UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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NOV 5 1984

MEMORANDUM FOR: Larry Shao, Leader
Civil & Mechanical Team
Comanche Peak TRT

FROM: Shou-nien Hou
Mechanical & Piping Discipline Leader
Civil & Mechanical Team
Comanche Peak TRT

SUBJECT: INTERVIEW WITH ALLEGER [redacted]

A conference call was arranged by R. C. Tang during 8:00 to 10:00 p.m. on October 31, 1984. The purpose was to discuss with the alleger on TRT findings. Three persons, P. Chen, R. Masterson and V. Ferrarini from Mechanical and Piping Group of the TRT participated in the conference call with presence of other three persons from civil and structure group, which included D. Jeng, C. Hofmayer, and R. Philleo, and R. Bangert from Region IV.

Highlights of alleged issues being discussed in Mechanical & Piping area and our suggested follow-up actions are summarized in the attached list. Discussions in Civil & Structure area are discussed in a separate memo by D. Jeng.

Shou-nien Hou

Shou-nien Hou
Mechanical & Piping, TRT

Enclosure: As stated

cc: V. Noonan
R. C. Tang
P. Chen
R. Masterson
V. Farrarini

Interview with Alleger on TRT Findings

Alleger	Interview Date	TRT Person	M&P Cat. #	Allegation #	Highlights
[redacted]	10/31/84 8-10 p.m. by phone	Chen	#11	AP-13	• Regarding mainsteam line forced into position • Alleger does not agree: 1. Flushing line was connected to FW (shoul be to SG) 2. Chain was used during MS lifting by crane (not used) 3. Under engineering supervision during lifting (no) • Action: Reflectwhat the alleger said in open issue and discuss with licensee.
	"	Ferrarini	#6	AW-45	• Regarding welding performed without inerting. • Alleger indicated that inerting was not done for welding repairs. ~~Vic~~ Ferrarini indicated that inerting was not required for repairs (if $t > \frac{1}{4}$") • Action: TRT should insist that inerting is not required.
	"	Masterson	#32	AH-10 AH-18	• Regarding bent bolts used for hangers • Alleger indicated that holds in tube stocks were enlarged by torch cutting for accommodating the bent bolts. He personally replaced the tube steel on 3 supports. But he indicate that similar cases may exist all over the pla • Action: TRT may agree with what alleger said, but shall emphasize safety significance in the SSER.

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FIELD WALKDOWN WITH [redacted]

On 11-7-84 the RRI, J. Cummings, and I went on a field walkdown with [redacted] and the folloiwng items were discussed:

(1) A feedwater restraint along the inner wall of the Reactor Building (RB) in Unit 1 was pointed out. During the installation the alleger stated that it was necessary to bend the rods that were screwed into the Richmond inserts. This bending was accomplished by heating and banging on the rods. Since the base plate for this restraint is very large and contains numerous holes this allegation has a high probability of being true even if the inserts were within their tolerance. (New Allegation)

(2) [redacted] also pointed out the stainless steel line that he alleged had unauthorized welding performed without a required purge. He stated that the welding was done by a welding foreman named [redacted] He, however, could not point out the exact weld but indicated one of three possibilities. (M/P CAT 6, AW-45 - V. Ferrarini)

(3) He also pointed out a restraint that had holes out of round in tube steel. He was not sure which Steam Generator (SG) bay it was located in, however, he said a man named [redacted] cut them. He stated [redacted] did so under orders. M/P CAT 32, AH-~~18~~ 10, R. Masterson)

(4) The alleger pointed out a fit-up gap problem on a main steam (MS) restraint on the MS line from SG No. 4. (New Allegation)

(5) The alleger also showed us an area on the turbine deck where rebar was cut without authorization. Note the turbine building is a non seismic category 1 structure and therefore this problem is not a safety concern.

(6) He also showed where the polar crane was attached to the No. 1 MS line and used to pull the piping to elevation. (M/P CAT 11, AR-13, W. P. Chen)

The major new concerns that were raised are:

a. How did the bending of the rods affect the rod's ultimate strength.

b. What effect did the heating and banging of the rods have on the Richmond inserts?

c. What was the effect on the ultimate strength of the concrete insert?

Upon leaving [redacted] stated that he has talked to the NRC numerous times in the past and has given them numerous names and nothing has ever happened. 7c

I think that it is very important to point out that during our walkdown [redacted] was approached by at least 12 construction personnel who were happy to see him. It appears that he is well liked by the plant construction personnel. This writer feels that [redacted] in general, is very knowledgeable and a capable construction worker. 7c

V. P. Ferrarini, TRT member

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RESPONSE FOR ALLEGATIONS
of [redacted] in
Mechanical/Piping Area

Allegation (1) Is is alleged that bolt holes in tube steel were cut over size with a torch to accommodate misplaced concrete inserts.

(2) It is alleged that an unqualified individual was fabricating pipe hangers.

(3) Welding repair was performed without inerting on the 832' El of the Unit One Reactor Building. The welding involved welding of a support lug on a stainless steel line.

TRT Response During Telephone Interview of 10-31-84

(1) The TRT reported to the alleger that after talking with site personnel, reviewing hearing records and other transcripts, and reviewing fabrication procedures, that no evidence could be found to substantiate his allegation. He insisted he could show the TRT examples of his allegation if allowed to go on site.

(2) The TRT was unable to locate the person alleged to be unqualified and therefore, could not substantiate the allegations.

TRT Followup on site visit with [redacted] 11-7-84

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(1) [redacted] pointed out a restraint that had holes out of round in tube steel. He was not sure which steam generator bay it was located in, however, he said [redacted] cut them under orders.

The TRT has not had an opportunity to follow up at the site on this new information. However, the TRT does plan to pursue this allegation and report the final findings in the SSER.

(3) [redacted] pointed out the location of the alleged improper welding. The TRT reviewed the records for the systems that [redacted] pointed out and found that all those lines were carbon steel wh ch does not require inerting. It should be pointed out that [redacted] stated that the area had changed a great deal since he left the site and therefore he was not sure as to the correct support, however, he stated that it was located in the area that he indicated.

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The TRT will attempt to locate the alleged weld by reviewing the area during its next site visit.

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1. Category No.: 32 TRT Member: R. Masterson

2. Subject: Hanger Fabrication Deficiencies

3. Summary of Allegations:

These allegations (AH-4, AH-9 through AH-11, AH-18, AH-20, AH-21) concern various hanger fabrication deficiencies such as torch cutting of bolt holes and structural steel, using sledge hammers on supports during fabrication, welding of items not on the design drawing and an unqualified individual fabricating supports. These allegations were made by [redacted]

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4. Region IV's Conclusions:

Region IV inspectors did not address allegations AH-4, AH-18, AH-20 and AH-21. Region IV inspection report 50-445/84-05 which addresses AH-9 and AH-11 is a duplicate of allegations AP-~~18, 20, and 22~~ AP-22 (see Category #31) and resulted in no violations or discrepancies. Region IV report 50-445/83-27, which addresses AH-10, concluded that due to the lack of specificity and the un-corroborated testimony of the alleger, the allegation could not be substantiated.

5. What TRT Had Done:

The TRT interviewed the allegers for AH-4, AH-18, AH-20 and AH-21 and was unable to generate more detailed information. The allegations were nondescript and vague and did not permit a review of specific hangers. The allegers either did not have firsthand knowledge of the incidents or could not remember specific hanger numbers or locations. The TRT interviewed various fabrication and QC inspection personnel and reviewed construction and QC inspection procedures and determined that in general the types of deficiencies described by the allegations were covered by procedures.

The TRT also reviewed AH-9 through AH-11 and discovered that AH-9 was a duplicate of AP-18, 20 and 22 and that AH-10 and AH-11 concerned the same incident which was associated with Unit 2. The TRT talked to one of the allegers and determined that the hanger identified in the allegation had been replaced and he knew of no other similar hangers. Six other individuals also had been interviewed by Region IV and stated that they knew of no instances of using a torch to elongate bolt holes. The TRT, as part of AC-31, inspected 150 anchors connecting tubuler steel to concrete and saw no evidence of torch cutting of bolt holes.

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6. TRT's Conclusions:

(a) Not Valid - All allegations were reviewed and no evidence could be found to substantiate the concerns. The TRT found that the types of cutting operations and fabrication techniques described by the various allegers were addressed in the procedures. Since the alleger stated that for AH-10 and AH-11 the support has been replaced, the allegation cannot be substantiated. The TRT could find no further evidence of this use of torch cutting through personal interviews or inspections.

(b) These allegations have neither safety significance or generic implications.

(c) [redacted] made [redacted] allegation in an interview and sworn statement in September 15, 1983, [redacted] made [redacted] allegation in an OI Report of Inquiry dated February 9, 19[redacted], which reiterated [redacted] sworn statements of November 22, 1983 and January 26, 1984. [redacted] repeated the incident to the TRT in an interview on September 11, 1984. [redacted] made [redacted] allegations in a February 3, 1983 affidavit and an interview on April 14, 1983. [redacted] repeated the allegations in the July 12, 1983 deposition and again to the TRT on September 19, 1984. [redacted] made [redacted] allegations in [redacted] affidavit of March 31, 1984. [redacted] discussed the concern with the TRT on August ~~7~~ 24, 1984.

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AND [redacted] AGAIN IN A TELEPHONE INTERVIEW WITH THE TRT ON AUGUST 28, 1984.

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o you recall ever having seen that posted at Comanche Peak?

A: No, I don't. You've got bulletin boards in front of the main tool room, one on the turbine deck, and one in the Administration Building. I had access as a Foreman to all of them, and I don't remember ever seeing it.

I don't know what can be done about the waste, the materials, and the back-stabbing that goes on at Comanche Peak. There are $100 plus per Hilti bolt that are scrapped daily by the skip pan full. There's wood, lumber, steel, and what it's costing the taxpayers, it's ungodly. There's no reason for it. It's ridiculous, it's the misfits, it's the supervision you've got out there. For instance, the general foreman on nights built a gold hat a sun deck or porch on his house. [redacted] because he'd been out there five or six years, and he was a good ole boy. [redacted] He could not handle his position. And here they were paying him $14 or more an hour. Now this man is a general foreman, underneath a gold hat, in charge of pipe hangers on nights. The man is unqualified, incompetent, can't do his work. He's cut holes in hangers where if there were any kind of vibration the hanger would fall off the wall; he used a cutting torch, and you're not allowed to use a cutting torch on any kind of material out there on a pipe hanger unless it is done in the Fab Shop under QA supervision. Well, he cut holes in them so that sometimes he couldn't even figure out his holes, he couldn't figure out the tolerances or anything. And this man is now a general foreman on nights on big bore pipe hangers.

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AH-18

AH-10

AH-9 relates

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I can tell you lots of things. I was a [redacted] out there. Let me just give you a general perception of what's going on there.

FOIA-85-59

CC/157

I've been in steel work all my life -- I've been a fabricator, I've supervised a shop, and the whole bit. You've got people out there who do rebar tying. You've got two pieces of steel to tie together with a piece of wire. This is rebar people, all right? All they've got to do is to go up there and tie the rebar, and pour the concrete around it. It's all a hidden object, right? This entire rebar organization and building department has come into pipe hangers. The entire rebar staff out there is a kind of clique, and they went into the hanger department. They suddenly became hanger geniuses. There's one man out there right now who, three weeks before he was transferred from scaffold and rebar said, "Man, I don't know how in the hell you read these blueprints -- I don't know how in the hell you can make these things (pipe hangers)." And as God is my witness, three weeks later this man was a General Foreman over pipe hangers. He was a general foreman next to a gold hat over pipe hangers. He suddenly knew all about pipe hangers. He suddenly knew all about steel. And here was a man that has done nothing but concrete and rebar all his life. But all of a sudden he is a steel genius because he is in the clique, because he belongs to the building department out there, because he is one of Billy Ward's little boys.

There's jokes floating all over that plant where they show a pipe hanger tied together with wire or nailed together with wood because of the carpenters and rebar hands that came over into pipe hangers. They're coming over as foremen, they're coming over as General Foremen and they're coming over as gold hats (superintendents). And all of a sudden they know everything about pipe hangers and about steel.

I'm just fed up with it, cause I've got to live here. I was here before

night GF
Big bore hangers

a cutting torch on hangers. I don't personally know, is it improper to use a cutting torch to tear down or alter a hanger?

A Not to tear down and alter, but it's illegal to use it in the containment building where I was the entire supervision, when I was hanging pipe supports. You drill everything and everything has to go on the wall according to the drill size. I took down a hanger -- took down several hangers that was put up by this general foreman out there that I tried to fire.

Q Which one is this?

A Oh, boy.

Q Was it your general foreman?

A No, he wasn't my general foreman.

[redacted]

Q You were a foreman?

A Yeah. They call them supervisors out there. You got a supervisor, a general supervisor, a three-stripe general supervisor and then a superintendent.

Q I see. Is a foreman higher than a general foreman?

A No. The general foreman's got two

stripes on his hat.

Q So this guy was your boss?

A [redacted] He later made general foreman because he went out to [redacted] and then he became a general foreman overnight over in pipe hangers. I heard he got fired, which I hope he did.

He had taken a torch and cut the back side of a tube out because a lot of bolts are put in like this, the holes in the wall. They are supposed to be straight, ninety degrees off the wall. They're anchored in the wall, poured into the concrete.

MS. ELLIS: Richman inserts.

A Yes. And you go to hang a pipe hanger on that and they give you a threaded piece of steel and you're supposed to stick it in there and it's supposed to come ninety degrees off the wall. Well, they come off this way and come off that way and come off this way and this way --

MS. ELLIS: For the record, could you kind of try to describe those angles that you are talking about? That's kind of hard to do sometimes.

Q Let me just ask you, maybe it would be

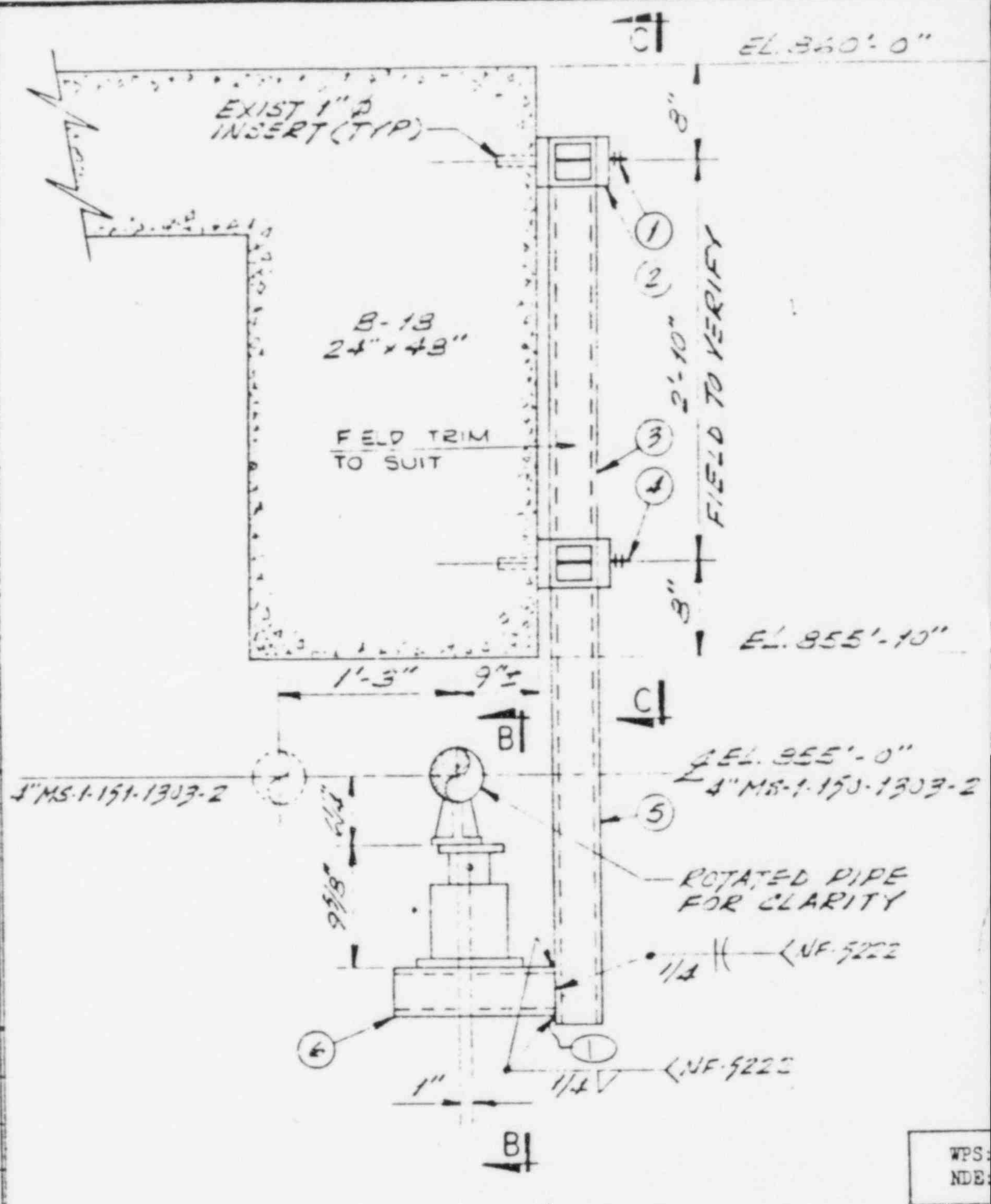
A But in the containment itself, you would probably find them in the compartments would probably be the major part of them.

Q All right. Let's go back to this, the use of the cutting torch. Is that --

A That's what I'm saying. This hanger in these compartments, if they didn't have enough intelligence to find out what kind of angle it is and how to drill the hole from the back and make it come out center from the front, what this foreman done out there or general foreman on nights, what he done was take a torch and cut about a three-inch hole. And you can see, if I cut -- if I got this angle here and say we have another one here and the back was at another angle, we just cut that sucker out like that so we can move that thing any way we want to to get it started.

Q How do they fill in the hole or is it --

A They don't fill it in; it's covered with a washer. The only reason I found it out, the hanger that was particularly put up by this guy was designed wrong. I had to go down there and tear it down. And I went to my superior [redacted] and I said, what are you going to do about this? I mean, I got my butt tore up yesterday because I put something in



ELEVATION A-A

THEY ARE MERELY LOANED AND ON THE BORROWER'S EXPRESS AGREEMENT THAT THEY WILL ... AND PRIVATE USE PERMITTED BY ANY WRITTEN CONSENT GIVEN BY THE LENDER.

REV	DATE	DESCRIPTION	DR.	CHK	APP.

REV	DATE	DWN	CHK	APP	DESCRIPTION
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UP									VERT.	[illegible]		
DN	252		175			252			N-S	[illegible]		
N									E-W	[illegible]		
S									PIPE CALC.	77		
E									DATA POINT	2523		
W									SUPPT CALC.	SU-42-77		

REFERENCE DRAWINGS	G & H ISOMETRIC	REV
	2323-MI-0237-04	
	FAB. ISOMETRIC	REV
	MS-1-RB-14	1

OWNER TEXAS UTILITIES SERVIC

PROJECT COMANCHE PEAK UNITS N

ENGINEER GIBBS & HILL

NPS FORM 103 2/78

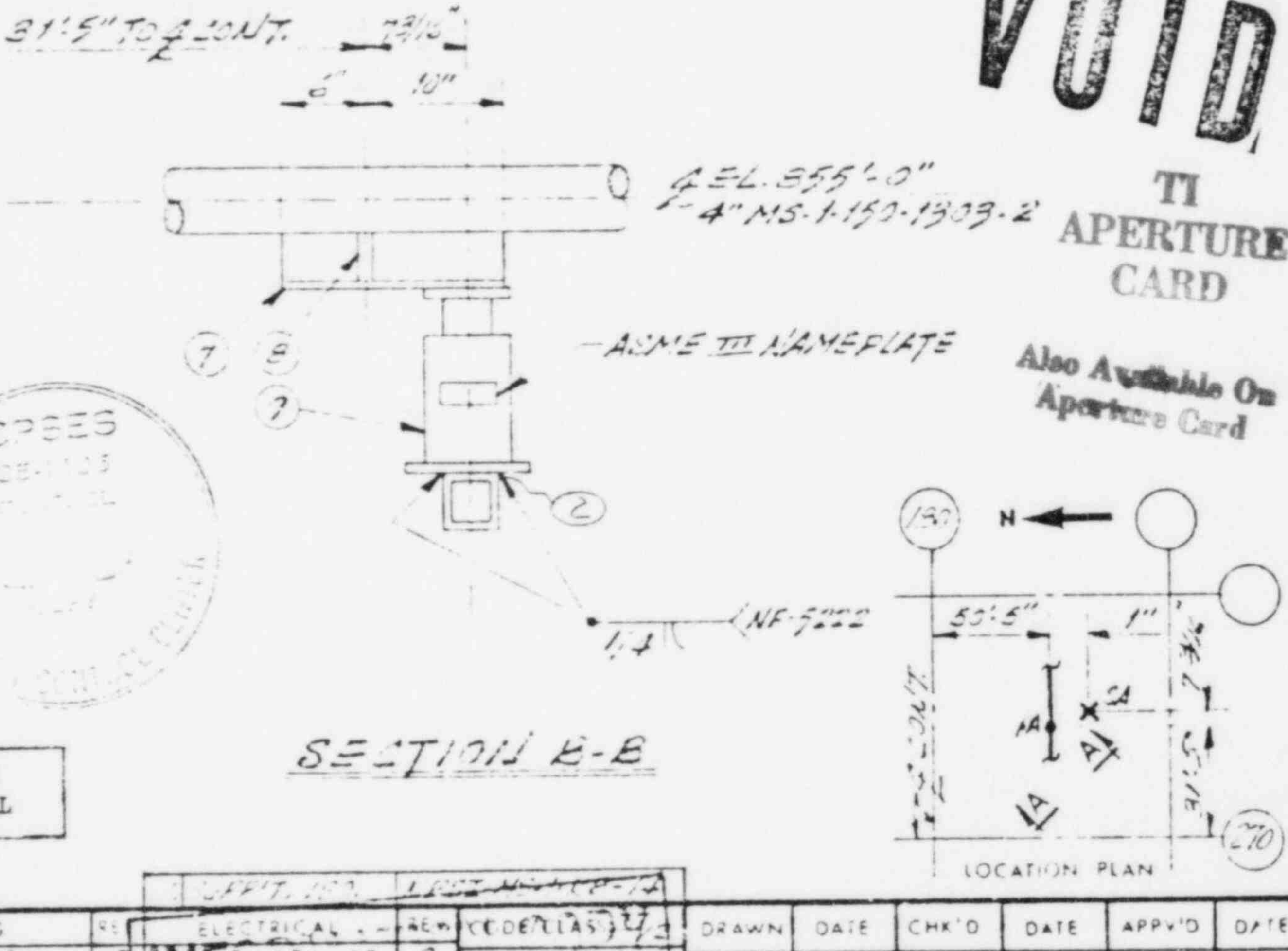
ITEM NO	NO REQ'D.	DESCRIPTION		WT.	ASME OR ASTM	P/L M.		MIC.
1	3	FHN-1" HVY. HEX NUT			A-307	CSS		
2	9	RWP-09 EXCEPT 1"x4"x4" CTR.			SA-36	CSS		
3	1	TS 4" x 4" x .375			A-500GR.B	L		
4	4	RAT-09 x 1'-1" LG. STUD			SA-36	CSS		
5	1	TS 4" x 4" x .375			A-500GR.B	L		
6	1	TS 4" x 4" x .375			A-500GR.B	L		
7	1	WT 4 x 9.5 x 1'-4" LG.			SA-36	L		
8	2	FB 2 1/4" x 3/8" x 4 3/8" LG. (SEE DET. 8)			SA-36	L		
9	1	VMF-06 BASE MOUNTED VAR. SPRING						
		W/LOAD FLANGE & TVL. STOP						
		HL=352#, CL=395#, MVT.=.504 UP				CSS		
10	2	TS 4" x 4" x .375			A-500GR.B	L		

3C

VOID

TI APERTURE CARD

Also Available On Aperture Card



11032 VISUAL

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STRUCTURAL	REV	HVAC	REV							
...-SH-0525	4		3	ZONE						

P.O. NO. CP-0046 A-1 MFG. REL. TC-113

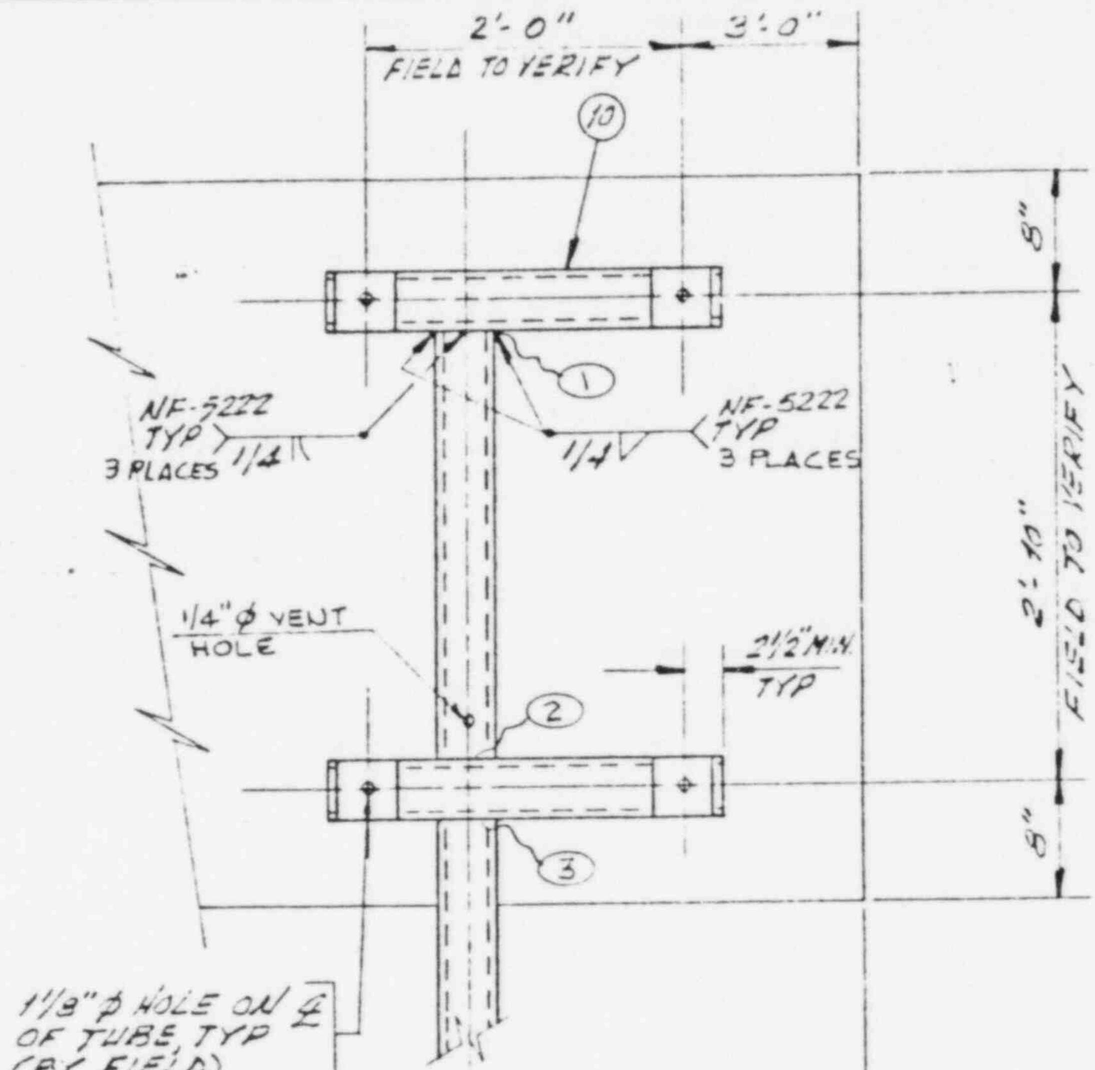
PRODUCTION ORDER | SERIAL NUMBER | SHEET 1 of 2

CPSES 35-1195

Brown & Root, Inc.
ENGINEERS AND CONSTRUCTORS
HOUSTON, TEXAS

151 MK. NO. MS-1-150-010-C52S REV. 0

FOIA-85-59 cc/159 8607100243-01



SECTION C-C

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UP									VERT.			
DN									N-S			
N									E-W			
S									PIPE CALC.			
E									DATA POINT			
W									SUPPT CALC.			

REFERENCE DRAWINGS			
G & H ISOMETRIC	REV		
2323-M		2323	
FAB. ISOMETRIC	REV	ST	
		2323	

OWNER TEXAS UTILITIES SERVIC

PROJECT COMANCHE PEAK UNITS 1

ENGINEER GIBBS & HILL

NPS FORM 103 2/78

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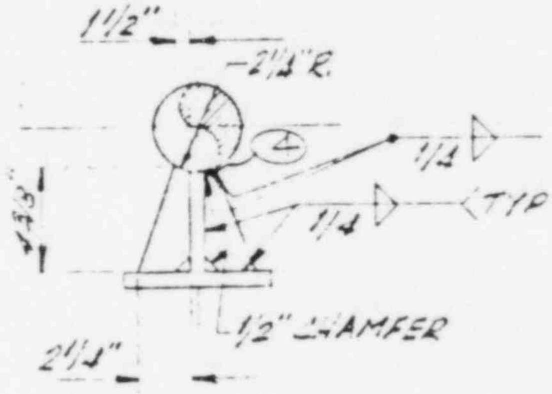
VOID



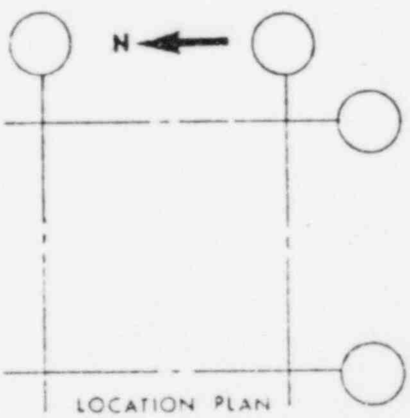
DETAIL 8

TI
APERTURE
CARD

Also Available On
Aperture Card

CPSES
35-1195
CONTROL

WPS: 11032
NDE: VISUAL



LOCATION PLAN

PIPING		ELECTRICAL	REV.	CODE/CLASS	
-M				COPY	
RUCTURAL		H.V.A.C.	REV.		
-S		2323-M		ZONE	

ES INC.
D. 1 & 2
NC.

CPSES
35-1195

Brown & Root, Inc.
ENGINEERS AND CONSTRUCTORS
HOUSTON, TEXAS

DRAWN	DATE	CHK'D	DATE	APPV'D	DATE
R.R. RP	6/6/79	RN	[illegible]	[illegible]	[illegible]
P.O. NO. CP-0046 A/			MFG. REL. TC-113		
PRODUCTION ORDER		SERIAL NUMBER			SHEET
					2 OF 2
151	MK. NO. MS-1-151-010-C525				REV. 0

8607100243-02

REV	DATE	DWN	CHK	APP	DESCRIPTION
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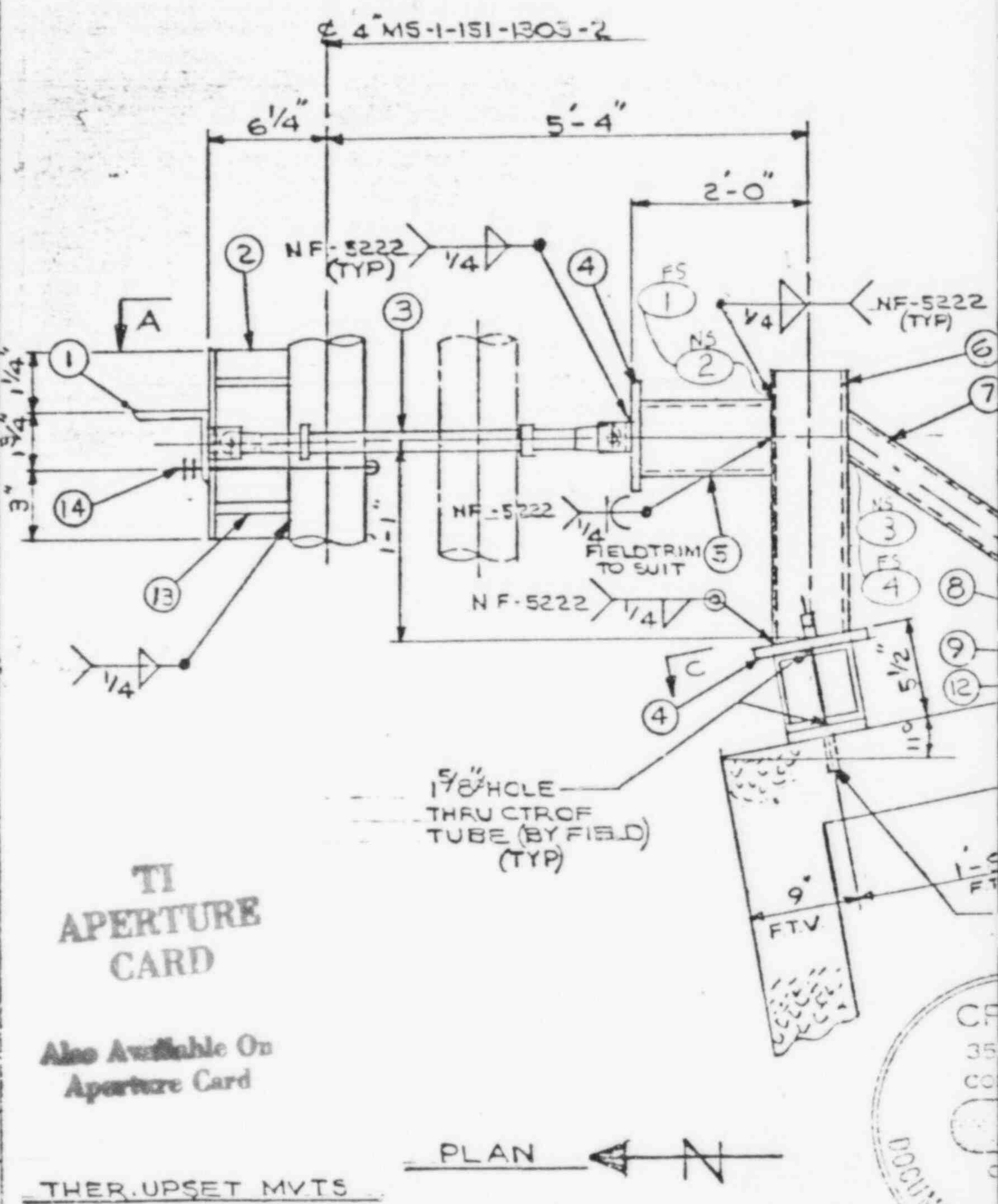

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UP									VERT.	–		
DN									N–S	–		
N				397	794	397	794		E–W	1.51		
S		130		397	794	527	924		PIPE CALC.	76		
E									DATA POINT	228		
W									SUPPT CALC.	SC-37-76		

REFERENCE DRAWINGS	G & H ISOMETRIC	REV.
	2323-MI-2239-12	C
	FAB. ISOMETRIC	REV.
	MS-1-RB-15	5

OWNER TEXAS UTILITIES SER

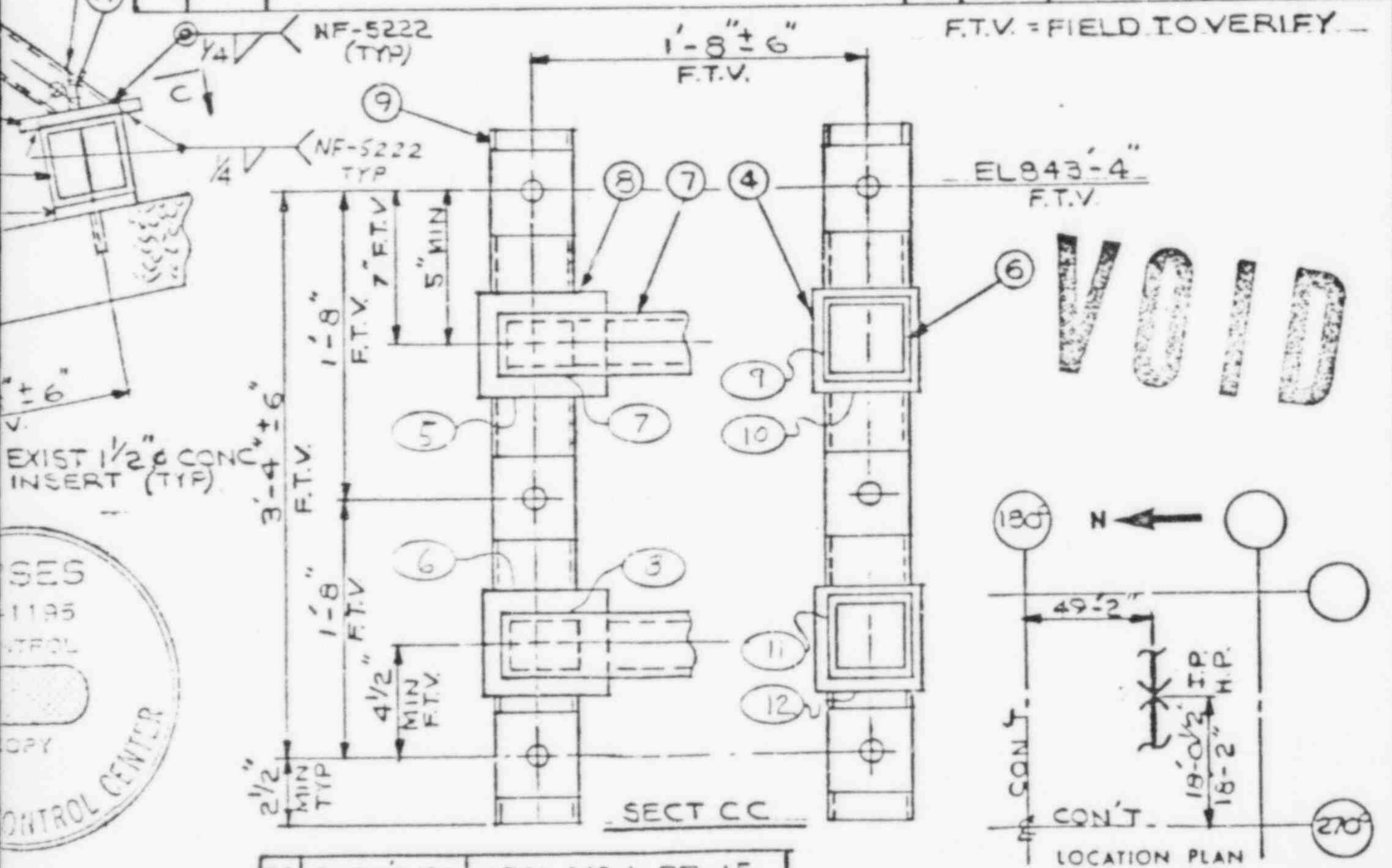
PROJECT COMANCHE PEAK UNITS

ENGINEER GIBBS & HIL

NPS FORM 103 2/78

ITEM NO	NO REQ'D.	DESCRIPTION		WT.	ASME OR ASTM			MIC.
1	1	L 3" x 3" x 3/8"			SA36	L		
2	1	WT 4 x 8.5 x 6" LG (SEE SECT B-B)			SA36	L		
3	2	SRS-06- BA- CC						
		RIGID SWAY STRUT				CSS		
4	2	FB 5" x 1/2" x 5"			SA36	L		
5	2	TS 4" x 4" x .375"			A500GRB	L		
6	2	TS 4" x 4" x .375"			A500GRB	L		
7	2	TS 3" x 3" x .1875"			A500GRB	L		
8	2	FB 5" x 1/2" x 8"			SA36	L		
9	2	TS 4" x 4" x .375" (BY FIELD)			A500GRB	L		
10	6	RFT-12 L= 13" ROD			SA36	CSS		
11	12	FHN-12 HVY HEX NUT			SA307GRB	CSS		
12	12	FB 4" x 4" x 1" W/(1) 1 1/8" ø HOLE ON CTR			SA36	L		
13	4	FB 2 1/4" x 3/8" x 4 7/8" SEE DETAIL 13			SA36	L		
14	1	PUS-040 STD U-BOLT B= 9"			SA36	CSS		

F.T.V. = FIELD TO VERIFY



53 SUPPT ISO NPSI-MS-1-RB-15

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STRUCTURAL	REV.	H.V.A.C.	REV.							
2323-SI-0522	3	2323-MI-0551	3	ZONE -	P.O. NO. CP-0046 A1			MFG. REL. TC-158		

...VICES INC.
...NO. 1 & 2
...L INC.

