES
MS-1-24'

VERIFIED CORRECT BY
JCP & L CO.
DATE 3-28-79

85-110-17

1 2 3 4 5 6 7



DETAIL PEN X:2A

18

MNCR Number 85-110-1018

RECNO _____

REV _____

DATE _____

RECTYPE _____

LOCATION _____

FORMNO A _____

RETENTION _____

Unit: TMI-1 TMI-2 Oyster Creek

1. Identification

Originator: Kevin McCauley / Randy Buchanan / M Rowley Date/Time: 10-24-85 / 16:15

Material, Part, Component, etc.: N/A

Location: Ocy Well Fract 27'-0" to EL. 89'-1 1/4"

Manufacturer (Name): N/A Code: N/A

P.R.# N/A Line # N/A Spec # N/A

System: Main Steam System Tag No. N/A

Dwg No. JCP 19442 1/2 ENT 2 & 4 Heat Code No. N/A Other N/A

Nonconforming to (requirements): Dimensional as shown

Description of Nonconformance: see discrepancy disposition sheet attached

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

Important To Safety	POTENTIALLY REPORTABLE:				
	10CFR50	10CFR21	10CFR71	10CFR73.71	LEA
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Evaluated By (Name): Kevin McCauley Date/Time: 10-24-85 5:10 PM

QC Mgr. Validation: Randy Buchanan Date/Time: 10-25-85 / 1522

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____

Licensing Notified: YES NO Date/Time: _____

Hold Tags Issued: YES NO No. of Tags: _____

Tags Installed By (Name): N/A Date/Time: _____

Material Segregation Required: YES NO

Segregation Verified By (Name): N/A Date/Time: _____

ACTION PARTY (Name): J. Maloney Dept: Plant Material

Forward to responsible individual/department (Action Party).

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: Provide engineering evaluation as to adequacy of as built configuration. If adequate revise drawing to reflect as built.

Evaluation/Disposition By (Name): [Signature]

Dept: Plant Material

Date: 10-25-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (Include applicable work documents, limitations, re-test requirements, etc.)

SEE ATTACHED SHEET FOR JUSTIFICATION

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No. _____

Evaluated By (Name): W. C. HAAS

Dept: T.E. EM

Date: 10-25-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: [Signature]

Date: 10-26-85

Conditional Release Issued: YES NO Reject Tags Issued: YES NO

AI/ANI Concurrence: YES NO Signature: NA

Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____

Work/Shipping Order No.: _____ Other: _____

Verified By (Name/Title/Date): _____

Tags/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____ Date: _____

HANGER *W. E. Hears*

MICR # 85-110-18

DWG. # JCP 19442-513
SHT. 2 OF 4

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

1. Dimensional discrepancies per attached drawing.

DISCREPANCIES ARE MINOR AND STRUCTURALLY ACCEPT. CHANGE DWG.

2. AZIMUTH 188° IS ACTUALLY 171° AS SHOWN

STRUCTURALLY ACCEPT. CHANGE DWG.

3. VALUE V-1-7 IS LOCATED WHERE V-7 IS SHOWN

NO STRUCTURAL IMPACT INVESTIGATE VALUE NO-

Note: Per telecon with J.L. Sullivan Plant Operations will tag value correctly on next drywell entry. *DR Barball 10/21/85*

W. E. Hears

10-25-86

Creek - QC

Reviewed: *Bl. Likh*

SUPPORT # N/A VALVE # N/A
 ISO DWG # JCP 19442 H2 sht. 2 of 4
 ORTHO DWG # N/A
 SUPPORT DWG # N/A

MNCR 85-110-18

ITEM	Y	N	N/A	REM
1. Proper Valve Orientation	✓			
2. Skin Temperature _____ °F (C.R.)(PYR)			✓	
3. Components identified in accordance with the appropriate drawing.	✓			
4. Component location is within drawing tolerances.		✓	<i>25-10-24-85</i>	
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.		✓		
6. Verify that all welds are completed.			✓	
7. Piping and supports are free of arc strikes.			✓	
8. Snubbers and spring hangers are installed in accordance with drawing.			✓	
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5% _____			✓	
10. Record the amount of snubber extension from the fully compressed position. T or C = _____			✓	
11. If the springs and snubbers are within: ¼" from the topped/bottomed out position for springs, and ¼" from the fully compressed/fully extended position for snubbers, it shall be reported.			✓	
12. Verify piping sizes.			✓	
13. Hanger location in building (General area) {Description: _____}			✓	

Creek - OC

SUPPORT # N/A

ITEM	Y	N	N/A	REM
14. Hanger hardware:				
A. Clips			✓	
B. Clevis			✓	
C. Cotter Pins			✓	
D. Turnbuckles			✓	
E. Nuts/Bolts (Check all attachments for double nut requirements)			✓	
F. Spring Canisters			✓	
G. Locking Tabs on Nuts			✓	
H. Washers			✓	
I. Swivels			✓	
15. Hanger configuration in accordance with applicable drawings:				
A. Dimensions			✓	
B. Angles of support to system and base plate			✓	
C. All hanger attachments i.e., clips, brackets, etc. orientated correctly.			✓	
D. Strut or Snubber pin to pin distance _____			✓	
16. Weld locations:				
A. Proper weld location			✓	
B. Proper weld spacing			✓	
C. Proper number of welds			✓	
D. Thru paint (average value _____)			✓	
17. Anchor Bolts:				
A. Type			✓	
B. Size _____ number _____			✓	
C. Thread engagement			✓	
D. Bolt c/c spacing			✓	
E. C/C from anchors to closet anchor _____			✓	
18. Gaps @ stops:				
A. At U-bolts or Restraints			✓	
B. At pipe penetrations			✓	
<u>*TOLERANCES FOR MEASUREMENT ACCURACY</u>				
<u>Measurement</u>		<u>Tolerance</u>		
0" - 2"		± 1/16"		
N 2" - 12"		± 1/8"		
N 12" - 36"		± 1"		
N 36" - ∞		± 3"		
* Unless otherwise shown on the dwg. <u>M. Rowley</u> 10-24-85				
<u>R. D. [Signature]</u> 10-24-85				
QC INSPECTOR(S)				DATE

Oyster Creek - QC

SUPPORT # NA

PER MNCR 95-110-18

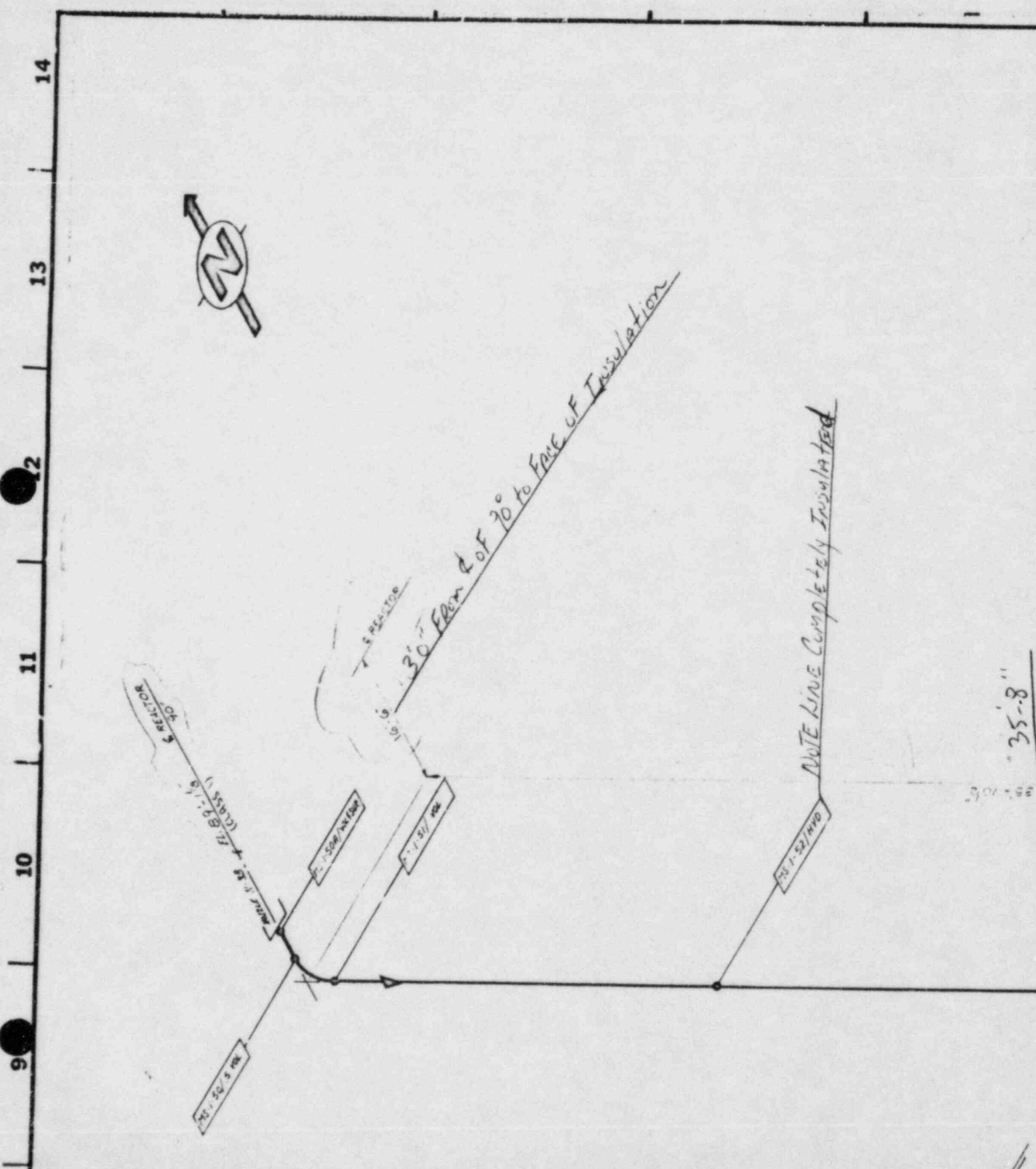
SUPPORT DWG# NA

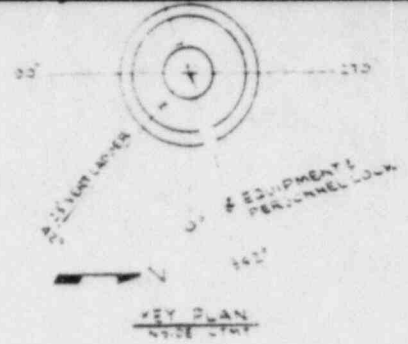
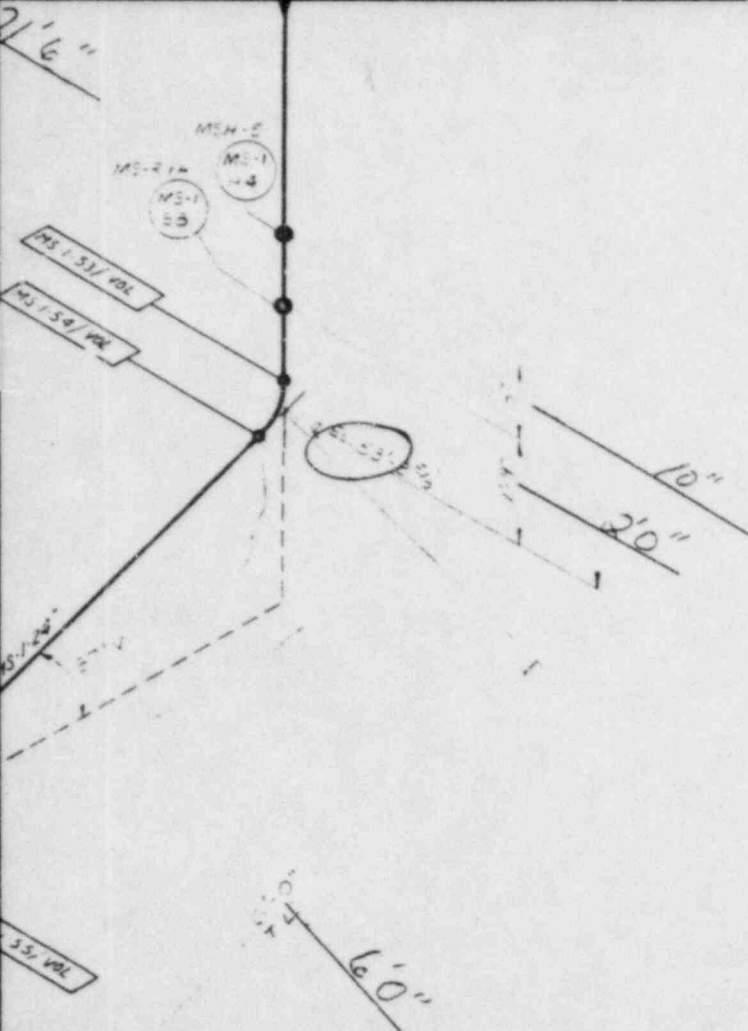
	Y	N	N/A	REM
19. Confirm pipe clamp figure no. If not possible, fill in appropriate form attached.			✓	
20. Baseplate attachments location recorded on the anchor plate verification sheet.			✓	
21. For valves noted in the walkdown, record their location & orientation on the isometric drawing. Describe orientation by stating (1) direction observer is facing, and (2) angle of valve \perp to pipe \perp to nearest 30 degrees (such as hours on a clock with 12:00 being direction facing the observer).			✓	
22. For hangers where other systems (i.e. piping, conduit, etc.) are also supported, give size of this system and describe type of support and distance to upstream and downstream hangers supporting that system.			✓	

Other items as specified by calculation sheet request attached.

✓

M. Butler
Randy A. Badwell 10/24/85
 QC Inspector(s)/Date





NOTE:

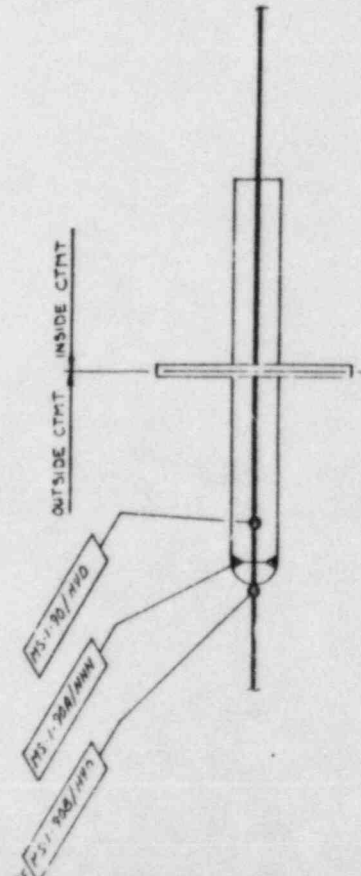
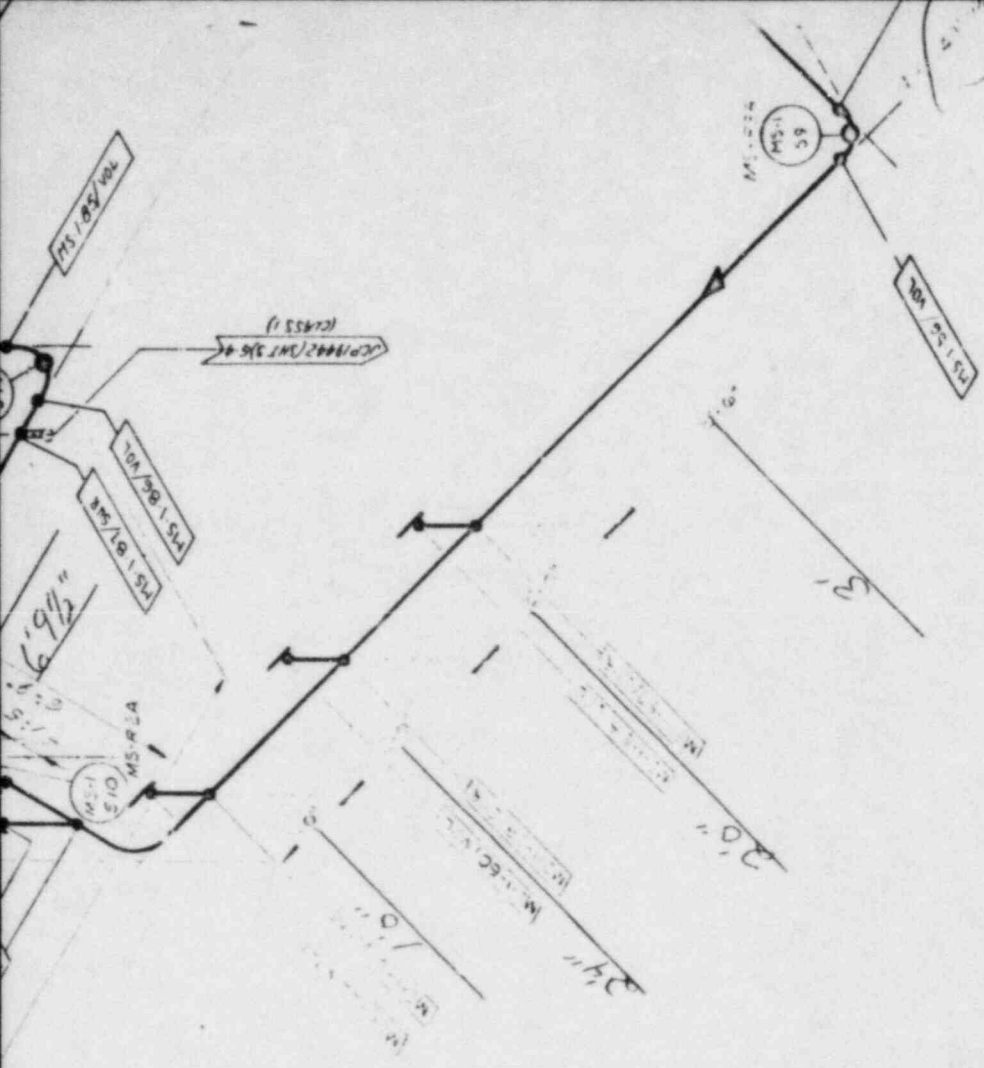
THE WELD BETWEEN THE SUPPORT AND THE PRESSURE RETAINING PART SHALL BE SUBJECT TO SURFACE EXAMINATION ONLY IF THE ADJACENT PIPE WELDS ARE SUBJECT TO VOLUMETRIC OR SURFACE EXAMINATION. OTHERWISE THE SUPPORT-TO-PRESSURE RETAINING PART WELD SHALL BE VISUALLY EXAMINED IN THE SAME MANNER AS THE ADJACENT PIPE WELDS DURING HYDROSTATIC, PRESSURE, OR FLOW TESTS, AS APPROPRIATE.

REFERENCE DWG S			
150			
JCP-19423			
JCP-19423 REV. SYMBOLS AND LEGEND FOR 150			
AND ISOMETRIC DRAWINGS			
No.	DATE	REVISIONS	BY CH ENR APT CV ONLY
0	4/10/73	ISSUED FOR ISI ONLY	D'OR N.Y. M. H. Y.
No.	Date	Revisions	By Ch DS CE PM DS
Scale ~ Designed ~		Drawn by	Chief Designer
GENERAL PHYSICS CORPORATION			
COLUMBIA, MARYLAND			
JERSEY CENTRAL POWER & LIGHT CO.			
OYSTER CREEK NUCLEAR GENERATING STATION			
PIPING ISOMETRIC			
MAIN STEAM SYS.			
	Contract No.	Drawing No.	Rev.
	N-14159	JCP-19442 SHT. 2 OF 4	2

MNCK
85-110-14

VERIFIED CORRECT BY
JCP & L CO.
DATE 3-29-79

THIS DWG CONTAINS LINES
MS-1-24



DETAIL PEN X-2B

NON-CONTROLLED

This document will not be kept

Up To Date

8
7
6
5
4

Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORMNO A _____
RETENTION _____

1. Identification

Originator: Kevin McCauley / RET
Material, Part, Component, etc.: MS 4-5

Date/Time: 10/24/85

Location: 60" 9" ELV. Dugwell

Manufacturer (Name): N/A

Code: N/A

P.R.# N/A

Line # N/A

Spec # N/A

System: Main Steam

System Tag No. N/A

Dwg No. N/A

Heat Code No. N/A

Other N/A

Nonconforming to (requirements): Dimensional / Configuration as shown

Description of Nonconformance: See Discrepancies / Disposition Sheet attached

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

Important To Safety

POTENTIALLY REPORTABLE:

10CFR50

10CFR21

10CFR71

10CFR73.71

LER

YES:

NO:

Evaluated By (Name): Kevin McCauley

Date/Time: 10-24-85 5:40 PM

QC Mgr. Validation: Daniel Schubert

Date/Time: 10-25-85 / 0718

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO

Date/Time: _____

Licensing Notified: YES NO

Date/Time: _____

Hold Tags Issued: YES NO

No. of Tags: _____

Tags Installed By (Name): NA

Date/Time: _____

Material Segregation Required: YES NO

Segregation Verified By (Name): NA

Date/Time: _____

ACTION PARTY (Name): J. Maloney

Dept: Plant Material

Forward to responsible individual/department (Action Party).



Nuclear

Material Nonconformance Report Cont'd

MNCR Number 85-110-19

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: Provide engineering evaluation as to adequacy of as built configuration. If adequate, revise drawings to reflect as built

Evaluation/Disposition By (Name): _____

Dept: Plant Material

Date: 10-30-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (Include applicable work documents, limitations, re-test requirements, etc.)

See attached sheet for justification

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No.: B.P. DWG # 334

Evaluated By (Name): S. VIRD

Dept: T.E./Engineering Mechanics

Date: 10-30-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: _____

Date: 11-1-85

Conditional Release Issued:

YES

Reject Tags Issued: YES

NO

NO

AI/ANI Concurrence: YES

NO

Signature: _____

NA

Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____

Test Report No.: _____

Work/Shipping Order No.: _____

Other: _____

Verified By (Name/Title/Date): _____

Tags/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____

Date: _____

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

① Drawings incomplete as per attached sheets.

CHANGE DWG TO REFLECT AS-BUILT CONFIGURATION.

② Part of hanger not installed per attached sheets.

SEE NEW D&D SKETCHES.

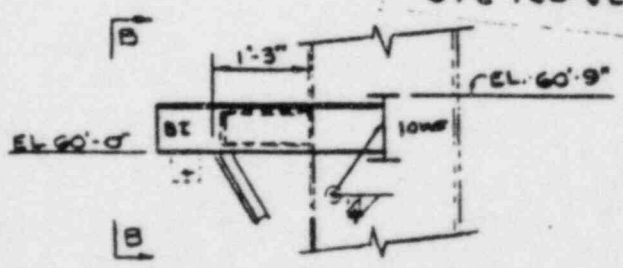
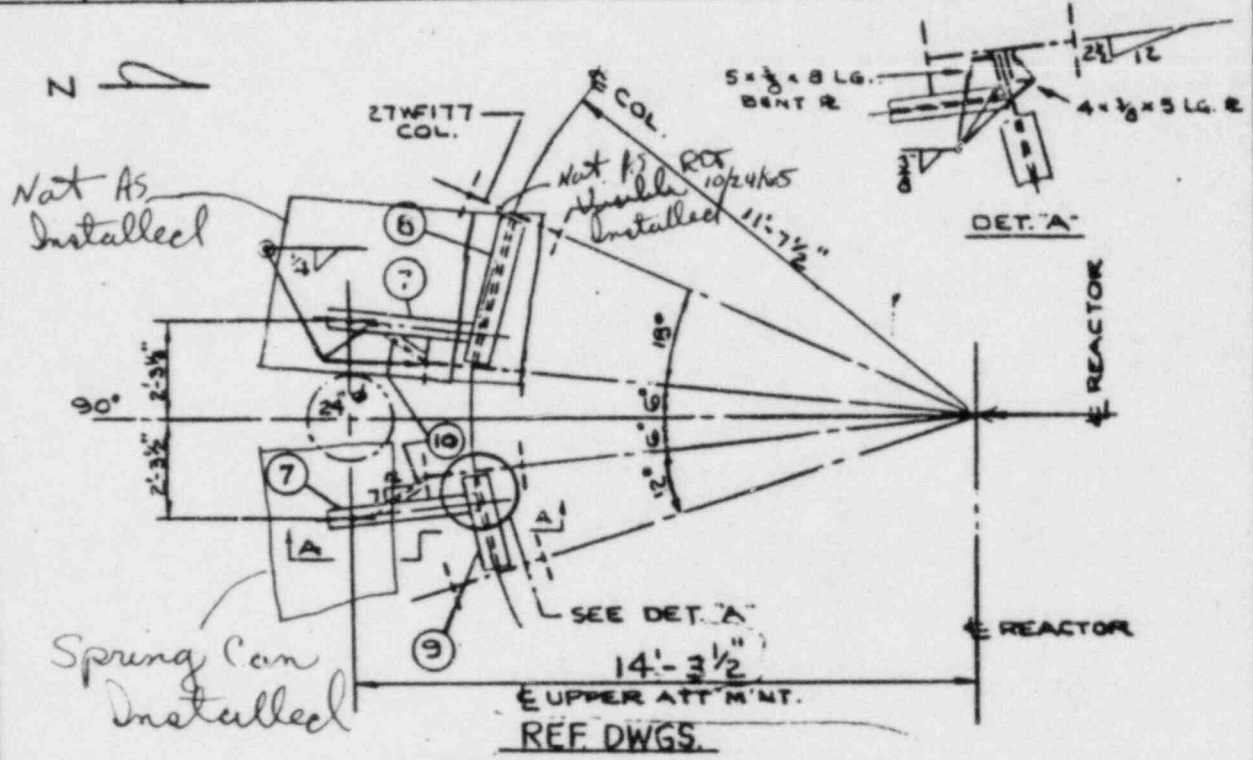
③ Spring can installed, which is not on drawing. Can is similar in configuration per attached sheet.

CHANGE DWG TO REFLECT AS BUILT CONFIGURATION. HANGER STRUCTURALLY ACCEPTABLE.

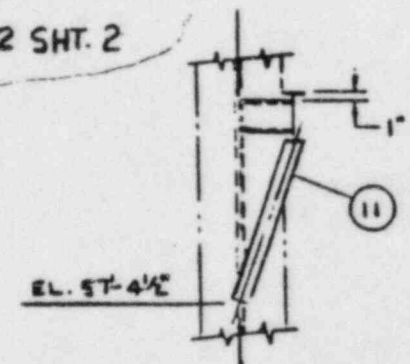
S. Vidar

10/30/85

APP	ITEM NO	NO REQD	DESCRIPTION	DWG OR PART NO	REMARKS
	7	2	3 I 18.4 x 3'-6" LG. BEVEL THE FLANGES C.E.		
	8	1	10WF21 S=3'-7" BEVEL THE FLANGES		SIM. DET. A
	9	1	10WF21 S=2'-4 1/4" BEVEL THE FLANGES		SEE DET. A
	10	2	GC 3.2 x 1'-5" LG. BEVEL AS SHOWN		
	11	2	3x3 TEE 6.7# x 3'-0" LG.		



SECT. A-A



SECT. B-B

*INDICATES APPROVAL BY JCP/L LOCATION PLAN

ALMIRALL & CO., INC. P. O. #7248			PIPING SYSTEM MAIN STEAM		
BURNS & ROE INC.			REF B & R DWG 2103		
OYSTER CREEK STA #1.			MARK NO. MSH-5		
DRAWN BY WD			NO. REQD 1		
CHECKED BY EP			DATE 9-66		
BERGEN-PATERSON PIPESUPPORT CORP. CAMBRIDGE MASS			JOB NO. 66-1070		
			DRAWN BY 334		

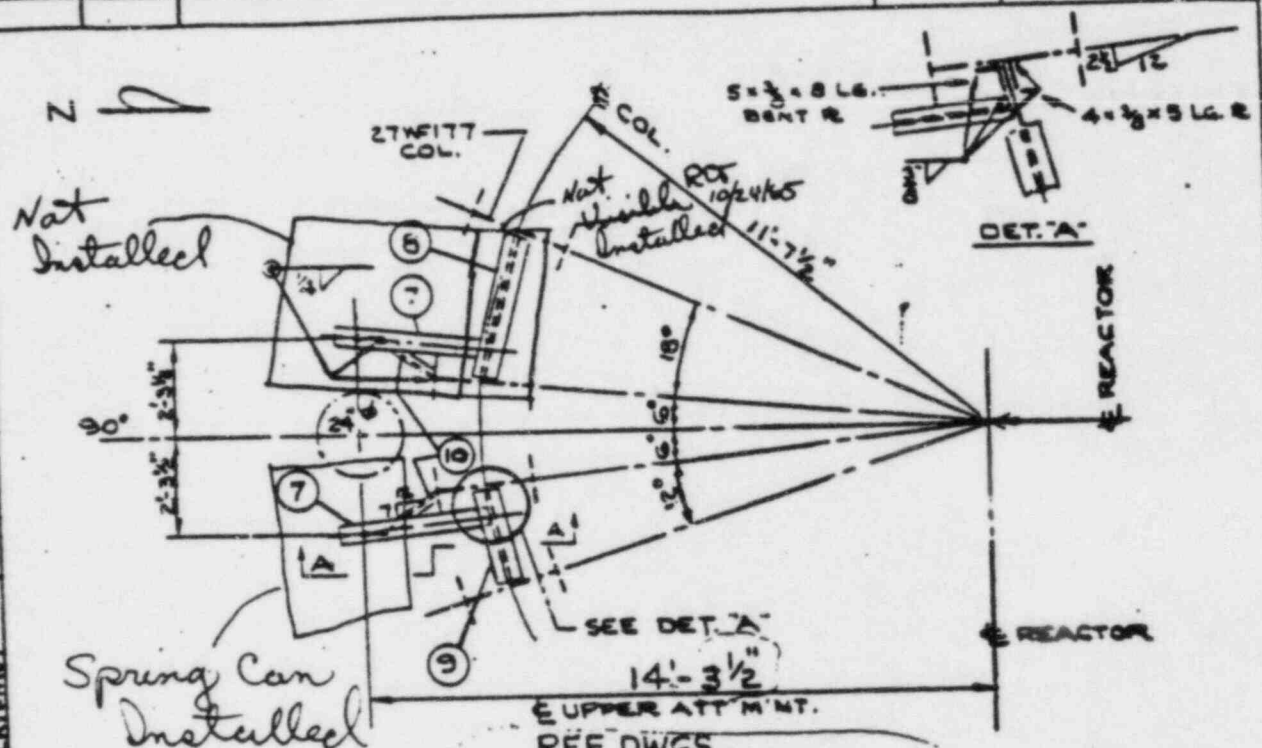
FIELD VERIFICATION FOR NRC (E.B. BIN. 79-A)
 ADDED REF DWGS. UPDATED AS ENCLOSED
 REV-D UPPER COMP. FOR CUST.
 REV-D UPPER COMP. FOR CUST.
 DATE 7-26-67
 DATE 7-5-67

BOB TIMM

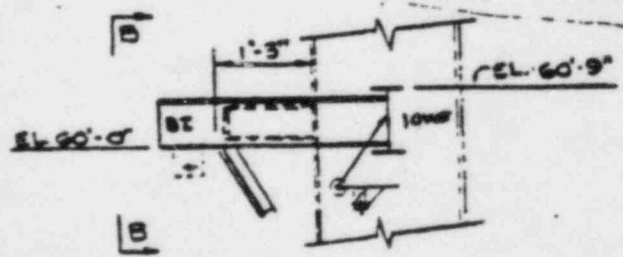
MNCR

85-110-19

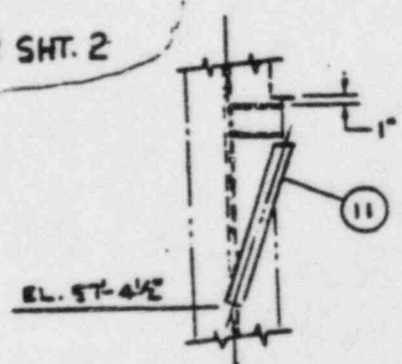
ITEM NO	NO REQ	DESCRIPTION	DWG OR PART NO	REMARKS
7	2	3" 10.4 x 3'-6" LG. BEVEL THE FLANGES O.E.		
8	1	10WF21, S: 3'-7" BEVEL THE FLANGES		SIM. DET. 'A'
9	1	10WF21 S: 2'-4 1/2" BEVEL THE FLANGES		SEE DET. 'A'
10	2	6E 8.2 x 1'-5" LG. BEVEL AS SHOWN		
11	2	3x3 TEE 6.7" x 3'-0" LG.		



REF DWGS
 BER-PAT INDEX 325
 BER-PAT ISO 340
 GPC ISO JCP-19442 SHT. 2



SECTION A-A



SECTION B-B

*INDICATES APPROVAL BY JCP/L LOCATION PLAN

ALMIRALL & CO., INC. P. O. #7248

BURNS & ROE INC.

OYSTER CREEK STA #1.

PIPING SYSTEM MAIN STEAM
 REF B & R DWG 2103
 LOCATION PLAN

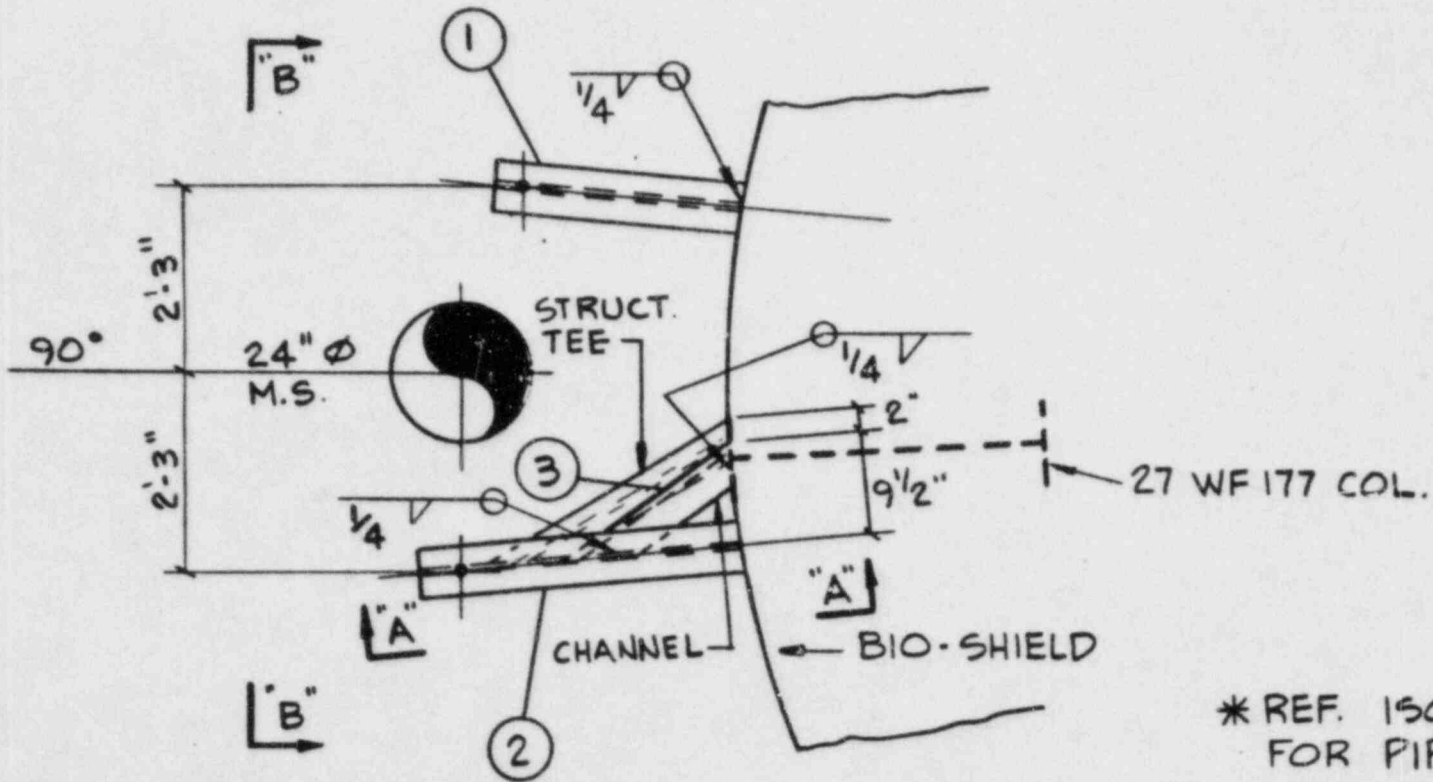
MARK NO. MSH-5 NO. RECD 1

FIELD VERIFICATION FOR NRC LEBLTH-19-14
 ADDED REF. DWGS. UPDATED AS REQUIRED
 REV-D UPPER COMP. FOR CUST.
 REV-D UPPER COMP. FOR CUST.

REV	DATE	DESCRIPTION	DRAWN	CHECK	APPROV	DATE	JOB NO	DRAWING NO
3	7-26-67		WD	EP		9-9-66	66-1070	334
2	7-5-67							
1								

BERGEN-PATERSON PIPESUPPORT CORP.
 CAMBRIDGE MASS WOOD-RIDGE N J

85-110-19



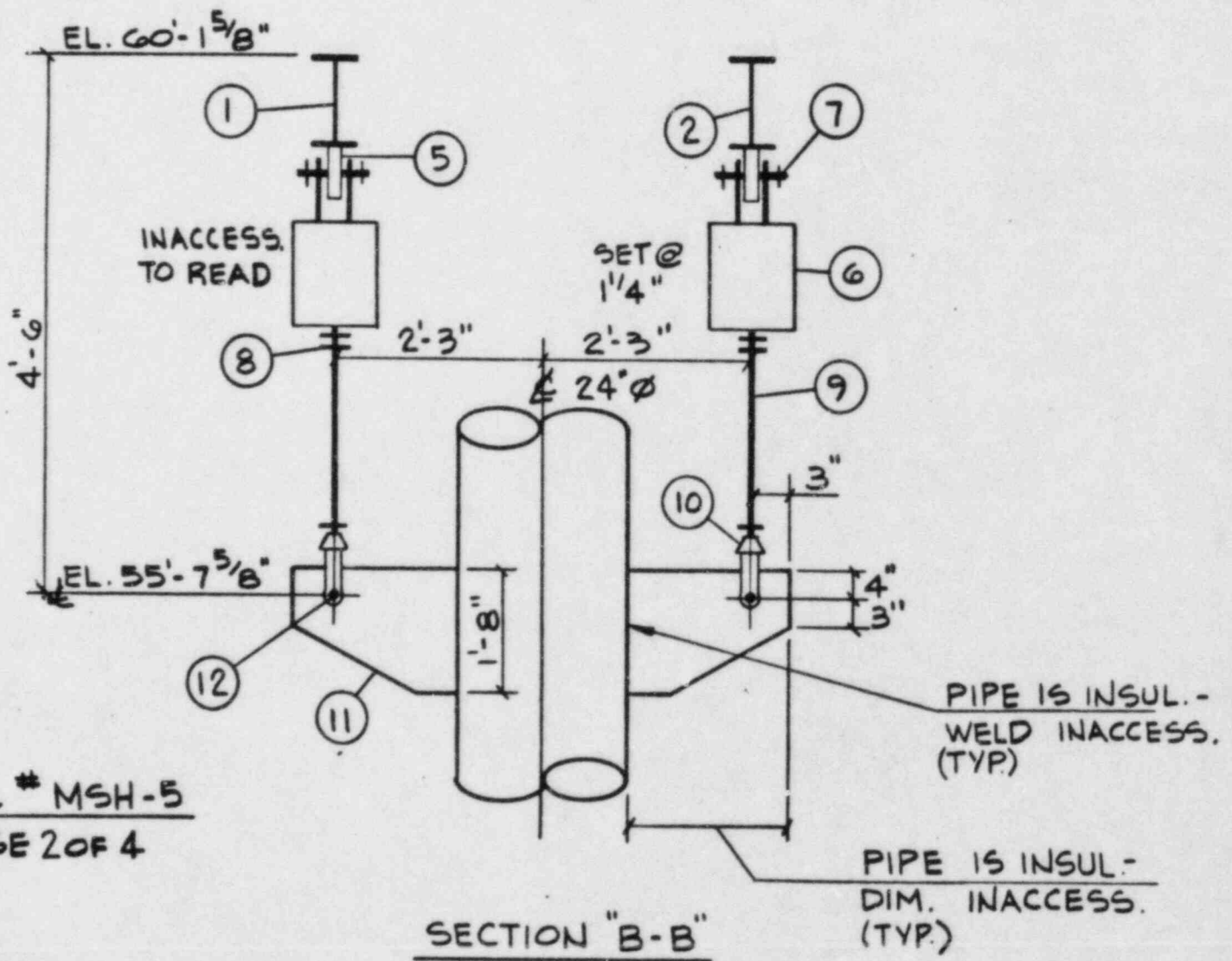
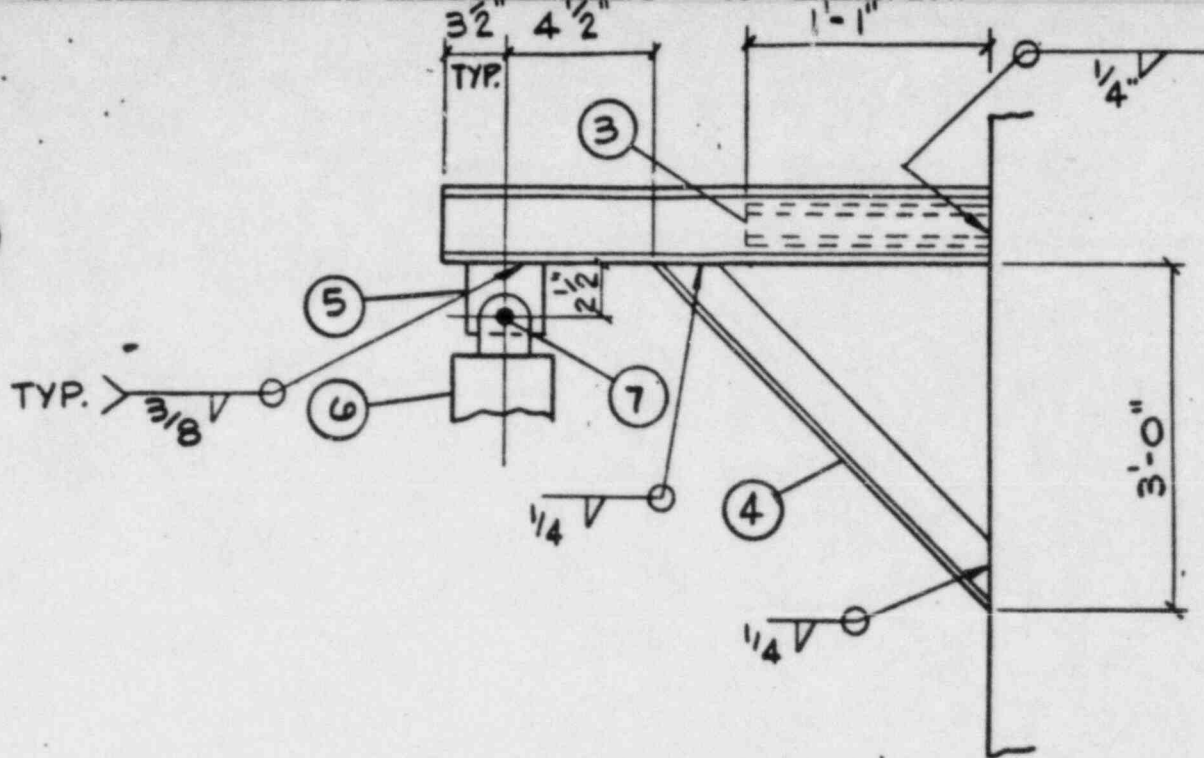
* REF. ISO. JCP.19442 SH.2
FOR PIPE LOCATION

PLAN

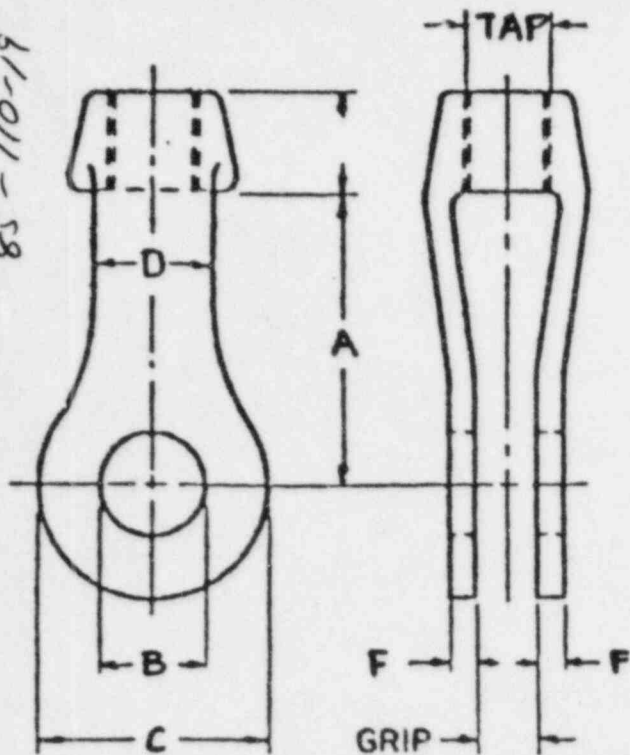
MK. # MSH-5

PAGE 1 OF 4

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DIMENSIONS IN INCHES

Size No.	A	Max. B	C	D	E	F	Max. Tap	Weight Per 100
2	3 $\frac{3}{4}$	$\frac{5}{8}$	1 $\frac{7}{16}$	1	$\frac{5}{8}$	$\frac{3}{16}$	$\frac{3}{8}$	77
2 $\frac{1}{2}$	4	1 $\frac{1}{4}$	2 $\frac{1}{2}$	1 $\frac{1}{4}$	$\frac{7}{8}$	$\frac{3}{16}$	$\frac{7}{8}$	250
3	5	1 $\frac{1}{2}$	3	1 $\frac{1}{2}$	1 $\frac{3}{8}$	$\frac{1}{2}$	1 $\frac{1}{4}$	400
3 $\frac{1}{2}$	6	1 $\frac{3}{4}$	3 $\frac{1}{2}$	1 $\frac{3}{4}$	1 $\frac{3}{8}$	$\frac{1}{2}$	1 $\frac{1}{2}$	600
4	6	2	4	2	1 $\frac{3}{4}$	$\frac{1}{2}$	1 $\frac{3}{4}$	800
5	7	2 $\frac{1}{2}$	5	2 $\frac{1}{2}$	2 $\frac{1}{4}$	$\frac{3}{8}$	2	1600
6	8	3	6	3	2 $\frac{3}{4}$	$\frac{3}{4}$	2 $\frac{1}{2}$	2600
7	9	3 $\frac{1}{2}$	7	3 $\frac{1}{2}$	3	$\frac{7}{8}$	3	3600

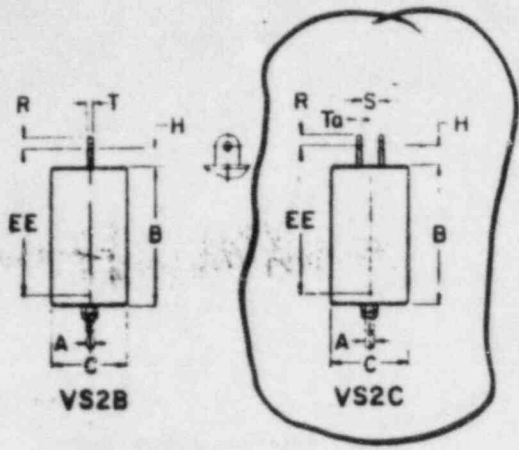
Grip equals thickness of plate plus $\frac{1}{4}$ ".

MK. # MSH-5

PAGE 4 OF 4

85-110-19

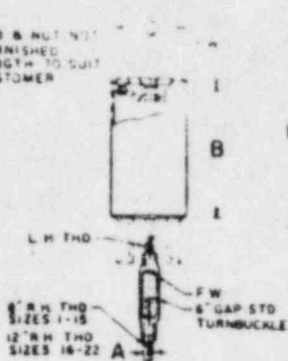
9



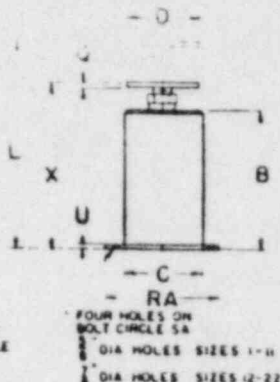
THREAD REQUIREMENT FOR TYPES VS2B, C, D, B, G SAME AS VS2A



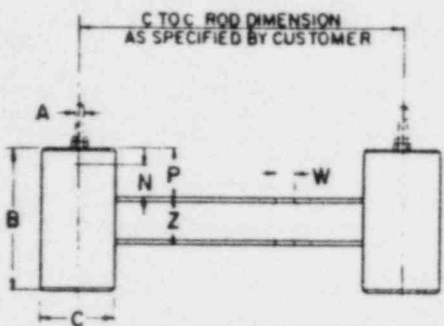
ROD & NUT NOT FURNISHED LENGTH TO SUIT CUSTOMER



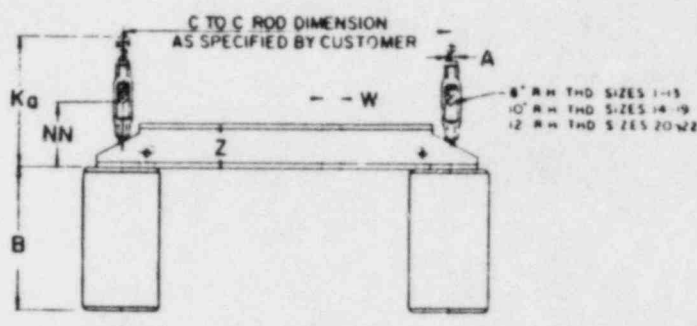
VS2E



VS2F



VS2G



VS2GB

VS2G ONLY - SINGLE L 3 x 2 1/2 x 1/4 FOR SIZES 1 THRU 8
SINGLE L 4 x 3 x 1/4 FOR SIZES 10 THRU 12
DOUBLE 2E FOR SIZES 13 THRU 22
* SPECIFY ANY REQUIRED HOLES IN ANGLE

VS2 LOAD • DIMENSIONS • WEIGHT

Load Flange Tkn's	Q	R	Bot. Flange Sq. Pl. RA	Clevis Opening S	Bot. Flange Bolt Cir. SA	Lug Thickness		Bot. Flange Tkn's U	Trapeze [C] s †		Length		Rod Lgth. Y	Approx. Weight Lbs. Type			Size
						T	To		b to b W	Depth Z*	X	L		A, B, C, D, E	F	G, GB*	
1/4	1	8	8	1	8	1/4	1/4	1/4	3	8'	10'	9	15	34	1		
1/4	1	8	8	1	8	1/4	1/4	1/4	3	8'	10'	9	15	34	2		
1/4	1	8	8	1	8	1/4	1/4	1/4	3	9'	11	10	16	36	3		
1/4	1	8	8	1	8 1/2	1/4	1/4	1/4	3	9'	11	12	19	40	4		
1/4	1	8	8	1	8 1/2	1/4	1/4	1/4	3	10	11 1/2	13	20	42	5		
1/4	1	8	8	1	8 1/2	1/4	1/4	1/4	3	10	11 1/2	14	20	44	6		
1/4	1	9	9	1	9 1/2	1/4	1/4	1/4	1	11	12	21	34	58	7		
1/4	1	9	9	1	9 1/2	1/4	1/4	1/4	1	11	12	21	34	58	8		
1/4	1	9	9	1	9 1/2	1/4	1/4	1/4	1	12	13	25	38	66	9		
1/4	1 1/4	9	9	1 1/4	9 1/2	1/4	1/4	1/4	1	12	14	26	39	84	10		
1/4	1 1/4	9	9	1 1/4	9 1/2	1/4	1/4	1/4	1	12	14	26	39	84	11		
1/2	1 1/2	10	10	1 1/2	11 1/2	1/2	1/2	1/2	4	13	14 1/2	51	67	134	12		
1/2	1 1/2	10	10	1 1/2	11 1/2	1/2	1/2	1/2	4	13	15	55	76	142	13		
1/2	2	10	10	1 1/2	11 1/2	1/2	1/2	1/2	4	15	17	66	84	164	14		
1/2	2	10	10	1 1/2	11 1/2	1/2	1/2	1/2	4	16	18	75	94	182	15		
3/4	2 1/2	12	12	2	13 1/2	3/4	3/4	3/4	2	16	19	109	136	296	16		
3/4	2 1/2	12	12	2	13 1/2	3/4	3/4	3/4	2	18	21	131	155	340	17		
3/4	2 1/2	12	12	2 1/2	13 1/2	3/4	3/4	3/4	2	20	24	156	180	390	18		
1	3 1/4	14	14	3	16	1	1	1	2	10	25	246	281	645	19		
1	3 1/4	14	14	3	16	1	1	1	3	10	28	312	331	777	20		
1	4	14	14	3	16	1	1	1	3	12	31	381	388	970	21		
1	4 1/4	14	14	3 1/4	16	1 1/4	1 1/4	1 1/4	3	12	36	489	496	1185	22		

* Weight & Depth based on following C-C Rods: 2'-0" sizes 1-9, 4-10 sizes 16-18, 3'-0" sizes 10-15, 5-10 sizes 19-22.
† Single Angle for VSG sizes 1-12.

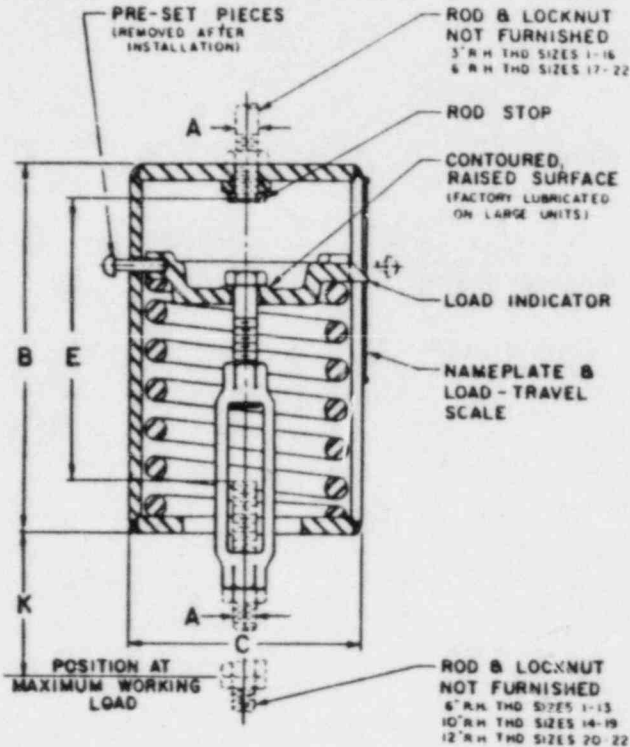
To determine "L" see example below detail drawing on page 26.



VS2A, B, C, D, E, F, G, GB

85-110-19

10



The VS2 travel series is made in the same eight basic types as the VS1 series. For general description concerning application of the various types, please refer to pages 24 thru 27. All units are pre-set to the cold load to insure quick and proper installation. Size Selection Table appears on page 23.

The rod take-out is given near the center of the load coupling, allowing a minimum pipe elevation adjustment of 1" up or down at any position of the piston plate. This eliminates the need for other adjustment means in the hanger assembly under normal conditions.

VSL2 series is the same in all respects as the standard VS2, except for increased housing length and rod take-out. These dimensions are all increased by 1 inch except dimensions N and NN.

VS2A

VS2 LOAD • DIMENSIONS • WEIGHT

Size	Economic Load Range Δ	Rod Take-Out Type		Rod Diam.	Housing			Load Flange Diam. D	Hgt. of Pin H	Lug Hole Size	K	K _a	M	Rod Take-Out Type		
		A	B,C		Lgth. B	Diam. C	G							GB	P	
		E	EE													N
1	74-98	5	7%	1/2	6%	4%	4%	1%	1 1/4	3%	13	9	1/2	8%	1%	
2	99-130	5	7%	1/2	6%	4%	4%	1%	1 1/4	3%	13	9	1/2	8%	1%	
3	131-172	5%	7%	1/2	7%	4%	4%	1%	1 1/4	2%	13	9%	1/2	8%	1%	
4	173-229	5%	7%	1/2	7%	5%	5	1%	1 1/4	2%	13	9%	1/2	8%	1%	
5	230-305	5%	7%	1/2	7%	5%	5	1%	1 1/4	2%	13	10%	1/2	8%	1%	
6	306-405	5%	7%	1/2	7%	5%	5	1%	1 1/4	2%	13	10%	1/2	8%	1%	
7	406-539	6%	8%	3/4	8%	6%	6	1%	1 1/4	2%	13%	10%	1/2	9	2	
8	540-717	6%	8%	3/4	8%	6%	6	1%	1 1/4	2%	13%	10%	1/2	9	2	
9	718-953	7%	9%	3/4	9%	6%	6	1%	1 1/4	2%	13%	12%	1/2	9	2	
10	954-1267	7%	9%	3/4	9%	6%	6	1%	1 1/4	3%	14%	12%	1/2	10	2	
11	1268-1635	7%	9%	3/4	9%	6%	6	1%	1 1/4	3%	14%	12%	1/2	10	2	
12	1686-2240	7%	10%	7/8	10%	8%	7%	2	1%	3%	14%	12%	1/2	10	2	
13	2241-2978	7%	10%	1	11	8%	7%	2%	1%	3%	15	13%	1/2	10%	2	
14	2979-3960	7%	11%	1	12%	8%	7%	2%	1%	2%	15%	14%	0	10%	3	
15	3961-5265	8%	12%	1	13%	8%	7%	2%	1%	2%	15%	16%	0	10%	3	
16	5266-7000	9%	14	1 1/8	13%	10	8	2%	1%	3%	16	16%	1/2	10%	3	
17	7001-9308	10%	15%	1 1/8	15%	10	8	3%	1%	2%	18%	18%	1/2	13%	4	
18	9309-12376	11%	16%	1 1/8	17%	10	8	3%	2	2%	20	20%	1/2	14	4	
19	12377-16454	12%	18%	1 1/2	18%	12%	10	3%	2%	3%	22	20%	1/2	15%	4	
20	16455-21878	13%	19%	1 1/2	21	12%	10	4	2%	2%	23	23%	1/2	16%	5	
21	21879-29089	15%	21%	1 3/4	24	12%	10	4%	2%	2%	26	26%	0	18%	5	
22	29090-38676	15%	22%	1 3/4	27	12%	10	4%	3%	2%	27	30%	1/2	19%	5	

Δ Double for type...

Unit: TMI-1 TMI-2 Oyster Creek

RECNO 0
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORMNO A _____
RETENTION _____

1. Identification

Originator: Kevin McCauley / Richard C. Riley
Material, Part, Component, etc.: MS H-6

Date/Time: 10-24-85

Location: 49'-7 5/8" ELV Drywell

Manufacturer (Name): N/A

P.R.# N/A Line # N/A Code: N/A

System: Main steam Spec.# N/A

Dwg No. 335 REV 4 System Tag No. N/A

Heat Code No. N/A Other N/A

Nonconforming to (requirements): Dimensional / Configuration as shown

Description of Nonconformance: See Discrepancies / Disposition sheet Attached

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

POTENTIALLY REPORTABLE:

Important To Safety	10CFR50	10CFR21	10CFR71	10CFR73.71	L.E.R.
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Evaluated By (Name): Kevin McCauley Date/Time: 10-24-85 6:45 PM
QC Mgr. Validation: David Stubbins Date/Time: 10-25-85 / 0722

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____

Licensing Notified: YES NO Date/Time: _____

Hold Tags Issued: YES NO No. of Tags: _____

Tags Installed By (Name): _____ Date/Time: _____

Material Segregation Required: YES NO

Segregation Verified By (Name): _____ Date/Time: _____

ACTION PARTY (Name): J. Maloney Dept: Plant Material

Forward to responsible individual/department (Action Party).

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: Provide engineering evaluation as to adequacy of as built configuration. If adequate, revise drawing to reflect as built.

Evaluation/Disposition By (Name): [Signature]

Dept: Plant Material
Date: 10-25-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (Include applicable work documents, limitations, re-test requirements, etc.)

SEE ATTACHED SHEET FOR JUSTIFICATION

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR
 Manual Tech. Spec. Document No.:

Evaluated By (Name): W.C. HARRIS

Dept: T.E. ENGR. MECH.
Date: 10-25-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: [Signature]

Date: 10-26-85

Conditional Release Issued: YES NO
Reject Tags Issued: YES NO

AI/ANI Concurrence: YES NO

Signature: NA

Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.:

Test Report No.:

Work/Shipping Order No.:

Other:

Verified By (Name/Title/Date):

Tags/Segregation Removed By (Name/Title/Date):

7. Final Package Review

Quality Control Manager: _____

Date: _____

HANGER

MHCN - REF-110-30

DWG. # 335

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

① ADDITIONAL ITEMS ADDED SEE ATTACHED DWG.

ADDITIONAL ITEMS ARE STRUCTURALLY ACCEPTABLE.
CHANGE DWG.

② ITEM 2 TO ITEM 1 CALLS FOR 1/4" WELD ALL AROUND EXISTING IS 3/16" ALL AROUND.

COMPRESSION ONLY. \therefore 3/16" WELD IS SUFFICIENT.
ACCEPT
CHANGE DWG.

③ ADDITIONAL WELDING PROFORMED SEE ATTACHED DWG.

WELDING AS SHOWN IS NECESSARY
ADD TO DWG.

④ DIMENSIONAL DISCREPANCIES AS SHOWN ON DWG.

NEW DIMENSION IS CONSERVATIVE.
 \therefore O.K.
STRUCTURALLY ACCEPT.

W.C. Haas

10.25.85

Temp. 92°

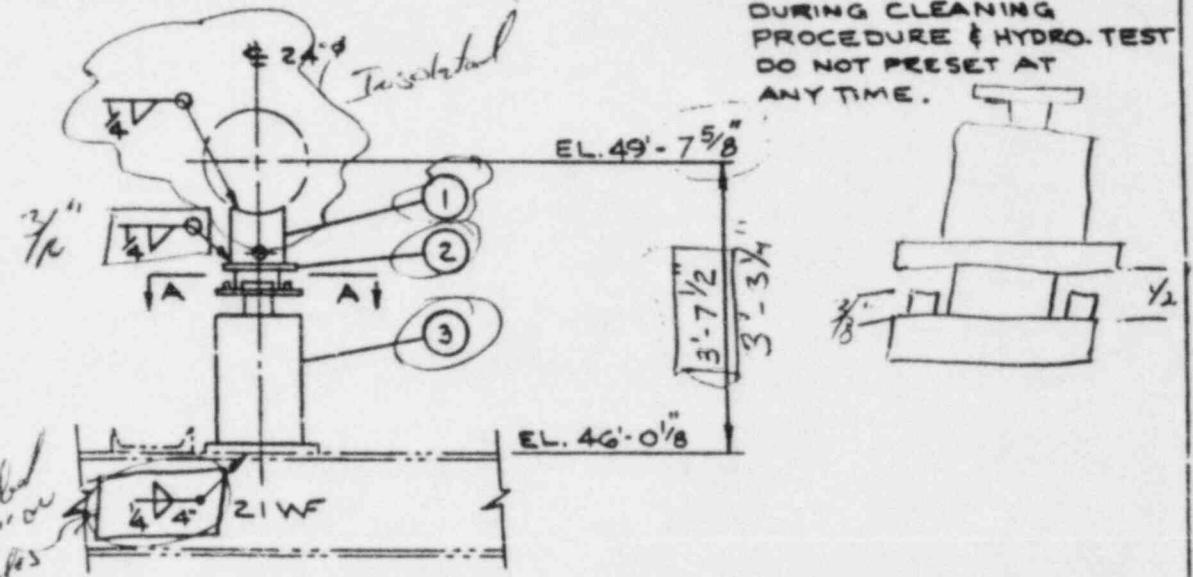
1	1	6"Ø 5/40 PIPE x 1'-2 3/8" HR-24		
2	1	8 x 1/2 x 8 IR		
3	1	VSIF-20 H.L. = 19,580# C.L. = 19,800# MVT. = 1/32" UP		18778/165
4	1	5 x 1/2 x 5 LUBRITE IR		
5	4	3/8" SQ x 5" LG. BAR		
6	1	16 x 16 x 3/4 IR		
7	1	5" I BEAM 2 3/8" LG.		

REF DWGS.

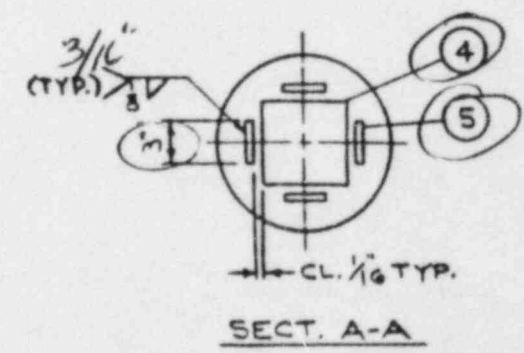
SCR-PAT INDEX: 325
 BER-PAT 150: 340
 GPC 150: JCP-19442 SHR2

* INDICATES APPROVAL BY JCP&L

FIELD NOTE:
 DO NOT PRESET HGR.
 DURING CLEANING
 PROCEDURE & HYDRO. TEST
 DO NOT PRESET AT
 ANY TIME.



ELEV. LOOKING S-W



PIPE + INSU. LOAD = 17,180 #
 HYDRO LOAD = 21,980 #
 OPERATING LOAD = 19,580 #

REV	DATE	BY	ENG	APP
1	11-14-66	JCP	JCP	
2	12-14-66	JCP	JCP	
3	1-23-67	JCP	JCP	

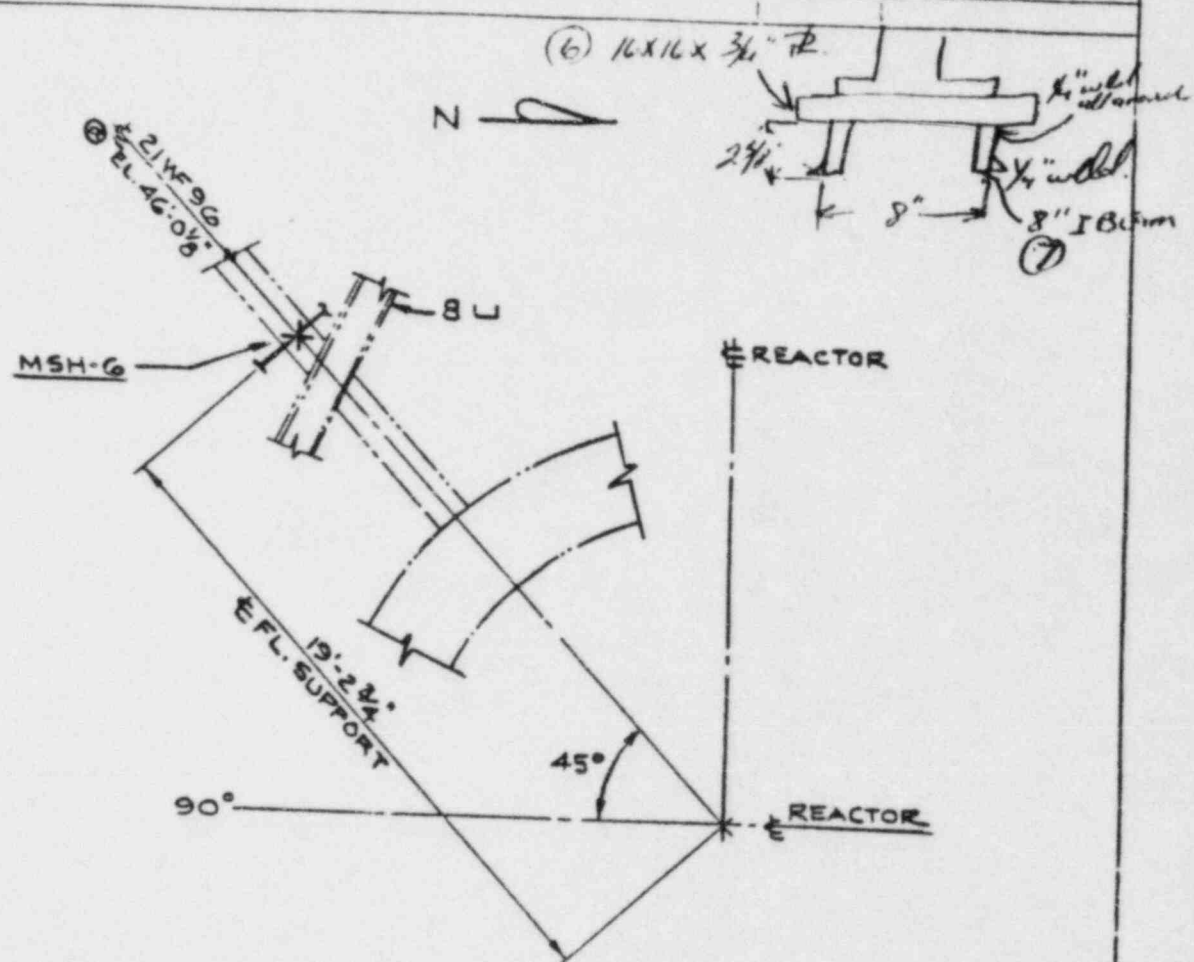
FIELD VERIFICATION FOR NRC IFE BY M. 7-9-14
 ADDED REF DWGS, UPDATED AS ENCLOSED

ALMIRALL & CO., INC. P. O. #7248
 BURNS & ROE INC.
 OYSTER CREEK STA. #1.

PIPING SYSTEM MAIN STEAM
 LOCATION PLAN DWG. 336
 MARK NO MSH-6

MNCR 4
85-110-20

REV	DATE	BY	CHKD	APPROV	DESCRIPTION	DWS OR PART NO	REMARKS
3	9-9-66	WD	E		BERGEN-PATERSON PIPESUPPORT CORP. CAMBRIDGE MASS WOOD RIDGE M J		
2	4-20-67	WD			ALMIRALL & CO., INC. P. O. #7248 BURNS & ROE, INC. OYSTER CREEK STA. #1.		
					FIELD VERIFICATION FOR NRC ISE QLTN. 79-14, ADDED REF. DWGS.		
					REV'D PER C.E. LTR. DATED 3-16-67		



REF DWGS.
 BER-PAT INDEX: 325
 BER-PAT ISO: 340
 GPC ISO: JCP-19442 SHT. 2
 * INDICATES APPROVAL BY JCP&L

DRAWN BY: WD			CHECKED BY: E			APPROVED BY:			
DRAWING NO: 336						DATE: 9-9-66		JOB NO: R46-1070	
DRAWING NO: 336						DATE: 9-9-66		JOB NO: R46-1070	

Creek - OC

Reviewed: *Bl. Likh*

SUPPORT # MSH-6
 ISO DWG # JCP 19442 SHT. 2
 ORTHO DWG # N/A
 SUPPORT DWG # 335 REV. 4

VALVE # _____

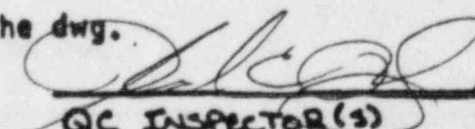
N/A

MNCR 85-110-20

ITEM	Y	N	N/A	REM
1. Proper Valve Orientation			✓	
2. Skin Temperature <u>92°</u> °F (C.R.)(PYR)	✓			
3. Components identified in accordance with the appropriate drawing.			✓	
4. Component location is within drawing tolerances.			✓	
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.	✓			
6. Verify that all welds are completed.				<i>Inspected</i>
7. Piping and supports are free of arc strikes.	✓			
8. Snubbers and spring hangers are installed in accordance with drawing.	✓			
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5% <u>18778 lbs</u>	✓			
10. Record the amount of snubber extension from the fully compressed position. T or C = <u>N/A</u>				✓
11. If the springs and snubbers are within: 1/4" from the topped/bottomed out position for springs, and 1/4" from the fully compressed/fully extended position for snubbers, it shall be reported.	✓			
12. Verify piping sizes.				<i>Inspected</i>
13. Hanger location in building (General area) {Description: <u>49'-7 5/8" Drywell</u> }	✓			

Creek - OC

SUPPORT # USH-6

ITEM	Y	N	N/A	REM
4. Hanger hardware:				
A. Clips				✓
B. Clevis				✓
C. Cotter Pins				✓
D. Turnbuckles				✓
E. Nuts/Bolts (Check all attachments for double nut requirements)	✓			✓
F. Spring Canisters				✓
G. Locking Tabs on Nuts				✓
H. Washers				✓
I. Swivels				✓
15. Hanger configuration in accordance with applicable drawings:				
A. Dimensions				✓
B. Angles of support to system and base plate				✓
C. All hanger attachments i.e., clips, brackets, etc. orientated correctly.				✓
D. Strut or Snubber pin to pin distance _____				✓
16. Weld locations:				
A. Proper weld location				Inspected
B. Proper weld spacing				Inspected
C. Proper number of welds				Inspected
D. Thru paint (average value _____)				Inspected
17. Anchor Bolts:				
A. Type				✓
B. Size _____ number _____				✓
C. Thread engagement				✓
D. Bolt c/c spacing				✓
E. C/C from anchors to closet anchor _____				✓
18. Gaps @ stops:				
A. At U-bolts or Restraints				✓
B. At pipe penetrations				✓
*TOLERANCES FOR MEASUREMENT ACCURACY				
<u>Measurement</u>	<u>Tolerance</u>			
0" - 2"	± 1/16"			
≥ 2" - 12"	± 1/8"			
≥ 12" - 36"	± 1"			
≥ 36" - ∞	± 3"			
* Unless otherwise shown on the dwg.				
 QC INSPECTOR(S)			10-24-85 DATE	

Oyster Creek - QC

SUPPORT # MSH-6 PER MNCR 85-110-20
 SUPPORT DWG# 335 Rev 4

	Y	N	N/A	REM
19. Confirm pipe clamp figure no. If not possible, fill in appropriate form attached.			✓	
20. Baseplate attachments location recorded on the anchor plate verification sheet.			✓	
21. For valves noted in the walkdown, record their location & orientation on the isometric drawing. Describe orientation by stating (1) direction observer is facing, and (2) angle of valve \angle to pipe \angle to nearest 30 degrees (such as hours on a clock with 12:00 being direction facing the observer).			✓	
22. For hangers where other systems (i.e. piping, conduit, etc.) are also supported, give size of this system and describe type of support and distance to upstream and downstream hangers supporting that system.			✓	
Other items as specified by calculation sheet request attached.				