C.P.S.E.S. 35-1195

Brown & Root, Inc.
ENGINEERS AND CONSTRUCTORS
HOUSTON, TEXAS

PRODUCTION ORDER	SERIAL NUMBER	SHEET
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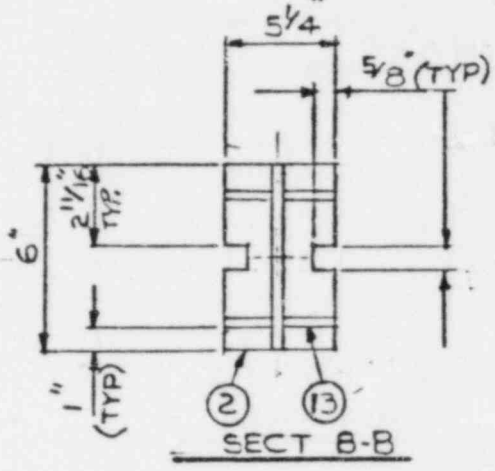
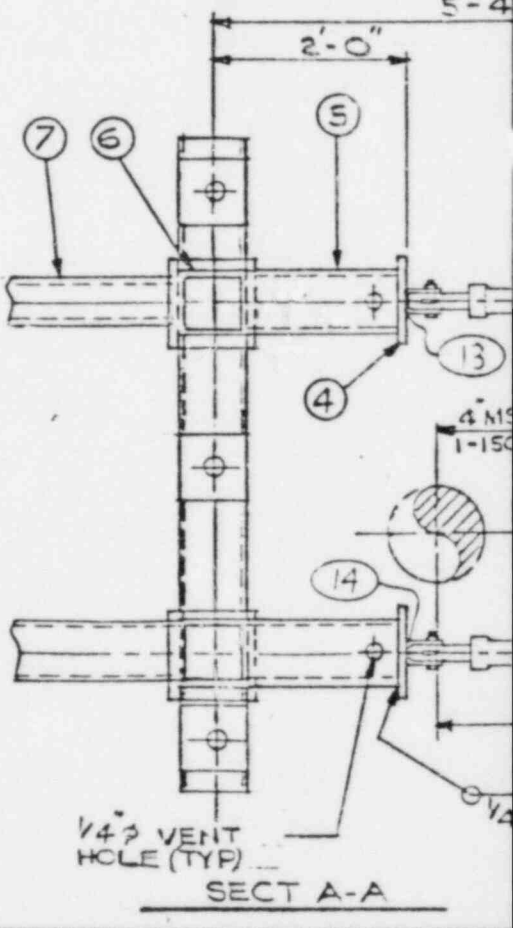
 CC 160 8607100243-03

F.T.V. FIELD T



SECT B-B



SECT A-A

REV	DATE	DWN	CHK	APP	DESCRIPTION
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TI APERTURE CARD

Also Available On Aperture Card

LOAD (LBS)	GRAV.	THER.	HYDRO	OBE	SSE	DESIGN LOADS NORM/UPSET	EMERG	FLTD	MVTS (IN.)	THER	SEISMIC	
UP									VERT.			
DN									N-S			
N									E-W			
S									PIPE CALC.	76		
E									DATA POINT	228		
W									SUPPT CALC.	SC-37-76		

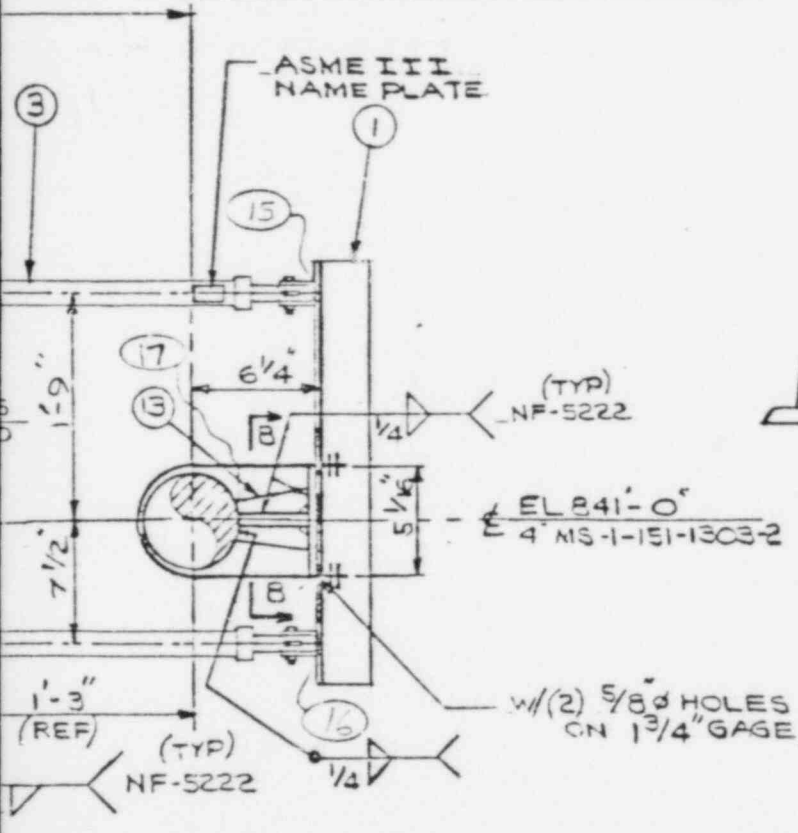
REFERENCE DRAWINGS	G & H ISOMETRIC	RE
	2323-M	
	FAB. ISOMETRIC	RE
OWNER	TEXAS UTILITIES	
PROJECT	COMANCHE PEAK UN	
ENGINEER	GIBBS &	

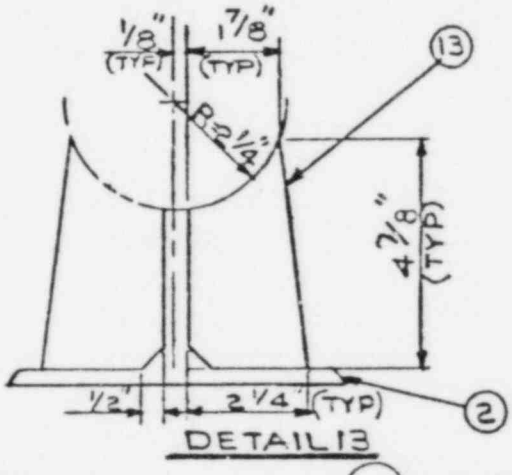
NPS FORM 10-3 2/78

OVERIFY

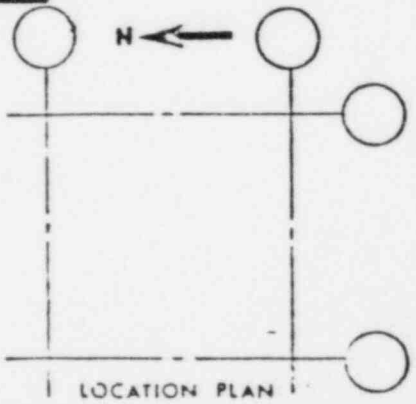
ITEM NO	NO REQ'D.	DESCRIPTION		WT.	ASME OR ASTM		MIC.

VOID





DETAIL 13



63	SUPPTSD	NPSI-MS-1-RB-15									
V.I	PIPING	REV.	ELECTRICAL	REV.	CODE/CLASS		DRAWN	DATE	CHK'D	DATE	APPV'D	DATE
	2323-M		2323-E		PAINT		RE PK	1/4/79	AM TE	1/24/79	-JO	1-25-79
V.I	STRUCTURAL	REV.	H.V.A.C.	REV.	ZONE	-	P.O. NO. CP-0046A1		MFG. REL.	TC-152		
	2323-S		2323-M				PRODUCTION ORDER		SERIAL NUMBER		SHEET	
											2 OF 2	
							2013	MK. NO. MS-1-151-037 C52R			REV. 0	

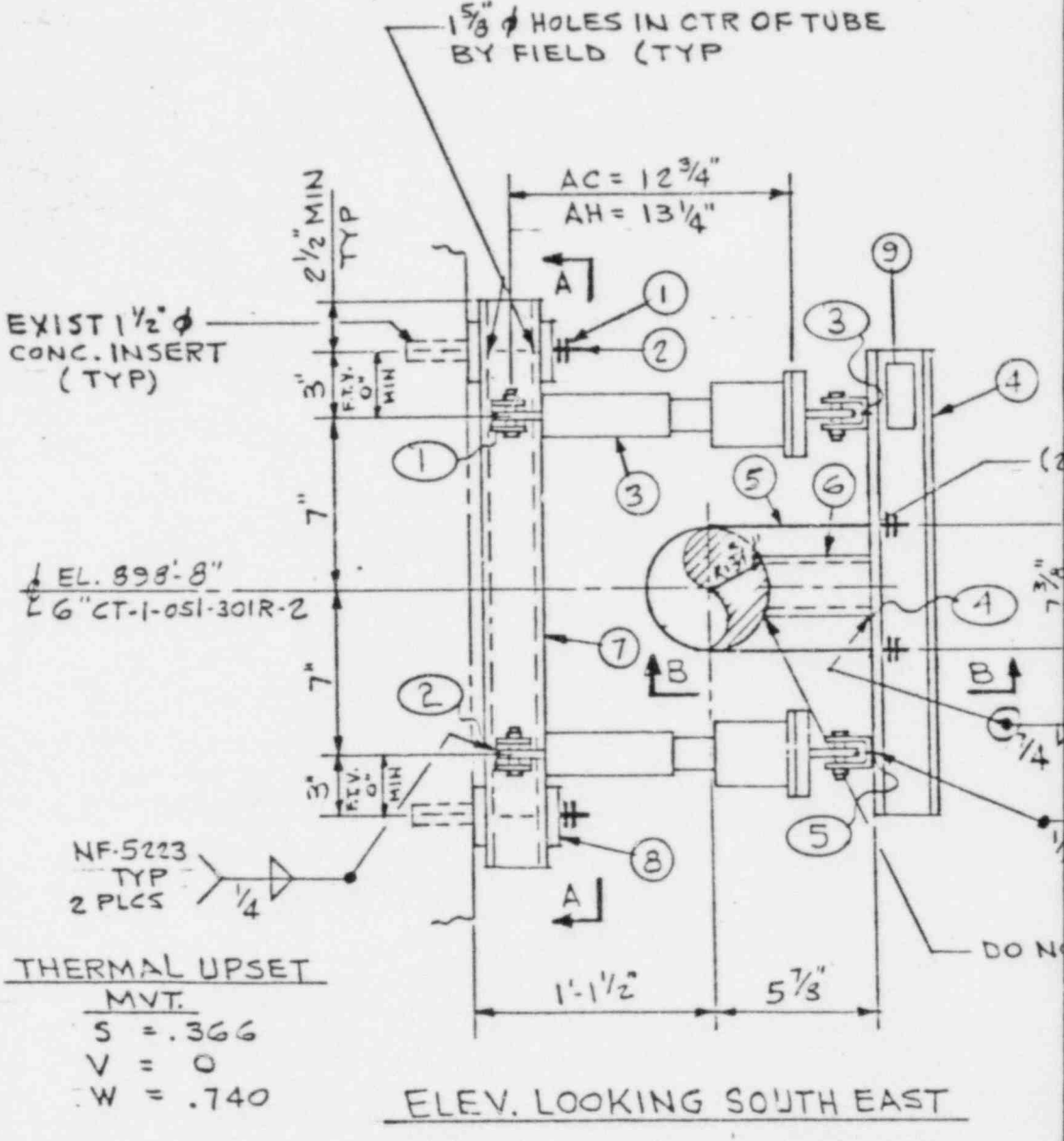
SERVICES INC.
ITS NO. 1 & 2
HILL INC.

CPSES 35-1195

Brown & Root, Inc.
ENGINEERS AND CONSTRUCTORS
HOUSTON, TEXAS

8607100243-04

REV	DATE	DWN	CHK	APP	DESCRIPTION
0	10-1-79				ISSUE FOR CONST. F.W.'S 1-5



THERMAL UPSET MVT.

S = .366
V = 0
W = .740

ELEV. LOOKING SOUTH EAST

LOAD (LBS)	GRAV.	THER.	HYDRO	OBE	SSE	DESIGN LOADS NORM/UPSET	EMERG.	FLTD
UP								
DN								
N				491	982	491	982	
S				491	982	491	982	
E				466	932	460	932	
W				466	932	460	932	

MVTS (IN.)	NOR. THER.	SEISMIC	
VERT.	0		
N-S	.123		
E-W	.466		
PIPE CALC.	37A1/#2		
DATA POINT	517		
SUPPT CALC.	SC-83-37A1		

REFERENCE DRAWINGS	G & H ISOMETRIC	REV.
	2323-M1-3232-97	E
	FAB. ISOMETRIC	REV.
	CT-1-R.B-31	7

OWNER TEXAS UTILITIES SER

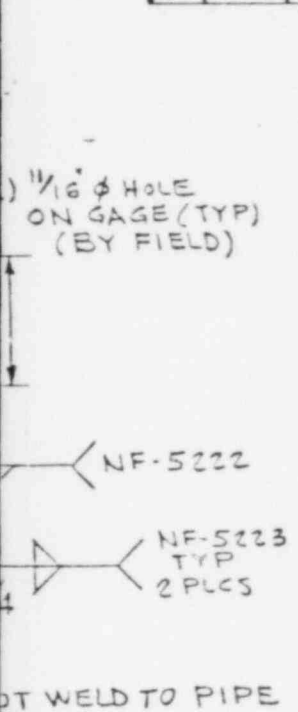
PROJECT COMANCHE PEAK UNITS

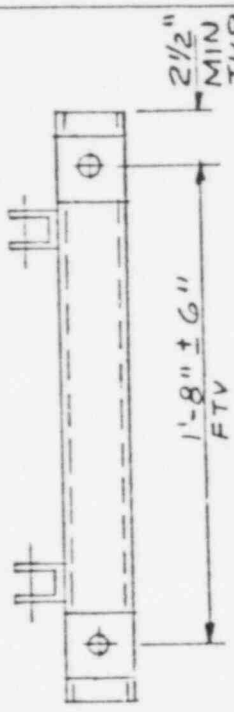
ENGINEER GIBBS & HI

NPS FORM 103 2/78

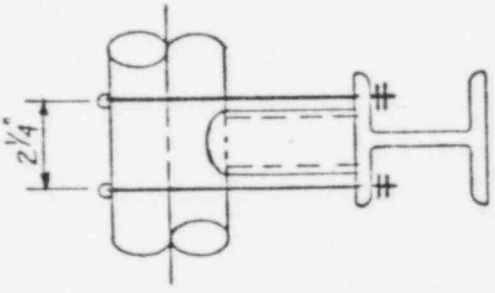
ITEM NO	NO REQ'D.	DESCRIPTION		WT.	ASME OR ASTM	PRM	SEC	MIC.
1	4	FHN-12 HVY HEX NUT			A-307	CSS		
2	2	RFT-12 L 13 ROD			SA-36	CSS		
3	2	2) SMS-1-BA-			—	CSS		
		MECH. SNUBBER			—			
	2	b) SMFB-1 FORWARD BRACKET			—	CSS		
4	1	M4 X 13			SA-36	L		
5	2	PUS-060-B-8 3/4" STD. U-BOLT			SA-36	CSS		
6	1	P 3 SCH. 40 X 3 1/16" LG			SA53/SA106GRB	L		
7	1	TS 4" x 4" x .375 (BY FIELD)			A-500 GR B	L		
8	4	FB 4" x 1" x 4" W/(1) 1 5/8" ϕ HOLE ON CTR			SA-36	CSS		
9	1	ASTM III NAT, EPLATE						
		PROVIDE TEMPORARY SPACER						
		C-C = 14 3/8"						

ETV = FIELD TO VERIFY

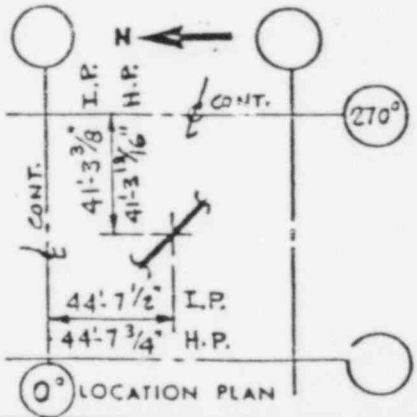




SECTION A-A



SECTION B-B



204	SUPP'T ISO	NPSI-CT-1-RB-31	

PIPING	REV.	ELECTRICAL	REV.	CODE/CLASS: II/2
2323-MI-0504-01	6	2323-EI-0503	3	PAINT CARBOZINC #11
STRUCTURAL	REV.	H.V.A.C.	REV.	ZONE —
2323-SI-0532	2	2323-MI-0552	3	

DRAWN	DATE	CHK'D	DATE	APPV'D	DATE
EB AS	6/13/79	PK PJ	6-23-79	HD	7-6-79

P.O. NO. CP-0046 A.1 MFG. REL. TC-198

PRODUCTION ORDER	SERIAL NUMBER	SHEET
		1 OF 1

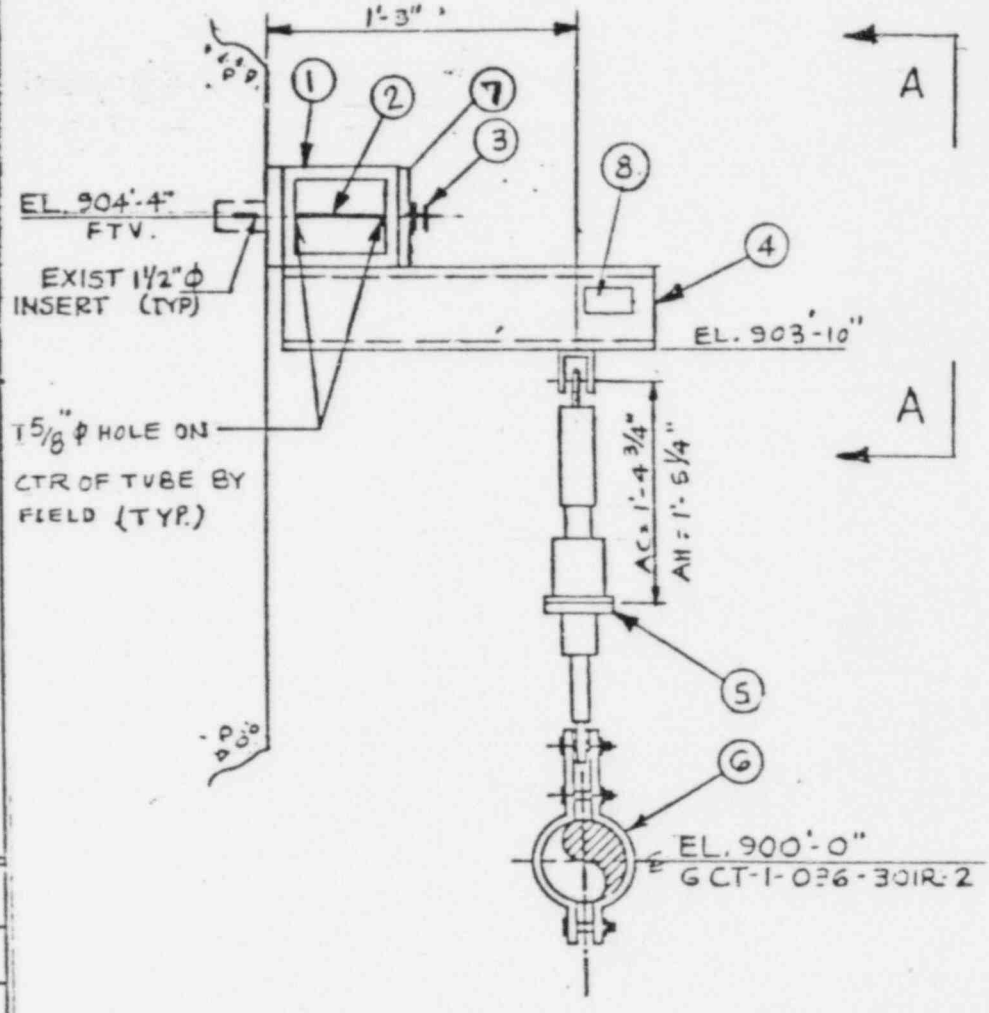
2663 MK. NO. CT-1-051-413-C72K REV. 0

RVICES INC.
S NO. 1 & 2
LL INC.

CPSES 35-1195

Brown & Root, Inc.
ENGINEERS AND CONSTRUCTORS
HOUSTON, TEXAS

REV	DATE	DWN	CHK	APP	DESCRIPTION
0	12/5/80	MJP	JW	[illegible]	ISSUE FOR CONST. F.W.'S 1-2



ELEV. LKG. SOUTH-EAST

LOAD (LBS)	GRAV.	THER.	HYDRO	OBE	SSE	DESIGN LOADS NORM. UPSET	DESIGN LOADS EMERG.	DESIGN LOADS FLTD
UP	—	—	—	1122	2244	1122	2244	
DN	-	—	—	1122	2244	1122	2244	
N								
S								
E								
W								

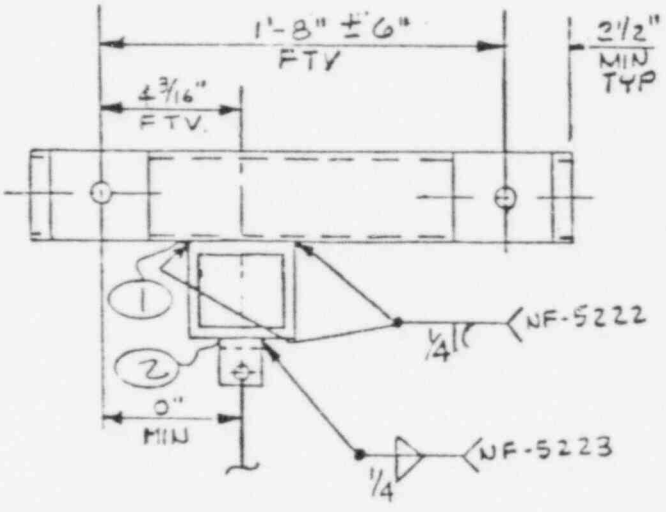
MVTS (IN.)	NORM THER	SEISMIC	
VERT.	.49 U		
N-S	.32 S		
E-W	.181 W		
PIPE CALC.	35A #0		
DATA POINT	506		
SUPPT CALC.	SC-73-35A		

REFERENCE DRAWINGS	G & H ISOMETRIC	REV.	
	2323-MI-3232-61	D	2
	FAB. ISOMETRIC	REV.	
	CT-1-RB-30	9	2
OWNER	TEXAS UTILITIES SER		
PROJECT	COMANCHE PEAK UNITS		
ENGINEER	GIBBS & HIL		

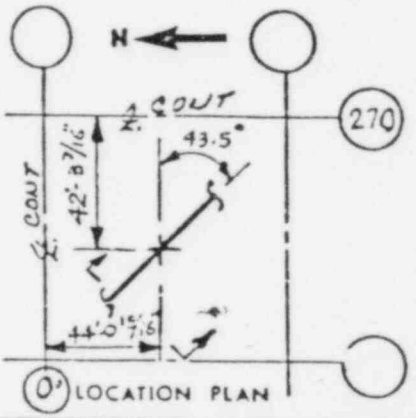
NPS FORM 103 2/78

ITEM NO	NO REQ'D.	DESCRIPTION		WT.	ASME OR ASTM	PR M	SEC	MIC.
1	1	T.S. 6"X6"X.375 (BY FIELD)			SA-36	L		
2	2	RFT-12-L15	ROD		SA-36	CSS		
3	4	FXN-12	HVY HEX NUT.		A-307 GRB	CSS		
4	1	T.S. 4"X4"X.375			SA-36	L		
5	1	a). SMS-3-RO	MECH. SNUBBER		—	CSS		
	1	b). SMTT-3-L = 17¼"	TRANSITION KIT		—	CSS		
6	1	SPC-10-060	PIPE CLAMP		SA-36	CSS		
7	4	FB 6" x 1" x 6" W/(1) 15/8" ø HOLE ON ℄.			SA-36	P&S		
8	1	ASME II NAME PLATE			—			

FTV = FIELD TO VERIFY



SECT. A-A.



163	FAB 150	NPSI-CT-1-RB-30

PIPING	REV.	ELECTRICAL	REV.	CODE/CLASS: III/2	DRAWN	DATE	CHK'D	DATE	APPV'D	DATE
2323-MI-0504-01	6	2323-EI-0510-01	1	PAINT CARBOZINC 11	PK	9-13-79	TE	9/13/79	GC	9.14.79
STRUCTURAL	REV.	H.V.A.C.	REV.	ZONE —	P.O. NO. CP-0046 A-1		MFG. REL. TC-271			
2323-SI-0532	2	2323-MI-0552	5		PRODUCTION ORDER		SERIAL NUMBER		SHEET	
VICES INC.									1 OF 1	
NO. 1 & 2					1516	MK. NO. CT-1-036-403-C72K			REV. 0	
L INC.										

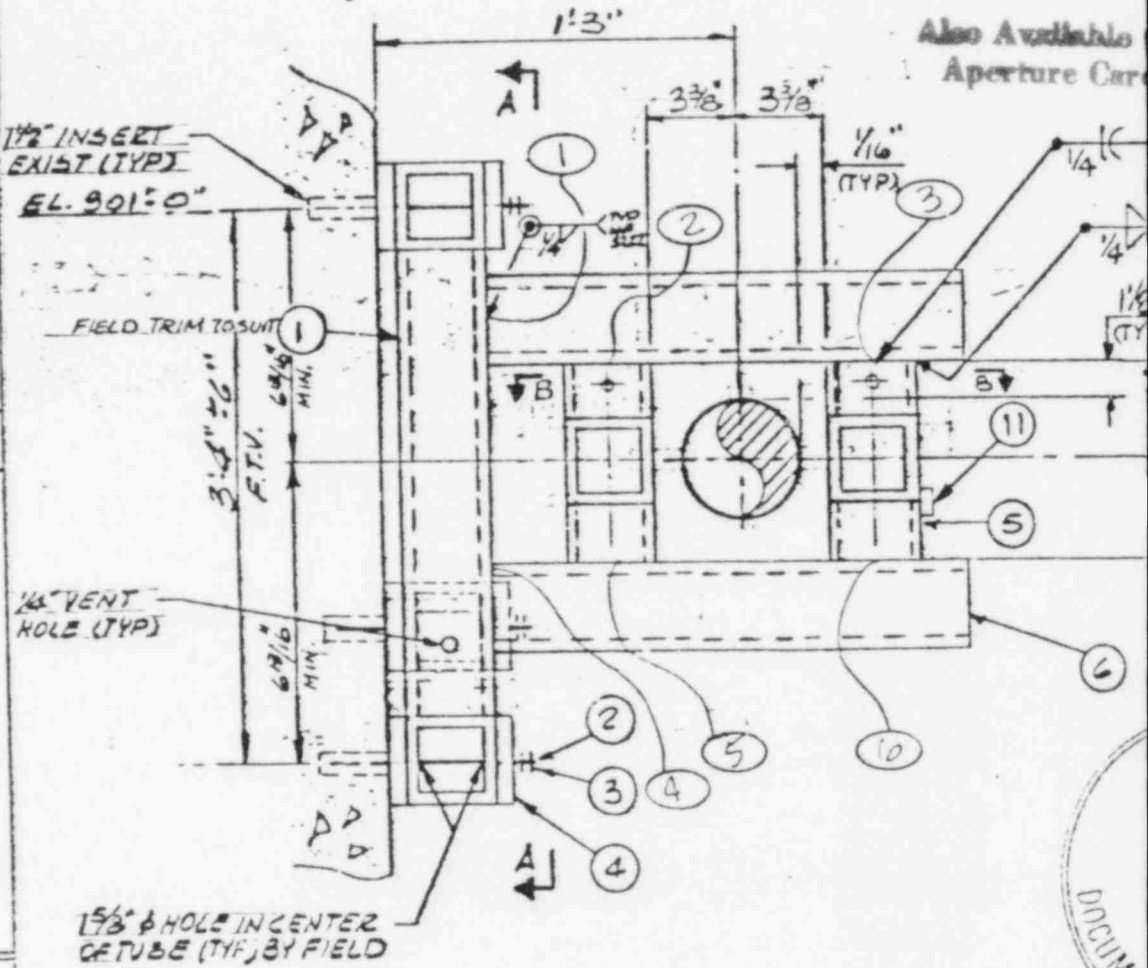
CPSES 35-1135

Brown & Root, Inc.
ENGINEERS AND CONSTRUCTORS
HOUSTON, TEXAS

cc/162

8607100243-06

REV	DATE	DWN	CHK	APP	DESCRIPTION
1	12/6/79	MJP	JW	KJ	ISSUE FOR CONST. F.W.'S 1-12



ELEV. LOOKING SOUTH-EAST

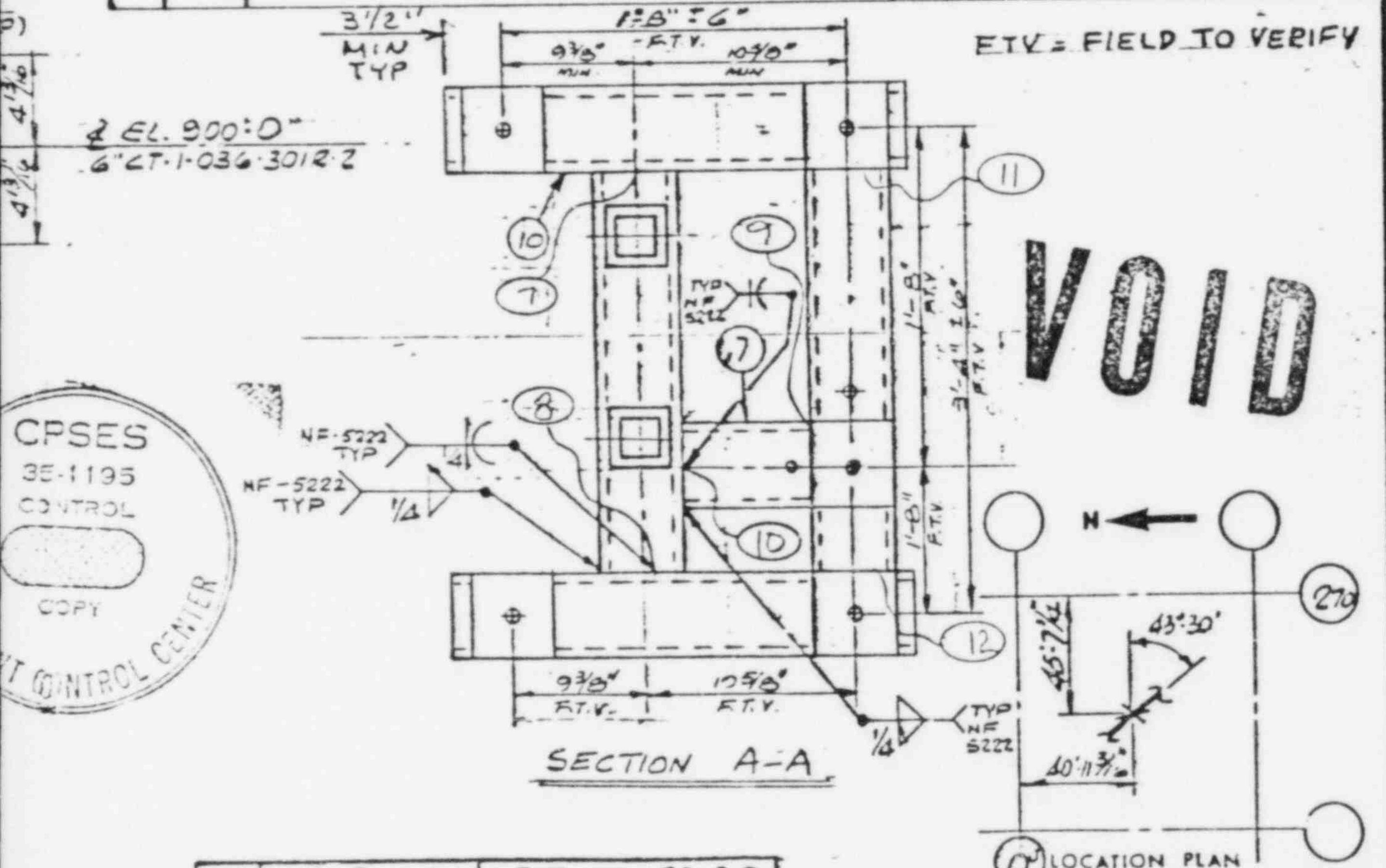
LOAD (LBS)	GRAV.	THER.	HYDRO	OBE	SSE	DESIGN LOADS NORM. UPSET	EMERG.	FLTD
UP								
DN								
N	9	144		2734	5462	2830	5551	
S		833		2734	5462	3683	6416	
E		82		3226	6452	3361	6687	
W	13	472		3226	6452	3711	6937	

MVTS (IN.)	THER.	SEISM C +	SEISM C −
VERT.	.6527	—	—
N-S	0	—	—
E-W	0	—	—
PIPE CALC.	351 #0		
DATA POINT	5051		
SUPPT CALC.	4.72.351		

REFERENCE DRAWINGS	G & H ISOMETRIC	REV.	
	2323-MI-3232-61	0	23
	FAB. ISOMETRIC	REV.	
	CT-1-23-30	9	23
OWNER	TEXAS UTILITIES SERV		
PROJECT	COMANCHE PEAK UNITS		
ENGINEER	GIBBS & HIL		

NPS FORM 103 2/78

ITEM NO	NO REQ'D.	DESCRIPTION		WT.	ASME OR ASTM	P R M		MIC.
1	2	TS 6"X 6"X .375"			A-500 GR-B	L		
2	5	RFT-12 615 ROD			SA-36	C33		
3	10	FHN-12 HVY HEX NUTS			A-307 GRB	C33		
4	10	FB 6"X 1"X 6" W/1 5/8" ∅ HOLE ON ℄			SA-36	P&S		
5	2	TS 4"X 4"X .375"			A-500 GR-B	L		
6	2	TS 4"X 4"X .375"			A-500 GR-B	L		
7	1	TS 6"X 6"X .375"			A-500 GR-B	L		
8	4	FB 5"X 1/2"X 5"			SA-36	P&S		
9	1	TS 4"X 4"X .375"			A-500 GR-B	L		
10	2	TS 6"X 6"X .375 (BY FIELD)			A500 GR B	L		
11	1	ASME III NAMEPLATE			—			

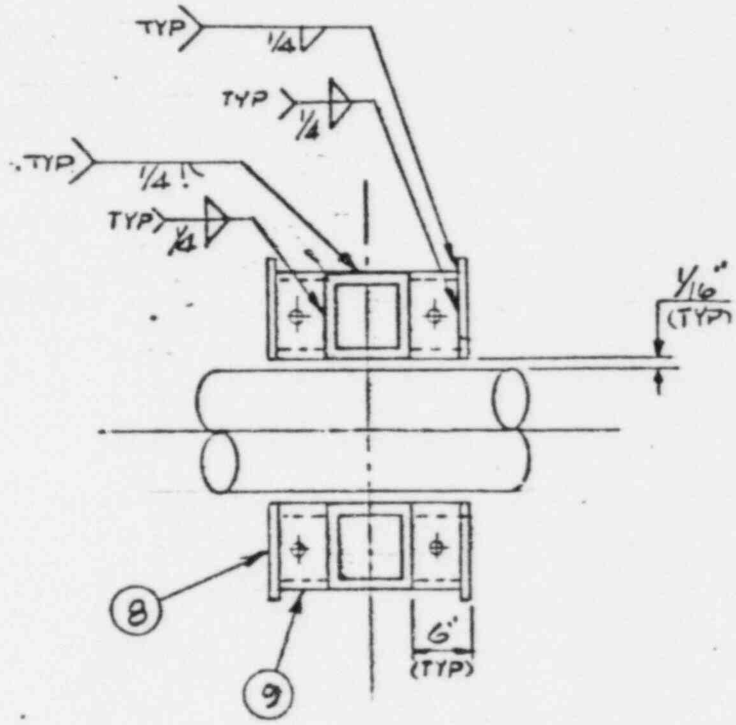


163	SUPP'T ISO	NPSI-CT-1-RB-30

PIPING	REV.	ELECTRICAL	REV.	CODE/CLASS: III/2	DRAWN	DATE	CHK'D	DATE	APPV'D	DATE
23-MI-0564-01	6	2323-EI-0510-01	4	PAINT CARBOZINC 11	PK	9-12-79		9/13/79		9.14.79
STRUCTURAL	REV.	H.V.A.C.	REV.	ZONE —	P.O. NO. CP-0046 A-1		MFG. REL. TC-270			
23-SI-0532	2	2323-MI-0552	5							

ICES INC. NO. 1 & 2 INC.	CPSES 35-1195	Brown & Root, Inc. ENGINEERS AND CONSTRUCTORS HOUSTON, TEXAS	PRODUCTION ORDER	SERIAL NUMBER	SHEET 1 OF 2
			1517	MK. NO. CT-1-036-404-C72R	REV. 0

FOIA-85-59 CC/163 8607100243-07



SECTION · B · B

REV	DATE	DWN	CHK	APP	DESCRIPTION
0		MJP	JW	KJ	ISSUE FOR CONST.

LOAD (LBS)	GRAV.	THER.	HYDRO	OBE	SSE	DESIGN LOADS NORM/UPSET	EMERG	FLTD
UP								
DN								
N								
S								
E								
W								

MVTS (IN.)	THER.	SEISMIC	
VERT.			
N-S			
E-W			
PIPE CALC.	354 #0		
DATA POINT	5051		
SUPPT CALC.	SC-73-35A		

REFERENCE DRAWINGS	G. & H. ISOMETRIC	REV.
	2323-M	
	FAB. ISOMETRIC	REV.
	CT-1-RB-30	3

OWNER TEXAS UTILITIES SERVIC

PROJECT COMANCHE PEAK UNITS N

ENGINEER GIBBS & HILL

NPS FORM 103 2/78

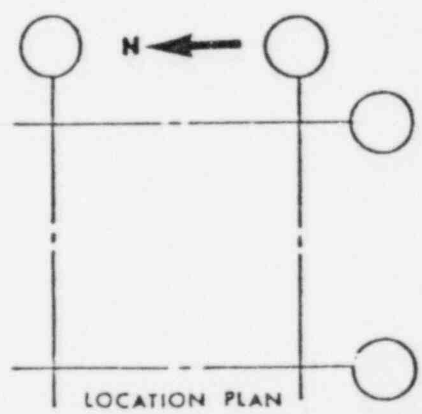
ITEM NO	NO REQ'D.	DESCRIPTION		WT.	ASME OR ASTM		MIC.

CPSES
35-1195
CONTROL
COPY
DOCUMENT CONTROL CENTER

VOID

TI
APERTURE
CARD

Also Available O
Aperture C



LOCATION PLAN

163	SUPP'T 150	NPSI-CT-1-RB-30	
PIPING	REV.	ELECTRICAL	REV.
-M		2323-E	
TRUCTURAL	REV.	H.V.A.C.	REV.
-S		2323-M	

CODE/CLASS: II/2
PAINT C4230EN-11
ZONE —

ES INC.
O. 1 & 2
INC.