 QC Inspector(s)/Date

Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORMNO A _____
RETENTION _____

1. Identification

Originator: KEVIN MCCALLEY / JAMES A DESKINWICZ Date/Time: 10/24/85 / 12:02
Material, Part, Component, etc.: MS-R1 MAINSTEAM

Location: 46' ELV DRYWELL
Manufacturer (Name): N/A Code: N/A
P.R.# N/A Line # N/A Spec # N/A
System: MAINSTEAM DRYWELL System Tag No N/A
Dwg No. 716 REV 2 / JCP 19442 SHT 1 Heat Code No N/A Other N/A
Nonconforming to (requirements): DIMENSIONAL / CONFIGURATION AS SHOWN

Description of Nonconformance: SEE DISCREPANCIES / DISPOSITION SHEET ATTACHED

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

Important To Safety	POTENTIALLY REPORTABLE:					
	10CFR50	10CFR21	10CFR71	10CFR73.71	L.E.R.	
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Evaluated By (Name): <u>Kevin McCalley</u>	Date/Time: <u>10-24-85 6:00 PM</u>					
QC Mgr. Validation: <u>[Signature]</u>	Date/Time: <u>10-25-85 / 0720</u>					

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____
Licensing Notified: YES NO Date/Time: _____
Hold Tags Issued: YES NO No. of Tags: _____
Tags Installed By (Name): MT Date/Time: _____
Material Segregation Required: YES NO
Segregation Verified By (Name): MA Date/Time: _____
ACTION PARTY (Name): J. MALONEY Dept: PLANT MATERIAL

Forward to responsible individual/department (Action Party).

3. Action Party Evaluation & Disposition

Repair Use-as-is Rework Scrap Other

*Requires Engineering approval & evaluation/justification.

Evaluation/Disposition: Provide engineering evaluation as to adequacy of as built configuration. If adequate revise drawing to reflect as built configuration.

Evaluation/Disposition By (Name):

[Signature]

Dept: Plant material

Date: 11-1-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other

Justification: (Include applicable work documents, limitations, re-test requirements, etc.)

SEE ATTACHED SHEET FOR JUSTIFICATION

Re-inspection/Retest Requirements (As Applicable)

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No:

Evaluated By (Name): W.C. AAS

Dept: T.F. ENG. MECH.

Date: 11-1-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER:

[Signature]

Date: 11-1-85

Conditional Release Issued:

YES NO

Reject Tags Issued:

YES NO

AI/ANI Concurrence: YES NO

Signature:

NA

Date:

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method:

Complete following as appropriate:

Inspection Report No.:

Test Report No.:

Work/Shipping Order No.:

Other:

Verified By (Name/Title/Date):

Tags/Segregation Removed By (Name/Title/Date):

7. Final Package Review

Quality Control Manager:

Date:

HANGER 1-15-R1
STEAM

MICR # 85-110-24

DWG. # 816 Rev. 24

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

1) STRUT INSTEAD OF A SUBBER

STRUT IS PART OF SUBBER ASSEMBLY.

∴ O.K.
ACCEPT
CHANGE DWG.

2) DIMENSIONAL AND CONFIGURATION DISCREPANCIES

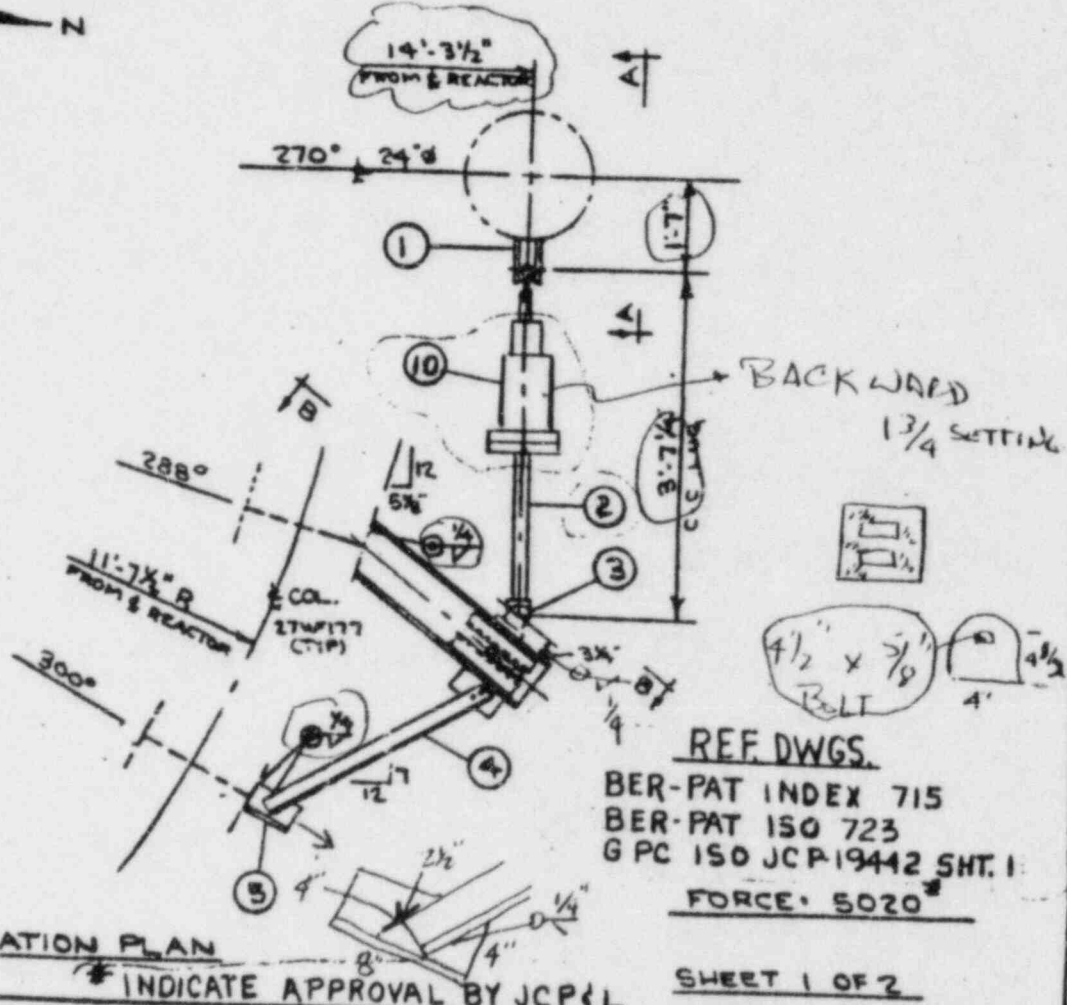
DIMENSIONAL & CONFIGURATION
DISCREPANCIES DO NOT AFFECT
STRUCTURAL INTEGRITY
ACCEPT.
CHANGE DWG.

W.C. Hears

11-1-85

10/19/85

APP	ITEM NO.	NO. REQ'D	PART NO.	DESCRIPTION	WGT	PRICE
	1	1		PART EA2-A DWG: 64108		
	2	1	252	HSSA-10 6" STROKE B=2 7/8" C=4 1/8" (SEE ITEM 10 SHT. 2)		
	3	1		PART EA1-A DWG 64101		
	4	2		L 3x3x1/4 x 2'-8" LG (BEVEL AS SHOWN)		
	5	1		L 4x3x3/8 x 8" LG		
TOTAL:						



FIELD VERIFICATION FOR NRC ICF BLINTZ & CO
 ADDED REF. DWGS. - UPDATED AS ENCIRCLED
 DATE: 9/21/84
 REV: 1
 APP: JCP

ALMIRALL & CO., INC. P. O. #7248
 CUSTOMER: BURNS & ROE INC.
 PROJECT: OYSTER CREEK STA. #1.
 CONSUMER:

PIPING SYSTEM: MAIN STEAM
 REFERENCE DWG: BIR DWG: 2103-4
 MARK NO: MS-RI NO. REQD: 1

BERGEN-PATERSON PIPESUPPORT CORP.
 CAMBRIDGE, MASS. WOOD-RIDGE, N. J.
 PITTSBURGH, PA. HEMPSTEAD, N. Y.
 SAN FRANCISCO, CALIF.

DRAWN	CHEK'D	APP'VD	DATE
JRS	SP		18 SEPC.
JOB NO. P. 66-1070		DWG NO. 716	

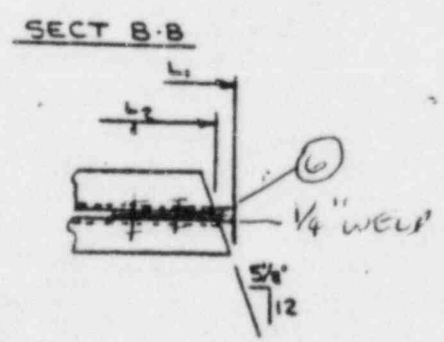
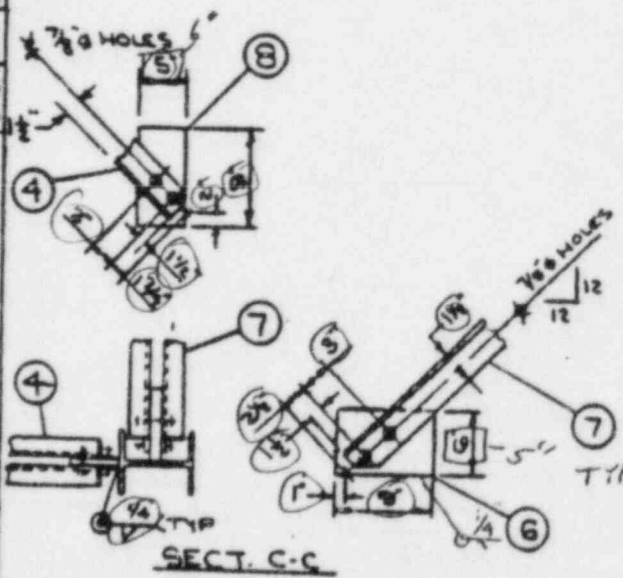
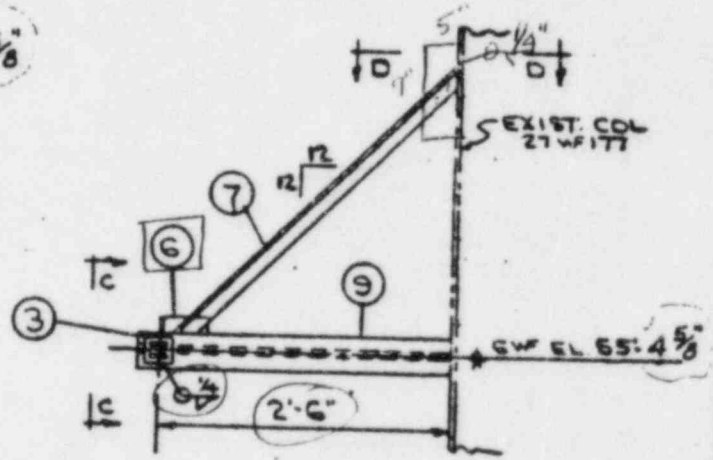
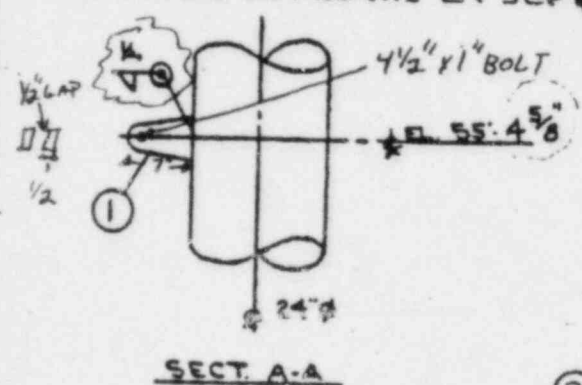
REV DATE

(4)
MNCR
85-110-21

APP	ITEM NO.	NO REQ'D	PART NO.	DESCRIPTION	WGT.	PRICE
	6	1		R 9 x 3/8 x 6 W(2) 3/4" d x 2" LG BOLT & NUT		
	7	2		L 3 x 2 x 1/4 L1 3'-5" L2 3'-2" (SEE SECTS C-C & D-D)	4'2" - 4'5"	
	8	1		R 9 x 3/8 x 6 W(2) 3/4" d x 2" LG BOLT & NUT	6"	
	9	1		GW 155 x 3'-3" LG (BEVEL AS SHOWN)		
	10	1		PACIFIC SCIENTIFIC SNUBBER DWG. 1801107 ADAPTED TO EXISTING PARTS		

* INDICATES APPROVAL BY JCP & L

TOTAL: _____



SHEET 2 OF 2

FIELD VERIFICATION FOR MR. I & E
BLTN 79-14

ALMIRALL & CO., INC. P. O. #7248
BURNS & ROE, INC.
OYSTER CREEK STA. #1.

PIPING SYSTEM MAIN STEAM
REFERENCE DWG. B & R DWG 2103-4
MARK NO. MS-R1 NO. REQ'D. 1



BERGEN-PATERSON PIPESUPPORT CORP.

- CAMBRIDGE MASS
- PITTSBURGH PA.
- SAN FRANCISCO CALIF.
- WOOD HOLE, N. J.
- HEMPSTEAD N. Y.



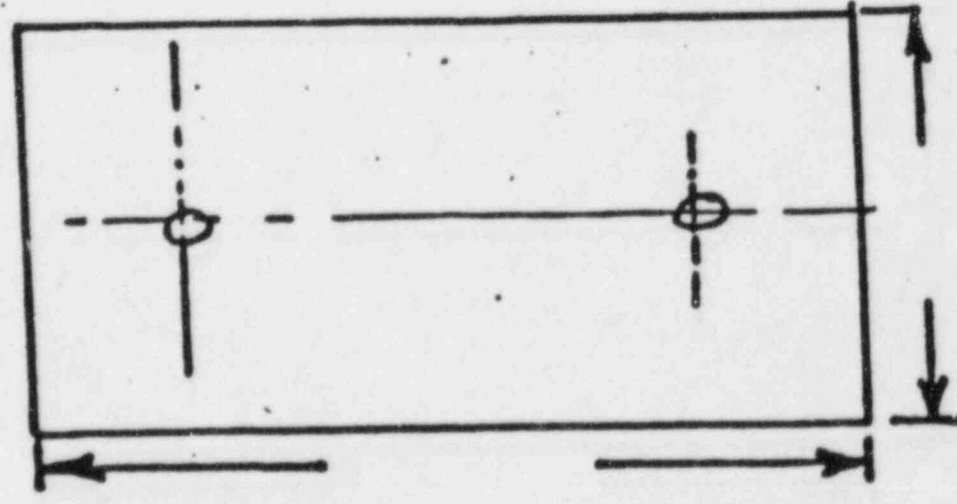
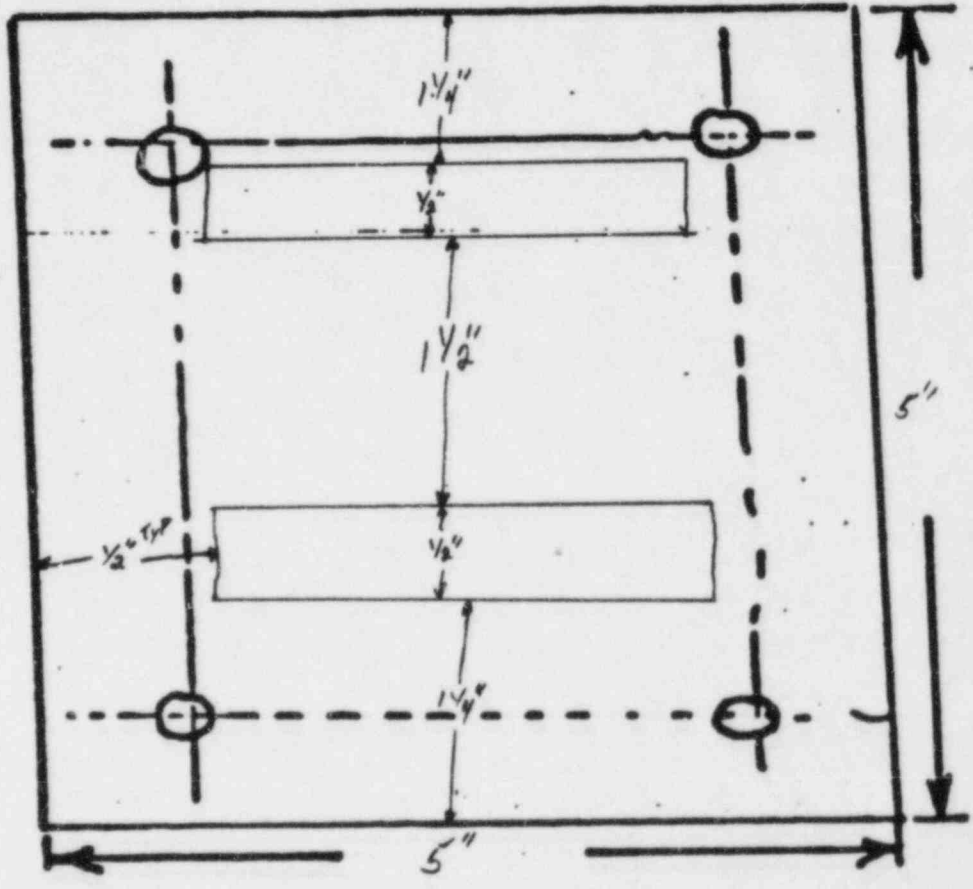
DRAWN	CHK'D	APPVD	DATE
JRS	Y		18 SEP 67
JOB NO.	P-66-1070		
DWG NO.	716		

Sur-Creek - QC

SUPPORT # MS-R1

ANCHORS: NO. N/A SIZE N/A

WASHERS N/A YES N/A NO N/A



COMMENTS

Record anchor bolt projection above plate and note if skewness is greater than 6°.

BOB P.

GRU Nuclear

PIPING AND SUPPORT VERIFICATION

Creek - OC

Reviewed: *Bl Jib*

SUPPORT # MS-R1

ISO DWG # JCP-19442 SAT-1

ORTHO DWG # B-R 2103-4

SUPPORT DWG # 216 Rev 2

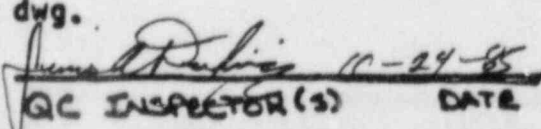
VALVE # N/A

MNSR 85-110-21

ITEM	Y	N	N/A	REM
1. Proper Valve Orientation			✓	
2. Skin Temperature <u>96 °F (C.R.) (PYR)</u>	✓			
3. Components identified in accordance with the appropriate drawing.	✓			
4. Component location is within drawing tolerances.			✓	
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.			✓	
Verify that all welds are completed.	✓			
7. Piping and supports are free of arc strikes. <u>PAINTED</u>			✓	
8. Snubbers and spring hangers are installed in accordance with drawing. <u>INSTALLED BACKWARDS</u>		✓		
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5% <u>+7/4 TAD 10-24-85</u>			✓	
10. Record the amount of snubber extension from the fully compressed position. T or C = <u>1 3/4</u>	✓			
11. If the springs and snubbers are within: 1/2" from the topped/bottomed out position for springs, and 1/2" from the fully compressed/fully extended position for snubbers, it shall be reported.			✓	
12. Verify piping sizes. <u>2 1/4 INSULATED</u>	✓			
13. Hanger location in building (General area) { Description: <u>DRY well 46' ELV</u>			✓	

Creek - OC

SUPPORT # MS-R1

ITEM	Y	N	N/A	REM
14. Hanger hardware:				
A. Clips			✓	
B. Clevis			✓	
C. Cotter Pins			✓	
D. Turnbuckles	✓			
E. Nuts/Bolts (Check all attachments for double nut requirements)	✓			
F. Spring Canisters			✓	
G. Locking Tabs on Nuts			✓	
H. Washers	✓			
I. Swivels			✓	
15. Hanger configuration in accordance with applicable drawings:				
A. Dimensions				✓
B. Angles of support to system and base plate	✓			
C. All hanger attachments i.e., clips, brackets, etc. orientated correctly.	✓			
D. Strut or Snubber pin to pin distance <u>2'-7 1/4"</u>	✓			
16. Weld locations:				
A. Proper weld location				✓
B. Proper weld spacing				✓
C. Proper number of welds				✓
D. Thru paint (average value <u>1/4"</u>)				✓
17. Anchor Bolts:				
A. Type				✓
B. Size <u>N/A</u> number <u>N/A</u>				✓
C. Thread engagement				✓
D. Bolt c/c spacing				✓
E. C/C from anchors to closet anchor <u>N/A</u>				✓
18. Gaps @ stops:				
A. At U-bolts or Restraints				✓
B. At pipe penetrations				✓
*TOLERANCES FOR MEASUREMENT ACCURACY				
<u>Measurement</u>	<u>Tolerance</u>			
0" - 2"	± 1/16"			
N 2" - 12"	± 1/8"			
N 12" - 36"	± 1"			
N 36" - ∞	± 3"			
* Unless otherwise shown on the dwg.				
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">  QC INSPECTOR(S) </div> <div style="text-align: center;"> <u>11-24-85</u> DATE </div> </div>				

Oyster Creek - QC

SUPPORT # M5-R1

PER MNCR 85-110-21

SUPPORT DWG# 716 Rev. 2

	Y	N	N/A	REM
19. Confirm pipe clamp figure no. If not possible, fill in appropriate form attached.			✓	
20. Baseplate attachments location recorded on the anchor plate verification sheet.	✓			
21. For valves noted in the walkdown, record their location & orientation on the isometric drawing. Describe orientation by stating (1) direction observer is facing, and (2) angle of valve ϵ to pipe ϵ to nearest 30 degrees (such as hours on a clock with 12:00 being direction facing the observer).			✓	
22. For hangers where other systems (i.e. piping, conduit, etc.) are also supported, give size of this system and describe type of support and distance to upstream and downstream hangers supporting that system.			✓	
Other items as specified by calculation sheet request attached.				

James D. King 10/29/85
 QC Inspector(s)/Date

R. Kuras J:O Mechanical Lead | AT
SUBJECT MNC 85-110-21 / Hanger # MS-R1 | DATE 11-1

This is to document our conversation re: MNC 85-110-21. On 10/28 a request for additional info on hanger # MS-R1 was generated by W. Haas. Apparently this was not communicated to you or anyone in your group. This situation was brought to light during a discussion I was having w/ Dave Koblend of QD @ 11:00 AM on this date. Please initiate whatever steps are necessary to resolve Mr. Haas' request post haste.

DUPLICATE

SIGNED

(NO REPLY REQ'D)

Chris Michael

DATE

SIGNED

REDIFORM 45 469

POLY PAK (50 SETS) 4P 469

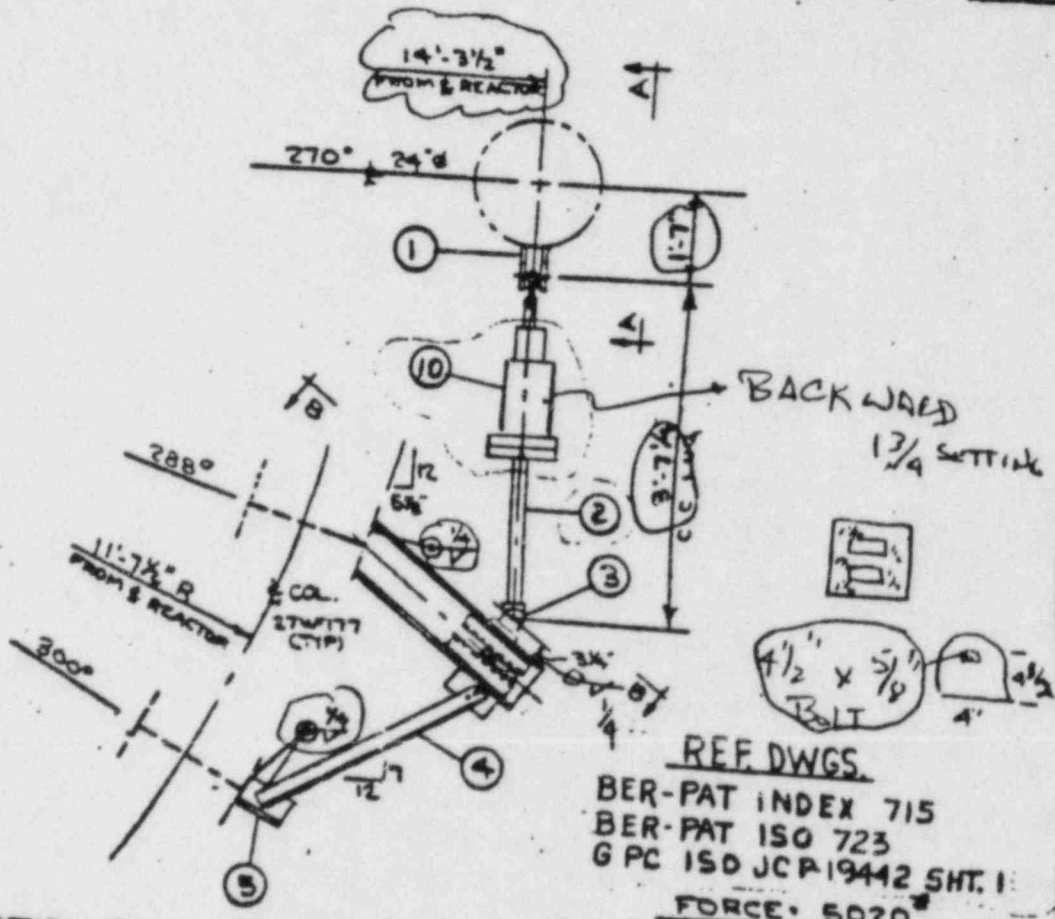
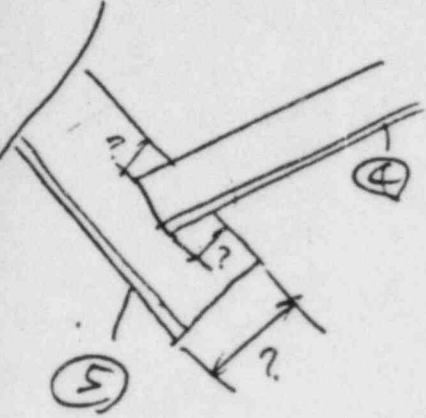
SEND PARTS 1 AND 3 WITH CARBON INTACT. -
PART 3 WILL BE RETURNED WITH REPLY.

DETACH AND FILE FOR FOLLOW-UP

85-110-21

ITEM NO.	NO. REQ'D	PART NO.	DESCRIPTION	WGT	PRICE
1	1		PART EA2-A		
2	1	252	HSSA-10 6" STROKE B=2 7/8" C=4 1/8" (SEE ITEM 10 SHT. 2)		
3	1		PART EA1-A		
4	2		L 3x2x1/4 x 2'-8" LG (BEVEL AS SHOWN) 2' 7 3/4"		
5	1		L 4x3x1/2 x 8" LG		

NEED WELD LENGTH.



LOCATION PLAN

INDICATE APPROVAL BY JCP/L

SHEET 1 OF 2

ALMIRALL & CO., INC. P. O. #7248
 BURNS & ROE INC.
 OYSTER CREEK STA. #1.

PIPING SYSTEM MAIN STEAM
 REFERENCE DWG. BIR DWG: 2103-4
 MARK NO. MS-R1 NO. REQ'D 1

BERGEN-PATERSON PIPESUPPORT CORP.

- CARROLLWOOD, MASS.
- PITTSBURGH, PA.
- SAN FRANCISCO, CALIF.
- WOOD-RIDGE, N. J.
- HEMPSTEAD, N. Y.

DRAWN	CHK'D	APP'VD	DATE
JRS	SP		18 SEP 66
JOB NO. P.66-1070		DWG NO. 716	

FIELD VERIFICATION FOR NRC ICFE BLT179-14
 ADDED REF. DWGS. UP-DATED AS ENRITLED
 W/MS 3-10-70
 BY: JMB
 REV

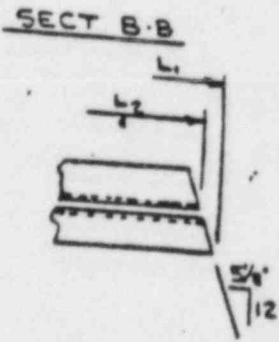
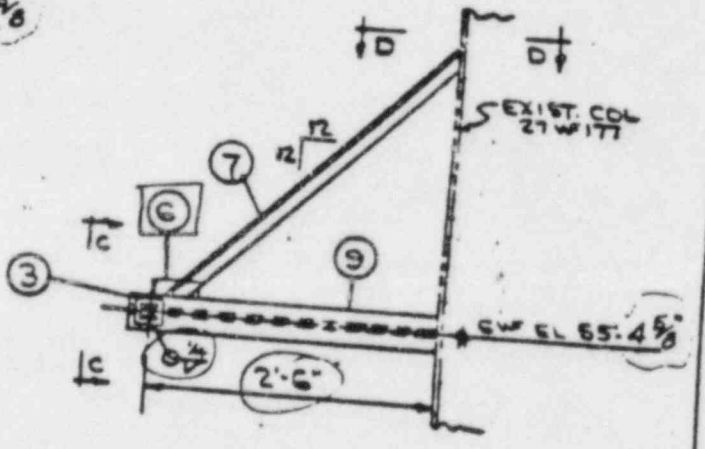
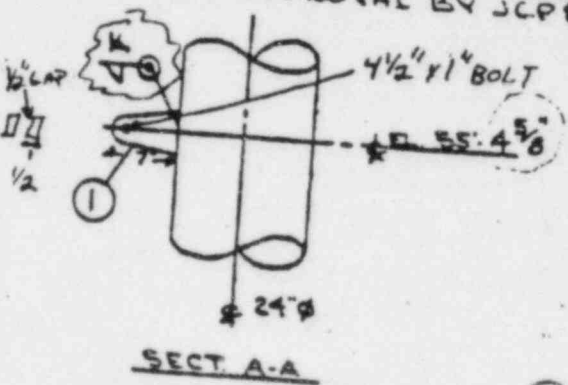
ST

MNCR
85-110-21

FORM SP-3

APP	ITEM NO	NO REQ'D	PART NO.	DESCRIPTION	WGT	PRICE
	6	1		R 9 x 5/8 x 6 W/2 1/4" x 2" LG BOLT & NUT		
	7	1		L 3 x 2 x 1/4 L=3'-8" L=3'-2" (SEE SECTS C-C & D-D)		
	8	1		R 9 x 5/8 x 6 W/2 1/4" x 2" LG BOLT & NUT	4 1/2"	4 1/2"
	9	1		GW 165 x 3.3" LG (BEVEL AS SHOWN)	6"	
	10	1		PACIFIC SCIENTIFIC SNUBBER DWG. 1801107 ADAPTED TO EXISTING PARTS		
TOTAL:						

* INDICATES APPROVAL BY JCP & L



ION FOR MRCIAE
ENGR. DATE
REV. DATE

A
BURNS
OYSTER CRE.

BERGEN-PATE.

PIPESUPPORT CORP.

PIPING SYSTEM MAIN STEAM

REFERENCE DWG. B & R DWG 2103-4

MARK NO. MS-R1

NO. REQ'D. 1

DRAWN	CHK'D	APP'VD	DATE
JRS	Y		18 SEP 67
JOB NO. P-66-1070			
DWG. NO. 716			

- CARBON STEEL
- STAINLESS STEEL
- ALUMINUM
- COPPER
- BRASS
- MONEL
- INCONEL
- TITANIUM
- OTHER



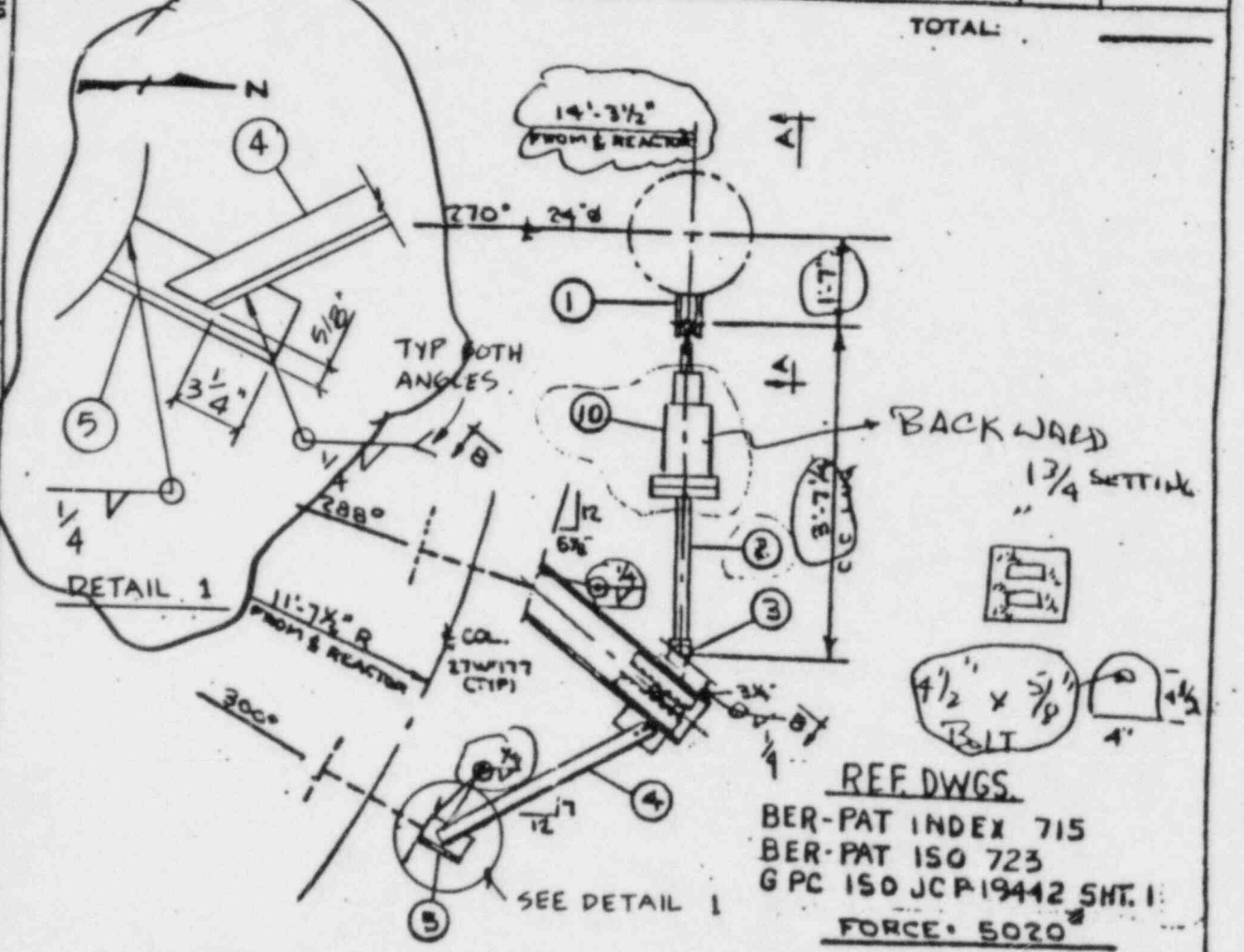
FIELD VERIFY
BLTN 79-10

REV. DATE

SHEET 2 OF 2

117

ITEM NO.	NO REQ'D	PART NO.	DESCRIPTION	WGT	PRICE
1	1		PART EA2-A DWG: 64108		
2	1	252	HSSA-10 6" STROKE B=2 7/8" C=4 7/8" (SEE ITEM 10 SHT. 2)		
3	1		PART EA1-A DWG: 64101		
4	2		L 3x2x1/4x2'-6" LG (BEVEL AS SHOWN) 2' 7 3/4"		
5	1		L 4x3x1/8x8" LG		
TOTAL:					



LOCATION PLAN

* INDICATE APPROVAL BY JCP/L

SHEET 1 OF 2

ALMIRALL & CO., INC. P. O. #7248
 CUSTOMER
 BURNS & ROE, INC.
 OYSTER CREEK STA #1.

PIPING SYSTEM MAIN STEAM
 REFERENCE DWG. BIR DWG: 2103-4
 MARK NO. MS-RI NO. REQ'D 1

BERGEN-PATERSON PIPESUPPORT CORP.

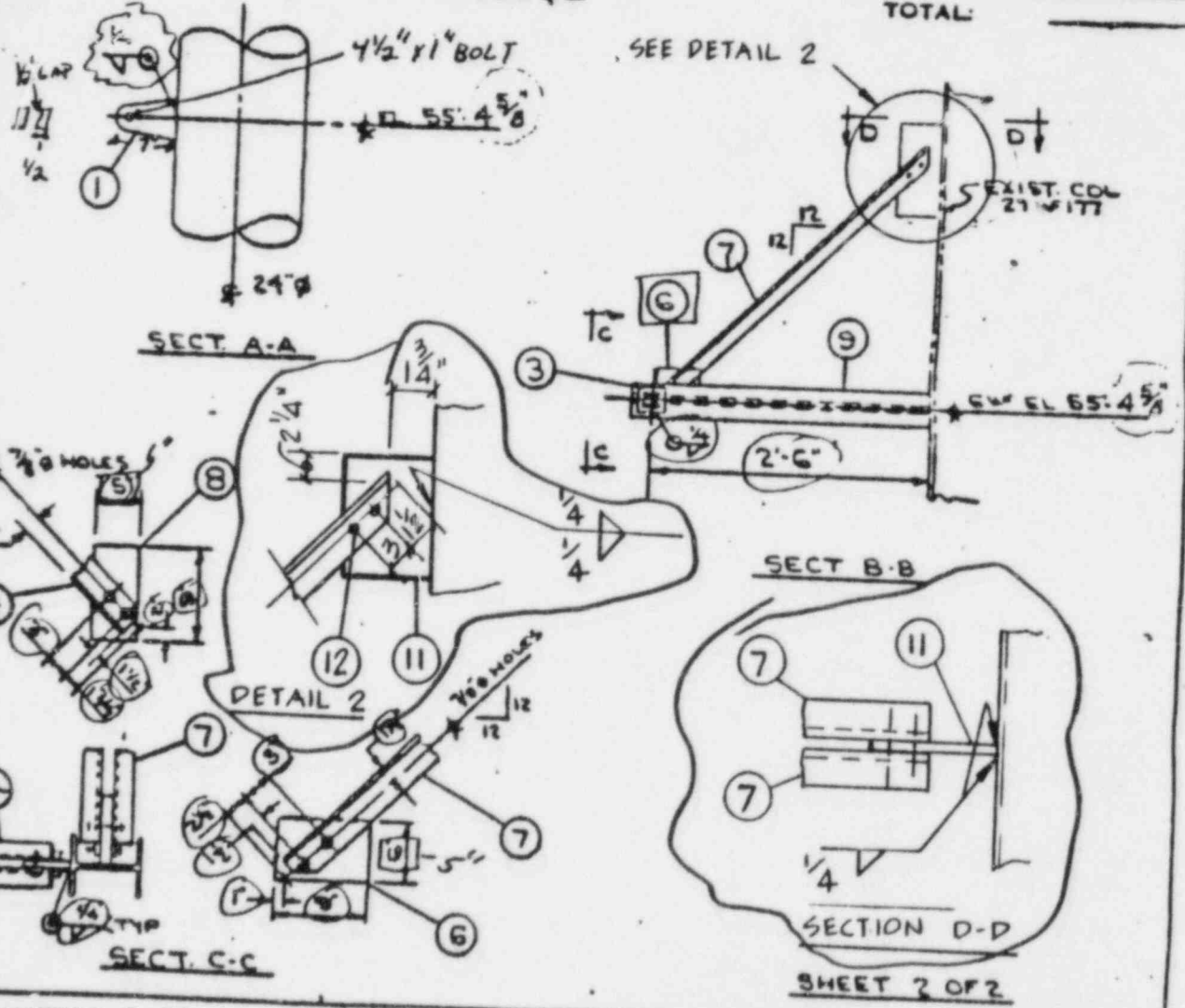
- CAMBRIDGE, MASS.
- PITTSBURGH, PA.
- SAN FRANCISCO, CALIF.
- WOOD-RIDGE, N. J.
- NEWPORT, N. Y.

DRAWN	CHECKED	APPROVED	DATE
JRS	SW		18 SEPC.
JOB NO. P-66-1070			
DWG NO. 716			

FIELD VERIFICATION FOR NRC RE BLIN 79 M CO
 ADDED REF DWGS-UPDATED AS ENCLER
 DATE
 DESCRIPTION
 2

ITEM NO	NO REQ'D	PART NO	DESCRIPTION	WGT.	PRICE
6	1		R 9x1/2x6 w/2) 3/4" x 2" LG BOLT & NUT		
7	2		L 3x2x1/4 L1 3'-8" L2 3'-2" (SEE SECTS C-C & D-D)		
8	1		R 9x1/2x6 w/2) 3/4" x 2" LG BOLT & NUT	4 1/2"	4 1/2"
9	1		GW 165 x 3'-3" LG (BEVEL AS SHOWN)		
10	1		PACIFIC SCIENTIFIC SNUBBER DWG. 1801107 ADAPTED TO EXISTING PARTS		
11	1		R 9"x 5 1/2" x 3/8" THK		
12	2		3/4" x 2 1/2" LNG. BOLT W/FN		

* INDICATES APPROVAL BY JCP & L



FIELD VERIFICATION FOR MRC I & E
BLTN 70-14

ALMIRALL & CO., INC. P. O. #7248
BURNS & ROE, INC.
OYSTER CREEK STA #1.

PIPING SYSTEM MAIN STEAM
REFERENCE DWG. B & R DWG 2103-4
MARK NO. MS-R1 NO. REQ'D. 1



BERGEN-PATERSON PIPESUPPORT CORP.

- CAMBRIDGE MASS
- PITTSBURGH PA.
- SAN FRANCISCO CALIF.
- WOOD BRIDGE, N. J.
- HEMPSTEAD, N. Y.



DRAWN	CHK'D	APP'VD	DATE
JRS	J		18 SEP 67
JOB NO. P-66-1070			
DWG NO. 716			

Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORMNO A _____
RETENTION _____

1. Identification

Originator: KEVIN MCC AULEY / JAME A DECKIEWICZ
Material, Part, Component, etc.: MS-R2 MAINSTEAM Date/Time: 10/24/85 / 16:20

Location: 46' ELV DRYWELL
Manufacturer (Name): N/A Code: N/A
P.R.# N/A Line # N/A Spec # N/A
System: MAINSTEAM System Tag No. N/A
Dwg No. 717 Rev 1 / JEP-19442 SMT-1 Heat Code No N/A Other N/A

Nonconforming to (requirements): DIMENSIONAL / CON FIGURATION AS SHOWN ^{3AD} 10-25-85
SHOWN

Description of Nonconformance: SEE DISCREPANCIES / DISPOSITION SHEET ATTACHED

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

Important To Safety	POTENTIALLY REPORTABLE:				
	10CFR50	10CFR21	10CFR71	10CFR73.71	LE.R.
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Evaluated By (Name): DL Robillard - Supv. Q Programs Date/Time: 10-25-85 / 1518
QC Mgr. Validation: David [Signature] Date/Time: 10-25-85 / 1518

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____
Licensing Notified: YES NO Date/Time: _____
Hold Tags Issued: YES NO No. of Tags: _____
Tags Installed By (Name): _____ Date/Time: _____
Material Segregation Required: YES NO
Segregation Verified By (Name): NA Date/Time: _____

ACTION PARTY (Name): J. MALONEY Dept: PLANT MATERIAL

Forward to responsible individual/department (Action Party).



Nuclear

Material Nonconformance Report Cont'd

MNCR Number 85-110-22

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: *Provide engineering evaluation of AS built configuration. If adequate revise drawings to reflect AS built configuration.*

Evaluation/Disposition By (Name):

[Signature]

Dept: *Plant Material*

Date: *10-25-85*

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other

Justification: (Include applicable work documents, limitations, re-test requirements, etc.)

See attached sheet for justification

Re-inspection/Retest Requirements (As Applicable)

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No.: *B.P. DWG # 717*

Evaluated By (Name): *S. VIRDJ*

Dept: *J.F./Engineering Mechanics*

Date: *10-25-85*

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER:

[Signature]

Date: *10-26-85*

Conditional Release Issued:

YES NO

Reject Tags Issued:

YES NO

AI/ANI Concurrence: YES NO

Signature:

NA

Date:

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method:

Complete following as appropriate:

Inspection Report No.:

Test Report No.:

Work/Shipping Order No.:

Other:

Verified By (Name/Title/Date):

Tags/Segregation Removed By (Name/Title/Date):

7. Final Package Review

Quality Control Manager:

Date:

FORM 1000-ADM-7215 01-1

L/N STEAM

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

1) ITEM 1, TURNBUCKLE INSTALLED INSTEAD OF SNUBBER

IT IS PART OF SNUBBER ASSEMBLY
∴ ACCEPTABLE

2) ITEM 2 BOLT DIMENSION DIFFER'S

NO STRUCTURAL IMPACT AS BOLT DIA. IS SAME ONLY LENGTH IS DIFFERENT
∴ ACCEPTABLE

CHANGE DWG.

3) ADDED HARDWARE NOT ON DRAWING

ADDED HARDWARE IS STRUCTURALLY BETTER
∴ ACCEPTABLE.

CHANGE DWG.

4) DIMENSIONAL DISCREPANCIES

DIMENSIONAL DISCREPANCIES HAS NO STRUCTURAL IMPACT ∴ ACCEPTABLE.

5) WELD DISCREPANCIES

$$w = \frac{1811}{2 \times 3 \times 1.707 \times 18000} = .024'' < \frac{3}{16}'' \therefore O.K.$$

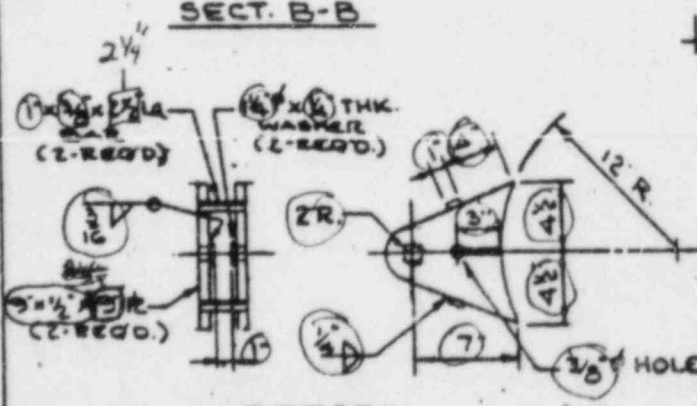
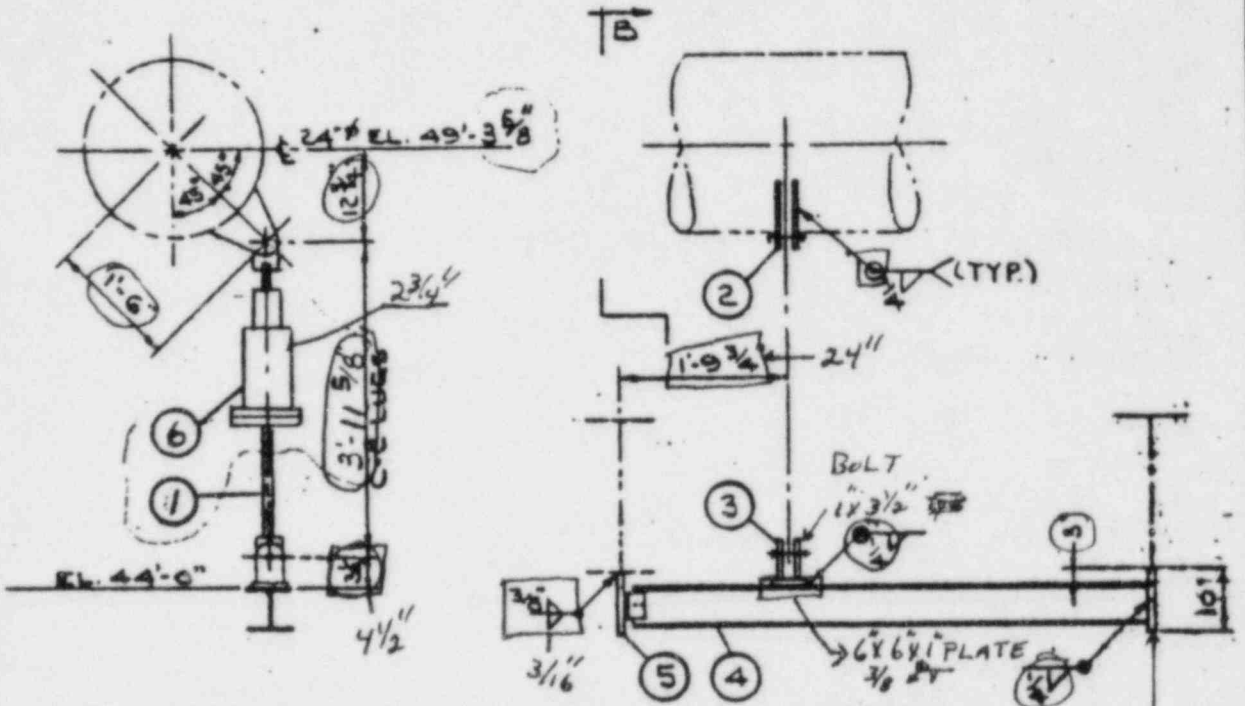
WELD BETWEEN ITEM 4 & 5 IS ALSO ACCEPTABLE BY COMPARISON WITH ABOVE WELD.

CHANGE DWG.

10/10/02

S. Verdu.

ITEM NO.	NO. REQ'D.	DESCRIPTION	BERGEN DWG OR PART NO.	REMARKS
1	1	HBSA-10 G" STROKE B. 4 1/2" T = 3 3/16" L 7/8"	252	(SEE ITEM 6)
2	1	PIPE ATTACHMENT W/ 1 1/2" LG. BIN SEE DET C	3 1/2"	
3	1	PART EAI-A	64101	
4	1	GW 15.5 X 8-2" LG. MITER ONE END		SEE DWG. 1001
5	2	(8" x 1/2" x 10" PL) 1 PLATE 8 X 3 X 3/8" 3/16" FILLET		
6	1	PACIFIC SCIENTIFIC SNUBBER DWG 1801107 (ADAPTED TO EXISTING PARTS)		



REF. DWGS.
 BER-PAT INDEX 715
 BER-PAT 150 723
 GPC 150 JCP-19442 SHT. 1

FORCE: 1811*

* INDICATES APPROVAL BY JCP & L

SHEET 1 OF 2

FIELD VERIFICATION FOR NRC IS IN FIG. 79-14-10
 ADDER REF. DWGS. UP DATED AS ENCIRCLED
 DIV. ENGR. APP. DATE
 DATE
 REV.

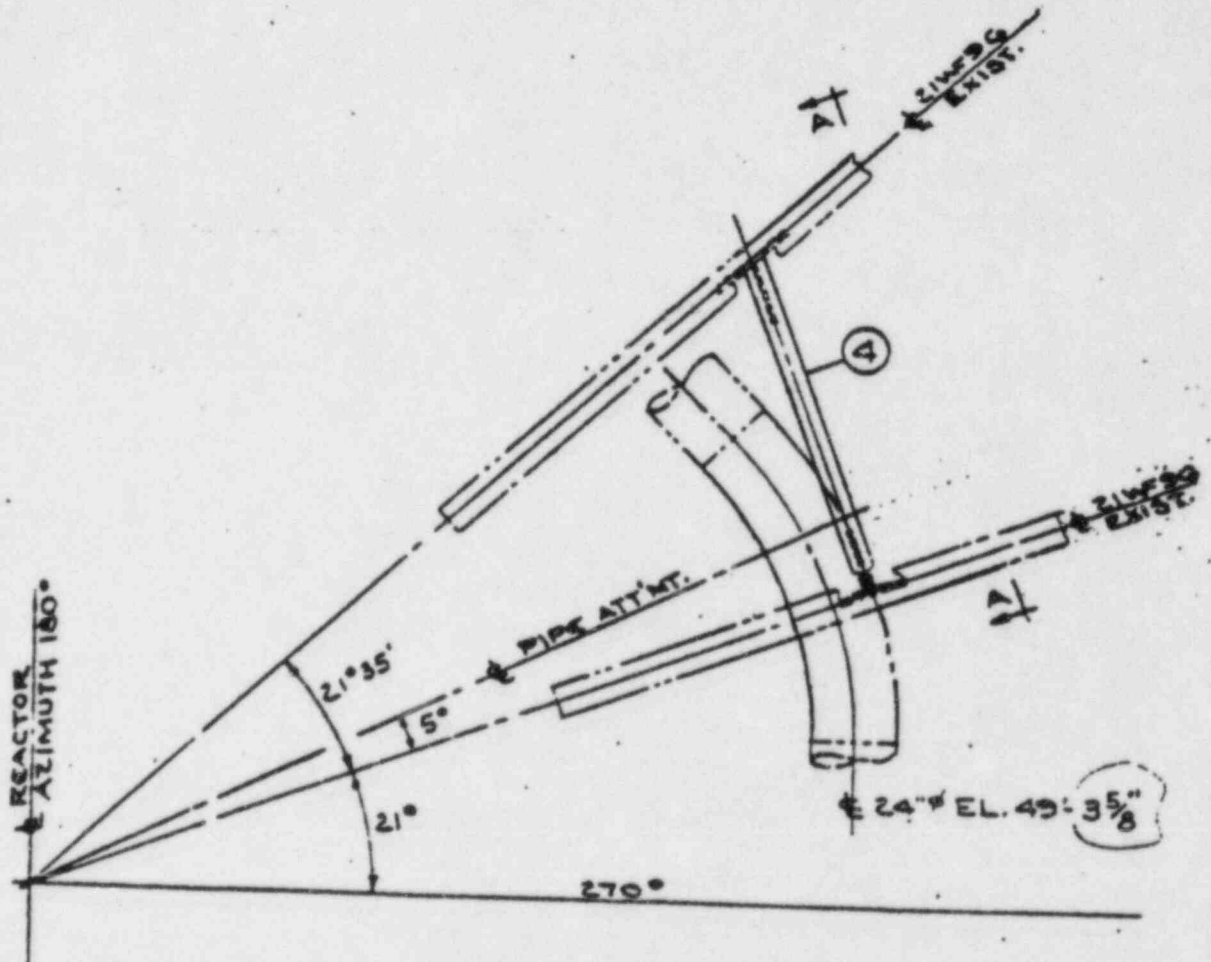
ALMIRALL & CO, INC. P. O. #7248		PIPING SYSTEM MAIN STEAM	
BURNS & ROE, INC.		REF DWG: BER DWG 2103-4	
OYSTER CREEK STA. #1		MARK NO. M5-R2 NO. REQD. 1	
CONSUMER	BERGEN PIPESUPPORT CORP.	DATE	JOB NO
DRAWN	NEW YORK, N. Y.	2-17-67	P66-1670
CHKD			717
APPVD			

D
pt

FORM 95-20

APP.	ITEM NO.	NO. REQ'D.	DESCRIPTION	BERGEN DWG OR PART NO.	REMARKS

* INDICATES APPROVAL BY JCP&L



LOCATION PLAN

FIELD VERIFICATION FOR NRC I & B
BLTN 7-5-14

DATE
REV.
ENG. APP.
REV.

DESCRIPTION

ALMIRALL & CO., INC. P. O. #724B
 BURNS & ROE INC.
 OYSTER CREEK STA. #1.

SHEET 2 OF 2
 PIPING SYSTEM MAIN STEAM
 REF DWG LOCATION PLAN B&R DWG. 2103-4
 MARK NO. M5-R2 NO. REQ'D.

REV.	DATE	DRAWN	CHKD	APPVD
I		WD	EP	

BERGEN PIPESUPPORT CORP.
NEW YORK, N. Y.

DATE	JOB NO.	DRAWING NO.
2-7-67	RC6-870	717

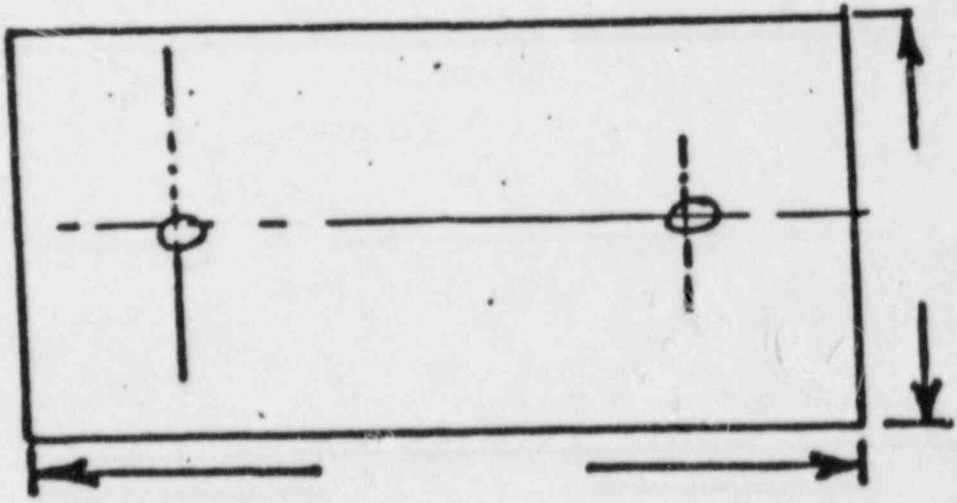
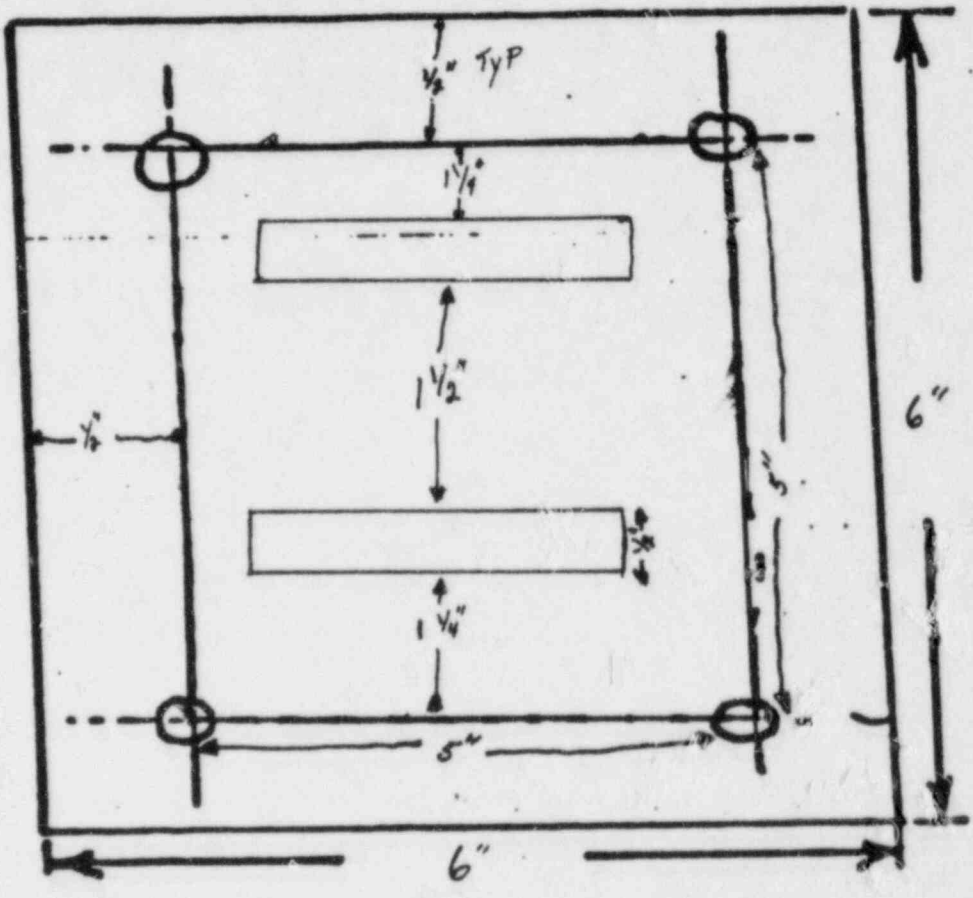
1st Creek - QC

SUPPORT # MS-BA

ANCHORS: NO. NA SIZE NA

WASHERS YES NA NO NA

NOTE BASE PLATES FOR ITEM #3



Record anchor bolt projection above plate and note if skewness is greater than 6°.

COMMENTS

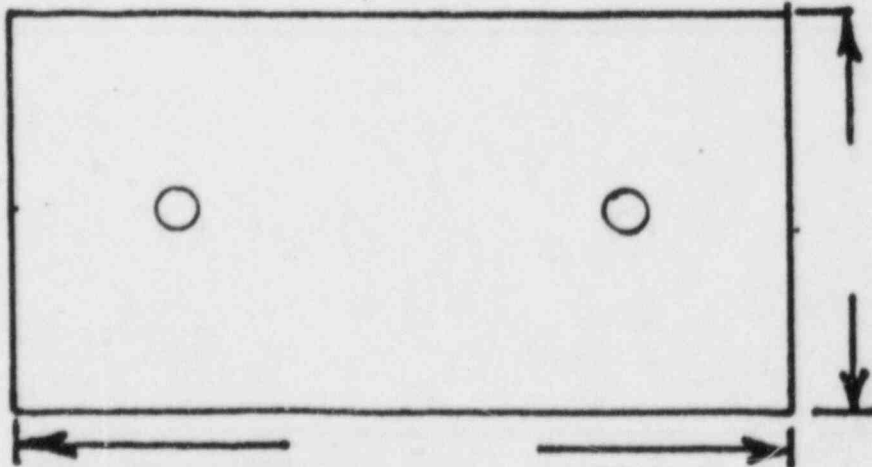
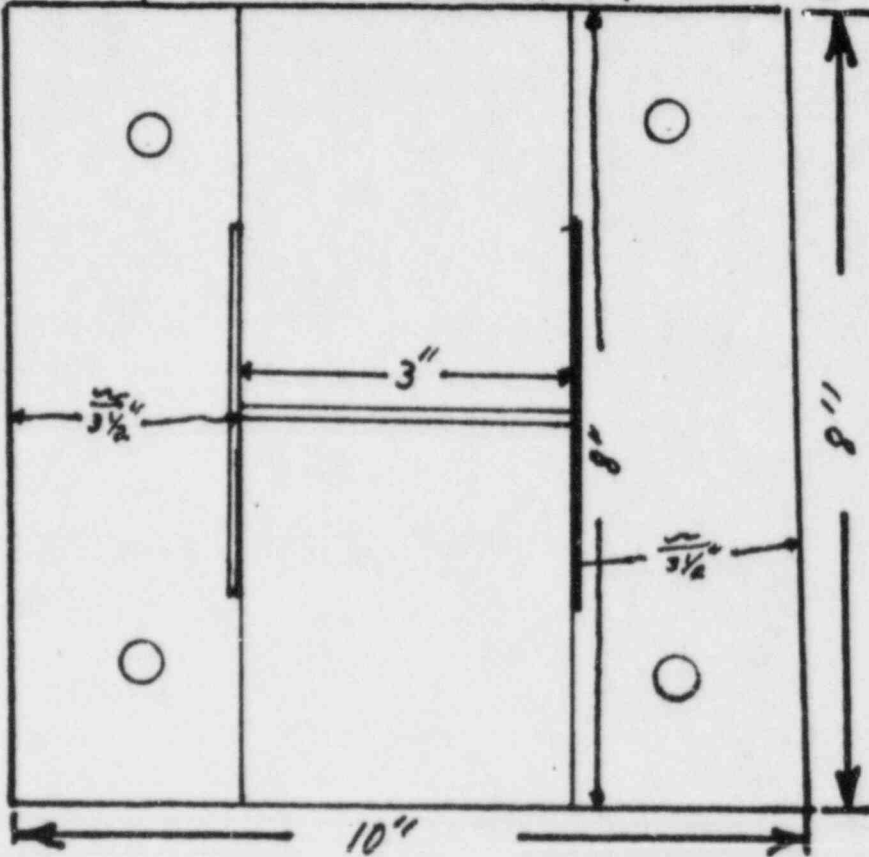
Blank lines for recording comments.

yster Creek - QC

SUPPORT # MS-R2

ANCHORS: NO. N/A SIZE N/A
WASHERS YES N/A NO N/A

NOTE FOR PLATE DETAIL OF ITEM #5



COMMENTS

Vertical lines for handwritten comments.

JIM

GRU Nuclear

PIPING AND SUPPORT VERIFICATION

11 Creek - OC

Reviewed: *Bl Likh*

SUPPORT # MS-R2

ISO DWG # JCP-19442 SHT.1

ORTHO DWG # B+R 2103-4

SUPPORT DWG # 717

VALVE # N/A

MNCK 85-110-22

ITEM	Y	N	N/A	REM
1. Proper Valve Orientation			✓	
2. Skin Temperature <u>96</u> °F (C.R.)(PYR)	✓			
3. Components identified in accordance with the appropriate drawing.	✓			
4. Component location is within drawing tolerances.			✓	
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.			✓	
6. Verify that all welds are completed.	✓			
7. Piping and supports are free of arc strikes. <i>PAINTED</i>			✓	
8. Snubbers and spring hangers are installed in accordance with drawing.	✓			
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5% <u>N/A</u>			✓	
10. Record the amount of snubber extension from the fully compressed position. <i>For C = <u>2 3/4"</u></i>	✓			
11. If the springs and snubbers are within: 1/2" from the topped/bottomed out position for springs, and 1/2" from the fully compressed/fully extended position for snubbers, it shall be reported.				✓
12. Verify piping sizes. <i>24" INSULATED</i>	✓			
13. Hanger location in building (General area) { Description: <i>DRY well 46' ELV</i>		✓		

Creek - OC

SUPPORT # MC-R2

ITEM	Y	N	N/A	REM
14. Hanger hardware:				
A. Clips				✓
B. Clevis				✓
C. Cotter Pins				✓
D. Turnbuckles	✓			
E. Nuts/Bolts (Check all attachments for double nut requirements)	✓			
F. Spring Canisters				✓
G. Locking Tabs on Nuts	✓			
H. Washers				✓
I. Swivels				✓
15. Hanger configuration in accordance with applicable drawings:				
A. Dimensions	✓			
B. Angles of support to system and base plate	✓			
C. All hanger attachments i.e., clips, brackets, etc. orientated correctly.	✓			
D. Strut or Snubber pin to pin distance <u>3' 11 1/4"</u>	✓			
16. Weld locations:				
A. Proper weld location	✓			
B. Proper weld spacing	✓			
C. Proper number of welds				✓
D. Thru paint (average value <u>SEE DRAWING</u>)				✓
17. Anchor Bolts:				
A. Type				✓
B. Size <u>N/A</u> number <u>N/A</u>				✓
C. Thread engagement				✓
D. Bolt c/c spacing				✓
E. C/C from anchors to closet anchor <u>N/A</u>				✓
18. Gaps @ stops:				
A. At U-bolts or Restraints				✓
B. At pipe penetrations				✓
*TOLERANCES FOR MEASUREMENT ACCURACY				
<u>Measurement</u>	<u>Tolerance</u>			
0" - 2"	± 1/16"			
N 2" - 12"	± 1/8"			
N 12" - 36"	± 1"			
N 36" - ∞	± 3"			
* Unless otherwise shown on the dwg.				
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;"> <p><i>James A. D... 10-24-85</i></p> <p>QC INSPECTOR(S)</p> </div> <div style="text-align: center;"> <p>DATE</p> </div> </div>				

Oyster Creek - QC

SUPPORT # MS-R2
 SUPPORT DWG# 717 Rev1

PER MNCR 85-110-22

	Y	N	N/A	REM
19. Confirm pipe clamp figure no. If not possible, fill in appropriate form attached.			✓	
20. Baseplate attachments location recorded on the anchor plate verification sheet.	✓			
21. For valves noted in the walkdown, record their location & orientation on the isometric drawing. Describe orientation by stating (1) direction observer is facing, and (2) angle of valve \perp to pipe \perp to nearest 30 degrees (such as hours on a clock with 12:00 being direction facing the observer).			✓	
22. For hangers where other systems (i.e. piping, conduit, etc.) are also supported, give size of this system and describe type of support and distance to upstream and downstream hangers supporting that system.			✓	
Other items as specified by calculation sheet request attached.				

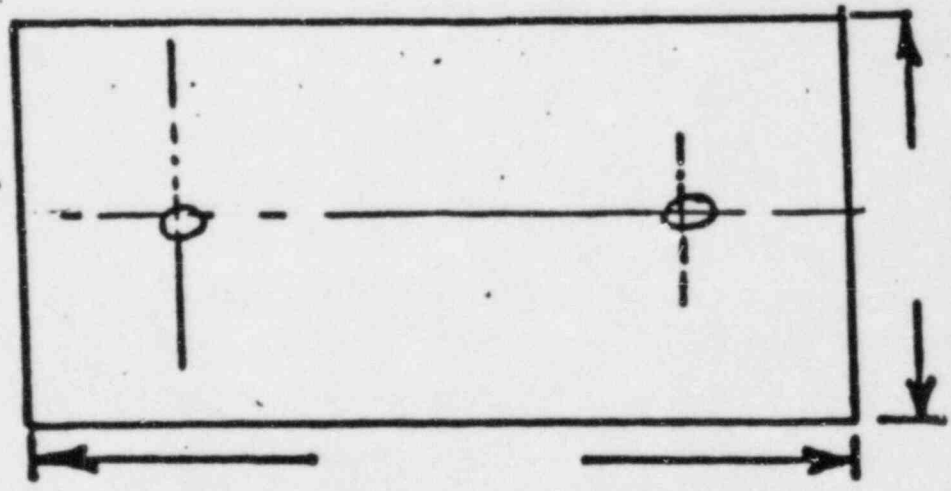
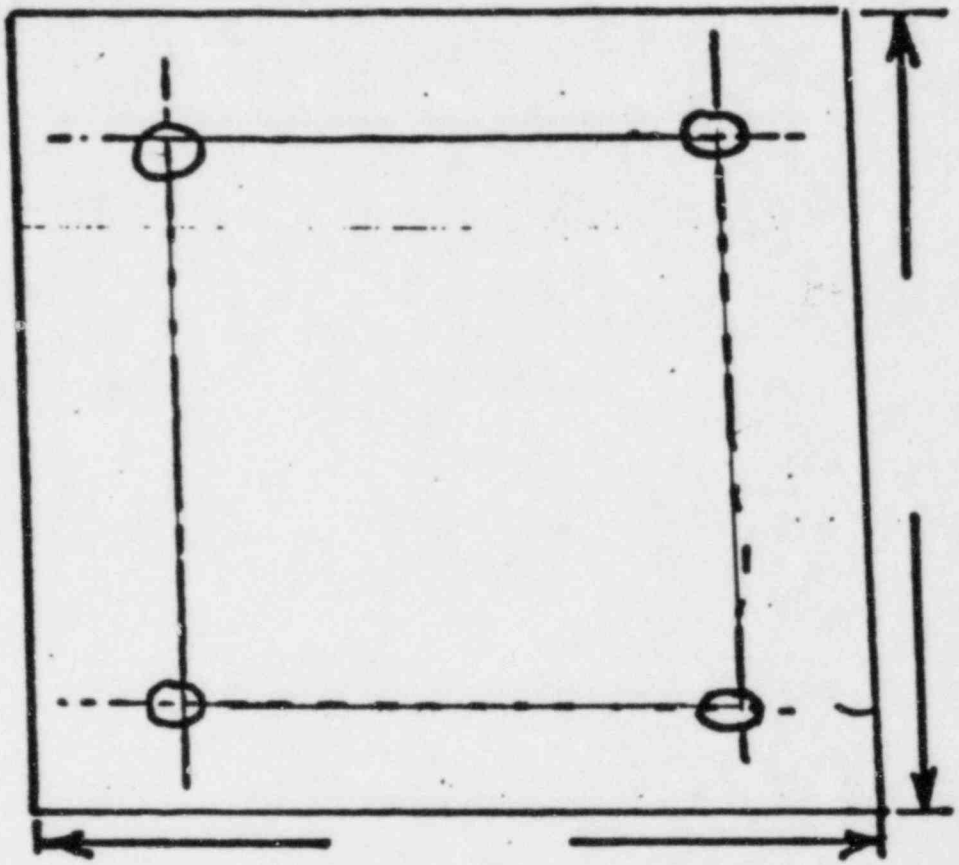
James D. King 10/24/85
 QC Inspector(s)/Date

1st Creek - QC

SUPPORT # MS-R2

ANCHORS: NO. _____ SIZE _____

WASHERS YES _____ NO _____



Record anchor bolt projection above plate and note if

skewness is greater than 6°.

COMMENTS

Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORMNO A _____
RETENTION _____

1. Identification

Originator: Kevin McCawley / Richard C Riley
Material, Part, Component, etc.: MS-RVA

Date/Time: 10-24-85

Location: 49'-7 3/4" ELV. Dwell.

Manufacturer (Name): N/A

Code: N/A

P.R.# N/A

Line # N/A

Spec # N/A

System: Main Steam

System Tag No N/A

Dwg No. 79A Rev 3

Heat Code No N/A

Other N/A

Nonconforming to (requirements): Dimensions / configuration as shown

Description of Nonconformance: See Discrepancies / Disposition sheet Attached

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

Important
To Safety

POTENTIALLY REPORTABLE:

10CFR50

10CFR21

10CFR71

10CFR73.71

L.E.R.

YES:
NO:

Evaluated By (Name): Kevin McCawley

Date/Time: 10-24-85 6:30 PM

QC Mgr. Validation: [Signature]

Date/Time: 10-26-85 / 0820

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO

Date/Time: _____

Licensing Notified: YES NO

Date/Time: _____

Hold Tags Issued: YES NO

No. of Tags: _____

Tags Installed By (Name): NA

Date/Time: _____

Material Segregation Required: YES NO

Segregation Verified By (Name): NA

Date/Time: _____

ACTION PARTY (Name): J Maloney

Dept: Plant Material

Forward to responsible individual/department (Action Party).



3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: *Provide engineering determination as to adequacy of as built configuration. If adequate, revise drawing to reflect as built.*

Evaluation/Disposition By (Name): _____

[Signature]

Dept: *Plant Material*

Date: *12-25-85*

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (include applicable work documents, limitations, re-test requirements, etc.) _____

See attached sheet for justification

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No.: *B.P. DWG # 719A*

Evaluated By (Name): *S. VIRDI*

Dept: *T.F. Engineering Mechanics*

Date: *10-25-85*

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: _____

[Signature]

Date: *10-26-85*

Conditional Release Issued: YES NO
Reject Tags Issued: YES NO

AI/ANI Concurrence: YES NO

Signature: *NA*

Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____

Work/Shipping Order No.: _____ Other: _____

Verified By (Name/Title/Date): _____

Tags/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____

Date: _____

HANGER

MS-PYA

MNCR#

95-110-23

DWG.#

719A Rev 9

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

① Dimensional Discrepancies AS shown on Dwg.

DIMENSIONAL DISCREPANCIES HAS NO STRUCTURAL IMPACT ∴ CHANGE DWG

② Additional Items Added See Attached Dwg.

ADDITIONAL ITEM STRUCTURALLY ACCEPTABLE
CHANGE DWG.

③ Additional welding Done no weld ^{REPAIR} symbols on ITEMS see Dwg.

ADDITIONAL WELD STRUCTURALLY ACCEPTABLE
CHANGE DWG

④ Item 1 is a strut with ^{REPAIR} turnbuckle.

STRUT & TURNBUCKLE ARE PART OF
SNUBBER ASSEMBLY. ∴ ACCEPTABLE

⑤ Turnbuckle on Item has loose ^{REPAIR} lock nuts
Km 10-24-85

⑥ NO thread Protrusion on bolt on End of ^{REPAIR} Snubber
see Attached Dwg.

BOLT ^{1/2"} IS IN SHEAR ONLY.
∴ STRUCTURALLY ACCEPTABLE.
CHANGE DWG

S. Vidin

10/25/85

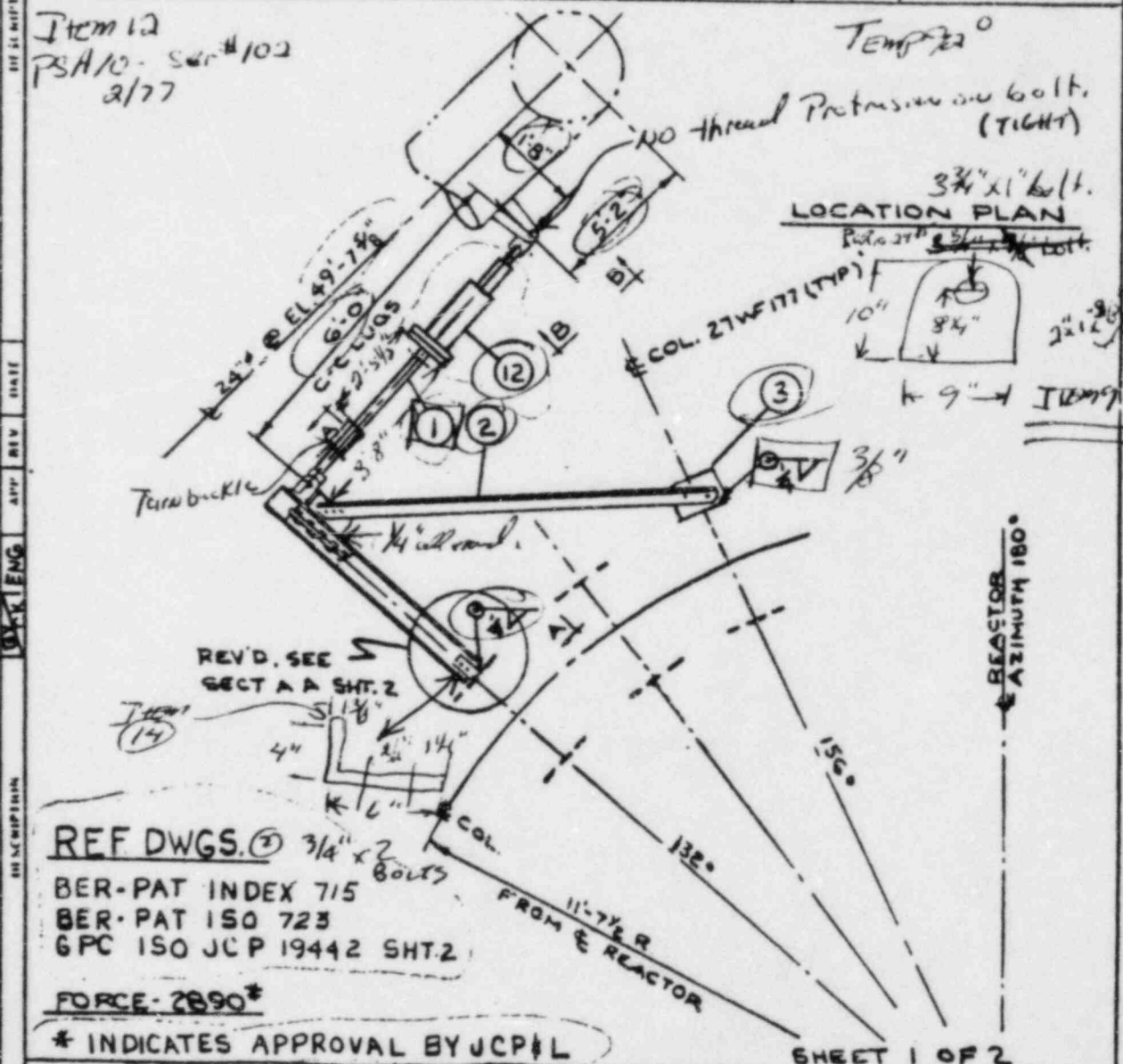
Richard

MNCR

85-110-23

(3)

APP	ITEM NO	QC REQ'D	DESCRIPTION	QUANTITY	REMARKS
	1		WSSA-10 6" STROKE B=2'6" C=4 1/4"	252	(SEE ITEM 12 SHT 2)
	2		3x2x4 L x 7'2" LG		
	3		6"x3/8" 1'-0" LG R W/2) 3/4"x2 LG B IN SEE DET 'F'		



FIELD VERIFICATION FOR NRC IS PLN. 79-14
ADDED REF DWGS. UPDATED AS ENCIRCLED

REV'D AS NOTED

REV'D SHUBBER STEEL

WORK ENG

DATE

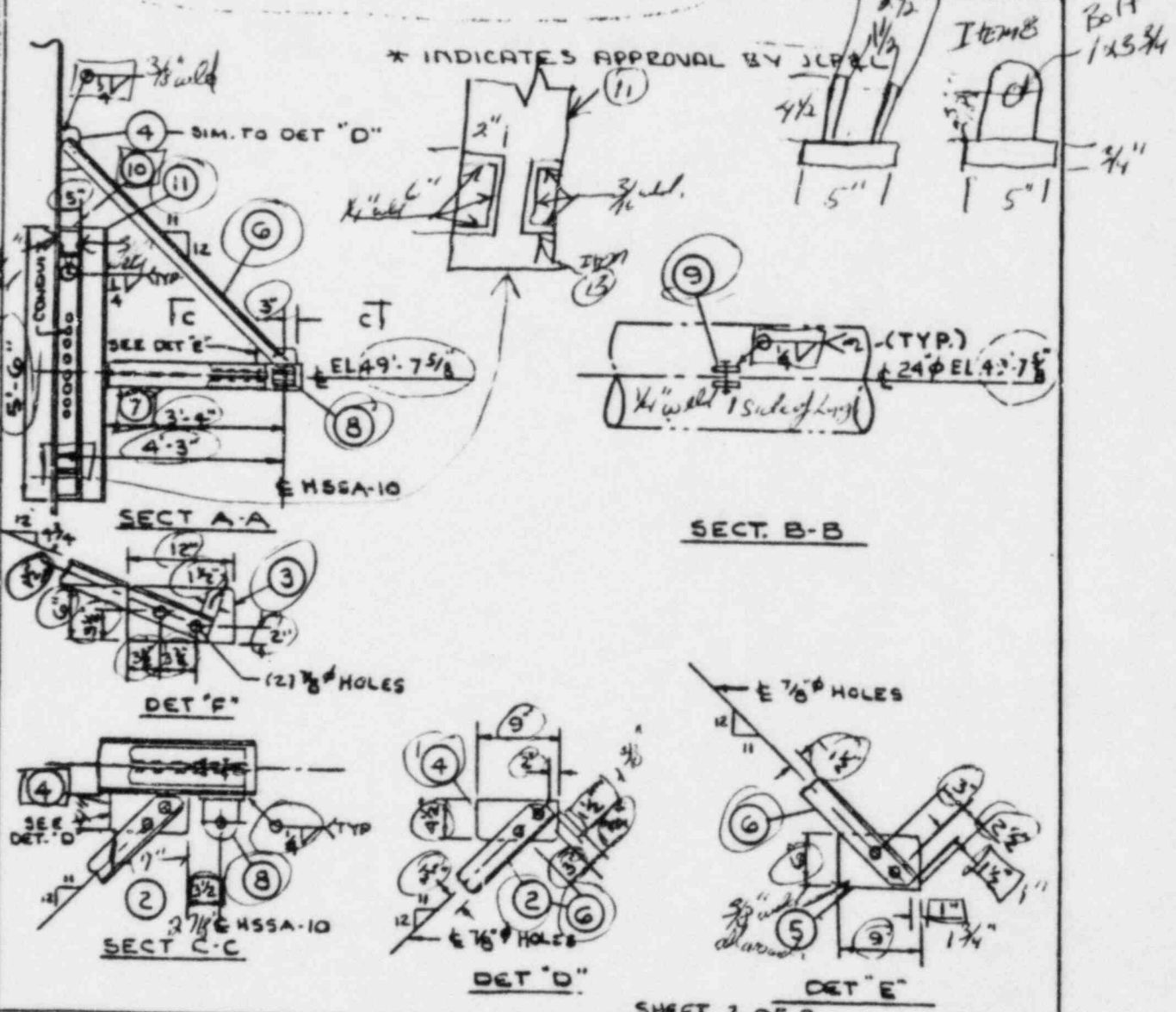
REV

APP

DATE

ALMIRALL & CO., INC. P.O. # 7248		PIPING SYSTEM MAIN STEAM	
BURNS & ROE INC.		REF DWG B & R DWS 2103-4	
OYSTER CREEK STA. # 1		MARK NO. MS-R4A NC. REQD. 1	
3	2	1	1
WD	EL		
BERGEN PIPESUPPORT CORP. NEW YORK, N. Y.		DATE	JOB NO
		2-17-67	P-61070
			DRAWING NO
			719A

ITEM NO	NO. REQ'D	DESCRIPTION	DWG OR PART NO	REMARKS
4	2	4 1/2" x 8 x 9" R W (2) 3/4" x 2" LG B & N		
5	1	6 x 3/8 x 9" R W (2) 3/4" x 2" LG B & N		
6	2	3 x 2 x 1/4 L x 6' 0 1/2" LG SEE DET 'D' & 'E'		
7	1	GW 15.5 x 4' 6" LG 3' 6" LG	1001	
8	1	PART EA1-A	G4101	
9	1	PART EA2-A MAKE A DIM = 8" B " 9"	G4108	
10	2	GW 15.5 x 0' 5" LG		
11	1	GW 15.5 x 5' 6" LG		
12	1	PACIFIC SCIENTIFIC SNUBBER DWG 1801107 (ADAPTED TO EXISTING PARTS)		3 1/2"



FIELD VERIFICATION FOR NRC FILE
 BLTN 75-14
 82168 ADDED ITEMS # 10 (11 AS SHOWN)
 11 TG REVD SNUBBER STEEL
 4-1

ALMIRALL & CO., INC. P.O. # 7248		PIPING SYSTEM MAIN STEAM	
BURNS & ROE INC.		REF DWG BFR DWG 2103-4	
OYSTER CREEK STA #1		MARK NO. MS-R4A NO. REQ'D. 1	
DESIGNED	DRAWN	DATE	DRAWING NO
WD	ES	2-11-67	719A

BERGEN-PATERSON PIPESUPPORT CORP. CAMBRIDGE, MASS WOODRIDGE N J

Creek - OC

Reviewed: *Bl. Tibb*

SUPPORT # MS-R4A
 ISO DWG # JCP 19442 SH.2
 ORTHO DWG # 2103-4
 SUPPORT DWG # 719A Rev3

VALVE # _____

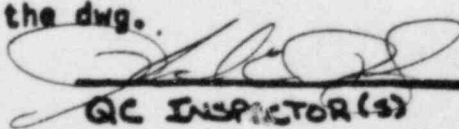
N/A

MNCR 85-110-23

ITEM	Y	N	N/A	REM
1. Proper Valve Orientation			✓	
2. Skin Temperature <u>92</u> °F (C.R.)(PYR)	✓			
3. Components identified in accordance with the appropriate drawing.			✓	
4. Component location is within drawing tolerances.			✓	
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.	✓			
6. Verify that all welds are completed.	✓			
7. Piping and supports are free of arc strikes.	✓			
8. Snubbers and spring hangers are installed in accordance with drawing.	✓			
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5% <u>N/A</u>			✓	
10. Record the amount of snubber extension from the fully compressed position. T or C = <u>3 1/2"</u>	✓			
11. If the springs and snubbers are within: 1/4" from the topped/bottomed out position for springs, and 1/4" from the fully compressed/fully extended position for snubbers, it shall be reported.				✓
12. Verify piping sizes.				<i>Discrepancy</i>
13. Hanger location in building (General area) {Description: <u>49'-7 7/8" ELV. Drywell</u> }	✓			

Creek - OC

SUPPORT # MS-R4A

ITEM	Y	N	N/A	REM
4. Hanger hardware:				
A. Clips			✓	
B. Clevis			✓	
C. Cotter Pins			✓	
D. Turnbuckles	✓			
E. Nuts/Bolts (Check all attachments for double nut requirements)	✓			
F. Spring Canisters			✓	
G. Locking Tabs on Nuts			✓	
H. Washers			✓	
I. Swivels			✓	
5. Hanger configuration in accordance with applicable drawings:				
A. Dimensions			✓	
B. Angles of support to system and base plate			✓	
C. All hanger attachments i.e., clips, brackets, etc. orientated correctly.	✓			
D. Strut or Snubber pin to pin distance <u>6'-0"</u>	✓			
6. Weld locations:				
A. Proper weld location			✓	
B. Proper weld spacing			✓	
C. Proper number of welds			✓	
D. Thru paint (average value _____)			✓	
17. Anchor Bolts:				
A. Type			✓	
B. Size _____ number _____			✓	
C. Thread engagement			✓	
D. Bolt c/c spacing			✓	
E. C/C from anchors to closet anchor _____			✓	
18. Gaps @ stops:				
A. At U-bolts or Restraints			✓	
B. At pipe penetrations			✓	
*TOLERANCES FOR MEASUREMENT ACCURACY				
<u>Measurement</u>	<u>Tolerance</u>			
0" - 2"	± 1/16"			
N 2" - 12"	± 1/8"			
N 12" - 36"	± 1"			
N 36" - ∞	± 3"			
* Unless otherwise shown on the dwg.				
 QC INSPECTOR(S)			10-24-85 DATE	

Oyster Creek - QC

SUPPORT # MSR4A

PER MNCR 85-110-23

SUPPORT DWG# 719A Rev.3

	Y.	N	N/A	REM
19. Confirm pipe clamp figure no. If not possible, fill in appropriate form attached.			✓	
20. Baseplate attachments location recorded on the anchor plate verification sheet.			✓	
21. For valves noted in the walkdown, record their location & orientation on the isometric drawing. Describe orientation by stating (1) direction observer is facing, and (2) angle of valve ϵ to pipe ϵ to nearest 30 degrees (such as hours on a clock with 12:00 being direction facing the observer).			✓	
22. For hangers where other systems (i.e. piping, conduit, etc.) are also supported, give size of this system and describe type of support and distance to upstream and downstream hangers supporting that system.			✓	
Other items as specified by calculation sheet request attached.				

 10-24-85
 QC Inspector(s)/Date

MNCR Number 85-110-24

Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORMNO A _____
RETENTION _____

1. Identification

Originator: K. McCauley / Terence A. Langan
Material, Part, Component, etc.: MS-RIA

Date/Time: 10/25/85 / 11:40

Location: Dry well 55'

Manufacturer (Name): N/A

P.R.# N/A

Line # N/A

Code: N/A

Spec # N/A

System: Main Steam

System Tag No N/A

Dwg No. N/A

B.P. 716A REV2

Heat Code No N/A

Other N/A

Nonconforming to (requirements): Dimensional / configuration as shown

Description of Nonconformance: See Discrepancy / Disposition Sheet attached.

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

POTENTIALLY REPORTABLE:

Important
To Safety

10CFR50

10CFR21

10CFR71

10CFR73.71

LER

YES:

NO:

Evaluated By (Name): K. McCauley

Date/Time: 10-25-85 / 12:15 PM

QC Mgr. Validation: [Signature]

Date/Time: 10-26-85 / 0822

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO

Date/Time: _____

Licensing Notified: YES NO

Date/Time: _____

Hold Tags Issued: YES NO

No. of Tags: _____

Tags Installed By (Name): NA

Date/Time: _____

Material Segregation Required: YES NO

Segregation Verified By (Name): NA

Date/Time: _____

ACTION PARTY (Name): J. Maloney

Dept: Plant Material

Forward to responsible individual/department (Action Party).



Nuclear

Material Nonconformance Report Cont'd

MNCR Number

85-710-24

10256

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: *Provide engineering evaluation of adequacy of as built configuration. IL documents, revise drawing to reflect as built.*

Evaluation/Disposition By (Name):

[Signature]

Dept: *Plant Material*

Date: *10-31-85*

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other

Justification: (include applicable work documents, limitations, re-test requirements, etc.)

SEE ATTACHED SHEET FOR JUSTIFICATION

Re-inspection/Retest Requirements (As Applicable)

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No.:

Evaluated By (Name): *W. C. HAAS*

Dept: *T.E. EM*

Date: *10-31-85*

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER:

[Signature]

Date: *11-1-85*

Conditional Release Issued:

YES

Reject Tags Issued: YES

NO

NO

AI/ANI Concurrence: YES

NO

Signature:

NA

Date:

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method:

Complete following as appropriate:

Inspection Report No.:

Test Report No.:

Work/Shipping Order No.:

Other:

Verified By (Name/Title/Date):

Tags/Segregation Removed By (Name/Title/Date):

7. Final Package Review

Quality Control Manager:

Date:

FORM 1000-ADM-7215 01-1

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

① configuration not as shown on Drawing
(strut instead of snubber)

STRUT IS PART OF THE ASSEMBLY
Structurally Accept.

② configuration / Dimensions not as shown on
Drawing. Bolts for Bolted connections, Items 6+8,
are 1/2" Dia by 3" Long.

1/2" DIA. IS STRONGER THAN 3/8" DIA.
Structurally Accept.

CHANGE DWG.

③ configuration not as shown on Drawing.
Another snubber is attached to Item 9, "I" Beam.
D+D To draw Details.

DETAIL IS ACCEPT.
Also Note Spring Hanger shown and
LOCATION.

W.C. Haas

10-30-85

Creek - OC

Reviewed: *Bl. Libk*

SUPPORT # MS-R1A
 ISU DWG # JCP 19442 SHT.2
 ORTHO DWG # B+R 2103-4
 SUPPORT DWG # 716A Rev.2. SHTs 1+2

VALVE # N/A

MPCR 85-110-24

ITEM	Y	N	N/A	REM
1. Proper Valve Orientation			✓	
2. Skin Temperature <u>88</u> °F (C.R.)(PYR) Surface Thermometer	✓			
3. Components identified in accordance with the appropriate drawing.	✓			
4. Component location is within drawing tolerances.			✓	
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.			✓	
6. Verify that all welds are completed. <i>Insulated.</i>			✓	
7. Piping and supports are free of arc strikes. <i>Insulated.</i>			✓	
8. Snubbers and spring hangers are installed in accordance with drawing.	✓			
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5%			✓	
10. Record the amount of snubber extension from the fully compressed position. T or C = <u>3 3/4"</u>	✓			
11. If the springs and snubbers are within: 1/4" from the topped/bottomed out position for springs, and 1/4" from the fully compressed/fully extended position for snubbers, it shall be reported.				✓
12. Verify piping sizes. <i>Insulated</i>				✓
13. Hanger location in building (General area) {Description: <i>Dry well 55'</i>				✓

Creek - OC

SUPPORT # MS-R1A

ITEM	Y	N	N/A	REM
4. Hanger hardware:				
A. Clips			✓	
B. Clevis	✓			
C. Cotter Pins			✓	
D. Turnbuckles			✓	
E. Nuts/Bolts (Check all attachments for double nut requirements)	✓			
F. Spring Canisters			✓	
G. Locking Tabs on Nuts			✓	
H. Washers			✓	
I. Swivels			✓	
5. Hanger configuration in accordance with applicable drawings:				
A. Dimensions			✓	
B. Angles of support to system and base plate	✓			
C. All hanger attachments i.e., clips, brackets, etc. orientated correctly.	✓			
D. Strut or Snubber pin to pin distance <u>3' 7 1/4"</u>	✓			
6. Weld locations:				
A. Proper weld location <i>Insulated</i>			✓	
B. Proper weld spacing			✓	
C. Proper number of welds <i>Insulated</i>			✓	
D. Thru paint (average value <u>1/4"</u>)	✓			
7. Anchor Bolts:				
A. Type			✓	
B. Size _____ number _____			✓	
C. Thread engagement			✓	
D. Bolt c/c spacing			✓	
E. C/C from anchors to closet anchor _____			✓	
8. Gaps @ stops:				
A. At U-bolts or Restraints			✓	
B. At pipe penetrations			✓	
*TOLERANCES FOR MEASUREMENT ACCURACY				
<u>Measurement</u>	<u>Tolerance</u>			
0" - 2"	± 1/16"			
N 2" - 12"	± 1/8"			
N 12" - 36"	± 1"			
N 36" - ∞	± 3"			
* Unless otherwise shown on the dwg.				
<i>Terrance A. Logan</i>			10-25-85	
QC INSPECTOR(S)			DATE	

Oyster Creek - QC

SUPPORT # MS-R1A

PER MNCR 85-10-24
10-25-85

SUPPORT DWG# 716A Rev. 2 RPT 10-2

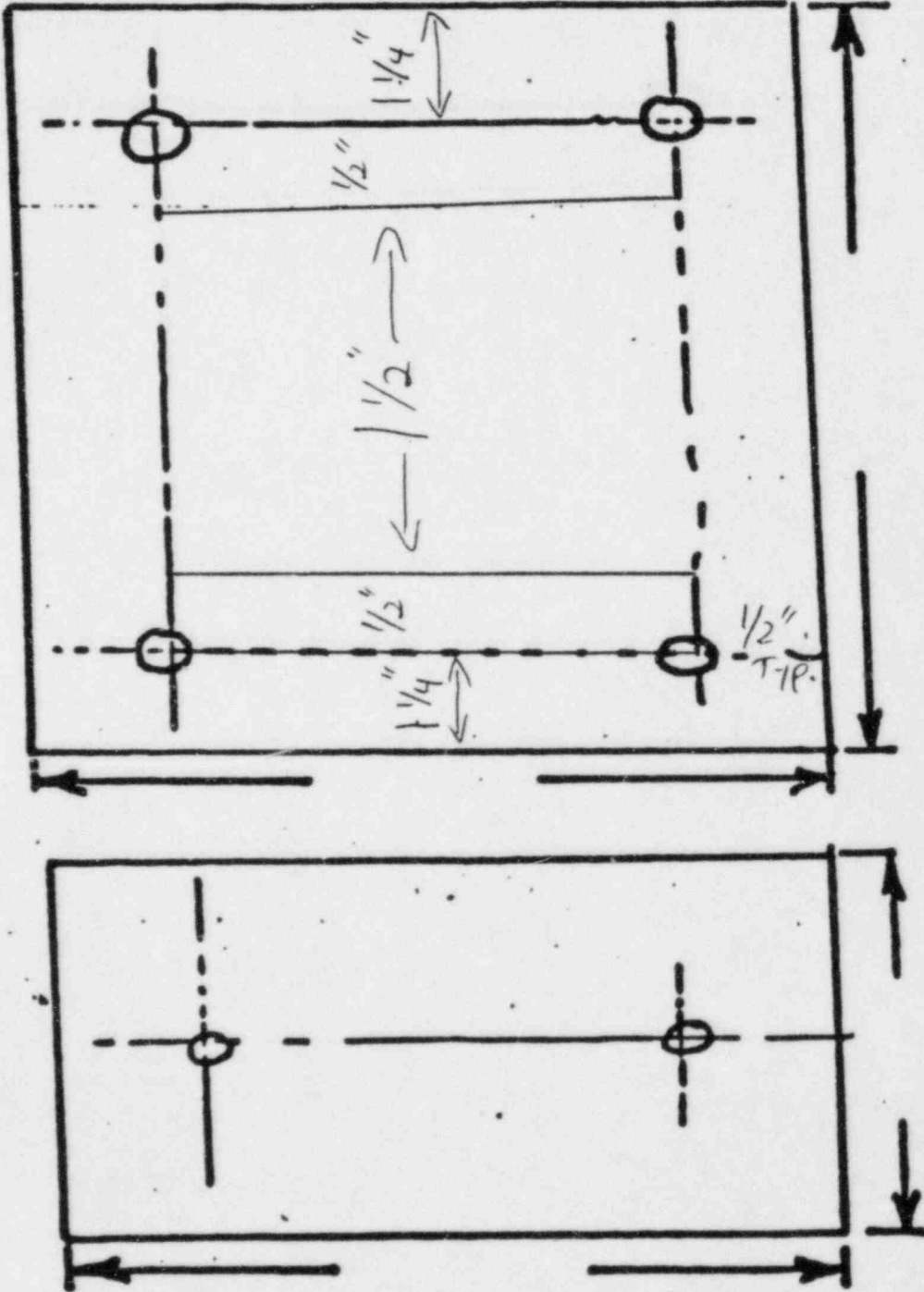
	Y	N	N/A	REM
19. Confirm pipe clamp figure no. If not possible, fill in appropriate form attached.			✓	
20. Baseplate attachments location recorded on the anchor plate verification sheet.			✓	
21. For valves noted in the walkdown, record their location & orientation on the isometric drawing. Describe orientation by stating (1) direction observer is facing, and (2) angle of valve ϵ to pipe ϵ to nearest 30 degrees (such as hours on a clock with 12:00 being direction facing the observer).			✓	
22. For hangers where other systems (i.e. piping, conduit, etc.) are also supported, give size of this system and describe type of support and distance to upstream and downstream hangers supporting that system.			✓	
Other items as specified by calculation sheet request attached.			✓	

Terence A. Longm 10-25-85
QC Inspector(s)/Date

Creek - QC

SUPPORT # MS-R1A

ANCHORS: NO. N/A SIZE N/A
WASHERS YES NO ✓



Record anchor bolt projection above plate and note if

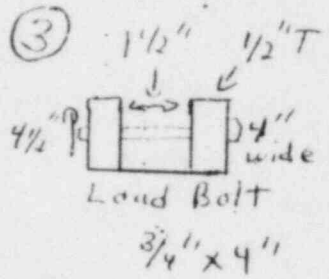
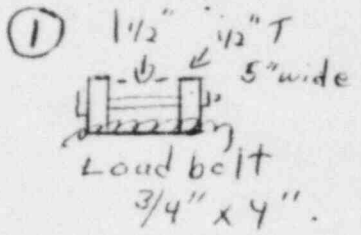
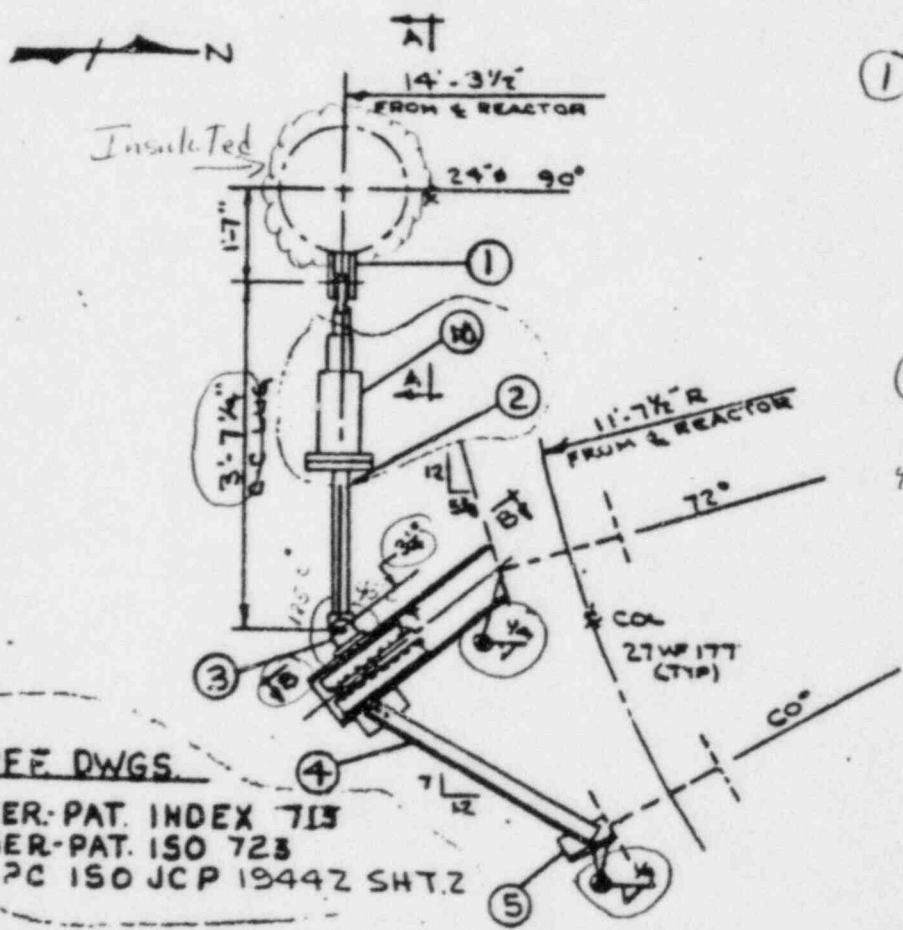
skewness is greater than 6°.

COMMENTS

* see Below

APP	ITEM NO.	NO. REQ'D	PART NO.	DESCRIPTION	WGT.	PRICE
*	1	1		PART EA2-A MAKE "A" DIM: 8" B: 9" DWG: 67108		
	2	1	252	HSSA-10 6" STROKE B: 2 7/8" C: 4 7/8" (SEE ITEM 10 SHT. 2)		
*	3	1		PART EA1-A DWG: 67101		
	4	2		L (3) x (2) x 1/4" x 2'-9" LG (BEVEL AS SHOWN)		
	5	1		L (4) x (3) x 3/8" x 8" LG		

88°F on pipe support TOTAL



REF DWGS.
BER-PAT. INDEX 713
BER-PAT. ISO 723
GPC ISO JCP 1944Z SHT. 2

LOCATION PLAN

* INDICATES APPROVAL JCP & L

FORCE: 5020*
SHEET 1 OF 2

ALMIRALI & CO., INC. P. O. #7248
BURNS & ROE, INC.
OYSTER CREEK STA. #1.

PIPING SYSTEM MAIN STEAM
REFERENCE DWG. BER DWG: 2103.4
MARK NO. MS-RIA NO. REQD. 1

FIELD VERIFICATION FOR NRC (E) B179-14
ADDED REF. DWGS. - UPDATED AS ENCIRCLED

BERGEN-PATERSON PIPESUPPORT CORP.

CAMBRIDGE, MASS. WOODBRIDGE, N. J.
 PITTSBURGH, PA. NEWPETEAS, N. Y.
 SAN FRANCISCO, CALIF.

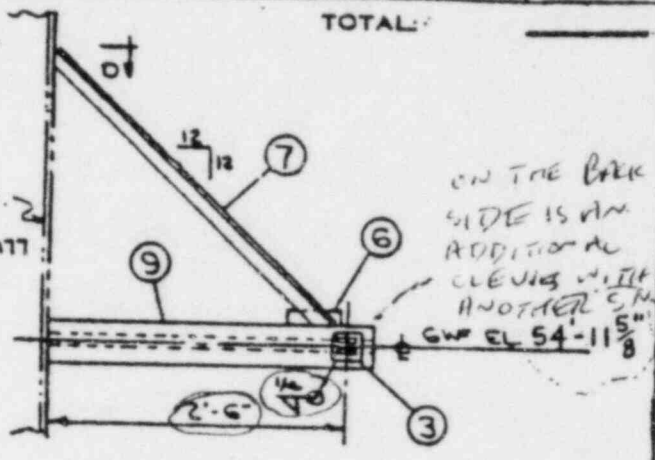
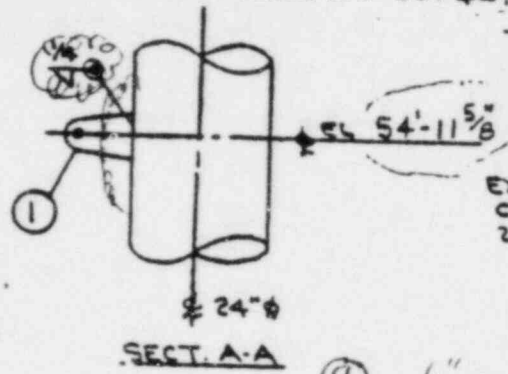
DATE	DRAWN	CHK'D	APP'VD	DATE
2	JRS	[Signature]		18 SEP 67

JOB NO. P-66-1010
DWG. NO. 716A

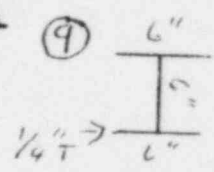
* See Below

APP	ITEM NO	NO REQ'D	PART NO	DESCRIPTION	WGT.	PRICE
*	6	1		R (9.75 x 6) w/ (2) 3/4" x 2" LG BOLT / NUT		
	7	2		L'S (3 x 2) x (1/4) L = 3.5" L2 = 3.2" (SEE SECT. C-C (D-D))		
*	8	1		R (9 x 1/8) x 5 w/ (2) 3/4" x 2" LG BOLT / NUT		
	9	1		GW 15.5 x (3.3) LG (BEVEL AS SHOWN)		
	10	1		PACIFIC SCIENTIFIC SNUBBER DWG. 1801107 (ADAPTED TO EXISTING PARTS)		

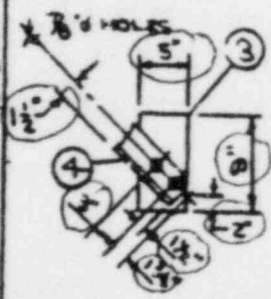
* INDICATES APPROVAL BY JLP&L



BBER
NOT INCLUDED THIS SUPPLY

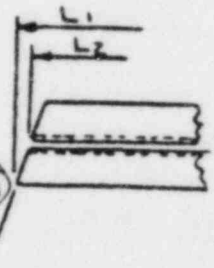
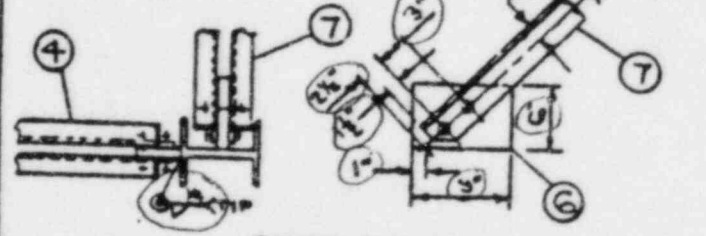


SECT. B-B



SECT. C-C

(6+8) all Bolts 1/2" x 3"



SECT. D-D

SHEET 2 OF 2

ALMIRALL & CO., INC. P. O. #7248
 BURNS & ROE, INC.
 OYSTER CREEK STA. #1.

PIPING SYSTEM MAIN STEAM
 REFERENCE DWG. BER DWG 2103-4
 MARK NO. MS-RIA NO. REQ'D. 1



BERGEN-PATERSON PIPESUPPORT CORP.

- CARBON STEEL
- PITTSBURGH, PA.
- SAN FRANCISCO, CALIF.
- WOOD-BRIDGE, N. J.
- NEWSTEAD, N. Y.



DRAWN	CHK'D	APPR'D	DATE
JRS	Y		19 SEP 67
JOB NO. P-66-1070			
DWG. NO. 716A			

FIELD VERIFICATION FOR NRC I & E
 BLTN 73-14

ENG APP REV DATE

DESCRIPTION

REV DATE

TO: E. O. WRIGHT
D & D SUPERVISOR



System Speed Memo

DATE: 10-25-85

MESSAGE

PLEASE PROVIDE DETAILS OF ADDITIONAL SNUBBER
INSTALLED AT MAIN STREAM HANGER MS-R1A.
THIS IS FOR ANOTHER UNIDENTIFIED SYSTEM. PROVIDE
PIPING SIZE AND UPSTREAM & DOWNSTREAM SUPPORT
SIZE/TYPE OF THIS SYSTEM. REPORTED ON
MNCR 85-110-24

Please reply to:

SIGNED: *Jim M'Carthy*

REPLY

DATE:

SIGNED:

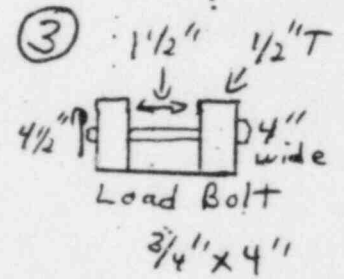
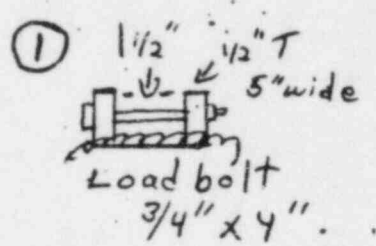
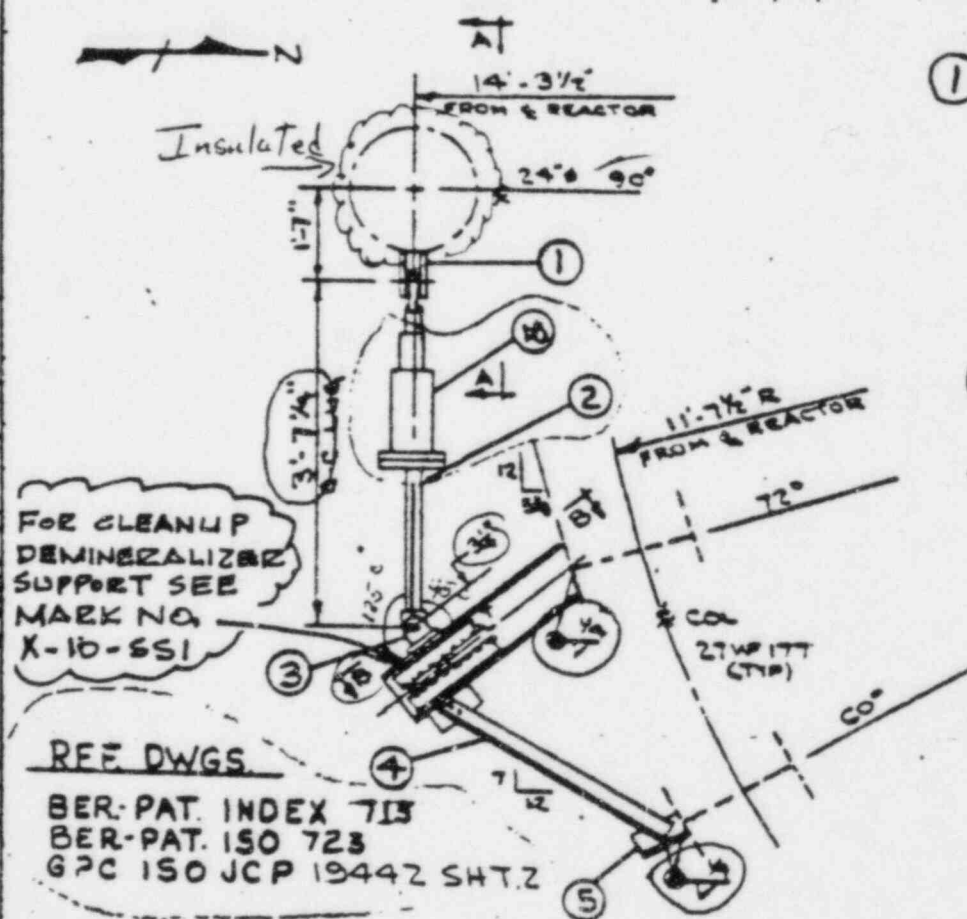
1st & 2nd copy - For person addressed - 2nd copy
to be returned to sender.
3rd copy Detach and retain for answer.

85-110-24

* see Below

APP	ITEM NO.	NO. REQ'D	PART NO.	DESCRIPTION	WGT.	PRICE
*	1	1		PART EA2-A MAKE "A" DIM 8" B. 9" DWG 64108		
*	2	1	252	HEAD TO 6 STROKE B. 2 7/8" C. 4 7/8" (SEE ITEM 10 SHT. 2)		
*	3	1		PART EA1-A DWG: 64101		
*	4	2		L 3x3 1/4 x 2-9 LG (BEVEL AS SHOWN)		
*	5	1		L 3x3 1/4 x 2-9 LG		

88°F on pipe support TOTAL



FOR CLEANUP DEMINERALIZER SUPPORT SEE MARK NO. X-10-651

REF DWGS.
 BER-PAT. INDEX 713
 BER-PAT. ISO 723
 GPC ISO JCP 19442 SHT.2

LOCATION PLAN

* INDICATES APPROVAL JCP & L

FORCE 5020*
 SHEET 1 OF 2

ALMIRALL & CO., INC. P. O. #7248
 BURNS & ROE, INC
 OYSTER CREEK STA. #1.

PIPING SYSTEM MAIN STEAM
 REFERENCE DWG. BER DWG: 2103.4
 MARK NO. MS-RIA NO. REQD. 1

FIELD VERIFICATION FOR NRC USE BY 11/29/79 - 1/4/80
 ADD'D REF. DWGS. UPDATED AS ENCIRCLED
 DATE REV. APP. REV. DATE
 DESCRIPTION



BERGEN-PATERSON PIPESUPPORT CORP.

- CAMDEN, N.J.
- PITTSBURGH, PA.
- SAN FRANCISCO, CALIF.
- HOOD RIVER, O. J.
- NEWYORK, N. Y.



DRAWN	CHEK'D	APPVD.	DATE
JRS	SP		18 SEP 67
JOB NO. P. 66-1010			
DWG. NO. 716A			

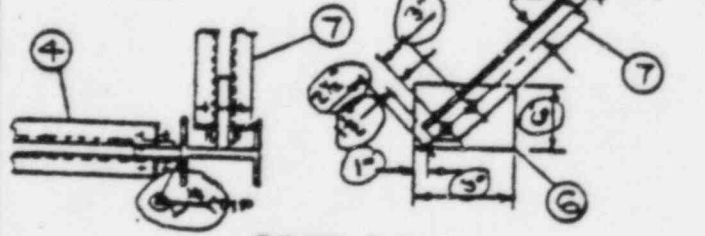
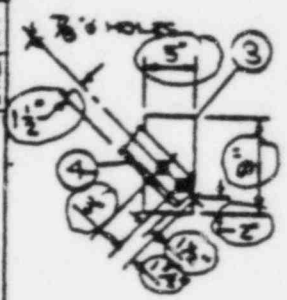
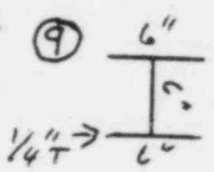
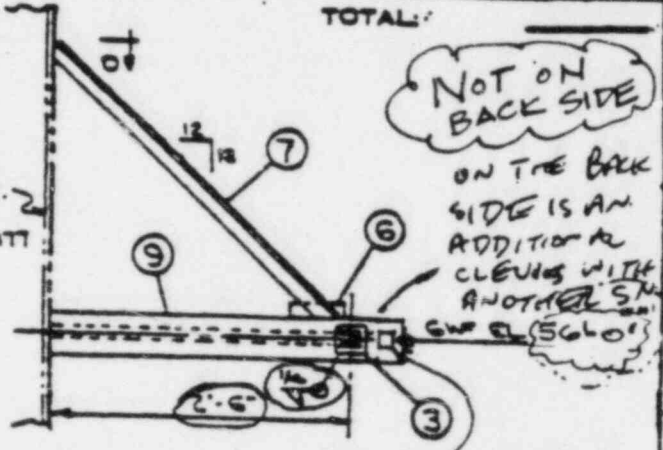
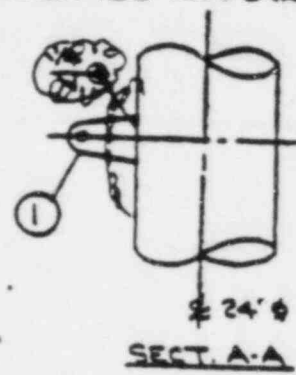
2
 REV DATE

* See Below

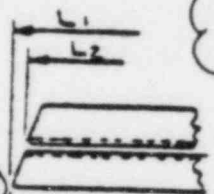
85-110-24

APP #	ITEM NO	NO REQ'D	PART NO	DESCRIPTION	WGT.	PRICE
	6	1		R 9/16" x 3" W/ (2) 3/4" x 2" LG BOLT (NUT)		
	7	2		L 3/4" x 2" (V) L 3/4" x 3" L 2" (3-2) (SEE SECT. C-C TO D)		
	8	1		R 9/16" x 3" W/ (2) 3/4" x 2" LG BOLT (NUT)		
	9	1		GW 15.5 x 3.3" LG (BEVEL AS SHOWN)		
	10	1		PACIFIC SCIENTIFIC SNUBBER DWG. 1801107 (ADAPTED TO EXISTING PARTS)		

* INDICATES APPROVAL BY JLP&L



SECT. B-B



SECT. D-D

FOR CLEANUP DEMINERALIZED SUPPORT SEE MARK NO X-10-SS1

NOT INCLUDE THIS SUFF

FIELD VERIFICATION FOR REC. I.E. BLTN 75-14

ALMIRALL & CO., INC. P. O. #7248
 BURNS & ROE, INC.
 OYSTER CREEK STA. #1.

PIPING SYSTEM MAIN STEAM
 REFERENCE DWG. BER DWG. 2103-4
 MARK NO. MS-RIA NO. REQD. 1

SHEET 2 OF 2

BERGEN-PATERSON PIPESUPPORT CORP.



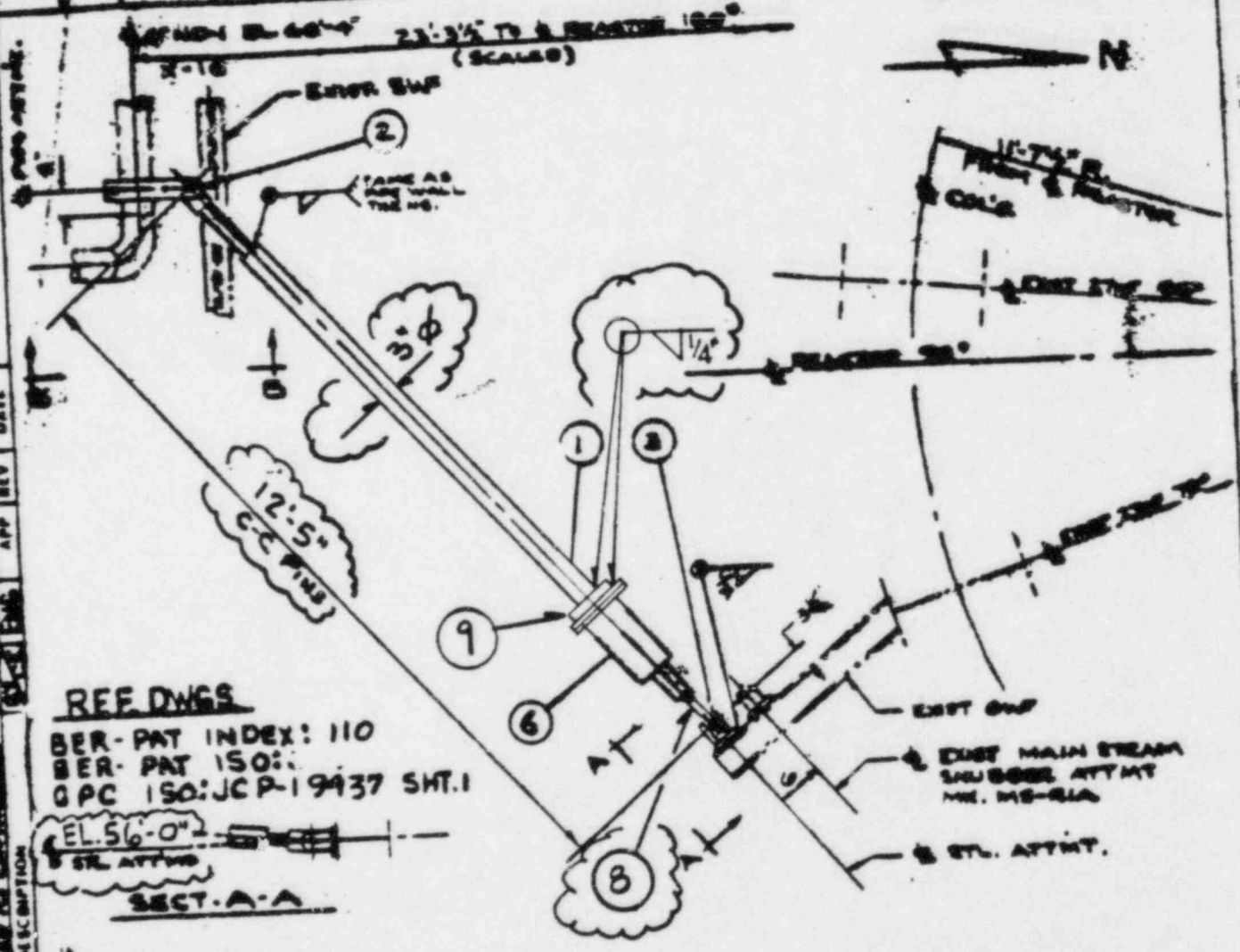
ENGINEER, REG.
 ARCHITECT, REG.
 SANITARIAN, CALIF.
 WOODWORKER, U.S.A.
 APPRENTICE, U.S.A.

DRAWN	CHE'D	APPR'D	DATE
JRS	[Signature]		19 SEPT 67
JOB NO. P-66-1070			
DWG. NO. 716A			

DESCRIPTION *mwr 85-110-24*

NO. 1

ITEM NO.	QTY	DESCRIPTION
1	1	SEE DETAIL ITEM - 2
2	1	SEE DETAIL ITEM - 3
3	2	6" STROKE T-8 SEE DWG 2003
4	1	SEC CLAMP ATTACHMENT SEE DWG 2005
5	1	PACIFIC SCIENTIFIC NUMBER DWG 180107 (ADAPTED TO EXISTING PARTS)
6	1	PACIFIC SCIENTIFIC NUMBER DWG 180107 (ADAPTED TO EXISTING PARTS)
7	1	SEE DETAIL ITEM - 5
8	1	P. 3 1/2 x 3 1/2 x 5/8"
9	1	
		TOTAL



REF DWGS
 BER-PAT INDEX: 110
 BER-PAT 150:
 OPC 150: JCR-19437 SHT. 1

EL. 56'-0"
 SEC. ATTCH.
 SECT. A-A

SEISMIC FORCE
 VERT. 205 #
 HORIZ. 205 #

PLAN

SHEET 1 OF 2

BURNS & ROE INC. P. O. #BR-2209-608
 CUSTOMER
 BURNS & ROE INC
 ENGINEER
 OYSTER CREEK STA. UNIT #1
 CONSUMER

PIPING SYSTEM CLEANUP DEMINERALIZER
 REFERENCE DWG. PENETRATION X-10
 MARK NO. X-10-55-1 NO. RECD. 1

BERGEN-PATERSON PIPESUPPORT CORP.

DATE	APP'D	CHK'D	DRWN
12-24-63			WD
			NO. NO. P-66-1262-X5
			NO. NO. H-1, SHEET 1 OF 2

FIELD VERIFICATION FOR NUCLEAR...
 DATE
 REV
 APP
 ENG



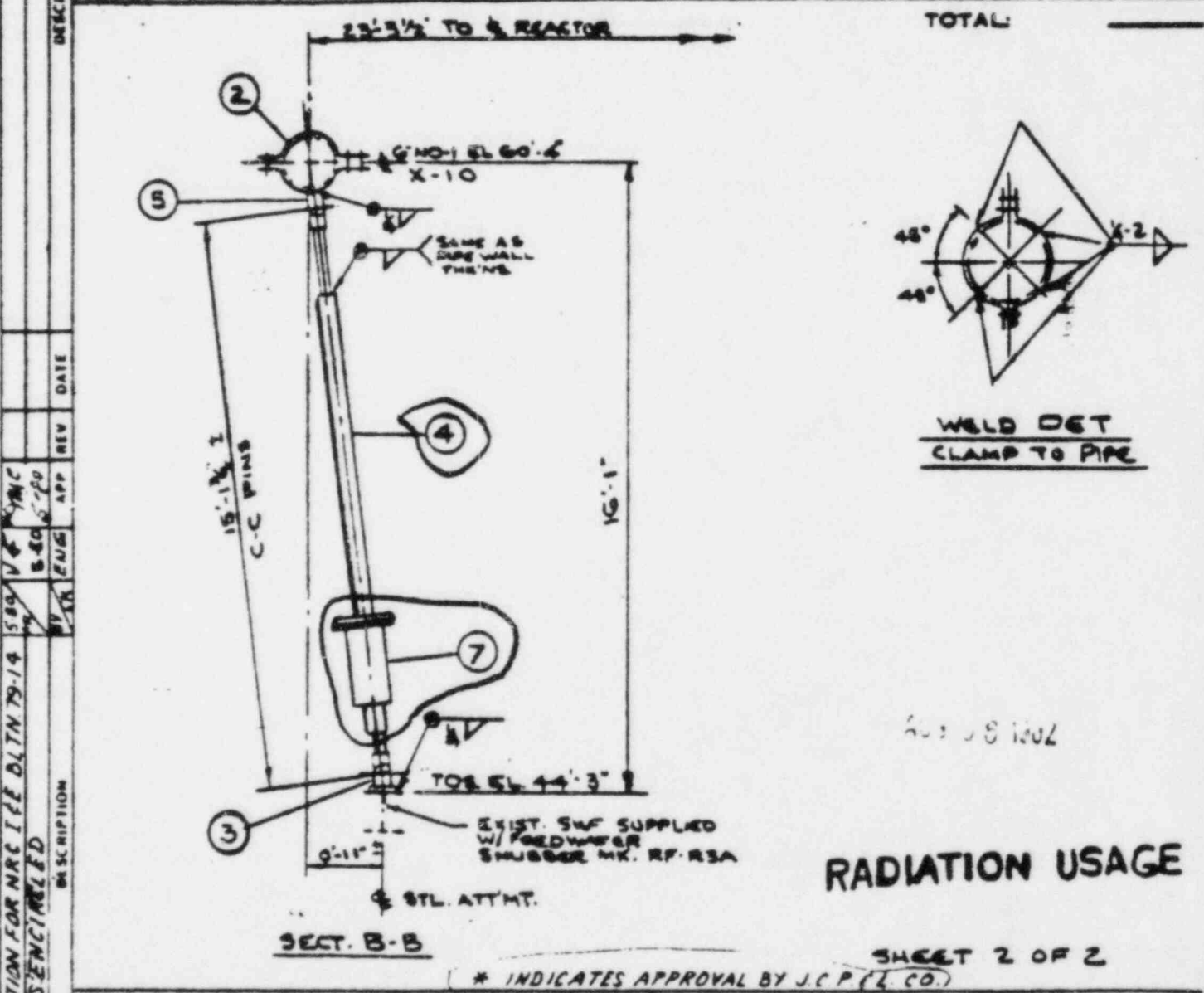
BERGEN-PATERSON PIPESUPPORT CORP.
 1000 W. 11th St.
 PITTSBURGH, PA.
 TELEPHONE 412-781-1111



85-110-24

FORM SP-1

APP	ITEM NO	NO REQ'D	PART NO	DESCRIPTION	WGT.
				UNCONTROLLED PRINT	
				DO NOT USE FOR OPERATION,	
				CONSTRUCTION OR MAINTENANCE	
				UNLESS VERIFIED TO BE THE	
				LATEST REVISION IN ACCORDANCE	
				WITH THE DRAWING INDEX.	



FIELD VERIFICATION FOR NRC IFE DLTN 79-14 589 V & YMC
 UNRATED AS ENCIRCLED
 DATE REV APP ENG APP REV DATE

BURNS & ROE INC. P. O. #BR-2299-60 B	PIPING SYSTEM CLEANUP DEMINERALIZER
BURNS & ROE INC.	REFERENCE DWG PENSTRATION X-10
OYSTER CREEK STA. UNIT #1	MARK NO X-10-SS-1 NO. REQ'D. ~

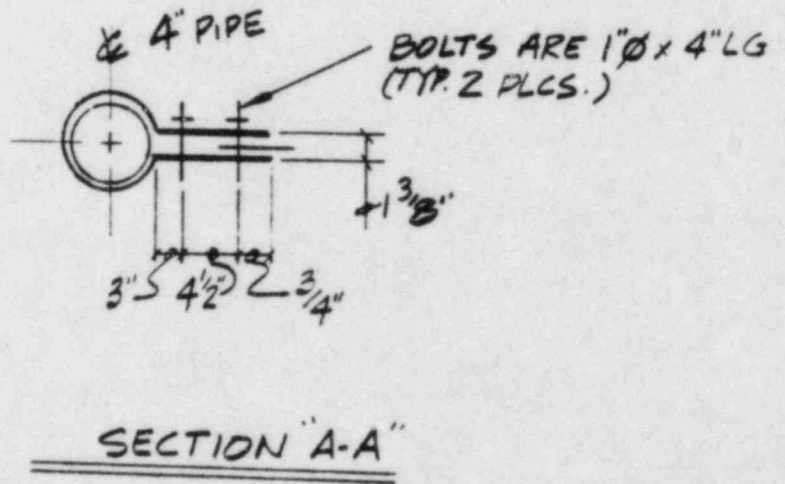
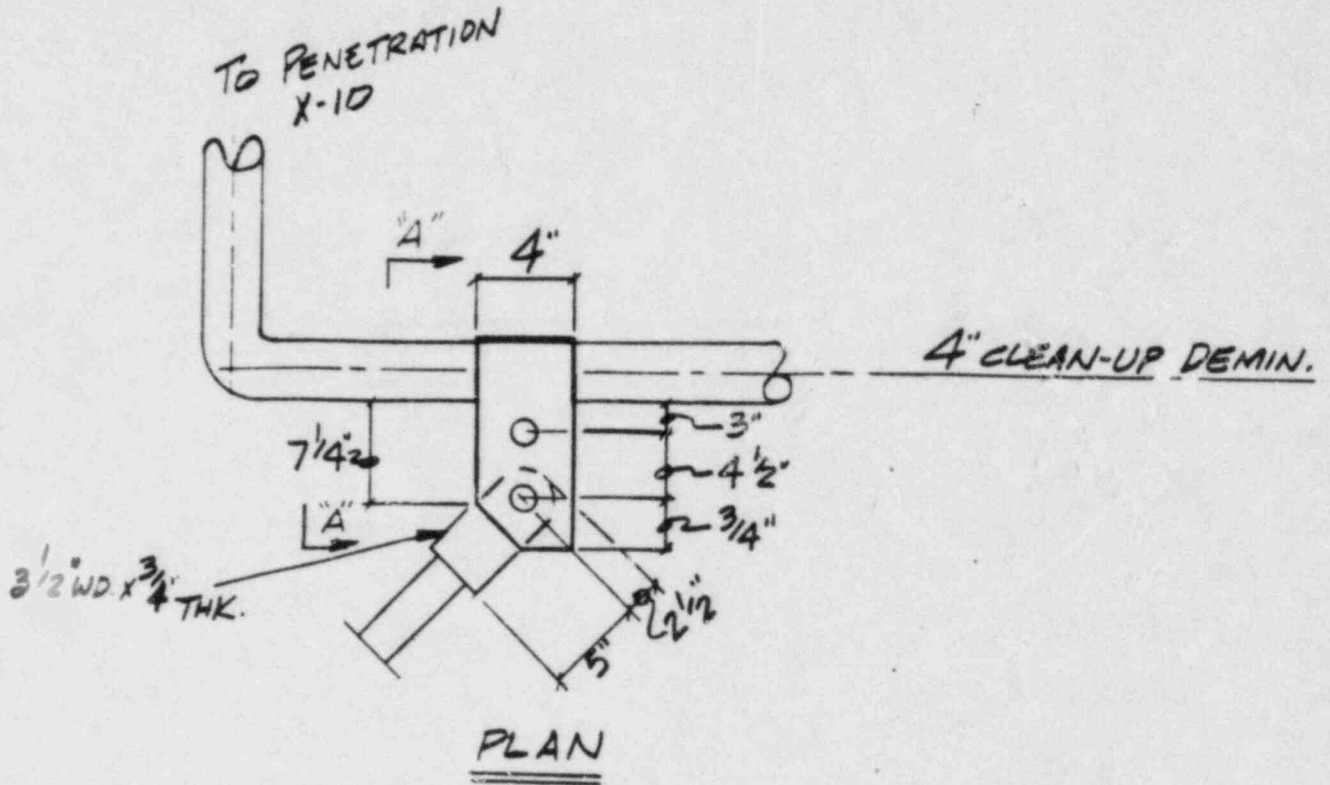
DATE	REV	DESCRIPTION	APPROVAL
	1		

BERGEN-PATERSON PIPESUPPORT CORP.

DRAWN	CHEK	APPROV	DATE
WD	EF		12-24-68

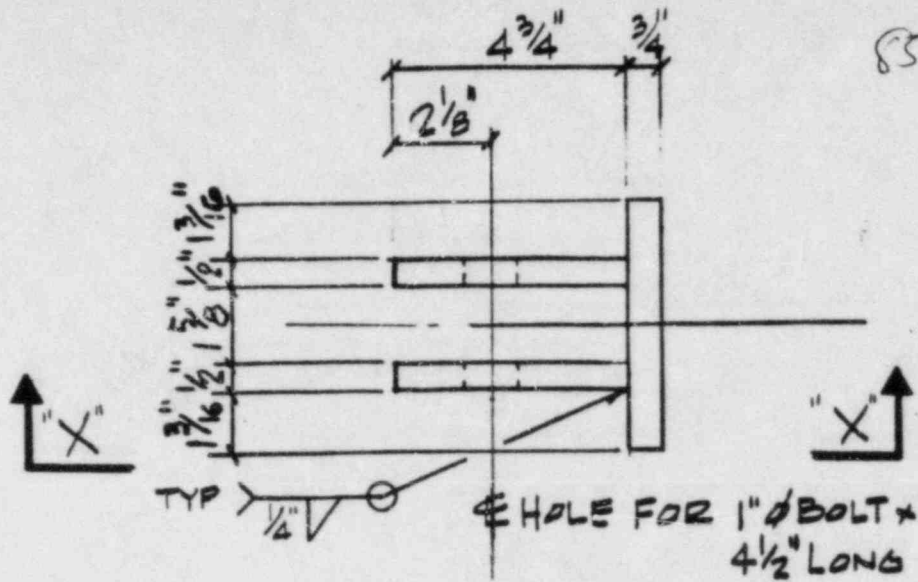
JOB NO **P-66-1262-X5**
 DWG NO **118** SHEET **2 OF 2**

85-110-24

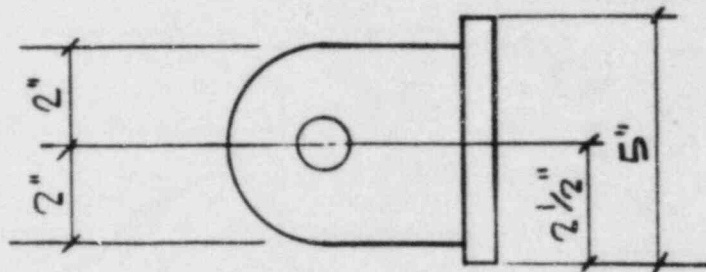


DETAIL
ITEM - 2
MARK NO.
X-10-SS-1

85-110-24



PLAN



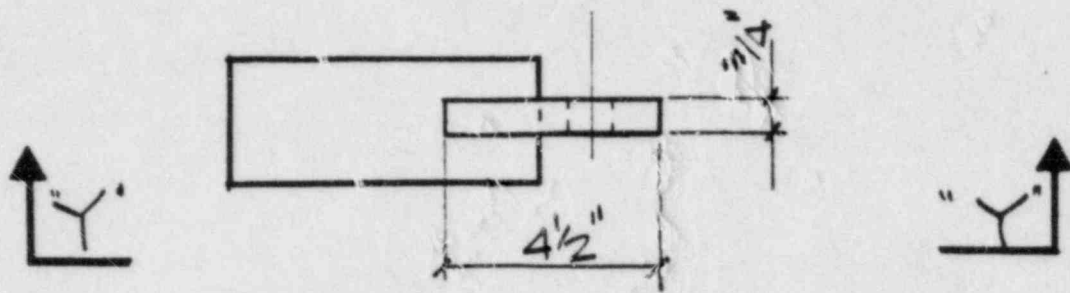
ELEV. "X-X"

DETAIL ITEM-3

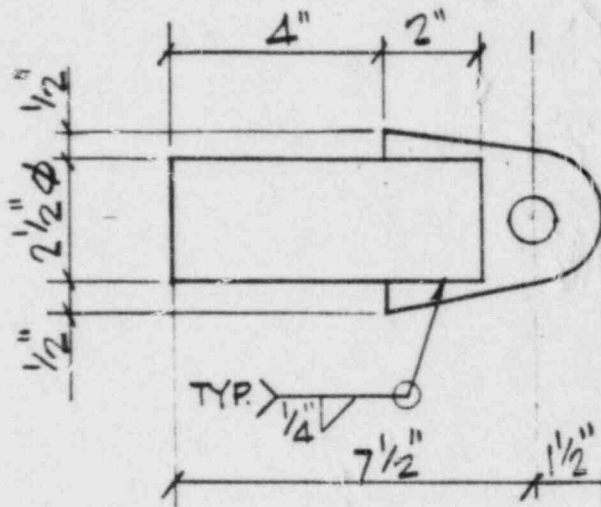
MARK NO. X-10-SS-1

85-110-24

HOLE FOR 1" ϕ BOLT \times 4 1/2" LONG



PLAN



ELEV "Y-Y"

DETAIL ITEM - 8

MARK NO. X-10-SS-1

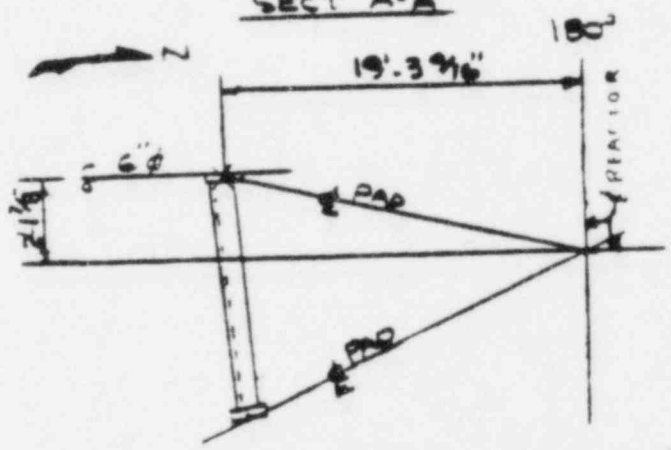
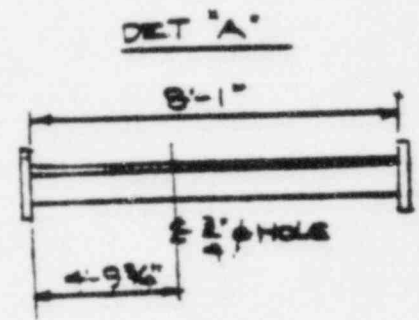
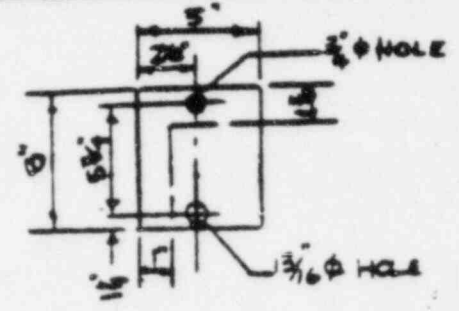
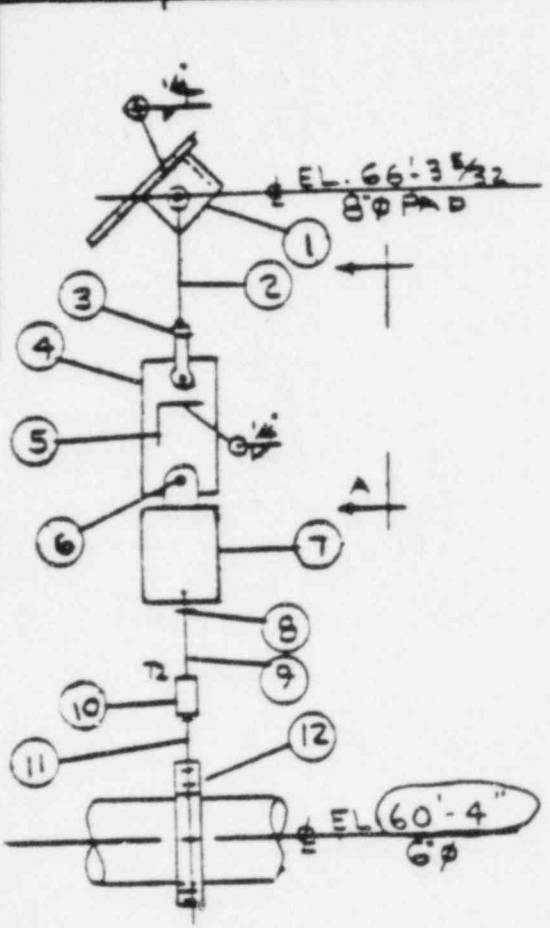
85-110-24

UNCONTROLLED PRINT
 DO NOT USE UNLESS VERIFIED TO BE THE CURRENT REVISION AND STATUS IN ACCORDANCE WITH THE CONFIGURATION CONTROL LIS.