CPSES 35-1195
Brown & Root, Inc.
ENGINEERS AND CONSTRUCTORS
HOUSTON, TEXAS

DRAWN	DATE	CHK'D	DATE	APPV'D	DATE
PK	9-13-79	PT	9/13/79	RPre	9.14.79

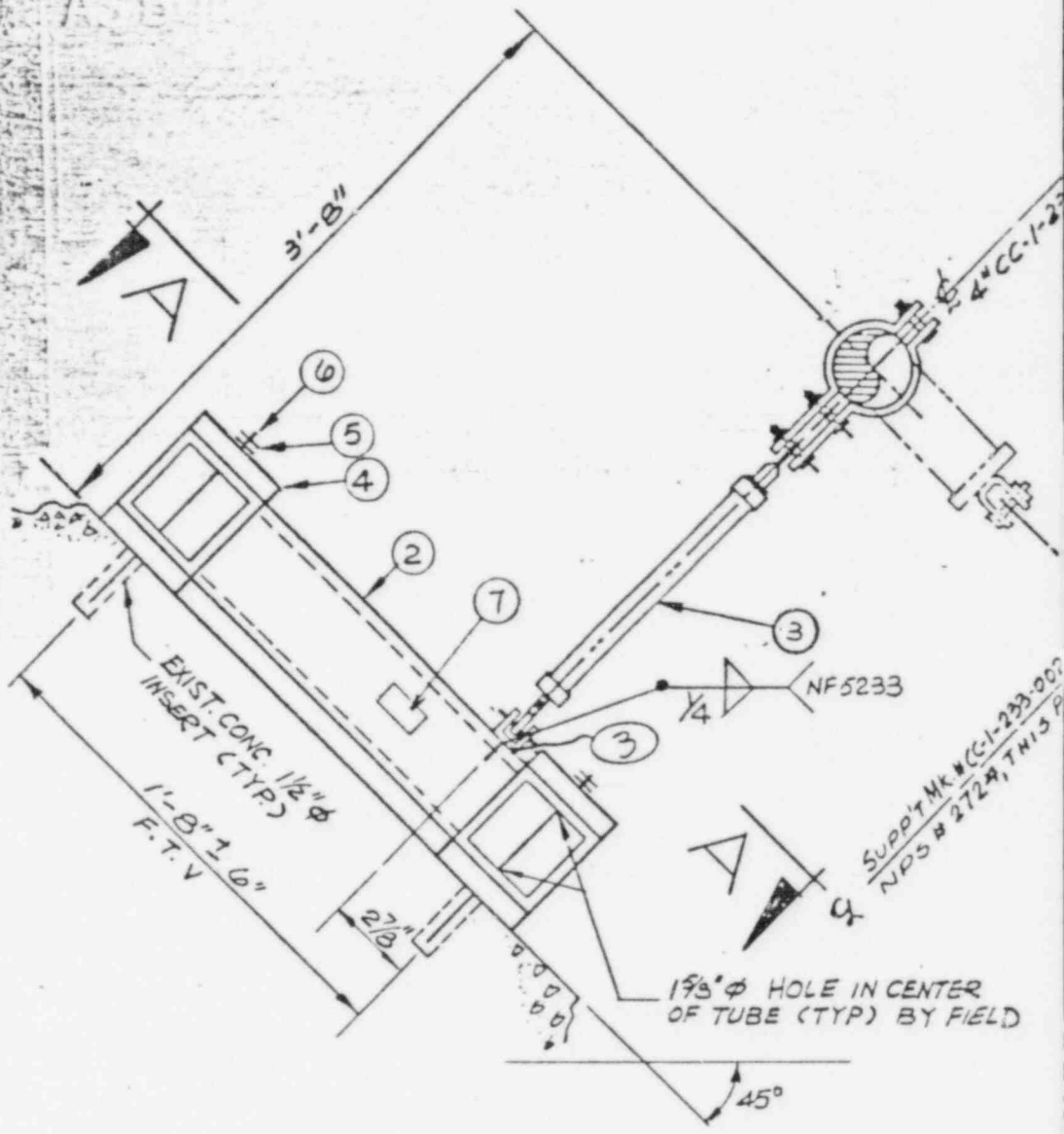
P.O. NO. CP-0046 A-1 | MFG. REL. TC-270

PRODUCTION ORDER	SERIAL NUMBER	SHEET
		2OF2

7517 | MK. NO CT-1-036-404-C72R | REV. 0

8607100243-08

REV	DATE	DWN	CHK	APP	DESCRIPTION
1	12-10-79				ISSUE FOR CONST. E.W.S. 1-3



PLAN
@ EL. 837'-1½"

* GTN-36556

LOAD (LBS)	GRAV	THER	HYDRO	OBE	SSE	DESIGN LOADS NORM/UPSET	EMERG	FLTD
UP								
DN								
N	10			400	600	410	610	
S		160		400	600	550	750	
E		90		320	480	410	570	
W				320	480	320	480	

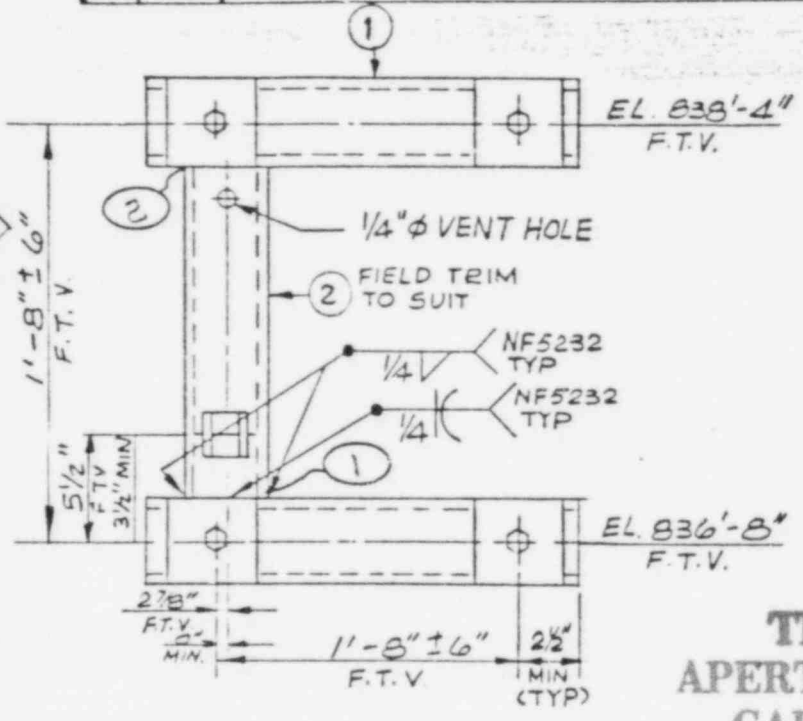
MVTS (IN.)	NORM THER.	SEISMIC	
VERT.	DN .041		
N-S	0		
E-W	0		
PIPE CALC.	56B	# *	
DATA POINT	160		
SUPPT CALC.	SC-70-56B		

REFERENCE DRAWINGS			
G & H ISOMETRIC	2323-MI-3229-31	E	2
FAB. ISOMETRIC	CC-1-RB-58	5	2

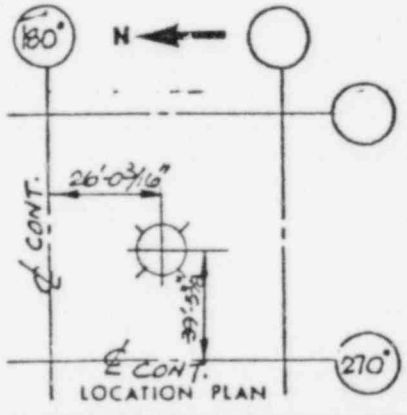
OWNER TEXAS UTILITIES SERV
PROJECT COMANCHE PEAK UNITS
ENGINEER GIBBS & HIL

ITEM NO	NO REQ'D.	DESCRIPTION		WT.	ASME OR ASTM	DR	SS	MIC.
1	2	TS 4 X 4 X .375.	(BY FIELD)		A500GRB	L		
2	1	TS 4 X 4 X .375			A500GRB	L		
3	1	a) SRS-06-RO-CC = 30 1/2"			—			
		RIGID SWAY STRUT			-	CSS		
	1	b) SPC-06-040	PIPE CLAMP		SA-36	CSS		
4	8	FB 4 X 1 X 4 W/(1) 15/8" ø HOLE ON ℄.			SA-36	P&S		
5	8	FHN-12	HVY HEX NUT		A307GRB	CSS		
6	4	RFT-12-L13	ROD		SA-36	CSS		
7	1	ASME III NAMEPLATE			—			

F.T.V. = FIELD TO VERIFY



SECTION A-A



LOCATION PLAN

152	SUPP'T 150	NPS1-CC-1-RB-58

PIPING	REV.	ELECTRICAL	REV.	CODE/CLASS: III/3
2323-M1-0507	12	2323-E1-0501-02	7	PAINT CARBOZINC 11
STRUCTURAL	REV.	H.V.A.C.	REV.	ZONE —
2323-S1-0522	3	2323-M1-0551	5	

DRAWN	DATE	CHK'D	DATE	APPV'D	DATE
FY SR	8/22/79	RP	9/12/79	HB RC	9.13.79

P.O. NO. CP-0046 A.1	MFG. REL. TC-267

PRODUCTION ORDER	SERIAL NUMBER	SHEET
		1 OF 1

2723	MK. NO. CC-1-233-001-C53R	REV. 0

ICES INC.
NO. 1 & 2
INC.

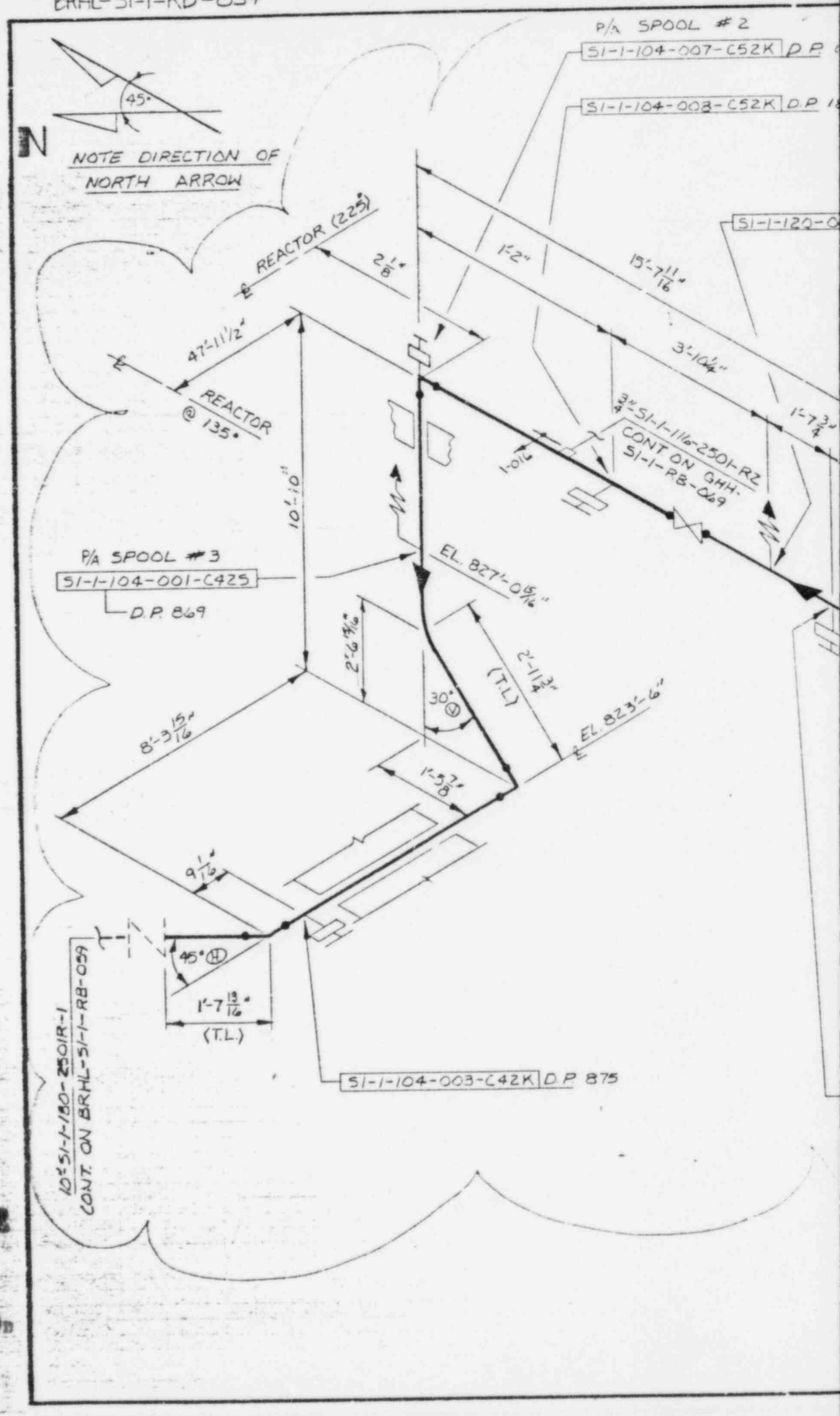
CPSES 35-1195

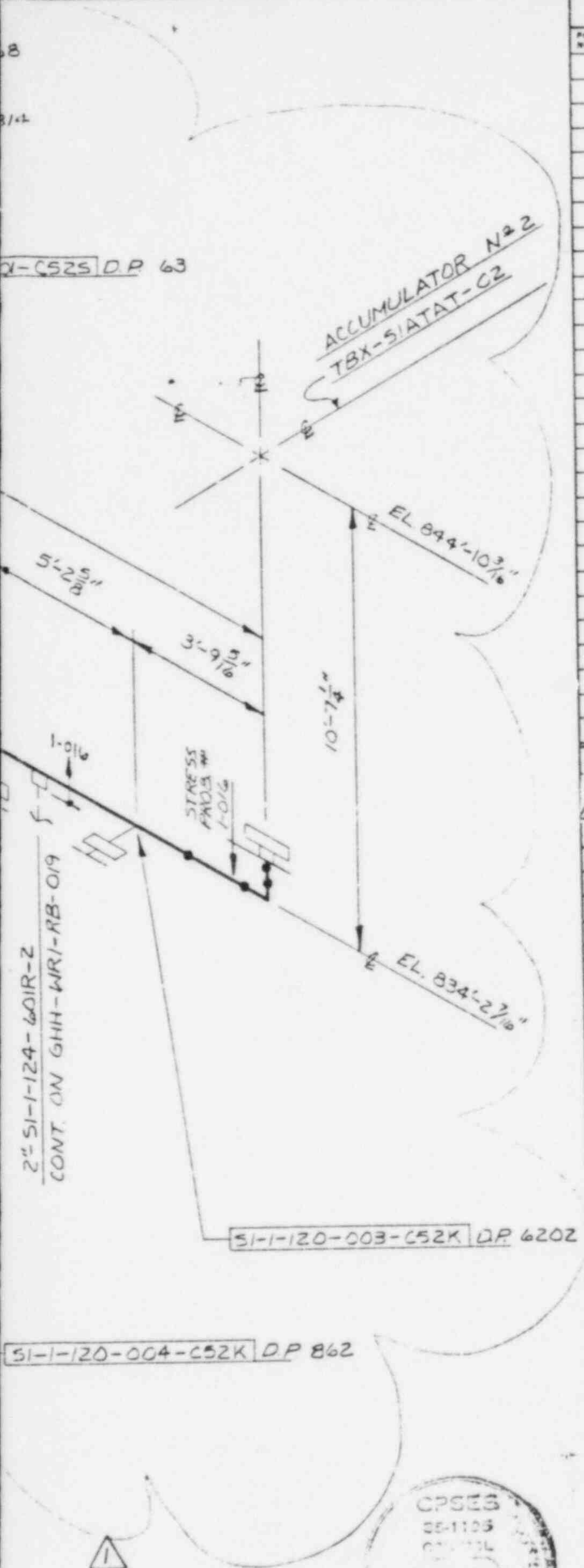
Brown & Root, Inc.
ENGINEERS AND CONSTRUCTORS
HOUSTON, TEXAS

8607100243-09

CC/164

BRHL-51-1-KB-034





BILL OF MATERIAL

PC NO.	REQ.	HEAT NO.	DESCRIPTION	ASME ASTM	GRADE	COLOR CODE

REV.	DATE	DESCRIPTION	DWN.	CK'D.	APP'D.
0	[illegible]	ISSUED FOR HANGER IDENTIFICATION AND ACCOUNTABILITY ONLY	[illegible]	MJP	[illegible]
1	[illegible]	REV. AS NOTED, REDRAWN; VERIFIED FOR STRESS PROB # 1-016	DG	CAP MBS	[illegible]

FOR OFFICE AND ENGINEERING USE ONLY

WELD NO.											
RT											
MT											
LP											
UT											

COST CODE | PAINT | INSUL. | CL. | THKNS.

FLOW DIAG | COMPOSITE | SPEC. | DESIGN CAT./CL.

NOTES

8607100243-10

TEXAS UTILITIES SERVICES INC.
C. P. S. E. S. 35-1195 GLEN ROSE, TEXAS

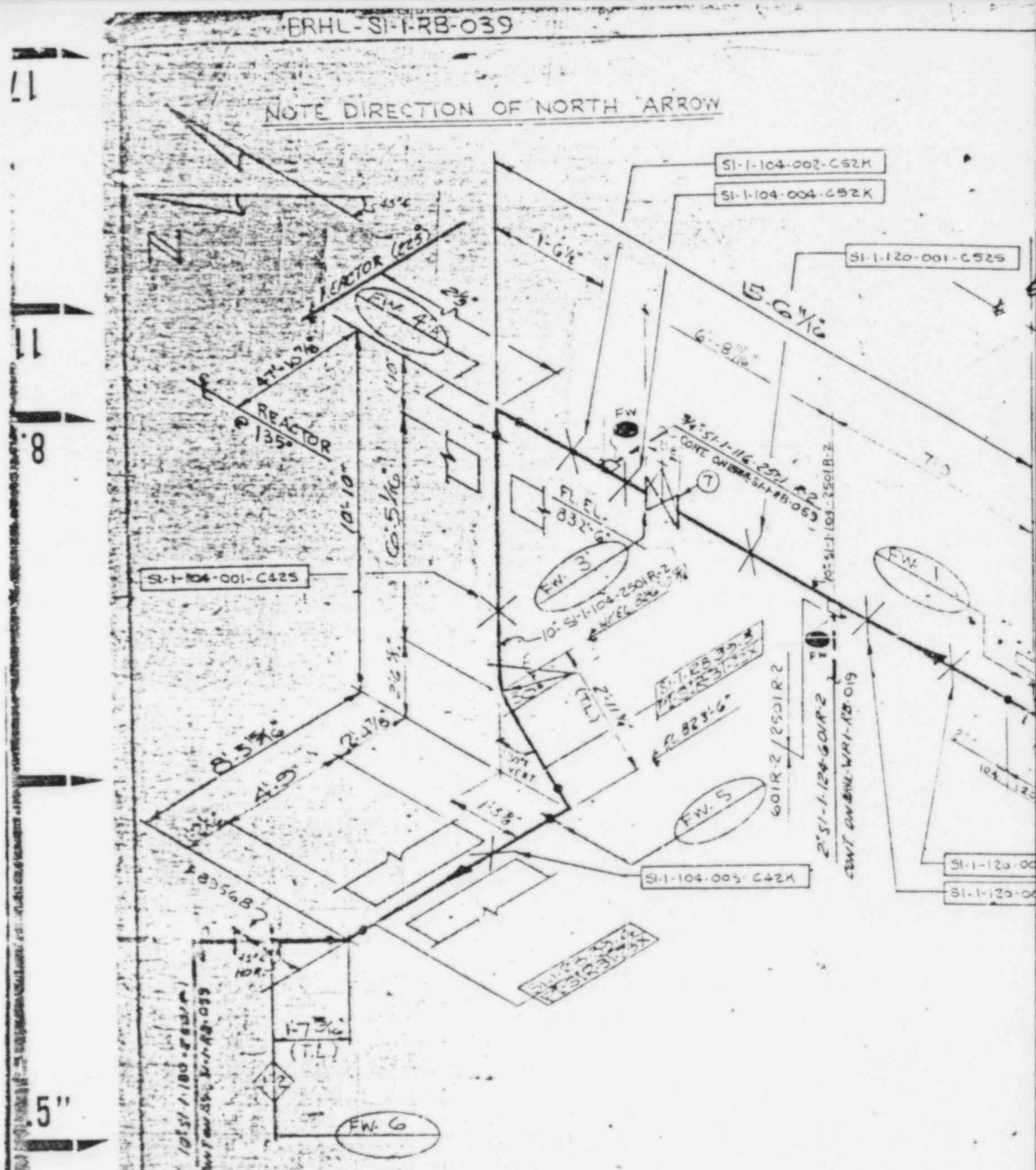
Brown & Root, Inc.
ENGINEERS AND CONSTRUCTORS
HOUSTON, TEXAS

DRAWING TITLE
SAFETY INJECTION

Q | TURNOVER NO. RFI-M-5701 | DWG. NO. BRHL-SI-1-RB-039 | REV. 1

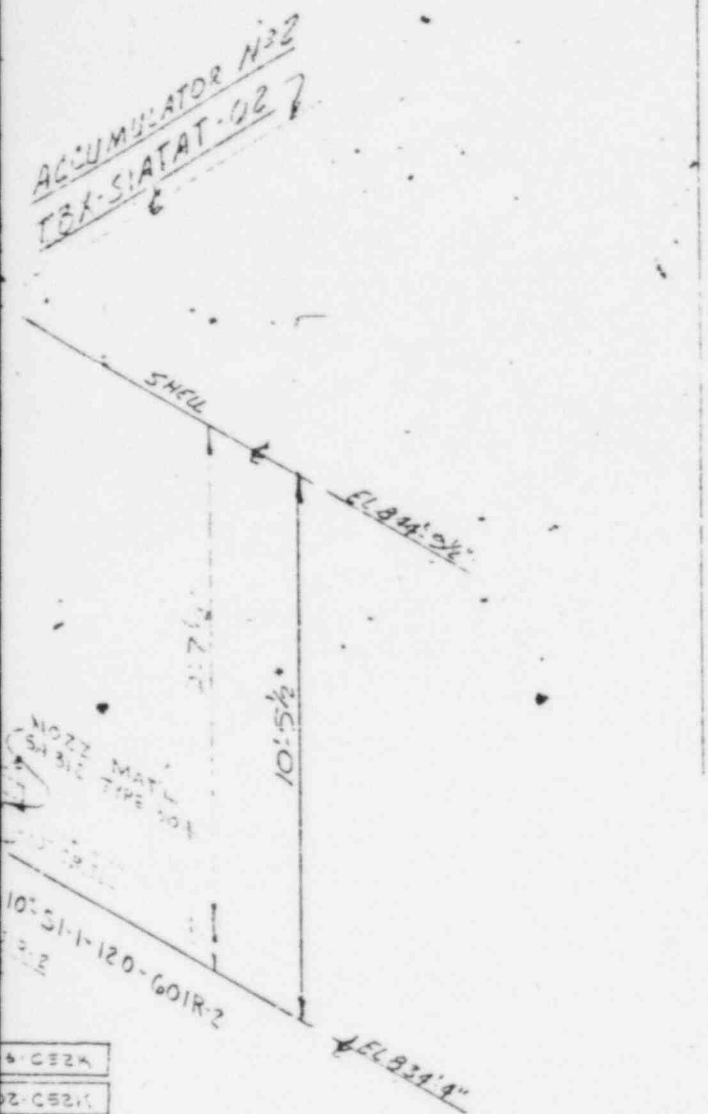
CC/165

BRHL-SI-1-RB-039



TI
APERTURE
CARD

Also Available On
Aperture Card



VOID

ON SITE DELIVERY DATE 2" & SMALLER	
ON SITE DELIVERY DATE 2½" & LARGER	
TURNOVER NO.	

BILL OF MATERIAL

PC NO.	REQ.	HEAT NO.	DESCRIPTION	ASME ASTM	GRADE	COLOR CODE

REV.	DATE	DESCRIPTION	DWN	CKD.	APPD.
0		ISSUED FOR HANGER IDENTIFICATION AND ACCOUNTABILITY ONLY	GLL	MJP	LMA

NOTES

8607100243-11

TEXAS UTILITIES SERVICES INC.
CPSES GLEN ROSE, TEXAS

Brown & Root, Inc.
ENGINEERS AND CONSTRUCTORS
HOUSTON, TEXAS

DRAWING TITLE
SAFETY INJECTION

	REFERENCE NO.	DWG. NO.	REV
0	FFT-M 5701	BRHL-SI-1-RB-039	0

8.5"

11"

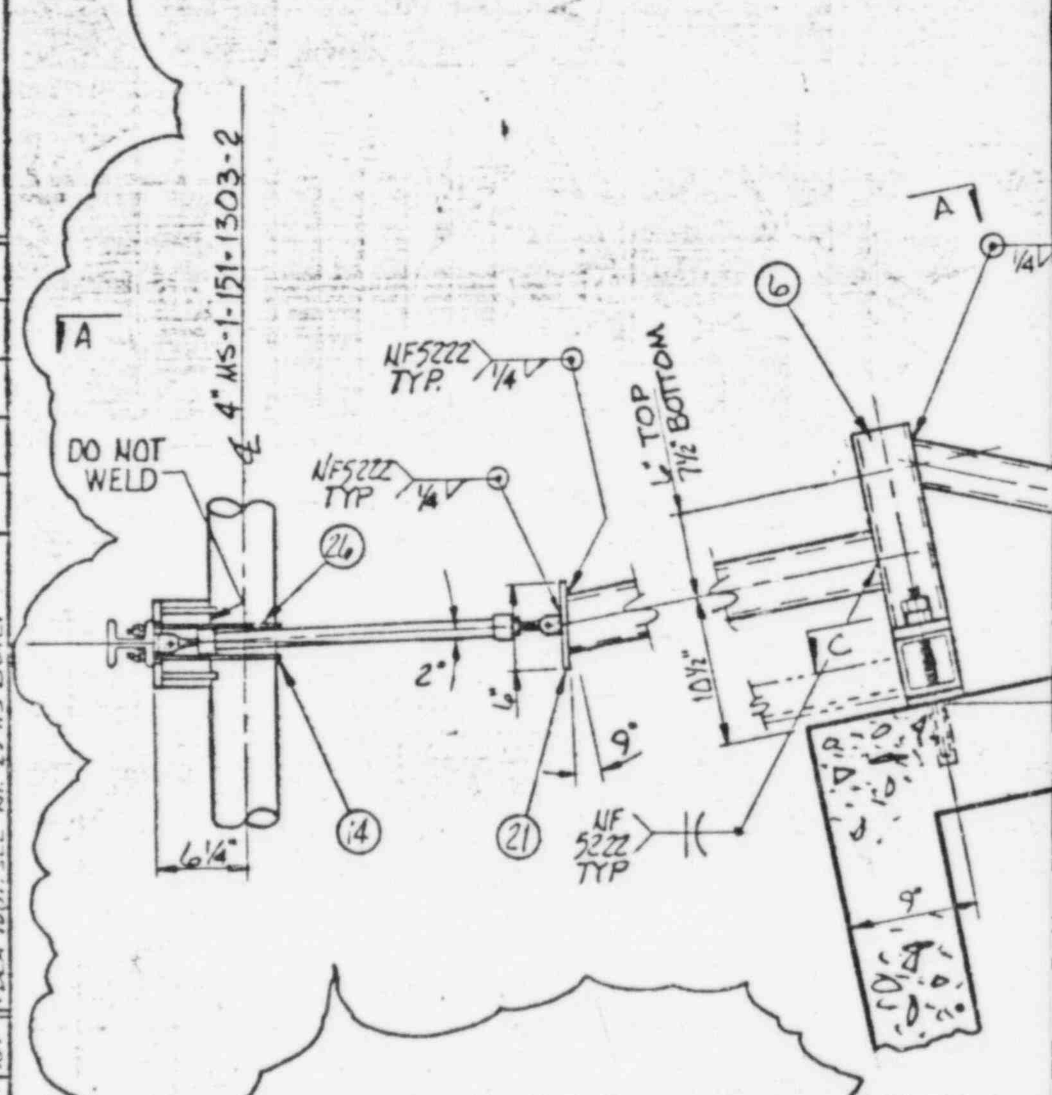
REV	DATE	DWN	CHK	APP	DESCRIPTION
CONT	—	—	—	—	ADDED SHT. 3 VENDOR CERT. REF. GTN. 60719

REV	DATE	DWN	CHK	APP	DESCRIPTION
0	8-24-79	JW	[illegible]	[illegible]	ISSUE FOR CONST. F.W.'S 13-17
1	11/14/82	TN	[illegible]	[illegible]	DELETED PLATE REV'D H&K NPSI REV. 1 (CHOTTA)
2	4/13/83	[illegible]	[illegible]	[illegible]	REV'D AS NOTED. REF. ZMC# 84428 R.5 IDCA 7607. SEE NT. 2) "AS BUILT"

AS-BUILT

VENDOR CERTIFIED
DRAWING REV. NO. 2
BY [signature] DATE 4-13-83

✱ FIELD CUT



PLAN VIEW
@ ELEV. 841'-0"

THERM. UPSET MVTS.
DN = .033"
E = 1.737"

T/O # 3401

LOAD (LBS)	GRAV.	THER.	HYDRO	OBE	SSE	DESIGN LOADS NORM/UPSET	EMERG.	FLTD	MVTS (IN.)	NORM THER.	SEISMIC
UP									VERT.		
DN									N-S		
N						192	280		E-W		
S						333	421		PIPE CALC.	AB-1-76B R0	
E									DATA POINT	2288	
W									SUPP'T CALC.	SC-37-76	

REFERENCE DRAWINGS: BRHL ISOMETRIC MS-1-RB-015; FAB. ISOMETRIC MS-1-RB-15

OWNER: TEXAS UTILITIES

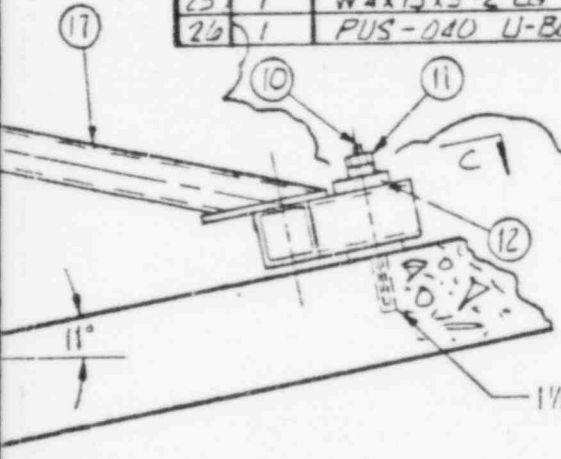
PROJECT: COMANCHE PEAK UN

ENGINEER: GIBBS &

TO SUIT

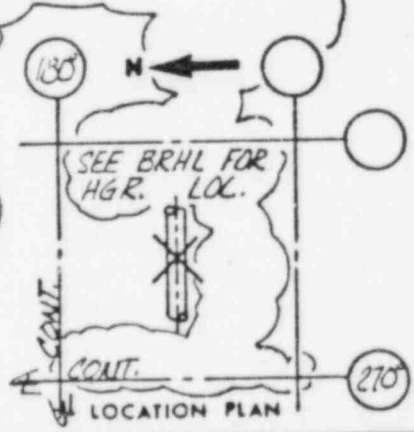
ITEM NO	NO REQ'D.	DESCRIPTION		WT.	ASME OR ASTM	PRM	MIC.
2	1	WT 4x8.5x6"LG (SEE SECT. B-B)			SA 36	L	
3	2	SRS-06-BA SWAY STRUT				CSS	
* 6	2	T.S. 4"x4"x3/8"			A500 GR.B	L	
* 9	1	T.S. 4"x4"x3/8"			A500 GR.B	L	
10	6	RFT-12 L=13" ROD			SA 36	CSS	
11	12	FHN 12 HVY. HEX NUTS			SA307 GR.B	CSS	
12	12	F.B. 4"x4"x1" W/ 1 5/8" ø HOLE ON CTR.			SA 36	L	
13	4	F.B. 2 1/8"x3/8"x4 7/8" (SEE DETAIL 13)			SA 36	L	
14	1	PUS-040 STD. U-BOLT B=9"			SA 36	CSS	
* 16	2	T.S. 4"x4"x3/8"x6"LG			A500 GR.B	L	
* 17	2	T.S. 3"x3"x3/16"x3'-6"LG			A500 GR.B	L	
* 18	1	T.S. 4"x4"x3/8"x5'-7"LG			A500 GR.B	L	
19	2	1/2" PLATE 5"x9 1/2"LG.			SA 36	PLS	
21	1	1/2" PL 5"x6"			SA 36		
* 22	2	T.S. 4"x4"x3/8"x2'-10"LG			A500 GR.B	L	
23	1	W4x13x3'-2"LG			SA 36	L	
26	1	PUS-040 U-BOLT B=9"			SA 36	CSS	

WF5222 TYP.



NOTE:
2.) Locking devices for high strength bolts are not required per DCA 7607

FOR OFFICE AND ENGINEERING USE ONLY



		23	SUPPT 150.		NPS1 MS-1-RB-15						
	PIPING	REV.	ELECTRICAL	REV.	CODE/CLASS: III/2	DRAWN	DATE	CHK'D	DATE	APPV'D	DATE
	2323-MI-0507	10	2323-EI-0501-02	4	PAINT CARBOZINC-11	RE PK	1/4/79	AM TB	1/24/79	JW	1-25-79
	STRUCTURAL	REV.	H.V.A.C.	REV.	ZONE LH	P.O. NO. CP-0046 A1		MFG. REL. TC-158A			
	2323-SI-0522	5	2323-MI-0551	3		PRODUCTION ORDER		SERIAL NUMBER		SHEET	
										1 of 3	
SERVICES INC.											
ITS NO. 1 & 2											
HILL INC.											

C P S E S

38-1198

Brown & Root, Inc.

ENGINEERS AND CONSTRUCTORS

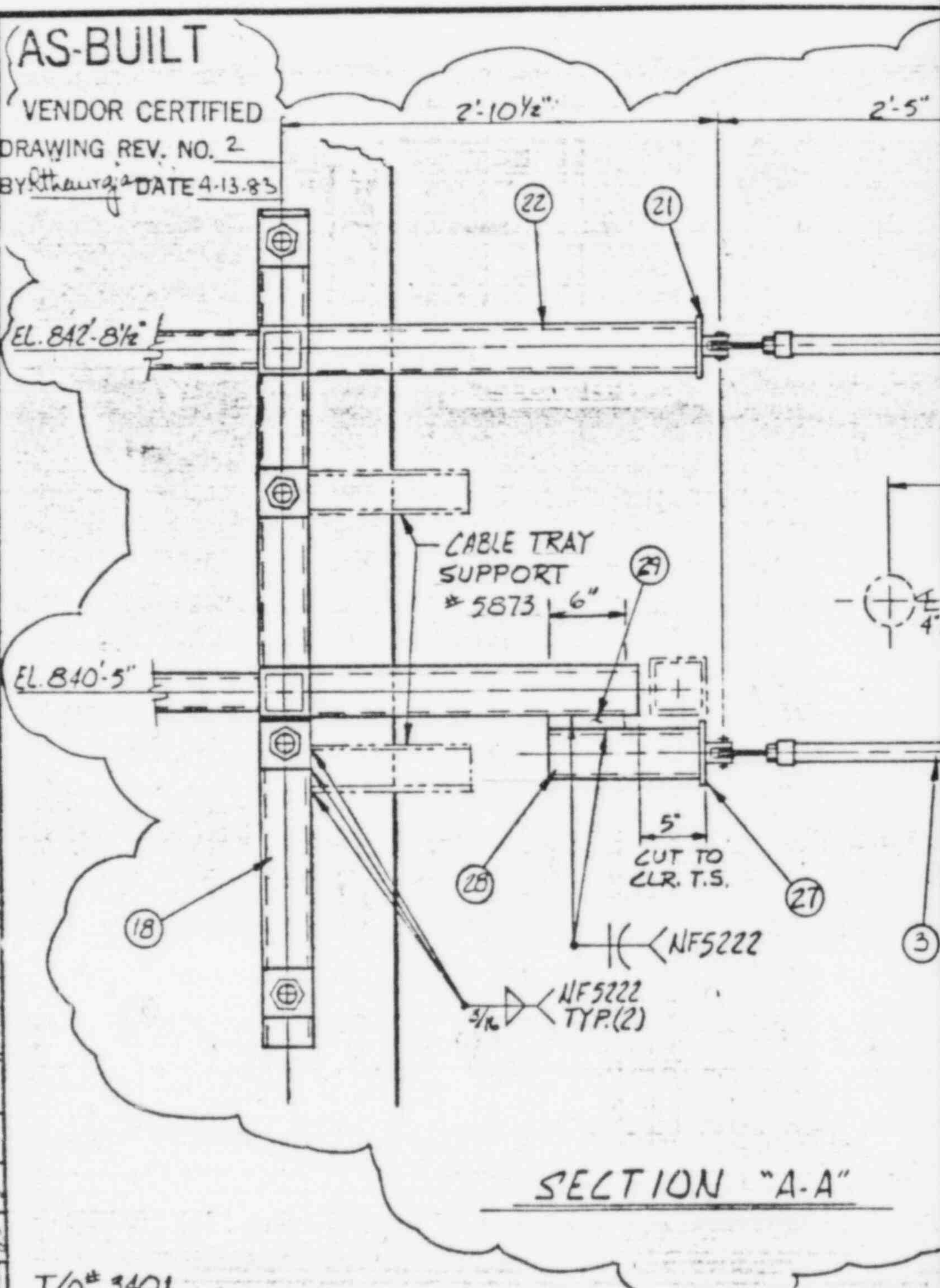
HOUSTON, TEXAS

2013 | MK. NO. MS-1-151-037-C52R | REV. 2

TI APERTURE CARD

Also Available On Aperture Card

AS-BUILT
VENDOR CERTIFIED
DRAWING REV. NO. 2
BY [illegible] DATE 4-13-83



REV	DATE	DWN	CHK	APP	DESCRIPTION
CONT	~	~	~	~	ADDED SHT. 3, VENDOR CERT. REF. GTN # 60119

REV	DATE	DWN	CHK	APP	DESCRIPTION
0	8-24-79	J.W.	[illegible]	[illegible]	ISSUE FOR CONST. F.H.'S 1-12
1	[illegible]	T.H.	[illegible]	[illegible]	REV'D PER NPSI REV. (ICHC 7/11) P3
2	4-13-83	[illegible]	[illegible]	[illegible]	REV'D AS-BUILT REF. [illegible] SEE REV. 2 "AS-BUILT"

LOAD (LBS)	GRAV.	THER.	HYDRO	OBE	SSE	DESIGN LOADS NORM. UPSET	EMERG.	FLTD	MVTS (IN.)	THER.	SEISMIC	
UP									VERT.			
DN									N-S			
N									E-W			
S									PIPE CALC.			
E									DATA POINT	2288		
W									SUPPT CALC.	SC-37-76		

REFERENCE DRAWINGS	ISOMETRIC	REV.
	FAB. ISOMETRIC	REV.