FIELD VERIFICATION FOR NAC WE BIN 79-14
 ADDED REF DWGS. UPDATED AS ENCIRCLED
 W/46 #TMC
 1/16/80
 JRS
 DATE: 4-18-67

REV	DATE	BY	CHKD	APPR
1		JRS	EL	

APP	ITEM NO	NO. REQ'D	DESCRIPTION	QTY	REMARKS
	1	2	PART 5H	7	
	2	2	3/8" Ø EYEROD X 0'-9" LG THD=6"	Q	
	3	2	#2 CLEVIS TPTC-5/8 G=3/4		
	4	2	R 8-1/2 X 5' (SEE DET A)		
	5	1	L 4 X 3 X 1/2 X 8'-1" LG (SEE SECT A-A)		
	6	1	3/4" Ø X 2 1/2" LG BOLT W/1 FN		
	7	1	VS2C-9 M. 675 CL. T91 MWT. 3/4" UP		
	8	3	5/8" Ø HN		
	9	1	5/8" Ø ROD X (1'-6") LG T.C T.C 6" LN		
	10	1	5/8" Ø X 6" TB		
	11	1	3/8" Ø EYEROD X 1'-3" LG THD=6"	61	
	12	1	6" Ø PART 20	20	

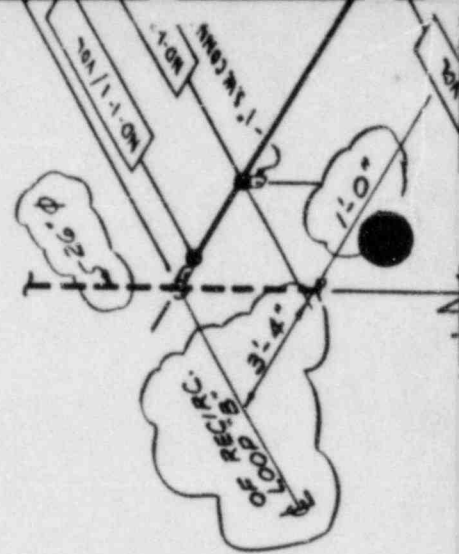
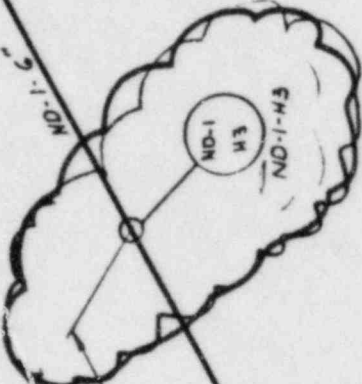
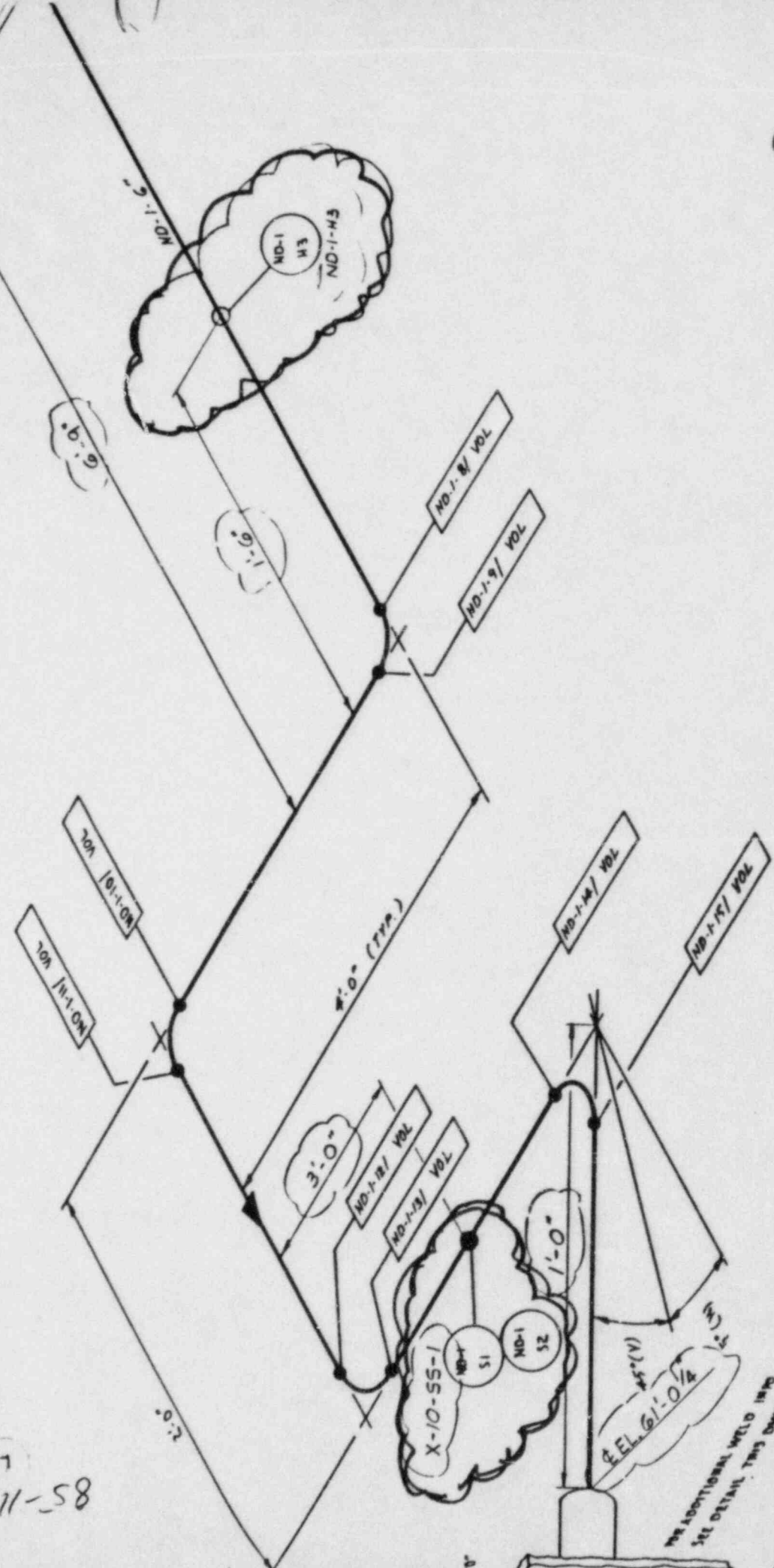


REF. DWGS.
 BER-PAT INDEX: 590
 BER-PAT ISO: 619
 GPC ISO: JCP-19437 SHT. 1
 * INDICATES APPROVAL BY JCP & L

ALMIRAL DOYLE P. O. # 1017M-322-49
 BURNS & ROE INC
 OYSTER CREEK STA UNIT # 1

PIPING SYSTEM: CLEANUP DEMINERALIZER
 DEF LOCATION PLAN: BER DWG. 2143
 MARK NO: ND1-H3
 NO REQD: 1

85-110-24
Lost



WE ADDITIONAL WELD INTO
THE DETAIL THIS DWG.

OCT 24 1985

GE Nuclear

Material Nonconformance Report

MNCR Number 85-211

Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORMNO A _____
RETENTION _____

1. Identification

Originator: Ed Gashlin Date/Time: 10-20-85 0800
Material, Part, Component, etc.: EMRV DISCHARGE LINES

Location: Drywell
Manufacturer (Name): N/A Code: N/A
P.R.# N/A Line # N/A Spec # N/A
System: Main Steam Vent/EMRV System Tag No. N/A
Dwg No. ISOMETRIC & HANGER DWGS Heat Code No. _____ Other _____

Nonconforming to (requirements): Dimensional Discrepancies on numerous hangers in system.

Description of Nonconformance: See marked up drawings for each specific hanger.

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/weekend).

2. Evaluation & Validation

POTENTIALLY REPORTABLE:

Important To Safety		<u>10CFR50</u>	<u>10CFR21</u>	<u>10CFR71</u>	<u>10CFR73.71</u>	<u>LER</u>
YES:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Evaluated By (Name): Ed Gashlin Date/Time: 10/20/85 0800
QC Mgr. Validation: [Signature] Date/Time: 10-21-85 0718

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____
Licensing Notified: YES NO Date/Time: _____
Hold Tags Issued: YES NO No. of Tags: _____
Tags Installed By (Name): _____ Date/Time: _____
Material Segregation Required: YES NO
Segregation Verified By (Name): _____ Date/Time: _____

ACTION PARTY (Name): J. MALONEY Dept: PLANT MATERIEL

Forward to responsible individual/department (Action Party).

FORM 1000-7215 01-1

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: _____

Evaluation/Disposition By (Name): _____ Dept: _____
Date: _____

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (Include applicable work documents, limitations, re-test requirements, etc.) _____

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No.: _____

Evaluated By (Name): _____ Dept: _____
Date: _____

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: _____ Date: _____

Conditional Release Issued: YES Reject Tags Issued: YES
 NO NO

AI/ANI Concurrence: YES Signature: _____ Date: _____
 NO

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____

Work/Shipping Order No.: _____ Other: _____

Verified By (Name/Title/Date): _____

Tags/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____ Date: _____

Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORMNO A _____
RETENTION _____

1. Identification

Originator: LYNN H. PAINTER Date/Time: 10-20-85 3PM

Material, Part, Component, etc.: BP Support # MSV-H5

Location: DRYWELL - 37' RW - SOUTH

Manufacturer (Name): N/A Code: N/A

P.R.# N/A Line # N/A Spec # N/A

System: MAIN STEAM VENT / EMRV System Tag No. N/A

Dwg No. BPGS REV 1 Heat Code No. N/A Other N/A

Nonconforming to (requirements): DIMENSIONAL / CONFIGURATION AS SHOWN

Description of Nonconformance: SEE DISCREPANCIES / DISPOSITION SHEET ATTACHED.

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

POTENTIALLY REPORTABLE:

Important To Safety	10CFR50	10CFR21	10CFR71	10CFR73.71	L.E.R.
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Evaluated By (Name): E. Masoli Date/Time: 10/20/85 0530

QC Mgr. Validation: Frank Stalder Date/Time: 10-21-85 0725

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____

Licensing Notified: YES NO Date/Time: _____

Hold Tags Issued: YES NO No. of Tags: _____

Tags Installed By (Name): NA Date/Time: _____

Material Segregation Required: YES NO NA

Segregation Verified By (Name): _____ Date/Time: _____

ACTION PARTY (Name): J.P. Maloney Dept: Plant Material

Forward to responsible individual/department (Action Party).

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: Provide engineering determination as to adequacy of spring cm setting. If out of tolerance Notify Plant Material.

Evaluation/Disposition By (Name): [Signature]

Dept: Plant Material
Date: 10-20-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (Include applicable work documents, limitations, re-test requirements, etc.)

SEE ATTACHED SHEET FOR JUSTIFICATION

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No.: _____

Evaluated By (Name): W.C. HARRIS WCH

Dept: T.E. ENO. MCHN.
Date: 10-20-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: [Signature] Date: 10-21-85

Conditional Release Issued: YES NO
Reject Tags Issued: YES NO

AI/ANI Concurrence: YES NO
Signature: NA Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____

Work/Shipping Order No.: _____ Other: _____

Verified By (Name/Title/Date): _____

Tags/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____ Date: _____

HANG **RE-M3Y-H5**

85-211-1
MNCR#-----

DWG.# **BP-655** REV#-----

Q.C. OBS./DISCREPANCIES

① Incorrect load setting on spring can

ENGINEERING DISPOSITION

SPRINGS MEASURED AT ELEVATED TEMPERATURE - Setting is within tolerance

..... M.C. Hager

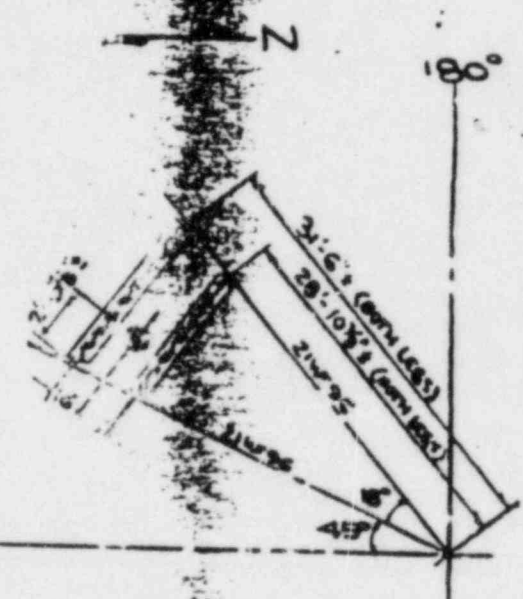
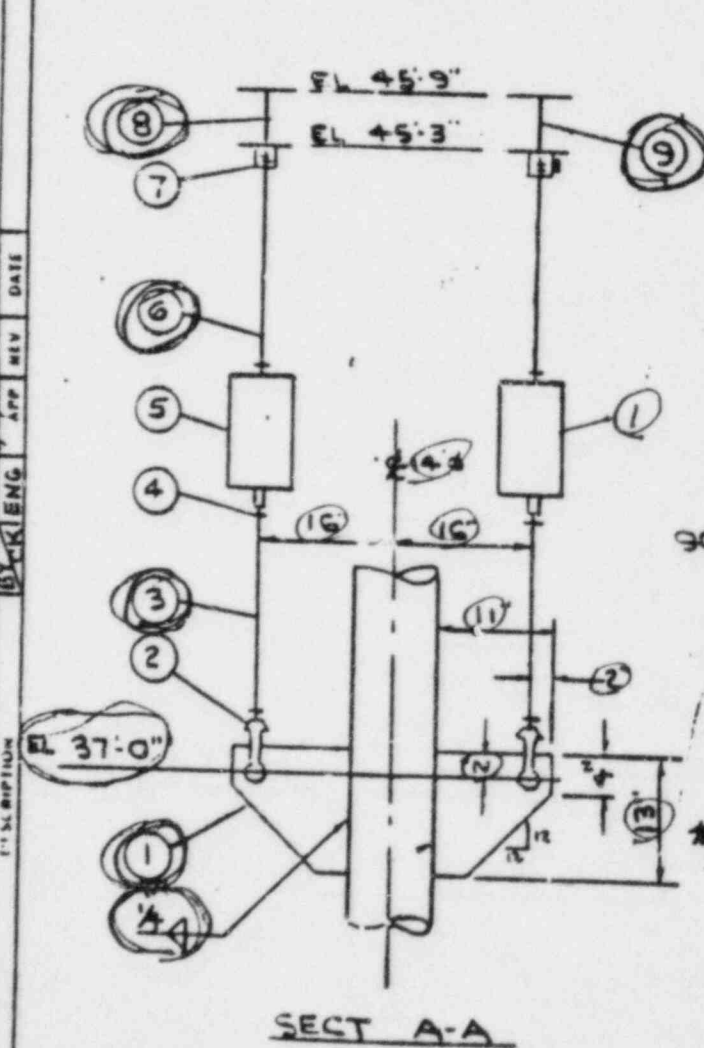
DATE 10-20-85

MNLX 85-211-1 3

Subject		Calc. No.	Rev. No.	Sheet No.
Originator		Date	Reviewed by	Date

APL	ITEM NO	NO REQ'D	DESCRIPTION	BERGEN DRAW OR PART NO	REMARKS
	1	2	13" x 1/2" x 11"		
	2	2	F 3 CLEVIS TAP, 1" GRID 3/4" P/C = 1"		
	3	2	1" ROD X 1'-6" LG TBE = 6"	206	
	4	10	(8) 1" φ WN (2) 1" φ FH		
	5	2	BERGEN VS1A-13 HL 2505 CL 2746 MNT 1/4" LG		
	6	2	1" φ ROD X 6'-2" LG TBE = 6"		
	7	2	PART 8 E		
	8	1	6WF 15.5 x 9'-8 7/8" LG * BEVEL AS SHOWN	4	
	9	1	6WF 15.5 x 8'-10 1/2" LG * BEVEL AS SHOWN		USE END CONNECTION TO DET A, 6WF CONNECTION Dwg 1001 3/8" x 1/8" x 3 1/8"

ITEMS TO BE VERIFIED: 1, 3, 6, 8, 9
 COLD SET 2315 # TYP
 AT TEMP 97.5



PLAN
 REF DWGS:
 BERGEN INDEX 550
 1083-14-26
 *INDICATES APPROVAL BY JCP/IL

OPER LOAD = 5010*

FIELD VERIFICATION FOR NRC ILLUSTR. 79-14 ADDED REF. DWGS.

BURNS & ROE INC., P. O. #BR-2299-104		PIPING SYSTEM <u>MAIN STEAM VENT</u>	
BURNS & ROE, INC.		REF LOCATION PLAN <u>30' Dwg 2103</u>	
OYSTER CREEK STA. UNIT #1		MARK NO. <u>MSVA 1</u> NO. REQD. <u>1</u>	
DATE	DRAWN	CHKD	APPROV
	JRS		
BERGEN PIPESUPPORT CORP. NEW YORK, N.Y.		DATE	DRAWING NO.
		5-16-67	ACGR 55

Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORMNO A _____
RETENTION _____

1. Identification

Originator: JOHN J. WAED Date/Time: 10/20/85 - 0400
Material, Part, Component, etc.: BP # MSV-H2 / changed to # N-3
Per BP Dwg. # 652
Location: DRY WELL - REACTOR BLDG. ELEV. - 37' TO 45'
Manufacturer (Name): N/A Code: N/A
P.R.# N/A Line # N/A Spec # N/A
System: MAIN STEAM VENT System Tag No. N/A
Dwg No. BP # 652 REV 0 Heat Code No. N/A Other _____
Nonconforming to (requirements): DIMENSIONAL / CONFIGURATION AS SHOWN

Description of Nonconformance: SEE DISCREPANCIES / DISPOSITION SHEET ATTACHED

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

Important To Safety	POTENTIALLY REPORTABLE:				
	10CFR50	10CFR21	10CFR71	10CFR73.71	L.E.R.
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Evaluated By (Name): E. J. [Signature] Date/Time: 10-20-85 0800
QC Mgr. Validation: [Signature] Date/Time: 10-21-85 / 0847

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____
Licensing Notified: YES NO Date/Time: _____
Hold Tags Issued: YES NO No. of Tags: _____
Tags Installed By (Name): N/A Date/Time: _____
Material Segregation Required: YES NO
Segregation Verified By (Name): N/A Date/Time: _____

ACTION PARTY (Name): J. P. Maloney Dept: Plant Material

Forward to responsible individual/department (Action Party).

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: Provide engineering determination as to adequacy of as built configuration. If adequate revise drawing to reflect as built.

Evaluation/Disposition By (Name): [Signature] Dept: Plant Material
Date: 10-20-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (Include applicable work documents, limitations, re-test requirements, etc.)
SEE ATTACHED SHEETS FOR JUSTIFICATION

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No: _____

Evaluated By (Name): W.C. HAAS Dept: T.F. EDG, MECH.
Date: 10-20-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: [Signature] Date: 10-21-85

Conditional Release Issued: YES NO Reject Tags Issued: YES NO

AI/ANI Concurrence: YES NO Signature: NA Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____

Work/Shipping Order No.: _____ Other: _____

Verified By (Name/Title/Date): _____

Tags/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____ Date: _____

HANGER # B.P. 4 N.S.V. = H. Z
(N.S.)

DS-211-2
MNCR#

DWG. # B.P. 4 S.S. 2

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

① FOUND (2) ARC STRIKES APPROXIMATELY 1" LG. AND LESS THAN 1/4" DP. ON SIDE (1) AS SHOWN ON SKETCH MARKED ①

ARC STRIKES ARE NOT ON PIPE. LENGTH AND DEPTH ARE MINIMAL AND HAVE NO SIGNIFICANT STRUCTURAL EFFECT.

② CLEVIS WELDED TO 5" X 5" X 3/4" PLATE WHICH IS NOT SHOWN ON SKETCH ITEM MARKED ② (TYP.)

DESIGN IS ACCEPTABLE CHANGE DWG.

③ ADDITIONAL NUT ON EACH STRUT.

STRUCTURALLY ACCEPT. CHANGE DWG.

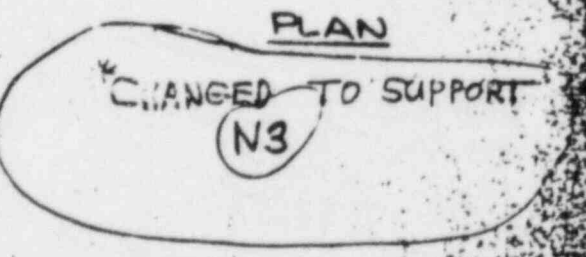
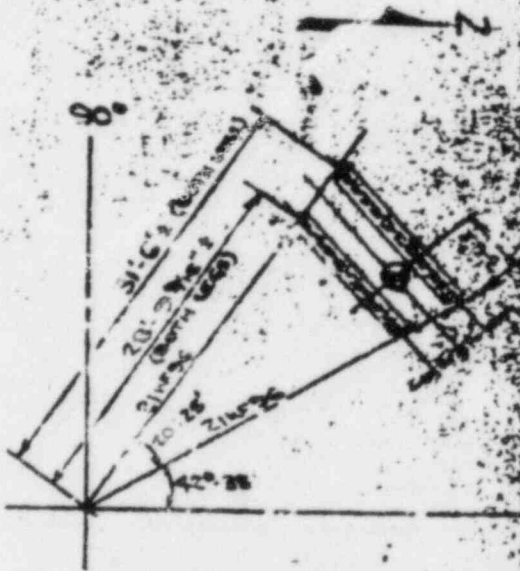
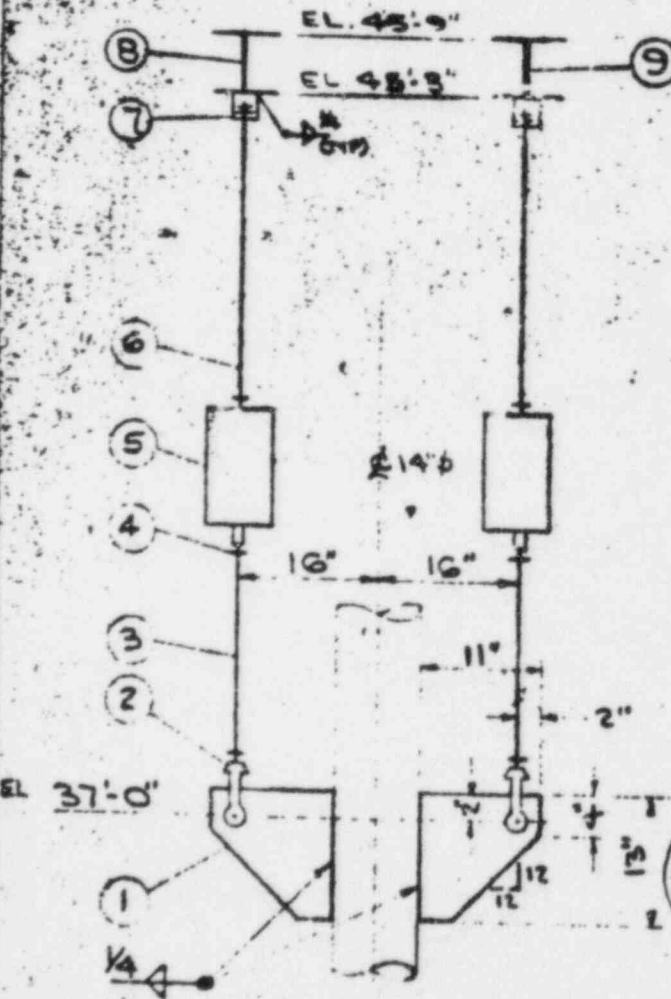
④ WELDING TO ADDED PLATES AS SHOWN ON SKETCH MARKED ④ ALSO MORE THAN REQUIRED

ACCEPTABLE CHANGE DWG.

Subject	Calc. No.	Rev. No.	Sheet No.
Originator	Date	Reviewed by	Date
		<i>MXR 85-211-2</i>	

NO.	QTY	DESCRIPTION	UNIT
10	1	2" SCH 40 STD. WELDED	FT
5	2	BERKELEY VSD-1A R-2606CL 2746 NVT-MVP	
6	2	1" FROLY G-2" LG TBE - 6"	
7	2	PART-BE	
8	1	6WPIB x 10'-1" LG	#
9	1	6WPIB x 11'-1" LG	#

USE END CONN
SIM TO DET
GWPCONN D
1001 ON BOTH
ENDS - X-27



SECT. A-A

OPER. LOAD - 50K

BURNS & ROE, INC., P. O. #BR-2299-104
 BURNS & ROE, INC.
 STEER CREEK STA. UNIT 371

PIPING SYSTEM MAIN STEAM VENT
 REF. LOCATION PLAN BTR DWG: 2
 MAX. HOLES SV-HZ

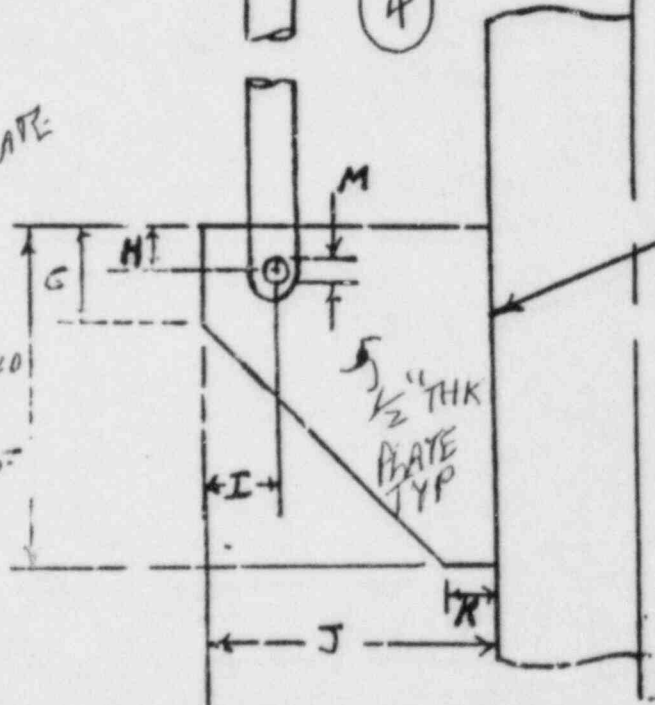
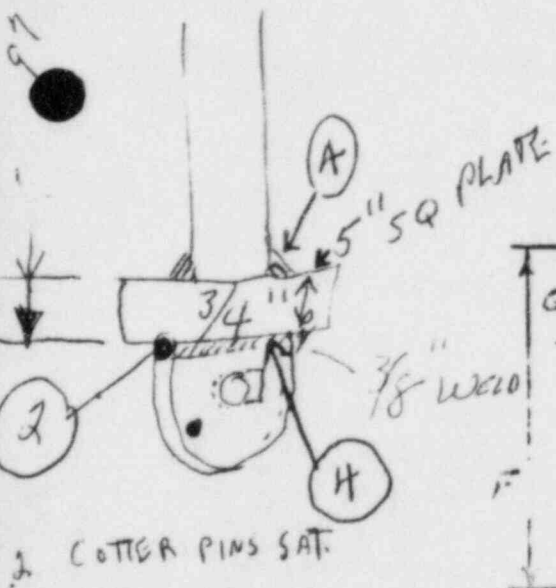
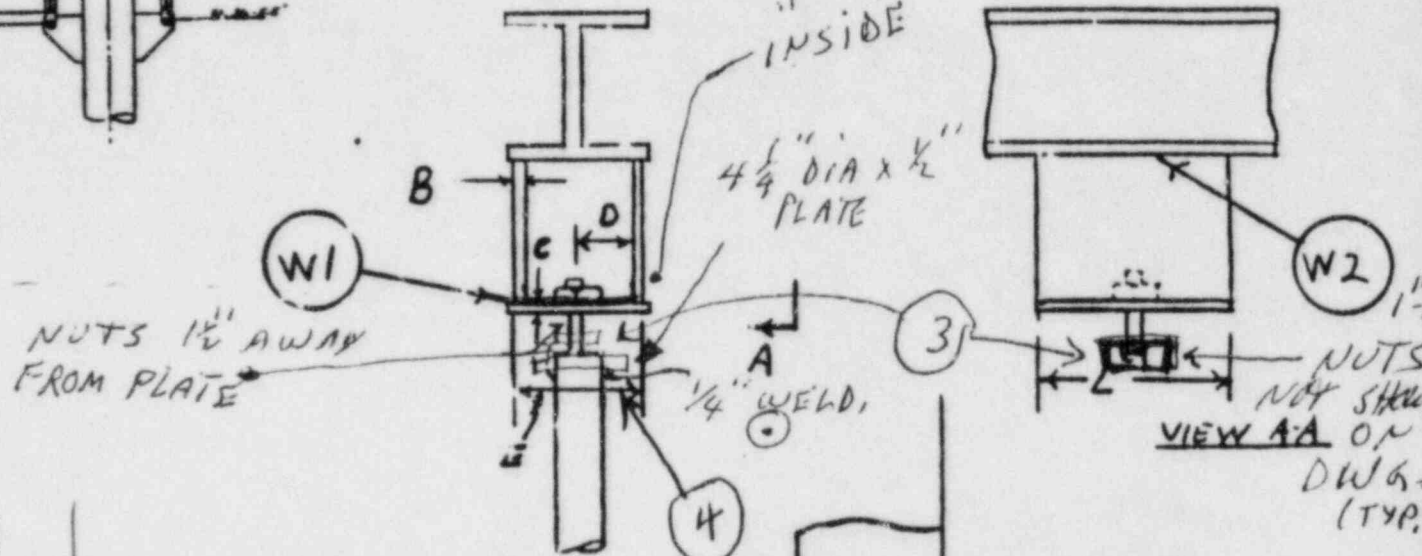
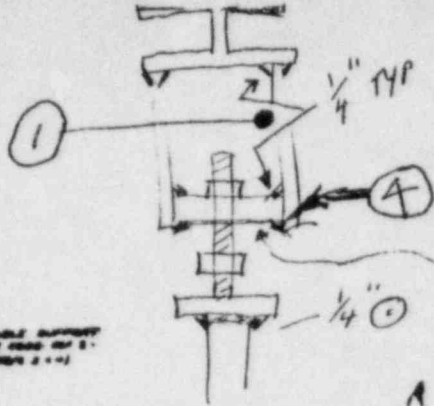
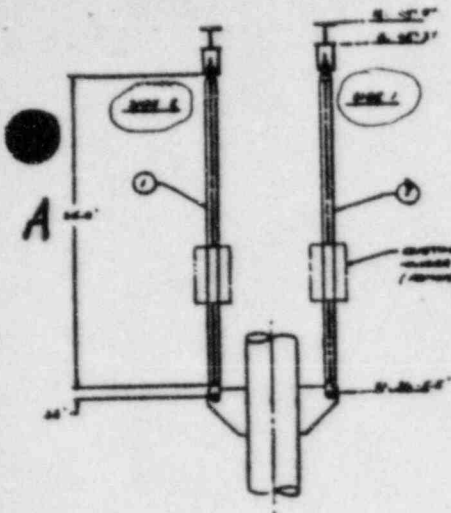
652

SERV SUPPORT N-3

Sheet 54A

MNCR
85-211-2

4)



W3
SIDE NO. 1 LOOSE
SIDE NO. 2 TIGHT & SKEWED
LOOKING SOUTH
8% TO 10%

DIMENSIONS					
POINT	INCH	POINT	INCH	POINT	INCH
A	9 7/8"	G	4"	M	1"
B	3/8"	H	2"		
C	7/8"	I	2"		
D	2"	J	10 1/2"		
E	4 3/4"	K	1 1/2"		
F	13"	L	4 1/2"		

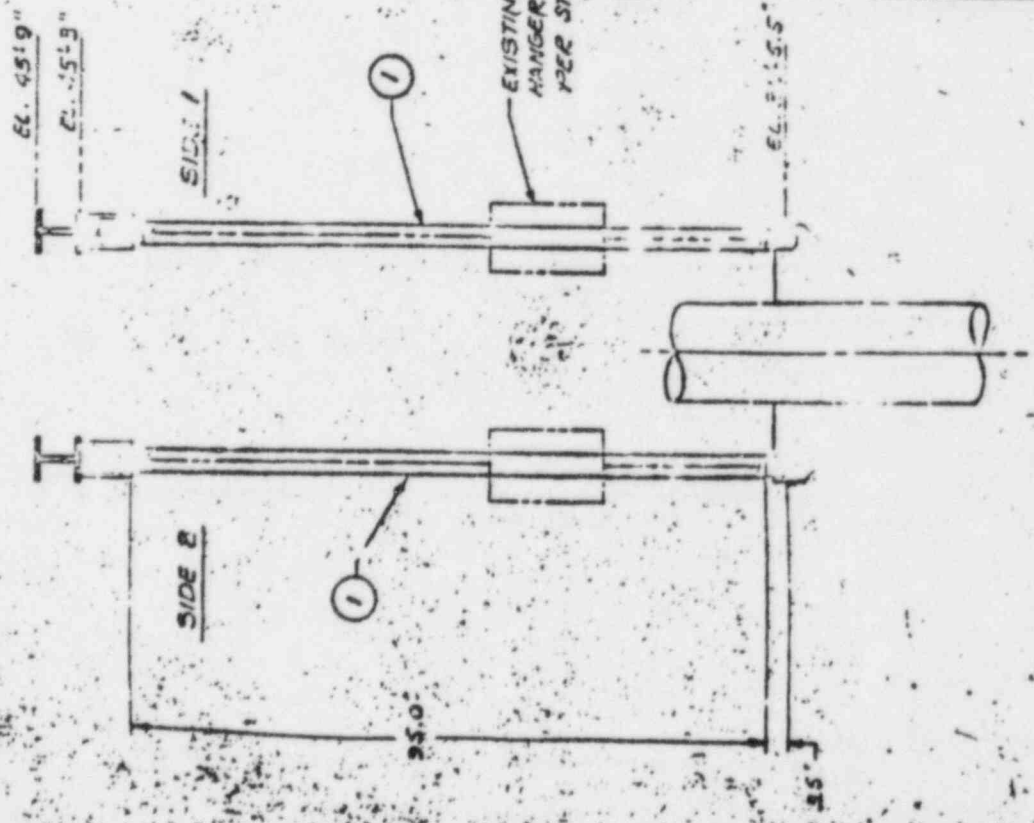
WELD DIMENSIONS		
W1	1/4" TYP	FULL LENGTH TOP + BOTTOM
W2	1/4" TYP	TWO SIDES FULL LENGTH
W3	1/4" TYP	TWO SIDES FULL LENGTH

INSTALLATION INSTRUCTIONS

1. SUPPORT PIPE WITH JACK BEFORE DOING THE FOLLOWING
2. REMOVE EXISTING TIE RODS AND VARIABLE HANGER FROM SIDE 1
3. INSTALL ITEM 1
4. REMOVE EXISTING TIE RODS AND VARIABLE HANGER FROM SIDE 2
5. INSTALL ITEM 1

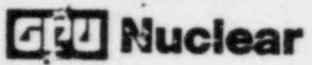
REFERENCE DRAWING

2-14-1 MAIN STEAM ELECTRO-MATIC RELIEF VALVE DISCHARGE PIPING - SUPPORT HANGER LOCATIONS



EXISTING VARIABLE SUPPORT HANGER AND TIE RODS (REMOVE PER STEPS 2 & 4)

2	Y	IT ASS'Y	SUP. BLD BY DESIGN
DATE: 1-73 DRAWN: _____ CHECKED: _____ APPROVED: _____		1140 CONNECTIONS, NW WASHINGTON TITLE: NORTH HANGER SUPPORT (NS)	SUPPLIER: _____ PART NO.: _____ MATERIAL / SPECIFICATION: _____
2 PIECE 1/2" x 1/2" x 1/2"	DO NOT SCALE NEXT ASSEMBLY	CODE BOOK NO. 1083-14-4 RELEASE DATE 6-7-79	SCALE: 1/2" = 1'-0"



Material Nonconformance Report

MNCR Number 85-211-3

RECNO _____
 REV _____
 DATE _____
 RECTYPE _____
 LOCATION _____
 FORMNO A _____
 RETENTION _____

Unit: TMI-1 TMI-2 Oyster Creek

1. Identification

Originator: Roy C James / Inspector / Gashli Date/Time: 10-19-85 2400hrs
 Material, Part, Component, etc.: HANGER NI

Location: Rx. BLDG. DRYWELL 46' EL
 Manufacturer (Name): N/A Code: N/A
 P.R.# N/A Line # N/A Spec # N/A
 System: MAIN STEAM EMER M.S. Vent System Tag No. N/A
 Dwg No. MPR-1083-14-2 REV. 5 Heat Code No. N/A Other N/A
 Nonconforming to (requirements): DIMENSIONAL / CONFIGURATION AS SHOWN

Description of Nonconformance: SEE DISCREPANCIES / DISPOSITION SHEET ATTACHED

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

POTENTIALLY REPORTABLE:

Important To Safety	10CFR50	10CFR21	10CFR71	10CFR73.71	LER
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Evaluated By (Name): E. Gashli Date/Time: 10-20-85 2345
 QC Mgr. Validation: [Signature] Date/Time: 10-21-85 1135

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____
 Licensing Notified: YES NO Date/Time: _____
 Hold Tags Issued: YES NO No. of Tags: _____
 Tags Installed By (Name): _____ Date/Time: _____
 Material Segregation Required: YES NO
 Segregation Verified By (Name): _____ Date/Time: _____

ACTION PARTY (Name): J. MALONEY Dept: PLANT MATERIEL

Forward to responsible individual/department (Action Party).

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: Pend engineering determination as to adequacy of as built configuration. If adequate revise drawing to reflect as built.

Evaluation/Disposition By (Name): [Signature]

Dept: Plant Material
Date: 10-21-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (Include applicable work documents, limitations, re-test requirements, etc.)

SEE ATTACHED SHEETS FOR JUSTIFICATION

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No.: _____

Evaluated By (Name): W.C. [Signature]

Dept: T.F. ENG. MESH
Date: 11-1-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: _____ Date: _____

Conditional Release Issued: YES NO
Reject Tags Issued: YES NO

AI/ANI Concurrence: YES NO
Signature: _____ Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____

Work/Shipping Order No.: _____ Other: _____

Verified By (Name/Title/Date): _____

Tags/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____ Date: _____

FORM TUKU-AUM-7215-01

HANG N1

MNCR# 85-211-3 DWG.# MPR-1083-142
REV. 5

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

① Specified size is $1/2$ "
ACTUAL size is $3/8$ "

$3/8$ " WOOD IS STRUCTURALLY ACCEPTABLE
CHANGE Dwg.

② not as specified
D+D to design

DETAIL SHOWN ON Dwg. IS STRUCTURALLY
ADEQUATE

W.C. Haas

11-1-85

TO E.O. WRIGHT

D&D SUPVR - O.C.

DATE 10-21-85

85-211-3

GPU

System Speed Memo

MESSAGE

PLEASE PROVIDE DIMENSIONAL & CONFIGURATION INFO. REGARDING MAIN STEAM (EMRV) HANGER N1 AS SHOWN ON MNCR 85-211-3.

ANTICIPATED COMPLETION DATE is 10/22/85.

Please reply to: SIGNED: R. J. [Signature] for TL CORRIE

REPLY

RETURN TO D. & D FOR ADDITIONAL INFO
Specify Spring size * IF NOT POSSIBLE SAY SO
Also produce REVISED SHEET to SHOW WELD ON ROD

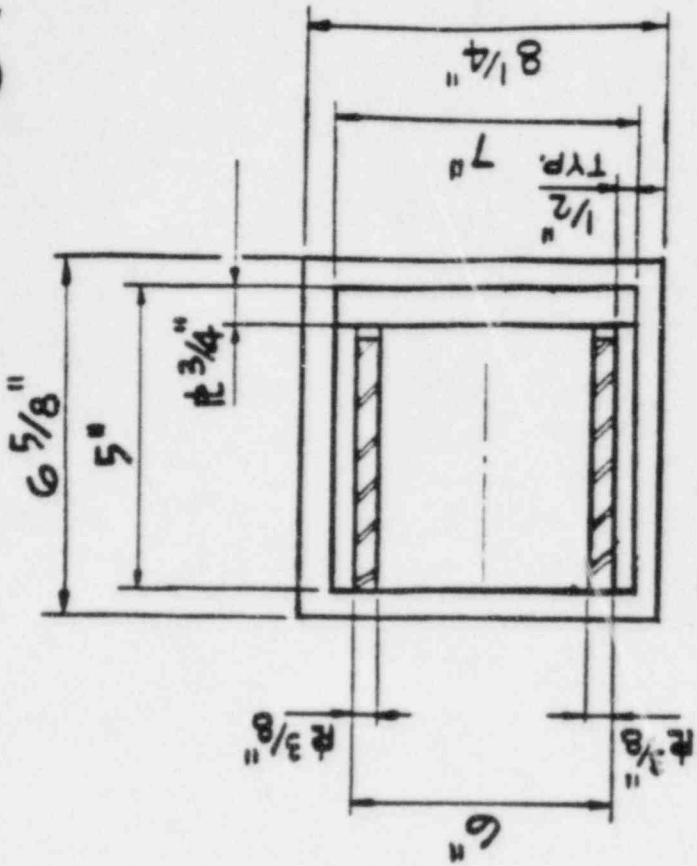
W.C. [Signature]

* IF UNABLE to GET SAY SO

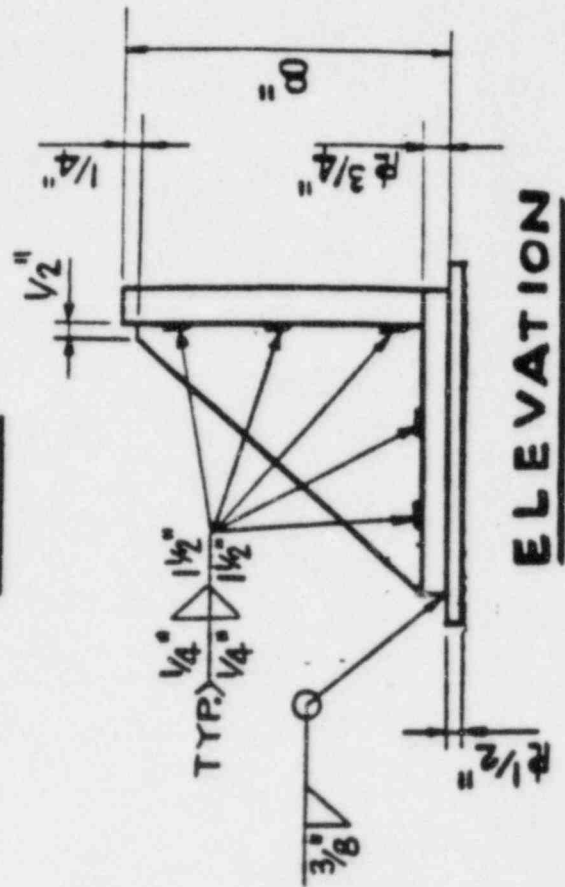
11-2-85

DATE: SIGNED:

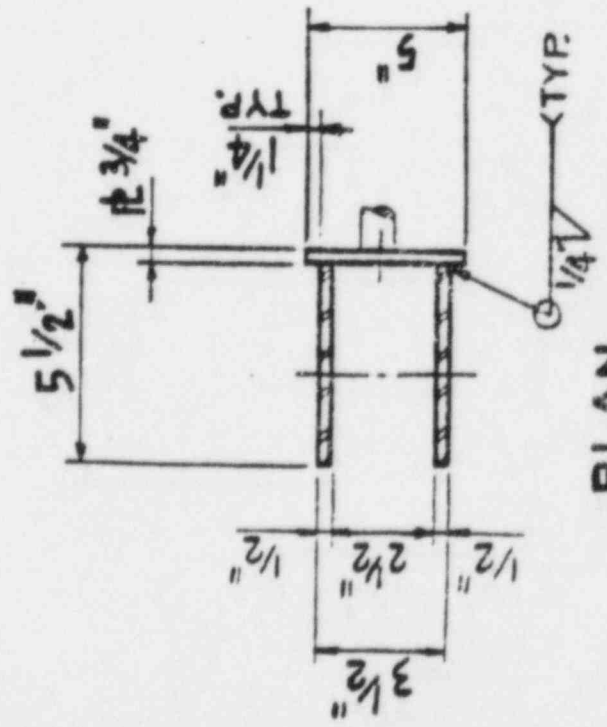
1st & 2nd copy For person addressed 2nd copy to be returned to sender.
3rd copy Detach and retain for answer.



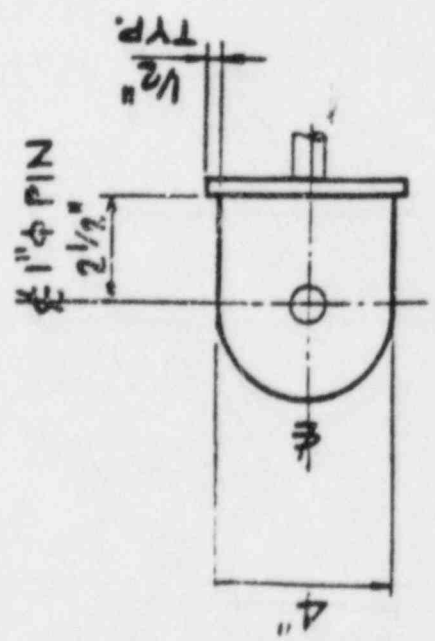
PLAN



ELEVATION



PLAN



ELEVATION

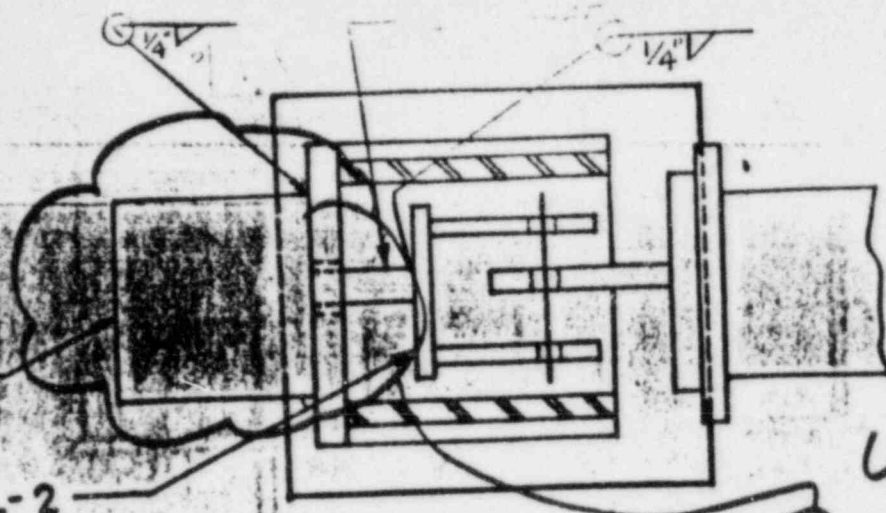
85-211-3

DETAIL - 3

DRYWELL
N1
10-23-85

DETAIL - 2

85-211-3
(5)



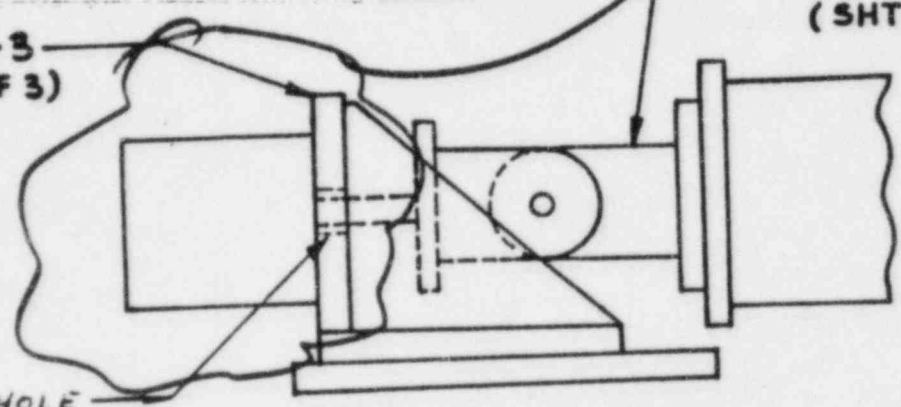
PLAN

UNABLE TO
VERIFY
TYPED
SIZE

DETAIL-2
(SHT. 3 OF 3)

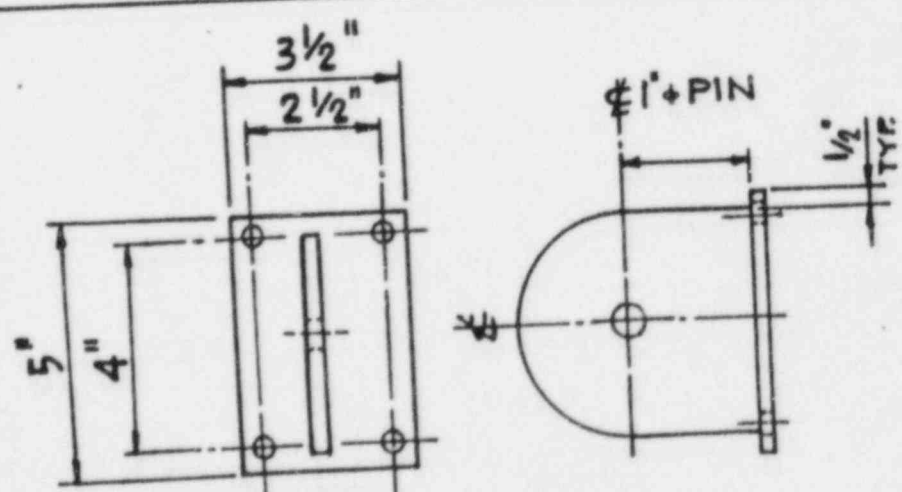
DETAIL-1
(SHT. 2 OF 3)

DETAIL-3
(SHT. 3 OF 3)



ELEVATION

2 1/2" ϕ HOLE



(4) HOLE FOR
1/2" ϕ BOLT

DETAIL - 1

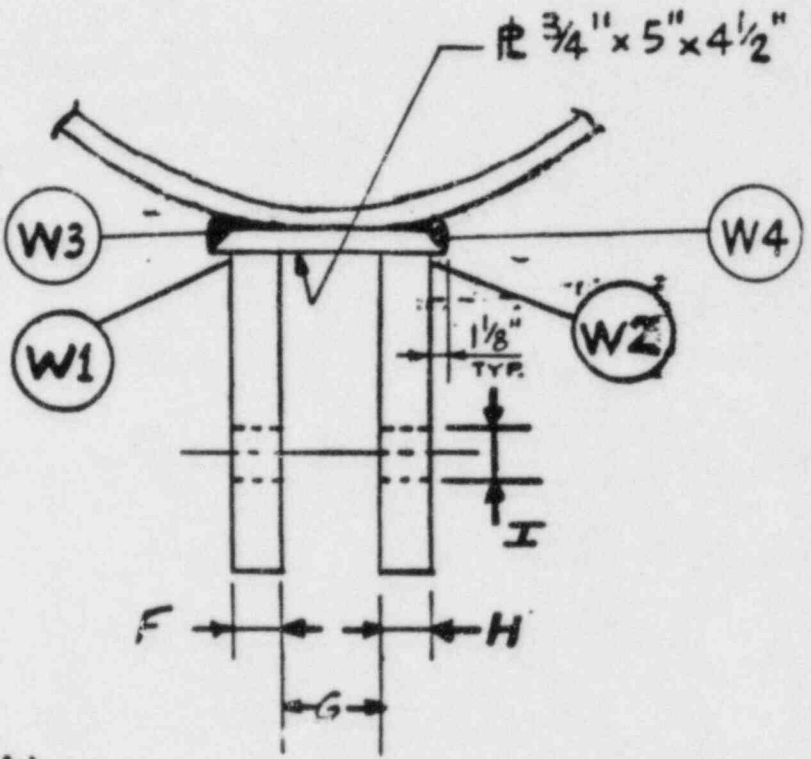
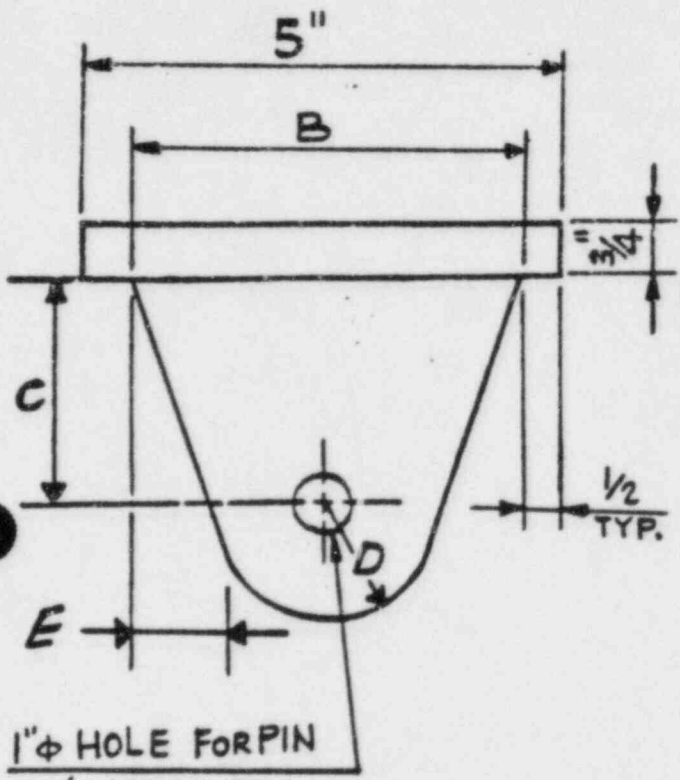
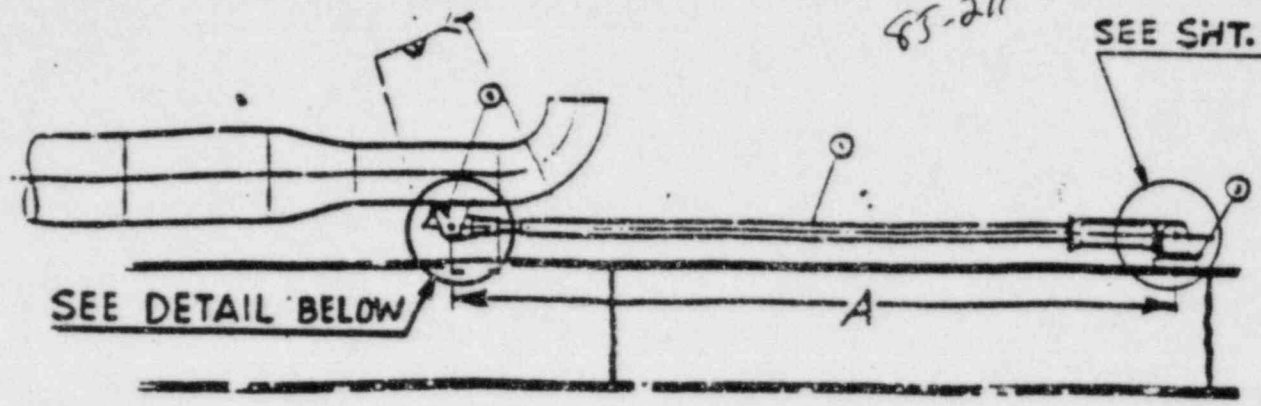
DRYWELL

N1

10-25-85
SHEET 2 OF 3

85-211-3

SEE SHT. 2 OF 3



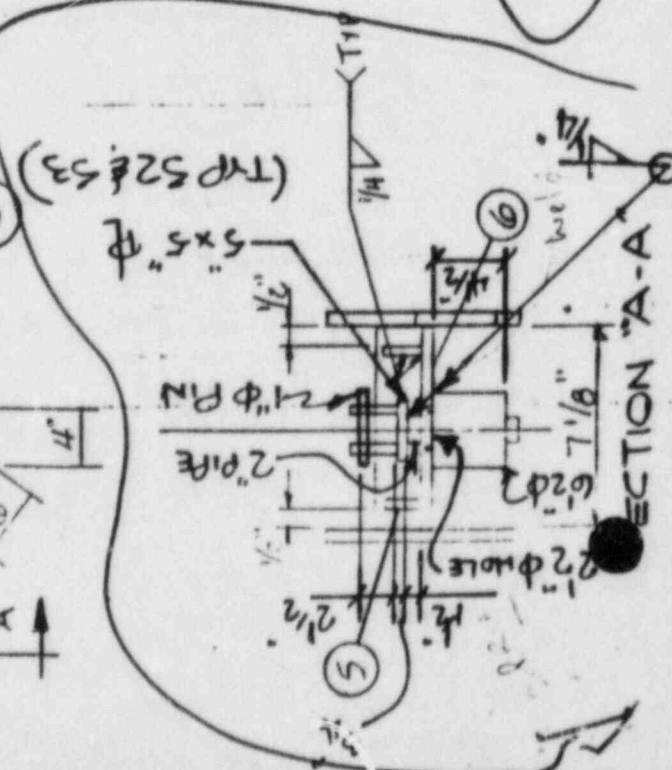
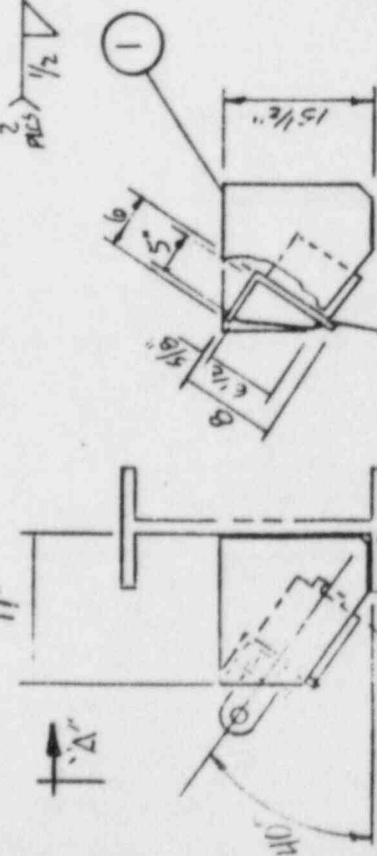
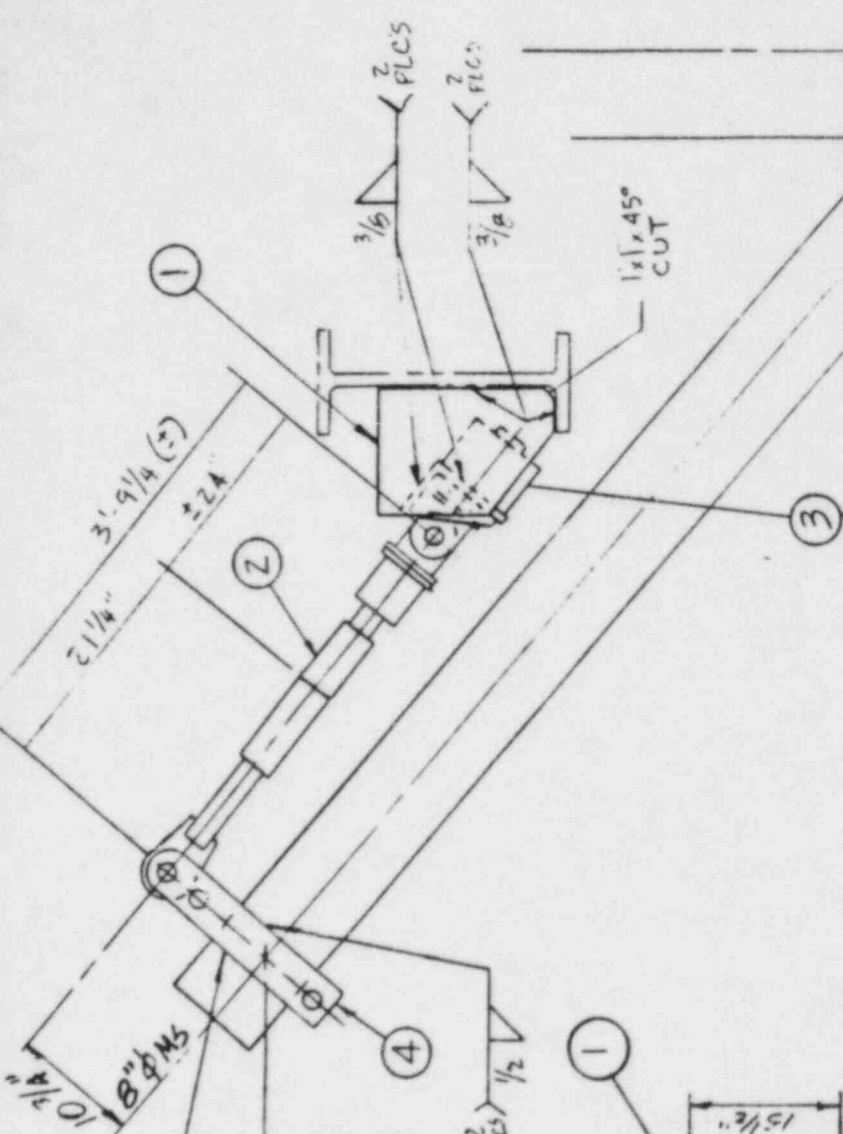
DETAIL

WELD DIMENSIONS	
W1	3/8"
W2	3/8"
W3	3/8"
W4	3/8"

DIMENSIONS	
POINT	INCH
A	6'-5 1/8"
B	4"
C	2 1/2
D	2 1/8
E	0
F	1/2"
G	1/4"
H	1/2
I	1"

85-243

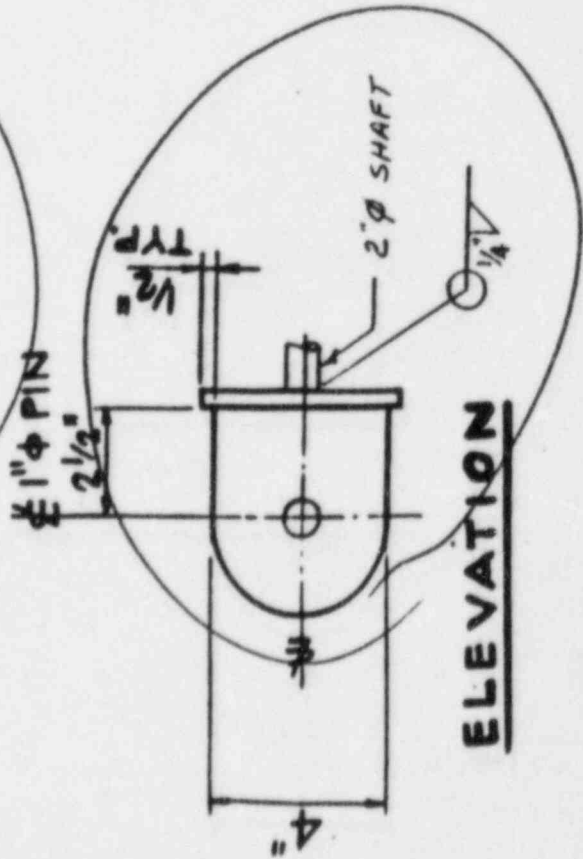
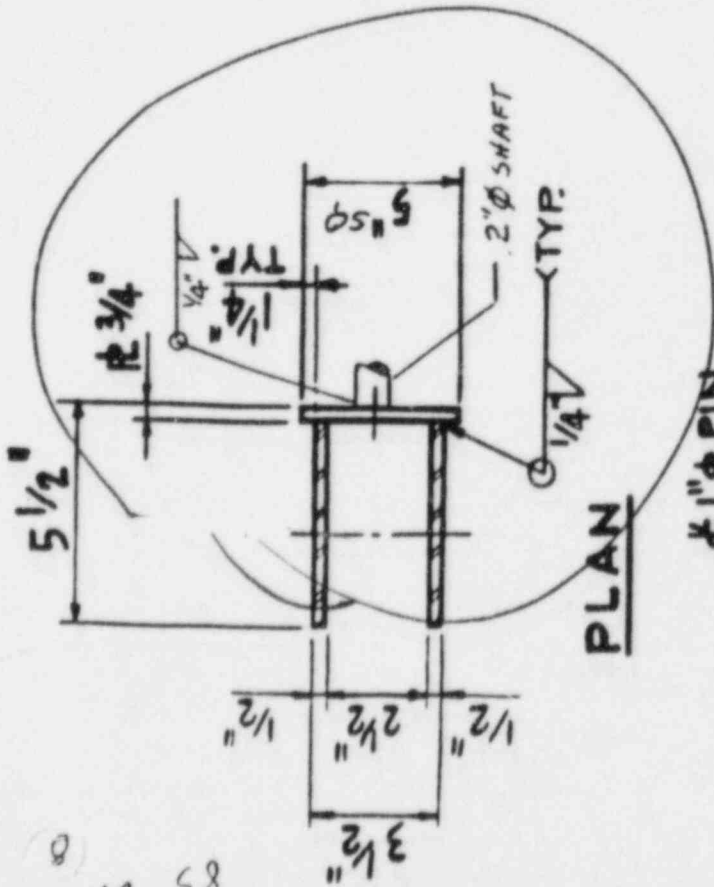
1/8" EL 46-0/8"



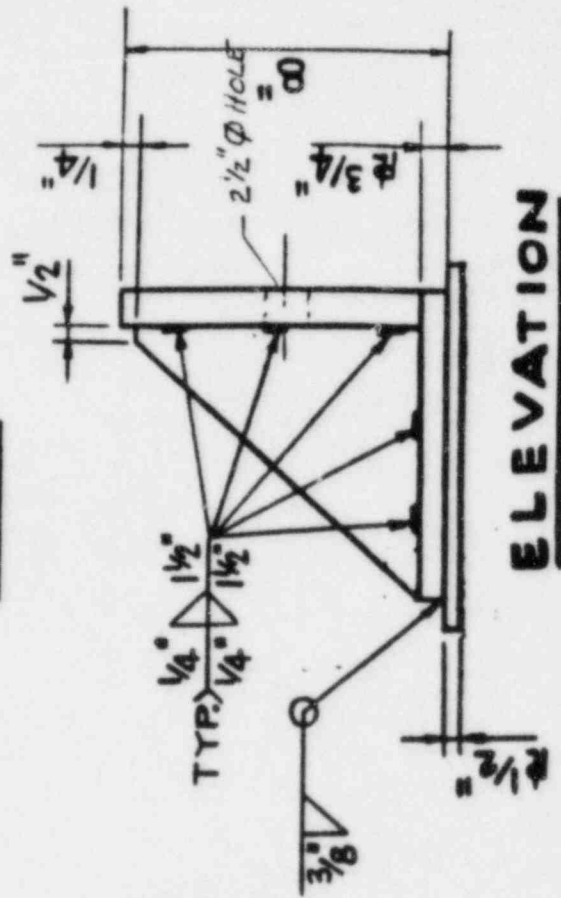
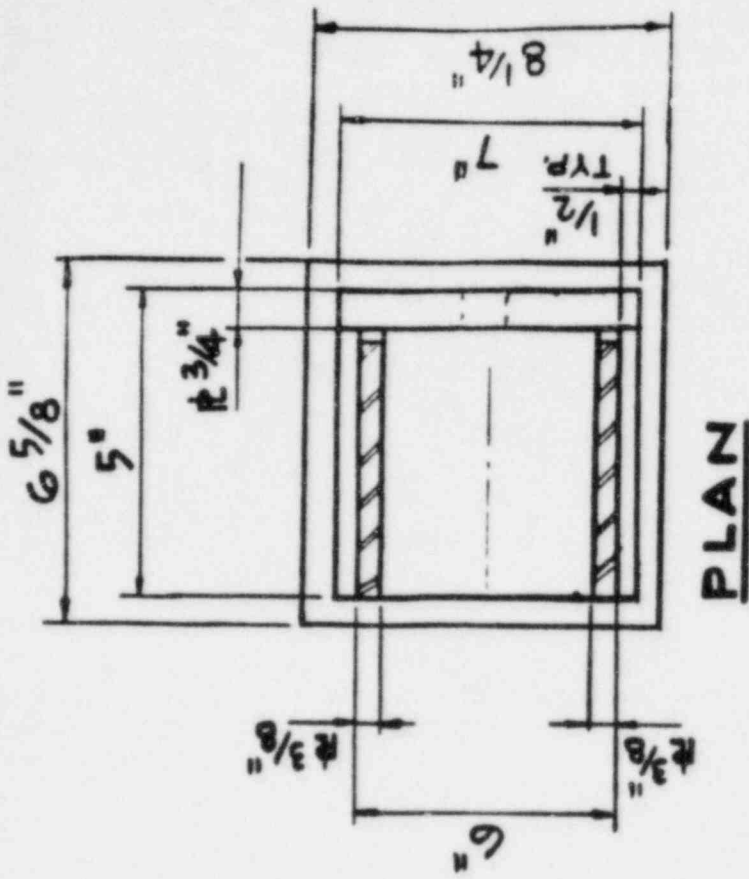
- 1. 2 - 15 1/2" x 11" x 1/2" (CUT TO SUIT)
- 2. 1 - PACIFIC SCIENTIFIC W/TRANS. TUBE KIT (PSA-10)
- 3. 1 - BERGENPATERNON VARIABLE SPRING & ASSY.
- 4. 1 - PIPE CLAMP EA-3 (8")
- 5. 2 - 6 1/2" x 5" x 3/8" (CUT TO SUIT)
- 6. 1 - L 8' x 6" x 5/8" x 0'-7 1/8" L_y

HANGER 52

85-211-3



DETAIL - 2



DETAIL - 3

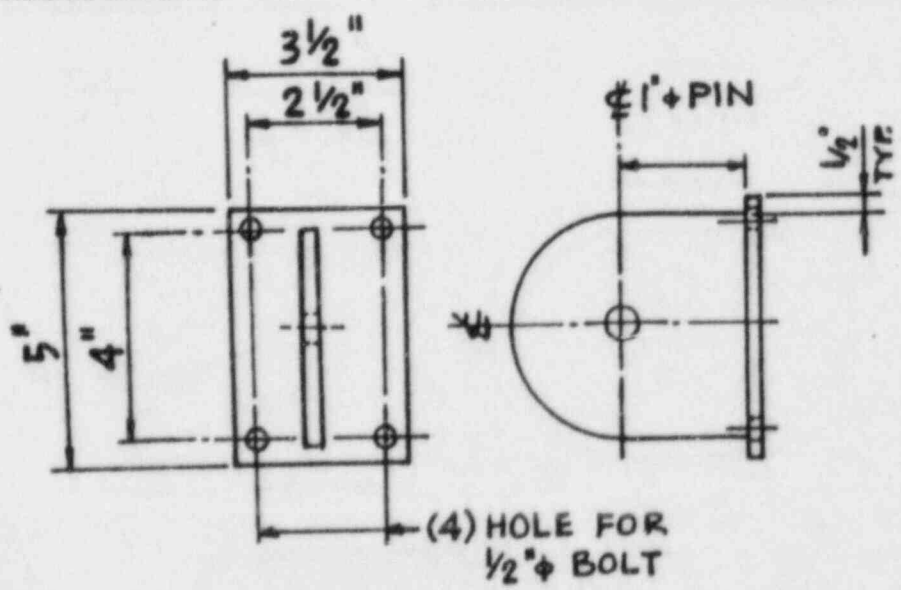
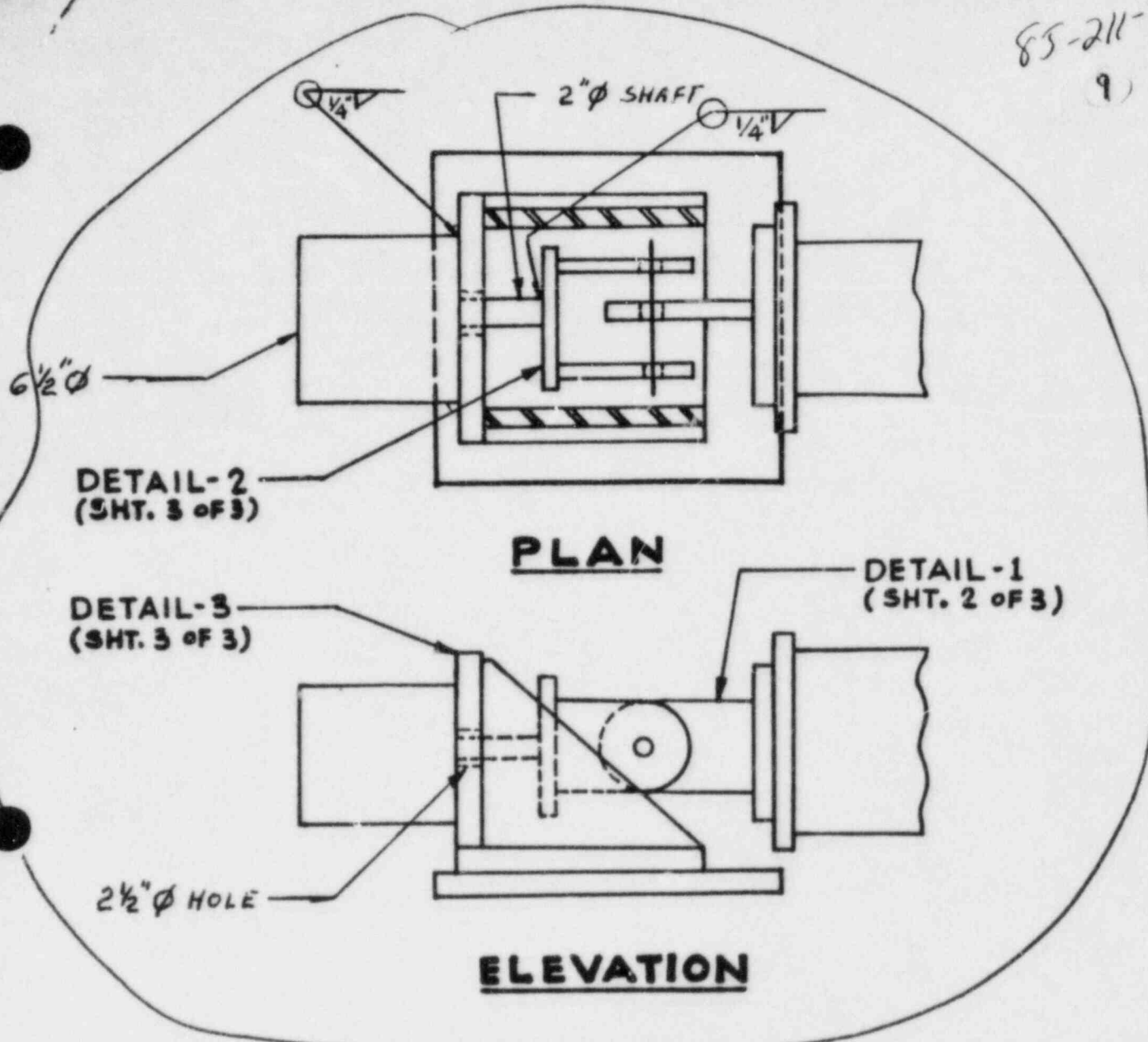
DRYWELL

NI

10-1085
CLUB 2 NE 2

85-211-3

9



DETAIL - 1

MNCR 85-211-3

DRYWELL
N1
 10-25-85
 SHEET 2 OF 3

Oyster Creek - QC

SUPPORT # N1
 SUPPORT DWG# MPR 1083-142

PER MNCR 85-211-3

	Y	N	N/A	REM
19. Confirm pipe clamp figure no. If not possible, fill in appropriate form attached.			✓	
20. Baseplate attachments location recorded on the anchor plate verification sheet.			✓	
21. For valves noted in the walkdown, record their location & orientation on the isometric drawing. Describe orientation by stating (1) direction observer is facing, and (2) angle of valve ϵ to pipe ϵ to nearest 30 degrees (such as hours on a clock with 12:00 being direction facing the observer).			✓	
22. For hangers where other systems (i.e. piping, conduit, etc.) are also supported, give size of this system and describe type of support and distance to upstream and downstream hangers supporting that system.			✓	
Other items as specified by calculation sheet request attached.				