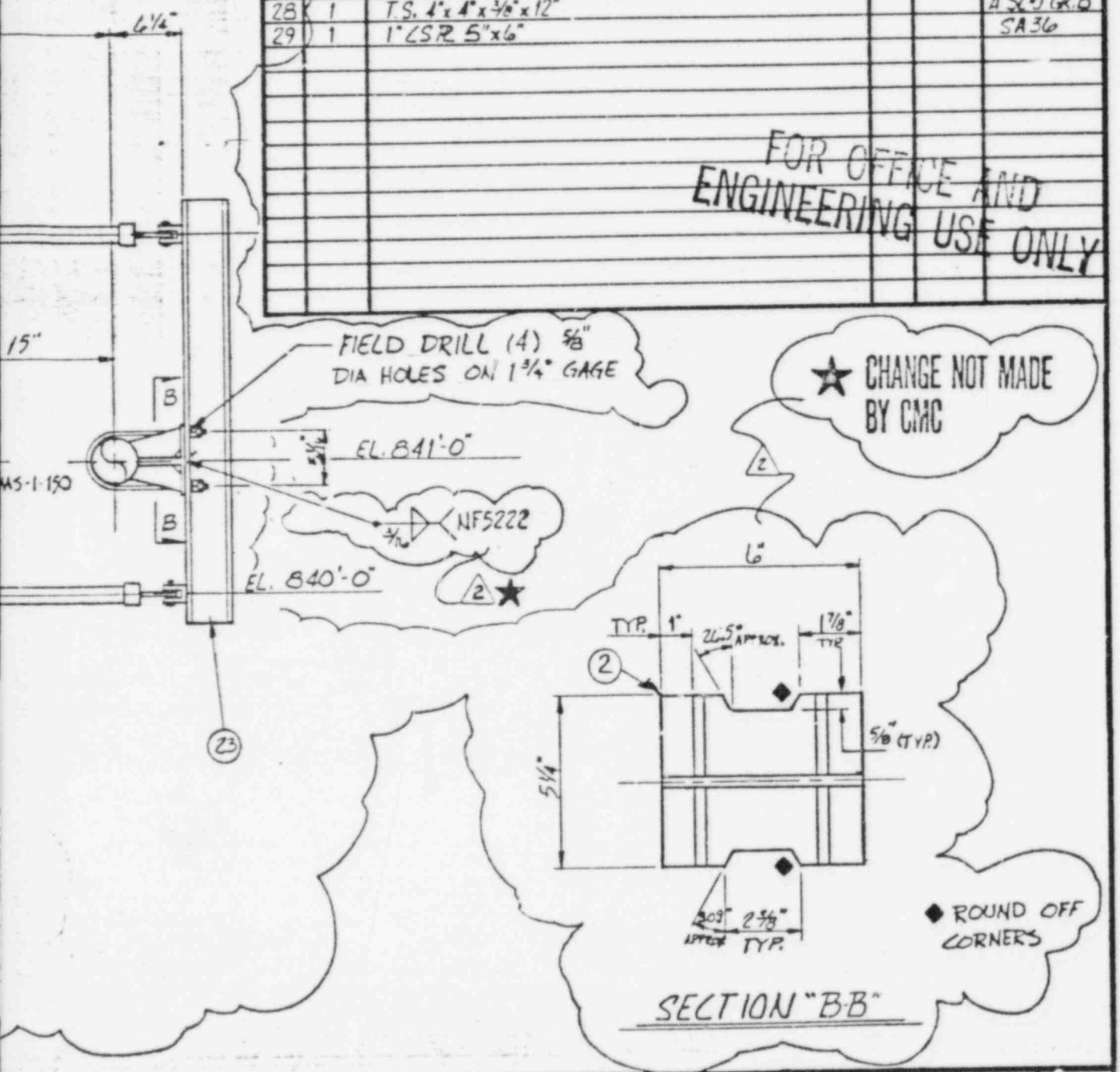
OWNER TEXAS UTILITIES SE

PROJECT COMANCHE PEAK UNIT

ENGINEER GIBBS & H

ITEM NO	NO REQ'D.	DESCRIPTION		WT.	ASME OR ASTM
27	1	½" CSR 5"x5"			SA36
28	1	T.S. 4"x4"x⅜"x12"			A500 GR.B
29	1	1" CSR 5"x6"			SA36

FOR OFFICE AND ENGINEERING USE ONLY



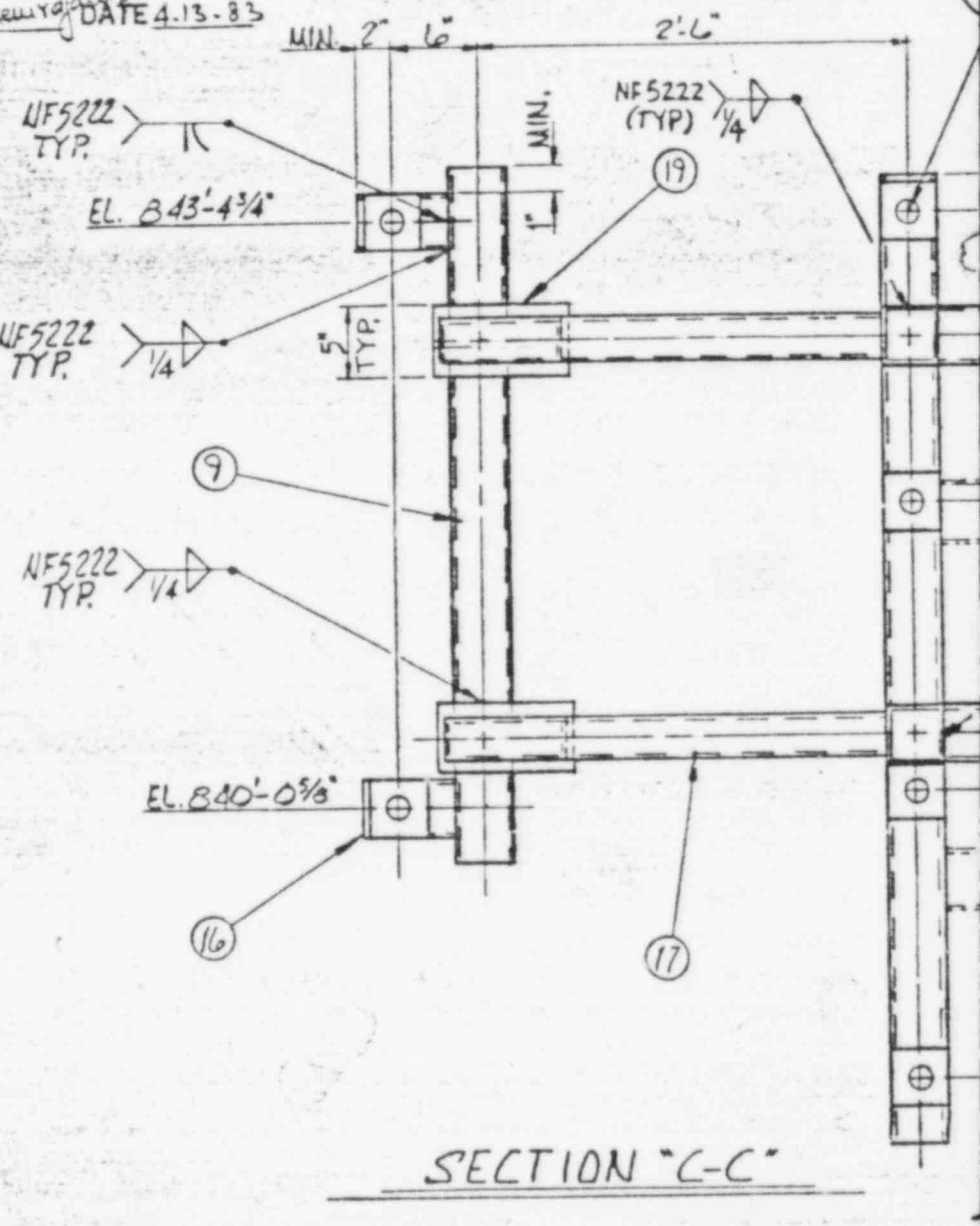
PIPING	REV.	ELECTRICAL	REV.	CODE/CLASS: III/2	DRAWN	DATE	CHK'D	DATE	APPV'D	DATE
2323-M		2323-E		PAINT: CARBO ZINC #11						
STRUCTURAL	REV.	H.V.A.C.	REV.	ZONE	P.O. NO. CP-0046 A.1			MFG. REL. TC-158A		
2323-S		2323-M			PRODUCTION ORDER		SERIAL NUMBER		SHEET 2 OF 3	
RVICES INC.	C.P.S.E.S.	Brown & Root, Inc.			2013	MK. NO. MS-1-151-037-C52R			REV. 2	
S NO. 1 & 2		ENGINEERS AND CONSTRUCTORS								
LL INC.	38-1186	HOUSTON, TEXAS								

8607100243-13

AS-BUILT

VENDOR CERTIFIED
DRAWING REV. NO. 2
BY [illegible] DATE 4.13.83

REV.	DATE	DR.	CHK	APP.	DESCRIPTION
					INT. 2) VENDOR CERT. REF. S.T.N. #60119
2	4/13/83	R	RCH	[illegible]	REVISED FOR AS BUILT REF. CNL-84428.R51 DLA 7/07. SEE

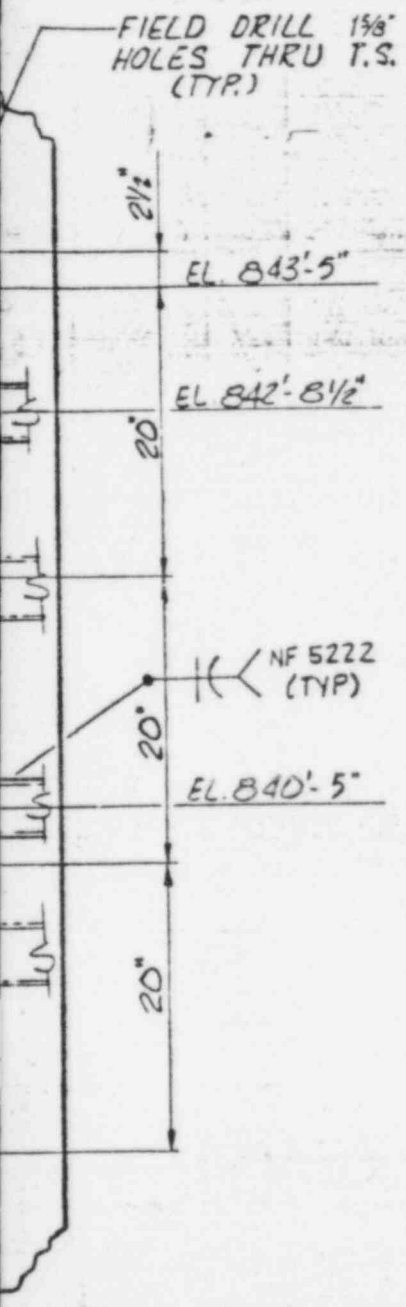


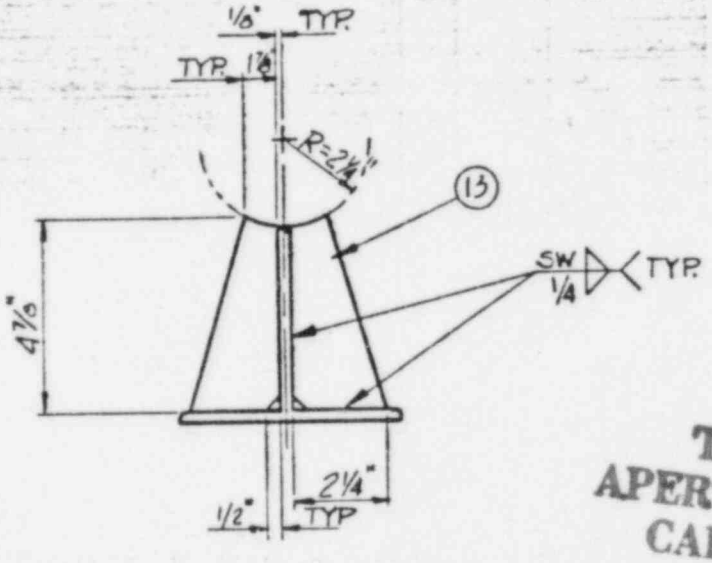
SECTION "C-C"

T/O" 3401

LOAD (LBS)	GRAV.	THER.	HYDRO	OBE	SSE	DESIGN LOADS NORM/UPSET	EMERG.	FLTD	MVTS (IN.)	THER.	SEISMIC	
UP									VERT.			
DN									N-S			
N									E-W			
S									PIPE CALC.			
E									DATA POINT	2288		
W									SUPPT CALC.	SL-37-76		

REFERENCE DRAWINGS	SOMETRIC	REV
	FAB. ISOMETRIC	REV
OWNER	TEXAS UTILITIES S	
PROJECT	COMANCHE PEAK UNI	
ENGINEER	GIBBS & H	





DETAIL "13"

FOR OFFICE AND ENGINEERING USE ONLY

8607100243-14

PIPING	REV.	ELECTRICAL	REV.	CODE/CLASS: III/2
2323-M		2323-E		PAINT CARBOZINC 11
STRUCTURAL	REV.	H.V.A.C.	REV.	ZONE
2323-S		2323-M		

DRAWN	DATE	CHK'D	DATE	APPV'D	DATE

P.O. NO. CP-0046 A.1 | MFG. REL. TC-158A

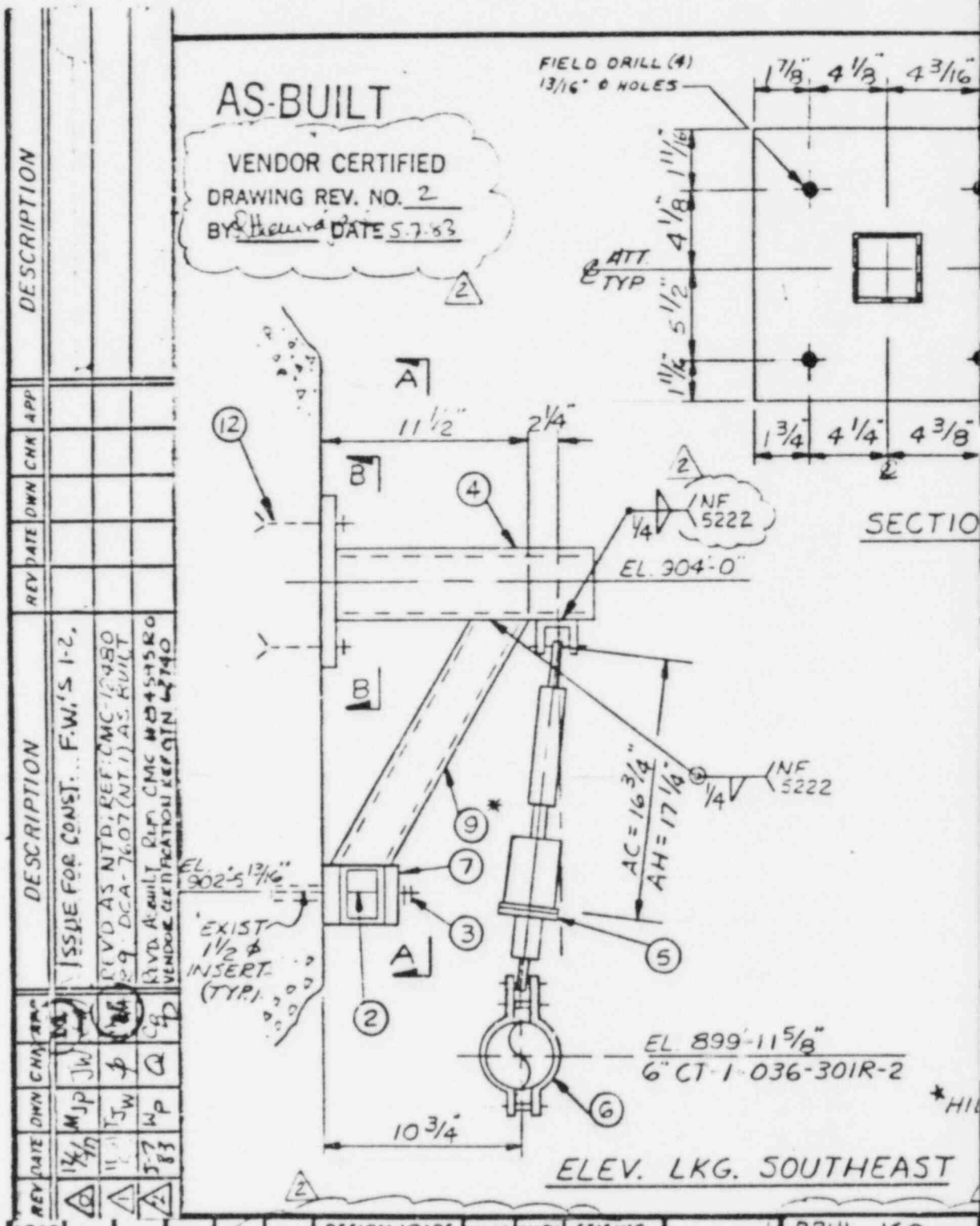
PRODUCTION ORDER	SERIAL NUMBER	SHEET
		3 of 3

2013 | MK. NO. MS-1-151-037-C52R | REV. 2

ERVICES INC.
TS NO. 1 & 2
ILL INC.

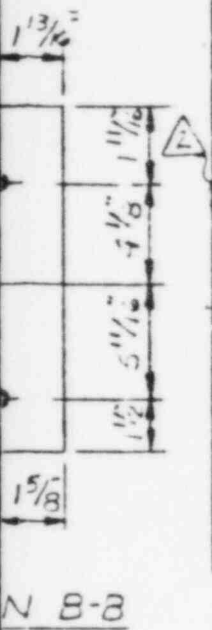
C.P.S.E.S. 86-1188

Brown & Root, Inc.
ENGINEERS AND CONSTRUCTORS
HOUSTON, TEXAS



LOAD (LBS)	GRAV.	THER	HYDRO	OBE	SSE	DESIGN LOADS			MVTS (IN.)	WORK THER	SEISMIC
UP	—	—	—			923	1543		VERT.		
DN	—	—	—			923	1543		N-S		
N									E-W		
S									PIPE CALC.	AB-1-35A R-0	
E									DATA POINT	506	
W									SUPPT CALC.	SC-73-35A	

REFERENCE DRAWINGS	BRHL 150
	CT-1-RB-30
	FAB. ISOMETRIC
	CT-1-RB-30
OWNER	TEXAS UTILITIES
PROJECT	COMANCHE PEAK
ENGINEER	GIBBS



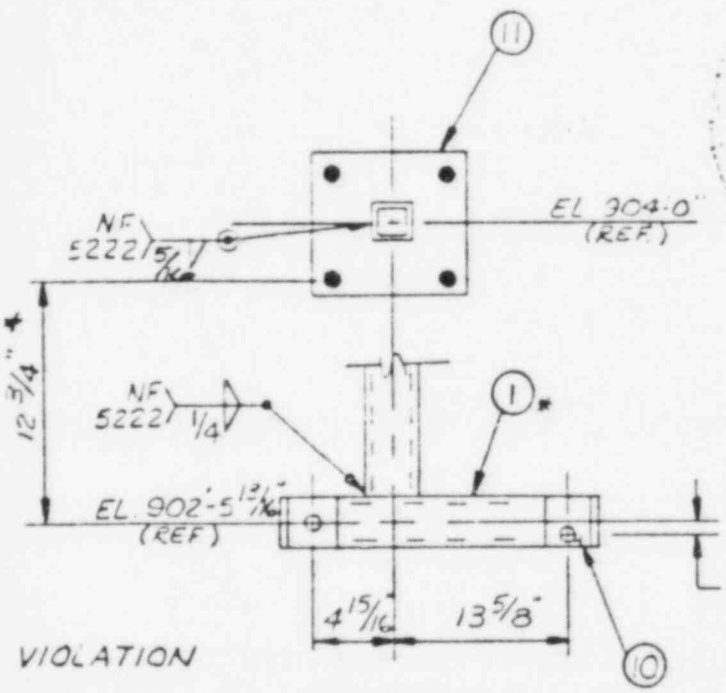
ITEM NO	NO REQ'D.	DESCRIPTION		WT.	ASME OR ASTM			MIC.
1	1	TS 6x6x3/8			A500 GRB	L		
2	2	RFT-12-L15 ROD			SA-36	CSS		
3	4	FXN-12 HVY. HEX NUT			A-307GRB	CSS		
4	1	TS-4x4x3/8			A-500GRB	L		
5	1	2) SMA+3-RO SNUBBER			—	CSS		
		TRANSITION KIT			—	CSS		
6	1	SPC-10-060 PIPE CLAMP			SA-36	CSS		
7	2	FB 6x1x6 W/(1) 1 5/8" Ø HOLE ON ℄			SA-36	PES		
9	*	TS 3x3x1/4x21 LG.			A500 GRB	L		
10	2	FB 6x1x6 W/1 5/8" Ø HOLE AS SHOWN			SA-36	PES		
11	1	CS PL 1" THK. PER SEC B-B			SA-36	PES		
12	4	BSA 34-812 STUD ANCHORS			A-108 GR 1015/1020	CSS		

*FIELD TRIM TO SUIT

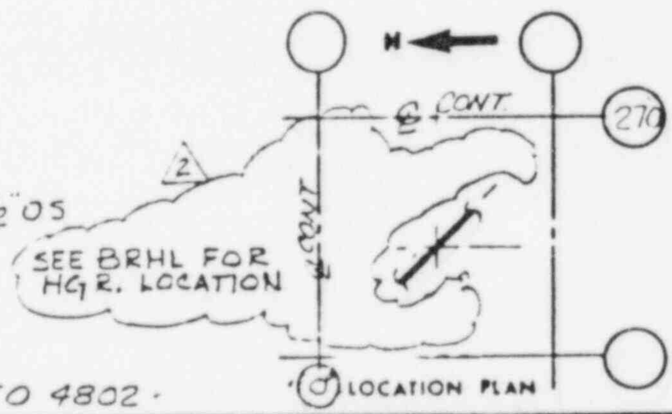
FOR OFFICE AND ENGINEERING USE ONLY

NOTE:

1.) Locking devices fo high strength bolts are not required per DCA 7607



SECTION A-A



LOCATION PLAN

2	163	FAB 150	NPSI-CT-1-RB-30	TO 4802

REV.	PIPING	REV.	ELECTRICAL	REV.	CODE/CLASS: III 2
3	2323-MI-0504-01	6	2323-EI-0510-01	4	PAINT
REV.	STRUCTURAL	REV.	H.V.A.C.	REV.	ZONE —
9	2323-SI-0532	2	2323-MI-0552	5	

DRAWN	DATE	CHK'D	DATE	APPV'D	DATE

P.O. NO. CP-0046 A-1 — MFG. REL. TC-271

PRODUCTION ORDER	SERIAL NUMBER	SHEET
		1 OF 1

1516 — MK. NO. CT-1-036-403-C72 — REV. 2

SERVICES INC.

UNITS NO. 1 & 2

HILL INC.

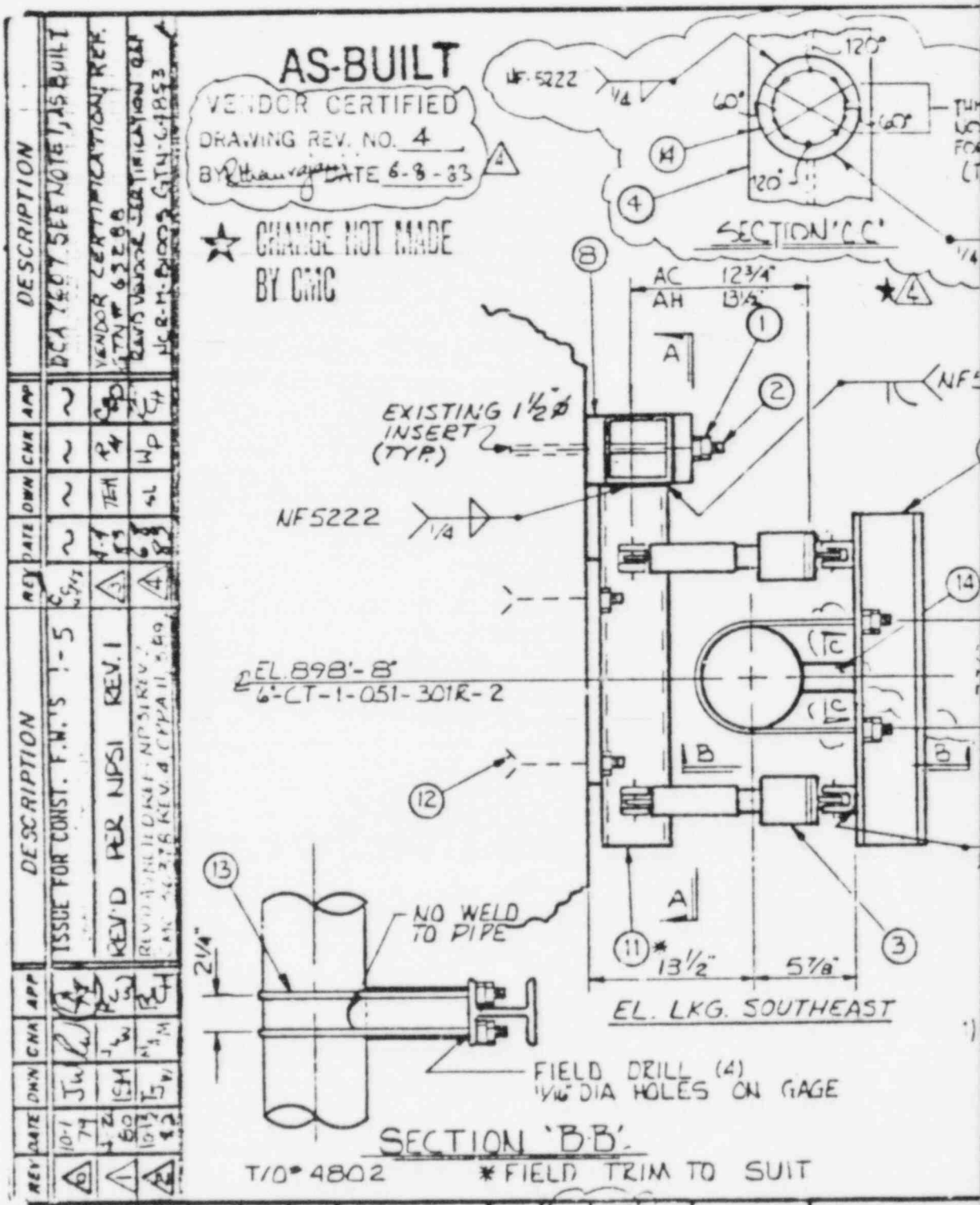
CPSES 35-1195

Brown & Root, Inc.

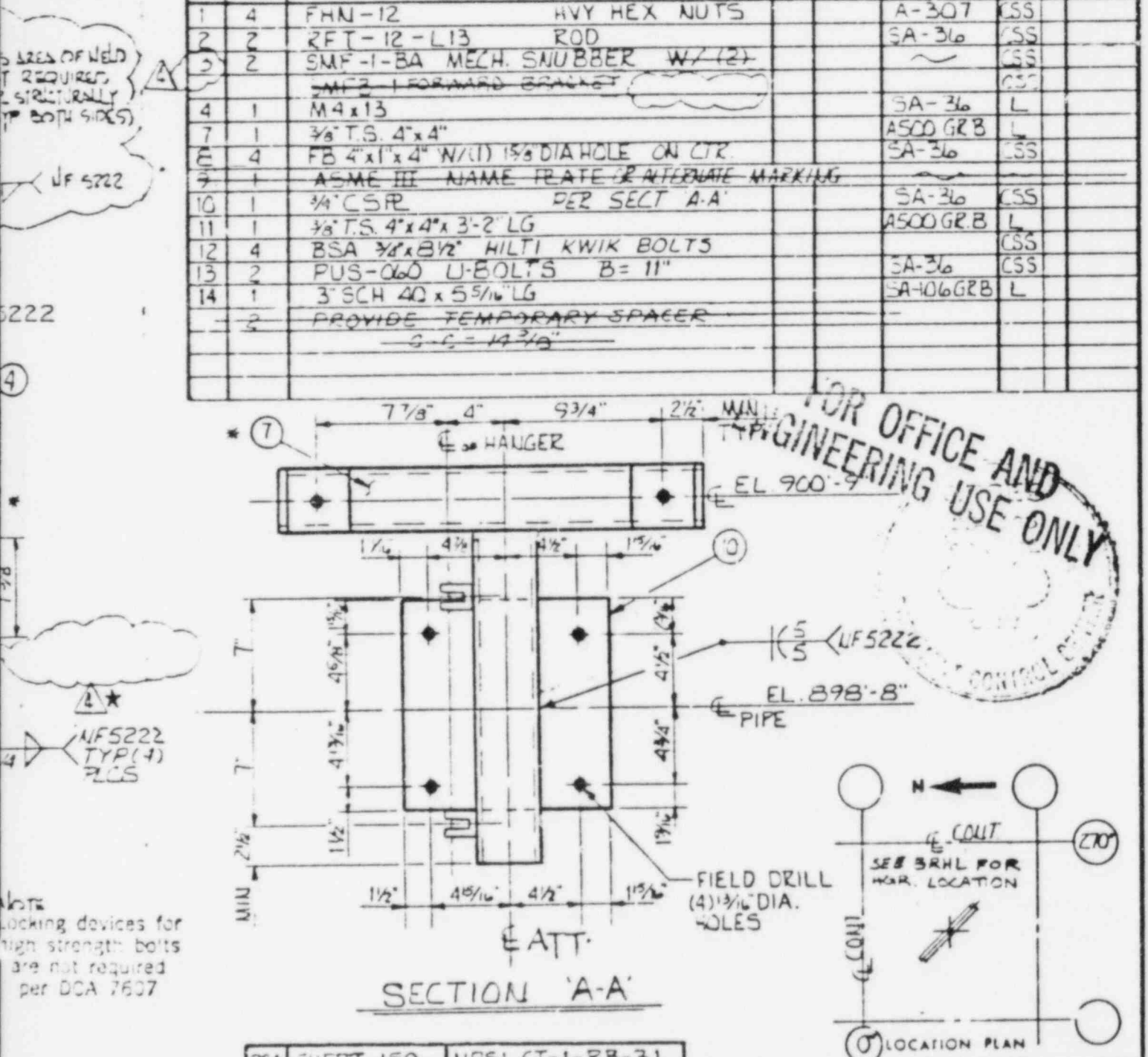
ENGINEERS AND CONSTRUCTORS

HOUSTON, TEXAS

FOIA-85-59 cc/167 8607100243-15



ITEM NO	NO REQ'D.	DESCRIPTION	WT.	ASME OR ASTM		MIC.
1	4	FHN-12 HVY HEX NUTS		A-307	CSS	
2	2	RFT-12-L13 ROD		SA-36	CSS	
3	2	SMF-1-BA MECH. SNUBBER ~~W/ (2)~~		~	CSS	
		~~SMF-2 FORWARD BRACKET~~			~~CSS~~	
4	1	M4x13		SA-36	L	
7	1	3/8" T.S. 4"x4"		A500 GR B	L	
8	4	FB 4"x1"x4" W/(1) 15/16 DIA HOLE ON CTR.		SA-36	CSS	
~~9~~	~~1~~	~~ASME III NAME PLATE OR ALTERNATE MARKING~~		~	~	
10	1	3/4" CSPL PER SECT A-A		SA-36	CSS	
11	1	3/8" T.S. 4"x4"x 3'-2" LG		A500 GR B	L	
12	4	BSA 3/8"x8 1/2" HILTI KWIK BOLTS			CSS	
13	2	PUS-060 U-BOLTS B= 11"		SA-36	CSS	
14	1	3" SCH 40 x 5 5/16" LG		SA-106 GR B	L	
	~~2~~	~~PROVIDE TEMPORARY SPACER C-C = 14 3/8"~~		-		



FOR OFFICE AND ENGINEERING USE ONLY

CONTROL COPY

NOTE
Locking devices for high strength bolts are not required per DCA 7607

DCA	SUFFT 150	UPSI CT-1-RB-31	

	REV	PIPING	REV	ELECTRICAL	REV	CODE/CLASS: II/2
	4	2323-M 0504-01	0	2323-E1 0503	7	PAINT CARBO ZINC 11
	REV	STRUCTURAL	REV	H.V.A.C.	REV	ZONE
	7	2323-S-0532	2	2323-M-0552	5	

DRAWN	DATE	CHK'D	DATE	APPV'D	DATE

P.O. NO. CP-0046 A.1 | MFG. REL. TC-198 X

PRODUCTION ORDER	SERIAL NUMBER	SHEET
		1 of 1

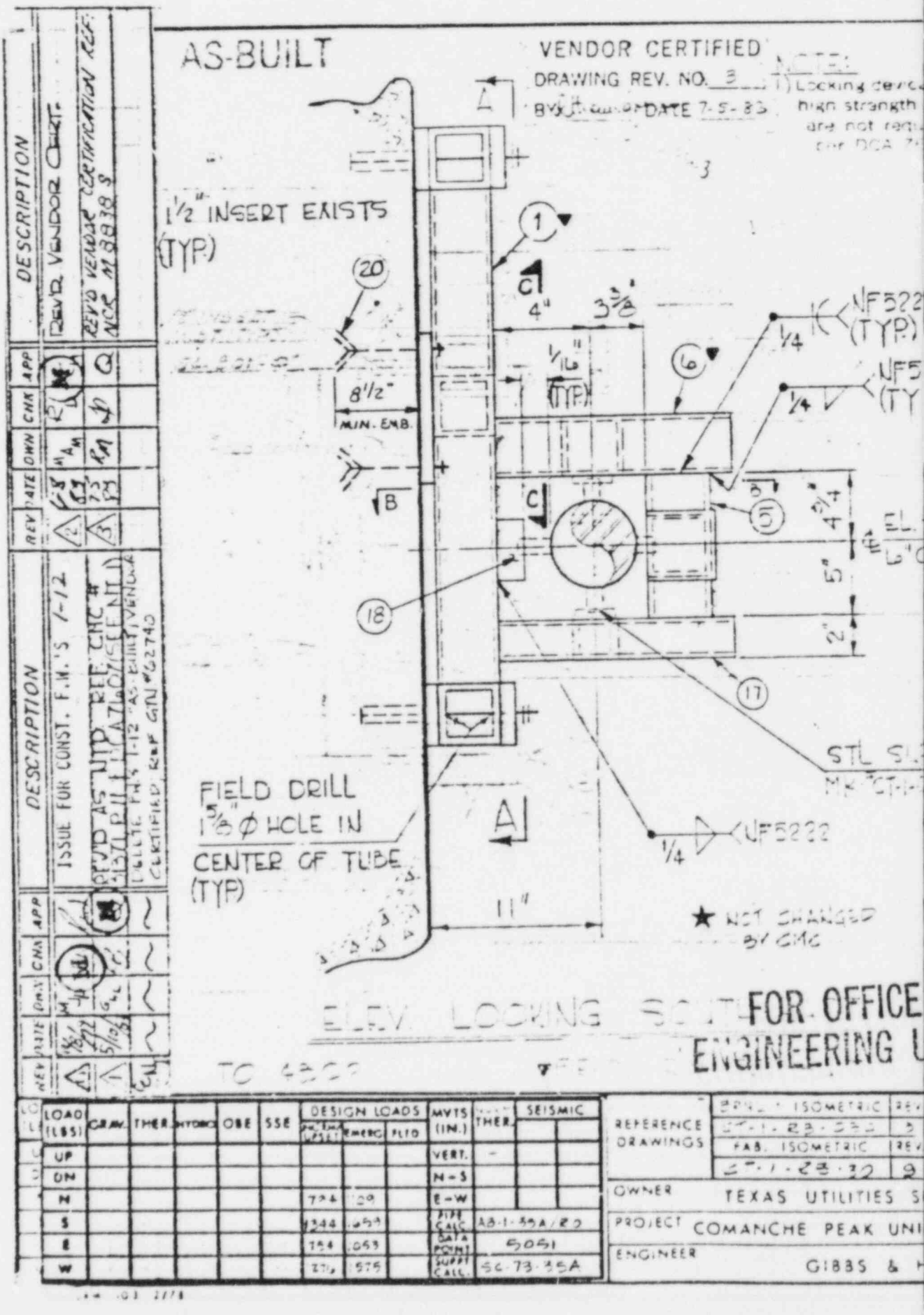
ES SERVICES INC.
K UNITS NO. 1 & 2
& HILL INC.

CPSES 3 38-1188

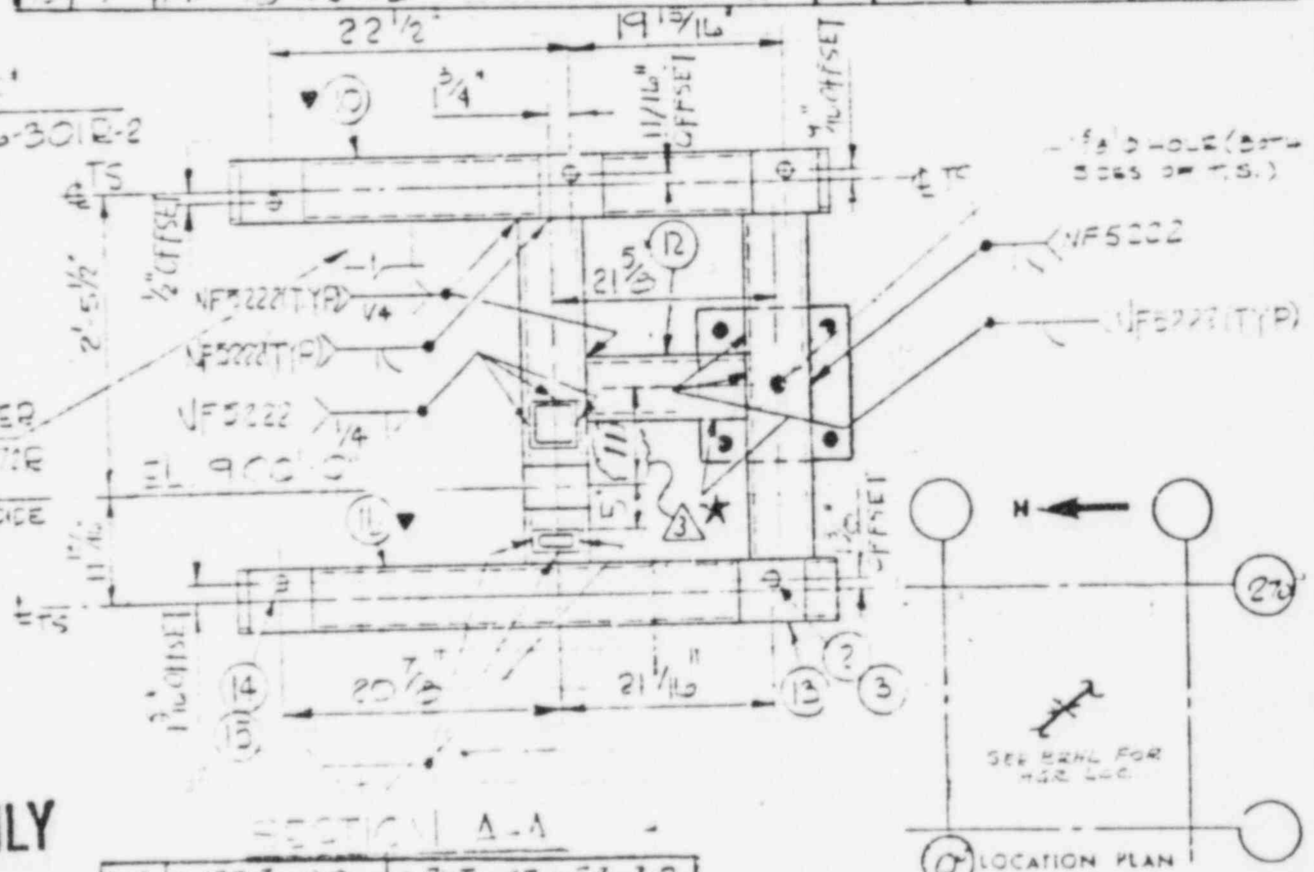
Brown & Root, Inc.
ENGINEERS AND CONSTRUCTORS
HOUSTON, TEXAS

2168	MK. NO. CT-1-051-413-C72K	REV. 4

cc/168 8607100243-16



ITEM NO	NO REQ'D.	DESCRIPTION			ASME OR ASTM			MIC.
1	2	TS 6"x6"x.375"			A-500 GR-B	L		
2	4	RFT-12 L 15 200			SA-36	KSS		
3	8	FHN-12 HVY HEX NUTS			A-307 GR B	KSS		
~~4~~	~~2~~	~~FB 6"x1"x6" W/1 5/8" ø HOLE ON ℄~~			SA-36	PTS		
5	1	TS 4"x4"x3/8"			A-500 GR B	L		
6	1	TS 4"x4"x3/8"			A-500 GR B	L		
~~7~~	~~1~~	~~TS 6"x6"x.375"~~			~~A-500 GR B~~	~~L~~		
8	2	FB 5"x1/2"x5"			SA-36	PTS		
9	2	TS 4"x4"x.3/8"			A-500 GR B	L		
10	1	TS 6"x6"x1/2"			A500 GR B	L		
~~11~~	~~1~~	~~ASME III NAMEPLATE~~			—			
12	1	[illegible]			[illegible]	L		
13	[illegible]	FB 6"x1"x6" W/ [illegible] ø HOLE AS SHOWN			[illegible]	PTS		
14	1	RFT-12 1/2" ø ROD L=15"			SA36	[illegible]		
15	2	FHN-12 HEAVY HEX NUT			A307GRB	[illegible]		
16	1	[illegible]			[illegible]	L		
17	1	[illegible]			[illegible]	L		
18	1	FP 5/8"x6"x6"			SA 36	PTS		



AND
USE ONLY

163	SUPP'T 150	NPSI-CT-1-EB 30

PIPING	REV	ELECTRICAL	REV	CODE/CLASS: III 2
2323-M1-0504-01	6	2323-E1-0510-01	4	PAINT
STRUCTURAL	REV	H.V.A.C.	REV	ZONE —
2323-S-0552	2	2323-M1-0552	5	

DRAWN	DATE	CHK'D	DATE	APPV'D	DATE
PK	2.12.79		2/13/79		9.4.79

P.O. NO. CP-0046 A-1 MFG. REL. TC-270

SERVICES INC.
UNITS NO. 1 & 2

CPSES 35-1195

Brown & Root, Inc.
ENGINEERS AND CONSTRUCTORS
HOUSTON, TEXAS

PRODUCTION ORDER	SERIAL NUMBER	SHEET
		1 OF 2

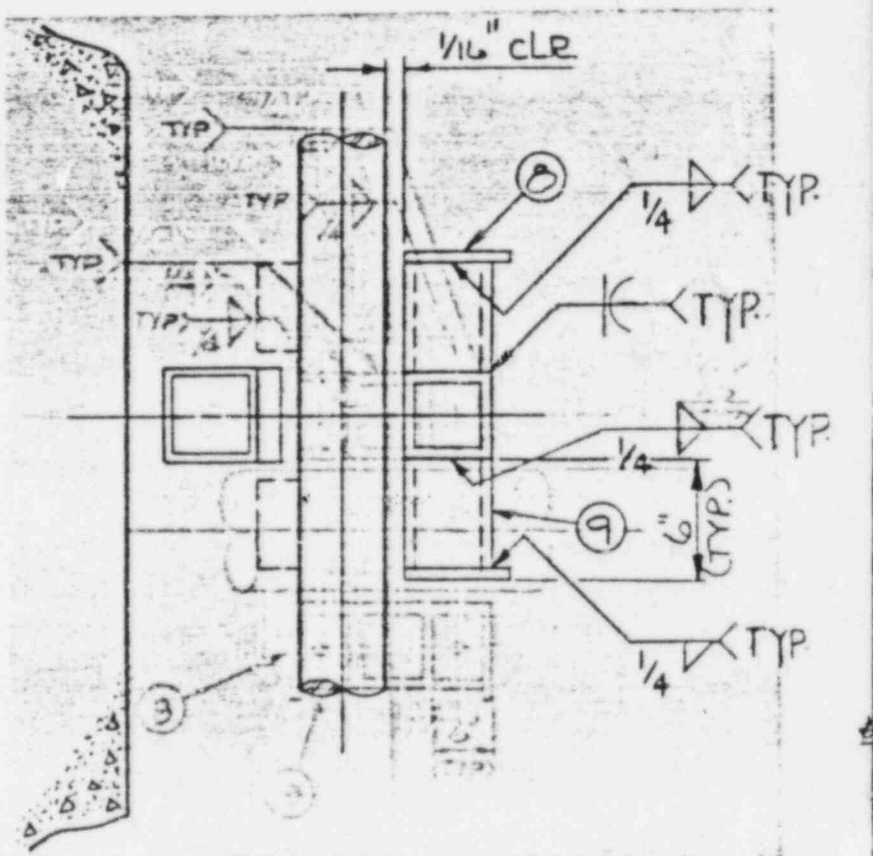
5.7 MK. NO. CT-1-036-104-C72Z REV. 3

FOIA-85-59 cc/169 8607100243-17

AS-BUILT

VENDOR CERTIFIED
DRAWING REV. NO. 3
BY [illegible] DATE 7-5-83

REV	DATE	DWN	CHK	APP	DESCRIPTION
0	[illegible]	[illegible]	[illegible]	[illegible]	ISSUE FOR CONST.
1	[illegible]	[illegible]	[illegible]	[illegible]	REV'D AS NOTED PER CHC # [illegible] (SEE NT. 1)
2	[illegible]	[illegible]	[illegible]	[illegible]	DELETED [illegible] AS-BUILT; VENDOR CERTIFIED PER [illegible]
3	7-5-83	[illegible]	[illegible]	[illegible]	RCVD. VENDOR CERT. REF. NCR [illegible]



SECTION · B · B

TI APERTURE CARD

Also Available On Aperture Card

TO 4802

LOAD (LBS)	GRAV.	THER.	HYDRO	OBE	SSE	DESIGN LOADS NORMAL/UPSET	EMERG	FLTD	MVTS (IN.)	THER.	SEISMIC	
UP									VERT.			
DN									N-S			
N									E-W			
S									PIPE CALC	AB-1-35A/R0		
E									DATA POINT	5051		
W									SUPPT CALC	CC-73-35A		

REFERENCE DRAWINGS	ISOMETRIC	REV.
		232
	FAB. ISOMETRIC	REV.
	C-1-28-30	2

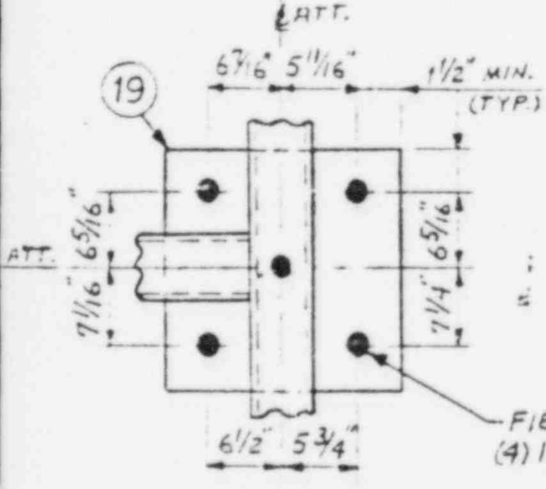
OWNER TEXAS UTILITIES SERVI

PROJECT COMANCHE PEAK UNITS

ENGINEER GIBBS & HILL

NPS FORM 103 2/78

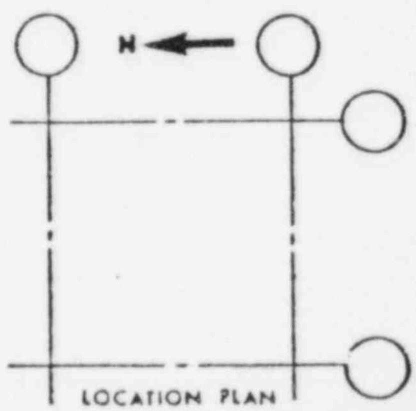
ITEM NO	NO REQ'D.	DESCRIPTION		WT.	ASME OR ASTM		MIC.
19	1	1" THK. PL. (SEE SECTION "C-C")			A 36/A516 GR 60		
20	4	1" x 12" SUPER HILTI-KWIK BOLTS					



SECTION "C-C"

CPSES
35-1195
CONTROL
COPY
DOCUMENT CONTROL CENTER

FOR OFFICE AND ENGINEERING USE ONLY



LOCATION PLAN

	163	SUPP'T 150	NPSI-CT-1-28-30							
PIPING	REV.	ELECTRICAL	REV.	CODE/CLASS: III	DRAWN	DATE	CHK'D	DATE	APPV'D	DATE
3-M		2323-E		PAINT	PK	9-13-79	RT	9/13/79	HB	9.14.79
STRUCTURAL	REV.	H.V.A.C.	REV.	ZONE —	P.O. NO. CP-0046 A-1			MFG. REL. TC-270		
3-S		2323-M								
CES INC.		Brown & Root, Inc. HOUSTON, TEXAS			PRODUCTION ORDER		SERIAL NUMBER			SHEET
NO. 1 & 2		CPSES 35-1195								2 OF 2
INC.					1517	MK. NO CT-1-036-404-C72R				REV. 3

FOIA-85-59

cc/169 8607100243-18

AH-10

APPENDIX

U. S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: 50-445/83-27

Docket: 50-445

Construction Permit: CPPR-126

Licensee: Texas Utilities Generating Company (TUGCO)
2001 Bryan Tower
Dallas, Texas 75201

Facility Name: Comanche Peak, Unit 1

Inspection At: Comanche Peak. Unit 1, Glen Rose, Texas

Inspection Conducted: May 10-July 1, and September 9-22, 1983

Inspector: R. C. Stewart, Reactor Inspector, Reactor Project Section A — 9-28-83 Date

Approved: D. M. Hunnicutt, Chief, Reactor Project Section A — 9/28/83 Date

TI
APERTURE
CARD

Also Available On
Aperture Card

8311180219
50P

FOIA-85-59 cc/170

Details

A. Persons Contacted

Texas Utilities Services Incorporated (TUSI) Employees

B. G. Scott, Quality Engineering Supervisor
G. Tanley, General Superintendent
C. R. Hooton, Lead Civil Engineer
R. M. Kissinger, Project Civil Engineer
C. Fleming, Field Engineer

Brown & Root (B&R) Employees

W. Wright, Project Welding Engineer
B. Hauser, Field Engineering Superintendent
C. Osborn, Tool Crib Foreman

The NRC inspector also contacted other licensee and contractor employees during the course of the inspection.

Note: Prior to this inspection, separate and independent investigative interviews were conducted by members of the Office of Investigation Field Office, Region IV (see attached Report A4-83-005, dated May 20, 1983).

B. Alleged Improper Construction Practices -

The NRC inspector, through an interpretative review of Mr. R. L. Messerly's affidavit, dated February 3, 1983, and his statements during his interview, April 14, 1983, determined that there were seven specifically alleged matters that required a detailed inspection effort to assess their technical merit and/or their potential impact on safety-related systems, component, and structures.

The seven areas of NRC concern which Mr. Messerly alleged to have occurred are summarized as follows:

1. That B&R employees drilled undocumented and unauthorized holes that cut through reinforcing steel and that such drilling and cutting was done at the direction of supervisors. Mr. Messerly provided a copy of a personal diary which, he alleged, reflected undocumented and unauthorized drilling.

2. That one of the main steam lines in Unit 1 was moved using the polar crane, thereby placing the section of pipe line in an unsafe stressed condition.

3. That he had cut through concrete reinforcing steel as directed by work instructions that were not in accordance with the approved method of documentation.

4. That tubular hanger/support steel anchor bolt holes were enlarged with a burning torch which he said was unauthorized.

5. That (Richmond) anchor bolts were not perpendicular to concrete surface and, therefore, unacceptable.

6. That stainless steel pipe attachments were welded on piping without an inerting purge.

7. That NRC Form 3, "Notice to Employees" was not posted on three main bulletin boards.

C. Inspection Findings

Allegation 1

1. Discussion

Mr. Messerly stated that during his assignment as foreman over the first crew responsible for drilling through concrete and reinforcing steel (rebar) during installation of cable tray and pipe hanger supports, he was ordered by his supervisors to loan out drill bits and/or drill undocumented and unauthorized holes through rebar.

To further support his allegation, Mr. Messerly named B&R employees responsible for the alleged improprieties and those who could substantiate his allegations. 1/

In addition, Mr. Messerly provided the NRC staff a copy of his personal daily diary in which he logged drilling of holes for electric cable trays/hanger supports and rebar cutting details. He stated that this diary also identified holes he drilled, in or through, rebar and concrete without having documentation and authorization.

2. Chronological Findings 1978-1982

In order to determine the magnitude of implication and the resulting findings of Mr. Messerly's allegations.

1/ See attached "Assistance to Inspection Report," Report A4-83-005, dated May 20, 1983

Allegation 4

1. Discussion

During Mr. Messerly's interview on April 14, 1983, and as stated in his February 3, 1983 affidavit, Mr. Messerly indicated that anchor bolt holes in tubular steel hanger supports were enlarged with a burning torch in order to compensate for the angularity of the previously installed (Richmond) anchor bolts, rather than redrill the holes.

2. Conclusion - Allegation 4

The results of the interviews of eight B&R employees, whose names were provided by Mr. Messerly and alleged to have knowledge concerning the improper use of cutting torches on hanger material, is contained in the attached "Assistance to Inspection Report." 1/ Two individuals stated that they recall an instance during a redesign modification of a hanger where it was discovered that holes had been enlarged by a burning torch, therefore, that portion of the hanger was scrapped.

During the onsite followup inspection concerning this matter, the NRC inspector discussed the use of cutting torches with the licensee's welding engineers and fabrication department engineers. The NRC inspector was informed that the use of cutting torches is not prohibited, provided it is done in accordance with prescribed B&R procedures and/or ASME, Section III, Subsection 4211 (thermal cutting). In the case of tubular hanger installations, the preferred method of correction for hole misalignment is to drill offset hole(s). This has been done on many occasions via the design change CMC document. The cognizant project engineer, responsible for approving and issuing CMC's for hanger modifications, stated that he knew of no CMC that involved authorization of hole enlargement or hole relocation on tubular hanger supports utilizing thermal cutting; however, thermal cutting has been permitted as necessary on other types of carbon steel supports, base plates, etc.

The NRC inspector conducted a walk-through of the containment building to examine accessible installed tubular hangers, specifically in the plant areas mentioned by Mr. Messerly during his interview. The inspector examined approximately 60 hangers at the 905' and 860' elevations in the containment building. Although limited in visual accessibility to each 1" or 1-1/4" drilled hole in each section of the tubular hangers, the NRC inspector did not find any hole that was enlarged by a cutting torch.

In addition, the NRC inspector discussed the subject of thermal cutting with the cognizant QC supervising inspector who was involved with inspections of tubular hanger installation during 1980-1982. The QC supervisor stated, that neither he nor any inspector discovered

an installed tubular hanger hole having been enlarged by a cutting torch.

Based on the lack of specificity by Mr. Messerly, the lack of corroborative testimony by Messerly's witnesses, interviews by the NRC inspector with cognizant site personnel, and the (limited) examinations of installed hangers, this allegation could not be substantiated.

There were no violations or deviations identified in this area of the inspection.

Allegation 5

1. Discussion

During the interview on April 14, 1983, Mr. Messerly stated that Richmond Insert anchor bolts installed between elevations 905' and 860' in the reactor containment building have not been installed perpendicular to the concrete surfaces and, therefore, are unacceptable. In addition, Mr. Messerly stated, ". . . whatever angle it is, we would drill it at that angle so that it would come through the tube (i.e., tubular steel) and when it comes out the other side of the tube, it comes out as close to center as we could get it."

Mr. Messerly also stated, "Just go out there and pull any . . . studded rod out of there, pull three of them and two of them is [sic] crooked."

2. Conclusion - Allegation 5

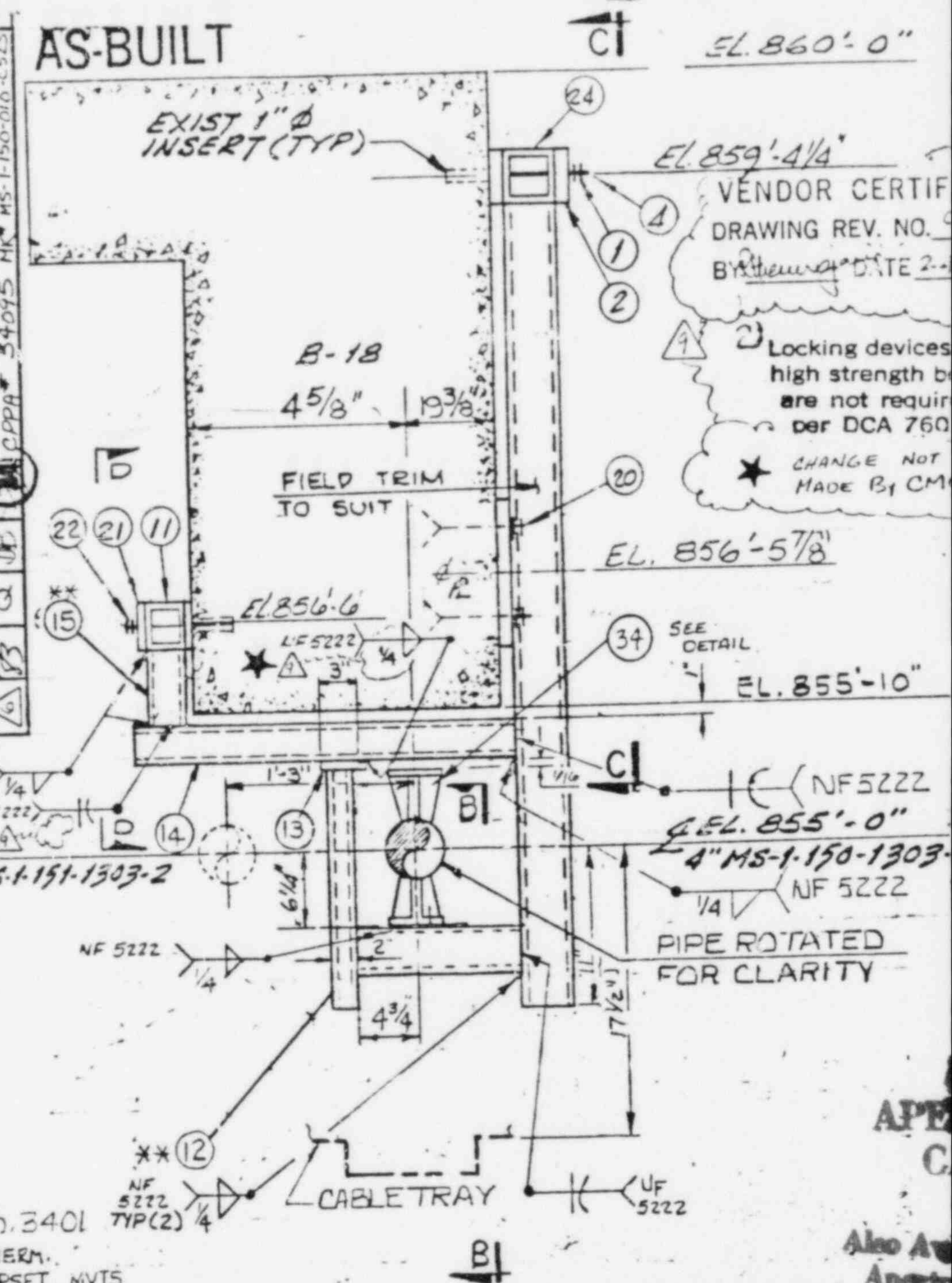
During the NRC inspector's onsite follow up of this matter, the inspector found that the B&R Procedure CP-CPM 9.10, "Fabrication of ASME-Related Component Supports," (original issue 12/28/78) is the primary construction installation procedure to be implemented and followed by the hanger installation crews. The "General Fabrication and Installation Requirements," Section 3.3.1.2 "Installation Tolerances," states in part,

> "Field Fit Tolerances
>
> "The tolerances discussed above shall be maintained for support fabrication activities. However, if during the installation, the support won't fit, the members may be "field fit" provided the piping and elevation tolerances shown below have been maintained. All other tolerances regarding axial location, alignment, and base plate attachments must be adhered to unless otherwise noted on the drawing."

REV	DATE	DWN	CHK	APP	DESCRIPTION
2	1/8	M/EW	KR	[illegible]	REV'D AS NOTED REF NPSI REV 1 & CPPA 5900 SEE NT 1
3	3/2/83	CH	JB	[illegible]	REV'D AS NTD; REF CMC 43561 R7 DCA 7607 NT 2 "AS BUILT"
4	5/12/83	GBH	JMI	[illegible]	VENDOR CERTIFICATION; REF. STN 63253
5	8/12/83	JM	[illegible]	[illegible]	REV'D VENDOR CERT. REF. UCP# M-10009S
6	[illegible]	Q	JB	[illegible]	REV'D VENDOR CERTIFICATION. REF CPPA* 34095 MK# MS-1-150-010-C525

REV	DATE	DWN	CHK	APP	DESCRIPTION
0	11/1/78	KM	RJ	[illegible]	ISSUE FOR CONST ELV 1-4
1	12/5/78	KM	RJ	RA	SHEET 2 FW 3-5 WAS 1-4

AS-BUILT



Tn.3401
THERM.
UPSET MVTS
V = ~
S = .276
W = .646

ELEVATION LKG NORTHEAST

LOAD (LBS)	GRAV.	THER.	HYDRO	OBE	SSE	DESIGN LOADS NORM/UPSET	EMERG	FLTD	MVTS (IN.)	NORM THER	SEISMIC	
UP						1684	1716		VERT.	~		
DN						349	381		N-S	~		
N									E-W	~	~	~
S									PIPE CALC.	AB-1-77	R2	
E									DATA POINT	2503		
W									SUPPT CALC.	SC-42-77		

REFERENCE DRAWINGS		REV
	BRHL 150	
	MS-1-RB-014	2
	FAB. ISOMETRIC	REV
	MS-1-RB-14	4

OWNER TEXAS UTILITIES SE

PROJECT COMANCHE PEAK UNIT

ENGINEER GIBBS & HI

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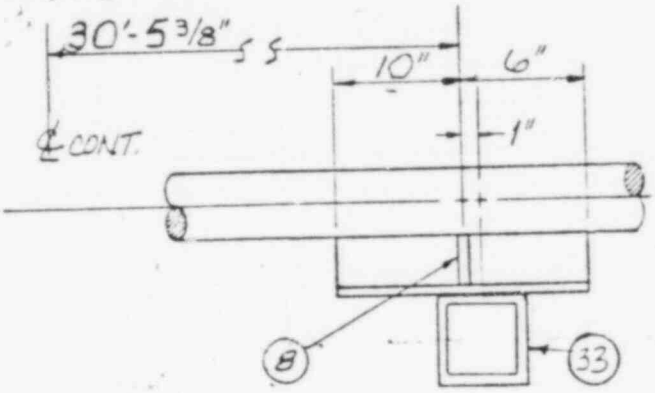
Apertu

ITEM NO	NO REQ'D.	DESCRIPTION	WT.	ASME OR ASTM	PRM	CODE	MIC.
1	6	FHN-1" HVY. HEX NUT		A-307	CSS		
2	4	RWP-08 EXCEPT 1"x4"x4" STK.		SA 515 GR 65	CSS		
~~3~~	~~1~~	~~TS 4"x4"x.375~~		~~A-500 GR B~~	~~L~~		
4	5	RAT-08 x 1'-1" LG. STUD		SA-36	CSS		
~~5~~	~~1~~	~~TS 4"x4"x.375~~		~~A-500 GR B~~	~~L~~		
~~6~~	~~1~~	~~TS 4"x4"x.375~~		~~A-500 GR B~~	~~L~~		
7	1	WT 4x 8.5 x 1'-4" LG.		SA-36	L		
8	2	FB 2 1/4" x 3/8" x 4 3/8" LG. (SEE DET. 8)		SA-36	L		

REV	DESCRIPTION	DATE	DWN.	CHK'D.	APP'VD.
A	REV'D VENDOR CERT.	11-14-83	CNB	C&H	
A	REV. VENDOR CERT. REF CMC 35134	12-6-83	CNB	C&H	
9	REV. VENDOR CERT. REF: CPPO # 36095	2-6-84	Q	MB	

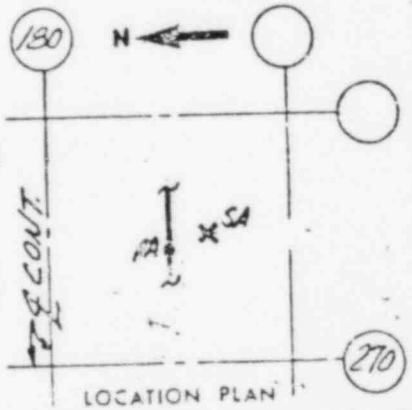
					~~A-500 GR B~~	~~L~~	
11	1	TS 4" x 4" x 3/8" x 4'-6" LG.			A 500 GR B	L	
12	1	TS 4" x 2" x 1/4" x 2'-0" LG.			A 500 GR B	L	
13	1	FB 3" x 1/2" x 5" PLATE (BY FIELD)			SA-36	PES	
14	1	TS x 3" x 3" x 3/16" x 2'-8" LG.			A-500 GR B	L	
15	1	TS x 3" x 3" x 3/16" x 7" LG			A 500 GR B	L	



** = FIELD TRIM TO SUIT

℄ EL. 855'-0"
℄ 4" MS-1-150-1303-2

SECTION B-B CONTROL
(PARTIAL)



LOCATION PLAN

SEE BRHL FOR HGR. LOCATION

FOR OFFICE AND ENGINEERING USE ONLY

8607100243-19

PIPING	REV.	ELECTRICAL	REV.	CODE/CLASS III/2	DRAWN	DATE	CHK'D	DATE	APP'V'D	DATE
2323-MI-0507	13	2323-EI-0501-02	10	PAINT CARBOZINC NO. 11	RP	6/6/78		6/8/78	JG	4/9/78
STRUCTURAL	REV.	H.V.A.C.	REV.	ZONE —	P.O. NO. CP-0046 A-1			MFG. REL. TC-113		
2323-SI-0525	4	2323-MI-0551	5		PRODUCTION ORDER		SERIAL NUMBER		SHEET	
									2 OF 2	
					151	MK. NO. MS-1-150-210-C52R			REV. 9	

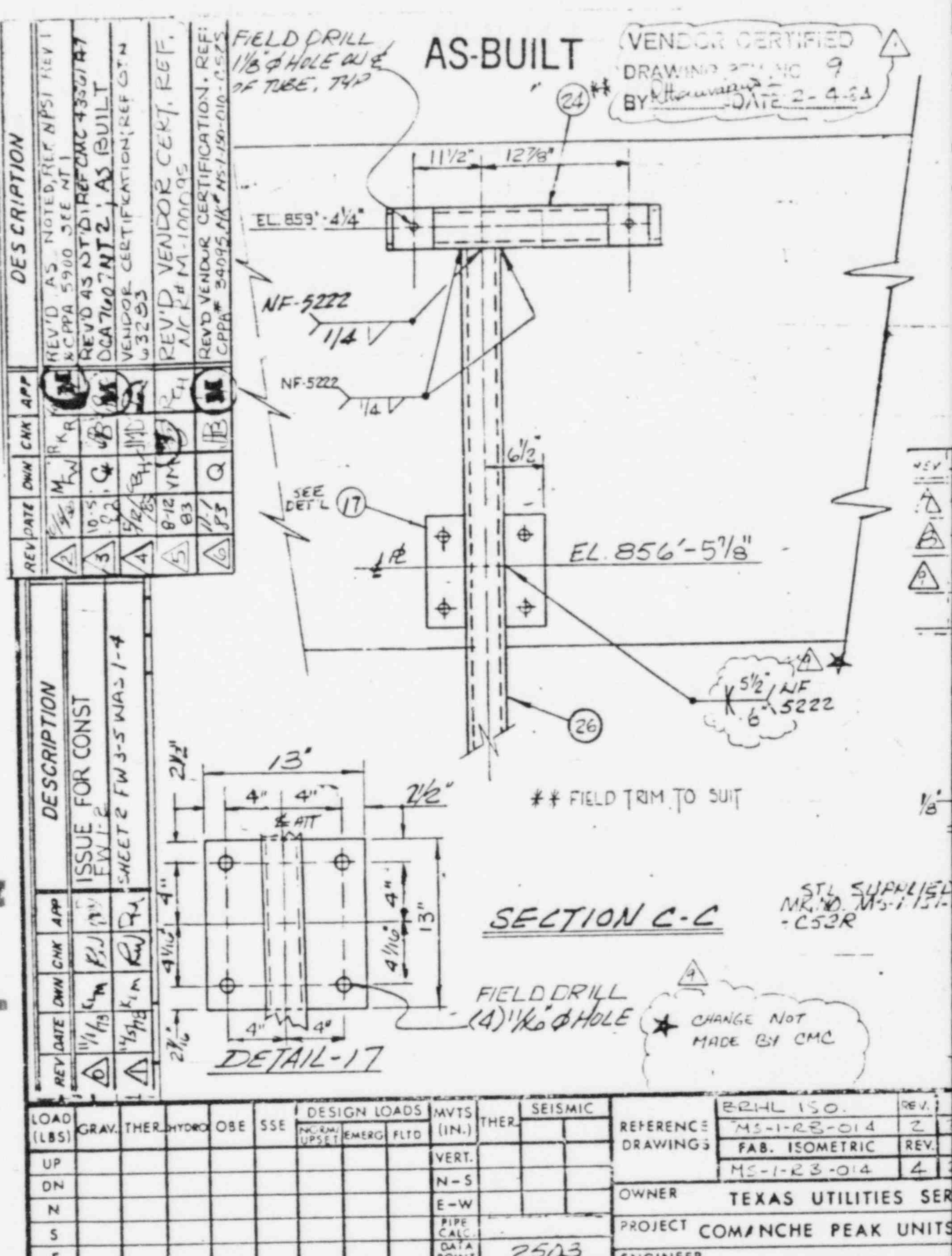
HOLD SUPPT. ISO. NPSI-MS-1-RB-14

VICES INC.
S NC. 1 & 2
LL INC.

CPSES 35-1135

Brown & Root, Inc.
ENGINEERS AND CONSTRUCTORS
HOUSTON, TEXAS

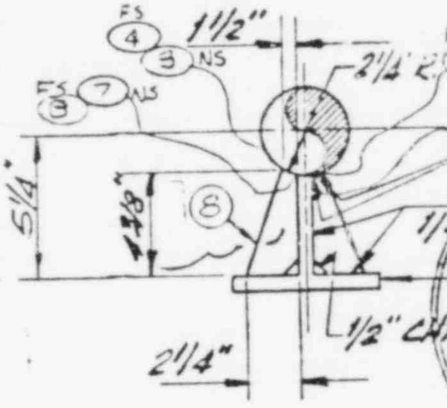
CC/171



ITEM NO	NO REQ'D	DESCRIPTION		WT.	ASME OR ASTM	P2, FE.	MIC.
33	1	T.S. 3"x3"x 1/4"			A 500 GR B	L	
34	2	F.B. 2 1/4" x 3/8" x 4 1/16 LG. (FIELD TRIM CUT SUIT)			SA-36	L	
35	1	WT 4"x9"x6" LG.			SA-36	L	
17	1	FP 1"x 13" x 13" (SEE DET. -17)			SA-36	PCS	
20	4	5/8" X 6" HILTI KWIK BOLTS (BY FIELD)			A1CB-??	CSS	
21	4	FB 4"x1"x 4" W/(1) 1 1/8" Ø HOLE ON CTR			SA515 GR 65	PCS	
22	4	FHU-08 HVY HEX NUT			A-307	CSS	
~~23~~	~~2~~	~~RFT-08 L13 ROD~~			~~SA-??~~		
24	1	TS 4"x 4"x 3/8" X 2'-7" LG.			A500 GR B	L	
25	2	FB 4"X1"X4" W/(1) 1 1/8" Ø HOLE AS SHOWN			SA515 GR 65	PS	
26	1	T.S. 3"X 3"X 1/4" X 6'-0" LG.			A500 GR B	L	
~~28~~	~~2~~	~~L 3"x3"x 3/8" x 2'-5" LG.~~			~~SA 36~~	L	
~~29~~	~~1~~	~~L 4"x4"x 1/2" x 18" LG.~~			~~SA 36~~	L	
~~30~~	~~1~~	~~L 3"x3"x 3/8"x 8" LG.~~			~~SA 36~~	L	
~~31~~	~~1~~	~~L 3"x3"x 3/8"x 6" LG.~~			~~SA 36~~		
~~32~~	~~2~~	~~L 3"x3"x 3/8"x 16 3/8" LG.~~			~~SA 36~~		
		CONT. ABOVE					

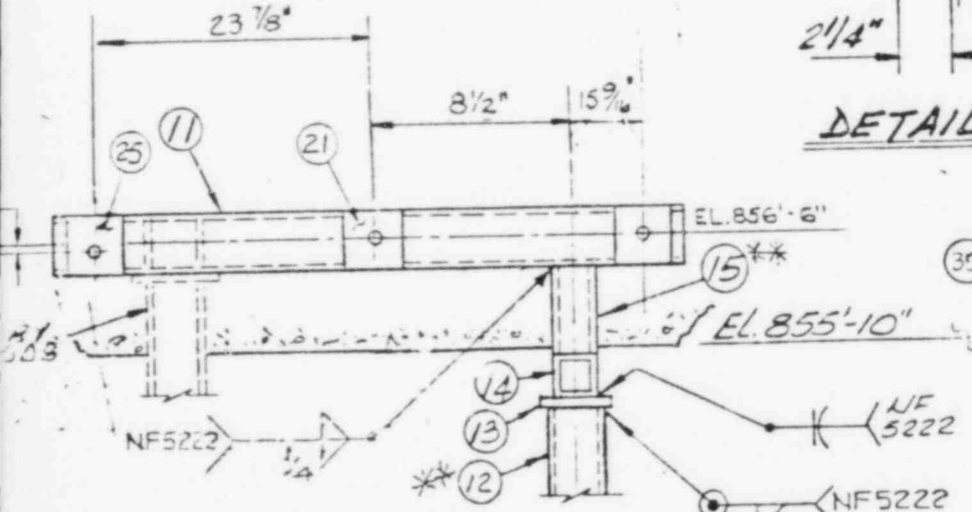
FOR OFFICE AND ENGINEERING USE ON.

DATE	DWN	CHK	APP	DESCRIPTION
1/14/83	SN	B	CB	REV'D VENDOR CERT.
12/6/83	D	VB	CB	REV. VENDOR CERT. REF CMC 95134
2/6/84	Q			REV. VENDOR CERTIFICATION. REF CPPA# 36095

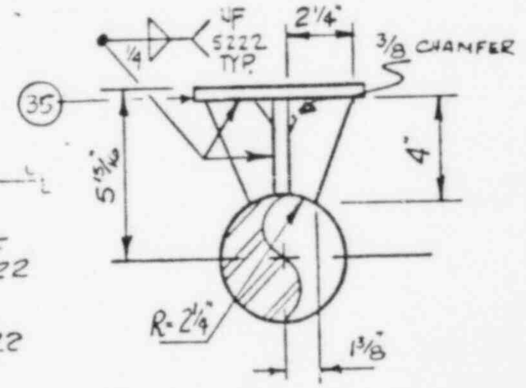


DETAIL 8

CPSES 35-1195 CONTROL COPY DOCUMENT CONTROL CENTER



SECTION D-D



DETAIL 34 (UPPER SIDE)

T-0 # 3401	110	SUPP'T 150.	UPSI-MS-1-RB-14

PIPING	REV.	ELECTRICAL	REV.	CODE/CLASS: III/2	DRAWN	DATE	CHK'D	DATE	APPV'D	DATE
2323-M		2323-E		PAINT CARBOZINC #11	2/12 RP	6/6/73	PN	6/8/73	JG	6/9/73
STRUCTURAL	REV.	H.V.A.C.	REV.	ZONE	P.O. NO. CP-0046 A-1		MFG. REL. TC-113			
2323-S		2323-M								

...VICES INC.
...NO. 1 & 2
...L INC.

CPSES 35-1195

Brown & Root, Inc.
ENGINEERS AND CONSTRUCTORS
HOUSTON, TEXAS

PRODUCTION ORDER	SERIAL NUMBER	SHEET
		2 of 2
151	MK. NO. MS-1-150-010-C52R	REV. 9

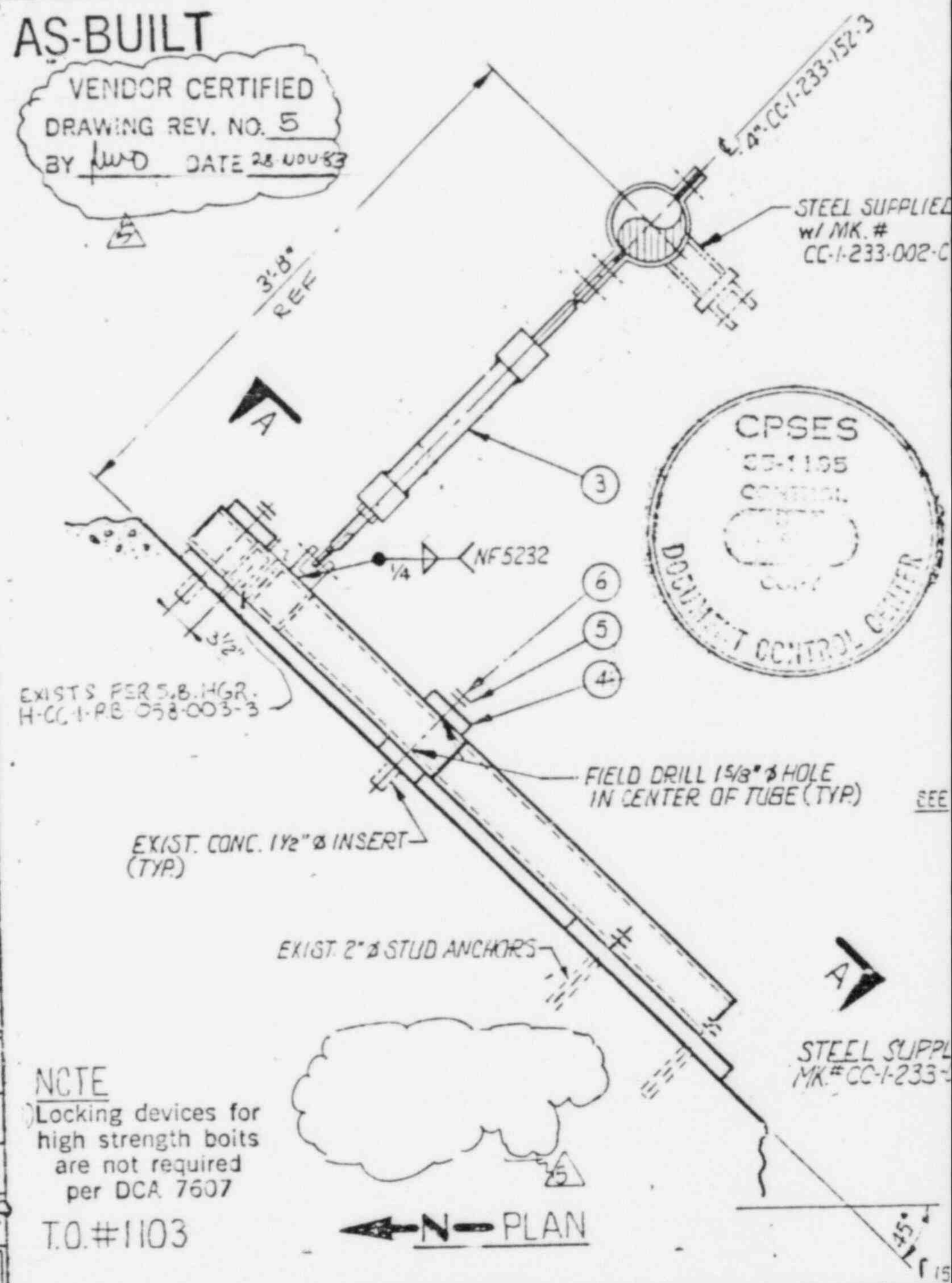
8607100243-20

8

AN
APERTURE
CARD

Also Available On
Aperture Card

REV	DATE	DWN	CHK	APP	DESCRIPTION
0	12-10-79	[illegible]	JW	[illegible]	ISSUE FOR CONST. E.W.'S 1-3
1	7-24-82	LN	RD	[illegible]	REV'D AS N.V.D. REF. CMC 31145 REV 6 DCA 7607, SEE NT #1 & NPSI REV 1 AS BUILT
2	3/[illegible]	[illegible]	[illegible]	[illegible]	REV. AS BUILT. REF. CMC 35713, VENDOR CERTIFICATION REF. CPPA 26210
3	6/[illegible]/83	[illegible]	[illegible]	Q	REV'D VENDOR CERTIFICATION, REF. CPPA# 29932
4	7-7-83	VM	R.D.	[illegible]	REV'D VENDOR CERTIFICATION REF. NCR-MB270 R2
5	11-28-83	[illegible]	Q	JB	REV'D VENDOR CERT. REF. WPT G653



NOTE
1) Locking devices for high strength bolts are not required per DCA 7607

T.O.#1103

LOAD (LBS)	GRAV.	THER.	HYDRO	OBE	SSE	DESIGN LOADS NORM/UPSET	EMER	FLTD	MVTS (IN.)	THER UPSET	SEISMIC
UP									VERT.	[illegible]	
DN									N-(S)	.004	
N						170	234		E-(W)	.004	
S						164	228		PIPE CALC.	APS-1-56B/[illegible]	
E						164	228		DATA POINT	2280	
W						170	234		SUPPT CALC.	SC-70-56B	