Roy C. Amner 10-19-85
 QC Inspector(s)/Date

Creek - OC

SUPPORT # 41

ITEM REF MOCR 85-211-3 (W)

Y N N/A REM

4. Hanger hardware:

- A. Clips
- B. Clevis
- C. Cotter Pins
- D. Turnbuckles
- E. Nuts/Bolts (Check all attachments for double nut requirements) (2)
- F. Spring Canisters
- G. Locking Tabs on Nuts
- H. Washers
- I. Swivels

✓			
✓			
✓			
✓			
✓			*
✓			
✓			
✓			

5. Hanger configuration in accordance with applicable drawings:

- A. Dimensions
- B. Angles of support to system and base plate
- C. All hanger attachments i.e., clips, brackets, etc. orientated correctly. (2)
- D. Strut or Snubber pin to pin distance 6' 5 1/8" recorded

✓			
✓			*
✓			

16. Weld locations:

- A. Proper weld location (2)
- B. Proper weld spacing
- C. Proper number of welds
- D. Thru paint (average value 3/8)

Rec'd 10-1-85
(1) (2)

✓			
✓			
✓			

17. Anchor Bolts:

- A. Type
- B. Size _____ number _____
- C. Thread engagement
- D. Bolt c/c spacing
- E. C/C from anchors to closet anchor _____

			✓
			✓
			✓
			✓
			✓

18. Gaps @ stops:

- A. At U-bolts or Restraints
- B. At pipe penetrations

*TOLERANCES FOR MEASUREMENT ACCURACY

Measurement	Tolerance
0" - 2"	± 1/16"
2" - 12"	± 1/8"
12" - 36"	± 1"
36" - ∞	± 3"

* Unless otherwise shown on the dwg.

King C. Armer 10-1985
QC INSPECTOR(S) DATE

+ sent to O & D

Creek - DC

Reviewed: *Bl. Tibb*

SUPPORT # NI
 ISU DWG # Eng Sketch
 ORTHO DWG # N/A
 SUPPORT DWG # MPE-1083-14-2

VALVE # NI
N/A.

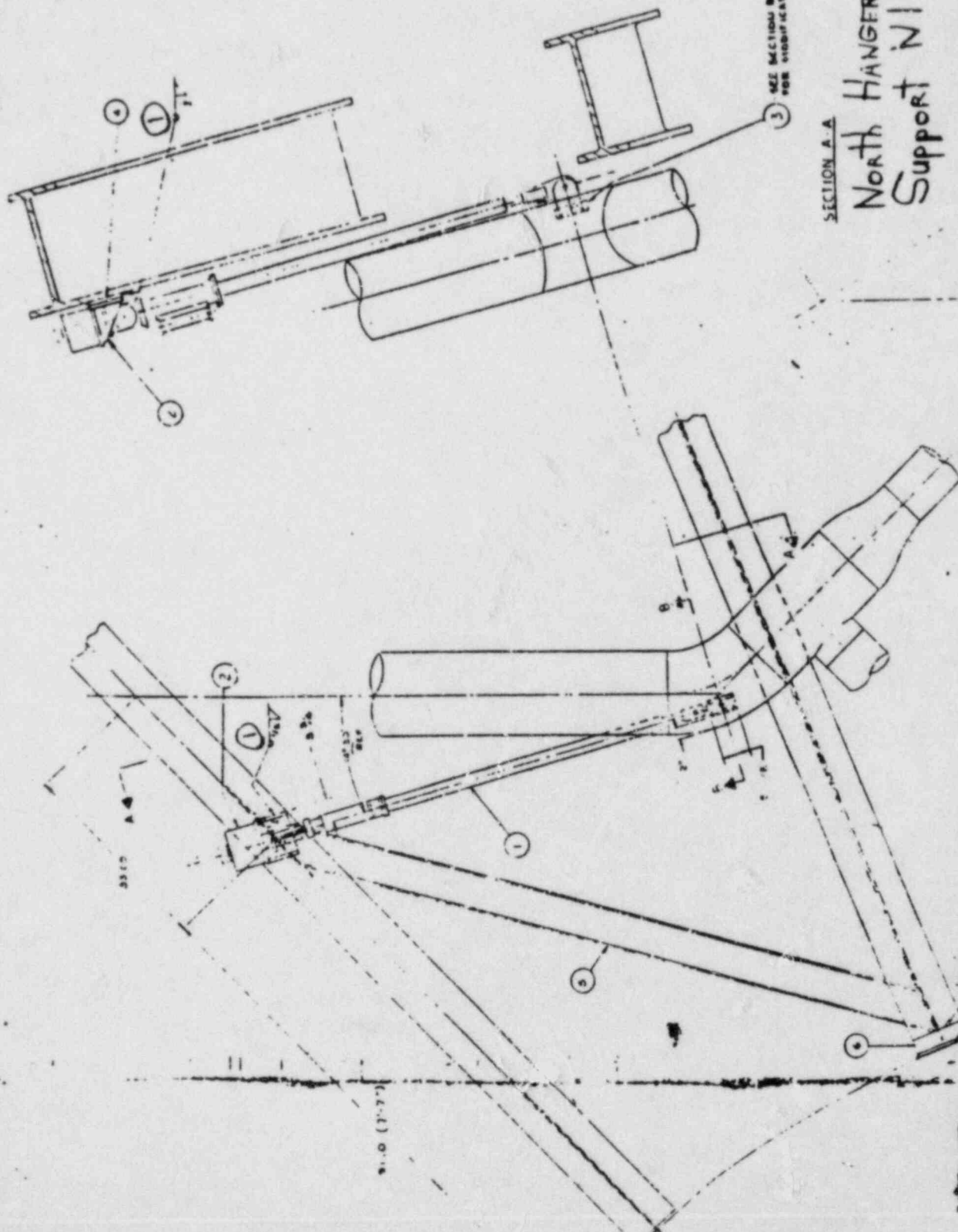
REF MPCR 85-211-3 12

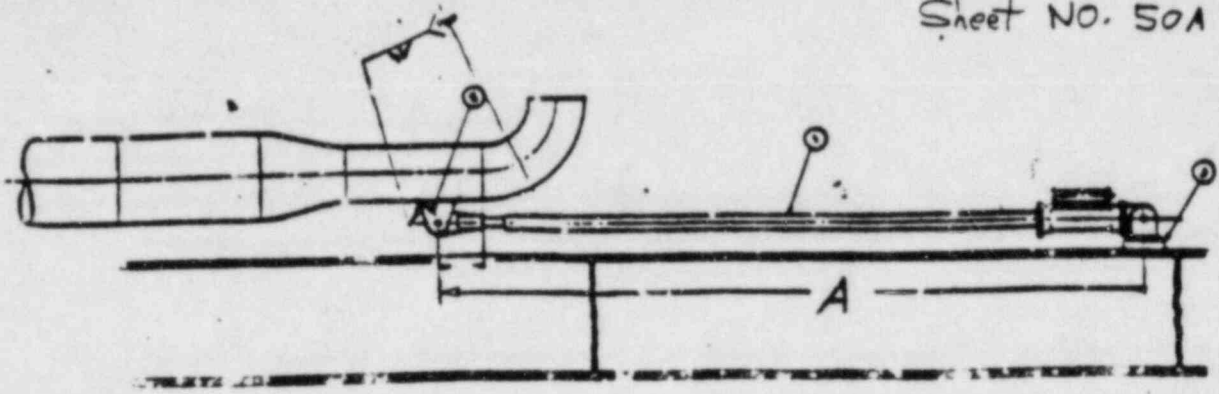
ITEM	Y	N	N/A	REM
1. Proper Valve Orientation			✓	
2. Skin Temperature <u>49.8</u> °F (C.R.)(PYR) (on pipe)	✓			
3. Components identified in accordance with the appropriate drawing.			✓	
4. Component location is within drawing tolerances.			✓	
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.			✓	
6. Verify that all welds are completed. (2)		✓	✓	<i>Welds</i>
7. Piping and supports are free of arc strikes.	✓			
8. Snubbers and spring hangers are installed in accordance with drawing. (2)			✓	
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5%			✓	
10. Record the amount of snubber extension from the fully compressed position. T or C = <u>3</u>	✓			
11. If the springs and snubbers are within: 1/4" from the topped/bottomed out position for springs, and 1/4" from the fully compressed/fully extended position for snubbers, it shall be reported.			✓	
12. Verify piping sizes.			✓	
13. Hanger location in building (General area) {Description: <u>el. 400 ~ Dry well</u>	✓			<i>ED</i> <i>10/1/31</i>

Subject N1	Calc No.	Rev No.	Sheet No 52 of
Originator	Date	Reviewed by	Date

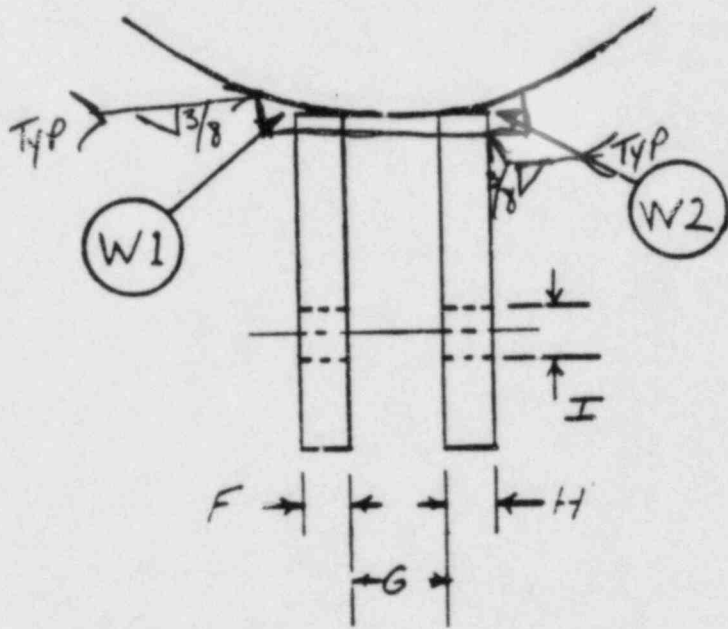
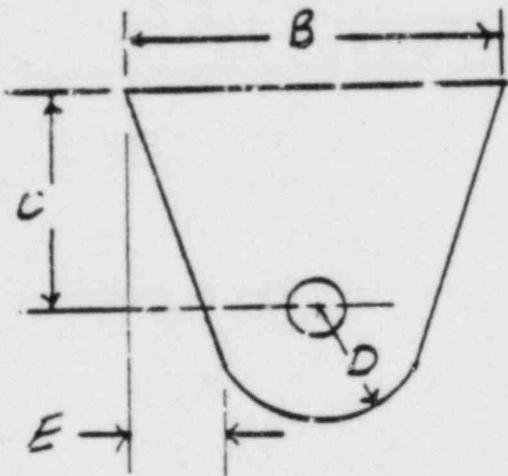
REF MNCR 85-211-3

13





SECTION 1-1

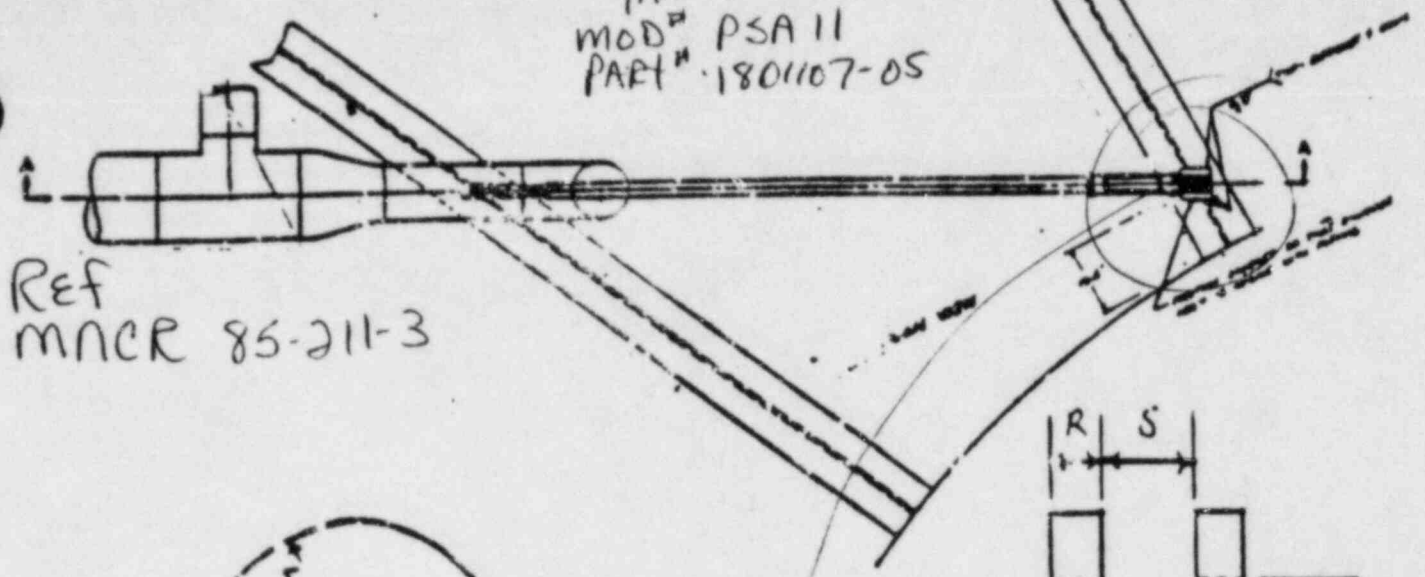


WELD DIMENSIONS	
W1	3/8"
W2	3/8"

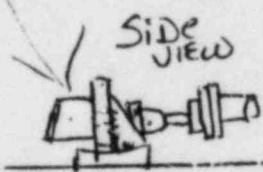
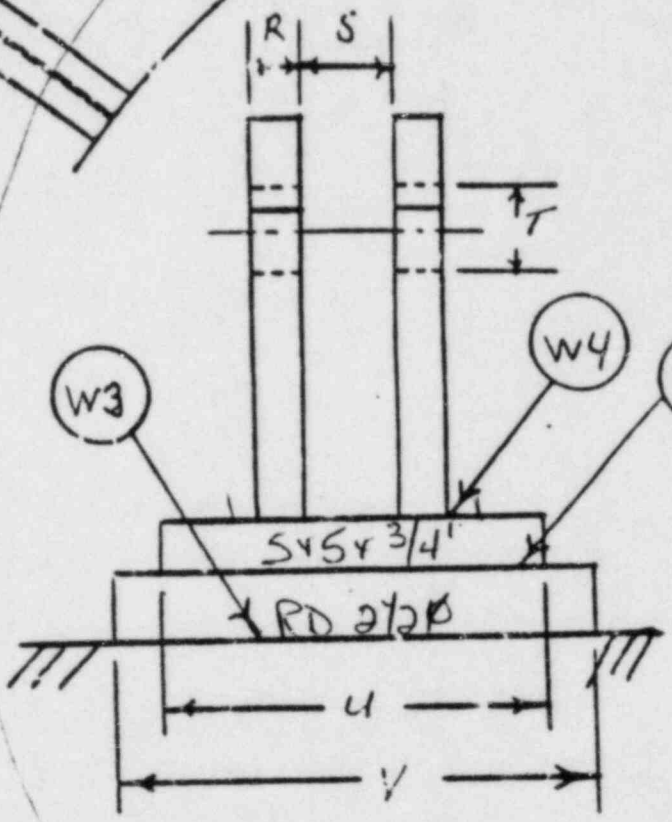
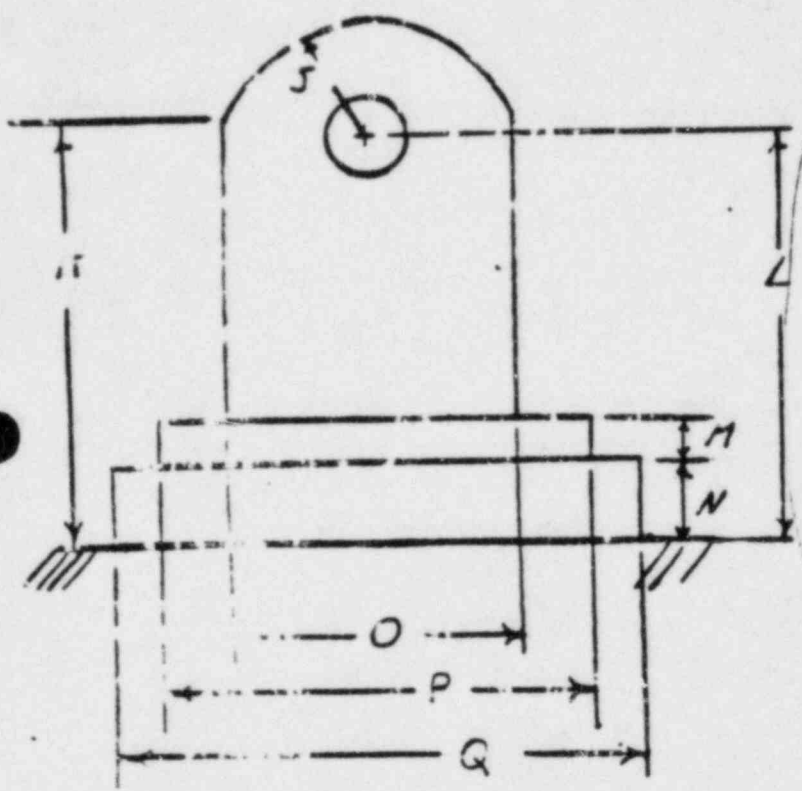
DIMENSIONS	
POINT	INCH
A	6'-5 1/8"
B	4"
C	2 1/2"
D	2 1/8"
E	0"
F	1/2"
G	1 1/4"
H	1/2"
I	1"

N₁ RATED LOAD 11,000 LBS
 STROKE 6"
 S/N* 100
 MOD# PSA 11
 PART# 1801107-05

85-211-3.15
 Sheet No. 508



REF
 MNCR 85-211-3



J = 2 1/4"

DIMENSIONS			
POINT	INCH	POINT	INCH
T	3"	S	1 3/4"
U	2 1/2"	T	1"
V	3/4"	U	*
W	*	V	*
X	4"		
Y	5"		
Z	*		
R	1/2"		

WELD DIMENSIONS	
W3	* NO WELD
W4	3/8 TYP
W5	3/8"

* Not as shown in drawing
 * Not fixed to the shaft

Subject	Calc No	Rev No	Sheet No 51 of
Originator	Date	Reviewed by	Date

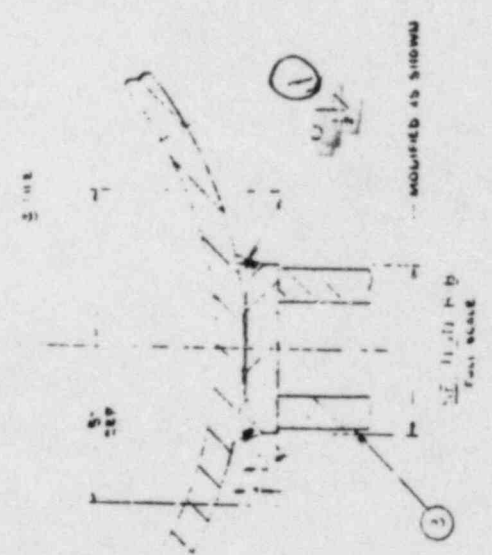
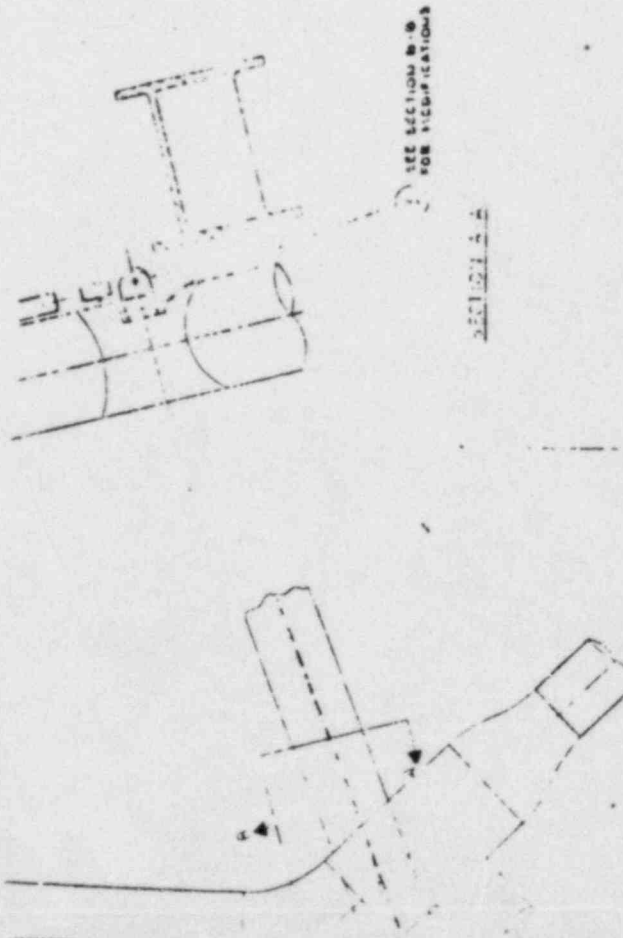
mnCR 85-211-3

REFLECTIVE DRAWING
JOB NO. 85-211-3
MIRIAM TANK ELECTED MIRC RELIEF VALVE
DISCHARGE TYPING SUPPORT HANGER LOCATIONS

ITEM NO.	DESCRIPTION	QTY	UNIT	REVISION
1	6 X 6 ANGLE 1/2 X 6	1	EA	
2	MIRIAM TANK ELECTED MIRC RELIEF VALVE DISCHARGE TYPING SUPPORT HANGER	1	EA	
3	BRACKET (MIRIAM TANK)	1	EA	
4	VARIABLE SPEED MOTOR ASSEMBLY	1	EA	
5	SHIMMER ASSEMBLY	1	EA	
6	MIRIAM TANK ELECTED MIRC RELIEF VALVE DISCHARGE TYPING SUPPORT HANGER	1	EA	
7	MIRIAM TANK ELECTED MIRC RELIEF VALVE DISCHARGE TYPING SUPPORT HANGER	1	EA	
8	MIRIAM TANK ELECTED MIRC RELIEF VALVE DISCHARGE TYPING SUPPORT HANGER	1	EA	
9	MIRIAM TANK ELECTED MIRC RELIEF VALVE DISCHARGE TYPING SUPPORT HANGER	1	EA	
10	MIRIAM TANK ELECTED MIRC RELIEF VALVE DISCHARGE TYPING SUPPORT HANGER	1	EA	

DATE	10.13.10.2
BY	J.P.
CHECKED BY	J.P.
APPROVED BY	J.P.
SCALE	AS SHOWN

COMPANY	MPR ASSOCIATES, INC.
ADDRESS	1000 W. 10TH ST. SUITE 200
CITY	MINNEAPOLIS, MN 55408
PHONE	(612) 338-1111
FAX	(612) 338-1112
TELETYPE	(612) 338-1113
INTERNET	WWW.MPRASSOCIATES.COM

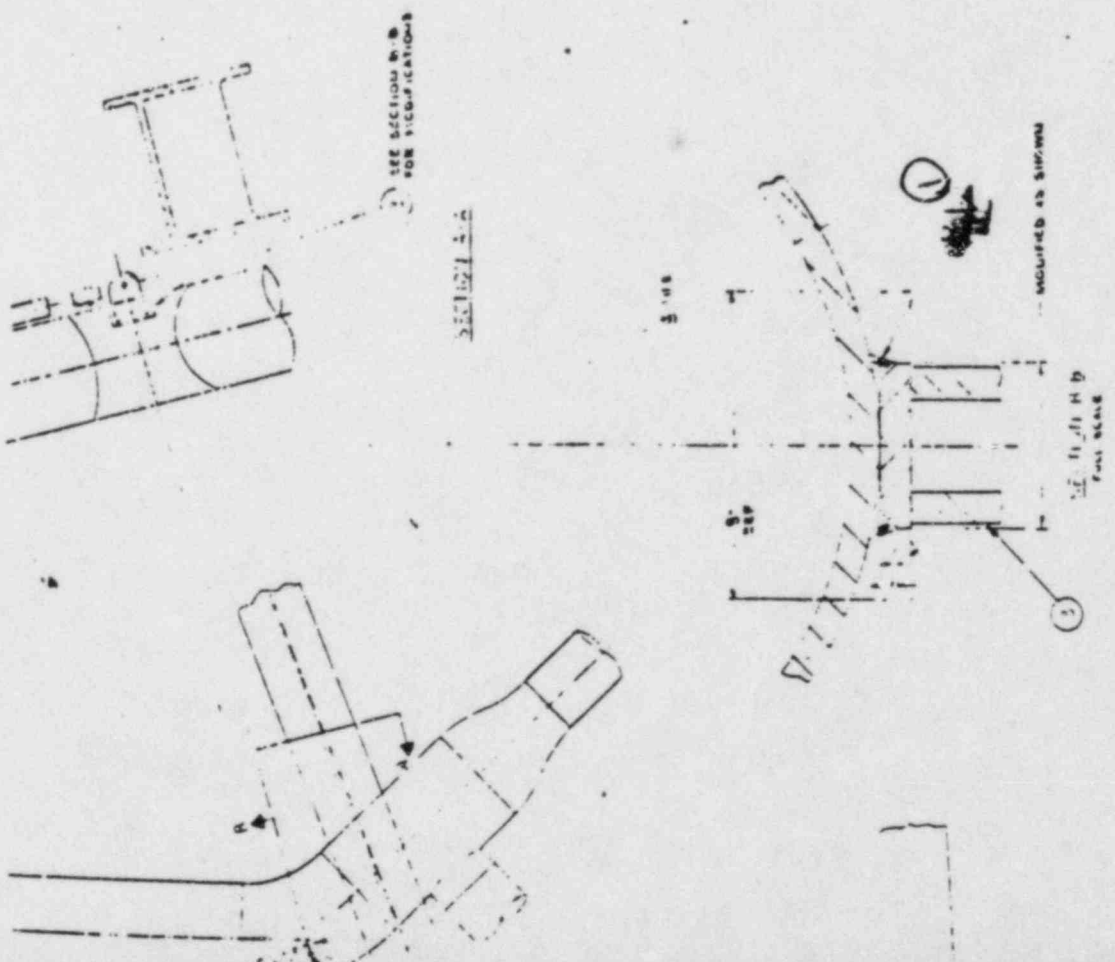


MOCR 85-211-3

PIZZE 154 drawing
 1088 16 1
 MAIN - TEAM ELECTED MA-TIC BEI-IP VALVE
 DISCHARGE PIPING SUPPORT HANGER LOCATIONS

NO.	REV.	DATE	DESCRIPTION	BY	CHK.
1			ISSUED FOR PIPING		
2			REVISION		
3			REVISION		
4			REVISION		
5			REVISION		

MOCR ASSOCIATES, INC.	
200 N. 17th St., Suite 100, Minneapolis, MN 55455	
TEL: (612) 338-1111 FAX: (612) 338-1112	
WWW.MOCR.COM	
DRAWING NO. 1088 16 1	
PROJECT NO. 85-211-3	
DATE: 10.23.16	
BY: [Signature]	
CHK: [Signature]	



3'-0" (MOUNTED AS SHOWN)

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

10/24/85

MNCR Number 85-211-4

Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORMNO A _____
RETENTION _____

1. Identification

Originator: FRANK H. RIVERA / Gashlin Date/Time: 10-21-85 @ 12:30 AM

Material, Part, Component, etc.: HANGER EMRV S-1

Location: DRYWELL EL 46'-0" SOUTH

Manufacturer (Name): N/A Code: N/A

P.R.# N/A Line # N/A Spec # N/A

System: EMRV/MAINSTEAM VENT System Tag No. N/A

Dwg No. MPR 1083-1A-5 Rev B Heat Code No. N/A Other: N/A

Nonconforming to (requirements): DIMENSIONAL/CONFIGURATION AS SHOWN

Description of Nonconformance: SEE DISCREPANCIES/DISPOSITIONS SHEET ATTACHED

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

POTENTIALLY REPORTABLE:

Important To Safety	10CFR50	10CFR21	10CFR71	10CFR73.71	L.E.R.
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Evaluated By (Name): E. Gashlin Date/Time: 10-21-85 0225
QC Mgr. Validation: James Maloney Date/Time: 10-21-85/16:00 1543

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____
Licensing Notified: YES NO Date/Time: _____
Hold Tags Issued: YES NO No. of Tags: _____
Tags Installed By (Name): NA Date/Time: _____
Material Segregation Required: YES NO
Segregation Verified By (Name): NA Date/Time: _____

ACTION PARTY (Name): J. MALONEY Dept: PLANT MATERIEL

Forward to responsible individual/department (Action Party).

FORM 1000-ADM. 7/15/01-1

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: Provide engineering determination as to adequacy of as built configuration. If adequate revise drawing to reflect as built.

Evaluation/Disposition By (Name): [Signature]

Dept: Plant Material

Date: 10-21-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (include applicable work documents, limitations, re-test requirements, etc.)

SEE ATTACHED SHEET FOR JUSTIFICATION

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No: _____

Evaluated By (Name): W.C. HAAS

Dept: T.F. ENGR MECH.

Date: 10-21-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: [Signature]

Date: 10-21-85

Conditional Release Issued: YES NO Reject Tags Issued: YES NO

AI/ANI Concurrence: YES NO Signature: NA

Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____

Work/Shipping Order No.: _____ Other: _____

Verified By (Name/Title/Date): _____

Tags/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____ Date: _____

FORM T000-ADM-7215-01-1

HANGER # EMRV S-1

MNCR# 85-211-4 DWG.# MPR 1083-14-5

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

- ① NO VARIABLE SPRING ASSEMBLY
- ② NO ANGLE/GUSSET ASSEMBLY SEE DETAIL

NO VARIABLE SPRING REQ'D.
ANGLE GUSSET ASSEMBLY NOT NEEDED.
ACCEPT AS DESIGN

ENGINEERING SIG.

W.C. Haas

DATE 10-21-85



Nuclear

PIPING AND SUPPORT VERIFICATION

Creek - OC

Reviewed: *Bl. Lick*

SUPPORT # EMRV SI VALVE # N/A
 ISO DWG # Eng. Sketch
 ORTHO DWG # N/A
 SUPPORT DWG # MPIC 1083-14-5

MANC 85 711-4

ITEM	Y	N	N/A	REM
1. Proper Valve Orientation			✓	
2. Skin Temperature <u>150 °F (C.R.) (PYR) (from pipe)</u>	✓			
3. Components identified in accordance with the appropriate drawing.	✓			
4. Component location is within drawing tolerances.	✓			
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.			✓	
6. Verify that all welds are completed.	✓			
7. Piping and supports are free of arc strikes.	✓			
8. Snubbers and spring hangers are installed in accordance with ^{7/16} 10-21-85 drawing.	✓	✓		
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5%			✓	
10. Record the amount of snubber extension from the fully compressed position. T or C = <u>3 1/4</u> recorded	✓			
11. If the springs and snubbers are within: 1/2" from the topped/bottomed out position for springs, and 1/2" from the fully compressed/fully extended position for snubbers, it shall be reported.	✓			
12. Verify piping sizes.			✓	
13. Hanger location in building (General area) {Description: <u>EL 46'-0"</u> <u>DRYWELL south</u> }	✓			

Creek - OC

SUPPORT # EMRV-S1

ITEM	Y	N	N/A	REM
14. Hanger hardware:				
A. Clips			✓	
B. Clevis	✓			
C. Cotter Pins	✓			
D. Turnbuckles			✓	
E. Nuts/Bolts (Check all attachments for double nut requirements)	✓			
F. Spring Canisters			✓	
G. Locking Tabs on Nuts			✓	
H. Washers			✓	
I. Swivels			✓	
15. Hanger configuration in accordance with applicable drawings:				
A. Dimensions			✓	
B. Angles of support to system and base plate			✓	
C. All hanger attachments i.e., clips, brackets, etc. orientated correctly.			✓	Done
D. Strut or Snubber pin to pin distance <u>8'5" recorded</u>	✓			
16. Weld locations:				
A. Proper weld location			✓	
B. Proper weld spacing			✓	
C. Proper number of welds			✓	
D. Thru point (average value <u>1/4</u>)	✓			
17. Anchor Bolts:				
A. Type			✓	
B. Size _____ number _____			✓	
C. Thread engagement			✓	
D. Bolt c/c spacing			✓	
E. C/C from anchors to closet anchor _____			✓	
18. Gaps @ stops:				
A. At U-bolts or Restraints			✓	
B. At pipe penetrations			✓	
<u>*TOLERANCES FOR MEASUREMENT ACCURACY</u>				
<u>Measurement</u>		<u>Tolerance</u>		
0" - 2"		± 1/16"		
N 2" - 12"		± 1/8"		
N 12" - 36"		± 1"		
N 36" - ∞		± 3"		
* Unless otherwise shown on the divg.				
<i>Frank Rivera</i> QC INSPECTOR(S)			10-21-85	DATE

Oyster Creek - QC

SUPPORT #EMRV 5-1

PER MNCR 85-211-4

SUPPORT DWG# MPR 1083-14-5

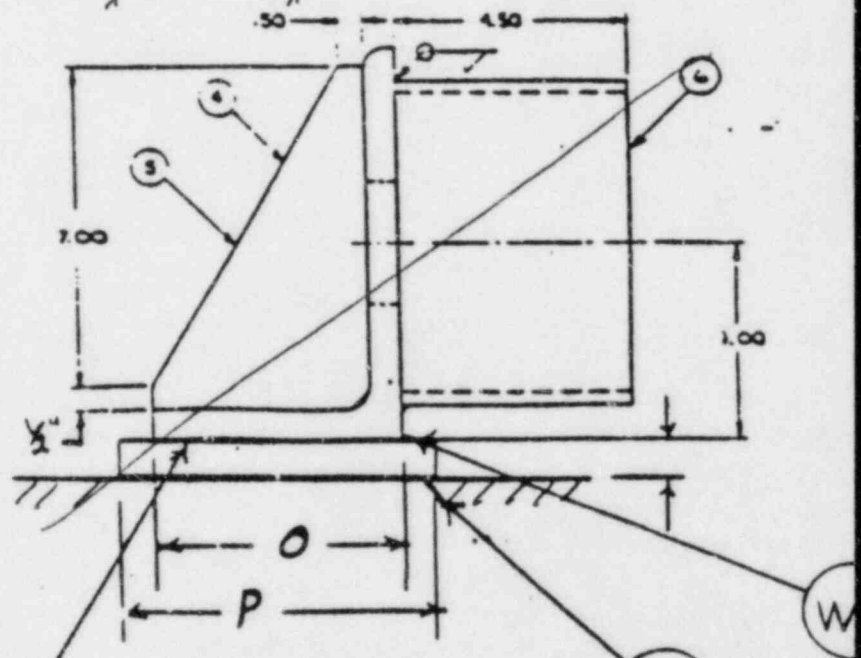
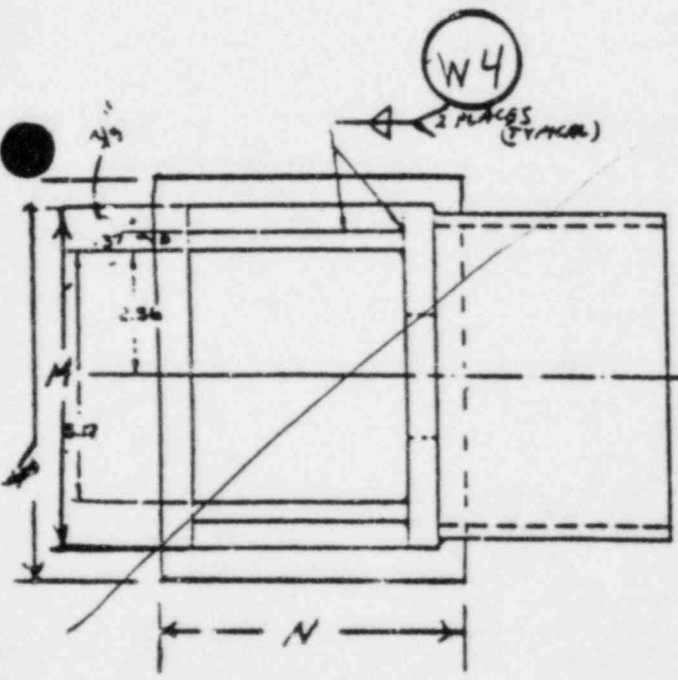
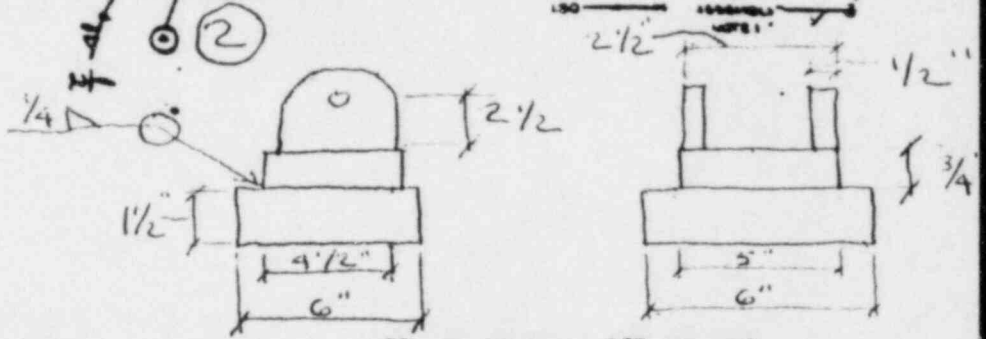
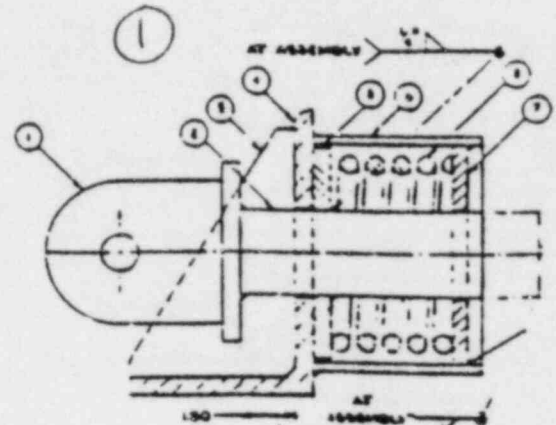
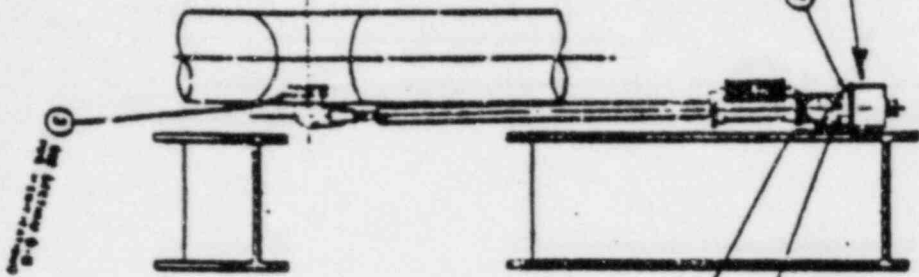
Y	N	N/A	REM
---	---	-----	-----

- | | | | | |
|---|--|--|---|--|
| 19. Confirm pipe clamp figure no. If not possible, fill in appropriate form attached. | | | ✓ | |
| 20. Baseplate attachments location recorded on the anchor plate verification sheet. | | | ✓ | |
| 21. For valves noted in the walkdown, record their location & orientation on the isometric drawing. Describe orientation by stating (1) direction observer is facing, and (2) angle of valve to pipe to nearest 30 degrees (such as hours on a clock with 12:00 being direction facing the observer). | | | ✓ | |
| 22. For hangers where other systems (i.e. piping, conduit, etc.) are also supported, give size of this system and describe type of support and distance to upstream and downstream hangers supporting that system. | | | ✓ | |

Other items as specified by calculation sheet request attached.

Frank H. Fivew 10-21-85
 QC Inspector(s)/Date

HANGER SI
FOR LOCATION
SBB SHT. No. 13



DIMENSIONS			
POINT	INCH	POINT	INCH
L			
M			
N			
O			
P			

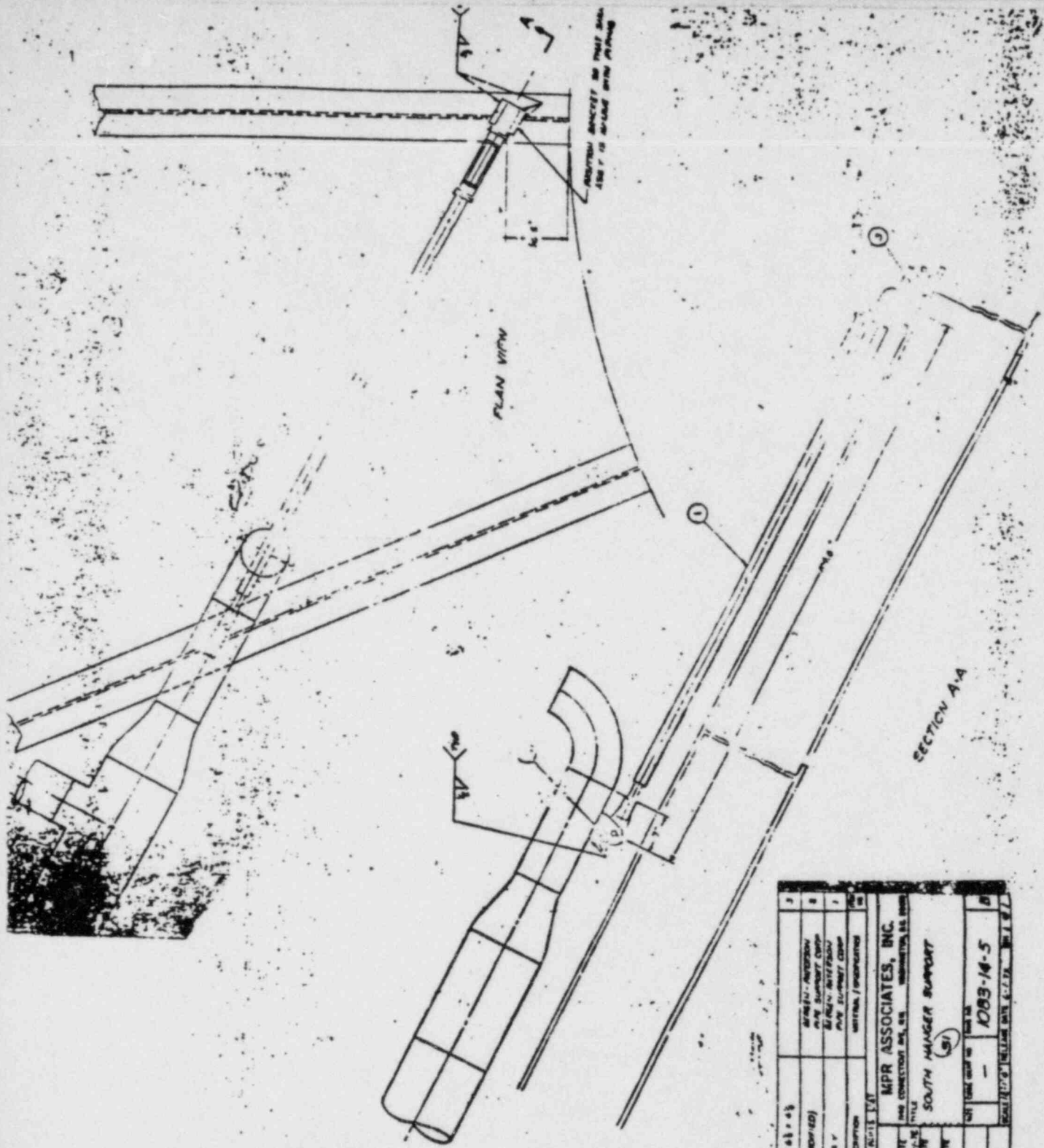
WELD DIMENSIONS	
W4	
W5	
W6	
W7	

W5

W6

W

Subject	Originator	Date	Reviewed by	Date
Calc No.	Rev No.	Sheet No.	58	



REV	DESCRIPTION	DATE	BY
1	ISSUED FOR FABRICATION		
2	REVISION (ADDED)		
3	REVISION (ADDED)		
4	REVISION (ADDED)		
5	REVISION (ADDED)		
6	REVISION (ADDED)		
7	REVISION (ADDED)		
8	REVISION (ADDED)		
9	REVISION (ADDED)		
10	REVISION (ADDED)		

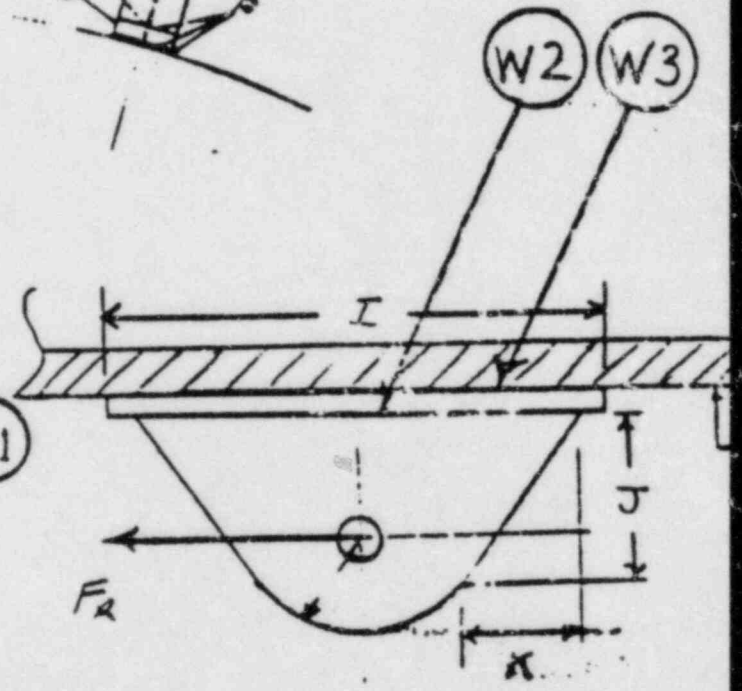
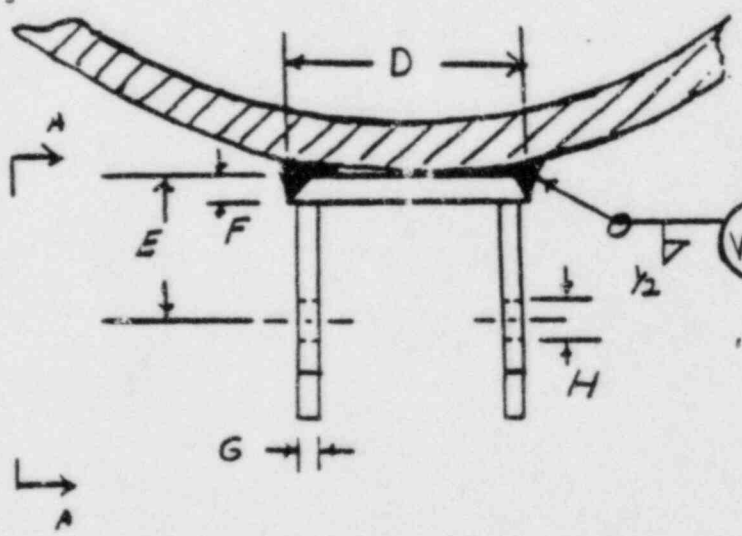
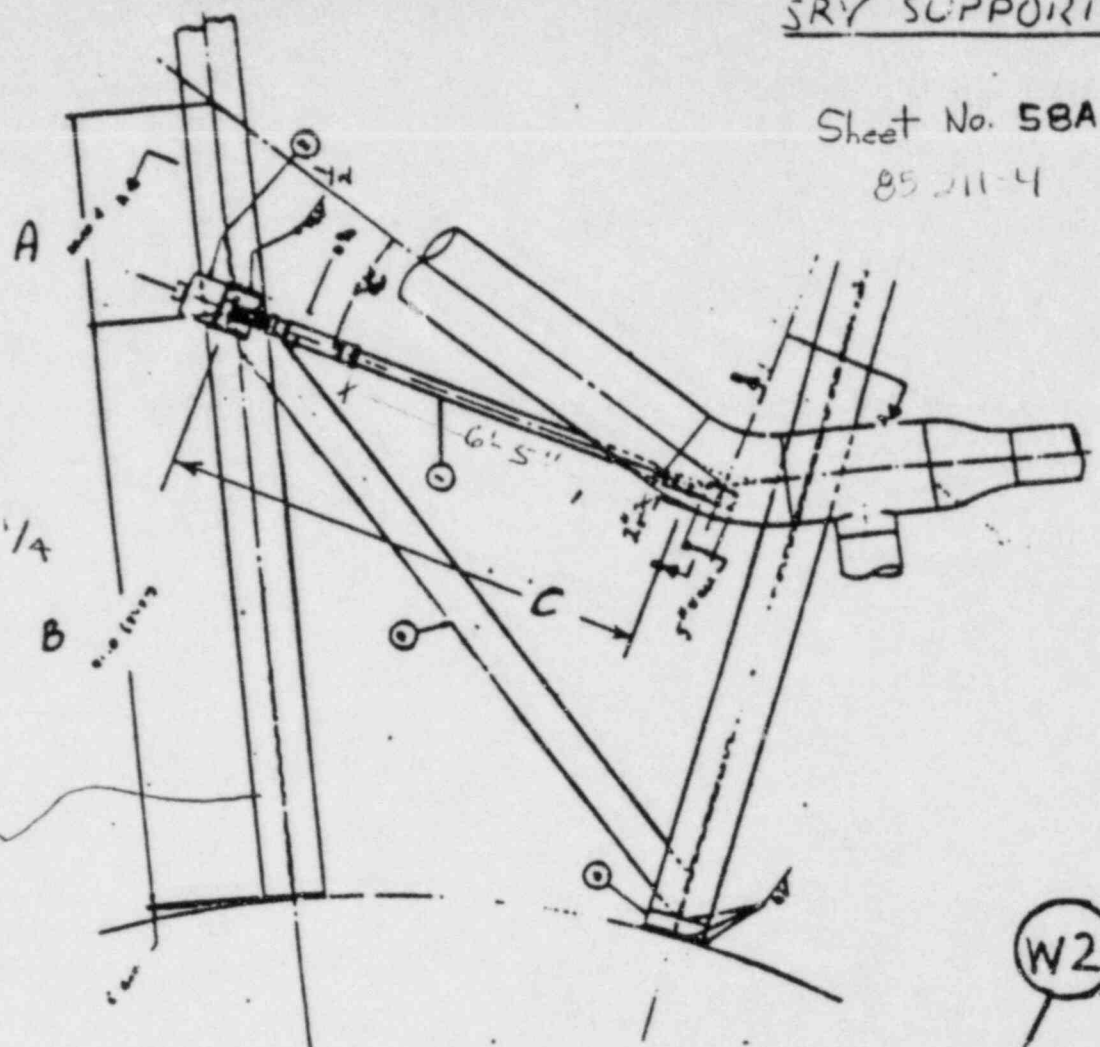
DESIGNER	DATE	SCALE
DR	1-1-68	1:1
CHECKER		
APPROVER		
DATE		
BY		
SCALE		
NO. OF SHEETS		
SHEET NO.		

COMPANY	PROJECT
MPR ASSOCIATES, INC.	SOUTH WAREHOUSE SUPPORT
1400 CONNECTION RD. S.W.	
MINNETONKA, MN 55345	
TITLE	
SOUTH WAREHOUSE SUPPORT	
DATE	
1-1-68	
BY	
DR	
SCALE	
1:1	
SHEET NO.	
1083-14-5	
NO. OF SHEETS	
1	

SNUBBER
EXTENSION
6'-5"

SETTING 3 1/4

BEAM
9" x 1'-4" x 1/4"



DIMENSIONS					
POINT	INCH	POINT	INCH	POINT	INCH
A	16	G	1/2		
B	15	H	1		
C	8'-5"	I	6		
D	2 1/2	J	4 1/2		
E	3 1/2	K	1/4		
F	1				

WELD DIMENSIONS		
WELD	WELD TYPE	LENGTH
W1	1/4 Δ	2" LG
W2	1/4 Δ	5" LG
W3	1/4 Δ	6" LG

Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORMNO A _____
RETENTION _____

1. Identification

Originator: Ray C. James / Inspector / Cashlin Date/Time: 10-20-85 2300HRS
Material, Part, Component, etc.: HANGER S3

Location: DRYWELL 46'EL

Manufacturer (Name): N/A Code: N/A

P.R.# N/A Line # N/A Spec # N/A

System: MAIN STEAM VENT / EMEV System Tag No. N/A

Dwg No. MPE-1083-14-6 R/O Heat Code No. N/A Other N/A

Nonconforming to (requirements): CONFIGURATION as shown

Description of Nonconformance: SEE DISCREPANCIES / DISPOSITION SHEET ATTACHED

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

POTENTIALLY REPORTABLE:

Important To Safety	10CFR50	10CFR21	10CFR71	10CFR73.71	L.E.R.
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Evaluated By (Name): E. J. Mashlin Date/Time: 10-21-85 0715

QC Mgr. Validation: [Signature] Date/Time: 10/21/85 1135

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____

Licensing Notified: YES NO Date/Time: _____

Hold Tags Issued: YES NO No. of Tags: _____

Tags Installed By (Name): NA Date/Time: _____

Material Segregation Required: YES NO

Segregation Verified By (Name): NA Date/Time: _____

ACTION PARTY (Name): J. MacCone Dept: PLANT MATERIEC

Forward to responsible individual/department (Action Party).

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: Provide engineering determination as to adequacy of as built configuration. If adequate revise drawings to reflect as built.

Evaluation/Disposition By (Name): _____

[Signature]

Dept: Plant Montreal

Date: 10-21-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (Include applicable work documents, limitations, re-test requirements, etc.)

SEE ATTACHED SHEETS FOR JUSTIFICATION

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No.: _____

Evaluated By (Name): W.C. Deas

Dept: T-F. ENG. MECH.

Date: 11-1-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: _____

[Signature]

Date: 11-2-85

Conditional Release Issued:

YES NO

Reject Tags Issued:

YES NO

AI/ANI Concurrence: YES NO

Signature: NA

Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____

Work/Shipping Order No.: _____ Other: _____

Verified By (Name/Title/Date): _____

s/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____

Date: _____

HANDS 53

MNCR#-85-31

DWG. # MPR-1083-14-6
REV D

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

① Spring CANISTER IS installed on
snubber. Detail not shown

ACCEPTABLE AS IS

at Creek - QC

REVIEWED: *Bl Libb*

SUPPORT # 53
 ISO DWG # MPR 1083-14-6 R/D
 ORTHO DWG # _____
 SUPPORT DWG # _____

VALVE # N/A

Nuclear 85-211-5

ITEM	Y	N	N/A	REM
1. Proper Valve Orientation			✓	
2. Skin Temperature <u>90.4</u> °F (C.R.)(PYR)	✓			
3. Components identified in accordance with the appropriate drawing.			✓	
4. Component location is within drawing tolerances.			✓	
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.			✓	
6. Verify that all welds are completed.	✓			
7. Piping and supports are free of arc strikes.	✓			
8. Snubbers and spring hangers are installed in accordance with drawing.	✓			
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5%			✓	
10. Record the amount of snubber extension from the fully compressed position. T or C = <u>3 3/4"</u>	✓			
11. If the springs and snubbers are within: 1/4" from the topped/bottomed out position for springs, and 1/4" from the fully compressed/fully extended position for snubbers, it shall be reported.			✓	
12. Verify piping sizes.			✓	
13. Hanger location in building (General area) {Description: <u>Daywell EL 46'-0"</u> }	✓			

Creek - QC

SUPPORT # 53

ITEM	Y	N	N/A	REM
14. Hanger hardware:				
A. Clips	✓			
B. Clevis	✓			
C. Cotter Pins	✓			
D. Turnbuckles	✓			
E. Nuts/Bolts (Check all attachments for double nut requirements)	✓			
F. Spring Canisters	✓			
G. Locking Tabs on Nuts	✓			
H. Washers	✓			
I. Swivels			✓	
15. Hanger configuration in accordance with applicable drawings:				
A. Dimensions	✓			
B. Angles of support to system and base plate	✓			
C. All hanger attachments i.e., clips, brackets, etc. orientated correctly.	✓			
D. Strut or Snubber pin to pin distance <u>4'-9 1/4"</u>	✓			
16. Weld locations:				
A. Proper weld location	✓			
B. Proper weld spacing	✓			
C. Proper number of welds	✓			
D. Thru paint (average value <u>3/8"</u>)	✓			
17. Anchor Bolts:				
A. Type			✓	
B. Size _____ number _____			✓	
C. Thread engagement			✓	
D. Bolt c/c spacing			✓	
E. C/C from anchors to closet anchor _____			✓	
18. Gaps @ stops:				
A. At U-bolts or Restraints			✓	
B. At pipe penetrations			✓	
*TOLERANCES FOR MEASUREMENT ACCURACY				
<u>Measurement</u>	<u>Tolerance</u>			
0" - 2"	± 1/16"			
N 2" - 12"	± 1/8"			
N 12" - 36"	± 1"			
N 36" - ∞	± 3"			
* Unless otherwise shown on the dwg.				
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;"> <p><i>Roy C. James</i></p> <p>QC INSPECTOR(S)</p> </div> <div style="text-align: center;"> <p><u>10-30-85</u></p> <p>DATE</p> </div> </div>				

PCJ
 10-20-85
 (1)

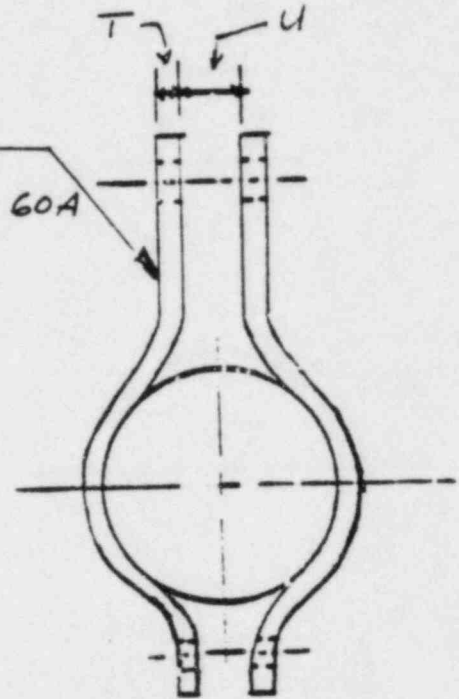
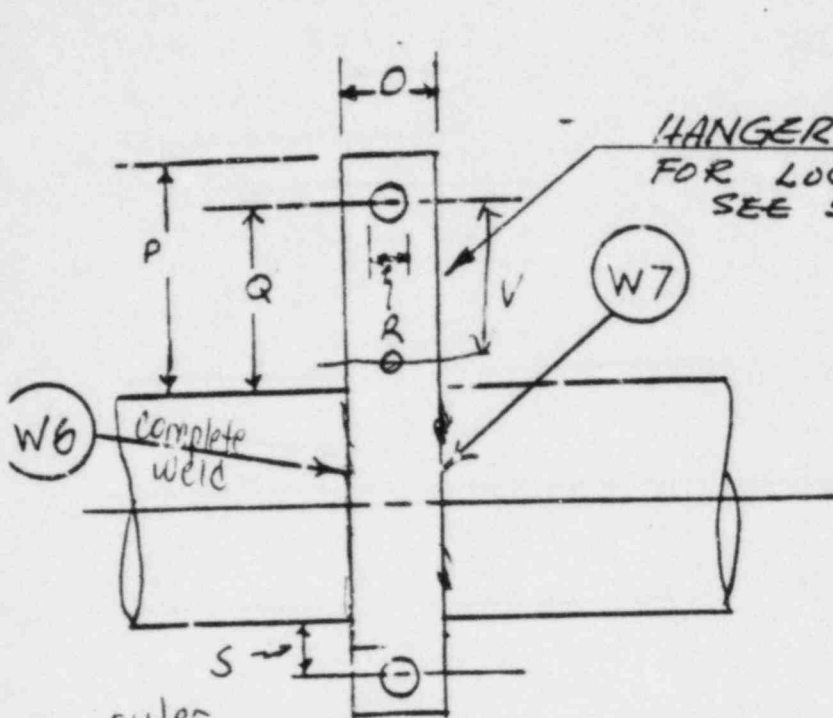
Oyster Creek - QC

SUPPORT # 53
MPR
 SUPPORT DWG# 1083-144

PER MNCR 43-211-3

	Y	N	N/A	REM
19. Confirm pipe clamp figure no. If not possible, fill in appropriate form attached.			✓	
20. Baseplate attachments location recorded on the anchor plate verification sheet.			✓	
21. For valves noted in the walkdown, record their location & orientation on the isometric drawing. Describe orientation by stating (1) direction observer is facing, and (2) angle of valve \perp to pipe \perp to nearest 30 degrees (such as hours on a clock with 12:00 being direction facing the observer).			✓	
22. For hangers where other systems (i.e. piping, conduit, etc.) are also supported, give size of this system and describe type of support and distance to upstream and downstream hangers supporting that system.			✓	
Other items as specified by calculation sheet request attached.				

Roy C. Oliver 10-20-85
 QC Inspector(s)/Date



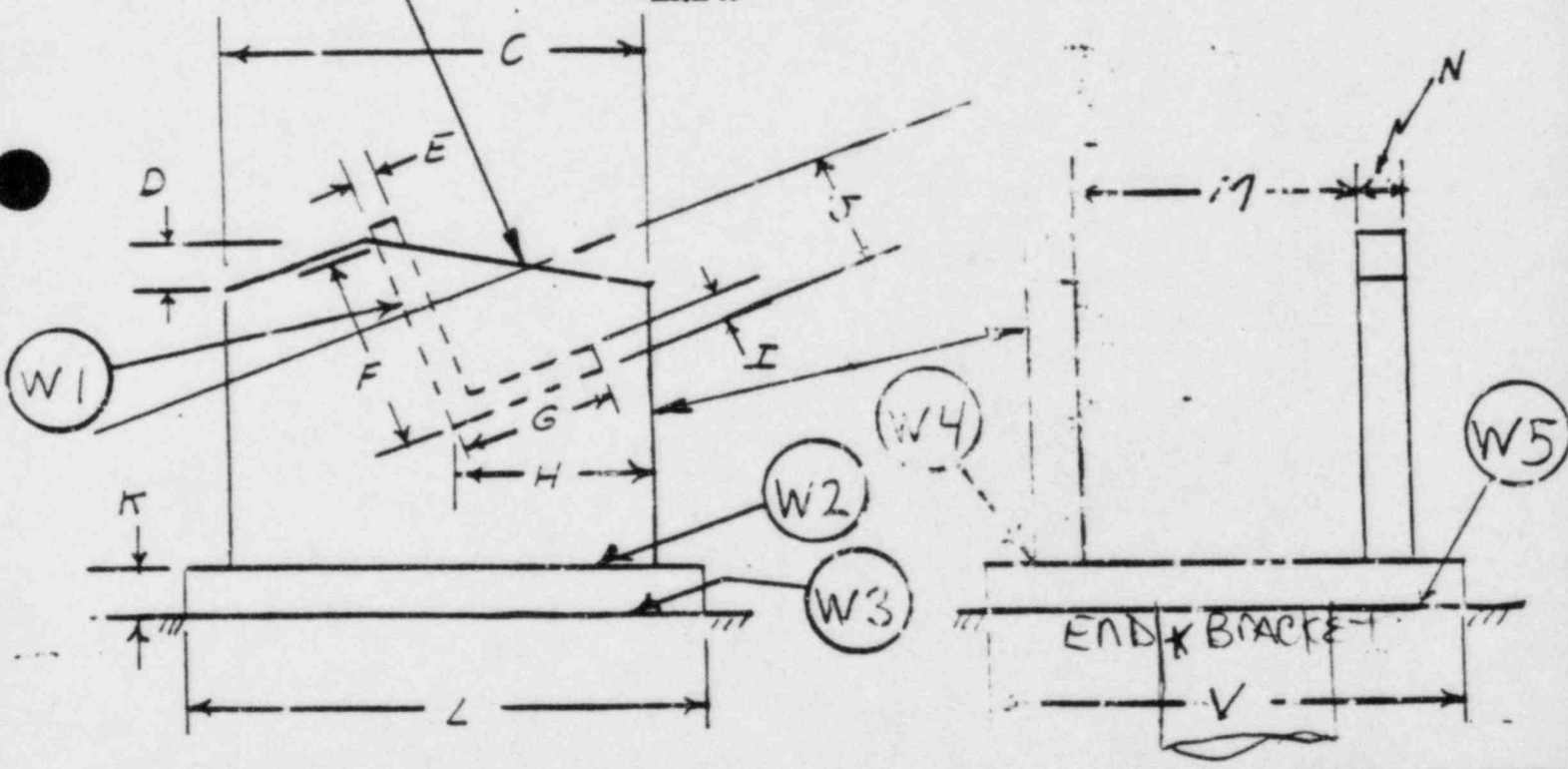
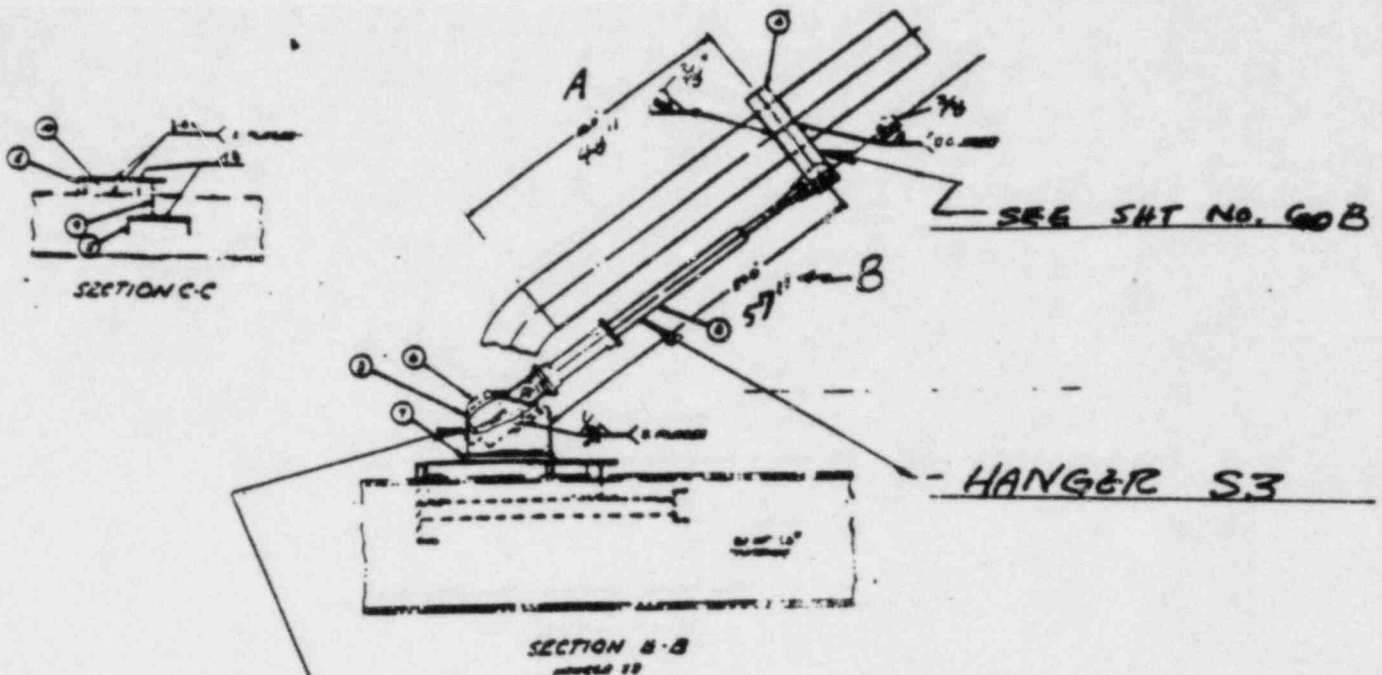
outer wall

DIMENSIONS			
POINT	INCH	POINT	INCH
O	4"	V	4 1/8"
P	8 1/4"		
Q	6 1/2"		
R	1"		
S	2"		
T	1/2"		
U	13 1/4"		

WELD DIMENSIONS	
W6	3/8" complete weld
W7	3/8" Approx 4" Ø total weld each side (stitch weld 2-6)

NO.	DESCRIPTION	DATE	BY
1	DESIGNED		
2	CHECKED		
3	APPROVED		
4	CONSTRUCTION		
5	AS-BUILT		
6	REVISION		
7	REVISION		
8	REVISION		
9	REVISION		
10	REVISION		
11	REVISION		
12	REVISION		
13	REVISION		
14	REVISION		
15	REVISION		
16	REVISION		
17	REVISION		
18	REVISION		
19	REVISION		
20	REVISION		

MPR / ISOCA-ES, INC.
SOUTH PLAZA
889 33
1085-11-6



DIMENSIONS			
POINT	INCH	POINT	INCH
A	4'-0"	G	5"
B P.P.M	4'-9 1/4"	H	6"
C	1'-0"	I	5/8"
D	1'-5/8"	J	17/8"
E	5/8"	K	1"
F	7"	L	1'-2"

WELD DIMENSIONS	
POINT	INCH
W1	inaccessible
W2	3/8"
W3	3/8"
W4	1/4"
W5	8 1/4" TO PIPE

2-6 PLCS
3/8"

8" dia MS

1/4"

4'-0"

2 PLCS 3/8"

4'-10" (±) 3/4"

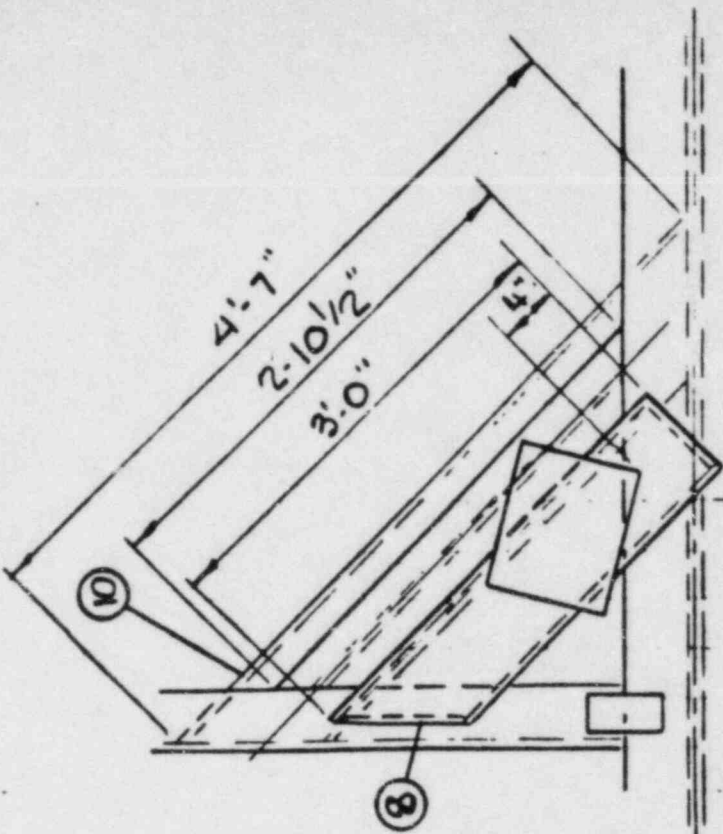
24"

1/4"

EL. 46'-0 1/8"

3'-11"

MNCR 85-211-5

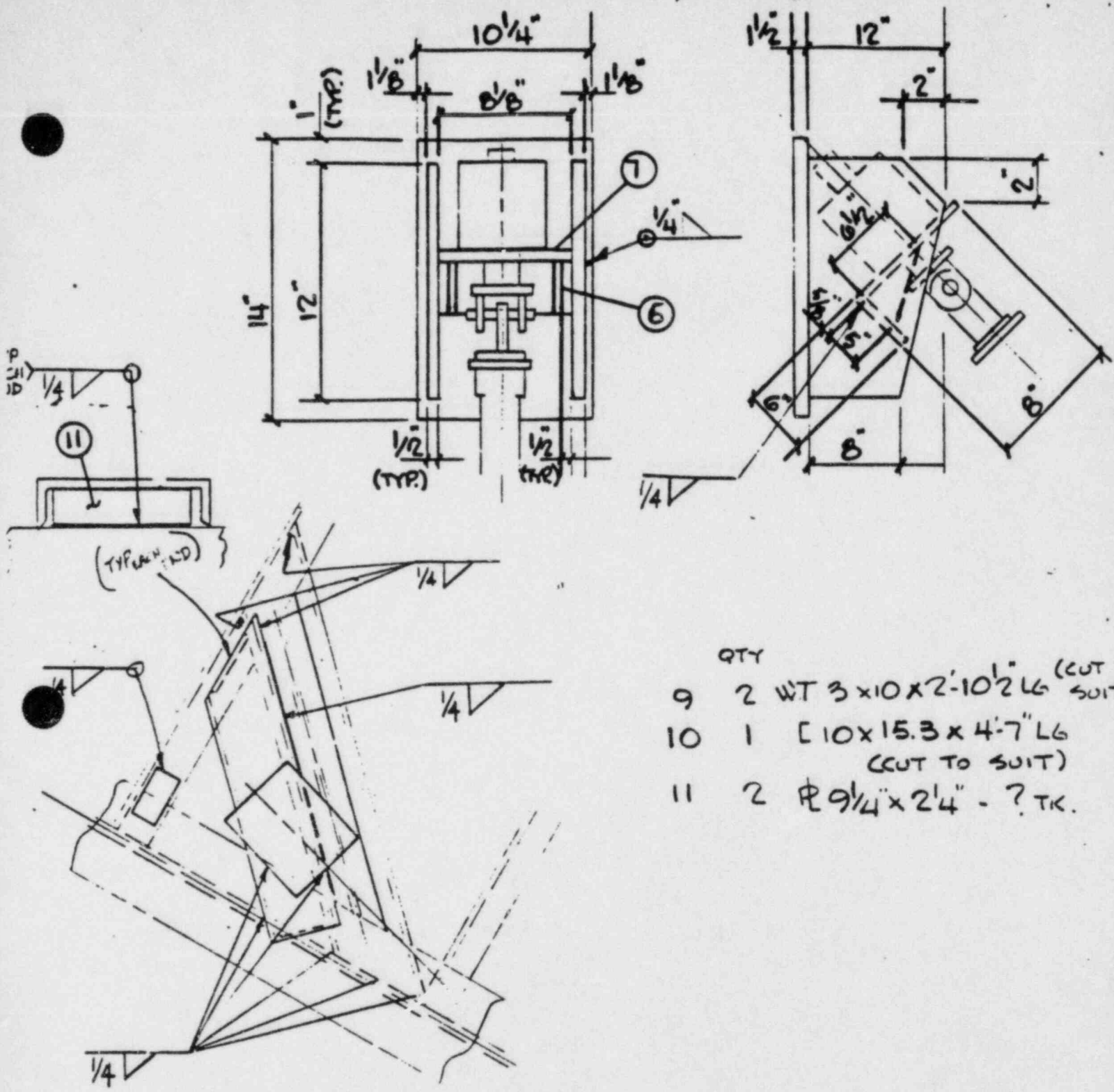


QTY

- 1 1 BERGEN PATERSON VARIABLE SPRING ASSY.
- 2 1 PIPE CLAMP 8"φ EA-3 (B") (4" WIDE x 5/8" THK)
- 3 2 R 12 x 12 x 1/2 (CUT TO SUIT)
- 4 1 R 14 x 10 1/4 x 1 1/2
- 5 1 PACIFIC SCIENTIFIC PSA-10 W/ TRANS TUBE KIT
- 6 2 R 6 1/2 x 5" x 3/8" (CUT TO SUIT)
- 7 1 L 8" x 6" x 5/8" - 8" LG.
- 8 1 I 10 x 15.3 x 3'-0" LG (CUT TO SUIT)

21 WF 96#
EXIST.

53



- QTY
- 9 2 WT 3x10x2-10 1/2 LG (CUT TO SUIT)
 - 10 1 [10x15.3x4-7 LG (CUT TO SUIT)
 - 11 2 ϕ 9 1/4 x 2 1/4 - ? TK.