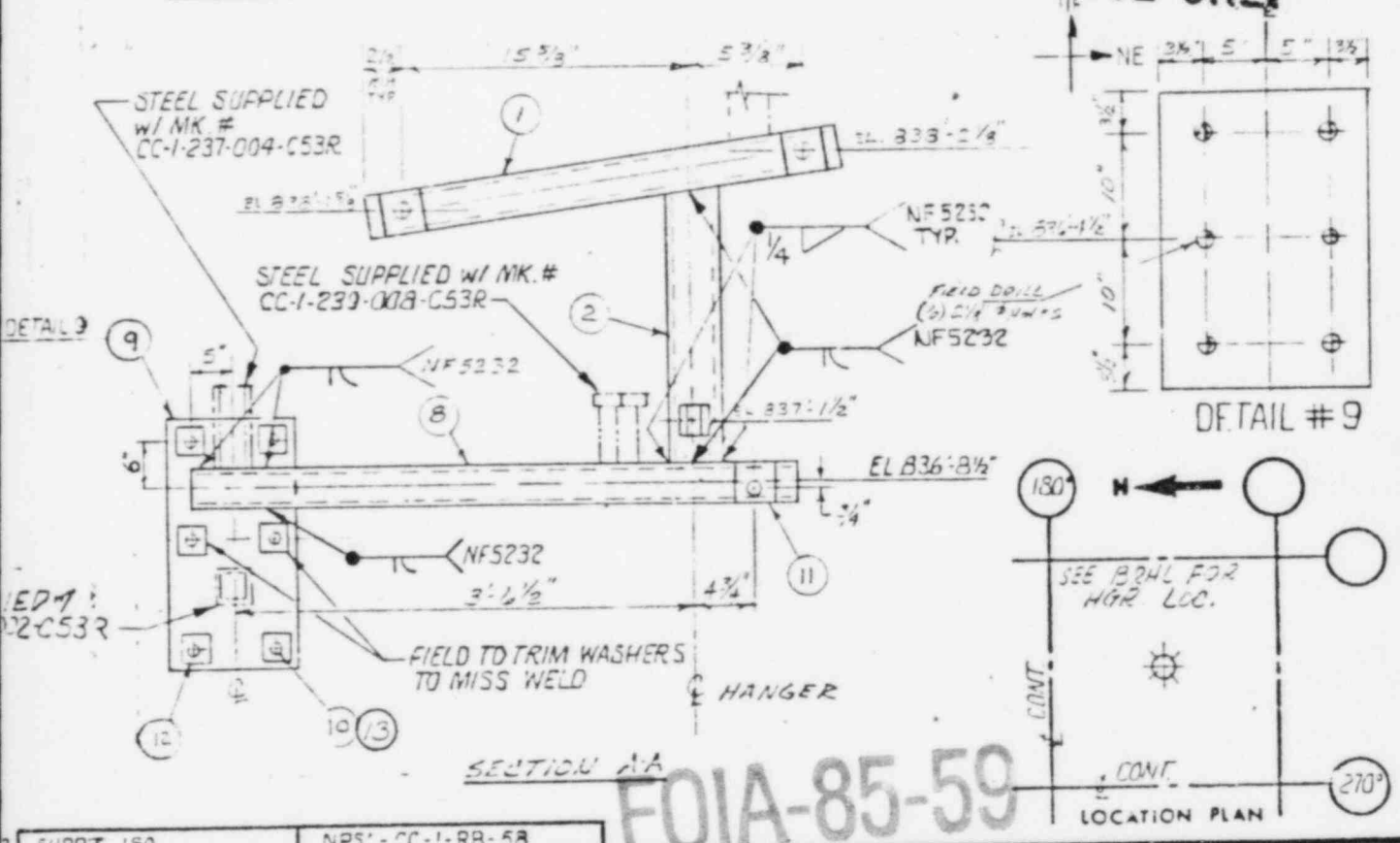
REFERENCE DRAWINGS	BRHL ISOMETRIC: CC-1-RB-058A; FAB. ISOMETRIC: CC-1-RB-58 4
OWNER	TEXAS UTILITIES [illegible]
PROJECT	COMANCHE PEAK UN[illegible]
ENGINEER	GIBBS & [illegible]

3.5"

11"

ITEM NO	NO REQ'D.	DESCRIPTION		WT.	ASME OR ASTM	PRM.	MIC.
1	1	T.S. 4"x 4" x 3/8" (BY FIELD)			A-500 GR.B	L	
2	1	T.S. 4"x 4" x 3/8"			A-500 GR.B	L	
3	1	a) SRS-06-RO RIGID SWAY STRUT			———	CSS	
	1	a) SPC-06-040 PIPE CLAMP			SA-36	CSS	
4	4	F.B. 1"x 4"x 4" W/ 1 5/8" ø HOLE ON ℄			SA-36	P&S	
5	6	FHN-12 HVY. HEX NUT			A-307 GR.B	CSS	
6	3	RFT-12-L13 ROD			SA-36	CSS	
7	1	ASME III NAMEPLATE					
8	1	T.S. 4"x 4" x 3/8" x 5'-0" LG.			A-500 GR.B	L	
9	1	F.B. 1" THK. PER DET. #9.			SA-36	P&S	
10	6	FXJ-16 JAM NUT			A-307 GR.B	CSS	
11	2	F.B. 1"x 4"x 4" W/ 1 5/8" ø HOLE OFF CENTER AS SHOWN			SA-36	P&S	
12	6	F.B. 1"x 4"x 4" W/ 2 1/8 ø HOLE ON ℄			SA-36	P&S	
13	6	FHN-16 HVY. HEX NUT			A-307 GR.B	CSS	

FOR OFFICE AND ENGINEERING USE ONLY



SUPPT ISO.		NPS1-CC-1-RB-58								
PIPING	REV.	ELECTRICAL	REV.	CODE/CLASS: III/3	DRAWN	DATE	CHK'D	DATE	APPV'D	DATE
2323-M1-0507	10	2323-E1-0501-02	10	PAINT CARBOZINC #11	FY SR	8/23/79	SRL RP	9/12/79	KD RC	9.13.79
STRUCTURAL	REV.	H.V.A.C.	REV.	ZONE ———	P.O. NO. CP-0046 A.1		MFG. REL. TC-267			
2323-S-0522	3	2323-M1-0551	5		PRODUCTION ORDER		SERIAL NUMBER		SHEET	
SERVICES INC.		Brown & Root, Inc.							1 OF 1	
ITS NO. 1 & 2		ENGINEERS AND CONSTRUCTORS			2723	MK. NO. CC-1-233-001-C53R			REV. 5	
HILL INC:		HOUSTON, TEXAS								

8607100243-21

CC/172

1) * CC-1-043-014-A43R (REV 1+2)

ITEM #15 PHS 240 U-BOLT B=1'-8½"

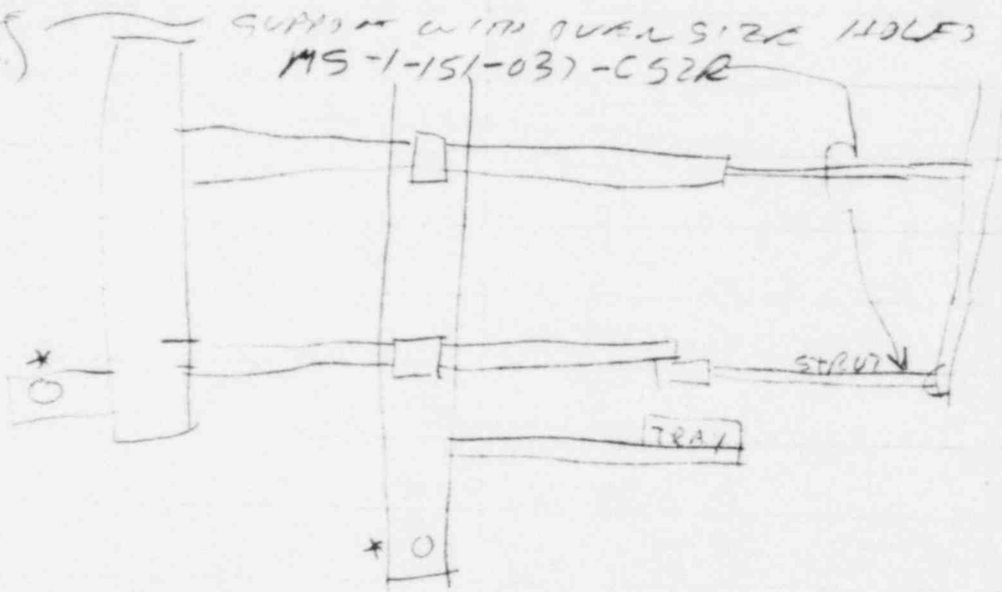
2) REV 0+1 USED A S. CLAMP SPC 24-240

LOAD= ±10891 (A+B) 15409 (C) PSA 35

3) RIA 16304, 16305

4) REV 0: LATEST REV OF HGRS IN ⑤

5)



6) * SI-1-RB037 EXAMPLE OF CC 1 WITH

WITH A WELDED ATTACHMENT

FOIA-85-59 cc/173

NCR

M-84-00754-S

- DO CLASS 5 HGRS REQUIRE MIL OR CMTR OR COC CHECK PROCEDURE
- CHECK CMC + DCA AGAINST TW-X
- PAPER CHANG
- R M SUPPORTS — ROOT AREA 1" = .552 IN
- MEASURE U-BAR ON DAVE'S HGR.
- TALK N CHARLIE ON CLASS 5 MAT

  HE SAYS NO.
- COPIES OF SKETCHES FOR RM.

CP-CPM-7.1 I

[redacted]

[redacted]

CT-1-126-025-Y45R

CT-1-YD-02

CT-1-073-001-Y45R no mic

R.M supports

SW-1-173-760-S33R } MS-1-151-069-C52R }

MS-1-150-013-C52R } *MS-1-151-037-C52R (1/4)

(1/2) CC-1-233-001-C53R } CC-1-234-016-C53R

CT-1-053-426-C52R } CC-1-215-036-C53R

CC-1-217-002-C53R } CC-1-206-001-C53R

CC-1-207-014-C53R } SI-1-121-004-C52R

(3/8) MS-1-150-010-C52S } FW-1-077-706-C62R

FW-1-097-031-C62R } FW-1-096-00?-C62R

CH-1-030-012-C62R

[redacted]

CT-1-036-403-C72K ≈1/8-3/16

CT-1-036-404-C72K ≈ 1/8-3/16

CT-1-051-413-C72K ≈ 3/16

Att-10

operation without damage, it would probably not suffer damage in use since it gains strength rapidly while it is fresh and at a decreasing rate as it ages. All elements of the internals assembly were loaded at the 860-ft. elevation. The NRC Technical Review Team (TRT) inspected all the grouted plates at the 860 and 862-foot elevations and found no evidence of grout failure. While the allegation may be true, all the grout survived the initial loading without damage.

It was alleged in
~~Allegation~~ AC-31 ~~was~~ that Richmond Insert anchor bolt inserts were installed between the 860 and 905-foot elevations in Unit 1 at angles not perpendicular to the concrete surface and that this non- perpendicularity was compensated for by use of tapered washers. The allegation referred to discrepancies as great as ten degrees. The allegation is dealt with in NRC Inspection Report 50-445/83-27, which was reviewed by the NRC TRT. Brown & Root Procedure CP-CPM 9.10, "Fabrication of ASME-Related Component Supports" states in Section 3.3.2:

> Surfaces of bolted parts in contact with the bolt or nut shall have a slope of no more than 1:20 with respect to a plan normal to the bolt axis. Where the surface of a high strength bolted part has a slope of more than 1:20, a beveled washer shall be used to compensate for the lack of parallelism.

cc/174

Thus, inserts may depart 3° from perpendicularity without any compensation and may depart further if beveled washers are used. The procedure mentions no upper limit on lack of perpendicularity, but that is controlled by the fact that the predrilled holes in the tubular steel hanger supports may not, in the case of safety-related supports, be enlarged without prior approval. The NRC TRT inspected 150 anchors between the 860 and 905-foot elevations and found no violation of the installation procedure. The allegation was correct in its assertion that some anchor inserts were not perpendicular to the concrete surface, but that in itself did not constitute a violation of the procedures.

Allegation AC-36 was that trash from a Christmas party that took place on December 2, 3 or 4, 1978, was thrown in the form and covered with concrete while concrete was being placed on one of the two containment structures. The alleged incident is extensively discussed in NRC Inspection Report 79-20, which was reviewed by the NRC TRT. Reported interviews with alleged participants cast considerable doubt as to whether the party actually occurred. The NRC TRT obtained a printout of all concrete placements on the containment structures and determined that the only placement which occurred during the period reported was on the dome of Unit 1 on December 3, 1978. The TRT examined concrete placement package 101-8805-002, that contains a complete narrative of the placing operation by the placing inspector. Nothing unusual is noted. Both

The information preceding was given to CASE in the form of an affidavit on December 18, 1982. However, I did not want them to turn it in in the hearings or to turn it over to the NRC or the utility. I gave the information to some newspaper reporters, and an article ran in the FORT WORTH STAR-TELEGRAM on January 7, 1983. A copy of that article is attached. After that interview, I was shot at and have been on the run ever since and have been in touch with CASE a few times by phone from different states. One night when I came home, I found my cat; its head had been cut off smooth and its body was missing. Since the article appeared in the paper, I have had a front-end problem with three different vehicles (one truck and two cars); they all appear to have the same problem -- the nuts were just about to fall off the tie-rod ends. I've been scared to go back and sign up every six weeks for my unemployment because I'm scared someone may shoot me.

Some of the reasons I'm scared is because of the things I know about at Comanche Peak and another nuclear plant where I've worked, the South Port, North Carolina, Brunswick Project Nuclear Plant. As I mentioned before, there are weld seams around the Reactor Core and new spent fuel pools which we were told were not supposed to lose 1/2 ounce of contaminated liquid per year per seam. These seams were approximately 100 feet long; when we tested these seams, some of them were losing approximately 65 lbs. a minute Instead of repairing some of these seams, the gauge was blocked off and pressure was put on the gauge only. When the inspector passed the weld seam, he thought the whole 100 feet was under pressure, not just a few inches. Also, some of the stainless liner walls broke loose from embedded plates that are in concrete walls which some of these plates were improperly welded. By these walls breaking loose they sprang out several inches from concrete wall; therefore, when refueling the reactors, the stainless steel liners were flooded with water. Of course, the weight of the water will push the liner walls back to the concrete. After the refueling process is over and water is drained out of the liner, the walls will spring back out, which could result in welds cracking or walls splitting. When I reported these violations to Brown & Root's Vice President, he told me he was not that concerned about the gauges being blocked off but he was concerned about the walls breaking loose. If I had told him of improper welding on these walls, I wonder if he would have been concerned at all? I feel these problems should be repaired.

Regarding Comanche Peak nuclear plant, there are safety violations such as torquing. For instance, quality control is supposed to verify the torquing of piping support that should be torqued at 130 lbs. The hanger is on a 20 foot ceiling with a scaffold built to them. Quality control is on the floor; the torque wrench is sent down to get QC to verify the number and setting of the torque wrench and carried back up and placed on the nut before torquing. QC hears a torque wrench click twice on each nut and buys off (approves) the hanger. What QC did not know was that the construction personnel had a second torque wrench and also had a nut welded on the scaffold. The second torque wrench was set at a low torque poundage such as 3 lbs. and they clicked it twice. Therefore, the nut on the hanger was never torqued; only the nut on the scaffold was torqued.

There were also violations such as pipe supports around the pipe. For instance, 3/16" clearance is supposed to be maintained on each side and on top and the pipe is supposed to be resting gently on the bottom of the support. For instance, a 2" pipe: a construction supervisor will climb on the pipe and get some of his crewmen so when QC comes to inspect the support, the weight will push the pipe to the bottom. In some cases, the pipe was binding so tight they would use a timber to jack the pipe down from the ceiling while QC bought off the pipe.

R. Matheson #

AH-20

In some cases, when they can't get the right clearance on each side of the pipe, they take a grinder and grind between the pipe and tube steel, which in some cases results in a reduction of wall thickness of pipe. I believe this could result in a rupture of the pipe. Construction has also tried to straighten a pipe support by using a sledge hammer; this is done quite often. An employee told me that while hitting on the hanger he also hit the pipe and caved in the side of the 2" pipe 1/2 inch or more. He reported it to his supervisor who said not to tell anyone and covered it up with I.D. tags.

AH-2

AH 21

Another incident is improper personnel designing and engineering pipe supports. For instance, one helper told me while he was employed at the plant he designed many pipe supports for engineers. One day he wondered if they were using his engineering and if they were then checking his work, so he decided that he would design a hanger improperly and send it to engineering. The engineer passed it on to construction which built the hanger and it is presently installed improperly. The helper said that he did not want to go to any NRC hearing but he would love to have a showing and he could show many things if he was allowed to take investigators and actually show them the supports in the plant. Other helpers have also been involved in making major decisions for which they are not qualified.

AH-5

Another violation is a sensor in a dam was run over and broken by a bulldozer. I understand that these sensors are placed in the dam in a vertical position in order to tell whether the dam moves or not. This sensor was not removed or repaired. It was held up and dirt packed around it while being embedded in the dam.

The construction company, Brown & Root, lost a $3 million contract at Crystal River Power Company in Florida, by a dam breaking, I was told by one of the Vice Presidents of Brown & Root. What concerns me is that if this dam breaks, they will lose more than a $3 million contract; it will endanger many lives.

There is also a violation that concerns me regarding the use of rejected concrete material in the early stages of the plant when the reactor core was poured. A friend of mine told Brown & Root's Vice President's investigating crew that he was a front end loader operator at the concrete plant and one day a QC inspector told him that the concrete should be thrown away because it was hard and dried. The inspector walked away and my friend started throwing it away and a supervisor told him to put it back in and use it and they did.

AC-16
AC-27

My friend also told the investigating crew of some type of sampling machine that tells whether there are good samples or bad samples in the concrete. It had a wire run to it while QC watched the machine to verify the use of good samples. Personnel would pull the wire to make it read good when it was not. My friend also told of other people that know of these violations and as far as I know, Brown & Root did not contact any of these people, but talked with one of their supervisors and his brother that worked at the batch plant; they, of course, told them that they knew nothing of this incident and since the superintendent is deceased, they did not see any further investigation of this incident. I am sure that the NRC is aware of this statement, because it was in the FORT WORTH STAR TELEGRAM article (attached). Undoubtedly, they are not concerned about the situation. I have not been contacted and neither has my friend.

AC-4

CONTROLLED COPY

COMANCHE PEAK NUCLEAR POWER PLANT
ALLEGATIONS AND/OR INVESTIGATIONS SUMMARY

TASK NO.	ALLEGATION OR CONCERN	ACTION/STATUS	SOURCE ANON	SOURCE CONFID	BN/DATE	CROSS REF./OR TRACKING SYSTEM NO.	COMPLETION CATEGORY 1-7 LEAD	SCHEDULE OPEN	SCHEDULE COMPLETE	ALLEGER-DATE RECEIVED SOURCE DOCUMENT PAGE
AQH-17	NCR written against a hanger has not yet been dispositioned. Concern that they will try to cover up with paper as oppose to fixing problem.			X			1 TRT			A-5 Interview 5/18 P. 35-36
AH-18	General foreman in charge of night crew pipe hangers is unqualified (no specific date, but predates 2/3/83).	Open		X			1 TRT			A-19 Affidavit of 2/3/83 P. 6-7
~~AQH-19~~	~~QC Inspection of torque on hanger bolts is deficient.~~	~~Open~~		X			1 TRT			A-4 Affidavit of 3/31/84 P. 3
AH-20	Violation of pipe support tolerances around the pipe.	Open		X			1 TRT			A-4 Affidavit of 3/31/83 P. 3
AH-21	Pipe supports straightened using a sledge hammer.	Open		X			1 TRT			A-4 Affidavit of 3/31/83 P. 4

Delete. This Replicates AB-4

AH-20
AH-21

cc/176

CA. - Several others going to come forward.

Zand — TC
- Shaw
- Matson

8/2
1:20PM

[redacted]
I.C. Dept
Vol Control I x by R4
CPK Doc. Review Specialist
Trainer on CPProc
QAP. | to employees - inspectors
Certif Lead Arbitr
Level II - Welds
Mag / Liq Penet.

April 12 1982

Pictures
Held by John Maxwell c/ TUGCO
Loose new material - cut up & buried in lot
Heat #'s used from this material

List of heat #'s

- Tommie Claycott - W. of Weatherford
may have detailed information
- Laydown Yard - 6
S-004 Site Current. Dep. | with QC Records in vault
S-001 / S-003?
CAR - 41 - initiated in 1980
closed in 1982

- Eric Klemist - in Houston B&R
Dep.

Thomas ... ... :
B4 R Triple ordered = $

... heat #'s on ... material
which was ordered more cheaply.

→ List of locations where - Japanese
material ... plant

... offered prior to ...
... ...
... ...

FOIA-85-59

CC/177

Has legs - 993 welds
Will gradually [illegible] us - 85 -
* will not share leg [illegible] yet
Wants to see our actions on what we pursue.

Vendor Welds on Pzr Relief Tank
- vendor weld on hanger alongside tank
- ~~24~~ in 18 in line ?
[illegible] only tank in room
822 level on R.H. side of PRT room.
Had various defects in welds - all are

C.A. - NCR written - never filed [illegible]
[illegible] Pzr [illegible] tk 822
Also NCR on Torquing bolts on it
[illegible] Bolts broke

New Issue?
Many bolts were breaking under high torque
1 1/4" Dia - 6" long.
because Bill Harschon
Mike Foote Test Stand work
{ Randy Smith for CBI
{ Richard Ice
No torque standards estab for many bolts

7C

will [illegible] to look at
Heat Nos. Dwg Nos. (Gibbs & Hill)
Welds with Travelers
Pipe welding Rcstr. [illegible]

FRW Call — 3-man team from NRC ← I call for report #.

Mixture of various deficiencies in weld & fitting.
After orig allega. on 52 hangers
TUGCO looked at 51 — were deficient
[illegible] report given to ASLB.
Appl. Exhibit 122, 123, 124
July 26, 1982 ASLB Hrgs

Bob Bishop [illegible] on site & can help locate
Randy Smith

Piping
N. Valve Room Aux Bldg
8" SS Velan Line 2/3 of way back
welder quenched welds w/ ice water

FRW Call — look for 120

We will send back ltr.

[redacted] 7C

. Audits to Tennessee Wall & Tube
- Audit in January 1982 [illegible]
[illegible] tubing from Japan

Brown [illegible] for B&R [illegible]
Terry Walker for TUGCO

TC

[redacted]

JPM — M3407 on 810' Elev.
Class I N. Valve Room
Go to: ASME NCR M8200161

Half ice water applied to it
Visl. welding procedures

Also in the N. Valve Room
- Hangers - right behind & in front of valve
- ± 1 on back wall
Look at vendor welds
(part of list of 995 items)

— Japanese material - no specifics yet

— S/G (W) supports - bottom level
Look @ any dirt on cross: I
Looks like "dog bone"
Mag-particle indications - welds
Main supports for S/Gs
NCR # _____ will provide

— EV Head welds
He'll provide info

— Developing another list - will work

7C

AH-3 SITE DOUBLE ORDERED MATERIAL THEN TRANSFERED THE HEAT NOS TO UNAUTHORIZED JAPANESE STEEL WHICH WAS THEN USED THROUGH OUT THE PLANT. THE OTHER STEEL WAS CUT UP AND EITHER USED FOR SCRAP OR THROWN INTO THE LAKE. THE MATERIAL WAS IN LAYDOWN AREA #6. THE AUDITOR SUPPLIED US WITH A LIST OF PEOPLE TO TALK TO WHO MIGHT HAD MORE DETAIL. HE ALSO GAVE US A LIST OF APPROX. 85 DOCUMENTS PERTAINING TO HERE THAT WOULD LEAD US TO SPECIFIC PROBLEMS WITH HIGH MATERIALS, WELDING + FABRICATION.

HE SAID CAC HILL WAS OPENED WITH + CLOSED OUT IN 1982. HE TOLD US TO CHECK 5001, 5003 + 5009 QC SITE SURVEILLANCE REPORTS.

7C

THE DOCUMENTS ON THE LIST ARE
SUCH AS CD&E - TRAVELERS
2323 - ETC - G&H PIPING DWGS
SI - ETC WHIP RESTRAINTS. HE
ALSO SAID THAT IN THE NORTH VALVE
ROOM, AUXILIARY BLDG GROUND FLOOR,
THERE IS AN 8" SS LINE 2/3 OF
THE WAY BACK INTO THE ROOM THAT
HAD THE PIPE WELDS QUENCHED
WITH ICE WATER AFTER WELDING

AH-3 JAPANESE STEEL WITH TRANSFERRED HT #
AH-7 [redacted] 11172-11212
AH-15 7C
ARW-71 4845-4852

PROCEDURES: CI-QAP-11.1-28 PARA 3.3.1.3
CP-EP-5.0 CP-EP-9.2, CP-CPM-6.9C, CI-CPM-8.2,
CI-CPM-8.1, CP-CPM-9.10, ACP-3,
CP-CPM-9.1 CP-QAP 8.1

AH-7 USED SCRAP I-BEAM
AH-15 USED NON Q MAT IN Q HANGERS - FIX PR
HANGERS WITH NO. HEAT # ?
ARW-71
AH-3

7c

QUESTIONS FOR [redacted]

1) WHAT HANGER DID YOU USE SCRAP PIECE OF I-BEAM? WHAT BLDG, SYSTEM, AREA, ROOM, ETC?

2) WAS THIS DONE MORE THAN ONCE? WAS IT A REGULAR HAPPENING

3) DEFINE A SCRAP PIECE OF I-BEAM

4) WHAT MAKES IT SCRAP

5) CAN YOU RECERTIFY NON-Q TO Q

7c

QUESTIONS FOR [redacted]

1) DEFINE Q VS NON-Q MATERIAL

2) IS DC MAT. CONSIDERED Q.

3) DO YOU HAVE ANY SPECIAL HGR NO'S OR AREAS, SYSTEMS, ELEV. ETC.

7c

QUESTIONS FOR [redacted]

1) CAN YOU IDENTIFY THE 20 HGRS IN QUESTION

2) WHAT AREA LEVEL SYSTEM ETC.

3) DO ALL HGRS REQUIRE [illegible]

TALK TO [redacted]

[redacted] 1PM

FIRE PROTECTION HQRS [redacted]

1) ASME CODE GOES TO B&R Q.E. TO SATISFY MANDATIVE, ED MORRIS

2) NO ASME CFCIL MANNUAL IN TRAILER ACROSS FROM THE ROOM CREP-5.0 REV 8

3) TVS & BOR PURCHASING WAS COMBINED IN LATE 81 EARLY 82

4.) QUALIFIED JAPANESE COULD BE BROUGHT, ALTHOUGH AT ONE TIME IT WAS NOT ALLOWED.

5) TALKED TO [redacted]

CPM-9.10

RULE OF THUMB AS STATED UNDER 5)

6) [redacted]

2.) TALKED TO [redacted]

ALL MATERIAL ON SITE USED FOR
RESTRAINTS WILL HAVE A HEAT
NO. GET QA-OAP-8.1 FROM BARBARA
LANCASTER.

5.) [redacted] STEEL ON SITE WORKS
FOR TUGCO AUDITOR TALK TO BARBARA
LANCASTER.

7.) ITT-G SUPPLIED STEEL FOR
SITE. SOME SUPPORTS COULD
HAVE BOTH TUGCO & ITT STEEL.

10.) [redacted]

11.) TALK TO [redacted]

12.) LOOK AT CP-CPM-9.9

13.) GILBERT F.P [illegible] UP UNTIL 1½
YRS AGO DESIGNED THE SUPPORTS

1.) [redacted] SAID THAT HE HAS NOT
SEEN ANY JAPANESE STEEL ON SITE
B&R ON [illegible] GENERATES THE CC
QU[illegible] MATERIAL WHICH IS THEN
TYPED UP & SENT TO Q.E FOR SIGN.

OFF. THEN THE P.O. IS ISSUED. WHEN THE MATERIAL COMES IN QC INSPECTOR INSPECTION CIRCLES IT OUT, USUALLY ON THE TRUCK. IF NO PAPERWORK IS PRESENT THE SHIPMENT IS TAGGED UNTIL PAPER COMES IN. IF NO PAPER WITHIN A CERTAIN TIME, IT IS SCRAP.

[redacted] SAYS THAT ALL HGR MATERIAL CAME IN WITH CMTR's. NO JAPANESE STEEL. HE DOES NOT GET ANY SCRAP AT THE WAREHOUSE FROM HGRS SUCH AS PIECES OF STRUCTURAL STEEL.

[redacted] THE ONLY HGR SCRAP HE GETS IS USUALLY VENDOR CATALOG ITEMS, NO STRUCTURAL STEEL PIECES THE KICK OF PLUMB IS 5" + UNDER IS SCRAPPED + BOLD.

[redacted] TALK TO [redacted] AT LENGTH.

HE SAID THERE IS NO WAY TO USE NON-Q MATERIAL. THE MR IS USED TO GET Q-MAT FROM THE WAREHOUSE. ONCE AT THE SITE THE PIECE CUTS TO SUIT ARE MADE AND THE MATERIAL IS PUT ON THE M/L. THIS DOCUMENT IS USED BY QC TO ASSURE PRIOR TO WELDING THAT THE CORRECT PIECE OF Q MAT IS USED.

5) [redacted]

ALLEGER WORKED FOR QC APPROX MAR - JUL 82

1981 WAS WHEN ALL MAT WAS ORDERED WITH CERTS FOR VENDOR SUPPLIED. ALL SITE SUPPLIED MAT ALWAYS HAD CERTS. SUPPLIERS COULD BE VENDOR SUPPLIERS OR SITE SUPPLIERS OR BOTH. AT ONE TIME THERE WAS NO M/L + THE QC INSP SIGNED OFF ON THE DRAWING + MR.

6. ITT Grinnell did supply both steel & component std supports until 1980 or 1981 according to Dave Powers @ ITT-G

7. Checked NCR log book 1/1/82 - 7/31/82

✓*	M-3117	2x2x¼ TS No HT#
	M-3127	CT-1-020-009-522K
	M-3130R-1	Material Reject w/o docum.
✓*	M-3137	Lost Trace on TS
	M-3152	S1-1-090-006-C41K
✓*	M-3168	Installed wrong piece CS-1-158-027-542R
	M-3200SR-1	CC-1-066-003-533R Mat Trace
✓*	M-3214	RC-1-018-021-C71R
	M-3234	Base plate cut w/o Trans of HT# CS-2-037-005-A53R
	M-3241	Unauthorized Mat CC-2-021-009-A33K
	M-3254	Changed HT# AF-2-009-408-S335
✓*	M-3345	HT# Ground off RC-1-147-007-C81K
	M-3346S	Wrong Mat Grade S1-1-031-071-532K
✓*	M-3354R	HT# not verified MS-1-076-009-552K

WRONG HT #

✓* 3379 CS-1-333-703-A5BR

✓* 3412 HT # MISSING ON LOWER SUP

* 3427 DUPLICATE HT #
NO HT # TRACE

* 3431 SW-1-129-045-A43R

3508 CS-2-358-012-A5BR

E.I CHECKED ~~P.O. NUMBERS~~ ABOVE NCR's

M-3117 AT WAREHOUSE A

2x2x1/4 TS ARRIVED ON SITE WITHOUT TRACEABILITY. RECORDS SHOW SHIPPING RECORD 35-1195 11/6/82 SENDING BACK TO GULFALLOY INC

M-3137 ITEM # 6 OF BR-X-206-700-A5BR 3x3x1/4" TS INSTALLED WITHOUT HT #. DISPOSITION WAS TO SCRAP + REPLACE. B+R TR 9/21/82 CLOSES OUT NCR, WITH INSPECTION OF DELIVERED PIECE. MIL VERIFIES NEW PIECE

M-3168 CS-1-158-027-542R

DWG REQUIRES ITEM 3 TO BE S 3X5.7 BUT A 3X4.1 CHANNEL WAS INSTALLED. DISPOSITION WAS TO REWORK ACCORDING TO IRN 113191, 127322, 124741 (SCRAP + REBUILD) B+RIR 4/29/82 DOCUMENTS SAT. INSPECTION OF NEW HGR. MIL INDICATES CORRECT S 3X5.7

M-3214 RC-1-018-021-C71R

4 BEARING PLATES ITEM #4 4X4X1 HAS DIFFERENT # IN PLATES N-1115 WHERE VAULT DOCUMENTATION SAYS IT SHOULD BE N-1045. DISPOSITION IS TO SALVAGE EXISTING OR FOR CL 2&3 HGRS + REPLACE PLATES B&R IR DATED 3/31/82 DOCUMENTS REPLACEMENT OF ITEM ~~#5~~ MIL STAMPS NEW PIECES WITH

HT # 303P76640.

M-3345 RC-1-147-007-C8IK ITEM #9 HAS ALL HEAT NO MARKINGS GROUND OFF + ANOTHER # OF 5703 HAS BEEN SCRIBED ON. DISPOSITION IS TO REPLACE WITH TRACE REAR BKT. B&R DOCUMENTS RE-SPECTION OF NEW RR BKT + WELDS. MIC DOCUMENTS NEW HT # 5104 NF 5/11/82

M-3354R MS-1-076-009-552K ITEM #12 WAS CUT + FABRICATED WITHOUT QC INSPECTION FOR HT # TRANSFER PRIOR TO CUTTING. DISPOSITION WAS USE AS IS SINCE ENOUGH RECORDS ARE AVAILABLE TO TRACE THE PIECE. : IT IS OK

M-3379 CS-1-333-703-A53R ITEM #2 3"3X 1/4 TS HAS NO DOCUMENTATION TO VERIFY HT # 56788. DISPOSITION TO REMOVE ITEMS 2, 5, & 7 + RE-PLACE. B&R DOCUMENTS INSPECTION OF NEW MAT 5/14/82. MIC VERIFIES

NEW HT # D27580 K25908

M-3412 & 3427 – MATERIAL FOR CL 82 SUPPLIED WITH DUPLICATION OF HT #. DISPOSITION TO ASSIGN A SPECIFIC CL NUMBER TO A SPECIFIC HT. #.

M-3431 SW-1-179-045-A43L TO HT# IN THE HP ON ON THE BASEPLATE ITEMS 708. DISPOSITIONED TO CHECK BOTTOM OF PLATE FOR HT# IF NONE WAS FOUND, REPLACE MAT. BOILR 5/28/82 DOCUMENTS REMOVAL & REPLACEMENT OF ITEMS 708 WITH NEW MAT. MIL DOCUMENTS NEW HT# E48435

9) REVIEWED CP-CAP-E.1
3.0 DESCRIBES RIR, HOLD TAG – MAT/FAC EQUIP LOG, INSPECTION METHODS
3.8 DESCRIBES MAT STORAGE, & LOSS OF IDENTITY & RECORDS

10) CHECK P.O.S FOR SHIPMENTS

STEEL RANDOM SAMPLING

OK	a)	SA-36 PLATE	FT. WORTH, TX WILL BANKS STEEL	QE	9-15-81 CPF-523-S
OK	b)	SA-36 L'S	LITTLE ROCK, AR AFCO STEEL	Q.E	7-31-81 CPF-529-S
OK	c)	CROSABLE MAT	MONTEBELLO CAL HEXCEL/MCI DIV	QE	6-1-81 CPF-551-S
OK	d)	A-500 A-36	L.R., AR AFCO STEEL	QE	7-13-81 CPF-599-S
OK	e)	A-500	HOUSTON, TX GULFALLOY	QE	7-13-81 CPF-1000-S
OK	f)	A-36	AFCO	QE(CA)	8-7-81 CPF-1025-S
OK	g)	A-36 A-193	TWINSBURG, OH MILLS ALLOY	Q.E	4-14-82 CPF-1026-S
OK	h)	A-36	AFCO (SVR 1-7)	QE	9-14-81 CPF-1030-S
OK	i)	SA-240	SECAUCUS, NJ NPSI	QE	1-16-82 CPF-1308
OK	j)	A-36	AFCO	QE	5-11-82 CPF-1585

[redacted]

11) FOR AH-3 CHECKED CAR-41 S-003 + S-009

CHECKED NCR'S.

* a) M-2265 R.1

ALL DOCUMENTATION IS PRESENT

CMC 35679, 33296, B&R IR 11/19/80,

MIL 11/19/80,

b) M-2326

SA515 FOR

OK PER ENGINEERING SA36

c) M-7324, 2365

WRONG HT # HOWEVER IT SEEMS OBVIOUS THAT THE CORRECT # CAN BE TRACED TO THE MR.

d) M-2318

ALL DOCUMENTS PRESENT B&R IR REMAINED SAME AS 10/2/80, 11/21/80. CPM-9.12

e) M-2312

ALL DOCUMENTS PRESENT, B&R IR 7-18-80 RIR 12161, 13708, 13376, 09152

f) M-2303

ALL DOCUMENTS PRESENT, CMC 36600, B&R IR 9/14/80

g) M-2297

REMAINED STABLE ACCORDING TO CP-CPM-9.12

hf M-2294

OK PER PAGE 515 FOR SA-36

* 4 M-2289

DOCUMENTS PRESENT, IR 7/2/80,
B+R IR 9/25/80

* hf M-2287

DOCUMENTS PRESENT B&R IR 1/1/81

hf M-2234

NRR WAS INCORRECT IN ITS
STATEMENT OK

* ff M-2248 R.2

DOCUMENTS PRESENT, B&R IR
1/9/81

* START PAPERWORK IN BY NRR

— 7C

package 15

CONTROLLED COPY

COMANCHE PEAK NUCLEAR POWER PLANT
ALLEGATIONS AND/OR INVESTIGATIONS SUMMARY

TASK NO.	ALLEGATION OR CONCERN	ACTION/STATUS	SOURCE ANON CONFID	BN/DATE	CROSS REF./OR TRACKING SYSTEM NO.	COMPLETION CATEGORY 1-7** LEAD	SCHEDULE OPEN COMPLETE	ALLEGER-DATE RECEIVED SOURCE DOCUMENT PAGE
AQH-1	Construction and inspection records relating to ... pipe hangers are being separately maintained resulting in their final QA review being inadequate.	Initial disposition 10-81-84				1 ART		10-81-84 P. 2, 3
AQH-3	Hanger NCR voided with questionable basis					1 ART		[redacted]
AH-3	Defective hangers and supports					1 ART		4-84-006, 3/7/84 A-45, P. 5
AH-4	Deficient hanger					1 ART		[redacted]
[illegible]	Hanger [illegible]					1 ART		84-006 3/7/84 A-4, Testimony, P. 73
[illegible]	[illegible]tive Pipe Hangers	Initial disposition 10-81-[illegible]	•		[illegible] A-0006 A4-83-01	1 ART		A-[illegible] 1/83
[illegible]	Scrap piece of lumber substituted into hanger					1 ART		[redacted]
[illegible]	Design problems with hangers in tunnel					1 ART		84-006 3/7/84 A-41 P. 30

7C
7C
7C

cc/179

REPORT NO. 09152

Brown & Root, Inc.

QUALITY ASSURANCE
RECEIVING INSPECTION REPORT

70439--225

UNIT	SYSTEM	COMPONENT	IDENTIFICATION/SPIN NO.	DWG./SPECIFICATION & REV.
1&2	MECH	Stock For Hanger Assy's	N/A	G&H 2323 MS46A Rev. 1

P.O.	MRR	CHARACTERISTIC INSPECTION: QI-QAP ~~QCI 11.1~~ 7.2-11 JHM 2-7-79
CP-0046A.1	CP-3968	SAT. ☑ UNSAT. ☐ NCR ____ HOLD TAG ____
VENDOR	**QR**	APPARENT RESPONSIBILITY FOR UNSATISFACTORY ITEMS:
N.P.S. Industries, Austin	N/A	B&R ☐ VENDOR ☐ TRANSPORTER ☐ NA DATE DEFICIENCY DISCLOSED ____

ITEM	QTY.	DESCRIPTION/REMARKS
	660ft	4in. X 4in. X 3/8in Structural Tubing, A-500 Gr.-B 160 ft. Mic No: 145NT, and 500ft. Mic No. 497NTA
	1000ft.	6in. X 6in. X 3/8in Structural Tubing, A-500 Gr.-B 720ft. Mic No: 814NT, 48ft. MIC# 734NT, and ~~2~~ 232 ft. Mic# 735N. JHM 2-7-79
		Shipping Notice - TX-SN-7211/TDA

QA RECORD / QA REVIEW / FILE NO. / SUBFILE NO.

BROWN & ROOT, INC RECEIVED FEB 15 1979 QUALITY ASSURANCE

INFORMATION COPY

FILES NOTED

PPRV

AUTHORIZED NUCLEAR INSPECTOR NOTIFICATION:

DATE: ____ TIME: ____ MEDIA: ____ N/A ✓ INIT. JHM

ANI WITNESS: SAT. ____ ☆☆ UNSAT. ____ ☆☆ WAIVED ____ DATE ____

FOIA-85-59

☆☆ ANI'S INITIALS REQUIRED

STORAGE LOCATION: Warehouse "B" Hanger Yard TYPE: "E"	QC ENGINEER/INSPECTOR: John H Mart[illegible]	DATE: 2-7-79

CC|180

Brown & Root, Inc.