S3
 SUPPORT
 EACH END!
 PIN TO PIN DIM ON SNUBBERS
 LOCATION ON PIPE

Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORMNO A _____
RETENTION _____

1. Identification

Originator: MARCUS A. JOHNSON / Gashlin Date/Time: 10-20-85
Material, Part, Component, etc.: SUPPORT # 54

Location: DRYWELL CL 46'
Manufacturer (Name): NA Code: NA
P.R.#: NA Line #: NA Spec #: NA
System: EMRV/MAIN STEAM System Tag No.: NA
Dwg No.: 1883-19-7 Rev: B Heat Code No.: NA Other: NA

Nonconforming to (requirements): SEE DIMENSIONS AS SHOWN
ref to 2085

Description of Nonconformance: SEE DISCREPANCIES/DISPOSITION SHEET ATTACHED

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

POTENTIALLY REPORTABLE:

Important To Safety	10CFR50	10CFR21	10CFR71	10CFR73.71	L.E.R.
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Evaluated By (Name): Gashlin Date/Time: 10-21-85 0315
QC Mgr. Validation: [Signature] Date/Time: 10-21-85 1542

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____
Licensing Notified: YES NO Date/Time: _____
Hold Tags Issued: YES NO No. of Tags: _____
Tags Installed By (Name): NA Date/Time: _____
Material Segregation Required: YES NO
Segregation Verified By (Name): NA Date/Time: _____

ACTION PARTY (Name): J. MALONEY Dept: PLANT MATERIEC

Forward to responsible individual/department (Action Party).

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: Provide engineering evaluation as to adequacy of as built configuration, if adequate Revise drawings to reflect AS built.

Evaluation/Disposition By (Name): [Signature]

Dept: Plant Manager

Date: 10-21-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (Include applicable work documents, limitations, re-test requirements, etc.)

SEE ATTACHED SHEET FOR JUSTIFICATION

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No.: _____

Evaluated By (Name): [Signature]

Dept: To E. EDIC. MECH.

Date: 10-21-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: [Signature]

Date: 10-21-85

Conditional Release Issued: YES NO
Reject Tags Issued: YES NO

AI/ANI Concurrence: YES NO
Signature: NA

Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____

Work/Shipping Order No.: _____ Other: _____

Verified By (Name/Title/Date): _____

Tags/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____ Date: _____

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

① WELDS AT ITEM 1 TO EXISTING WF BEAM ARE NOT AS SHOWN ON DWG

"As Built" is Acceptable
CHANGE DWG.

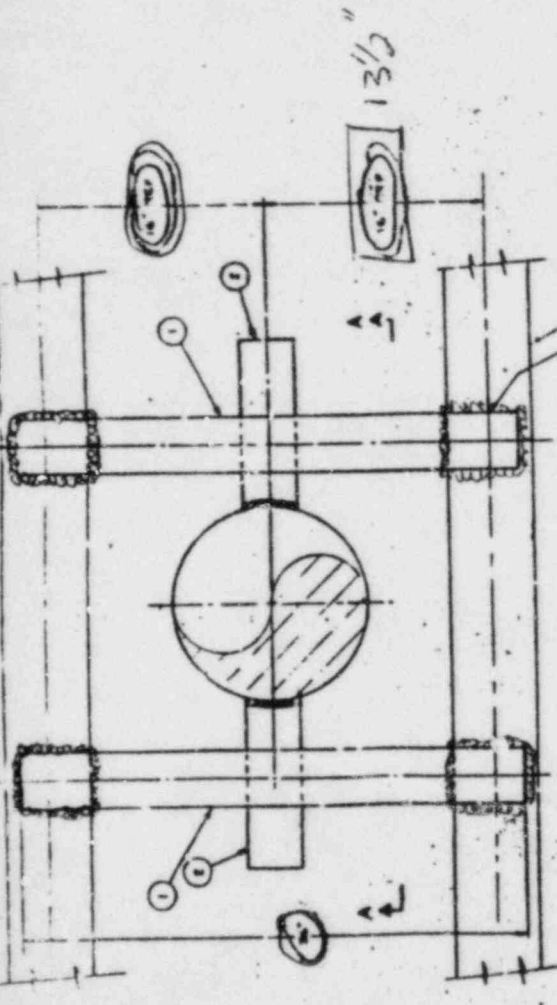
② DIMENSIONS AS SHOWN AT * ITEMS TO BE VERIFIED" ARE INCORRECT.

CHANGE DWG. to "As Built" Dimensions
NO STRUCTURAL EFFECT

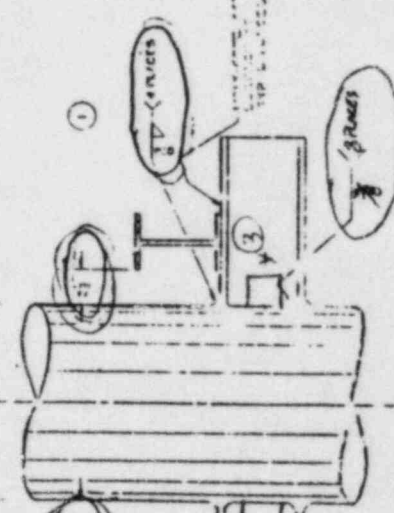
③ ITEMS 2 ARE NOTCHED AS SHOWN ON MARKED UP SKETCH

NOTCHED WF IS ACCEPTABLE.
WILL BE CALCULATED TO CONFIRM WHEN LOADS ARE KNOWN

MNC 85-211-6 (3) S4



SYSTEMS OF BEAM FRONT BEAM
 WELD SIZE IS 3/8"



ELEVATION

- ITEMS TO BE VERIFIED
 ① 6" WF BEAM 16" X 1 FT. LG
 ② 6" WF BEAM 16" X 3 FT. LG

3 FT LONG
 10 IN LONG

* BOTH ITEM ②'S ARE NOTCHED AS SHOWN ③

REVISIONS
 1. REVISED DRAWING TO SHOW THE LOCATION OF THE BEAM FRONT BEAM (13 1/2")
 2. REVISED DRAWING TO SHOW THE LOCATION OF THE BEAM FRONT BEAM (13 1/2")
 3. REVISED DRAWING TO SHOW THE LOCATION OF THE BEAM FRONT BEAM (13 1/2")
 4. REVISED DRAWING TO SHOW THE LOCATION OF THE BEAM FRONT BEAM (13 1/2")
 5. REVISED DRAWING TO SHOW THE LOCATION OF THE BEAM FRONT BEAM (13 1/2")
 6. REVISED DRAWING TO SHOW THE LOCATION OF THE BEAM FRONT BEAM (13 1/2")

REVISIONS
 1. REVISED DRAWING TO SHOW THE LOCATION OF THE BEAM FRONT BEAM (13 1/2")
 2. REVISED DRAWING TO SHOW THE LOCATION OF THE BEAM FRONT BEAM (13 1/2")
 3. REVISED DRAWING TO SHOW THE LOCATION OF THE BEAM FRONT BEAM (13 1/2")
 4. REVISED DRAWING TO SHOW THE LOCATION OF THE BEAM FRONT BEAM (13 1/2")
 5. REVISED DRAWING TO SHOW THE LOCATION OF THE BEAM FRONT BEAM (13 1/2")
 6. REVISED DRAWING TO SHOW THE LOCATION OF THE BEAM FRONT BEAM (13 1/2")

NO.	REVISION	DATE	BY
1			
2			
3			
4			
5			
6			

100 Creek - OC

Reviewed: *Bl. Likh*

SUPPORT #	<u>54</u>	VALVE #	_____
ISO DWG #	<u>Eng sketch</u>		<u>N/A</u>
ORTHO DWG #	<u>N/A</u>		<u>A</u>
SUPPORT DWG #	<u>1883-19-7</u>		_____

DANGER BT-211-6

ITEM	Y	N	N/A	REM
1. Proper Valve Orientation			✓	
2. Skin Temperature <u>100</u> °F (C.R.) (PYR)	✓			
3. Components identified in accordance with the appropriate drawing.			✓	
4. Component location is within drawing tolerances.			✓	
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.	✓			
6. Verify that all welds are completed.	✓			
7. Piping and supports are free of arc strikes.	✓			
8. Snubbers and spring hangers are installed in accordance with drawing.			✓	
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5% _____			✓	
10. Record the amount of snubber extension from the fully compressed position. T or C = _____			✓	
11. If the springs and snubbers are within: 1/4" from the topped/bottomed out position for springs, and 1/4" from the fully compressed/fully extended position for snubbers, it shall be reported.			✓	
12. Verify piping sizes. 14"	✓			
13. Hanger location in building (General area) { Description: { DRYWELL @ 46'			✓	

11 Creek - OC

SUPPORT # 54

ITEM	Y	N	N/A	REM
4. Hanger hardware:				
A. Clips			✓	
B. Clevis			✓	
C. Cotter Pins			✓	
D. Turnbuckles			✓	
E. Nuts/Bolts (Check all attachments for double nut requirements)			✓	
F. Spring Canisters			✓	
G. Locking Tabs on Nuts			✓	
H. Washers			✓	
I. Swivels			✓	
15. Hanger configuration in accordance with applicable drawings:				
A. Dimensions			✓	
B. Angles of support to system and base plate			✓	
C. All hanger attachments i.e., clips, brackets, etc. orientated correctly.			✓	
D. Strut or Snubber pin to pin distance _____			✓	
16. Weld locations:				
A. Proper weld location			✓	
B. Proper weld spacing			✓	
C. Proper number of welds			✓	
D. Thru paint (average value <u>3/8</u>)			✓	
17. Anchor Bolts:				
A. Type			✓	
B. Size _____ number _____			✓	
C. Thread engagement			✓	
D. Bolt c/c spacing			✓	
E. C/C from anchors to closet anchor _____			✓	
18. Gaps @ stops:				
A. At U-bolts or Restraints			✓	
B. At pipe penetrations			✓	
			✓	
*TOLERANCES FOR MEASUREMENT ACCURACY				
<u>Measurement</u>	<u>Tolerance</u>			
0" - 2"	± 1/16"			
N 2" - 12"	± 1/8"			
N 12" - 36"	± 1"			
N 36" - ∞	± 3"			
* Unless otherwise shown on the dwg.				
<i>Marcus A Johnson</i> 10-20-85 QC INSPECTOR(S) DATE				

Oyster Creek - QC

SUPPORT # 54

PER MNCR 85-211-6

SUPPORT DWG# 1883-19-7

Y	N	N/A	REM
---	---	-----	-----

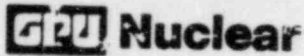
19. Confirm pipe clamp figure no. If not possible, fill in appropriate form attached.
20. Baseplate attachments location recorded on the anchor plate verification sheet.
21. For valves noted in the walkdown, record their location & orientation on the isometric drawing. Describe orientation by stating (1) direction observer is facing, and (2) angle of valve \perp to pipe \perp to nearest 30 degrees (such as hours on a clock with 12:00 being direction facing the observer).
22. For hangers where other systems (i.e. piping, conduit, etc.) are also supported, give size of this system and describe type of support and distance to upstream and downstream hangers supporting that system.

Y	N	N/A	REM
		✓	
		✓	
		✓	
		✓	

Other items as specified by calculation sheet request attached.

Marcus O. Olson 10-20-85
QC Inspector(s)/Date

Oct 24 1985



Material Nonconformance Report

MNCR Number 85-211-7

Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
 REV _____
 DATE _____
 RECTYPE _____
 LOCATION _____
 FORMNO A _____
 RETENTION _____

1. Identification

Originator: FRANK MURPHY / Crashlin Date/Time: 10/21/85-0245HR
 Material, Part, Component, etc.: HANGER EMRY-NR

Location: 46' ELEVATION IN WEST SIDE OF DRYWELL

Manufacturer (Name): N/A Code: N/A

P.R.# N/A Line # N/A Spec # N/A

System: MAIN STEAM Vent / EMRY System Tag No. N/A

Dwg No. MPR 41083-14-3 Rev A Heat Code No. N/A Other N/A

Nonconforming to (requirements): DIMENSIONAL, WELDING AND MATERIAL REQUIREMENTS AS SHOWN ON DRAWING

Description of Nonconformance: SEE ATTACHED G.C. OBS./DISCREPANCIES SHEET.

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

POTENTIALLY REPORTABLE:

Important To Safety	10CFR50	10CFR21	10CFR71	10CFR73.71	L.E.R.
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Evaluated By (Name): E. J. Crashlin Date/Time: 10-21-85 0430

QC Mgr. Validation: David Whittell Date/Time: 10-21-85/ 1540

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____

Licensing Notified: YES NO Date/Time: _____

Hold Tags Issued: YES NO No. of Tags: _____

Tags Installed By (Name): NA Date/Time: _____

Material Segregation Required: YES NO

Segregation Verified By (Name): NA Date/Time: _____

ACTION PARTY (Name): J. MALONEY Dept: PLANT MATERIALS

Forward to responsible individual/department (Action Party).

FORM 1000-ADM-7215.01-1

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: Provide engineering determination as to as-built configuration, Adequacy. If adequate revise ~~draw~~ drawing to reflect as built.

Evaluation/Disposition By (Name): [Signature] Dept: Plant material
Date: 10-21-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (Include applicable work documents, limitations, re-test requirements, etc.)

SEE AS-BUILT DRAWING FOR JUSTIFICATION

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No.: _____

Evaluated By (Name): W.P. HARRIS Dept: T.F. ENG. MECH.
Date: 10-21-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: [Signature] Date: 10-21-85

Conditional Release Issued: YES NO Reject Tags Issued: YES NO

AI/A.NI Concurrence: YES NO Signature: NA Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____

Work/Shipping Order No.: _____ Other: _____

Verified By (Name/Title/Date): _____

s/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____ Date: _____

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

① DRAWING DIMENSIONS VARY FROM ACTUAL AS FOUND DIMENSIONS

USE "AS BUILT" DIMS. DIMENSIONS DO NOT AFFECT STRUCTURAL INTEGRITY CHANGE DIMS.

② WELDING DETAILS (FOR LOCATION) VARY FROM ACTUAL AS FOUND WELDS IN FIELD

WELD IS ACCEPTABLE

③ SNUBBER ASSEMBLY (ITEM 5) PART NR AND TYPE VARY FROM SNUBBER ASSEMBLY FOUND IN FIELD. (HYDRAULIC SHOWN, MECHANICAL FOUND)
• PLATE SIZE VARIES SLIGHTLY (ITEM # 8) FROM PLATE SIZE MEASURED IN FIELD

CHANGE DIMS. TO CONFORM TO "AS BUILT"
NO STRUCTURAL EFFECT

④ LOOSE BOLT FOUND ON BOTTOM BOLT ON 3 BOLT CLAMP.

LOOSE BOLT TIGHTENED PER GENERIC ~~WELD~~ SWEAR FORM _{WELD}

SOUD (CLEAN)

MNCR-85-211-7

(3)

Sheet 53 D N2

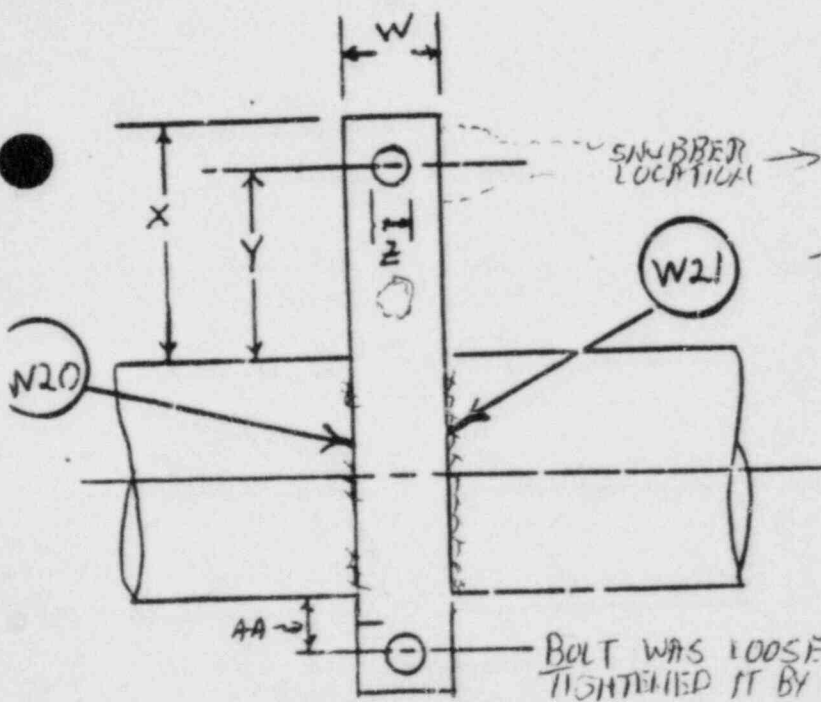
HCR #

EMRY-N2

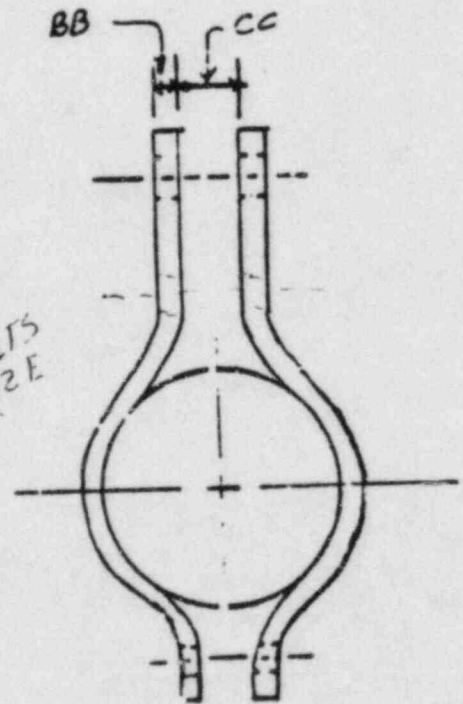
SNUBBER INFO
(FOUDD)

PACIFIC SCIENTIFIC
MECHANICAL SNUBBER
STROKE = 6"
RATED LOAD = 11,000#
PART # = 1801107-5

#3

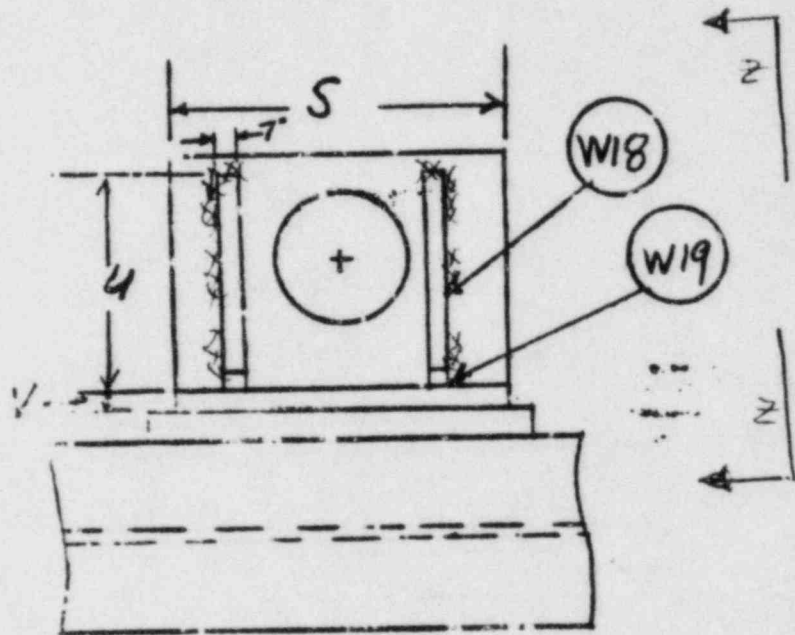
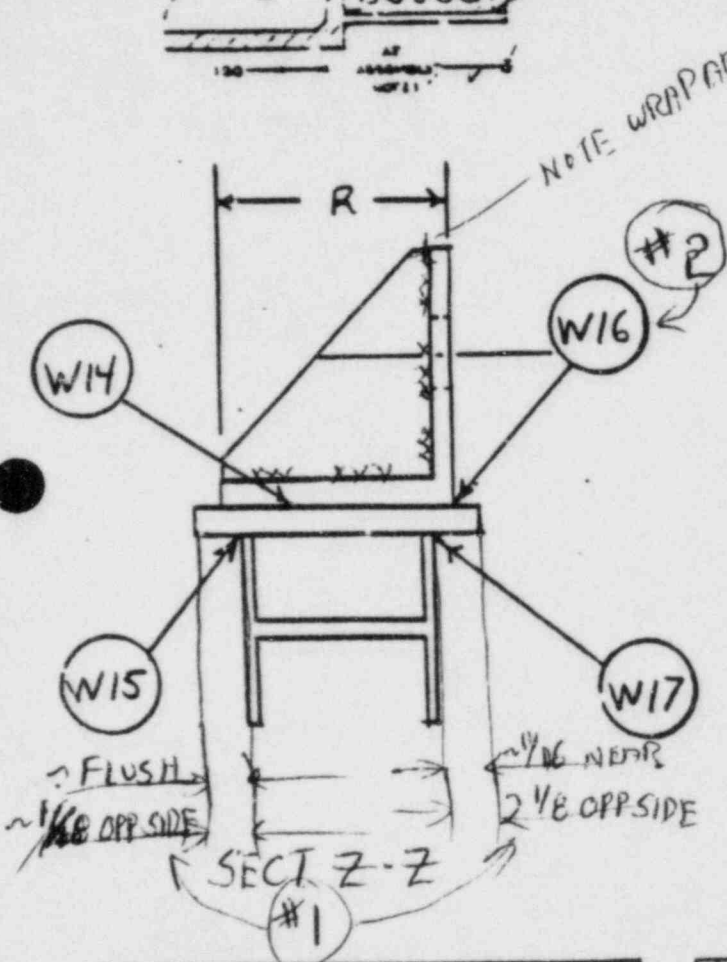
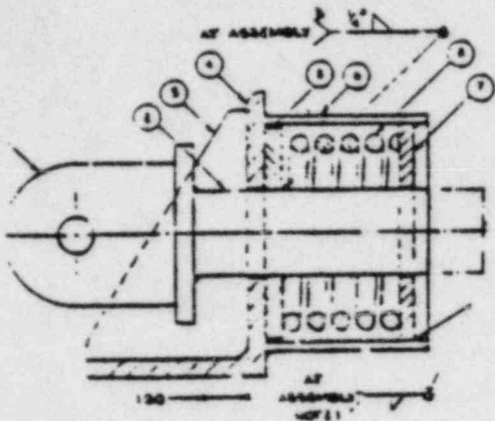


THREE
BOLT
CLAMP
3 BOLTS
ALL
SAME SIZE
1" x 5"



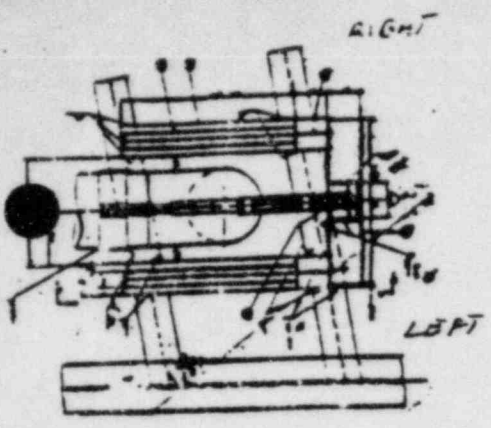
DIMENSIONS			
POINT	INCH	POINT	INCH
W	4 1/2"		
X	9"		
Y	5"		
Z	1"		
AA	2 1/2		
BB	7/8"		
CC	1 1/4"		

WELD DIMENSIONS	
W20	(NEAR SIDE) 3/8
	(FAR SIDE) 3/8
W21	(NEAR SIDE) 3/8
	(FAR SIDE) 3/4

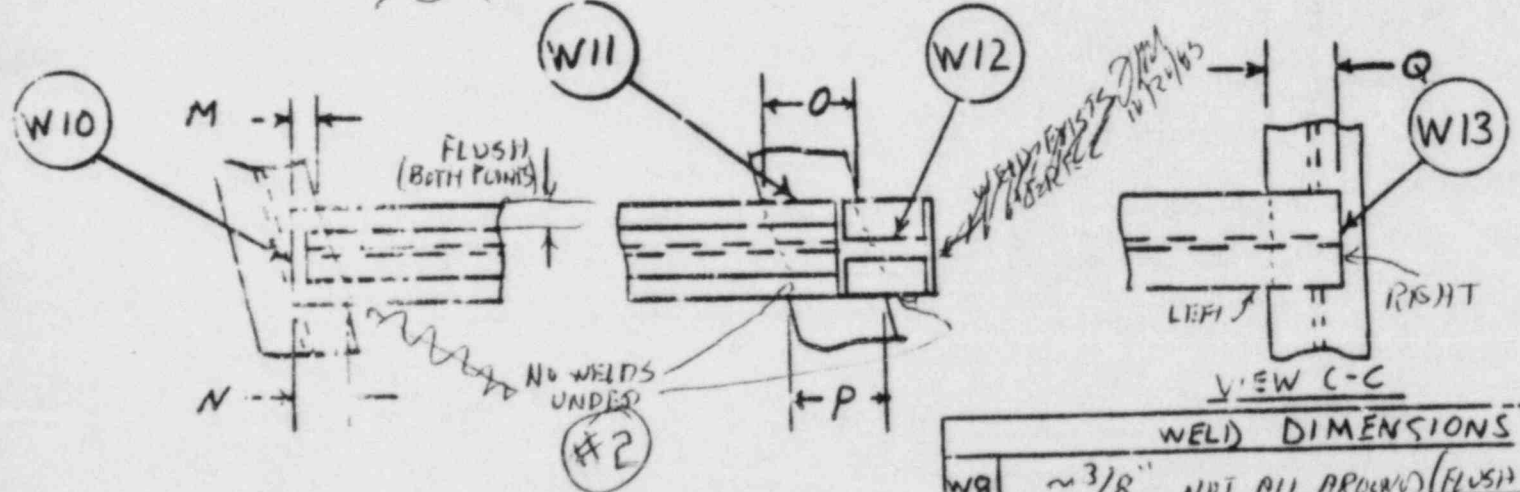
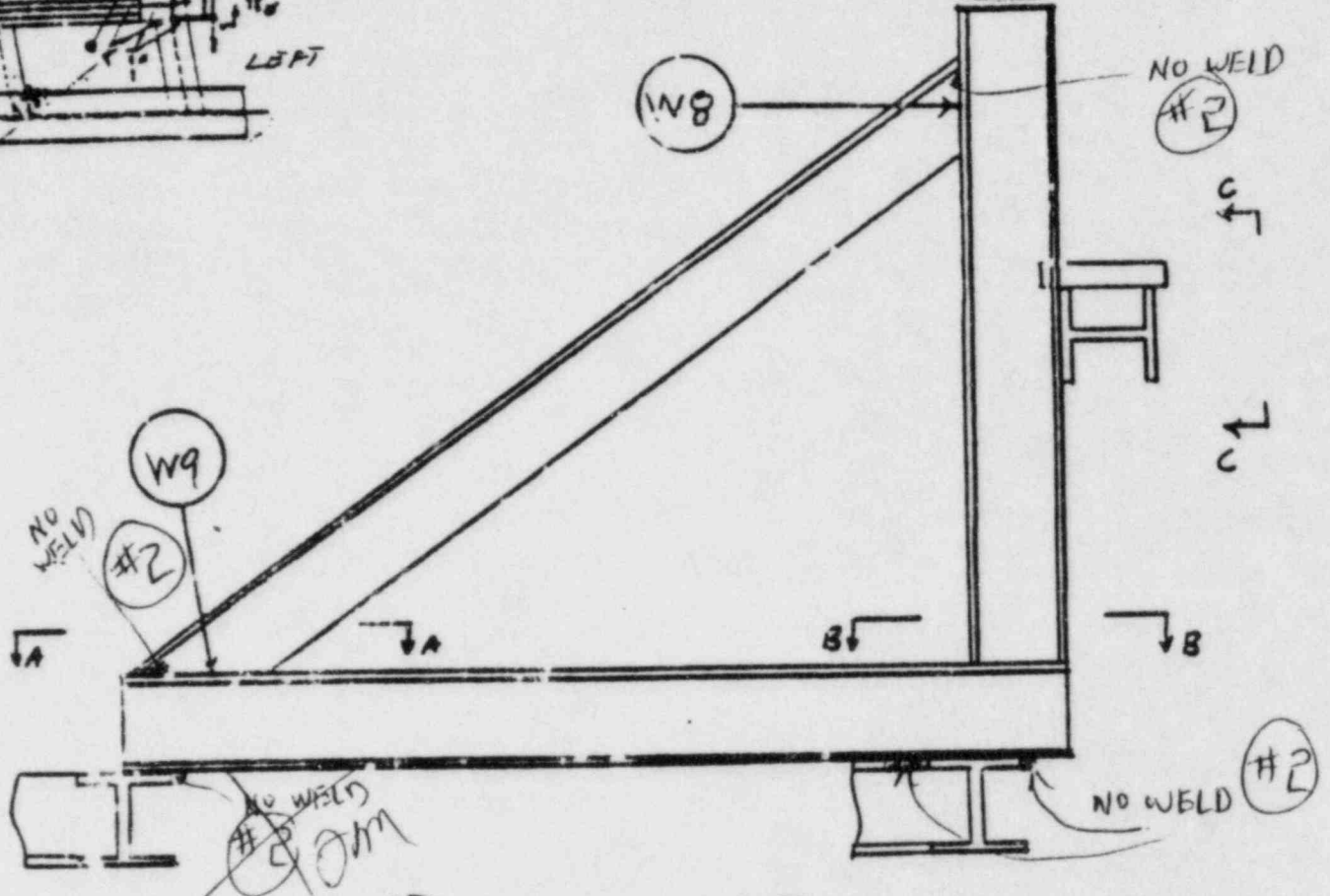


DIMENSIONS			
POINT	INCH	POINT	INCH
R	5"		
S	7"		
U	7 1/4"		
V	3/8"		
T	3/8"		

WELD DIMENSIONS			
#	(NEAR SIDE)		(FAR SIDE)
W14	$5/8$ "		$5/8$ "
W15	FLUSH TO $\sim 1/8$ " ON FAR SIDE #2		
#	(RIGHT SIDE)		(LEFT SIDE)
W16	$1/4$ "		$5/8$ "
W17	$\sim 1/16$ TO $1/8$ " ON FAR SIDE		
W18	(RIGHT PLATE) AS SHOWN	$1/4$ "	(LEFT PLATE) $1/4$ "
W19	(RIGHT PLATE) AS SHOWN	$1/4$ "	(LEFT PLATE) $1/4$ "



RIGHT HAND SIDE



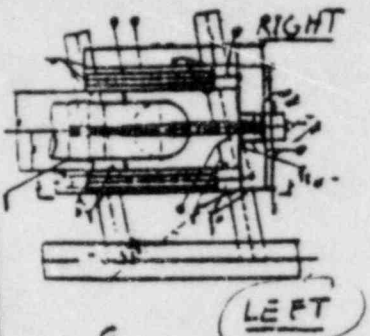
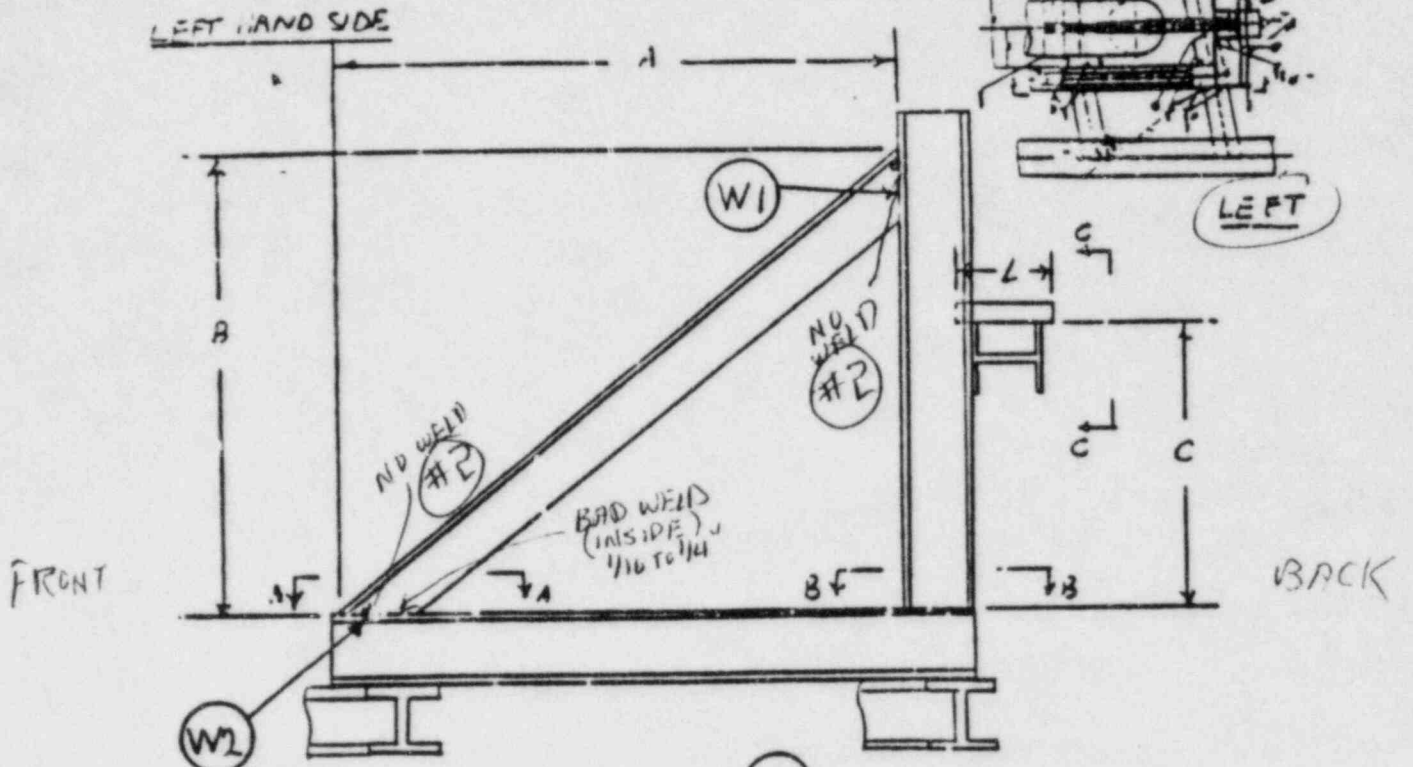
VIEW A-A

VIEW B-B

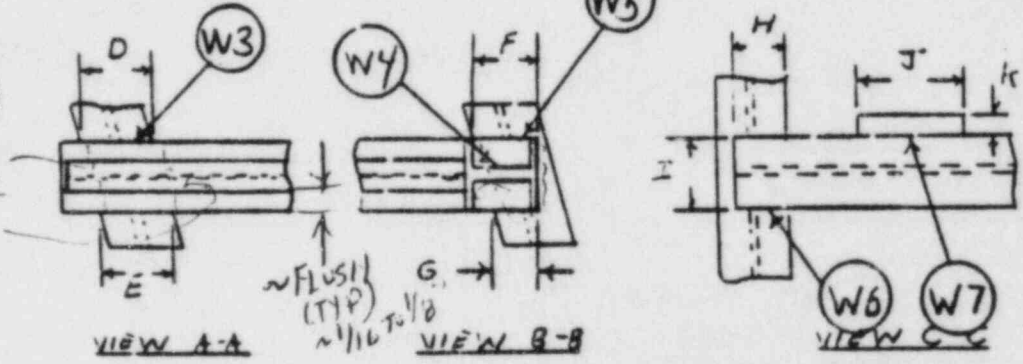
WELD DIMENSIONS

DIMENSIONS					
POINT	INCH	POINT	INCH	POINT	INCH
M	3 1/2"				
N	4 1/2"				
O	6 1/4"				
P	6 1/4"				
Q	3 1/2"				

W8	~ 3/8"	NOT ALL AROUND (FLUSH BACK)
W9	~ 3/8"	NOT ALL AROUND (FLUSH BACK)
W10	~ 3/8"	3 SIDES BUT NOT UNDER SIDE (NEAR & FAR UNDER RIGHT UNDER LEFT)
W11		BOTH ~ 3/8 BUT NOT UNDER SIDE
W12	~ 1/4"	ALL AROUND (SPATTER)
W13	RIGHT SIDE AS SHOWN SECT C C ~ 3/8	LEFT SIDE AS SHOWN NEAR SIDE ~ 3/8
	RIGHT SIDE OPP. VIEW ~ 3/8	LEFT SIDE OPP. VIEW ~ 3/8



DM
NO WELDS UNDER



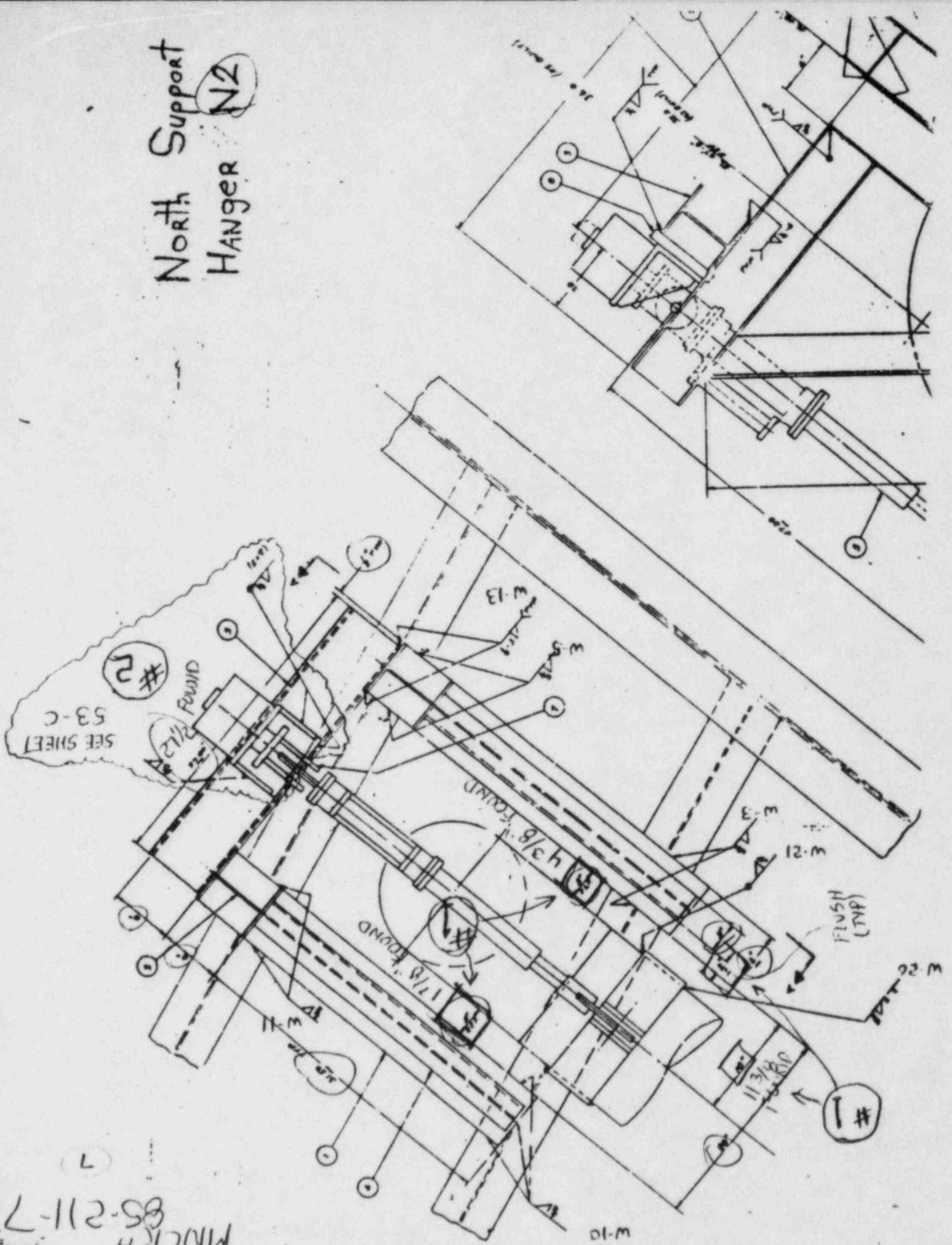
DIMENSIONS							
POINT	INCH	POINT	INCH	POINT	INCH	POINT	INCH
A	30 1/2	E	6"	I	4"		
B	28 1/4	F	5 1/4"	J	8 1/2"		
C	20 3/4	G	4 1/8"	K	1 1/8"		
D	6	H	3 1/4"	L	6 1/4" NEAR SIDE		
					6 3/8" FAR SIDE		

WELD DIMENSIONS	
W1	~ 3/8" NOT ALL AROUND
W2	~ 3/8" (INSIDE = ~ 1/16 TO 1/4") (NOT ALL AROUND)
W3	~ 3/8" NOT UNDERSIDE <i>DM</i>
W4	~ 1/4" INSIDES + BACK - ~ 3/8" IN FRONT
W5	(NEAR + FAR + RIGHT + UNDER) ~ 3/8" - NOT UNDERSIDE
W6	(LEFT SIDE AS SHOWN ABOVE) ~ 3/8" (RIGHT SIDE AS SHOWN BEFORE) ~ 3/8"
W7	SEE WELD # 15 AND # 17 (SAME)

CONNECTS WITH W2 (TIP)



North Support
HANGER N2

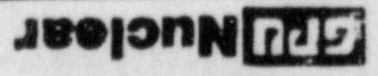


SEE SHEET
53-C

MDCRH
85-211-7

Originator	Date	Reviewed by	Date
Subject	Calc No.	Rev No.	Sheet No.

Calculation Sheet



Subject	Calc No.	Rev No.	Sheet No.
Originator	Date	Reviewed by	52 of

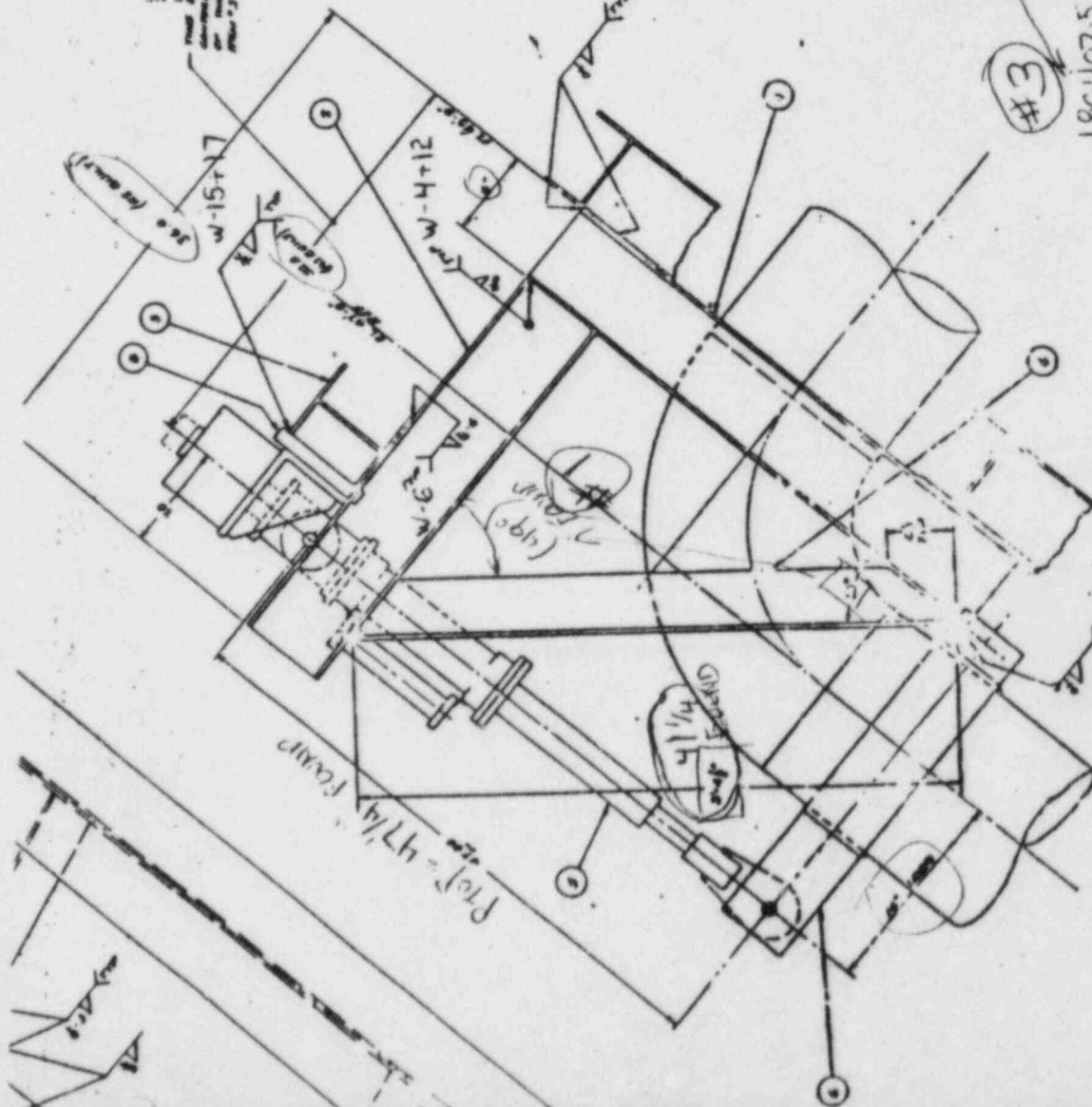
MNCR# 85-211-7 (8)

THIS DRAWING IS TO BE REPRODUCED AS PART OF THE RECORD OF THE PROJECT AND IS TO BE MAINTAINED AS SUCH. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS AND TO OBTAIN ALL NECESSARY APPROVALS FROM THE REGULATORY AGENCIES.

NOTE: 1. MAXIMUM SUPPORT REACTION AT ANCHOR, NEW HELLS AND ANCHORS TO EXISTING WALL FLANGES
2. NEW ANCHORS SHALL BE (1) 6" DIA. STEEL ANCHORS, (2) 6" DIA. STEEL ANCHORS WITH 1/2" DIA. STEEL PLATE, (3) 6" DIA. STEEL ANCHORS WITH 1/2" DIA. STEEL PLATE AND 1/2" DIA. STEEL PLATE TO EXISTING WALL FLANGES. SEE THE ATTACHED DRAWINGS FOR DETAILS.

REVISIONS SHEET
NO. 1: 8/12/85
NO. 2: 8/12/85
NO. 3: 8/12/85

1	PLATE 8" X 8" X 1/2"	SECTION 81
2	STEEL ANCHOR 6" DIA. X 12"	SECTION 82
3	STEEL ANCHOR 6" DIA. X 12"	SECTION 83
4	STEEL ANCHOR 6" DIA. X 12"	SECTION 84
5	STEEL ANCHOR 6" DIA. X 12"	SECTION 85
6	STEEL ANCHOR 6" DIA. X 12"	SECTION 86
7	STEEL ANCHOR 6" DIA. X 12"	SECTION 87
8	STEEL ANCHOR 6" DIA. X 12"	SECTION 88
9	STEEL ANCHOR 6" DIA. X 12"	SECTION 89
10	STEEL ANCHOR 6" DIA. X 12"	SECTION 90
11	STEEL ANCHOR 6" DIA. X 12"	SECTION 91
12	STEEL ANCHOR 6" DIA. X 12"	SECTION 92
13	STEEL ANCHOR 6" DIA. X 12"	SECTION 93
14	STEEL ANCHOR 6" DIA. X 12"	SECTION 94
15	STEEL ANCHOR 6" DIA. X 12"	SECTION 95
16	STEEL ANCHOR 6" DIA. X 12"	SECTION 96
17	STEEL ANCHOR 6" DIA. X 12"	SECTION 97
18	STEEL ANCHOR 6" DIA. X 12"	SECTION 98
19	STEEL ANCHOR 6" DIA. X 12"	SECTION 99
20	STEEL ANCHOR 6" DIA. X 12"	SECTION 100



#3
18011075
ON TECH.
SUBJECT

#2
W-1+2+8+9
SECTION A-A

MPR ASSOCIATES, INC.
1003-14-3

Creek - OC

REVIEWED: *Bl. Likh*

SUPPORT # EMRV-NIP
 ISO DWG # Eng Sketch
 ORTHO DWG # N/A
 SUPPORT DWG # 1083-14-3 REV

VALVE # N/A

MNCR 85-211-7

ITEM	Y	N	N/A	REM
1. Proper Valve Orientation			✓	
2. Skin Temperature <u>97.6</u> °F (C.R.) (PYR) FROM PIPING	✓			
3. Components identified in accordance with the appropriate drawing.			✓	
4. Component location is within drawing tolerances.			✓	
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.			✓	
6. Verify that all welds are completed.		✓		
7. Piping and supports are free of arc strikes.	✓			
8. Snubbers and spring hangers are installed in accordance with drawing.		✓		
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5%			✓	
10. Record the amount of snubber extension from the fully compressed position. T or C = <u>3 1/2"</u> recorded	✓			
11. If the springs and snubbers are within: 1/4" from the topped/bottomed out position for springs, and 1/4" from the fully compressed/fully extended position for snubbers, it shall be reported.		✓		
12. Verify piping sizes. <u>1/4" DIA</u>	✓			<i>am</i>
13. Hanger location in building (General area) { Description: <u>4.6' ELEVATION ON WEST SIDE OF DRILLWELL</u> }	✓			

Creek - OC

SUPPORT # EMRV-N2

ITEM MNCR# 85-211-7

Y	N	N/A	REM
---	---	-----	-----

4. Hanger hardware:

- A. Clips
- B. Clevis
- C. Cotter Pins
- D. Turnbuckles
- E. Nuts/Bolts (Check all attachments for double nut requirements)
- F. Spring Canisters (was spring)
- G. Locking Tabs on Nuts
- H. Washers
- I. Swivels

			✓
✓			
✓			
		✓	
✓			
		✓	
		✓	
		✓	

15. Hanger configuration in accordance with applicable drawings:

- A. Dimensions
- B. Angles of support to system and base plate
- C. All hanger attachments i.e., clips, brackets, etc. orientated correctly.
- D. Strut or Snubber pin to pin distance 47 1/4"

		✓	
		✓	
✓			
✓			

16. Weld locations:

- A. Proper weld location
- B. Proper weld spacing
- C. Proper number of welds
- D. Thru paint (average value SEE DMP SHEET)

✓	✓		
✓			
✓			

17. Anchor Bolts:

- A. Type
- B. Size _____ number _____
- C. Thread engagement
- D. Bolt c/c spacing
- E. C/C from anchors to closet anchor _____

			✓
			✓
			✓
			✓
			✓

18. Gaps @ stops:

- A. At U-bolts or Restraints
- B. At pipe penetrations

			✓
			✓

*TOLERANCES FOR MEASUREMENT ACCURACY

Measurement	Tolerance
0" - 2"	± 1/16"
2" - 12"	± 1/8"
12" - 36"	± 1"
36" - ∞	± 3"

* Unless otherwise shown on the dwg.

QC Inspector 10/20/85
 QC INSPECTOR(S) DATE

Oyster Creek - QC

SUPPORT # EMR/NLP

PER MNCR 85-211-7

SUPPORT DWG# 1083-14-3

REV-

	Y	N	N/A	REM
19. Confirm pipe clamp figure no. If not possible, fill in appropriate form attached. <u>3 BOLT CLAMP</u>	✓			
20. Baseplate attachments location recorded on the anchor plate verification sheet.			✓	
21. For valves noted in the walkdown, record their location & orientation on the isometric drawing. Describe orientation by stating (1) direction observer is facing, and (2) angle of valve \perp to pipe \perp to nearest 30 degrees (such as hours on a clock with 12:00 being direction facing the observer).			✓	
22. For hangers where other systems (i.e. piping, conduit, etc.) are also supported, give size of this system and describe type of support and distance to upstream and downstream hangers supporting that system.			✓	
Other items as specified by calculation sheet request attached.				

Frank M. Murphy 10/20/85
QC Inspector(s)/Date

Oyster Creek - QC

SUPPORT # EMRV-N2

REF. MNCR 85-211-7

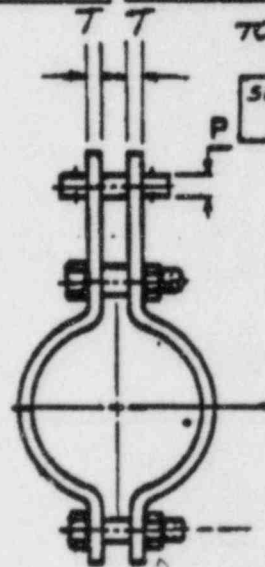
SUPPORT DWG # 1083-14-3 PBY

SYSTEM MAIN STEAM VENT / EMRV

3 BOLT CLAMP

TOLERANCE TOLERANCE
 $\pm .01"$ $\pm .01"$

.875 .875



TOLERANCE
 $\pm .01"$

SEE SPACE
BELOW

- PIN
- BOLT
- STUD

4 1/2"

TOLERANCE
 $\pm 1/16"$

#4
LOOSE
BOLT

P = LOAD BOLT SIZE/LENGTH 1" DIA - 5" LONG

Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORMNO A _____
RETENTION _____

1. Identification

Originator: Ed Gashlin / JAMES W. COLE Date/Time: 10/21/85 - 3 AM
Material, Part, Component, etc.: PLATFORM SPRING HANGER MSV-H1

Location: 48'3" INSIDE DRYWELL 180° LEFT OF AIRLOCK

Manufacturer (Name): BERGEN PATTERSON Code: N/A

P.R.# N/A Line # N/A Spec # N/A

System: MAIN STEAM Vent / EMRV System Tag No. N/A

Dwg No. BP 651 Heat Code No. N/A Other N/A

Nonconforming to (requirements): WELD SIZE, ELEVATION (OF PIPE), LOCATION DIMENSIONS DO NOT CONFORM TO HANGER DWG. REQUIREMENTS. CLIP & DIMENSIONS & DETAILS NOT SHOWN ON HANGER DRAWING.

Description of Nonconformance: SEE ATTACHED DISCREPANCY SHEETS.

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

POTENTIALLY REPORTABLE:

Important To Safety	<u>10CFR50</u>	<u>10CFR21</u>	<u>10CFR71</u>	<u>10CFR73.71</u>	<u>L.E.R.</u>
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Evaluated By (Name): Ed Gashlin Date/Time: 10-21-85 0445
QC Mgr. Validation: David [Signature] Date/Time: 10-22-85/0850

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____
Licensing Notified: YES NO Date/Time: _____
Hold Tags Issued: YES NO No. of Tags: 2
Tags Installed By (Name): NA Date/Time: _____
Material Segregation Required: YES NO
Segregation Verified By (Name): NA Date/Time: _____

ACTION PARTY (Name): J.P. Maloney Dept: Plant Material

Forward to responsible individual/department (Action Party).

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: Provide engineering determination as to adequacy of rebuilt configuration. If adequate reuse drawing to reflect as built.

Evaluation/Disposition By (Name): [Signature]

Dept: Plant material
Date: 10-22-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (Include applicable work documents, limitations, re-test requirements, etc.)

SEE ATTACHED SHEET FOR JUSTIFICATION.

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No. _____

Evaluated By (Name): L LEU

Dept: T.F. ENGINEER'S MECHANICS
Date: 10-21-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: [Signature]

Date: 10-23-85

Conditional Release Issued: YES NO
Reject Tags Issued: YES NO

AI/ANI Concurrence: YES NO
Signature: NA

Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____

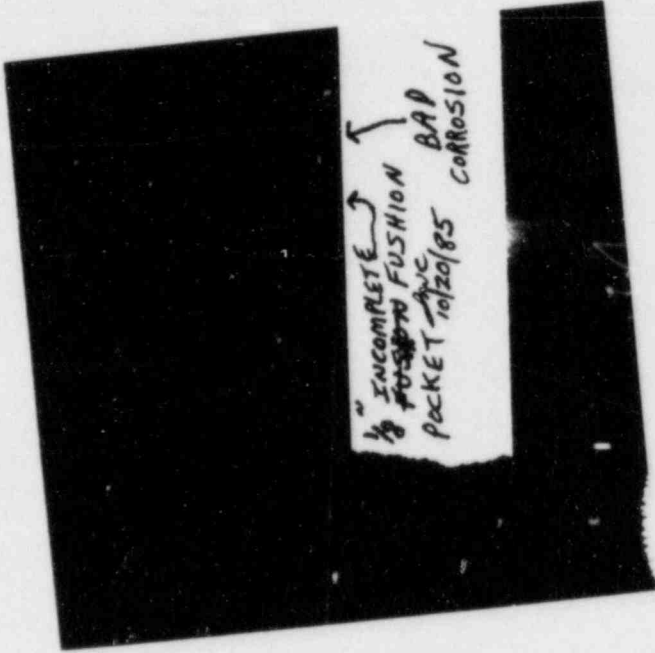
Work/Shipping Order No.: _____ Other: _____

Verified By (Name/Title/Date): _____

Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____ Date: _____



C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

① PIPE ATTACHMENT WELD FOR ITEM #1 IS UNDERSIZED AND BADLY CORRODED, AND HAS (IN COMPLETE FUSION IN THREE PLACES). INCOMPLETE FUSION POCKETS ARE APPROXIMATELY 1/8" IN DIAMETER.

W = $\frac{1600 \times 6.25 \times .35}{\pi \cdot (2.875)^2 \cdot .707 \times 18000} = -.04 > .4$ VERY SMALL.
WELD IS O.K.

② SPRING CAN LOCATION DIMENSION IS OUT OF TOLERANCE BY $2\frac{7}{8}$ "
JWC
10/20/85

$f_b = \frac{1600 \times 99.25}{4 \times 2.24} = 17724 \text{ PSI} < 21600 \text{ PSI}$ O.K.
(CONSERV)
SHEAR STRESS IS SMALL
DIMENSION OFF IS O.K.

③ ELEVATION OF PIPE IS OUT OF TOLERANCE BY 12.15"
JWC
10/20/85

SINGLE ITEM #1 IS OFF $\frac{3}{4}$ ". NOT SIGNIFICANT.
REV. DWG.

④ MOLY COTE (SLIP COATING) WAS NOT PRESENT BETWEEN SPRING CAN PEDESTAL AND PIPE ATTACHMENT AND PIPE ATTACHMENT IS 1" OFF CENTER IN RELATION TO SPRING CAN PEDESTAL.

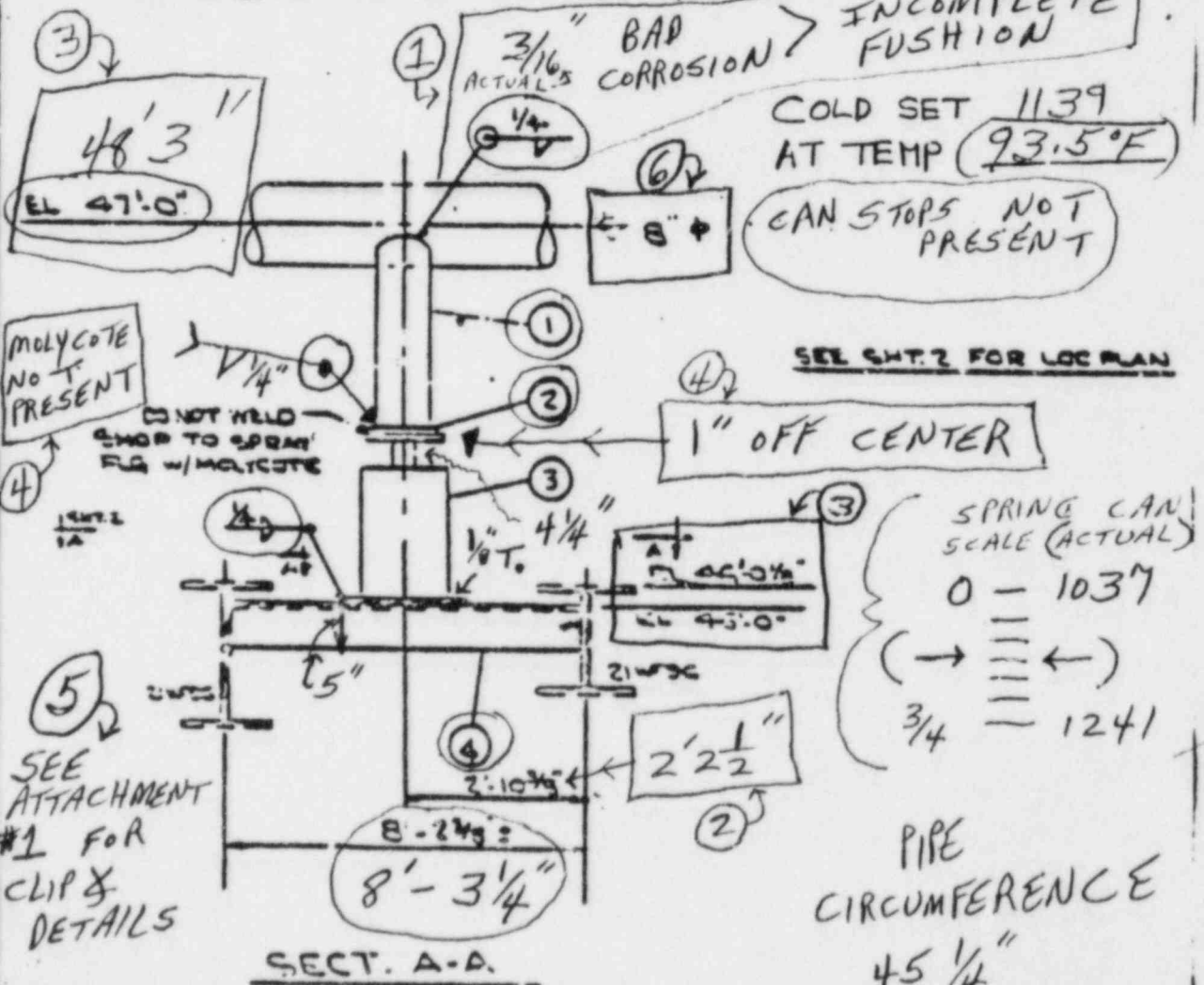
$\frac{1600}{1.7 \times 21000} + \frac{1600 \times 6.25}{1.06 \times 21600} = -.48 < 1.0$ O.K.
 $\left(\frac{2.1 \times 6.25}{.95} = 14 \right) F_s = 21000 \text{ PSI}$

Subject	Calc. No.	Rev. No.	Sheet No.
Originator	Date	Reviewed by	Date

ITEM NO.	NO. REQ'D.	DESCRIPTION	ENGINEERING OR PART NO.	REMARKS
(1)	(1)	(6 1/4") 2 1/2" x 1/40 x 0'-7" L ₁ TEMP. HR-8	TEMP. 4	
(2)	(1)	PART 114-8 (1/2" x 5" x 5") R	72	
(3)	(1)	V52F-11 HL: 1600 CL: 1532 MVT: 1/4" DN		
(4)	(1)	SAS S: 8'-1 3/4" 8'-3 1/4"		1.H. 8 12 1/8" USE 0.18 CORN ON TO DER A (DET B) GND CORN DNE 1001 AS 4 3/4"

DESCRIPTION

* ITEMS TO BE VERIFIED: 1/4



MOLYCOTE NOT PRESENT

DO NOT WELD EXPOS TO SPRAY PA W/MOLYCOTE

SEE SHT. 2 FOR LOC PLAN

SPRING CAN SCALE (ACTUAL)

0 - 103"
 (→ ←)
 3/4 - 124"

PIPE CIRCUMFERENCE 45 1/4"

SEE ATTACHMENT #1 FOR CLIP & DETAILS

SECT. A-A

REF. DWGS.
 DER. PAT. INDEX 650
 US PAT. NO. 1,775-11,26
 REGISTERED AT U.S. PAT. OFFICE BY USPTAL

OVER LOAD: 1500"

SHEET 1 OF 2

CURNS & COE INC., P. O. BOX 259 104
 CURNS & COE INC.
 DRYER CREEK STA UNIT 81

PLING ITEM MAIN STREAM VENT.
 REF. LOCATION PLAN B & R DWG: 2103
 MAKE UP MSV-HI 21001

ATTACHMENT # 1



NO OTHER COMPONENTS SUPPORTED FROM MAIN \times
 MAIN \times - 3" x 5" x $\frac{3}{8}$ " (ITEM #4)

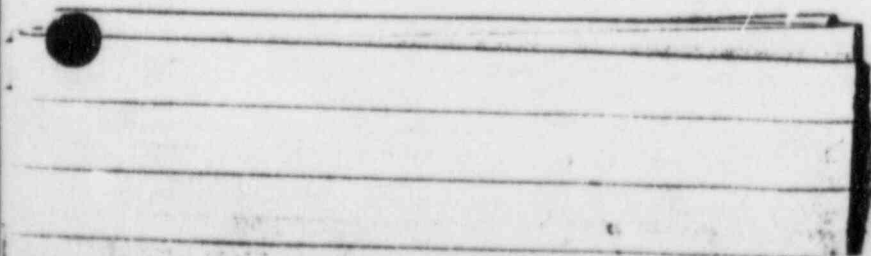
(2) EAST CLIP \times 'S - 3" W x $3\frac{1}{4}$ " x $5\frac{1}{4}$ " x $\frac{3}{8}$ "

$\frac{1}{8}$ " FILLETS ACROSS TOPS > BOTTOMS NOT WELDED.
 $\frac{3}{16}$ " FILLETS ACROSS SIDES

(2) WEST CLIP \times 'S $3\frac{1}{8}$ " x $3\frac{1}{4}$ " x $5\frac{1}{4}$ " x 3" W
 (70° SKEW)

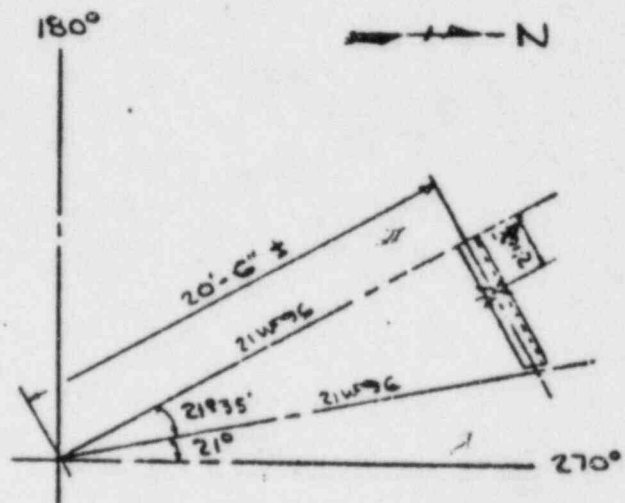
$\frac{1}{4}$ " FILLETS ACROSS TOP & SIDE TO MAIN BEAM ONLY
 (WELDS)

BOLTED WITH 2) $\frac{7}{8}$ " BOLTS/HEX NUTS TO MAIN \times
 SPACED $1\frac{1}{2}$ " CENTER TO CENTER HAS FULL
 ENGAGEMENT OF THREAD & TIGHT.

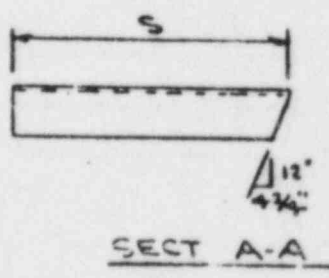


Subject		Calc. No.	Rev. No.	Sheet No
Originator	Date	Reviewed by	Date	

DESCRIPTION		DATE	APP	REV	DATE
10					
9					
8					
7					
6					



PLAN



OK

SHT. 2 OF 2

BURNS & ROE, INC., P. O. #BR-2299-104	PIPING SYSTEM	MAIN STEAM VENT
BURNS & ROE, INC.	REF	BIR DWG: 2103
SISTER CREEK STA. UNIT #1	LOCATION PLAN	
	MARK NO.	MSV-HI
	NO. REQD.	1

DATE	JRS	JOB NO	5-4-67	DRAWING NO	60F
DRAWN		BERGEN PIPESUPPORT CORP.		NEW YORK, N. Y.	

HANGER # M.S.V. - H.1

MICR # 85-211-8

DWG. # B.P. 651A

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

5 CLIP & DETAILS SHOWN ON ATTACHMENT #1, ARE NOT SHOWN ON THE HANGER DRAWING.

REV DWG.

6 HANGER DRAWING SHOWS 8" DIA. PIPE SIZE, BUT ACTUAL PIPE DIAMETER IS 14".

REV DWG.

111 Creek - OC

Reviewed: Bl. Likh

SUPPORT # MSV-H1
 ISO DWG # Eng Sketch
 ORTHO DWG # N/A
 SUPPORT DWG # BP 651 A

VALVE # N/A
N/A
N/A
N/A

MNCR 85-211-8

ITEM	Y	N	N/A	REM
1. Proper Valve Orientation			X	
2. Skin Temperature <u>93.5 °F (C.R.) (PYR)</u>	X			
3. Components identified in accordance with the appropriate drawing.			X	
4. Component location is within drawing tolerances.			X	
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.		X		
6. Verify that all welds are completed.		X		
7. Piping and supports are free of arc strikes.	X			
8. Snubbers and spring hangers are installed in accordance with drawing.		X		
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5% <u>1139</u>	X			
10. Record the amount of snubber extension from the fully compressed position. T or C = <u>N/A</u>			X	
11. If the springs and snubbers are within: 1/4" from the topped/bottomed out position for springs, and 1/4" from the fully compressed/fully extended position for snubbers, it shall be reported.			X	
12. Verify piping sizes.		X		
13. Hanger location in building (General area) {Description: <u>48'3" INSIDE DRYWELL - 180° LEFT OF AIRLOCK ENTRANCE.</u>	X			

1/2 Creek - OC

SUPPORT # MSV-H1

ITEM	Y	N	N/A	REM
4. Hanger hardware:				
A. Clips			X	
B. Clevis			X	
C. Cotter Pins			X	
D. Turnbuckles			X	
E. Nuts/Bolts (Check all attachments for double nut requirements)	X		X	<i>AWC 10/20/85</i>
F. Spring Canisters	X			
G. Locking Tabs on Nuts	X		X	
H. Washers			X	
I. Swivels			X	
15. Hanger configuration in accordance with applicable drawings:				
A. Dimensions		X		
B. Angles of support to system and base plate	X			
C. All hanger attachments i.e., clips, brackets, etc. orientated correctly.			X	
D. Strut or Snubber pin to pin distance <u>N/A</u>			X	
16. Weld locations:				
A. Proper weld location	X			
B. Proper weld spacing			X	
C. Proper number of welds	X			
D. Thru paint (average value <u>N/A</u>)			X	
17. Anchor Bolts:				
A. Type			X	
B. Size <u>N/A</u> number <u>N/A</u>			X	
C. Thread engagement			X	
D. Bolt c/c spacing			X	
E. C/C from anchors to closet anchor <u>N/A</u>			X	
18. Gaps @ stops:				
A. At U-bolts or Restraints			X	
B. At pipe penetrations			X	
*TOLERANCES FOR MEASUREMENT ACCURACY				
<u>Measurement</u>	<u>Tolerance</u>			
0" - 2"	± 1/16"			
2" - 12"	± 1/8"			
12" - 36"	± 1"			
36" - ∞	± 3"			
* Unless otherwise shown on the dwg.				
<i>James W. Cole</i> 10/20/85 QC INSPECTOR(S) DATE				

Oyster Creek - QC

SUPPORT # MSV-H1

PER MNCR 85-211-8

SUPPORT DWG# RP 651A

	Y	N	N/A	REM
19. Confirm pipe clamp figure no. If not possible, fill in appropriate form attached.			X	
20. Baseplate attachments location recorded on the anchor plate verification sheet.			X	
21. For valves noted in the walkdown, record their location & orientation on the isometric drawing. Describe orientation by stating (1) direction observer is facing, and (2) angle of valve \angle to pipe \angle to nearest 30 degrees (such as hours on a clock with 12:00 being direction facing the observer).			X	
22. For hangers where other systems (i.e. piping, conduit, etc.) are also supported, give size of this system and describe type of support and distance to upstream and downstream hangers supporting that system.			X	
Other items as specified by calculation sheet request attached.				

James W. Cole 10/20/85
 QC Inspector(s)/Date

Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORMNO A _____
RETENTION _____

1. Identification

Originator: JOHN J. WARD / ED GASHLIN Date/Time: 10/21/85 0300
Material, Part, Component, etc.: DANGER MSV - H² S2 PER
DWG. # 1083-14-6
Location: DRYWELL - Rx Bldg. EL. 46'
Manufacturer (Name): N/A Code: N/A
P.R.#: N/A Line #: N/A Spec #: N/A
System: MAIN STEAM VENT System Tag No: N/A
Dwg No. M P B 1083-14-6 Heat Code No: N/A Other: N/A
Nonconforming to (requirements): DIMENSIONAL / CONFIGURATION AS SHOWN.

Description of Nonconformance: SEE DISCREPANCIES / DISPOSITION SHEET ATTACHED

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

POTENTIALLY REPORTABLE:

Important To Safety	10CFR50	10CFR21	10CFR71	10CFR73.71	LE.R.
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Evaluated By (Name): E. Gashlin Date/Time: 10-23-85 0400
QC Mgr. Validation: Hand Stabbert Date/Time: 10-20-85 1119

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____
Licensing Notified: YES NO Date/Time: _____
Hold Tags Issued: YES NO No. of Tags: _____
Tags Installed By (Name): NA Date/Time: _____
Material Segregation Required: YES NO
Segregation Verified By (Name): _____ Date/Time: _____

ACTION PARTY (Name): J. P. Maloney Dept: Plant Material

Forward to responsible individual/department (Action Party).

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: Engineering Evaluate as to adequacy of as built configuration. If adequately repair drawing to reflect as built.

Evaluation/Disposition By (Name): [Signature]

Dept: Plant Material

Date: 11-1-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (Include applicable work documents, limitations, re-test requirements, etc.)

SEE ATTACHED SHEET FOR JUSTIFICATION

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No. _____

Evaluated By (Name): W.C. BARR

Dept: T.F. EDWARDS MACH

Date: 11-1-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: [Signature] Date: 11-7-85

Conditional Release Issued: YES NO
Reject Tags Issued: YES NO

AI/ANI Concurrence: YES NO
Signature: NA Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____

Work/Shipping Order No.: _____ Other: _____

Verified By (Name/Title/Date): _____

Tags/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____ Date: _____

TO

F.D. WRIGHT

D+D SUPP. O.C.

DATE

10/23/85

85-211-9

GPU

System Speed Memo

MESSAGE

PLEASE PROVIDE DETAILED DETAILS FOR SNUBBER CLIP
 ATTACHED TO ANGLE IRON, LOCATED BETWEEN TWO (2) 1/2"
 RAILS (ITEM # (1) ON B.O.M.) 10K SUPPORT # (B.P.) S2, AS
 SHOWN ON THE MOUNTING SKETCH MPR-1083-14-6, SHEET 60c
 (ORIGINAL AS ITEM # (4) ^{CHSKT ICH} DOCUMENTED AS ITEM # (4) ON MNCR #
 85 211 9)

Please reply to:

F. WRIGHT / O.C.

SIGNED:

[Signature] / E. S. S. O.C.

REPLY

NEED SPRING SIZE & LOAD.
 IF UNABLE TO GET SAY SJ

DATE:

SIGNED:

1st & 2nd copy for person addressed 2nd copy
 to be returned to sender
 3rd copy Detach and retain for answer

A0001247

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

1 - ARC STRIKES - (2) APPROX. 1" LG.
SEE SHEET 60C ON STRUCTURAL MEMBER
LESS THAN 1/64" DEEP

1/64" DEEP STRIKE ARE INSIGNIFICANT.

2 - (4) 1/2" BOLTS MISSING ON SNUBBER
SEE SHEET 60C. NOTE - 1" THICK SPACER
PLATE EXISTS WITH FOUR (4) 1/2" BOLTS
THRU SPACER PLATE TO UNDETERMINED DEPTH
(SEE SKETCH)

(A) 1/2" BOLTS ON SNUBBER ARE REPLACED
BY (A) 1/2" NEW BOLTS THRU SPACER TO
SNUBBER'S TOP PLATE. ∴ ACCEPTABLE

3 - WELDING LENGTHS - NO. OF WELDS.
SEE SHEET 60D

CLAMP WELDING IS ACCEPT.

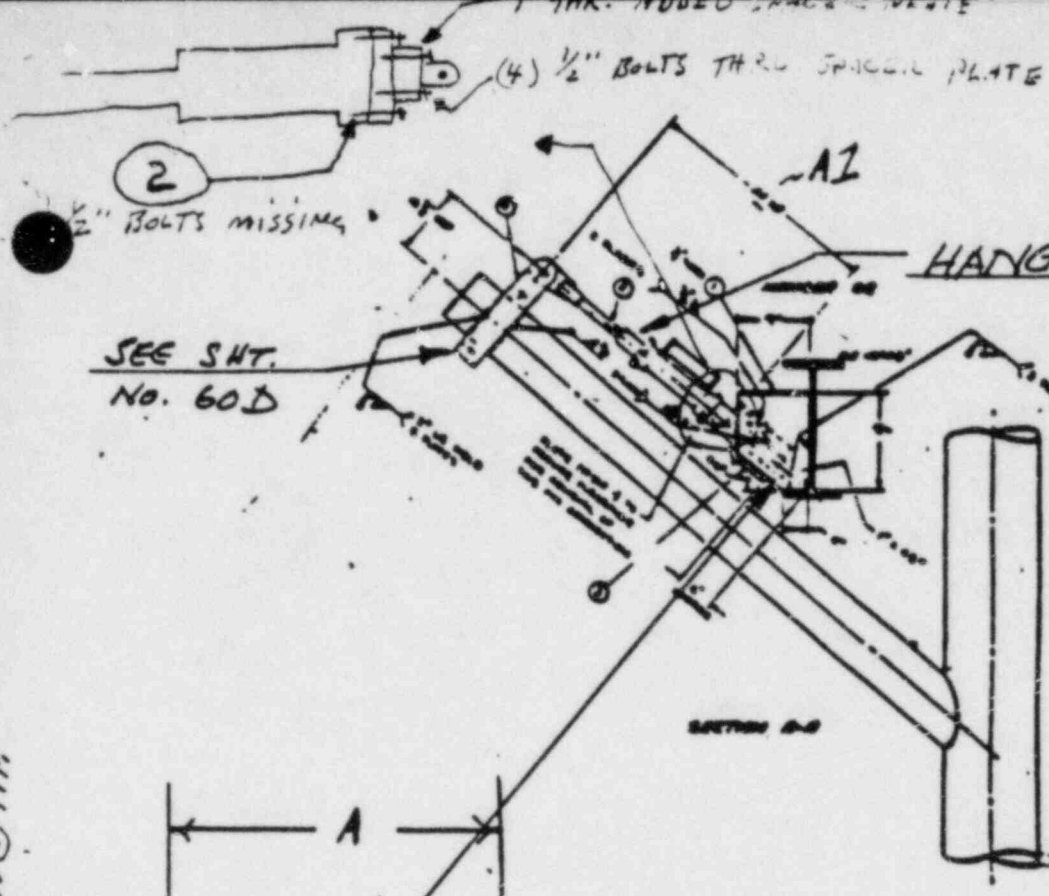
CHANGE DWG.

4 - SNUBBER CLIP ATTACHMENT TO ANGLE IRON,
LOCATED BETWEEN TWO (2) 1/2" PLATES (ITEM #10
B.O.M.), NOT DETAILED. (SENT TO D+D FOR
DRAFTING)

STD. DESIGN AND ACCEPT.

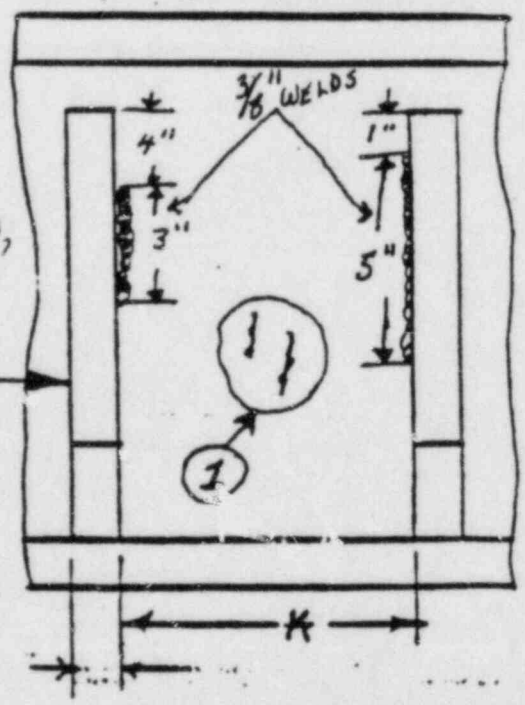
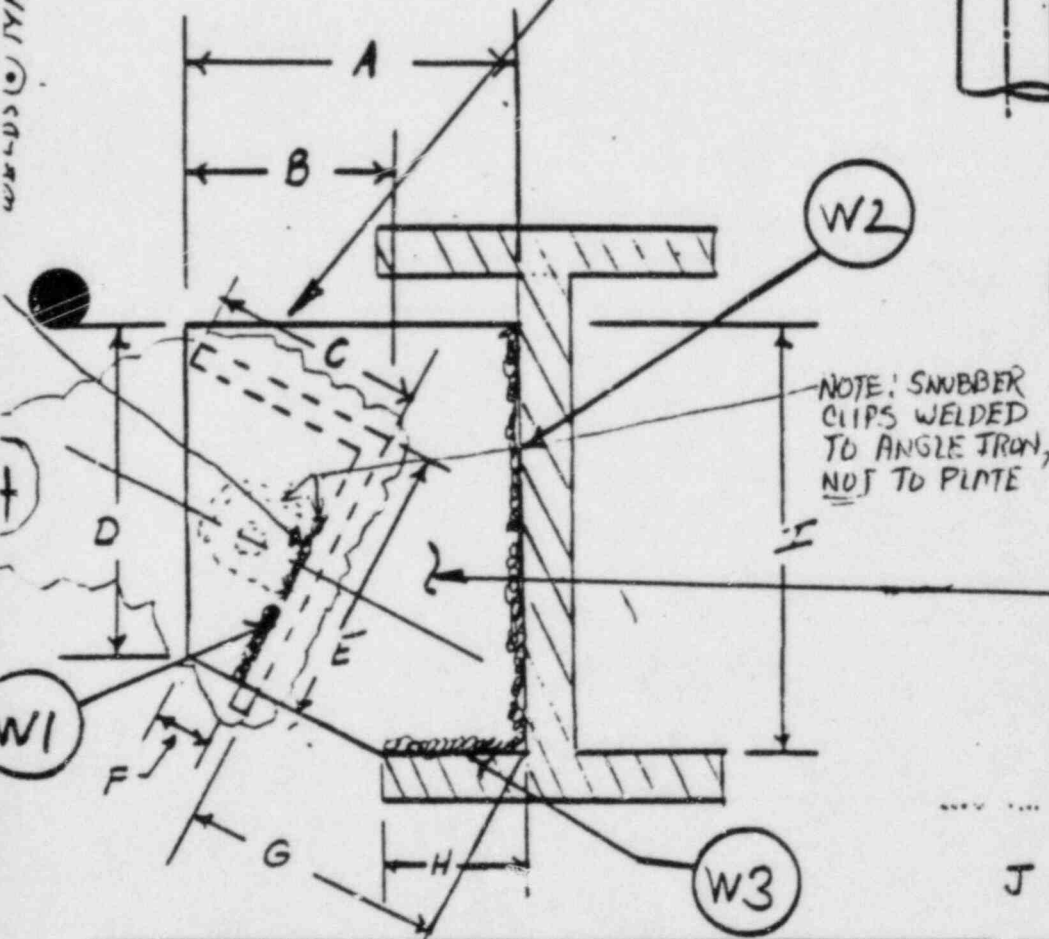
W.C. Hoas

11-1-85



SNUBBER INFO
 TAG - SE3
 TAG - SV155
 PSA - 10
 SIN - 101
 YR. 3/77
 STROKE 6"

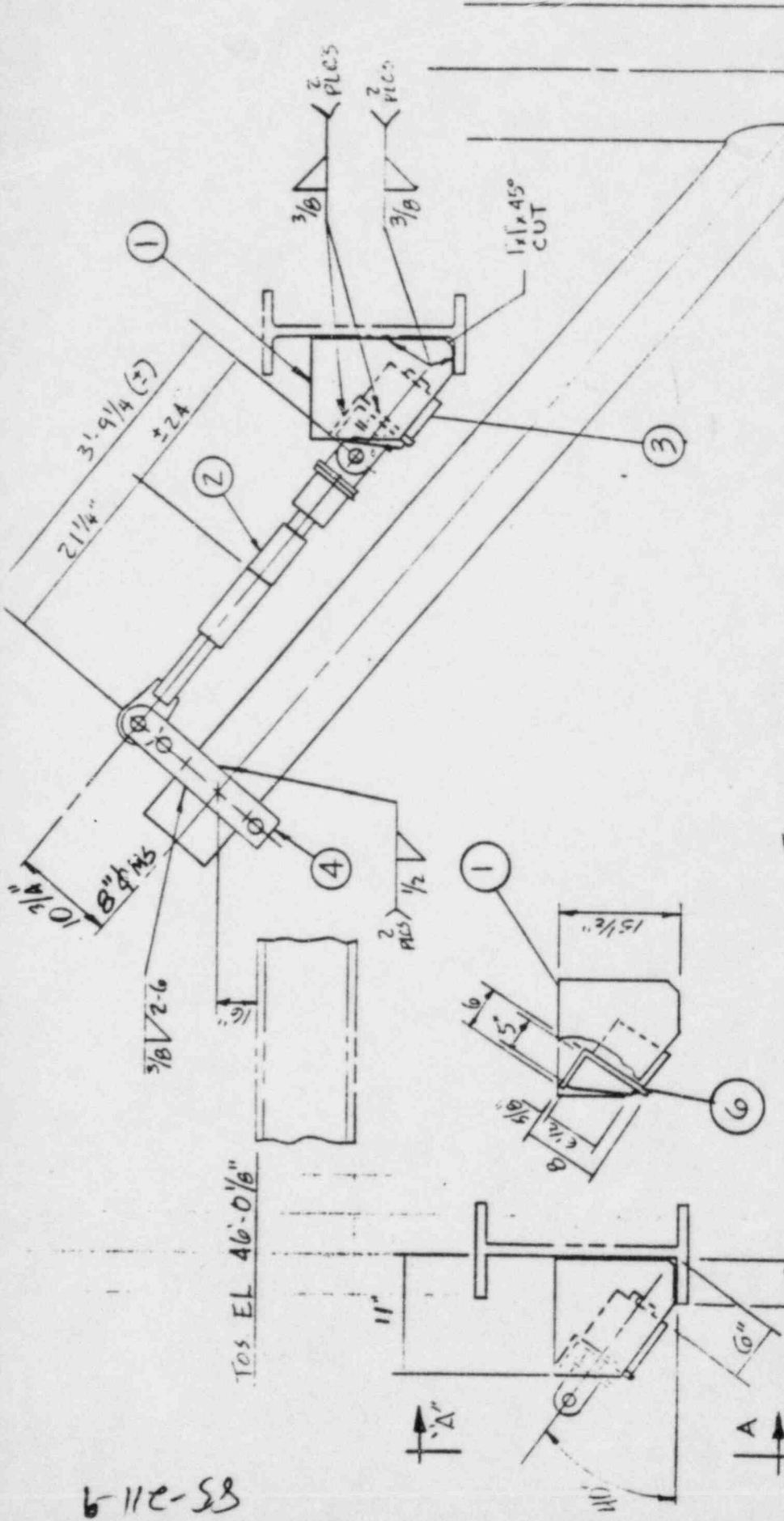
WELDS TYP



DIMENSIONS			
POINT	INCH	POINT	INCH
A1	45	E	8
A	12	F	1 1/2
B	7	G	11 1/2
C	5	H	4 1/4
D	8 1/2	I	15 1/4

WELD DIMENSIONS	
W1	3/8" WELDS TYP. 1 1/2" LG.
W2	1/2" WELDS TYP. FULL LENGTH
W3	1/2" WELDS TYP. FULL LENGTH

6-112-58

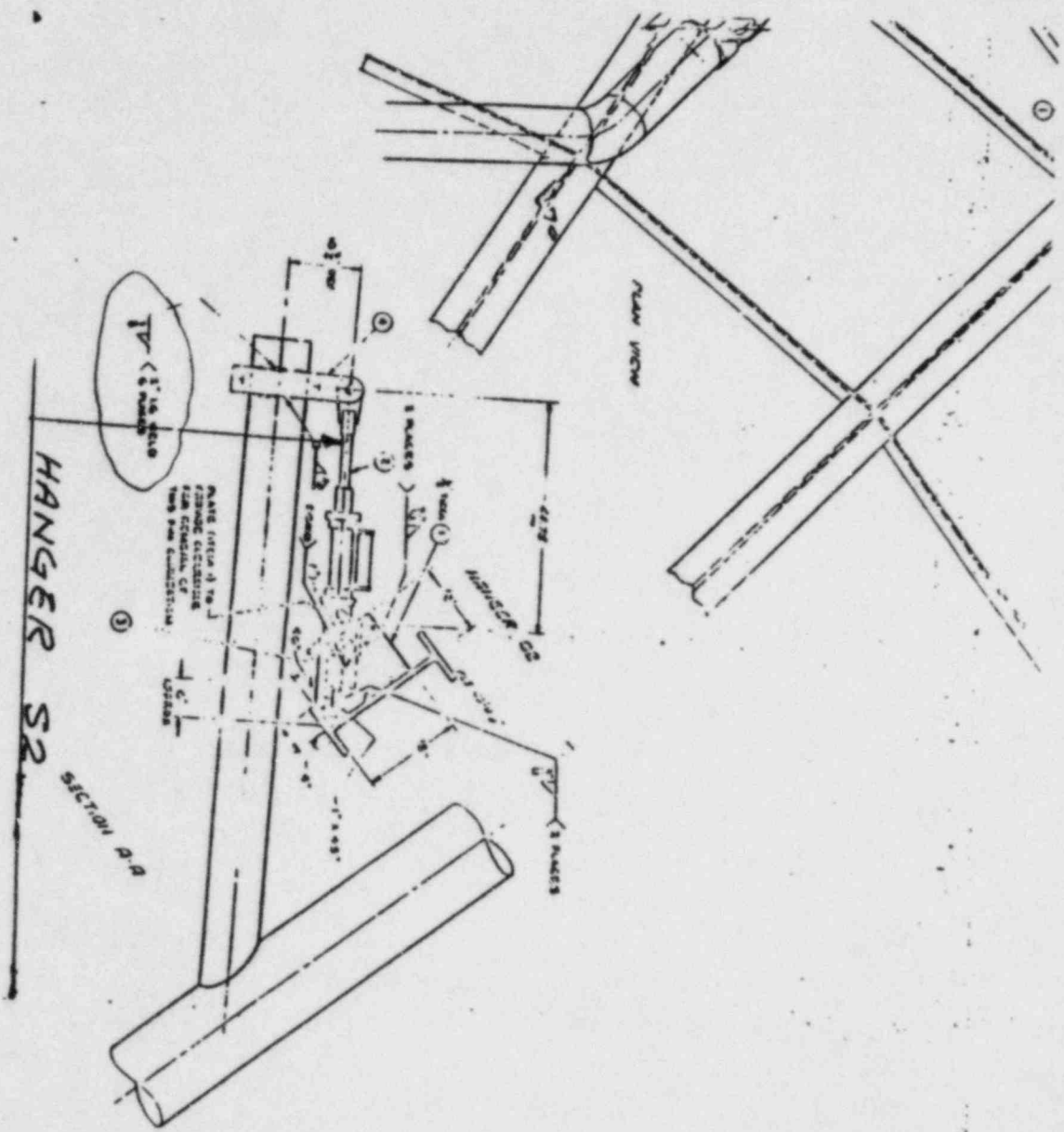


1. 2 - # 15 1/2" x 11" x 1/2" (CUT TO SUIT)
 2. 1 PACIFIC SCIENTIFIC W/T RANS. TUBE KIT (PSA-10)
 3. 1 BERGEN PATERSON VARIABLE SPRING & ASSY.
 4. 1 PIPE CLAMP EA-3 (8")
 5. 2 # 6 1/2" x 5 x 3/8" (CUT TO SUIT)
 6. 1 L 8" x 6" x 5/8" x 0'-7 1/8" L_g

HANGER 52

SECTION "A-A"

Subject		Calc No.	Rev. No.	Sheet No.
Originator		Date	Reviewed by	59 of
			Date	



NO.	DESCRIPTION	UNIT	QTY	WEIGHT	REMARKS
1	Y PLATE	LB			
2	6 HOLE PLATE 1/2"	LB			
3	ANCHOR BOLT (ASTM A193)	LB			
4	PLATE 1/2" THICK	LB			
5	CONCRETE 1/2"	CU YD			
6	PIPE CLAMP	LB			
7	ANCHOR BOLT (ASTM A193)	LB			
8	PLATE 1/2" THICK	LB			
9	CONCRETE 1/2"	CU YD			
10	ANCHOR BOLT (ASTM A193)	LB			
11	PLATE 1/2" THICK	LB			
12	CONCRETE 1/2"	CU YD			
13	ANCHOR BOLT (ASTM A193)	LB			
14	PLATE 1/2" THICK	LB			
15	CONCRETE 1/2"	CU YD			
16	ANCHOR BOLT (ASTM A193)	LB			
17	PLATE 1/2" THICK	LB			
18	CONCRETE 1/2"	CU YD			
19	ANCHOR BOLT (ASTM A193)	LB			
20	PLATE 1/2" THICK	LB			
21	CONCRETE 1/2"	CU YD			
22	ANCHOR BOLT (ASTM A193)	LB			
23	PLATE 1/2" THICK	LB			
24	CONCRETE 1/2"	CU YD			
25	ANCHOR BOLT (ASTM A193)	LB			
26	PLATE 1/2" THICK	LB			
27	CONCRETE 1/2"	CU YD			
28	ANCHOR BOLT (ASTM A193)	LB			
29	PLATE 1/2" THICK	LB			
30	CONCRETE 1/2"	CU YD			
31	ANCHOR BOLT (ASTM A193)	LB			
32	PLATE 1/2" THICK	LB			
33	CONCRETE 1/2"	CU YD			
34	ANCHOR BOLT (ASTM A193)	LB			
35	PLATE 1/2" THICK	LB			
36	CONCRETE 1/2"	CU YD			
37	ANCHOR BOLT (ASTM A193)	LB			
38	PLATE 1/2" THICK	LB			
39	CONCRETE 1/2"	CU YD			
40	ANCHOR BOLT (ASTM A193)	LB			
41	PLATE 1/2" THICK	LB			
42	CONCRETE 1/2"	CU YD			
43	ANCHOR BOLT (ASTM A193)	LB			
44	PLATE 1/2" THICK	LB			
45	CONCRETE 1/2"	CU YD			
46	ANCHOR BOLT (ASTM A193)	LB			
47	PLATE 1/2" THICK	LB			
48	CONCRETE 1/2"	CU YD			
49	ANCHOR BOLT (ASTM A193)	LB			
50	PLATE 1/2" THICK	LB			
51	CONCRETE 1/2"	CU YD			
52	ANCHOR BOLT (ASTM A193)	LB			
53	PLATE 1/2" THICK	LB			
54	CONCRETE 1/2"	CU YD			
55	ANCHOR BOLT (ASTM A193)	LB			
56	PLATE 1/2" THICK	LB			
57	CONCRETE 1/2"	CU YD			
58	ANCHOR BOLT (ASTM A193)	LB			
59	PLATE 1/2" THICK	LB			
60	CONCRETE 1/2"	CU YD			
61	ANCHOR BOLT (ASTM A193)	LB			
62	PLATE 1/2" THICK	LB			
63	CONCRETE 1/2"	CU YD			
64	ANCHOR BOLT (ASTM A193)	LB			
65	PLATE 1/2" THICK	LB			
66	CONCRETE 1/2"	CU YD			
67	ANCHOR BOLT (ASTM A193)	LB			
68	PLATE 1/2" THICK	LB			
69	CONCRETE 1/2"	CU YD			
70	ANCHOR BOLT (ASTM A193)	LB			
71	PLATE 1/2" THICK	LB			
72	CONCRETE 1/2"	CU YD			
73	ANCHOR BOLT (ASTM A193)	LB			
74	PLATE 1/2" THICK	LB			
75	CONCRETE 1/2"	CU YD			
76	ANCHOR BOLT (ASTM A193)	LB			
77	PLATE 1/2" THICK	LB			
78	CONCRETE 1/2"	CU YD			
79	ANCHOR BOLT (ASTM A193)	LB			
80	PLATE 1/2" THICK	LB			
81	CONCRETE 1/2"	CU YD			
82	ANCHOR BOLT (ASTM A193)	LB			
83	PLATE 1/2" THICK	LB			
84	CONCRETE 1/2"	CU YD			
85	ANCHOR BOLT (ASTM A193)	LB			
86	PLATE 1/2" THICK	LB			
87	CONCRETE 1/2"	CU YD			
88	ANCHOR BOLT (ASTM A193)	LB			
89	PLATE 1/2" THICK	LB			
90	CONCRETE 1/2"	CU YD			
91	ANCHOR BOLT (ASTM A193)	LB			
92	PLATE 1/2" THICK	LB			
93	CONCRETE 1/2"	CU YD			
94	ANCHOR BOLT (ASTM A193)	LB			
95	PLATE 1/2" THICK	LB			
96	CONCRETE 1/2"	CU YD			
97	ANCHOR BOLT (ASTM A193)	LB			
98	PLATE 1/2" THICK	LB			
99	CONCRETE 1/2"	CU YD			
100	ANCHOR BOLT (ASTM A193)	LB			

GPU ACCORDATES, E.C.
 SOUTH HANGERS
 CS # 28
 10/21-14-6

BS-211-9

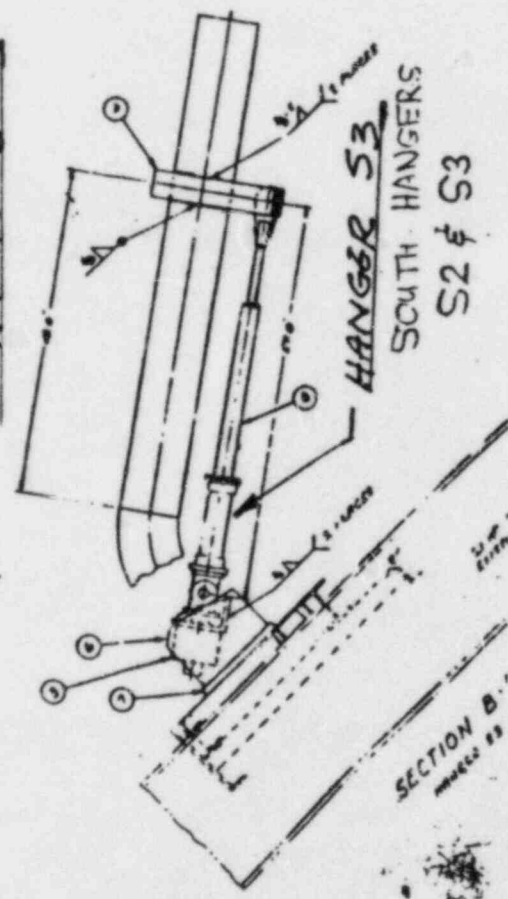
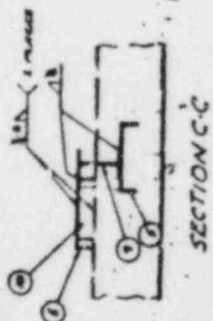
HANGER S2

HANGER S3

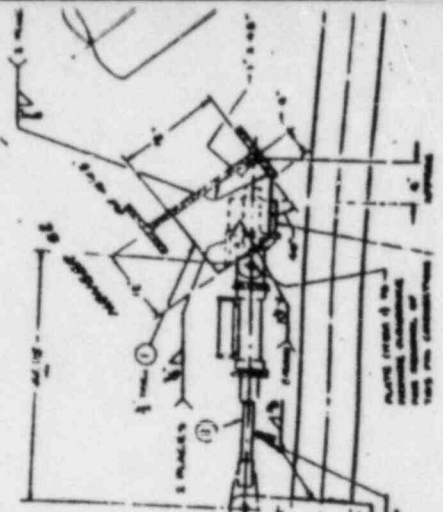
HANGER S2

HANGER S3

SOUTH HANGERS
S2 & S3



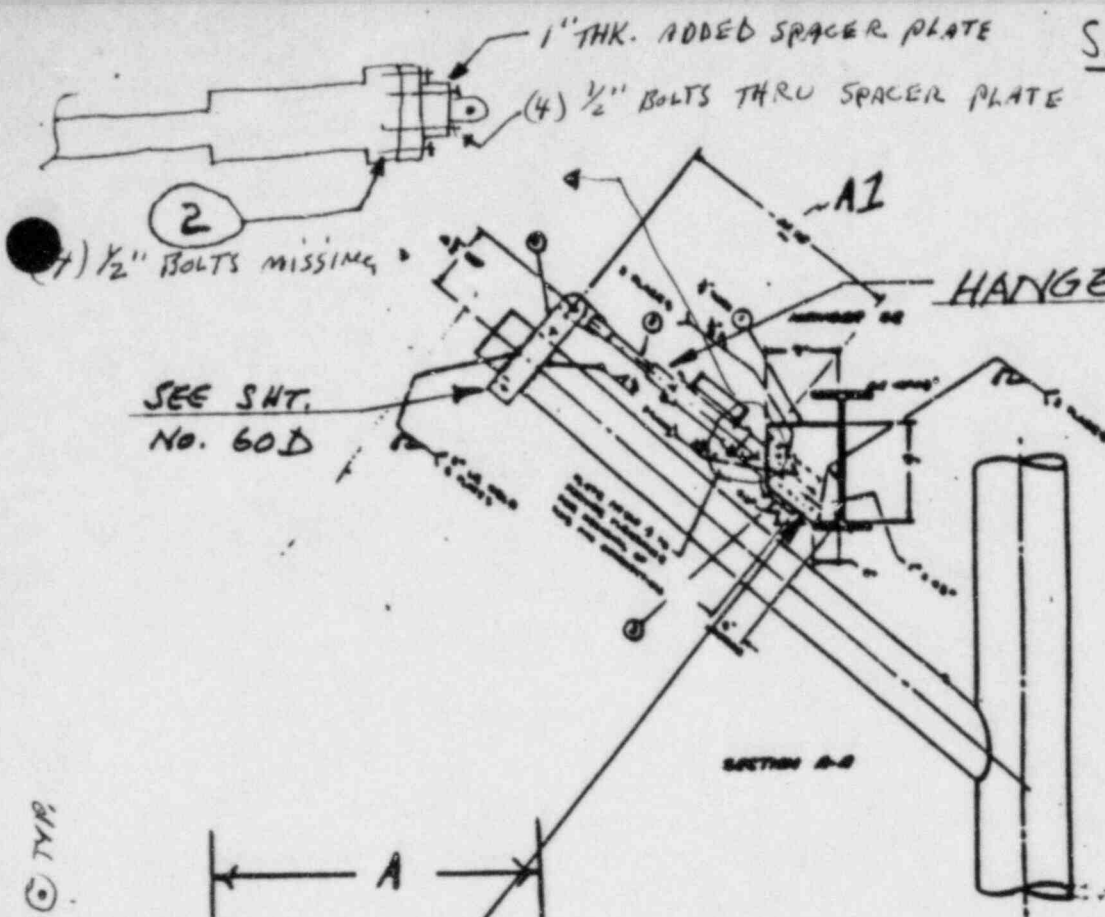
PLAN VIEW



Subject	Originator	Date
Calc. No.	Reviewed by	Date
Sheet No.		

MNCR# BS-211 9 (A)
Calculation Sheet

GRU Nuclear

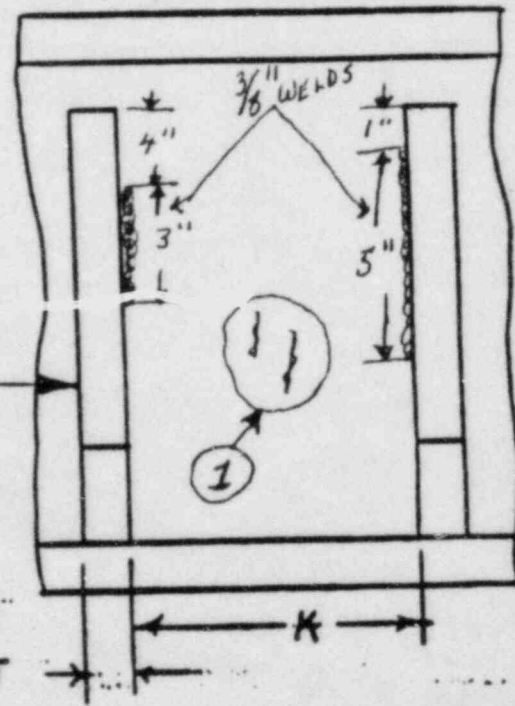
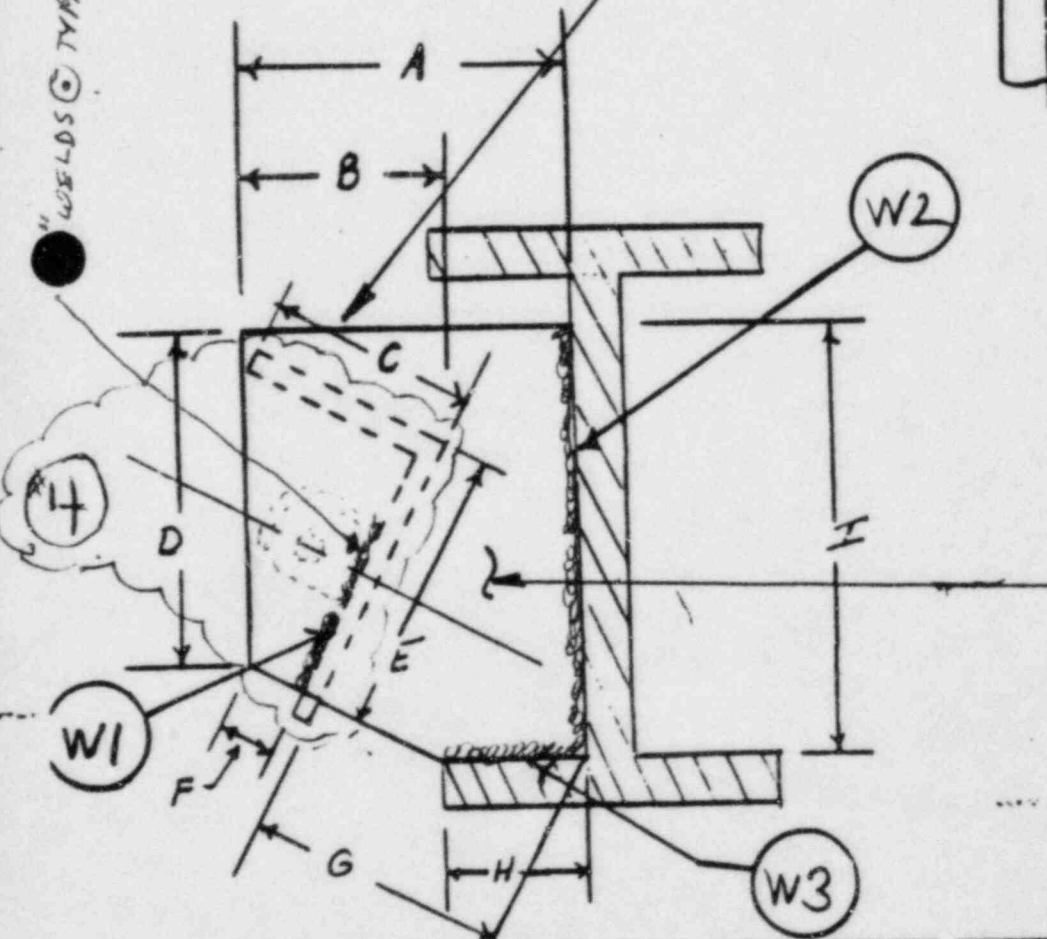


SNUBBER INFO
TAG - SE3
TAG - SV155
PSA - 10
S/N - 101
YR. 3/77
STROKE 6"

SEE SHT.
NO. 60D

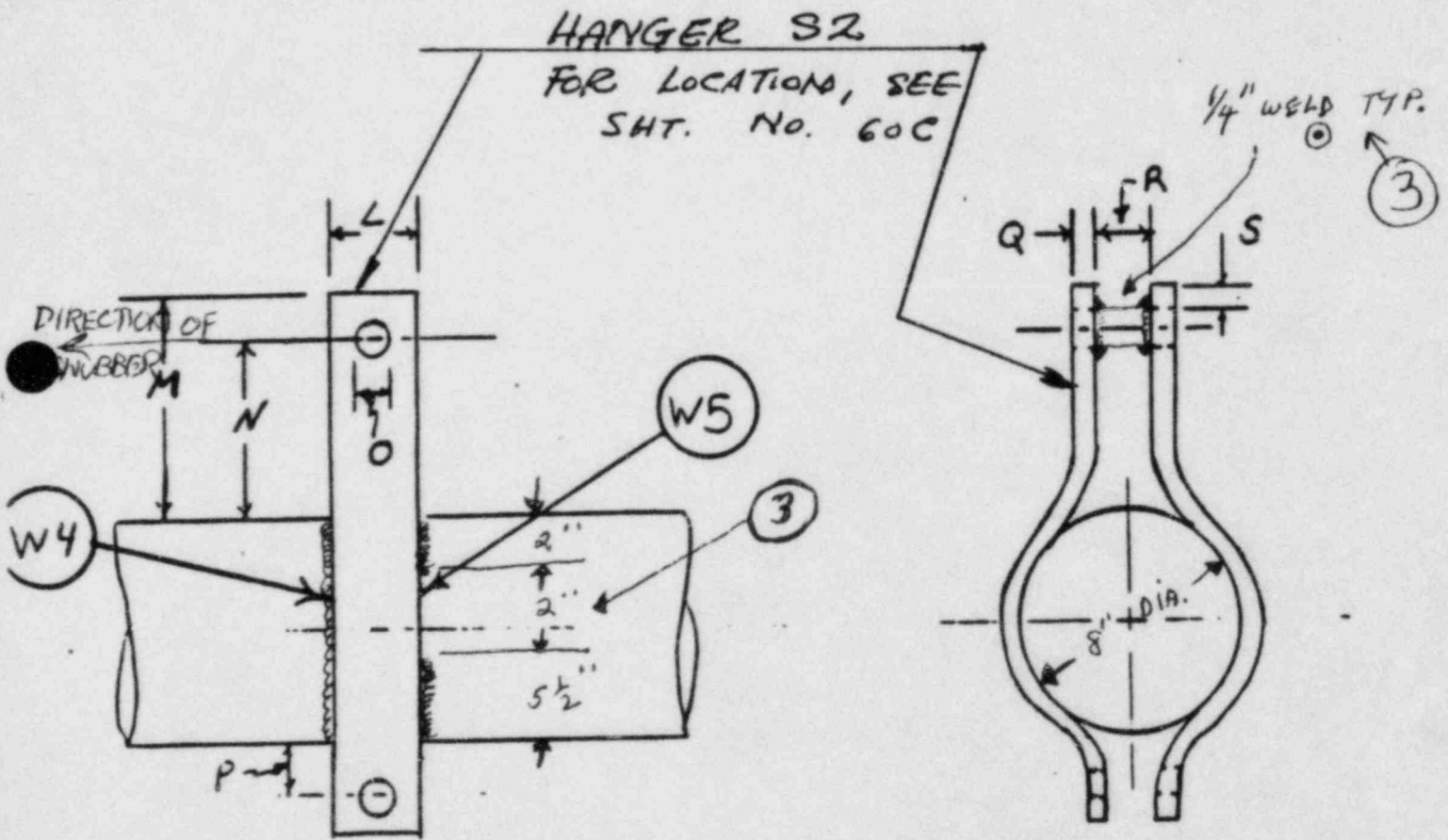
SECTION A-A

WELDS @ TYP



DIMENSIONS					
POINT	INCH	POINT	INCH	POINT	INCH
A1	45	E	8	J	1/2
A	12	F	1 1/2	K	7
B	7	G	11 1/2		
C	5	H	4 1/4		
D	8 1/2	I	15 1/4		

WELD DIMENSIONS	
W1	3/8" WELDS TYP. 1 1/2" LG.
W2	1/2" WELDS TYP. FULL LENGTH
W3	1/2" WELDS TYP. FULL LENGTH



DIMENSIONS			
POINT	INCH	POINT	INCH
L	4	S	1 3/4
M	8 1/4		
N	6 1/2		
O	1		
P	2 1/4		
Q	5/8		
R	5/8		

WELD DIMENSIONS	
W4	3/8" WELD - ENTIRE LENGTH - TYP.
W5	3/8" WELD - SEE SKETCH TYP.

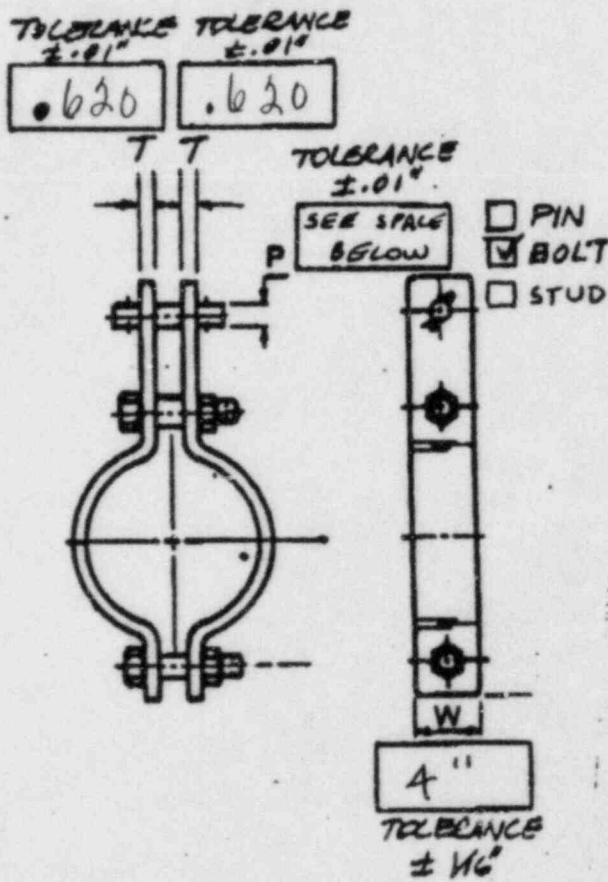
Oyster Creek - QC

SUPPORT# H-52
SUPPORT DWG# 1083-14-6

REF. MNCR 85-211-9
(10)

SYSTEM MAIN STEAM VENT

3 BOLT CLAMP



P = LOAD BOLT SIZE/LENGTH 1" X 4 1/2" LG.

Crack - QC

Reviewed: *B. Libb*

SUPPORT # B.P. - # ^{21M}MSV H S2 VALVE # N/A G.P.# = N/A

ISO DWG # ENG. SKETCH

ORTHO DWG # N/A

SUPPORT DWG # MCR 1083-14-6

MNCR 85-211-9

ITEM	Y	N	N/A	REM
1. Proper Valve Orientation			✓	
2. Skin Temperature <u>90.4</u> °F (C.R.) (PVR) <u>RECORDED OFF PIPE</u>	✓			
3. Components identified in accordance with the appropriate drawing.	✓		✓	
4. Component location is within drawing tolerances.	✓	✓	✓	10-21-85
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.	✓			
6. Verify that all welds are completed.		✓		
7. Piping and supports are free of arc strikes.		✓		
8. Snubbers and spring hangers are installed in accordance with drawing.	✓			
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5% <u>3 1/4</u> ^{gw 10/21/85}	✓		✓	
10. Record the amount of snubber extension from the fully compressed position. T or C = <u>3 1/4</u>	✓		✓	gw 10/21/85
11. If the springs or snubbers are within: 1/2" from the topped/bottomed out position for springs, and 1/2" from the fully compressed/fully extended position for snubbers, it shall be reported.	✓		✓	gw 10/21/85
12. Verify piping sizes. <u>8" PIPE</u>	✓			
13. Hanger location in building (General area) { Description: <u>DRY WELL 43' EL.</u> }	✓			

1/2 Creek - OC

SUPPORT # BP # MSV - H 52

ITEM MNCR # 85-211-9

	Y	N	N/A	REM
4. Hanger hardware:				
A. Clips			✓	
B. Clevis	✓			
C. Cotter Pins	✓			
D. Turnbuckles			✓	
E. Nuts/Bolts (Check all attachments for double nut requirements)		✓		
F. Spring Canisters			✓	
G. Locking Tabs on Nuts			✓	
H. Washers			✓	
I. Swivels			✓	
15. Hanger configuration in accordance with applicable drawings:				
A. Dimensions	✓			
B. Angles of support to system and base plate	✓			
C. All hanger attachments i.e., clips, brackets, etc. orientated correctly.	✓			
D. Strut or Snubber pin to pin distance <u>45"</u>	✓			
16. Weld locations:				
A. Proper weld location	✓		✓	
B. Proper weld spacing	✓		✓	
C. Proper number of welds	✓			
D. Thru paint (average value <u> </u>) - * SEE SKETCH	✓		✓	
17. Anchor Bolts:				
A. Type				
B. Size <u> </u> number <u> </u>			✓	
C. Thread engagement			✓	
D. Bolt c/c spacing			✓	
E. C/C from anchors to closet anchor <u> </u>			✓	
18. Gaps @ stops:				
A. At U-bolts or Restraints				✓
B. At pipe penetrations				✓
*TOLERANCES FOR MEASUREMENT ACCURACY				
<u>Measurement</u>		<u>Tolerance</u>		
0" - 2"		± 1/16"		
N 2" - 12"		± 1/8"		
N 12" - 36"		± 1"		
N 36" - ∞		± 3"		

GW
10/21/85

GW
10/21/85

* Unless otherwise shown on the dwg.

John J. Ward 10/21/85
QC INSPECTOR(S) DATE

Oyster Creek - QC

SUPPORT # H-52
 SUPPORT DWG# 100314-6

PER MNCR 85-211-9

	Y	N	N/A	REM
19. Confirm pipe clamp figure no. If not possible, fill in appropriate form attached. <u>3 BOLT CLAMP</u>	✓			
20. Baseplate attachments location recorded on the anchor plate verification sheet.			✓	
21. For valves noted in the walkdown, record their location & orientation on the isometric drawing. Describe orientation by stating (1) direction observer is facing, and (2) angle of valve \perp to pipe \perp to nearest 30 degrees (such as hours on a clock with 12:00 being direction facing the observer).			✓	
22. For hangers where other systems (i.e. piping, conduit, etc.) are also supported, give size of this system and describe type of support and distance to upstream and downstream hangers supporting that system.			✓	
Other items as specified by calculation sheet request attached.				

John J Ward 10/21/85
 QC Inspector(s)/Date

TO: KEVIN MCCAULEY

DATE: 10-25-85

SUBJECT: _____

ATTACHED FIND D&D DRAWINGS OF SUPPORTS

NE-2-H1 - EMERG. COND. MNCR 85-210-11 DENNIS & BOB

VS-4-A-11] NO MNCR BILL & BOB

S2] MN STM SYS
MNCR-85-211-9 BILL & BOB

ND-1-S3 - CLEAN UP DEMIN NO MNCR
RUSS & MARK

NQ-2-H26 - CONTAINMENT SPRAY 85-209-13 MNCR
RUSS & MARK

- Reply -

RETURN to D&D FOR SIZE OF SPRINGS
INFO. IF NOT POSSIBLE SAY SO

W.C. Haas 11-2-85

CC:

BY: B. Kansas

85-211-9

ENTER HERE

GPU

System Speed Memo

DATE 10/26/85

MESSAGE

PLEASE PROVIDE DRAFTED DETAILS FOR SNUBBER CLIP ATTACHMENT TO ANGLE IRON, LOCATED BETWEEN TWO (2) 1/2" PLATES (ITEM # ① ON B.O.M.) FOR SUPPORT # (B.P.) S2, AS SHOWN ON ENGINEERING SKETCH MPR-1083-14-6, SHEET 60c (CLOUDED AS ITEM # ④ IN RED AND DOCUMENTED AS ITEM # ④ ON SKETCH AND MNCR # 85-211-9)

Please reply to: F. GASHLIN/MCCAVLEY

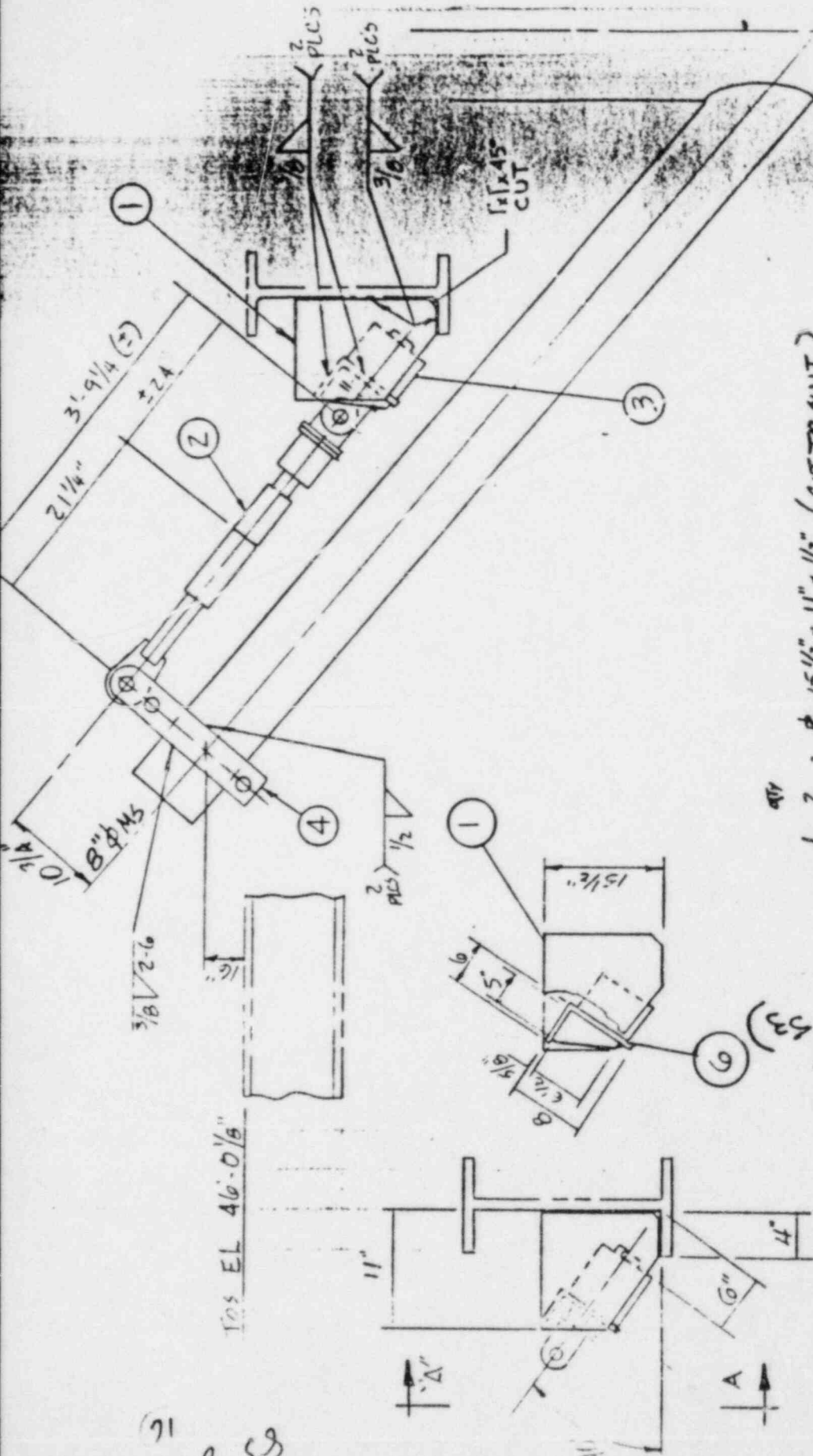
SIGNED: Donk Murphy / E. J. S. C.

REPLY

REQUESTED DIMENSIONS IN RED

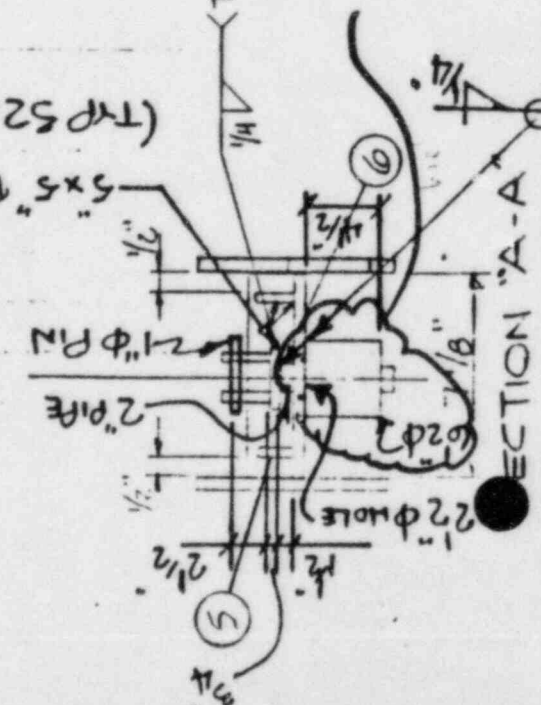
DATE: SIGNED:

1st & 2nd copy For person addressed 2nd copy to be returned to sender
3rd copy Detach and retain for answer

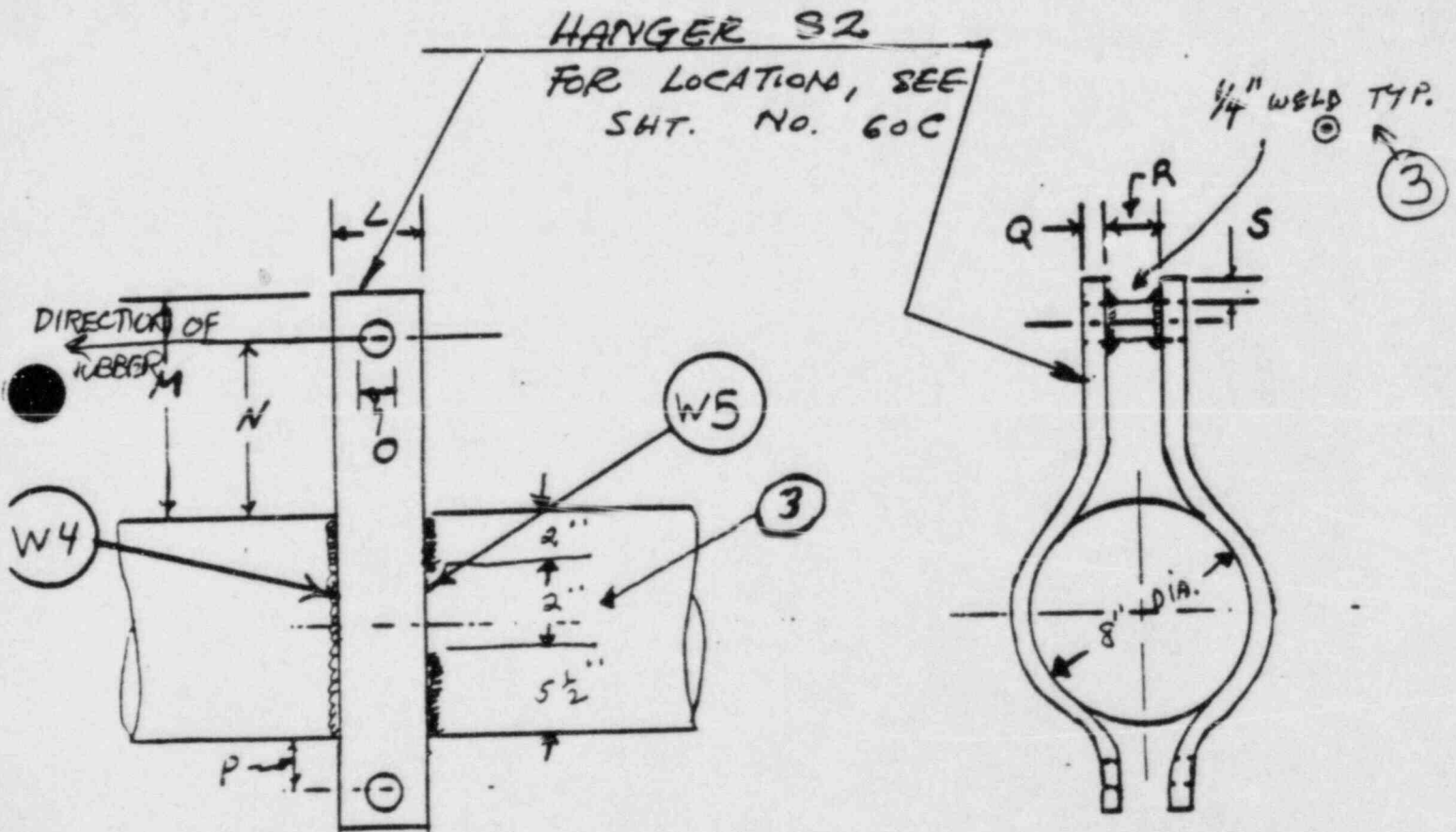


1. 2 - # 15 1/2 x 11" x 1/2" (CUT TO SUIT)
 2. 1 PACIFIC SCIENTIFIC W/TRANS. TUBE KIT (PSA-10)
 3. 1 BERGEN PATERSON VARIABLE SPRING ASSY
 4. 1 PIPE CLAMP EA-3 (8")
 5. 2 # 6 1/2" x 5 x 3/8" (CUT TO SUIT)
 6. 1 L 8" x 6" x 5/8" x 0'-7 1/8" L_g

UNABLE TO VERIFY
 TYPE & SIZE
 HANGER 52



85-211-9
 16



DIMENSIONS			
POINT	INCH	POINT	INCH
L	L	S	1 3/4
M	8 1/4		
N	6 1/2		
O	1		
P	2 1/4		
Q	5/8		
R	5/8		

WELD DIMENSIONS	
W4	3/8" WELD - ENTIRE LENGTH - TYP.
W5	3/8" WELD - SEE SKETCH TYP.

(4) 1/2" BOLTS THRU SPACER PLATE

2

1/2" BOLTS MISSING

HANGER S2

SUBBREP INFO
 TAG - SE 3
 PAG - SV 155
 PSA - 10
 SIN - 101
 YR. 3/77
 STROKE 6"

SEE SH. NO. 60D

SECTION A-A

1/2" WELDS TYP

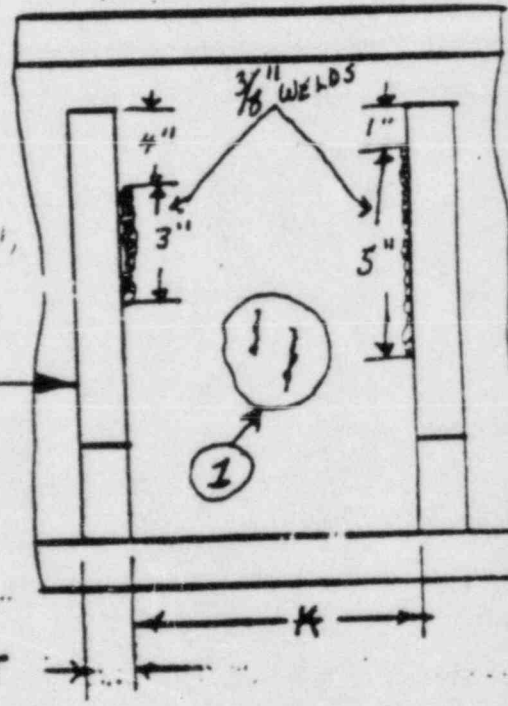
4

W1

W2

W3

NOTE: SAW OR
 SLIPS WELD TO
 TO PROTECT
 NOT TO PERM



DIMENSIONS					
POINT	INCH	POINT	INCH	POINT	INCH
A1	45	E	8	J	1/2
A	12	F	1 1/2	K	7
B	7	G	11 1/2		
C	5	H	4 1/4		
D	8 1/2	I	15 1/4		

WELD DIMENSIONS	
W1	3/8" WELDS TYP. 1 1/2" LG.
W2	1/2" WELDS TYP. FULL LENGTH
W3	1/2" WELDS TYP. FULL LENGTH

Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORMNO A _____
RETENTION _____

1. Identification

Originator: LYNN H. PAINTAR / Gashlin Date/Time: 10-20-10/21/85 0545
Material, Part, Component, etc.: MAIN STEAM VENT BP 654 REVI
BP Support # MSV-H4
Location: DRYWELL 47' ELV - NORTH
Manufacturer (Name): N/A Code: N/A
P.R.# N/A Line # N/A Spec # N/A
System: MAIN STEAM VENT / EMER System Tag No. N/A
Dwg No. BP# 654 REVI Heat Code No. _____ Other _____
Nonconforming to (requirements): DIMENSIONAL / CONFIGURATION AS SHOWN

Description of Nonconformance: SEE DISCREPANCIES / DISPOSITION SHEET ATTACHED

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

Important To Safety	POTENTIALLY REPORTABLE:				
	10CFR50	10CFR21	10CFR71	10CFR73.71	L.E.R.
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Evaluated By (Name): <u>E. Gashlin</u>	Date/Time: <u>10/21/85 0630</u>				
QC Mgr. Validatio: <u>David [Signature]</u>	Date/Time: <u>10-23-85 1700</u>				

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____
Licensing Notified: YES NO Date/Time: _____
Hold Tags Issued: YES NO No. of Tags: _____
Tags Installed By (Name): N/A Date/Time: _____
Material Segregation Required: YES NO
Segregation Verified By (Name): NA Date/Time: _____
ACTION PARTY (Name): J. MALONEY Dept: PLANT MATERIEL

Forward to responsible individual/department (Action Party).

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: Provide engineering determination as to adequacy of as built configuration. If adequate revise drawing to reflect as built.

Evaluation/Disposition By (Name): [Signature]

Dept: PLANT MATERIAL
Date: 10-21-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO if NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (Include applicable work documents, limitations, re-test requirements, etc.)

SEE ATTACHED SHEET FOR JUSTIFICATION

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No.: _____

Evaluated By (Name): L. LEU

Dept: T.F. ENGINEERING MECHANICS
Date: 10-21-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: [Signature]
~~NO REWORK SHALL BE PERFORMED WITHOUT PRIOR QC CONCURRENCE ON 10/25/85~~

Date: 10-25-85

Conditional Release Issued: YES NO
Reject Tags Issued: YES NO

AI/ANI Concurrence: YES NO
Signature: NA

Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____

Work/Shipping Order No.: _____ Other: _____

Verified By (Name/Title/Date): _____

js/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____ Date: _____

HANGER # MSV-H4

85-211-10

BP DWG.# 654 r/t

MNCR#

2

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

① Description

SPRING CAN SETTING 934 ^{END} ~~DOES NOT~~ ^{10/21/85}
~~500T~~ ^{END} ~~1185~~ ^{10/21/85}

WITH $7/16$ " MOVEMENT DOWN (THERMAL),
SPRING IS WITHIN WORKING RANGE
∴ O.K.

② Clips attached to angle
1/2" beam not shown
on drawing

REV DWG.

ENGINEERING SIG.

L Lee

DATE 10-21-85

Creek - OC

Reviewed: *Bl Libh*

SUPPORT # BP-MSV-H4 VALVE # N/A
 ISO DWG # Eng Sketch
 ORTHO DWG # N/A
 SUPPORT DWG # BAR Dwg 2103 ^{LAP} 10-20-85
BP 654 REV1

MNCR 85-211-10

ITEM	Y	N	N/A	REM
1. Proper Valve Orientation			✓	
2. Skin Temperature <u>90</u> °F (C.R.)(PYR)	✓			
3. Components identified in accordance with the appropriate drawing.	✓		✓	
4. Component location is within drawing tolerances.	✓		✓	
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.	✓			
6. Verify that all welds are completed.	✓			
7. Piping and supports are free of arc strikes.	✓			
8. Snubbers and spring hangers are installed in accordance with drawing.	✓			
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5% <u>934*</u>	✓			
10. Record the amount of snubber extension from the fully compressed position. T or C = _____				✓
11. If the springs and snubbers are within: 1/4" from the topped/bottomed out position for springs, and 1/4" from the fully compressed/fully extended position for snubbers, it shall be reported.				✓
12. Verify piping sizes.	✓			
13. Hanger location in building (General area) {Description: DRYWELL - 47' ELV-	✓			

Creek - OC

SUPPORT # BP-MSV-H4

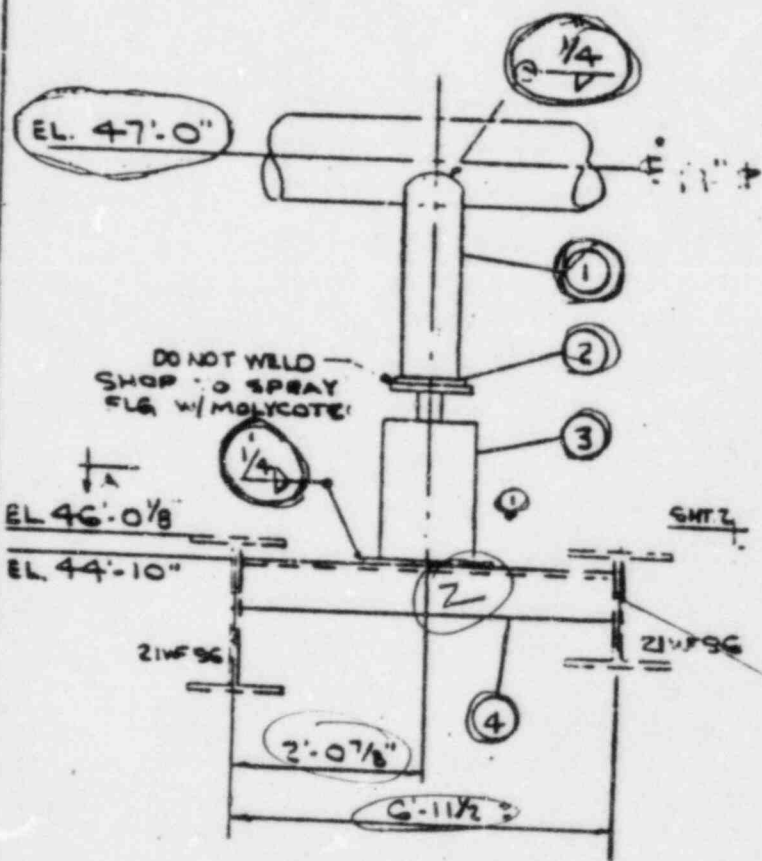
ITEM	Y	N	N/A	REM
4. Hanger hardware:				
A. Clips				✓
B. Clevis				✓
C. Cotter Pins				✓
D. Turnbuckles				✓
E. Nuts/Bolts (Check all attachments for double nut requirements)				✓
F. Spring Canister	✓			
G. Locking Tabs on Nuts				✓
H. Washers				✓
I. Swivels				✓
15. Hanger configuration in accordance with applicable drawings:				
A. Dimensions				✓
B. Angles of support to system and base plate				✓
C. All hanger attachments i.e., clips, brackets, etc. orientated correctly.				✓
D. Strut or Snubber pin to pin distance _____				✓
16. Weld locations:				
A. Proper weld location	✓			
B. Proper weld spacing	✓			
C. Proper number of welds	✓			
D. Thru paint (average value <u>1/4"</u>)	✓			
17. Anchor Bolts:				
A. Type				✓
B. Size _____ number _____				✓
C. Thread engagement				✓
D. Bolt c/c spacing				✓
E. C/C from anchors to closet anchor _____				✓
18. Gaps @ stops:				
A. At U-bolts or Restraints				✓
B. At pipe penetrations				✓
*TOLERANCES FOR MEASUREMENT ACCURACY				
<u>Measurement</u>	<u>Tolerance</u>			
0" - 2"	± 1/16"			
2" - 12"	± 1/8"			
12" - 36"	± 1"			
36" - ∞	± 3"			
* Unless otherwise shown on the dwg.				
<u>Kenneth H. Painter</u> 10-20-85 QC INSPECTOR(S) DATE				

Subject		Calc. No.		Rev. No.	Sheet No.
Originator		Date	Reviewed by	Date	65 of

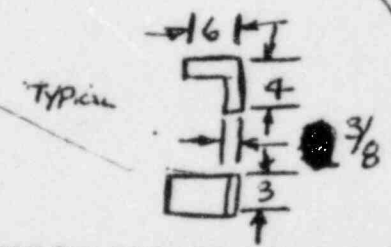
APP	ITEM NO	PO REQ'D	DESCRIPTION	STATUS DWG OR PART NO	REMARKS
	1		4" x 3.40 x 0.976 L ₂	TEMP. HR-14	
	2		PART 114-14	TEMP 4	
	3		VSIF-10 HL: 1195 CL: 1006 MVT: 7/16 DN	72	
	4		SAS S: 6'-11" *		1.4 = 9/16" * USE LEAD COLLAR W/ TO BETA GWP CORN/ DWG 1083-14 ON BOTH ENDS X=17/8"

* ITEMS TO BE VERIFIED: 1,4

COLD SET 934#
AT TEMP 90°



SEE SHT. 7 FOR LOC PLAN
Bolts inaccessible to measure



ONE SIDE HAS TWO BOLTS
OTHER SIDE IS COMPLETELY WELDED.
3/8 WELD FILLETS
Classification - (2) bolts centered
JPE? LUNO: 1195 in clip, hold clip to angle other end of same clip is welded to beam

FIELD VERIFICATION FOR NRC (SEE BLTN 79-14) ADDED REF. DWGS.

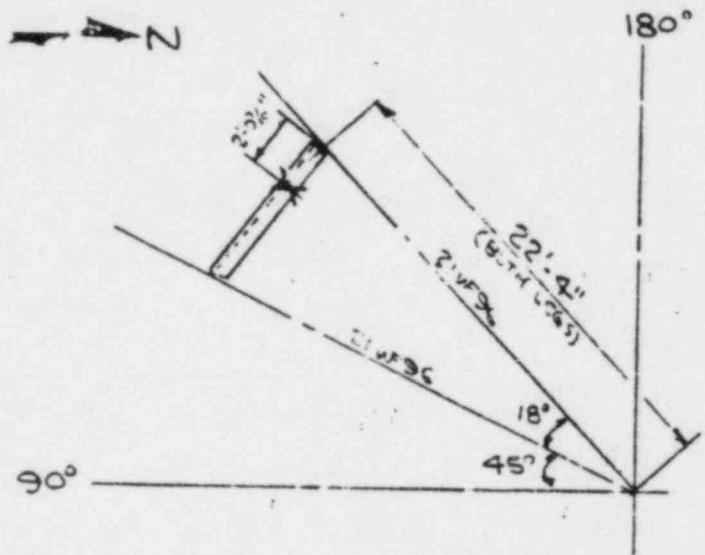
REF DWGS
BER-PAT INDEX 650
JCP&L DWG 1083-14-26
* INDICATES APPROVAL BY JCP&L
BURNS & ROE, INC, P. O. #BR-2299-104
BURNS & ROE, INC.
OYSTER CREEK STA. UNIT #1

SHEET 1 OF 2
PIPING SYSTEM MAIN STEAM VENT
REF LOCATION PLAN BER DWG 2103
MARK NO MSV-H4 NO REQ'D -1

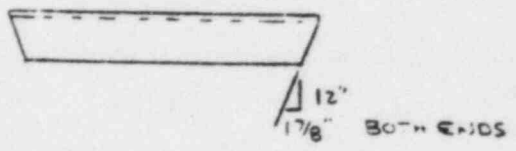
REV	DATE	BY	APP'D	BERGEN PIPESUPPORT CORP. NEW YORK, N. Y.	DATE	BY	APP'D
	5-4-67	ACG	ACG		5-4-67	ACG	ACG

Subject		Calc. No.		Rev. No.	Sheet No.
Originator		Date	Reviewed by	Date	

APP	ITEM NO	NO. REQ'D.	DESCRIPTION	BERGEN DWG OR PART NO	REMARKS



PLAN



SECT. A-A

SHT 2 OF 2

CUSTOMER BURNS & MCGEE, INC. OYSTER CREEK SIA, UNIT #1 CONSUMER	PIPING SYSTEM MAIN STEAM VENT REF BOR DWG: 2103 LOCATION PLAN MARK NO. MSV-H4 NO. REQ'D. 1
DATE DRAWN IRC CHKD APPVD	BERGEN PIPESUPPORT CORP. DATE JOB NO. DRAWING NO.

Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORMNO A _____
RETENTION _____

1. Identification

Originator: JOHN T. MATRUMICH / E. Goshlin Date/Time: 10-21-85/1900
Material, Part, Component, etc.: EMRV HANGER

Location: 53' DRYWELL (SOUTH) AT CLAMP

Manufacturer (Name): BERGEN-PATERSON VS-Y-ALL Code: NIA

P.R.# NIA Line # NIA Spec # NIA

System: EMRV System Tag No. UNKNOWN

Dwg No. MPR 1083-14-27 REV 2 Heat Code No. NIA Other NIA

Nonconforming to (requirements): DIMENSIONAL / CONFIGURATION AS SHOWN

Description of Nonconformance: SEE DISCREPANCIES / DISPOSITION SHEET ATTACHED

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

POTENTIALLY REPORTABLE:

Important
To Safety

10CFR50

10CFR21

10CFR71

10CFR73.71

LER.

YES:

NO:

Evaluated By (Name): E. Goshlin Date/Time: 10/23/85 0830

QC Mgr. Validation: [Signature] Date/Time: 10-26-85 / 0930

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____

Licensing Notified: YES NO Date/Time: _____

Hold Tags Issued: YES NO No. of Tags: _____

Tags Installed By (Name): NA Date/Time: _____

Material Segregation Required: YES NO

Segregation Verified By (Name): NA Date/Time: _____

ACTION PARTY (Name): J.P. Maloney Dept: Plant Material

Forward to responsible individual/department (Action Party).

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: Provide engineering evaluation as to adequacy of as-built configuration. If adequate, revise drawing to reflect as built.

Evaluation/Disposition By (Name): [Signature]

Dept: Plant Material
Date: 10-26-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (Include applicable work documents, limitations, re-test requirements, etc.)

See attached sheet for justification

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR
 Manual Tech. Spec. Document No.: M.P.R. DRWG# 1083-14-27

Evaluated By (Name): S. VIRDI

Dept: J.F./Engineering Mechanics
Date: 10-26-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: [Signature] Date: 10-28-85

Conditional Release Issued: YES NO
Reject Tags Issued: YES NO

AI/ANI Concurrence: YES NO
Signature: No Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____
Work/Shipping Order No.: _____ Other: _____
Verified By (Name/Title/Date): _____
gs/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____ Date: _____

HAN

EMRV "HANGER"

85-211-11
MNCR#

DWG.#-MPR 1083-14-27
REV 2

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

① SUPPORT PLATE FOR HANGER ROD IS NOT SHOWN CORRECTLY IN DWG. THE CHANNEL BEAM IT RESTS ON IS ALSO NOT SHOWN AND IS SUPPORTING OTHER ITEMS.
Sent to D², D 10/22/85

CHANGE HANGER DRAWING TO CONFIRM TO AS BUILT CONFIGURATION.
STRUCTURALLY ACCEPTABLE

TO E.O. WRIGHT
DED SUPUR. - O.C.
DATE 10-21-85



System Speed Memo

MESSAGE

PLEASE PROVIDE DIMENSIONAL & CONFIGURATION
INFO. REGARDING MAIN STEAM (EMRV)
HANGER VS-4-A-11 AS SHOWN ON MPR
DWG. 1083-14-27.

INCLUDE DETAILS OF ASSOCIATED GANG
SUPPORT.

MNCR 85-211-11

ANTICIPATED COMPLETION DATE: 10/22/85.

Please reply to:

SIGNED: *[Signature]* for TL CORRIE

REPLY

DATE:

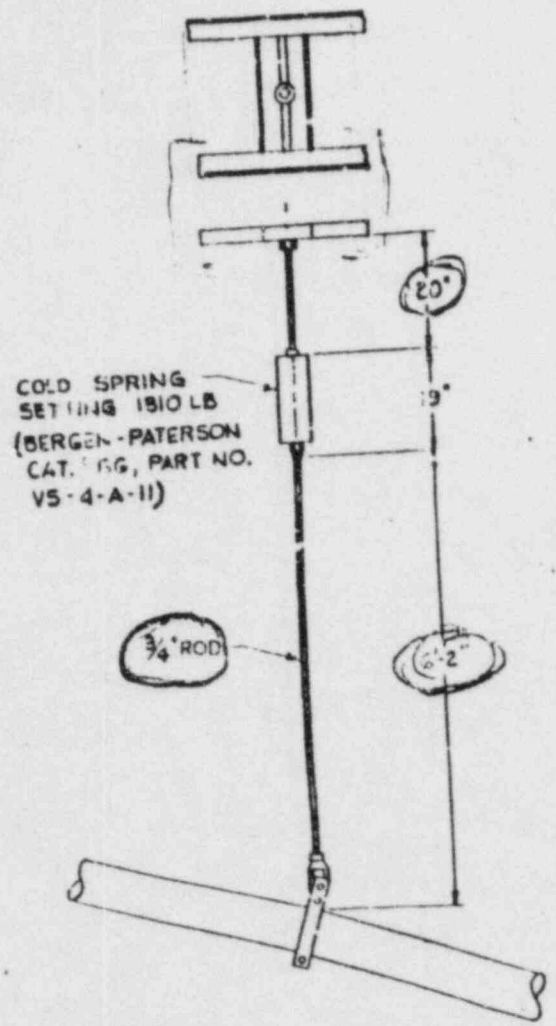
SIGNED:

1st & 2nd copy For person addressed 2nd copy
to be returned to sender
3rd copy Detach and retain for answer

Calculation Sheet

No. 270
 Date _____
 Calc No. _____
 Reviewed By _____
 Date _____

NO	REVISION	OWN BY	CHK BY	ENG	APPROVED BY & DATE
2	CHANGED DRAWING FROM J.E.P.C.I. CO. TO MPR ASSOC. INC.	WJH	WJH	WJH	<i>WJH</i> 9-7



* PROVIDE LOCATION (ELEV. & AZIMUTH)

COLD SET _____
 AT TEMP _____

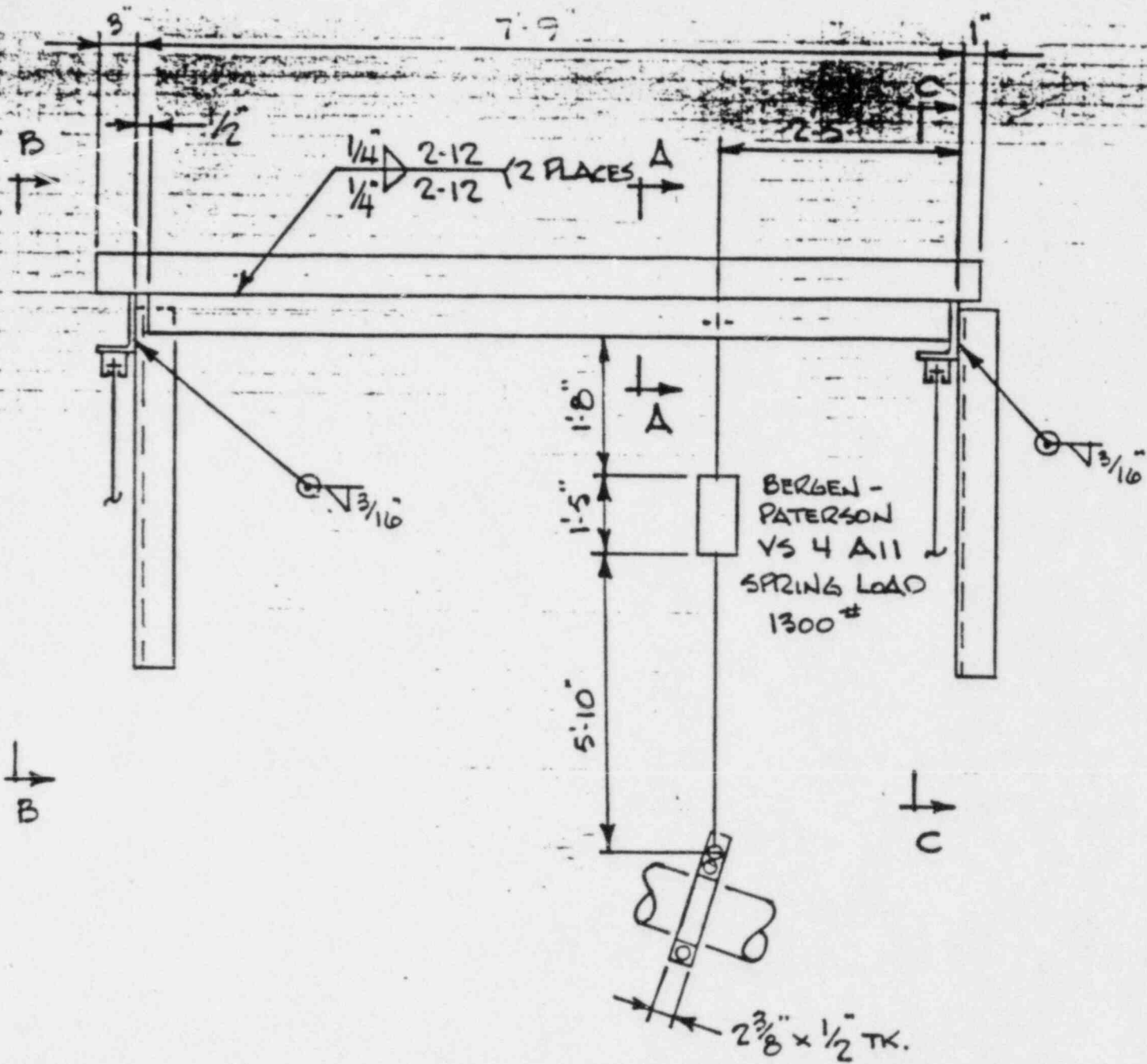
NOTE:
 INFORMATION FOR THIS DRAWING WAS
 SUPPLIED BY D. GAINES (JCP 94)

MPR ASSOCIATES, INC.
 1140 CONNECTICUT AVE. N.W. WASHINGTON, D.C. 20036

SCALE: NONE	APPROVED BY: <i>WJH</i>	DRAWN BY: JNH
DATE: 10-4-73		

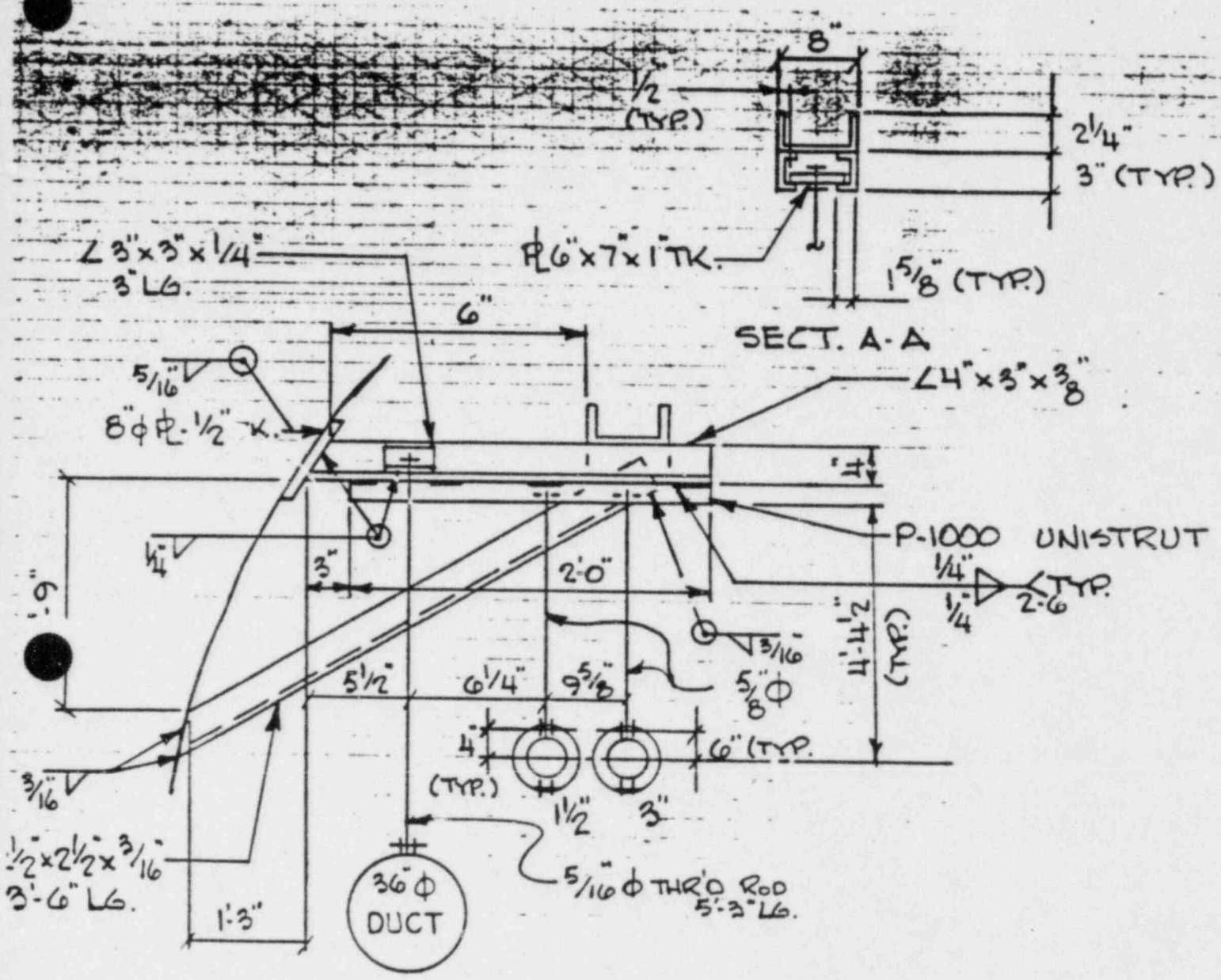
DISCHARGE PIPING HANGER FOR 5TH ELECTRO-MATIC RELIEF VALVE

DRAWING NO. 1083-14



ELEV. LKG. SOUTH

MAIN STEAM (EMRV)
 HANGER VS-4-A-11

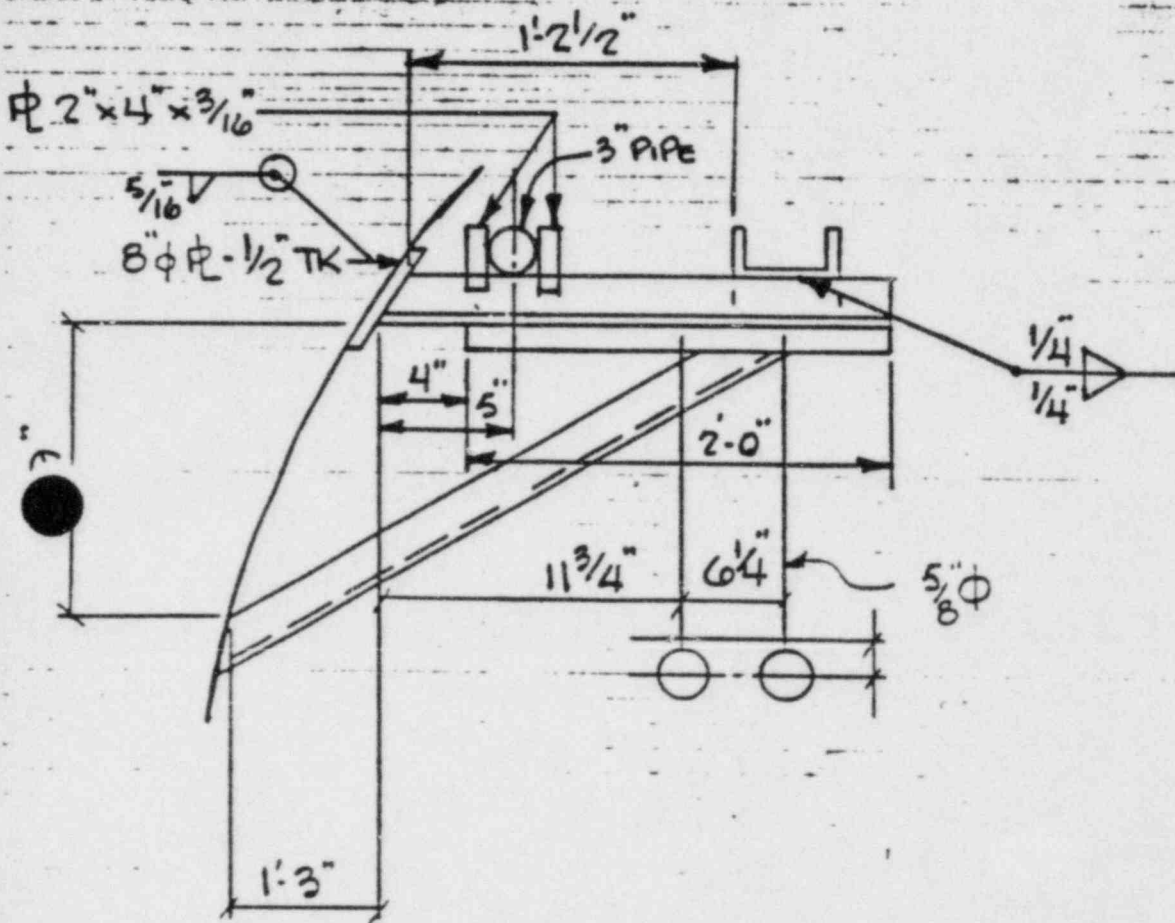


SECT. B-B
ELEV. LKG. WEST

MAIN STEAM (EMR)
HANGER VS-4-A-11
SHEET 2

NOTE

SECT. B-B SIMILAR TO SECT. C-C
UNLESS OTHERWISE NOTED



SECT C-C
ELEV. LKG. WEST

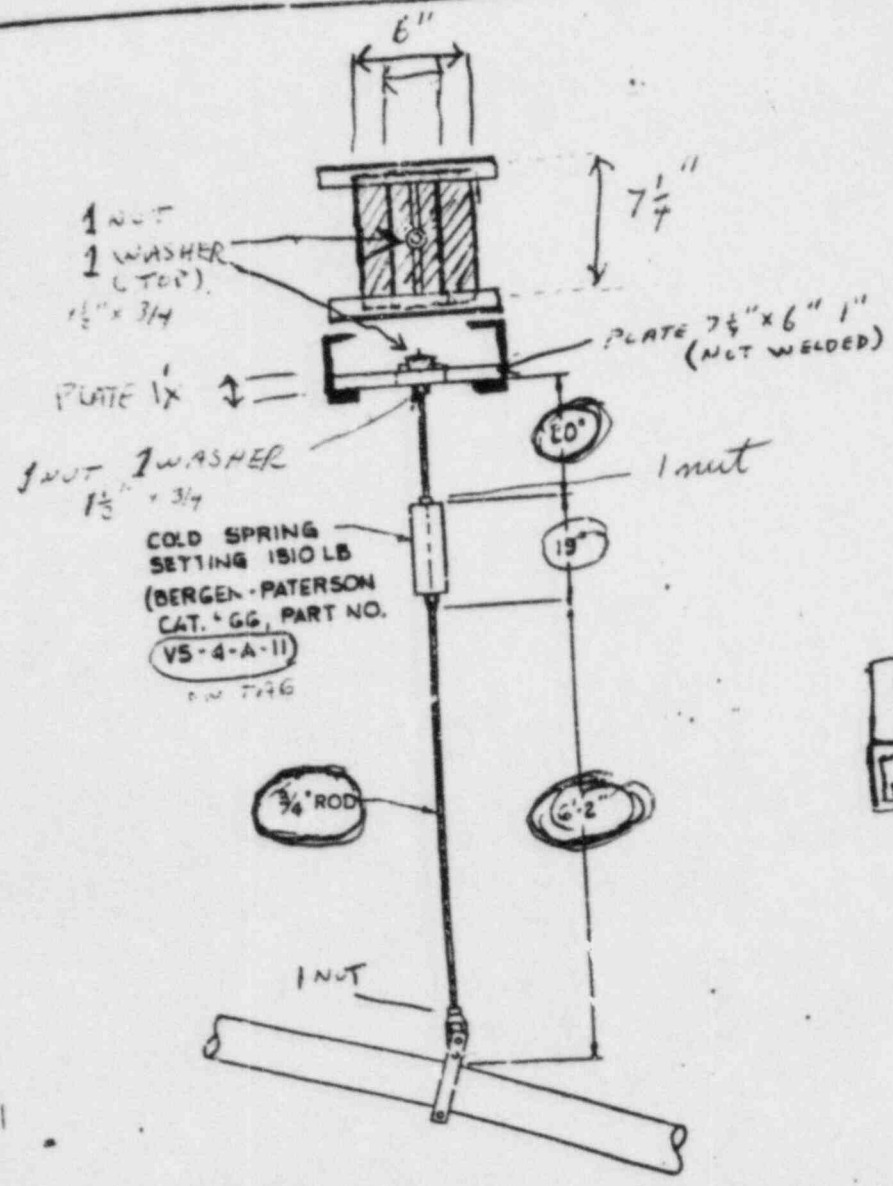
MAIN STEAM (EMRV)
HANGER VS-4-A-11

Calculation Sheet
 Sheet No. 8 of 8
 Date
 Rechecked by
 Date
 Subject
 Originator

MUCK 85-211-1/1 (8)

NO	REVISION	DWN BY	CHK BY	ENG	APPROVED BY & DATE
2	CHANGED DRAWING FROM J.C.P.C.L.CO. TO MPR ASSOC. INC.	W 11	OK 7 77	W 11	J.W. [Signature] 9-77

TAG; PAT # 2835,403 & 3,176,870



* PROVIDE LOCATION (ELEV. & AZIMUTH)
 (1 1/2") 1241 LB
 1343 → (3") 1446 LB
 COLD SET
 AT TEMP 89.5°F
 ON PIPE AT CLAMP

NOTE:
 INFORMATION FOR THIS DRAWING WAS SUPPLIED BY D. GAINES (JCP9L)

MPR ASSOCIATES, INC.
 1140 CONNECTICUT AVE. NW WASHINGTON, D.C. 20036

SCALE: NONE	APPROVED BY: [Signature]	DRAWN BY: JWH
DATE: 10-4-72	DISCHARGE PIPING HANGER FOR 5" ELECTRO-MATIC RELIEF VALVE	
DRAWING NUMBER: 1083-14-27		RE:

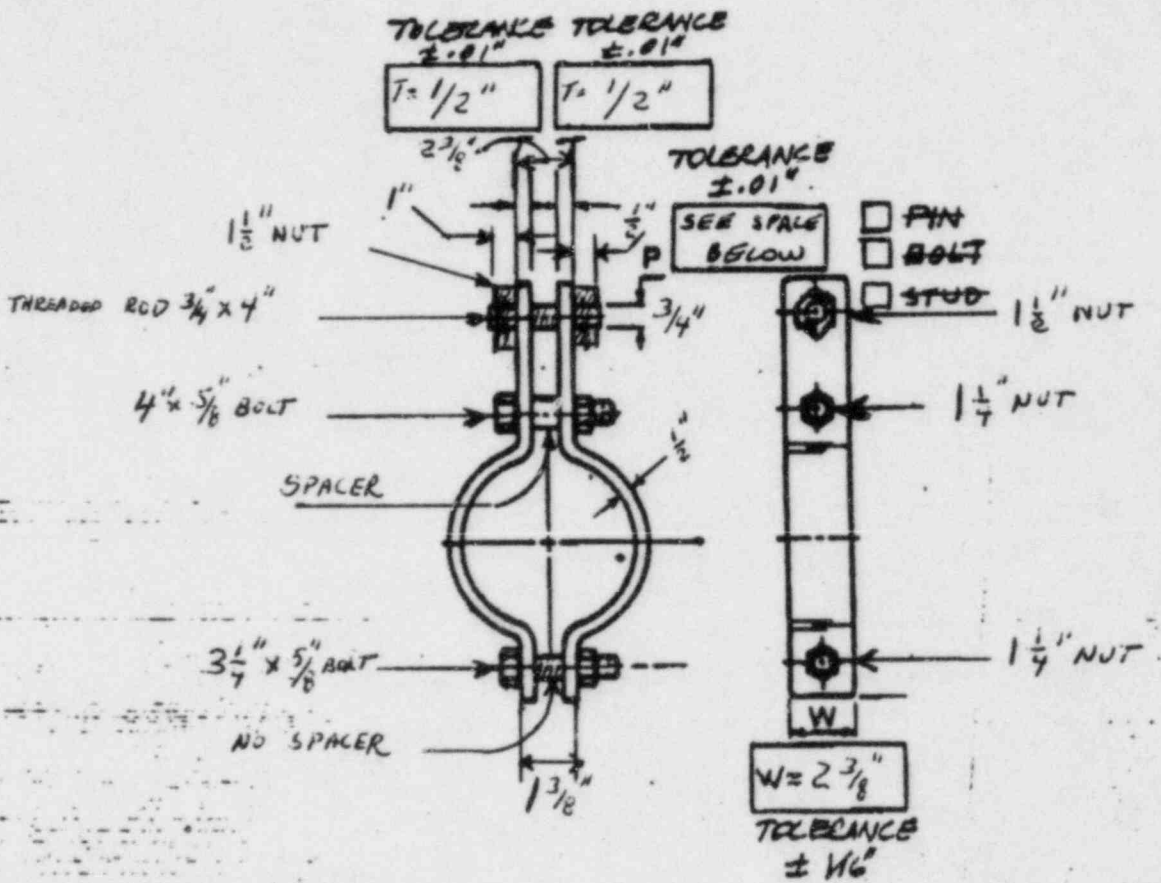
EMRV "HANGAR"

Oyster Creek - OC

SUPPORT # EMRV HANGER REF. MNCR _____
 SUPPORT DWG # 1083-14-27 REV 2 85-211-11
 (9)

SYSTEM "EMRV"

3 BOLT CLAMP (TYPE)



THREADED ROD
 P = LOAD BOLT SIZE/LENGTH 3/4" x 4"

Creek - OC

Reviewed: *B. J. J. J.*

SUPPORT # "EMRU" HANGER VALVE # _____
 ISO DWG # Eng Sketch _____
 ORTHO DWG # N/A _____
 SUPPORT DWG # MPR 1083-14-27 rev 2 _____

MNCR 85-211-11

ITEM	Y	N	N/A	REM
1. Proper Valve Orientation			X	
2. Skin Temperature <u>89.5°</u> °F (C.R.) (PYR)	X			
3. Components identified in accordance with the appropriate drawing.	X			
4. Component location is within drawing tolerances.	X			
5. Hanger and pipe supports are located in accordance with appropriate drawing tolerances and are the correct design.	X			
6. Verify that all welds are completed.			X	
7. Piping and supports are free of arc strikes.	X			
8. Snubbers and spring hangers are installed in accordance with drawing.	X			
9. Read and record the spring load as shown by the spring side of piston plate/load indicator within ±5% <u>343 lbs</u>	X			
10. Record the amount of snubber extension from the fully compressed position. T or C = _____			X	
11. If the springs and snubbers are within: 1/4" from the topped/bottomed out position for springs, and 1/4" from the fully compressed/fully extended position for snubbers, it shall be reported.		X		
12. Verify piping sizes.	X			
13. Hanger location in building (General area) { Description: <u>53' DRYWELL AT PIPE CLAMP</u> }	X			

JOHN MATRANICH 10-21-85

Creek - OC

SUPPORT # "EMRV" HANGER

ITEM	Y	N	N/A	REM
4. Hanger hardware:				
A. Clips			X	
B. Clevis			X	
C. Cotter Pins			X	
D. Turnbuckles			X	
E. Nuts/Bolts (Check all attachments for double nut requirements)	X			25
F. Spring Canisters	X			
G. Locking Tabs on Nuts			X	
H. Washers	X			
I. Swivels			X	
15. Hanger configuration in accordance with applicable drawings:				
A. Dimensions				
B. Angles of support to system and base plate	X			
C. All hanger attachments i.e., clips, brackets, etc. orientated correctly.	X			
D. Strut or Snubber pin to pin distance _____			X	
16. Weld locations:				
A. Proper weld location			X	
B. Proper weld spacing			X	
C. Proper number of welds			X	
D. Thru paint (average value _____)			X	
17. Anchor Bolts:				
A. Type			X	
B. Size _____ number _____			X	
C. Thread engagement			X	
D. Bolt c/c spacing			X	
E. C/C from anchors to closet anchor _____			X	
18. Gaps @ stops:				
A. At U-bolts or Restraints			X	
B. At pipe penetrations			X	
*TOLERANCES FOR MEASUREMENT ACCURACY				
<u>Measurement</u>	<u>Tolerance</u>			
0" - 2"	± 1/16"			
≥ 2" - 12"	± 1/8"			
≥ 12" - 36"	± 1"			
≥ 36" - ∞	± 3"			
* Unless otherwise shown on the dwg.				
<u>JOHN MATRUNICH</u> 10-21-85 QC INSPECTOR(S) DATE				

	Y	N	N/A	REM
19. Confirm pipe clamp figure no. If not possible, fill in appropriate form attached. <u>3 BOLT CLAMP TYPE</u>	X			
20. Baseplate attachments location recorded on the anchor plate verification sheet.			X	
21. For valves noted in the walkdown, record their location & orientation on the isometric drawing. Describe orientation by stating (1) direction observer is facing, and (2) angle of valve \angle to pipe \angle to nearest 30 degrees (such as hours on a clock with 12:00 being direction facing the observer).			X	
22. For hangers where other systems (i.e. piping, conduit, etc.) are also supported, give size of this system and describe type of support and distance to upstream and downstream hangers supporting that system.			X	
Other items as specified by calculation sheet request attached.				

JOHN MATRUKICH 10/21/85
 QC Inspector(s)/Date

RECNO _____
 REV _____
 DATE _____
 RECTYPE _____
 LOCATION _____
 FORMNO A _____
 RETENTION _____

Unit: TMI-1 TMI-2 Oyster Creek

1. Identification

Originator: KEVIN McCauley Date/Time: 10/20/85 3:00p.
Material, Part, Component, etc.: MAIN STEAM SYSTEM

Location: TRUNION ROOM

Manufacturer (Name): N/A Code: N/A

P.R.# N/A Line # N/A Spec # N/A

System: MAIN STEAM System Tag No. N/A

Dwg No. ISOMETRIC ? HANGER PLANS Heat Code No. N/A Other N/A

Nonconforming to (requirements): DIMENSIONAL DISCREPANCIES ON NUMEROUS HANGERS ON SYSTEM

Description of Nonconformance: SEE MARKED UP DRAWINGS FOR EACH SPECIFIC PROBLEM

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

POTENTIALLY REPORTABLE:

Important To Safety	10CFR50	10CFR21	10CFR71	10CFR73.71	L.E.R.
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Evaluated By (Name): W Manning Date/Time: 10/21/85 0715

QC Mgr. Validation: J. McCall Date/Time: 10-21-85 / 0715

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____

Licensing Notified: YES NO Date/Time: _____

Hold Tags Issued: YES NO No. of Tags: _____

Tags Installed By (Name): NA Date/Time: _____

Material Segregation Required: YES NO

Segregation Verified By (Name): NA Date/Time: _____

ACTION PARTY (Name): J. McCall Dept: PLANT MATERIAL

Forward to responsible individual/department (Action Party).

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: _____

Evaluation/Disposition By (Name): _____ Dept: _____
Date: _____

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (Include applicable work documents, limitations, re-test requirements, etc.) _____

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No.: _____

Evaluated By (Name): _____ Dept: _____
Date: _____

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: _____ Date: _____

Conditional Release Issued: YES NO Reject Tags Issued: YES NO

AI/ANI Concurrence: YES NO Signature: _____ Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____

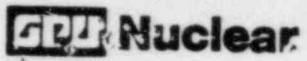
Work/Shipping Order No.: _____ Other: _____

Verified By (Name/Title/Date): _____

Resegregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____ Date: _____



Material Nonconformance Report

MNCR Number 85-215-1

Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
 REV _____
 DATE _____
 RECTYPE _____
 LOCATION _____
 FORMNO A _____
 RETENTION _____

1. Identification

Originator: McCaughey / F. Wiese
 Material, Part, Component, etc.: MSH-4 DWG-332 R-3 Date/Time: 10-20-85-15:40

Location: CONDENSED BOY / TRUNION ROOM
 Manufacturer (Name): MA Code: MA
 P.R.#: MA Line #: MA Spec #: MA
 System: MAIN STEAM System Tag No.: MA
 Dwg No. JCP-19442 SHT-1/332 REV-3 Heat Code No. MA Other: MA

Nonconforming to (requirements): DIMENSIONAL CONFIGURATION AS SHOWN, APPLIED HARDWARE NOT CALLED FOR ON DWG.

Description of Nonconformance: SEE DISCREPANCY ATTACHED

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

Important To Safety	POTENTIALLY REPORTABLE:				
	10CFR50	10CFR21	10CFR71	10CFR73.71	L.E.R.
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Evaluated By (Name): Ken McCaughey Date/Time: 10-20-85 / 1:45 PM
 QC Mgr. Validation: James Stubbins Date/Time: 10-21-85 / 0721

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____
 Licensing Notified: YES NO Date/Time: _____
 Hold Tags Issued: YES NO No. of Tags: _____
 Tags Installed By (Name): NA Date/Time: _____
 Material Segregation Required: YES NO
 Segregation Verified By (Name): NA Date/Time: _____
 ACTION PARTY (Name): J. Mahoney Dept: PLANT MTL.

Forward to responsible individual/department (Action Party).

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: ^② Remove tag. ^① Provide engineering determination as to adequacy of as built configuration. If adequate, revise drawing to reflect AS Built.

Evaluation/Disposition By (Name): [Signature]

Dept: Robert Matland
Date: 10-20-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (Include applicable work documents, limitations, re-test requirements, etc.)

SEE ATTACHED SHEET FOR JUSTIFICATION

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No: _____

Evaluated By (Name): [Signature]

Dept: T. F. EISEN, MECH.
Date: 10-20-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: [Signature]

Date: 10/21/85

Conditional Release Issued: YES NO
Reject Tags Issued: YES NO

AI/ANI Concurrence: YES NO
Signature: NA

Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____

Work/Shipping Order No.: _____ Other: _____

Verified By (Name/Title/Date): _____

Tags/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____

Date: _____

HANGER

MSH-4

MAIN STEAM

MNCR# 85-213-1

DWG.# 332 REV-3

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

1) SPRING CAN NUMBER DOES NOT MATCH DWG.
ON DWG.- VS-3F-18
ON CAN- VS-1F-18

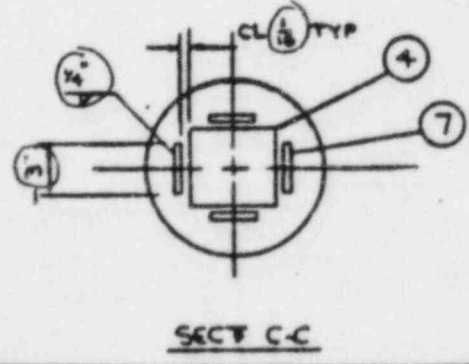
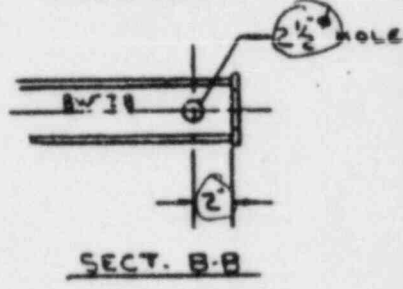
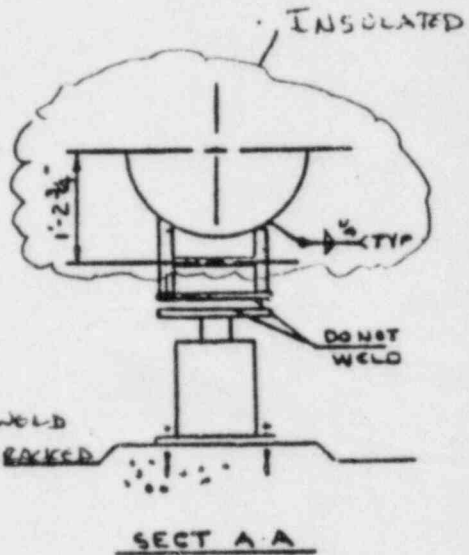
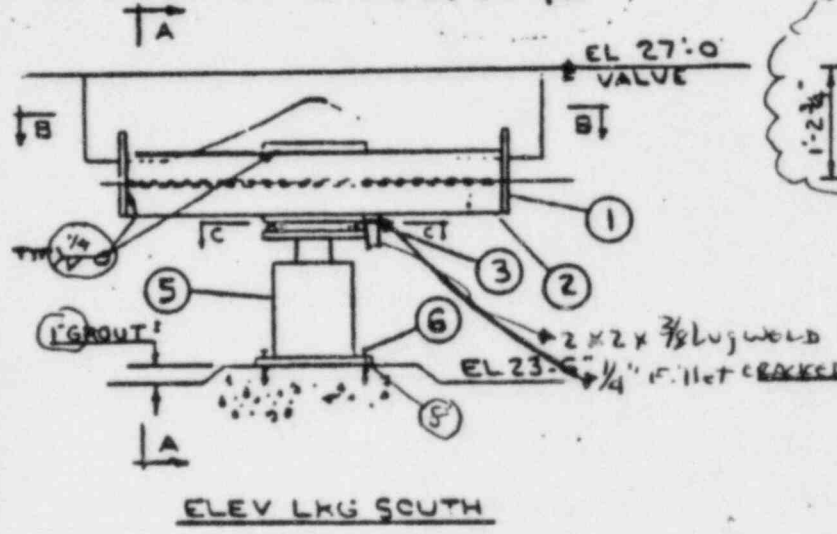
CORRECT DWG. BILL OF MATERIAL.
STRUCTURALLY OK.

2.) ADDED LUG SHOWN ON DWG. WITH CRACKED
WELD

REMOVE LUG.

ITEM NO	NO REQD	DESCRIPTION	DWG OR PART NO	REMARKS
1	2	R (0) - 1/2" x 7" (REF R DETAIL ON SHT 2)		
2	1	8WF28 x 6'10" LG		
3	2	9" x 9" x 9" R		
4	1	5" x 1/2" x 5" LUBRITE R		
5	1	VS2" - 18 HL - 10,940 CL - 10,440 W.T. 1/2" ON 10,122 LBS		DM - 21 1/8"
6	4	5.39 P.R. W/ 1/2" x 2 3/4" BOLT		
7	4	1/2" x 9" x 3" LG BAR		
8	1	12 x 12 x 1/2"		

REF. DWGS.
 BER - PAT INDEX 325
 BER - PAT ISO 340
 GPC ISO JCP - 19442 SHT. 1
 * INDICATES APPROVAL BY JCP/L



OPER LOADS 10,940 *
 HYDRO LOAD 12,990 *

SHEET 1 OF 2

REV	DATE	DESCRIPTION
1	1-23-67	INCREASED HOLE DIA. IN ITEM # 2
3		FIELD VERIFICATION FOR NICKEL/COBALT
2		REV'D SPRING (ITEM # 5)

ALMIRALL & CO., INC P. O. #7248		PIPING SYSTEM MAIN STEAM	
BURNS & ROE, INC		REF B/R DWG	
OYSTER CREEK STA. #1.		MARK NO. MSH-4 NO REQD 1EA	
DRAWN JRS	CHEK ef	APPRVD	
BERGEN-PATERSON PIPESUPPORT CORP. CAMBRIDGE, MA 018		DATE 10-27-66	JOB NO R66-1070
WOODRIDGE N J		REVISED	332

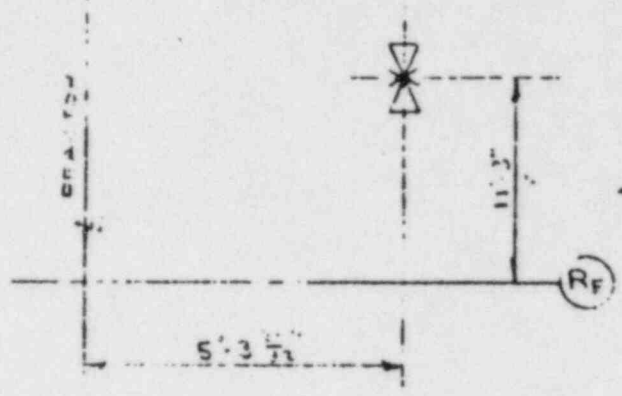
ITEM NO.	NO REQ'D.	DESCRIPTION	DWG OR PART NO.	REMARKS

DESCRIPTION

REV DATE

DESCRIPTION

REV DATE



LOC PLAN

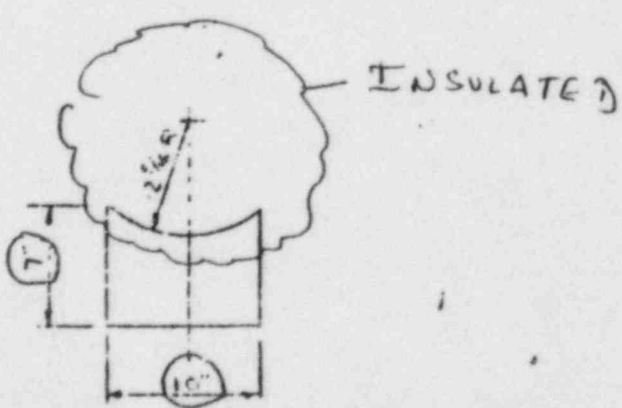


PLATE DETAIL
(2) REQ'D

SHEET 2 OF 2

ALMIRALL & CO., INC. P. O. #7248
 BURNS & ROE, INC.
 OYSTER CREEK STA. #1.

PIPING SYSTEM MAIN STEAM
 REF. LOCATION PLAN BER DWG 2103
 MARK NO. MSH-4 NO. REQ'D 1

DRAWN	CHKD	APPVD
URS	SA	

BERGEN-PATERSON PIPESUPPORT CORP.
 CAMBRIDGE, MASS. WOODBRIDGE, N.J.

DATE	JOB NO.	DRAWING NO.
INDV GS	260108	832

Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORMNO A _____
RETENTION _____

1. Identification

Originator: KEVIN McCAULEY Date/Time: 10/20/85-3:00 PM

Material, Part, Component, etc.: FEEDWATER SYSTEM

Location: DRYWELL Km 10/20/85 TRUNION ROOM

Manufacturer (Name): N/A Code: N/A

P.R.# N/A Line # N/A Spec # N/A

System: FEEDWATER System Tag No. N/A

Dwg No. ISOMETRIC & HANGER DWGS Heat Code No. N/A Other N/A

Nonconforming to (requirements): DIMENSIONAL DISCREPANCIES ON NUMEROUS HANGERS ON SYSTEM

Description of Nonconformance: SEE MARKED UP DRAWINGS FOR EACH SPECIFIC PROBLEM

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

POTENTIALLY REPORTABLE:

Important To Safety	10CFR50	10CFR21	10CFR71	10CFR73.71	L.E.R.
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Evaluated By (Name): K. McCAULEY Date/Time: 10/20/85 3:00 PM

QC Mgr. Validation: David [Signature] Date/Time: 10-21-85/0718

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____

Licensing Notified: YES NO Date/Time: _____

Hold Tags Issued: YES NO No. of Tags: _____

Tags Installed By (Name): NA Date/Time: _____

Material Segregation Required: YES NO

Segregation Verified By (Name): NA Date/Time: _____

ACTION PARTY (Name): J MALONE Dept: PLANT MATERIALS

Forward to responsible individual/department (Action Party).

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.)*

Evaluation/Disposition: _____

Evaluation/Disposition By (Name): _____ Dept: _____
Date: _____

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (Include applicable work documents, limitations, re-test requirements, etc.) _____

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No.: _____

Evaluated By (Name): _____ Dept: _____
Date: _____

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: _____ Date: _____

Conditional Release Issued: YES NO Reject Tags Issued: YES NO

AI/ANI Concurrence: YES NO Signature: _____ Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____

Work/Shipping Order No.: _____ Other: _____

Verified By (Name/Title/Date): _____

Tags/Segregation Removed By (Name/Title/Date): _____

Final Package Review

Quality Control Manager: _____ Date: _____

Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORM NO A _____
RETENTION _____

1. Identification

Originator: KEVIN McCauley / E. Wiersz Date/Time: 10/20/85-11:38 AM
Material, Part, Component, etc.: RFR-H12 DWG. # 796

Location: CONDENSER BAY / TRUNION ROOM

Manufacturer (Name): N/A Code: N/A

P.R.# N/A Line # N/A Spec # N/A

System: FEEDWATER System Tag No. N/A

Dwg No. 796 REV. 4 / JCP-19443 SH-3 Heat Code No. N/A Other N/A

Nonconforming to (requirements): DIMENSIONAL CONFIGURATION AS SHOWN, ADDED HARDWARE NOT CALLED FOR ON DWG.

Description of Nonconformance: SEE DISCREPANCY ATTACHED

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

POTENTIALLY REPORTABLE:

Important To Safety	10CFR50	10CFR21	10CFR71	10CFR73.71	L.E.R.
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Evaluated By (Name): [Signature] Date/Time: 10/20/85 / 1:45 PM

QC Mgr. Validation: [Signature] Date/Time: 10-21-85 / 07:23

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____

Licensing Notified: YES NO Date/Time: _____

Hold Tags Issued: YES NO No. of Tags: _____

Tags Installed By (Name): _____ Date/Time: _____

Material Segregation Required: YES NO

Segregation Verified By (Name): _____ Date/Time: _____

ACTION PARTY (Name): J. MALONEY Dept: PLANT METL.

Forward to responsible individual/department (Action Party).

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: Provide engineering determination as to adequacy of AS built configuration. If adequate revise drawing to reflect AS built.

Evaluation/Disposition By (Name): [Signature]

Dept: Plant Material

Date: 10-20-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (Include applicable work documents, limitations, re-test requirements, etc.)

SEE ATTACHED SHEETS FOR JUSTIFICATION

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No. _____

Evaluated By (Name): [Signature]

Dept: T. F. RIV. MGR.

Date: 10-21-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: [Signature] Date: 10-21-85

Conditional Release Issued: YES NO
Reject Tags Issued: YES NO

AI/ANI Concurrence: YES NO Signature: NA

Date: _____

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____

Work/Shipping Order No.: _____ Other: _____

Verified By (Name/Title/Date): _____

gs/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____

Date: _____

ENGINEERING DISPOSITION

Q.C. OBS./DISCREPANCIES

1.) Welding log ceiling attachment welded only on 3 sides

3 Sides weld is Accept. * Formula calculations will be performed after pipe stress * weld not specified on orig. Dwg. Change Dwg.

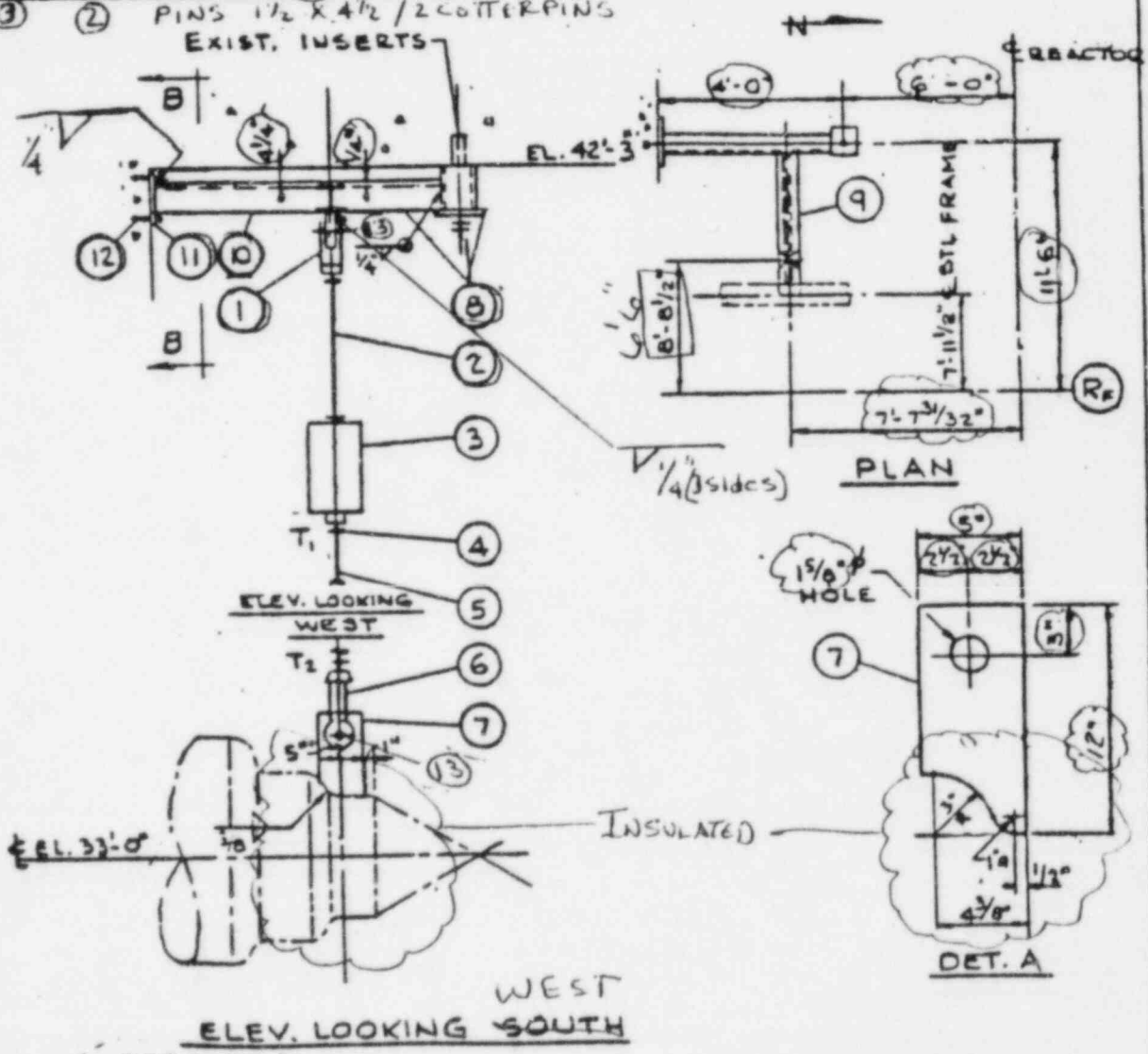
2.) Added hardware 'C' channel to base plate

Added channel is structurally acceptable. Change Dwg.

3.) Dimensional discrepancy as shown

Dimensional discrepancy structurally acceptable. Change Dwg.

ITEM NO	NO. REQD	DESCRIPTION	DWG OR PART NO	REMARKS
1	1	PART 12D, DWG. 3 9" X 3" X 1/4" CLEVIS		
2	1	(1 1/2" φ x 2'-6") LG. (6" TBE		
3	1	(V51A-17) MVT. 1/8" UP. H.L. 7350# CL. 7725# C90	7485# 3/4"	
4	4	(1 1/2" φ J.N.		
5	1	(1 1/2" φ x 3'-0" LG. ROD, T ₁ = 8" T ₂ = 6"		
6	1	3/4" CLEVIS, T, P & C = 1/2"	4" X 3" X 1/4" CLEVIS	
7	1	3/4" THK LUG, DET. A		ASTM A36
8	1	L(5" X 3" X 1/8") S(4'-0") 5'	1000	
9	1	4" X 13.0 S(3'-4 1/2") 5'	501	
10	1	L(5" X 3" X 1/8") x (3'-9 1/2") LG.		
11	2	PINS 1 1/2" X 4 1/2" / 2 CUTTERPINS		
12		EXIST. INSERTS		



REV	DATE	DESCRIPTION
4		REV. UPPER CONN. & PLAN
3		REV. LOC PLAN
2		ADDED MAT'L SPEC FOR ITEM #7
1		

REF DWGS
 BER-PAT INDEX 796
 BER-PAT 150 804
 GR 150 JCP-19443 SH3

* INDICATES APPROVAL BY JCP/L

ALMIRALL & CO, INC. P. O. #7248
 BURNS & ROE, INC.
 OYSTER CREEK STA. #1

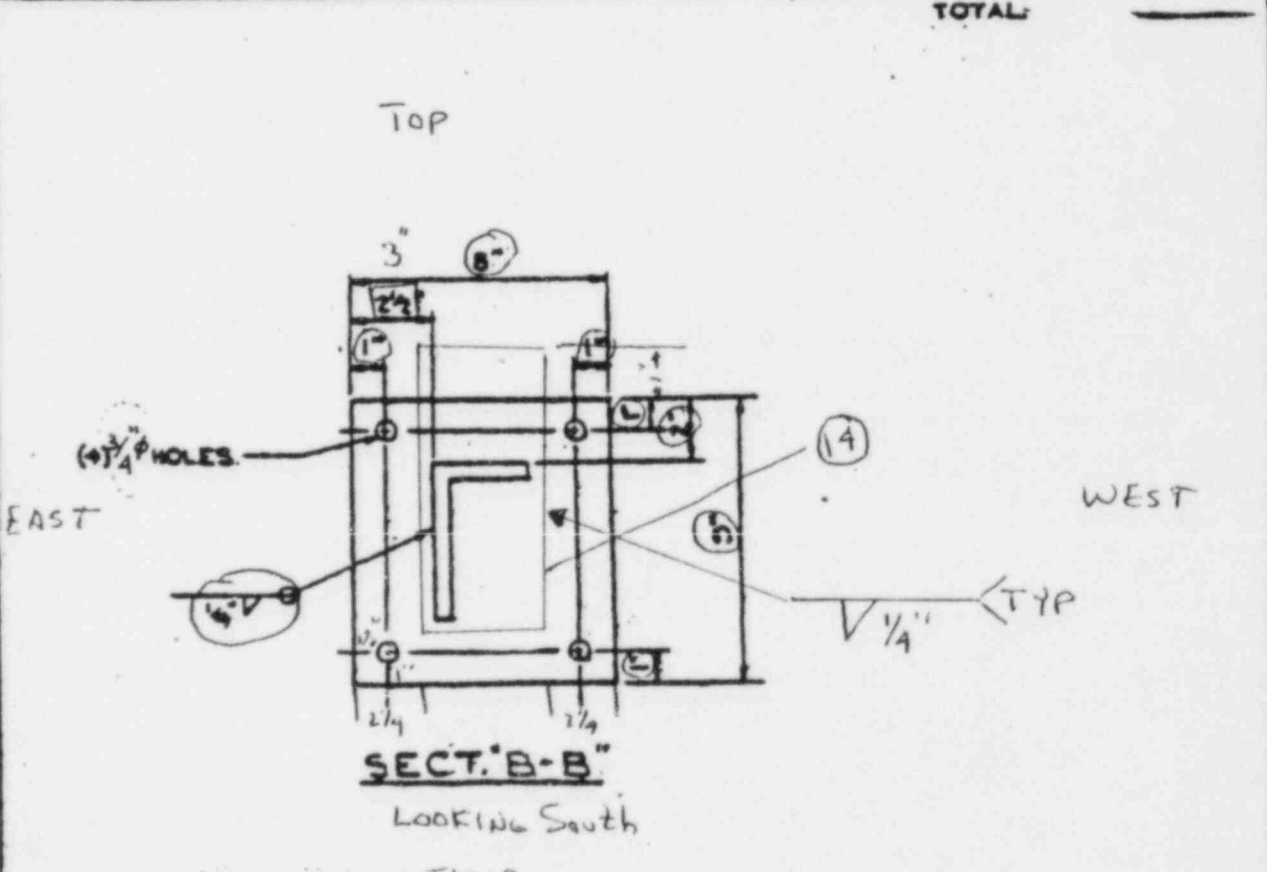
PIPING SYSTEM FEEDWATER
 REF. LOCATION PLAN B & R DWG. 2109
 MARK NO. RF-R-H-12 NO. REQD. 1

DRAWN	CHKD	APPROV	DATE	JOB NO	DRAWING NO
SCE	SL		1/11/67	P.66-1070	802

85-212-1

ITEM NO.	NO. REQ'D	PART NO.	DESCRIPTION	WGT.
11	1		8x1/2x9" (SEE SECT. B-B)	
12	4		S-58 PHILLIPS RED HEADS W/ 1/2"-14" BOLT	
14	1		CUT L Channel 3 1/2 x 9 x 1/4"	
				TOTAL:

FIELD VERIFICATION FOR NRI/E
 BY: [Signature]
 DATE: 8/29/02
 ADD'D REF DWGS
 FROM: [Signature]
 DATE: 8/29/02



REF DWGS
 BER-PAT INDEX 790
 BER-PAT 150 804
 GPC 150 JCP-19443 5N3
 * INDICATES APPROVAL BY JCP/L

ALMIRALL & CO. INC. P.O. # 7248
 BURN'S & ROE, INC.
 OYSTER CREEK STA. #1

PIPING SYSTEM FEEDWATER
 REFERENCE DWG. 802
 MARK NO. RF-R-H/2 NO. REQ'D. 1

BERGEN-PATERSON PIPESUPPORT CORP.
 STANDARD CORR. CORR. PIPE, S. A.
 SPECIALTY PIPE HEMSTEAD, N. Y.
 S&W PRODUCTS, S&P

DRAWN	CHEK	APPR	DATE
REG	ES		8-23-02
JOB NO	P-66-1070		
DWG NO	802A		

Unit: TMI-1 TMI-2 Oyster Creek

RECNO _____
REV _____
DATE _____
RECTYPE _____
LOCATION _____
FORMNO A _____
RETENTION _____

1. Identification

Originator: KEVIN M'CAULEY / F. WIRSZ
Material, Part, Component, etc.: RF-R-46 DWG-796 R-4 Date/Time: 10/29/85 13:12

Location: CONDENSER BAY - TRUNION ROOM
Manufacturer (Name): N/A Code: N/A
P.R.# N/A Line # N/A Spec # N/A
System: FEEDWATER System Tag No. N/A
Dwg No. 796 REV-4 J.P. 19443 SH-5 Heat Code No. N/A Other N/A

Nonconforming to (requirements): DIMENSIONAL CONFIGURATION AS SHOWN, ADDD HARDWARE NOT CALLED FOR ON DWG.

Description of Nonconformance: SEE DISCREPANCY ATTACHED

Hand carry to Quality Control Manager (normal working hours) or Unit/Group Shift Supervisor (backshift/ weekend).

2. Evaluation & Validation

POTENTIALLY REPORTABLE:

Important To Safety	10CFR50	10CFR21	10CFR71	10CFR73.71	L.E.R.
YES: <input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO: <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Evaluated By (Name): D.L. Rahn, Insp - Supv. of Programs Date/Time: 10-21-85/0700
QC Mgr. Validation: [Signature] Date/Time: 10-21-85/0722

If evaluated to be potentially reportable, notify Unit Management and send copy of MCNR to licensing.

Unit Management Notified: YES NO Date/Time: _____
Licensing Notified: YES NO Date/Time: _____
Hold Tags Issued: YES NO No. of Tags: _____
Tags Installed By (Name): N/A Date/Time: _____
Material Segregation Required: YES NO
Segregation Verified By (Name): [Signature] Date/Time: _____

ACTION PARTY (Name): J. MALONEY Dept: PLANT MTRC

Forward to responsible individual/department (Action Party).

3. Action Party Evaluation & Disposition

*Repair *Use-as-is Rework Scrap Other _____

**Requires Engineering approval & evaluation/justification.*

Evaluation/Disposition: Provide engineering determination as to adequacy of as built. If adequate
revise drawing to reflect as built.

Evaluation/Disposition By (Name): _____

Dept: Plant Material

Date: 10-20-85

4. Engineering Evaluation & Disposition

Disposition Concurrence: YES NO If NO, recommendation is:

Repair Use-as-is Rework Scrap Other _____

Justification: (Include applicable work documents, limitations, re-test requirements, etc.)

SEE ATTACHED SHEET FOR JUSTIFICATION

Re-inspection/Retest Requirements (As Applicable) _____

Technical Corrective Action (As Applicable). Check, as appropriate, if corrective action requires change to:

Design Procedure Specification As-Built Drawing FSAR

Manual Tech. Spec. Document No.: _____

Evaluated By (Name): W. C. HARRIS

Dept: T. E. ELY, MGR.

Date: 10-20-85

Forward to Quality Control

5. Disposition Concurrence

QC MANAGER: _____

Date: 10-21-85

Conditional Release Issued:

YES

Reject Tags Issued: YES

NO

NO

AI/ANI Concurrence: YES

Signature: _____

Date: _____

NO

6. Quality Control Verification & Closeout

Verification of satisfactory completion of material disposition and initiation of technical corrective action.

Verification Method: _____

Complete following as appropriate:

Inspection Report No.: _____ Test Report No.: _____

Work/Shipping Order No.: _____ Other: _____

Verified By (Name/Title/Date): _____

_____/s/Segregation Removed By (Name/Title/Date): _____

7. Final Package Review

Quality Control Manager: _____

Date: _____

HANG

RF-R-46

FEEDWATER

MNCR# 85-212-5

DWG.# 796 R-4

Q.C. OBS./DISCREPANCIES

ENGINEERING DISPOSITION

1.) DIMENSIONAL DISCREPANCY AS SHOWN ON DWG.

DIMENSIONAL DISCREPANCIES
ARE "AS BUILT"

NO STRUCTURAL EFFECT.

CHANGE Dwg.

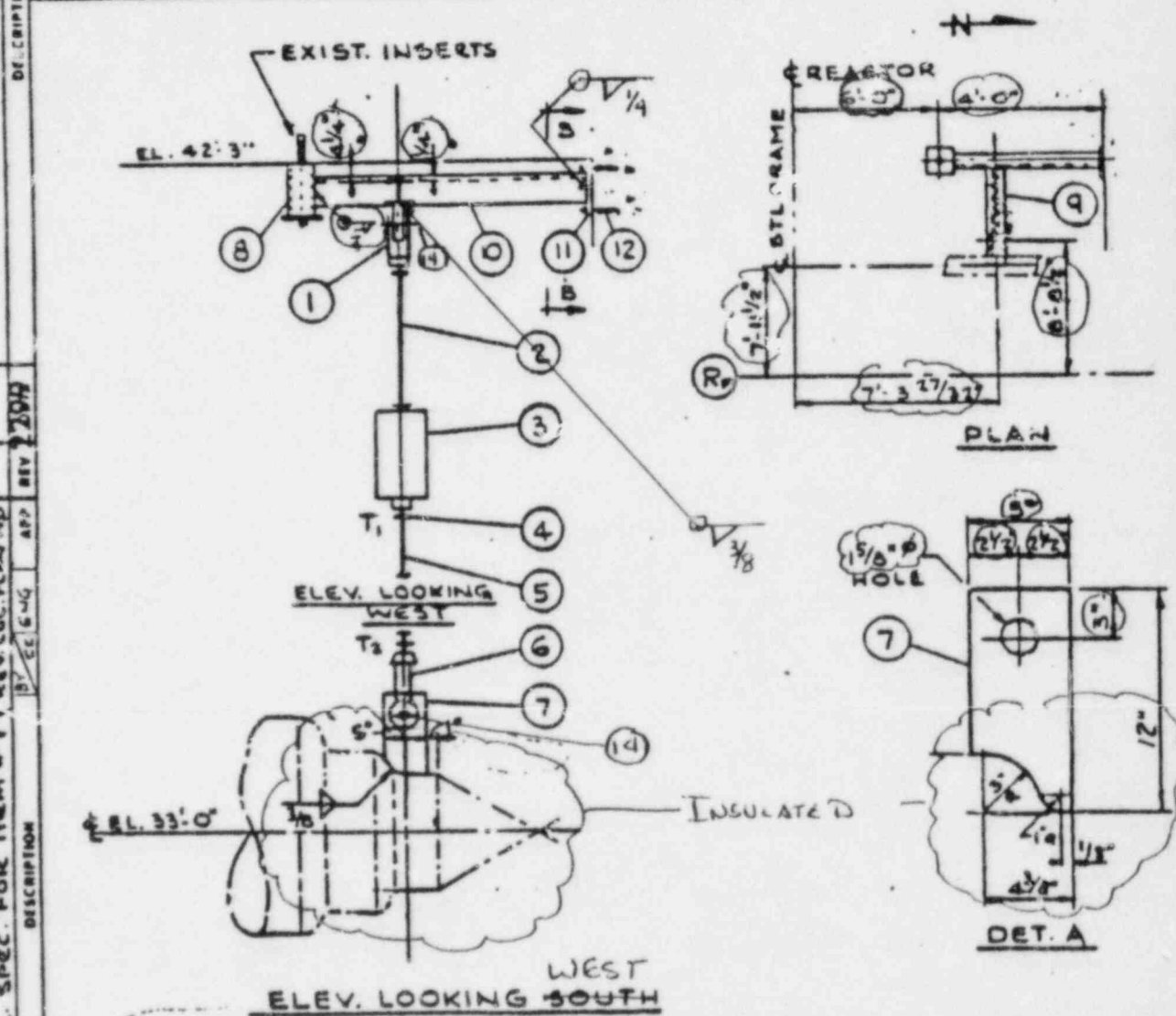
3.) ADDED HARDWARE ITEM #13 ON DWG.

ADDED HARDWARE (CHANGE)
IS STRUCTURALLY ACCEPT.

CHANGE Dwg.

FORM 80-55

ITEM NO.	NO. REQ'D	DESCRIPTION	OWG. OR PART NO.	REMARKS
1	1	PART 12D, DWG. 3 9" X 3" X 1/4" CLEVIS		
2	1	1/2" P x 6.69 LG, 6" TDR		
3	1	(VSIA-17) MVT. 1/8" UP, H.L. 7350, C.L. 7725	7619	9" 90" E
4	4	1/2" P J.N.		
5	1	1/2" P x 3.0 LG ROD, T. = (8") T ₂ (6")		
6	1	3/2 CLEVIS, T. P & C = 1427 9" X 3" X 1/4" CLEVIS		
7	1	3/4" THK LUG, DET. A		ASTM A36
8	1	L5 X 3 = 7/8" S = 4'-0" SX5 X 3/8 S = 4'-0"	1000	4' X 4' X 10'
9	1	4 WF 13.0 S = 3'-4 1/2" 4' 3 1/2"	601	
10	1	L5 = 3 = 1/8" = 3'-9 1/4" LG. 43"		



FIELD USE: REVISION FOR NUCLEAR BEARING
 WORKING TO BE ADDED REF DWGS
 3/10/67 JCP
 REV'D UPPER CONN. & PLAN
 REV. LOG. PLAN
 ADDED MAIL. SPEC. FOR ITEM #7
 REV. LOC. PLAN
 APP. 2009
 REV. 2009

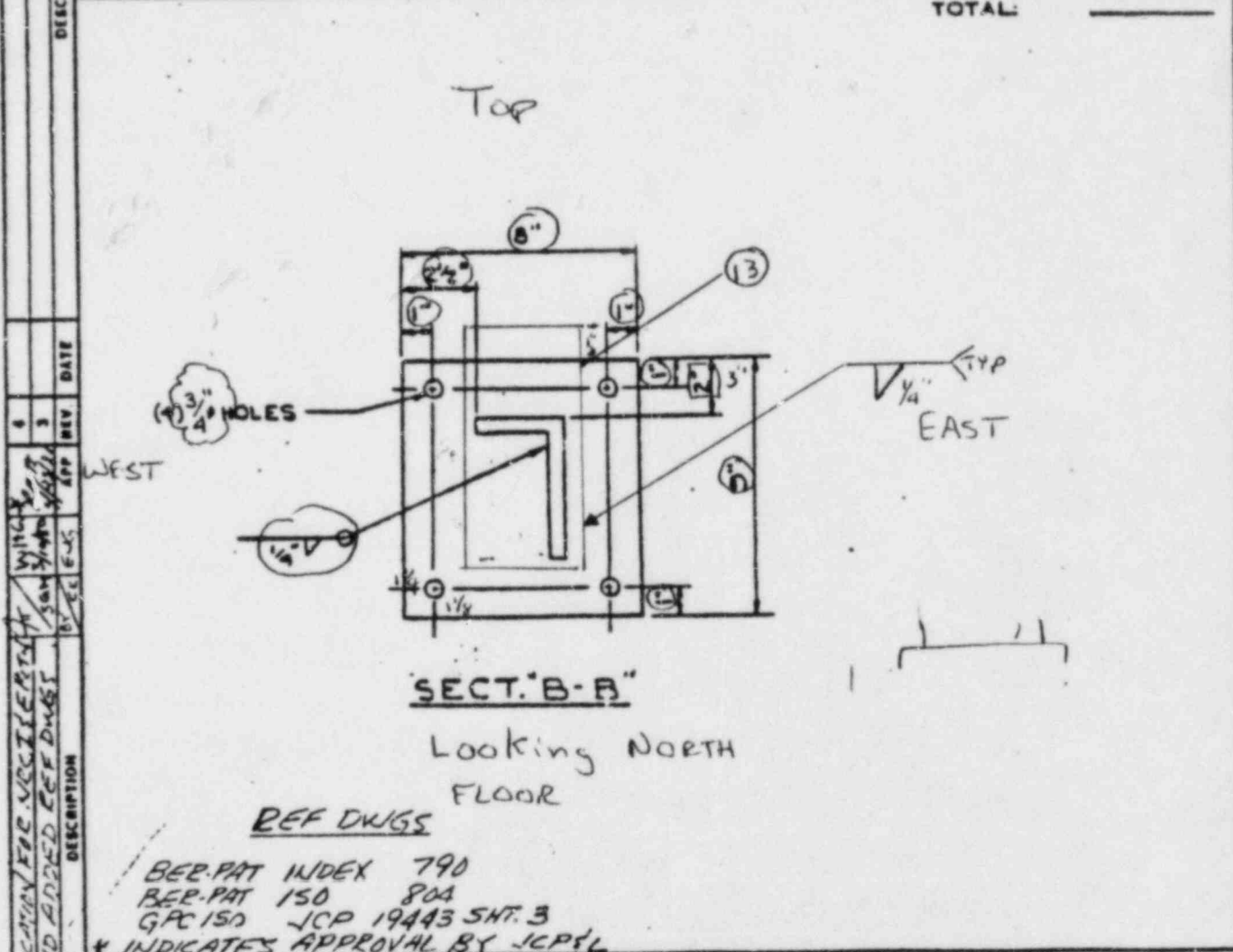
REF DWGS
 BER PAT INDEX 790
 BER PAT 150 80A
 GPC 150 JCP-19003 SMT.3 *INDICATES APPROVAL BY JCP/L

ALMIRALL & CO. INC. P. O. #7248
 CUSTOMER: BURNS & ROE, INC.
 ENGINEER: OYSTER CREEK STA. #1
 MIMING SYSTEM: FEEDWATER
 REF. LOCATION PLAN: B & R DWG. 2109
 MARK NO.: RF-R-H6 NO. REQD.: 1

REV.	DATE	DESCRIPTION	CONSUMER	DATE	JOB NO.	DRAWING NO.
4	3-25-67	REV'D UPPER CONN. & PLAN	BERGEN-PATERSON PIPESUPPORT CORP.	1/11/67	P.66-1076	796
3	1-25-67	ADDED MAIL. SPEC. FOR ITEM #7	CAMBRIDGE, MASS.			
2		REV. LOG. PLAN	WOODRIDGE, N. J.			
1		ADDED MAIL. SPEC. FOR ITEM #7				

BP

APP	ITEM NO	NO REQ'D	PART NO	DESCRIPTION	WGT.	REMARKS
	11	1		8" 1/2 x 9" R (SEE SECT. B-B)		
	12	4		S-58 PHILLIPS RED HEADS W/ 1/4" BOLT		
	13	1		9 x 3 1/2 x 1/4 L channel		
	14	2		1/2 x 4 1/2 L PINS/COTTER PINS (1)		
TOTAL:						



APPROVED FOR CONSTRUCTION BY: *[Signature]*
 DATE: *[Date]*
 CHECKED BY: *[Signature]*
 DATE: *[Date]*
 DRAWN BY: *[Signature]*
 DATE: *[Date]*
 REVISIONS: *[None]*
 TYPED BY: *[None]*
 DATE: *[None]*
 APP'D BY: *[None]*
 DATE: *[None]*
 E.C.S. *[None]*
 BY: *[None]*
 DATE: *[None]*
 DESCRIPTION: *[None]*
 T9-02 AND ADDED REF DWGS

CUSTOMER	ALMIRALTY & CO. INC. P.O. # 7248	PIPING SYSTEM	FEEDWATER
ENGINEER	BURNS & ROE, INC.	REFERENCE DWG.	796
CONSUMER	OYSTER CREEK STA. #1	MARK NO.	RF-R-H6 NO. REQ'D. 1

BERGEN-PATERSON PIPESUPPORT CORP.

CAMDEN, N.J. WOOD BRIDGE, N.J.
 PITTSBURGH, PA. NEWPORT, N.Y.
 SAN FRANCISCO, CALIF.

DRAWN	CHK'D	APP'D	DATE
REG	ES		8-23-67
JOB NO		P-66-1070	
DWG. NO.		796A	

FORM 8-5