QUALITY ASSURANCE DEPARTMENT
QI-QAP-7.2-11
REVISION 0
FIGURE 1
"RECEIVING TUSI/G&H SAFETY RELATED EQUIPMENT"

70439--226

	SAT.	UNSAT.	N/A
1. Check documents received with shipment			
a. G&H Quality Assurance Release (QAR) obtained?			✓
b. Are "Review Checklist" items on QAR accepted?			✓
c. Was final inspection performed by TUSI/G&H?			✓
d. ASME Code Data Report obtained?			✓
e. Authorization for shipment?	✓		
2. Equipment Identification			
a. Do Data Reports and Equipment Code Plate agree?			✓
b. Do Data Report & G&H QAR agree?			✓
c. Does Identification Tag/spin number compare with G&H QAR?			✓
3. Was there any damage?	✓		
4. Authorized Nuclear Inspector notified?			✓
5. Applicable QC receiving tags applied?			✓

Comments: None

QC Receiving Inspector John H Worden

Date 8 Feb 79

CP

MATERIAL RECEIVED RECORD

Job No. 35-1195

COMANCHE PEAK S. E. S.

PAGE OF 1

MR NO. 3968

SHIPPED TO: B & R ☐ G & H ☐ F & N ☐ W ☐ TUSI XXX OTHER ☐

78439-227 P.O. CP-0046A1

REQ. NO.

VENDOR: HPS INDUSTRIES, INC AUSTIN, TEXAS

DATE: 1-26-79

SHIPPER: SAME

F.O.B. AUSTIN

Partial XXXX 30 Complete ☐

QUANTITY	UNIT	ITEM	MATERIAL DESCRIPTION	LOCATION
[illegible]'	ft/in		[illegible] T.S.	W/P [illegible]
1000'	ft/in		[illegible] T.S.	
1	set		Certification papers	
			NOTE: This shipment is [illegible] there is no evidence of load shift, [illegible], or other visible damage.	

BROWN & ROOT
RECEIVED
FEB 15 1979
FILES NOTED
QUALITY ASSURANCE

INFORMATION COPY

PPRV

A. Neal

RECEIVED BY:

Q.C. CHECK BY: XXXXX

EXP.	PP	TEX PAK	UPS	PREPAID	COLLECT
				XXX	

Sikes

DELIVERING CARRIER

F B NO.	CAR NO.
18306	

THIS INSPECTION DOCUMENTED ON

RIR NO. 9152

Jr 1-[illegible]-79

EXTRA

TEXAS UTILITIES GENERATING COMPANY

2001 BRYAN TOWER · DALLAS, TEXAS 75201

CAA-182

70439--228

TEXAS UTILITIES GENERATING COMPANY
COMANCHE PEAK STEAM ELECTRIC STATION
1981-83 2300MW INSTALLATION
PURCHASE ORDER NO. CP-0046A.1
AUTHORIZATION FOR SHIPMENT

By copy of this letter TUGCO Quality Assurance releases the following equipment to be shipped by NPS INC. AUSTIN, TX.

Shipping Notice TX-SN-7211/TDA

660' 4"x4"x 3/8" Str. Tubing A500 GR B

1000' 6"x6"x 3/8" " " " "

☐ Final shipment inspected, QAR No. N/A

☒ Final inspection waived

TUGCO QA Inspector

7-7-79
Date

nps industries

nps

TX-SN-7211/TD

SHIP TO
Texas Utilities Services, Inc.
C/O Brown & Root, Inc.
Comanche Peak Steam Elect. Site
Glen Rose, Texas

CP0046A.1	TUSI
PURCHASE ORDER NO.	PROJECT
	70439--229

SOLD TO
Texas Utilities Services Inc.
C/O Brown & Root Inc.
Comanche Peak Steam Elect. Site
Glen Rose, Texas

1/25/79	SIKES		PAGE 1 OF 1
DATE SHIPPED	CARRIER		
6-Bundles			
NO. BOXES	BILL OF LADING NO.	TRAILER/CAR NO.	F.O.B.

ASSEMBLY MK. NO.	REV	QTY	REMARKS
T.S. 4X4X3/8		660'	33 Pieces
T.S. 6X6X3/8		1000'	48 Pieces

ASSEMBLY MK. NO.	REV		REMARKS

nps industries, inc.
10420 metric boulevard
austin, texas 78758
telephone 512-836-4161

Date: January 25, 1980
NPSI: TX-SN-7211/TDA

70439-230

Reference: P.O. #CP0046A.1

CERTIFICATE OF COMPLIANCE

This letter shall certify that the materials supplied on the subject purchase order comply with the requirements as specified in that purchase order, and A.S.M.E. Section III, subsection NF, 1974 Edition, Winter 1974 Addenda, and Code Case 1644.

This material has been processed by NPSI in accordance with our Identification and Verification Program.

A.S.M.E. Quality Systems Certificate (Materials) Number N-2048, expires on February 24, 1981.

A.S.M.E. Certificate of Authorization (NPT) Number N-1883 expires on September 30, 1980.

Certified Material Test Reports Attached.

Yours Truly,

Fred Robinson
Manager of Quality Assurance

GMH/lrw

S/N: 7211

The Copperweld Tubemakers

REGAL TUBE COMPANY

7401 South Linder Avenue
Chicago, Illinois 60638 U.S.A.

Customer Order No. ABS 1554

Regal Order No. 48278

Invoice No. 70439--231

Date 11-13-78

TEST REPORT

Customer:

NPS Ind. Inc.
10420 Metric Lane
Formerly Running Bird Lane
Austin, Tx 78758

Specification:

6 Sq x 3/8 structural tubing
ASTM A 500 77 Grade B

HEAT NO.	CHEMICAL ANALYSIS, %										
	C	Mn	P	S							
63582 ✓ NPSI-AUSTIN MIC NO. 735NT	.23	.75	.016	.029							
502187	.21	.96	.007	.019							
61861 ✓ NPSI-AUSTIN MIC NO. 734NT	.21	.80	.014	.021							

MECHANICAL PROPERTIES

HEAT NO.	LAB NO.	YIELD STRENGTH PSI	TENSILE STRENGTH PSI	ELONGATION %	HARDNESS R_b
63582 ✓	NPSI-AUSTIN MIC NO. 735NT	51,400	60,000	40	
502187		66,900	76,300	31	
61861 ✓	NPSI-AUSTIN MIC NO. 734NT	60,200	67,300	24	

YIELD STRENGTH IS 0.2% OFFSET — ELONGATION IN 2 INCHES

Other Tests

DOCUMENT REVIEWED BY
Q.A. WL DATE 11/16/78

INFORMATION COPY

Subscribed and sworn to before me a Notary Public in and for the State of ______ County of ______ this ______ day of ______ 19__

JR Kal

Metallurgist

FORM #81

INDEPENDENCE TUBE CORPORATION
6226 West 74th St.
Chicago, Illinois 60638
(312) 496-0380

70439--232

December 12, 1978

Chicago Tube & Iron Co.
2531 W. 48th St.
Chicago, Ill. 60632

Attn.: Test Report Area

The following material shipped on your Order No. TS-0709 QA

Invoice No. 15218, meets the requirements of ASTM A-500

Grade B-77

6" sq. x 3/8"

NPSI-AUSTIN MIC NO. 814 NT

Heat #890427

Yield	60070	psi
Tensile	65270	psi
Elong. 2"	36.0	%

C	Mn	P	S
.18	.90	.011	.011

DOCUMENT REVIEWED BY
Q.A. WJ DATE 1/3/79

B. A. Gontz

Vice President-Materials

THESE TEST REPORTS APPLY TO
Your Purchase Order AUS 1618
Our Shipping # 8796NO
CHICAGO TUBE & IRON CO.

REGAL TUBE COMPANY

TEST REPORT

RECEIVED BY NPSI

OCT 18 1977

AUSTIN, TEXAS

S/N-7211

Sold to:	Shipped to:	Date:
NPS Ind. Inc. 10420 Running Bird Lane Austin, Texas 78758	Same	10-12-77 Lab No. 70439-233

Customer Order No.	Regal Order No.	Invoice No.
7A1306 6769	039199 038798	

Specification:

Hollow-form electric welded structural steel tubing - ASTM - A-500-76 Grade B

Size	Gauge	Heat Number	%CHEMICAL ANAYLSIS C	Mn	P	S	Yield (psi)	Tensile (psi)	%Elong in 2"
4 Sq	3/8	803030	.18	.74	.011	.019	61,400	64,600	23

NPSI-AUSTIN MIC NO. 145 N-T

The chemical results shown on this report represent mill certifications of ladle analyses as furnished to Regal by our suppliers or actual results of tests performed on samples of tubing taken from production rollings of the material. The above tests were made in accordance with the standards of the American Society for Testing Materials, and results are on file at Regal Tube Company, a Copperweld Enterprise, 7401 S. Linder, Chicago, Illinois 60638.

DOCUMENT REVIEWED BY Q.A. TSC DATE 12/2/77

Owen L. [illegible]
Metallurgist

INFORMATION COPY PPRV

RECEIVED BY N.P.S.I Customer Order No. AUS 1511

JUL 18 1978 Regal Order No. 045948

AUSTIN, TEXAS Invoice No.

REGAL TUBE COMPANY

7401 South Linder Avenue
Chicago, Illinois 60638 U.S.A.

TEST REPORT

70439--234 Date 7-12-78

Ind. Inc.
Metric Lane
...in, Tx 78758

Specification:
4 Sq x 3/8 structural tubing
ASTM A 500 77 Grade B

HEAT NO.	CHEMICAL ANALYSIS, %										
	C	Mn	P	S							
	✓		✓	✓							
...88 NPSI-AUSTIN MIC NO. 497NTA	.22	.64	.007	.019							

MECHANICAL PROPERTIES

NO.	LAB NO.	YIELD STRENGTH PSI	TENSILE STRENGTH PSI	ELONGATION %	HARDNESS R_b
		✓	✓	✓	
...88	12936	70,000	71,600	23	

...H IS 0.2% OFFSET — ELONGATION IN 2 INCHES

INFORMATION COPY PPRV

RECEIVED BY N.P.S.I
JUL 18 1978
AUSTIN, TEXAS

DOCUMENT REVIEWED BY
Q.A. *AmH* DATE *8-16-78*

Subscribed and sworn to before me a Notary Public in and for the
State of ______ County of ______
this ____ day of ______ 19

D. Lichtfuss (signature)
Metallurgist

RTN. 0
FILE NO. 8.6 OWR
SUBFILE NO.

Brown & Root, Inc.

QUALITY ASSURANCE
RECEIVING INSPECTION REPORT

REPORT NO. 12161
INDEXED

DATE

UNIT	SYSTEM	COMPONENT	IDENTIFICATION/SPIN NO.	DWG./SPECIFICATION & REV.
1&2	MECH.	Pipe Hanger Stock	N/A	G&H-2323 MS46A, Rev-2

P.O.	MRR	
35-1195 30220	92199	CHARACTERISTIC INSPECTION: QI-QAP 7.2-12 (JAM 11-27-79) SAT. [X] UNSAT. [ ] NCR ____ HOLD TAG ____
VENDOR	**QR**	APPARENT RESPONSIBILITY FOR UNSATISFACTORY ITEMS: B&R [ ] VENDOR [ ] TRANSPORTER [ ] N/A
NPSI Portland	N/A	DATE DEFICIENCY DISCLOSED ____

ITEM	QTY.	DESCRIPTION/REMARKS
002	500ft	2½"X2½"X¼" Angle, MIC No.'s - 300ft. A39 & 200ft. NA-232 (DWL 6-2-81)
003	150ft	2½"X2½"X3/8" Angle, MIC No. - NA246
005	20ft	6"X6"X3/4" Angle, MIC No. - NA224
007	250ft	3/4" Round Bar, MIC No. - NR279
008	500ft	1" Roung Bar, MIC No - R5
009	200ft	3in X 5.7# I-Beam, MIC No. - NW-436
010	300ft	W8" at 17lbs Channel, MIC No. - W5
013	500ft	2"X4"X¼" RECT. Tube, MIC No. - NT131
014	250ft	3"X3"X¼" Sq. Tube, MIC No. - T149
015	60ft	4"X6"X¼" Rect. Tube, MIC No. - NT206
016	100ft	8"X8"X¼" Sq. Tube, MIC No's - 60ft. NT132 and 40ft. NT117
017	140ft	6"X10"X½" Rect. Tube, MIC No. - NT217
		This steel was measured & checked for ID markings Results Acceptable.
		For Class 2 Use, Items 2,3,5,7,8,9,10 are A-36, Items 13 Thru are A-500G (JAM 11-27-79)

BROWN & ROOT, INC. RECEIVED NOV 30 1979 PPRV FILES NOTED QUALITY ASSURANCE

INFORMATION COPY

AUTHORIZED NUCLEAR INSPECTOR NOTIFICATION:

DATE: ____ TIME: ____ MEDIA: ____ N/A ✓ INIT. JAM

ANI WITNESS: SAT. ____ ☆☆ UNSAT. ____ ☆☆ WAIVED ____ DATE ____

☆☆ ANI'S INITIALS REQUIRED

FOIA-85-59

STORAGE LOCATION: Iron Fab Shop
TYPE: "E"

QC ENGINEER/INSPECTOR: John A. [signature] CC 181

DATE

QC – 1.1/3-1

Brown & Root Inc

QUALITY ASSURANCE DEPARTMENT
QI-QAP-7.2-12
REVISION 0
FIGURE 1
"RECEIVING MISCELLANEOUS STEEL"

12161

		SAT.	UNSAT.	N/A
1.	Did all required documentation accompany shipment?	✓		
2.	Is shipment packaged satisfactorily?	✓		
3.	Are material markings in accordance with specification requirements?	✓		
4.	Is certification adequate and accurate when compared to the applicable specifications?	✓		
5.	Is there any damage?	✓		
6.	Have all NDE requirements been met?			✓
7.	Was shipment accompanied by a B&R QA Department Conformance Certificate?	✓		
	Was the Certificate signed by a B&R Surveillance Specialist?			✓
	If not, is a B&R QA Source Inspection Waiver Form available?	✓		
8.	Applicable QC Receiving tags have been applied			✓

Comments: None

QC Inspector John H Morton Date NOV 27 1979

MATERIAL RECEIVED RECORD

Job No. 35-1195 — COMANCHE PEAK S. E. S.

PAGE 1 OF 2 — MR NO. 92199

SHIPPED TO: B&R [X] G&H [ ] F&N [ ] W [ ] TUSI [ ] OTHER [ ] — P. O. NO. 35-1195-30228

REQ. NO. FK 126778

VENDOR: N.P.S. Industries, Inc. Secaucus, NJ

QA RECORD

RTN L — QA REVIEW

FILE NO. 8.1.10

SUBFILE NO. 92199

DATE: 11-26-79

SHIPPER: Same

ARMS INDEXED

F.O.B. SP/PPA

Partial [X] 3 Complete [ ] DATE

QUANTITY	UNIT	ITEM	MATERIAL DESCRIPTION	LOCATION
500	Ft	2	2-1/2" x 2-1/2" x 3/4" Angle (200 Ft. MT# HA-232 & 300 Ft. MT# A-39)	H/S Iron Fab Laydown Yd. #6
150	Ft	3	2-1/2" x 2-1/2" x 3/8" Angle (MT# HA-246)	
20	Ft	5	6" x 6" x 3/4" Angle (MT# HA-224)	
250	Ft	7	3/4" Round Bar (MT# HR-279	
500	Ft	8	1" Round Bar (MT# R-6)	
200	Ft	9	12 x 3.79 I Beam (MT# HW-232)	
300	Ft	10	W8 x 17# Wide Flange (MT# W-6)	
500	Ft	13	1/4" x 2" x 4" Structural Tubing (MT# MT-131)	
250	Ft	14	1/4" x 3" x 3" SQ. Structural Tubing (MT# T-149)	
60	Ft	15	1/4" x 4" x 6" Rect. Structural Tubing (MT# MT-206)	
100	Ft	16	1/4" x 8" x 8" SQ. Structural Tubing (MT# 60 Ft.-MT-132 & 40 Ft.-MT-117)	
140	Ft	17	1/2" x 6" x 10" Rect. Structural Tubing (MT# MT-217)	
1	set		Certification Papers	Issued QA Rec.

INFORMATION COPY PPRV

BROWN & ROOT, INC. RECEIVED NOV 30 1979 FILES NOTED QUALITY ASSURANCE

Q.C. CHECK BY	EXP.	PP	TEX PAK	UPS	PREPAID	COLLECT

RECEIVED BY: Carl Bryce

DATE: 11-26-79 Hanger Dept.

THIS INSPECTION DOCUMENTED ON RIR NO. 12161

DELIVERING CARRIER: Conners Transit — F.B.NO. #7170 — CAR NO.

EXTRA

[redacted]ATION SHEET

MATERIAL RECEIVED RECORD

PAGE [redacted] 2 [redacted] R NO. [redacted]

QUANTITY	UNIT	ITEM	MATERIAL DESCRIPTION	LOCATION
			NOTE: RECIEVED IN GOOD CONDITION EXCEPT AS NOTED.	
			NOTE: SHORTAGE OF 250 SQ. FT ITEM 12. 1/4" PLATE. SEE OSAB 70/ [redacted]	

Brown & Root, Inc.

QUALITY ASSURANCE DEPARTMENT
CONFORMANCE CERTIFICATE

PROJECT: COMMANCHE PEAK JOB NO.: 35-1195 UNIT 1 & 2 PAGE 1 OF 1

(1) VENDOR	(2) ADDRESS OF VENDOR FACILITY
NPS INDUSTRIES, INC.	2750 SW MOODY PORTLAND, OREGON 97201

(3) PURCHASE ORDER NO.	(4) SPECIFICATION NO.	REV.	(5) DRAWING NO.	REV.
35-1195-30220	N/A		N/A	

(6) ITEM DESCRIPTION(S)	(7) NO. OF ITEMS	(8) NO. RELEASED
SEE SHIPPER #NPSI-3667/NAP	19	13

(9) COMPLETE ☐ YES ☒ NO

(10) SERIAL OR IDENTIFICATION NO(S).

ITEM #2	MIC #NA-232 ✓	ITEM #12	MIC #NF-1112 ✓
"	MIC # A-39 ✓	ITEM #13	MIC #NT-131 ✓
ITEM #3	MIC #NA-246 ✓	ITEM #14	MIC # T-149 ✓
ITEM #5	MIC #NA-224 ✓	ITEM #15	MIC #NT-206 ✓
ITEM #7	MIC #NR-279 ✓	ITEM #16	MIC #NT-132 ✓
ITEM #8	MIC # R-5 ✓		MIC #NT-117 ✓
ITEM #9	MIC #NW-436 ✓	ITEM #17	MIC #NT-217 ✓
ITEM #10	MIC #W-5 ✓		

(11) RECORDS TRANSMITTAL LIST

Records checked (✓) below are being transmitted with this certificate as required by the Brown & Root Document Data Sheet.

XX	Material Certifications	___	Operating Elec. Test Records	___	Visual Inspection Records
___	Heat Treat Records	___	Non-Operating Elec. Test Records	___	Dimensional Inspect. Records
___	RT Film & Records	___	Pressure Test Records	___	Cleanliness Records
___	PT/MT Records	___	Seat Tightness Test Records	___	Painting Records
___	UT Records	___	Performance Test Records	___	Packaging Records
___	Approved Stress Report	___	Weld. Personnel Qual. Certs.	___	Spare Parts List
___	Approved Design Analyses	___	NDE Personnel Qual. Certs.	___	_____
___	Special Handling Instruc.	___	Nameplate Facsimile	___	_____
___	Operating Manuals	___	Code Data Report(s)	___	_____

(12) REMARKS

Deviations: ☒ None ☐ Listed Below

INFORMATION COPY PPRV

(13) VENDOR CERTIFICATION

THE VENDOR CERTIFIES that the item(s) described above are in conformance with the requirements of the [illegible] specification and with the approved deviations listed above; are suitable for the purpose intended; are free from defects in design, workmanship, and materials; are new and of specified quality. A copy of this completed Conformance Certificate will be included with the bill of lading and shipper with the item(s) to Brown & Root, Inc. at the address designated in the procurement documents.

VENDOR AUTHORIZED SIGNATURE: [signature] TITLE: QA MANAGER DATE: 11 / 12 / 79

(14) RELEASE STATEMENT

The Vendor has certified that the items above meet all contractual requirements. Brown & Root has reviewed evidence supporting this Certificate and, except as noted under "Remarks" above, has verified conformance to requirements. This Certificate does not waive any rights Brown & Root may have under the Purchase Order including the right to reject the item(s) upon discovery of deficiencies during or after arrival at destination.

Final Surveillance: ☐ Performed ☒ Waived

SIGNATURE OF B&R SURVEILLANCE SPECIALIST	DATE:	SHIPMENT WAIVER NUMBER	DATE:
	/ /	SW-1015	11 / 15 /

Brown & Root, Inc.

S. W. 1015

QUALITY ASSURANCE DEPARTMENT

SHIPMENT WAIVER

PROJECT: CPSES JOB NO.: 35-1195 UNIT 1&2 PAGE 1 OF 1

TO: N.P.S. Ind., Inc. Attn. Jo Ann Souders

2750 S.W. Moody, Portland OR. 97201

REFERENCE: Purchase order/subcontract number 35-1195-30220 ;
our telephone conversation this date concerning shipment waiver.

Gentlemen:

Confirming the telephone conversation between your Mr./Ms. Jo Ann Souders and our Mr./Ms. Ron Meissner as referenced above, we have waived final examination at your facility of the following items only:

Order Item No.	Qty.	Description
Item 4	500 ft.	L ¼" x 2½" x 2½" ASME-SA-36
" 5	150 ft.	L ⅜" x 2½" x 2½" " "
" 7	20 ft.	L ¾" x 6" x 6" " "
" 8	250 ft.	Round Rod ¾" ASME-SA-36
" 9	500 ft.	" " 1" " "
" 10	200 ft.	I-Beam 3 Gr 5.7 "
" 12	300 ft.	W8 37 17 lbs./ft. Wide Flange ASME-SA-36
" 13	250 sq ft.	12 ½" ASME SA-615 Gr. 60 or ASME-SA-36
" 14	500 ft.	¼" x 2" x 4" Structural Tubing, ASTM A-500 Gr. B
" 15	250 ft.	¼" x 3" x 3" " " " " "
" 16	60 ft.	¼" x 4" x 6" " " " " "
" 17	100 ft.	¼" x 8" x 8" " " " " "
	140 ft.	½" x 6" x 10" " " " " "

Shipment of the above described items must be accompanied with Brown & Root, Inc. Form QA-045 titled "Quality Assurance Department Conformance Certificate" properly completed and signed by you. Further, this shipment waiver does not waive any rights Brown & Root may have under this purchase order including the right to reject the item(s) upon discovery of deficiencies during or after arrival at destination.

Sincerely,

BROWN & ROOT, INC.

Gerald J. Williams

J. P. Clarke III
Vendor Surveillance Supervisor

JCP/bj
cc: J. P. Clarke III
B&R Site Receiving Insp. Dept.
B&R Site Purchasing Dept.
V53.0-1

nps industries, inc.

2730 s.w. moody
portland, oregon 97201
telephone 503-226-1300

DATE: 11-12-79

NPSI: 8667/NAP

PAGE 3 OF 3

CERTIFICATE OF COMPLIANCE

CUSTOMER: BROWN & ROOT INC.

PURCHASE ORDER: 35-1195-30220

We certify that the Items furnished on your P.O. #35-1195-30220, NPSI Shipping Notice #8667/NAP are in conformance with ASME III Subsection NF 2000, Class 2, Winter 1974 Addenda and the Material Specifications listed:

ITEMS: 2, 3, 5, 7, 8, 9, 10, 12 SA/ASTM A36
ITEMS: 13 thru 16 A500 GR. B CODE CASE 1644-7

MANAGER OF QUALITY ASSURANCE

QUALITY SYSTEMS CERTIFICATE (MATERIALS)
NUMBER N-2324-1
EXPIRES ON JULY 13, 1982

Distribution:

Document Control
Procurement Dept.
NPSI-NJ
Quality Assurance

ELECTRIC STEEL Manufactured by
NORTHWEST STEEL ROLLING MILLS, INC.

(NA-232 ~~7884~~

...T of PHYSICAL and CHEMICAL TESTS

DATE 3/17/78

GRADE ASTM A-36-75

CLIENT GILMORE STEEL CORP. *PORT

ORDER 7803-12

P.O. BOX 03008

PORTLAND, OREGON 97203

SPECIFICATION	HEAT NO	SIZE	YIELD SQUARE INCH	TENSILE SQUARE INCH	ELONG % 8 IN	BEND	C	MN	S	P	REMARKS
A36	E653	1-1/2X 1-1/2X 3/16 ANG				OK	.15	.44	.014	.003	
A36	0742	2-1/2X 2-1/2X 1/4 ANG	48,300	68,210	28.0	OK	.20	.54	.030	.006	
A36	(0817)	2-1/2X 2-1/2X 1/4 ANG	48,780	63,040	27.0	OK	.18	.60	.022	.006	

ASME SA 36

8/10/78

7884 NA 232

INFORMATION COPY PPRV

Certified by NORTHWEST STEEL ROLLING MILLS, INC.

By [signature]

7081

PRODUCTION DEPARTMENT — METALLURGICAL

United States Steel Corporation

TEST REPORT OF BARS, CARBON STL

WORKS GARY U.S.S. ORDER NO SG08510 LOAD TALLY OR INVOICE NO 154-12753

CUSTOMER ORDER NO 7/29/74

CAR OR TRUCK NO MILW 92457 SHIPPER NO & DATE 402456 3/15/75

A-39

U S STEEL SUPPLY DIV
UNITED STATES STEEL CORP
P O BOX 3807
SEATTLE WASH 98124

SHIP TO

U S STEEL SUPPLY DIV
UNITED STATES STEEL CORP
2345 N W NICOLAI STREET
PORTLAND OREG

WE HEREBY CERTIFY THAT THE CHEMICAL ANALYSIS AND/OR TESTS SHOWN IN THIS REPORT ARE CORRECT AS CONTAINED IN THE RECORDS OF THE COMPANY.

SIGNATURE D.A. HAYES, CH. MET.

DATE 3-17-75

HR BARS CARBON MQ ASTM A36-70A MECH REQ CUST INFO CBE
COLOR CODE PINK

09-002071

MILL

C300

ITEM NO	HEAT NO	TEST OR PIECE IDENTITY NO	NO PCS	THICKNESS OR SECTION	WIDTH, DIA OR FT WT	LENGTH	WEIGHT	YIELD PT PSI	TENSILE STR PSI	ELONGATION % IN 8	ELONGATION % IN 2	% RED OF AREA	
05	84R365		160	L2-1/2X 2-1/2X3/16	3.0	20'	9800	* 38900 * 46500	63900 66300	32.0 31.0			H
06	84R365		147	L2-1/2X 2-1/2X1/4	4.1	20'	11560	* 38900 * 46500	63900 66300	32.0 31.0			H
06	84R365		141	L2-1/2X 2-1/2X1/4	4.1	20'	11040	* 46500 * 38900	66300 63900	31.0 32.0			H
08	83R376		172	L2X2X1/4	3.1	20'	11000	* 45700 * 47800	65300 68400	24.5 25.0			H

* B OR H INDICATE COMPLIANCE OF BEND OR HOMO TESTS RESPECTIVELY

SA 36

8/5/76

B&C/G.E.R.I. JOB #215
CHECKED BY RLT DATE 8/5/76

INFORMATION COPY

*MYSEUL 1050 EXT.

MATERIAL HEREIN TESTED ACCORDING TO COMPANY RECORDS CONFORMS TO THE REQUIREMENTS OF THE SPECIFICATION LISTED ABOVE

HEAT NO	TYPE	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	Al	N	V	B	Ti	Cb	Co
84R365	H	21	49	009	028													
83R376	H	22	50	008	023													

0742

BETHLEHEM STEEL CORPORATION
METALLURGICAL DEPARTMENT

(NA-246)

46039 (R-78)

DATE SHIPPED	SHIPMENT NO.	CARRIER, INITIAL AND NO.	PLANT
3/30/78	3212-0294-1/3, 2/3 & 3/3	(SP) BN 560070	SO SAN FRANCISCO CA

SOLD TO
GILMORE STEEL CORP
1901 POPLAR AVE
OAKLAND CA 94607

SHIPPED TO
GILMORE STEEL CORP
1960 CYPRESS ST
OAKLAND CA 94607

GILMORE STEEL CORP.
APPROVED BY:
Q.C. CLERK
DATE 4/4/78

REPORT OF MECHANICAL AND CHEMICAL TESTS

Customer's Order No.	Section Slab or Mill Order No.	Heat No.	Description	Thickness	Yield Point	Tensile Strength	Elong. %	Red. %	Bends	CHEMICAL ANALYSIS C	Mn	P	S	Specifications or Remarks
3-62-78		10X533	L 2½X2½X3/8		42,030	67,430	27			.22	.50	.009	.026	ASTM A36-75
		11X719	L 2½X2½X5/16		45,520	69,510	24			.23	.49	.008	.032	"
		2P553	"		45,370	67,670	26			.23	.55	.012	.041	"
		3X575	L 2½X2½X3/16		44,460	65,050	27			.19	.47	.011	.050	"
		2A398	L 2⅛X1⅛X3/16		49,450	72,340	24			.23	.49	.009	.034	"
	½	2X202	"		47,460	67,460	26			.20	.48	.019	.036	"
		11X462	L 2X2X3/8		42,950	68,150	27			.22	.46	.010	.026	"
										.23	.50	.010	.048	"
										.23	.49	.006	.040	"
										.23	.53	.025	.040	"
			ASME SA-36							.21	.49	.011	.038	"
			BW 9/15/78			9099N				.23	.53	.009	.030	"
										.24	.49	.015	.034	"
		10A201	1/4X7		51,570	74,020	23			.23	.50	.008	.020	"
		11A787	1X8		42,940	71,770	22			.24	.49	.008	.020	M1075/1023
		11A516	3/4X8		38,320	63,540	27			.22	.50	.009	.033	ASTM A36-75
		2A652	3/16X3							.10	.51	.007	.041	C.15 MAX COMM QUAL

NA-246

INFORMATION

JOE DUNLAP
SUPT. REBAR, FABRICATING, PLACING

I certify the above results to be correct as contained in the records of the company.

TR

NA - 224

BETHLEHEM STEEL CORPORATION
METALLURGICAL DEPARTMENT

DATE SHIPPED	SHIPMENT NO.	CARRIER, INITIAL AND NO.	PLANT
6-8-78	3301-2878 1/7 to 7/7	BN 565946	SEATTLE

INFORMATION COPY PPRV

SOLD TO GILMORE STEEL CORP.

SHIPPED TO PORTLAND

REPORT OF MECHANICAL AND CHEMICAL TESTS

Customer's Order No.	Section Slab or Mill Order No.	Heat No.	Description	Thickness	Yield Point	Tensile Strength	Elong. %	Red. %	Bends	C	Mn	P	S		Specifications or Remarks
				ASTM:	A36-75		8"								
?803-15 UJ	234-1185*	331C539	C 6x8.2#		51690	66800	25.0		ok	.22	.45	007	.025		
?803-52 UJ	234-1220B*	330C355	C 6x8.2#		47960	66650	26.0		ok	.23	.45	013	.043		
?804-22 UJ	234-1250	331A861	L 8x4x1/2		42130	62800	25.0		ok	.18	.42	007	.036		
		331B286	L 8x4x1/2		41910	66760	27.0		ok	.21	.45	012	.022		
?804-22 UJ	235-1250A	330C383	L 6x6x3/4		41470	65680	28.0		ok	.23	.44	009	.027		Item #2 MIC #NA224
		330C392	L 6x6x3/8		41110	58890	28.0		ok	.21	.42	007	.020		
		330C394	L 6x6x5/16		41700	60110	28.5		ok	.18	.46	008	.020		
?804-22 UJ	234-1250B	330C399	L 5x3½x3/8		42660	62060	26.5		ok	.19	.40	007	.020		
		33[illegible]	L 5x3½x1/4		47980	67560	22.0		ok	.22	.47	007	.026		
		3[illegible]				6[illegible]						009	.028		
		3[illegible]				6[illegible]						007	.019		
7804-22 UJ	234-1250C	3[illegible]				6[illegible]						007	.021		
?-02 SJ	234-1063R*	[illegible]				M 6[illegible]						007	.020		
					WEIGHT	#140410									

ASME SA-36 8652 NA224

RGW 7/19/78

C. T. Burtch
CHIEF METALLURGIST

Per P [illegible]

[illegible] results to be correct as contained in the records of the company.

NR-274

ELECTRIC STEEL Manufactured by

NORTHWEST STEEL ROLLING MILLS, INC.

4315 Ninth Avenue N.W. - SEATTLE, WASHINGTON 98107

DATE 10/18/76

REPORT of PHYSICAL and CHEMICAL TESTS

CERTIFICATE ASTM A36-75

MATERIAL Electro Steel

for Merchant Bar

STRUCTURE 9369

2750 S. W. Moody, Portland, Oregon 97201

CLIENT N. P. S. Industries

	HEAT NO.	SIZE	YIELD POINT SQUARE INCH	TENSILE SQUARE INCH	ELONG % IN.	FRACTURE	BEND	CHEMICAL ANALYSIS C	MN	S	P	REMA
Gr. A-36	S-476	3/4 Pl Rnd	43,650	62,350	29.0		OK	.16	.60	.025	.005	
Gr. A-36	S-396	3/4 Pl Rnd	43,830	66,670	30.0		OK	.21	.67	.034	.016	
Gr. A-36	B-433	7/8 Pl Rnd	46,430	65,930	31.0		OK	.21	.62	.018	.006	

REPORT OF 10/11/78 WAS IN ERROR, CERTIFICATE SHOULD HAVE SHOWN ASTM A-36-75,

INFORMATION COPY PPRV

Astm SA-36

Rev 10/20/78

9369

NR 279

Certified by NORTHWEST STEEL ROLLING MILLS, INC

By E. Buck Nilsted

4315 Ninth Avenue S. W. SEATTLE, WASHINGTON 98107

DATE 11/1 3A (MIC R5)

REPORT of PHYSICAL and CHEMICAL TESTS

CERTIFICATE ASTM - A-36 MATERIAL ELECTRO - STEEL

STRUCTURE P.O. # 7404-33 for PLAIN Round BARS

CLIENT Gilmore Steel Corp, P.O. Box 03008, Portland, Oregon 97203

HEAT NO.	SIZE	YIELD (LBS. PER SQ. INCH)	TENSILE (LBS. PER SQUARE INCH)	ELONG. % IN 8	FRAC. TURE	BEND	C	Mn	S	P	REMARKS
N-758	1" Ø	45910 ✓	66600 ✓	24.0 ✓		OK	20	64	032	012	20,252#
N-213	1¼" Ø	43880	65230	28.0		OK	17	63	044	012	10,008#
N-952	1½" Ø	43120	65330	30.0		OK	17	64	023	007	10,634#
N-957	2" Ø	47110	60950	25.0		OK	19	67	033	008	21,360#
N-900	2⅜" Ø	——	——	——		OK	27	60	029	011	9,638#

MATERIAL IS IDENTICAL WITH THE REQUIREMENTS OF SA 36

QA DEPT. INITIALS DATE 8/5/76

CAR # CBQ 83553

INFORMATION COPY PPRV

CHECKED BY PWT 8/6/76

Witnessed by ______

Certified by NORTHWEST STEEL ROLLING MILLS, INC

By [signature]

MIC NO NW 436

BETHLEHEM STEEL CORPORATION
METALLURGICAL DEPARTMENT

3311466

DATE SHIPPED	SHIPMENT NO.	CARRIER, INITIAL AND NO.	PLANT
3-27-79	3301-1656 1/6 to 6/6	NP. 57507	SEATTLE

SOLD TO GILMORE STEEL CORP.

SHIPPED TO PORTLAND

REPORT OF MECHANICAL AND CHEMICAL TESTS

Customer's Order No.	Section Slab or Mill Order No.	Heat No.	Description	Thickness	Yield Point	Tensile Strength	Elong. in %	Red. %	Bends	CHEMICAL ANALYSIS C	Mn	P	S	Specification or Remarks
				ASTM	A36-77A		8"							
7900-42	UJ234-1764C													
		330H290	L 3½x3x3/8		45610	67510	21.0		ok	.23	.50	.008	.020	
		331H488	L 3½x3x5/16		49060	68070	23.0		ok	.19	.50	.007	.019	
		331H491	L 3½x3x1/4		48920	67840	22.0		ok	.23	.44	.012	.025	
		331H488	L 3½x3x1/4		46440	66110	25.5		ok	.19	.50	.007	.019	
7901-15	UJ234-1732B													
		330H290	L 3½x3x3/8		45610	67510	21.0		ok	.23	.50	.008	.020	
		331H488	L 3½x3x5/16		49060	68070	23.0		ok	.19	.50	.007	.019	
7901-03	UJ234-1687*													
		331H498	L 3x2x1/4		47210	65300	22.5		ok	.19	.45	.007	.034	
		330H301	L 3x2x1/4		47330	64910	22.5		ok	.19	.40	.007	.023	
7809-2[illegible]	UJ23[illegible]77D*	330H290	L 3½x3x3/8		45610	67510	21.0		ok	.23	.50	.008	.020	
7902-1[illegible]	UJ2[illegible]-1[illegible]2A	330H280	L 3½x3½x3/8		46970	67230	27.0		ok	.21	.47	.021	.031	
7901-1[illegible]	UJ2[illegible]4-16[illegible]2A	331H466	S 3x5.7#		51780 ✓	70730 ✓	21.5 ✓	✓	ok	.23 ✓	.45 ✓	.015 ✓	.022 ✓	
					WEIGHT	#157820								

INFORMATION COPY PPRV

DOCUMENT REVIEWED
P.O. # 10162 MIC # NW 436
Q.C. SUPERVISOR RBW DATE 4/16/79

GILMORE STEEL CORP.
APPROVED BY:
Q.C. CLERK M.Y.
DATE APR 05 1979

I certify that the above results are a true and correct copy of records prepared and maintained by Bethlehem in compliance with the requirements of the specification cited above.

C. T. BURTCH
CHIEF METALLURGIST

Per PETE

01394 J1

XO 1 1 3 CAF

S-1530

980 ASHWORTH

EA-18379

75-2006 6/30/75

RECEIVED

SEP 15 1975

NPS INDUSTRIES
PORTLAND

NPS INDUSTRIES INC
235 MOORE ST
HACKENSACK N J 07601

NPS INDUSTRIES INC
4870 NORTH FATHOM ST
SWAN ISLAND
PORTLAND ORE

THIS IS TO CERTIFY THAT THE CHEMICAL ANALYSES AND/OR TEST RESULTS SHOWN IN THIS REPORT ARE CORRECT, AS CONTAINED IN THE RECORDS OF THE COMPANY

Philip E. Jones
Philip E. Jones, Chief [illegible]

TRF (TL 40M)(COL) /O/ TRUCK (40M)
PROD STRL SHAPES CARBON
SPEC ASME SA36-70A
OMI KEEP NBR OF HEATS TO A MAX OF TWO NO MILL WELD REPAIRS
AIM CUST PREFERS ONE HEAT IF POSSIBLE
APM FABRICATING PIPE SUPPORTS
INSP MILL RA/SN CERTIFIED T/R REPORT TEST RESULTS PER SPEC

REPORT OF CHEMICAL AND PHYSICAL TESTS

SEP 04 1975

ITEM NO.	HEAT NUMBER	INGOT SLAB NO.	MATERIAL DESCRIPTION	LADLE ☑ C	MN	P	S	SI	TEST LOC. OR GAGE TESTED	YIELD POINT 100 P.S.I.	TENSILE STRENGTH 100 P.S.I.	ELONG. % 8 IN	BEND TEST	HOMO. TEST	AVE. IMPACT VALUE FT. LBS.
03				.22	.58	.012	.022	.05	.230	396	631	25.0	OK		
C	90A286	W4	W8 x 17# x 40'						.230	405	648	26.5	OK		
				.23	.53	.012	.022	.06	.230	487	666	26.0	OK		
	94A496	W5	✓						.230	500	655	28.0	OK		

[illegible]
CHECKED BY RWT [illegible] 2/6/76

INFORMATION COPY
APPROVED

MATERIAL IS IDENTICAL WITH THE REQUIREMENTS OF SA 36

Q.A. DOCUMENTATION REVIEW
INTL [illegible] DATE 2/10/77

Division of Unarco Industries, Inc.
1717 West 115th Street
Chicago, Illinois 60643
Phone 312 239 7700 Wats 800 621 4610 Telex 25 4297
Unarco Leavitt Specialty Tubular Products
1200 Dodge Avenue Evanston, Illinois 60202

CERTIFICATION

CUSTOMER: J.T. Ryerson & Sons, Inc.
P.O. Box 8000A
Chicago, IL. 60680

Bill of Lading No. 63089

Date: April 6, 1979

I HEREBY CERTIFY THAT THE MATERIAL ITEMIZED BELOW WAS PRODUCED IN CONFORMITY WITH THE SPECIFICATIONS INDICATED, AND THAT ALL TESTS REQUIRED BY THOSE SPECIFICATIONS, INCLUDING SUCH OTHER DOCUMENTS AS THEY MAY REFERENCE, WERE SUCCESSFULLY PERFORMED AT A FREQUENCY GREATER THAN OR EQUAL TO THAT REQUIRED BY THE SPECIFICATIONS. ALL DATA TRULY REPRESENTS THE INFORMATION CONTAINED IN THE RECORDS OF THE CORPORATION.

	No. of Pieces	Size & Gage	Length	Total Amount	Customer P.O.	Mill Order No.
1	60	3 x 4 x 3/16	40'	2,400'	PA 74782	225836
2	112	2 x 4 x 1/4	40'	4480'	1A 5740	136973

		1	2				
ITEM NO							
SPECIFICATION		ASTM-A500	ASTM-A-500				
GRADE		B	B				
HEAT NO		W 7000	793437				
CHEMISTRY	CARBON	.17	.17 ✓				
	MANGANESE	.39	.39 ✓				
	PHOSPHORUS	.013	.007 ✓				
	SULFUR	.022	.017 ✓				
	ALUMINUM						
TESTING	EXPAND						
	FLATTEN	✓					
	REVERSE FLATTEN						
	FLARE	X	X				
	CRUSH						
	EDDY CURRENT						
	HYDROSTATIC						
	AIR						
	HARDNESS (Rb)						
	YIELD STRENGTH 0.2% OFFSET (PSI)	50,000	55,000 ✓				
	(MPa)	345	379 ✓				
	TENSIL STRENGTH (PSI)	62,500	65,000				
	(MPa)	431	448 ✓				
	ELONGATION IN 2" (%)	25	29 ✓				

INFORMATION COPY

DOCUMENT REVIEWED

P.O. #	MIC #
8711	NT 131
Q.C. SUPERVISOR RBW	DATE 4/23/79

CLEARER REPLACEMENT (RBW)

UL 120

Signature

INDEPENDENCE TUBE CORPORATION

6226 West 74th St.
Chicago, Illinois 60638

(312) 496-0380

June 3, 1978

Joseph T. Ryerson & Son
P. O. Box 8000-A
Chicago, Illinois

Attention: Test Report Area

The following material shipped on your Order No. 1A-146

Invoice No. 12042, meets the requirements of ASTM A-500

Grade ~~B~~

Heat#783662 3" Sq. x 1/4"

Yield	63,270 ✓	psi
Tensile	66,940 ✓	psi
Elong. 2"	27.5 ✓	%

C	Mn	P	S
.18 ✓	.70	.017 ✓	.024 ✓

B. A. Gontez
Vice President-Materials

9006

T-149

ASTM A500

BAW 8/31/78

T-149

INDEPENDENCE TUBE CORPORATION

6226 West 74th St.
Chicago, Illinois 60638

(312) 496-0380

July 23, 1979

Joseph T. Ryerson & Son, Inc.
P.O. Box 8000-A
Chicago, Illinois 60680

ATTN: Test Report Area

The following material shipped on your Order No. OA 45425

Invoice No. 19205, meets the requirements of ASTM A-500 Grade B-77.

Size, Gauge	Yield PSI	Tensile PSI	Elong. 2"	C	Mn	P	S
5" x 3" x 5/16" HT # M 65438	60,650	62,970	32.5	.23	.77	.016	.017
6" x 4" x 1/4" HT # C 93560	59,610 ✓	66,275 ✓	29.5 ✓	.21 ✓	.73	.005 ✓	.030 ✓

INFORMATION COPY
PPRV

DOCUMENT REVIEWED

P.O. #	MIC #
10275	NT 206
Q.C. SUPERVISOR RBW	DATE 8/14/79

75413560
RT 45321

B. A. Gontez
Vice President-Materials

The Copperweld Tubemakers

REGAL TUBE COMPANY

7401 South Linder Avenue
Chicago, Illinois 60638 U.S.A.

Customer Order No. A11-3235

Regal Order No. 045879

Invoice No. ______

Date 6/30/78

TEST REPORT

AMERICAN STEEL INC.
RECEIVED
JUL 10 1978

Customer:
American Steel
4033 Northwest Yeon Ave.
Portland, Or 97210

Specification:
8 sq x 1/4 structural tubing
ASTM A 500 77 Grade B

HEAT NO.	CHEMICAL ANALYSIS, %			
	C	Mn	P	S
52793	.21	.71	.013	.021

MATERIAL IS IDENTICAL WITH THE REQUIREMENTS OF Asme A500 GrB
RBW 8/16/78

QUALITY SYSTEM CERTIFICATE
CERTIFICATE NUMBER
8455 NF132
MRR 1418

MECHANICAL

HEAT NO.	LAB NO.	YIELD STRENGTH PSI	TENSILE STRENGTH PSI	ELONGATION %	HARDNESS R_b
52793	8689	53,000	59,900	34	

YIELD STRENGTH IS 0.2% OFFSET — ELONGATION IN 2 INCHES

Other Tests

NPS P.O. # PCN 8455

INFORMATION COPY PPRV

Subscribed and sworn to before me a Notary Public in and for the State of ______ County of ______
this ____ day of ______ 19__

Oran R Carter
Metallurgist

FORM #81

NF132

The Copperweld Tubemakers 119718

REGAL TUBE COMPANY
7401 South Linder Avenue
Chicago, Illinois 60638 U.S.A.

Customer Order No. A11-3235
Regal Order No. 045879
Invoice No. ______

TEST REPORT

AMERICAN STEEL INC.
RECEIVED
JUL 10 1978
PRICES CHECKED ______
EXT'S ______
A/C CHARGED ______

Date 6/30/78

Customer:
American Steel
4033 Northwest Yeon Ave.
Portland, Or 97210

Specification:
8 sq x 1/4 structural tubing
ASTM A 500 77 Grade B

HEAT NO.	CHEMICAL ANALYSIS, %										
	C	Mn	P	S							
52793	.21	.71	.013	.021							

MECHANICAL PROPERTIES

HEAT NO.	LAB NO.	YIELD STRENGTH PSI	TENSILE STRENGTH PSI	ELONGATION %	HARDNESS R_b
52793	8689	53,000	59,900	34	

NT 117

ASTM A500 GR-B
RBW 7/28/78

INFORMATION COPY
PPRV

YIELD STRENGTH
Other Tests

Subscribed and sworn to before me a Notary Public in and for the
State of ______ County of ______
this ______ day of ______ 19__

8455 NT-117

Oran R Carter
Metallurgist

NT 217

MIC NO _____

MILL TEST REPORT WELDED STRUCTURAL STEEL TUBING

LOED TUBE COMPANY OF AMERICA

MANUFACTURERS OF ELECTRIC WELDED CARBON ALLOY STEEL TUBING

CHICAGO, ILLINOIS 60633

PHONE (312) 646-4800

SOLD TO:

DATE:

SHIPPED TO:

NO: CH35594

CUSTOMER P.O. NO.

INFORMATION COPY

HEAT NO.	SIZE	WALL	LENGTH	PCS.	TOTAL FEET	YIELD (PSI)	TENS. (PSI)	ELONG.	C	Mn	P	S	Si
12529 NT217	10" x 6"	1/2"	40'0"	20	800'0"	58,600	66,500	33%	.21	.92	.005	.021	
12531	SAME					62,200	68,700	29%	.24	.88	.005	.040	

DOCUMENT REVIEWED

P.O. #	MIC #
10686	NT 217
D.C. RBW	DATE 10/22/99

THIS MATERIAL MEETS MINIMUM SPECIFICATIONS SET FORTH IN ASTM A-500-77 GRADE "B"

AS CONTAINED HEREIN IN THE RECORDS OF WELDED TUBE COMPANY OF AMERICA AND ARE CERTIFIED AS BEING CORRECT BY:

Brown & Root, Inc.

REPORT NO 13376

QUALITY ASSURANCE
RECEIVING INSPECTION REPORT

ARMS INDEXED

UNIT	SYSTEM	COMPONENT	IDENTIFICATION/SPIN NO	DWG/SPECIFICATION & REV
X	Q Stock	TUBE steel	N/A	N/A

P.O. 35-1195

30141

MRR 096418

VENDOR NPS

QR N/A

CHARACTERISTIC INSPECTION: ~~DWL~~ ~~QC 1-1~~ DWL 3/4/80 QI GAP 7.2-12

SAT. [X] UNSAT. [ ] NCR _____ HOLD TAG _____

APPARENT RESPONSIBILITY FOR UNSATISFACTORY ITEMS:

B&R [ ] VENDOR [ ] TRANSPORTER [ ] N/A

DATE DEFICIENCY DISCLOSED _____

ITEM	QTY.	DESCRIPTION/REMARKS
33	140 L.F.	6 X 8 X 1/2 TUBE steel ASTM A-500 GR B MIC # 3165NT Ht # C93096

INFORMATION COPY PPRV

BROWN & ROOT, INC.
RECEIVED
MAR 06 1980
QUALITY ASSURANCE

DWL 3/4/80

S.W. 12.29

AUTHORIZED NUCLEAR INSPECTOR NOTIFICATION:

DATE: _____ TIME: _____ MEDIA: _____ N/A ✓ INIT. Dick

ANI WITNESS: SAT. _____ ☆☆ UNSAT. _____ ☆☆ WAIVE _____

☆☆ ANI'S INITIALS REQUIRED

FOIA-85-59

STORAGE LOCATION Steel FDB TYPE E

QC ENGINEER/INSPECTOR D. W. Leigh DATE 2/11/80

QC - 1.1/3-1

FOIA-85-59 CC/182

BROWN & ROOT, INC.

QUALITY ASSURANCE DEPARTMENT
QI-QAP-7.2-12
REVISION 0
FIGURE 1
"RECEIVING MISCELLANEOUS STEEL"

		SAT.	UNSAT.	N/A
1.	Did all required documentation accompany shipment?	✓		
2.	Is shipment packaged satisfactorily?	✓		
3.	Are material markings in accordance with specification requirements?	✓		
4.	Is certification adequate and accurate when compared to the applicable specifications?	✓		
5.	Is there any damage?	✓		
6.	Have all NDE requirements been met?			✓
7.	Was shipment accompanied by a B&R QA Department Conformance Certificate?	✓		
	Was the Certificate signed by a B&R Surveillance Specialist?			✓
	If not, is a B&R QA Source Inspection Waiver Form available?	✓		
8.	Applicable QC Receiving tags have been applied			✓

Comments: N/A

QC Inspector Danny Leigh Date 9/3/00

MAT[illegible] RECEIVED RECORD

[illegible] NCHE PEAK S.E.S.

096418

PAGE 1 OF 1 [illegible] CAR NO. [illegible]

SHIPPED TO: B&R [X] G&H [ ] F&N [ ] W [ ] TUSI [ ] OTHER [ ]

P.O. NO. 35-1195- 30141

REQ. NO. PR 126434 c/o 1

BROWN & ROOT, INC

VENDOR: B.P.S. Industries Secaucus, NJ

MAR 06 1980

FILES NOTED

QUALITY ASSURANCE

DATE: 2-29-80

SHIPPER: Same Austin, TX

F.O.B. SP/PPA

Partial [XX] 16 Complete [ ]

QUANTITY	UNIT	ITEM	MATERIAL DESCRIPTION	LOCATION
140	[illegible]EL.	32	6 x 8 x 1/2 TS Structural Tubing [illegible]	U/R QA Rec.
			5677 total Ft. lbs. (40.55 lbs. per ft.)	Center Pipe Yd.
1	lot		Certification Papers	Issued QA [illegible]
			NOTE: RECEIVED IN GOOD CONDITION	

This Inspection Has Been Documented On RIR No. [illegible]

INSPECTION COPY PPRV

RECEIVED BY	Q.C. CHECK BY	EXP	PP	TEX PAK	UPS	PREPAID	COLLECT
B. Ward	XXX bw					220.55	

Control

Rec. 2-[illegible]

Iron F[illegible]

DELIVERING CARRIER

F.B. NO.	CAR NO.
XX 66834848	

EXTRA

Brown & Root, Inc.

S. W. 1229

QUALITY ASSURANCE DEPARTMENT

DATE: 2/22/80

SHIPMENT WAIVER

PROJECT: CPSES JOB NO.: 35-1195 UNIT 1&2 PAGE 1 OF 1

TO: N.P.S. Ind. Inc.
10420 Metric Blvd., Austin, Texas 78758

REFERENCE: Purchase order/subcontract number (Varies);
our telephone conversation this date concerning shipment waiver.

Gentlemen:

Confirming the telephone conversation between your Mr. C. Upham and our Mr. Ron Meissner as referenced above, we have waived final examination at your facility of the following items only:

Order Item No.	Qty.	Description
P.O. 35-1195-30141 (1) item 33	140 ft. (7 R.)	T.S. 6"x8"x½" @ 20'-0" ASTM A-500 Gr. B
P.O. 35-1195-30267 item 8	180 ft (9 R.)	T.S. 6"x4"x½" @ 20'-0" ASTM A-500 Gr. B

Brown & Root, Inc. Form QA-045 titled "Quality Assurance Department Conformance Certificate" properly completed and signed is not required. This shipment waiver does not waive any rights Brown & Root may have under this purchase order including the right to reject the item(s) upon discovery of deficiencies during or after arrival at destination.

Sincerely,

BROWN & ROOT, INC.

Ronald L. McCann for
~~J. P. Clarke III~~ R. Klimist
4/14/80
Site Quality Assurance Manager

JPC/bj
cc: J. P. Clarke III
B&R Site Receiving Insp. Dept.
B&R Site Purchasing Dept.
V53.0-1

INFORMATION COPY PPRV

SW-127

nps industries, inc.

SHIPPED FROM:
NPS INDUSTRIES, INC.
10420 Metric Boulevard
Austin, Texas 78758

SHIPPING NOTICE
NO. AUS 8732/TDA
ALWAYS REFER TO ABOVE NUMBER

PAGE 1 OF 1

SOLD TO: Brown & Root Inc.
P.O. Box 1001
Glen Rose, TX

SHIP TO: Brown & Root Inc.
C/O Comanche Peak
SES FM 201
Glen Rose, TX

SPECIAL INSTRUCTIONS

DATE SHIPPED	PURCHASE ORDER NO.	PROJECT TITLE	SALES REL. NO.	PROD. REL. NO.	SALES ACCT. NO.
2/26/80	35-1195-30141	Brown & Root Inc.	NA-356	9513/TDA	3058

	SHIPPED - VIA CARRIER	F.O.B.	
	CENTRAL FREIGHT	Austin	☒ PREPAID ☒ ADDED ☐ COLLECT

ITEM NUMBER	ORDER QUANTITY	QUANTITY SHIPPED	QUANTITY B.O.	DESCRIPTION/ASSEMBLY MARK•, REV.	COMMENTS MIC#
33	160'	140'	20'	6 x 8 x 1/2 TS	
				1 BUNDLE 6962	
				2/20/80	

INFORMATION COPY
PPRV

nps industries, inc.
10420 running bird lane
austin, texas 78758
telephone 512-836-4161

Date: 2/22/80
NPSI: AUS-8732/TDA

Reference: Texas Utilities Services, Inc.
PO # 35-1195-30141 CO #1
NA-356
Item #33 (Mic. #3185NT)

CERTIFICATE OF COMPLIANCE

NPS Industries certifies that the material described on the attached Shipping Notice AUS-8732/TDA supplied on your P.O. 35-1195-30141 CO#1 is in compliance with the requirements of A.S.M.E. Boiler and Pressure Vessel Code Section III, Subsection NF, Article 2000, Class II, Winter 1974 Addenda; and ASTM/ASME material specification identified on your P.O.:

Item #33 conforms to ASTM A-500 Gr. B, Code case 1644-7

A.S.M.E. Quality Systems Certificate (Materials) Number N-2048, expires on February 24, 1981.

Yours truly,

Jack Gober
Manager of Quality Assurance

cc: Verlon Moore
Ron Meissner
Shipment
File

JG/crd

BROWN & ROOT, INC.
QUALITY ASSURANCE DEPARTMENT
CONFORMANCE CERTIFICATE

MAR 7 1979
AUSTIN, TEXAS

PROJECT: JOB NO.: UNIT _____ PAGE _____ OF _____

(1) VENDOR	(2) ADDRESS OF VENDOR FACILITY
NPS Industries	10420 Metric Boulevard 78758

(3) PURCHASE ORDER NO.	(4) SPECIFICATION NO.	REV.	(5) DRAWING NO.	REV
35-1195-30141	N/A	N/A	N/A	N/A

(6) ITEM DESCRIPTION(S)	(7) NO. OF ITEMS	(8) NO. RELEASED
6 x8 x 1/2 TS	7	1

(9) COMPLETE ☐ YES ☒ NO

(10) SERIAL OR IDENTIFICATION NO(S).

Item 33 conforms to ASTM A-500 Gr. B

(11) RECORDS TRANSMITTAL LIST

Records checked [√] below are being transmitted with this certificate as required by the Brown & Root Document Data Sheet.

X	Material Certifications	___	Operating Elec. Test Records	___	Visual Inspection Records
___	Heat Treat Records	___	Non Operating Elec. Test Records	___	Dimensional Inspect. Records
___	RT Film & Records	___	Pressure Test Records	___	Cleanliness Records
___	PT/MT Records	___	Seat Tightness Test Records	___	Painting Records
___	UT Records	___	Performance Test Records	___	Packaging Records
___	Approved Stress Report	___	Weld. Personnal Qual. Certs.	___	Spare Parts List
___	Approved Design Analyses	___	NDE Personnal Qual. Certs.	X	Cert. of Compliance
___	Special Handling Instruc.	___	Nameplate Facsimile	___	_____
___	Operating Manuals	___	Code Data Report(s)	___	_____

(12) REMARKS

Deviations: ☒ None ☐ Listed Below

INFORMATION COPY

(13) VENDOR CERTIFICATION

THE VENDOR CERTIFIES that the item(s) described above are in conformance with the requirements of the Brown & Root Specification with the approved deviations listed above, are suitable for the purpose intended, are free from defects in design, workmanship, and materials and are new and of specified quality. A copy of this completed Conformance Certificate will be included with the bill of lading and shipped with the item(s) to Brown & Root, Inc. at the address designated in the procurement documents.

VENDOR AUTHORIZED SIGNATURE	TITLE:	DATE:
Jack Doe	Manager of Quality Assurance	2/29/80

(14) RELEASE STATEMENT

The Vendor has certified that the items above meets all contractual requirements. Brown & Root has reviewed evidence supporting this Certificate and, except as noted under "Remarks" above, has verified conformance to requirements. This Certificate does not waive any rights Brown & Root may have under the Purchase Order including the right to reject the item(s) upon discovery of deficiencies during or after arrival at destination.

Final Surveillance: ☐ Performed ☒ Waived

SIGNATURE OF B&R SURVEILLANCE SPECIALIST	DATE:	SHIPMENT WAIVER NUMBER	DATE:
	/ /	SW-1229	2 /26/ 80

The item(s) described above are hereby released by Brown & Root Quality Assurance. Shipment may be made subject to authorization by Brown & Root Purchasing.

COPPERWELD TUBING GROUP

REGAL

REGAL TUBE COMPANY
[illegible] Avenue
Chicago, Illinois 60638
312/458-4800
TELEX 25-3485

Chicago, Illinois 60638 U.S.A.

RECEIVED
DEC 10 1979
AUSTIN, TEXAS

Regal Order No. 058108

Invoice No. _____

TEST REPORT

Date 11-29-79

Customer:

NPS Ind. Inc.
One Harmon Plaza
Secaucus, N.J. 07094

Specification:
8 x 6 x ½ structural tubing
ASTM A 500 77 Grade B

HEAT NO.	CHEMICAL ANALYSIS, %										
	C	Mn	P	S							
C93096	.20	.40	.005	.028							
67000	.21	.84	.012	.037							

MECHANICAL PROPERTIES

HEAT NO	LAB NO	YIELD STRENGTH PSI	TENSILE STRENGTH PSI	ELONGATION %	HARDNESS R_b
C93096	18296	62,800	68,200	30	
6700	17433	62,000	70,600	23	

YIELD STRENGTH IS 0.2% OFFSET — ELONGATION IN 2 INCHES

Other Tests

NPSI-AUSTIN
MIC NO.
3185NT

DOCUMENT REVIEWED BY
Q.A. _____ DATE 2-19-80

Subscribed and sworn to before me a Notary Public in and for the State of _____ County of _____ this _____ day of _____ 19__

INFORMATION COPY PPRV

Metallurgist

FORM #81R

nps industries. inc.

AUC ☒

PDX ☐

FINAL INSPECTION CHECKLIST

I

SUPPORT/ITEM NO. P.O. No. 35-1195-30141 PROJECT Brown & Root CPSES

RELEASE NO. TX-PR-9613/TDA OTHER IDENTIFICATION NR-356 Acct. # 3:5-

QUALITY CONTROL INSPECTOR VERIFY THE FOLLOWING

II DIMENSIONS (Per Drawing/Instructions)	NCR/PAR If App'l	S.N. of Calib. Instrument Used:	Q.C. Accept
1. Size/Weight of Material (ie. 3X4.1 channel) 4x4x3/8 Tubing)	N/A	N/A	DLC
2. Cut Length / Angle of Material	↑	↑	N/A
3. Cut Length / Diameter of Rod			↑
4. Threads (length/class) (internal/external)			
5. As Welded Dimensions/Details			
6. Clamp Dimensions (radius,gap,take out,hole ptrn)			
7. Hardware (size,length,grade,threads)			
8. Variables (I.D. No.,travel stops,scale plate)	↓	↓	↓

Q.C. Acceptance: Douglas W. Currie Date: 02/20/80

III PAINT/PROTECTIVE COATING (Per Drawing or Instructions)

Coating Data

	Surf Prep.	Coating
Type		
Specif		
Procedure		
Thickness	X	

N/A

Lubricants Applied (Exposed Threads, etc.)

Thermolox or Equivalent Applied

Workmanship

S/N of Cal. Inst. Used: N/A

Q.C. Acceptance: N/A Date: N/A

IV MARKING/TAGGING (Per Customer Specification)

Support/Item Number (Support Mark No./Catalog Number)

Metal Tags and/or NPT Nameplates

M.I.C. No.(s) (List those not covered on Dwg. B/M)

9/33 Qty. 140' 6"X8"X1/2"X20' Lgth A500 Gr. B Tube Steel

Mic # 3185 NT

Q.C. Acceptance: Douglas W. Currie Date: 02/20/80

INFORMATION COPY PPRV

ARMS

INDEXED

QA RECORD

Brown & Root, Inc.
QUALITY ASSURANCE ~~DEPARTMENT~~ DATE
NONCONFORMANCE REPORT (NCR)

(1) NCR No. M-2294

PAGE 1 OF 5

PROJECT CPSES   JOB NO. 35-1195

(2) UNIT	STRUCTURE/SYSTEM	COMPONENT	TAG/ID NUMBER	LOCATION OR ELEVATION	RIR NO.
1	DD	COMPONENT SUPPORT	DD-1-006-064-S35R	SAFEGUARD BLDG. 806 ELEV.	N/A

(4) TREND CATEGORY: G-9

(3) NONCONFORMING CONDITION
(3) DOCUMENT VIOLATED: CP-QAP-16.1   REV 0   PARA 2.3.1

WHILE DOING FINAL DOCUMENTATION REVIEW, THE FOLLOWING DISCREPANCY WAS DISCOVERED.

HANGER DRAWING AND CMC #11642 SPECIFY THAT SA36 MATERIAL BE USED FOR ALL ITEMS.

SA515 MATERIAL WAS USED FOR PC #4.

THIS UN-AUTHORIZED USAGE OF MATERIAL CONSTITUTES A NON-CONFORMANCE IN ACCORDANCE WITH THE ABOVE-REFERENCED DOCUMENT.

(5) REPORTED BY: R. WHEELER	(6) DATE: 5/23/80	(9) REVIEW/APPROVAL: [signature]	(10) DATE: 5/23/80
(7) PREPARED BY: R. WHEELER	(8) DATE: 5/23/80	(11) ISSUED BY: Clara Halliday	(12) DATE: 5/27/80

(13) DISPOSITION ASSIGNED TO:	(14) DUE DATE:	(15) CORRECTIVE ACTION REQUEST CAR NO.	(16) ASME CODE CLASS
D. FRANKUM	6/6/80	☐ Required ☒ Not Required	☒ Yes ☐ No

(17) DISPOSITION:
REWORK ____ REPAIR ____ USE AS IS X SCRAP ____

TI 5-23-80

CMC #11642 R1 HAS BEEN REVISED TO ALLOW THIS MATERIAL TO BE USED.

(18) CONSTRUCTION REVIEW/APPROVAL: [signature]	(19) DATE: 5/23/80	(20) QA/QC REVIEW/APPROVAL: R.M. Kleinert	(21) DATE: 5/23/80
(22) ENG. REVIEW/APPROVAL: [signature]	(23) DATE: 5/23/80	(24) ANI REVIEW APPROVAL: [signature]	(25) DATE: 5/23/80

(26) VERIFICATION: ☒ Satisfactory ☐ Unsatisfactory ☐ Not Req'd

(27) QA/QC ENGR/INSPR. VERIFICATION: [signature]   (28) DATE: 5/23/80

(29) ANI CONCURRENCE: [signature]   (30) DATE: 5/23/80

(31) QA REVIEW/CLOSURE: R.M. Kleinert   (32) DATE: 5/23/80

(33) REMARKS:

QA RECORD
INFORMATION COPY
FILE NO. CHE-2280
SUBFILE NO. M-2294
PPRV

Bennett Form BR114

FOIA-85-59   cc/183

NO.	MATERIALS & OPERATIONS	QUAN.	SHIP.				
	SEISMIC PIPE RESTRAINT CONSISTING OF:	ONE					
	△ MATERIAL EXISTS						
1	~~C3x6.7 (SA-36) 0'-4 9/16" Long, TW-3#~~	1	NCR M-2294 Pg 2 of 5	X	X		
2	~~C3x6.7 (SA-36) 0'-4 9/16" Long, (Detail A TW-3#~~	1		X	X		
	SEISMIC ASSEMBLY SKETCH & ENGINEERING	1					
	BUNDLE & TAG	1					
	MARK# DD-1-006-064-S35R						
3	Per CMC 11642	1		1-2-80			
4	Per CMC 11642 SA 515 Grade 65 substituted for SA-36	1		1-2-80			
5	Per CMC 11642	1		1-2-80			
	Apply one coat of Carbo Zinc #11 to above mat'l except th'ds which shall be coated w/a rust preventative.						

INFORMATION COPY PPRV

ISSUED BY DCC

Approved By: [illegible]

Date: 4/5/78

QUAN.	SHIP.		PBS	L	CSS	PRIM.	SEC.	AISC.

FOR MATERIALS AND OPERATIONS SEE SKETCH NO. SHEET __ OF __

Brown & Root, Inc.
ENGINEERS AND CONSTRUCTORS

CONDITIONS	Fx	Fy	Fz	Mx	My	Mz
DESIGN						
NORMAL & UPSET	△2	+911 -1119	±738			
EMERGENCY		+911 -1119	±800			
FAULTED						

REF. DRAWING NUMBERS △2 3

PIPE: M1-0604 REV. 18 ELECT: E1-0601-01 REV

STEEL: S1-0618 REV. 10 H.V.A.C.: [illegible] R.6

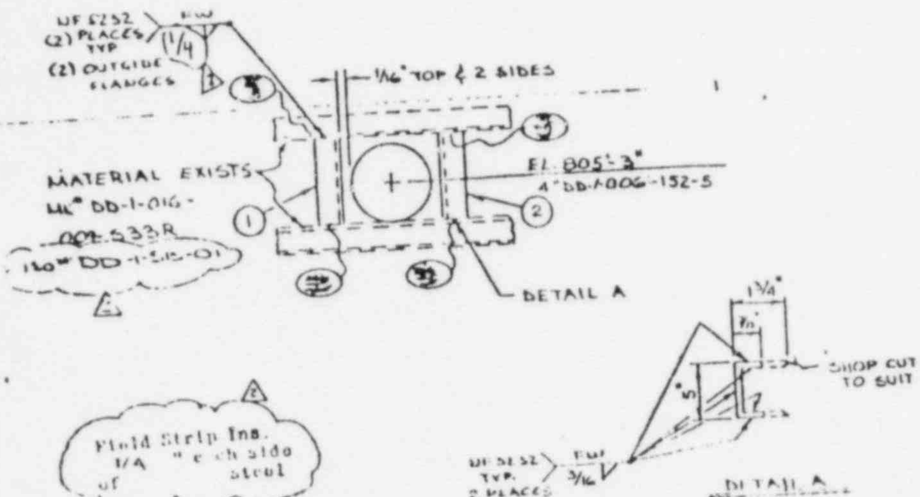
REV	DATE	DWN	APP	DESCRIPTION
△	1/5/78			ISSUED FOR CONST
△1				I.E.C. F.W.-4, CLASS CODE WAS B31.1-5 REVISED PER ITT REV. 1
△2	10-17-79			REV'D AS NOTED ~ PER ITT REV. 2 SEE NOTE #4

CUSTOMER: Texas Utilities Service, Inc.
ORDER OR CONT. NO. CP-0046
JOB NAME: Comanche Peak 1 & 2
MARK NO. DD-1-006-064-S35R
SKETCH NO.
SHEET 1 OF 1 REV. 2

NOV 2 1979

Pg 3 of 5

NOTE: MATERIAL & WELDS UPGRADED TO NF STANDARDS.



ITEM NO.	MATERIALS & OPERATIONS	QUAN	SHIP
	SEISMIC PIPE RESTRAINT CONSISTING OF:	ONE	
	MATERIAL EXISTS		
1	C5x6.7, (SA-36) 0'-4 9/16" Long, TW-38	1	
2	C5x6.7 (SA-36) 0'-4 9/16" Long, Detail A TW-38	1	
	SEISMIC ASSEMBLY SKETCH & ENGINEERING	1	
	BUNDLE & TAG	1	
	MARK DD-1-006-064-S33R		
	Apply one coat of Carbo Zinc #11 to above mat'l except th'ds which shall be coated w/a rust preventative.		

THIS DOCUMENT AFFECTED BY DESIGN CHANGES

INFORMATION COPY PPRV

Approved By: OPP
Date: 4/1/75

FOR MATERIALS AND OPERATIONS SEE SKETCH NO. SHEET OF

Brown & Root, Inc.

CONDITIONS	Fx	Fy	Fz	Mx	My	Mz
DESIGN						
NORMAL & UPSET						
EMERGENCY						
FAULTED						

REF. DRAWING NUMBERS

PIPE: AH-06-04 REV. 15 ELECT:

STEEL: HVAC:

REV	DATE	DWN	APP	DESCRIPTION
				ISSUED FOR CONST.
1				LICENSE CLASS CODE HAS BEEN REVISED PER ITT REV 1
				REVD AS NOTED PER ITT REV 2
2		JW		SEE NOTE #4

CUSTOMER Texas Utilities Services, Inc.
ORDER OR CONT. NO. CP-0046
JOB NAME Comanche Peak 1 & 2
MARK NO. DD-1-006-064-S33R
SKETCH NO.
SHEET 1 OF 1 REV. 2

LOCATION PLAN

THIRD PARTY INSPECTION
CODE CLASS: ASME III-3

CPSES DOCUMENT CONTROL CENTER

NOTES
1) All tolerances in accordance with Q.P. #2A001 U.N.O.
2) Fab. Procedure is PH-101N-4
3) All products designed in accordance with EPL File No.1 Rev. 9

C.H.T. Iso.
I.P.D. Iso. DD-1-SB-03 REV 5
Data Point
Pipe Mat'l. SA 106 GR.B
Insul. 1" Bldg. S.B

4) "This hanger to be fabricated, erected, and documented to ASME section III requirements."

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

COMPONENT MODIFICATION CARD (CMC)

SERIAL NO. № 11642

(1) APPLICATION: PIPE SUPPORT WELD MOD. [X] Q [X] NON-Q [ ] DESIGN CHANGE/~~DEVIATION~~ [ ]

(2) DWG. NO. ITT-R2 BRH-R2 DD-1-006-064-S35R

(3) LINE NO./COMPONENT NO. DD-1-006-064-S35R

(4) REASON FOR CHANGE: INTERFERENCE

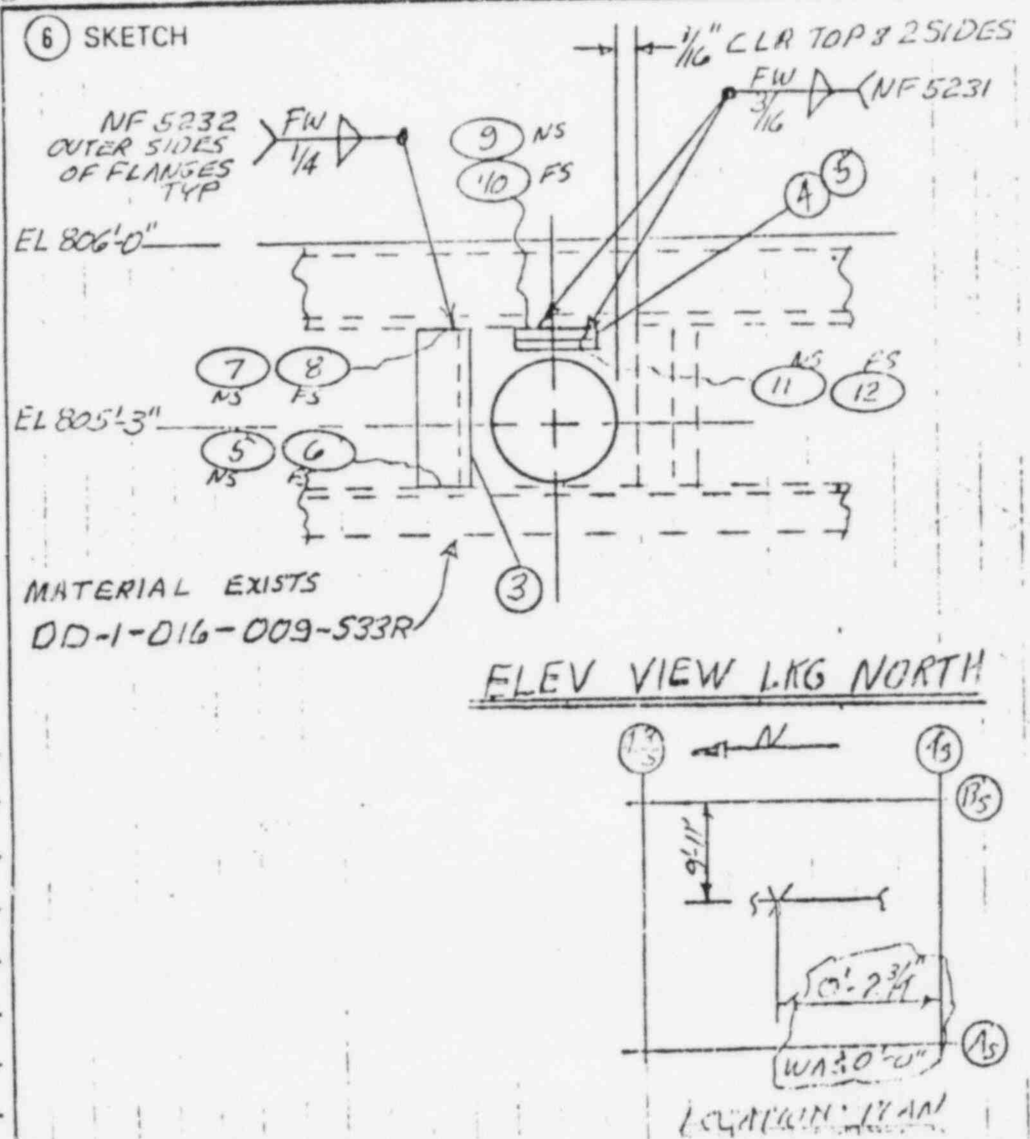
150# DD-1-SB-02-REV 5

(5) INSTRUCTIONS:

REMOVE FW 1-4

& SCRAP ITEM 1&2

(6) SKETCH



ADD FW 5-12

ITEMS

3 C5×6.7×0'-5 1/4" LG (SA-36)

4 PL 1/2"×3"×0'-5" LG (SA-36)

5 PL 3/4"×3"×0'-4 1/2" LG (SA-36)

(7) REQUESTED/PREPARED BY:

LARRY TOWNLEY
NAME

PIPE SUPPORT, CONST
DEPT.

(8) APPROVED BY: [signature] 7 DEC 7? DATE

DATE

DATE

DATE

DATE

DATE

(9) DISTRIBUTION | DCC CNTL NO. | QTY

ISSUED BY DCC

OMANCHE PEAK STEAM
LECTRIC STATION (CPSES)

COMPONENT MODIFICATION CARD (CMC)

SERIAL NO. № 11642R-1

(1) APPLICATION: PIPE SUPPORT — WELD MOD. [X] Q [X] NON-Q [ ] DESIGN CHANGE/~~DEVIATION~~ [ ]

(2) DWG. NO. ITT-R2 BRH-R2
DD-1-006-064-S35R

(3) LINE NO./COMPONENT NO.
DD-1-006-064-S35R

(4) REASON FOR CHANGE: INTERFERENCE
△1 REVISE MATL

150# DD-1-SB-02-REV5

(7) REQUESTED/PREPARED BY:
LARRY TOWNLEY
NAME
PIPE SUPPORT, CONST
DEPT.

(8) APPROVED BY:
[signature] 7 DEC 79
DATE
△ [signature] 5-23-80
DATE
△1 [signature] 5-23-80
DATE

DATE

DATE

DATE

(5) INSTRUCTIONS:

REMOVE FW 1-4

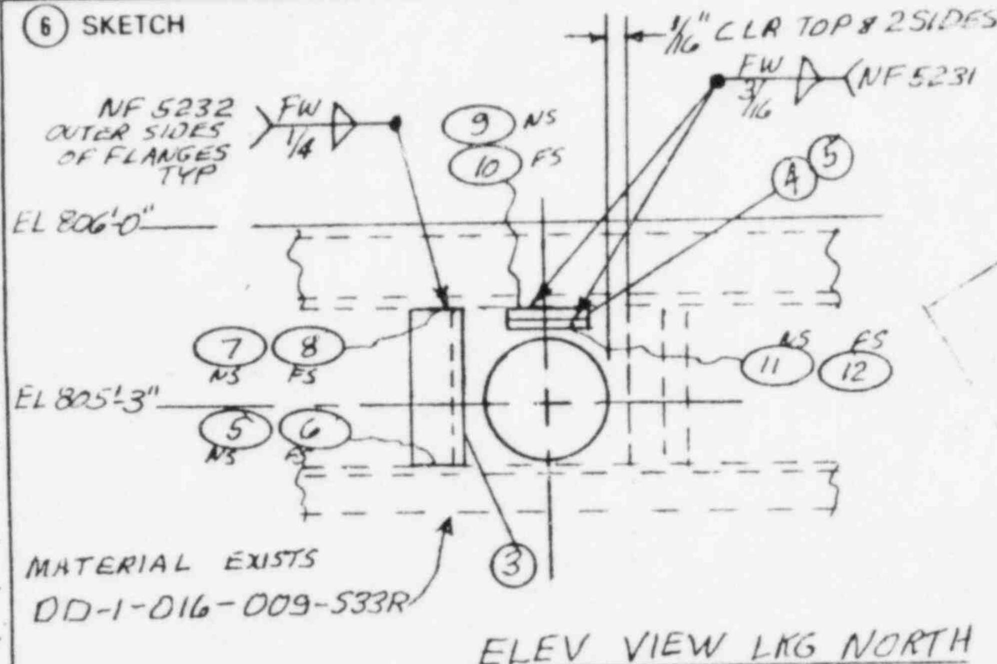
SCRAP ITEM 1&2

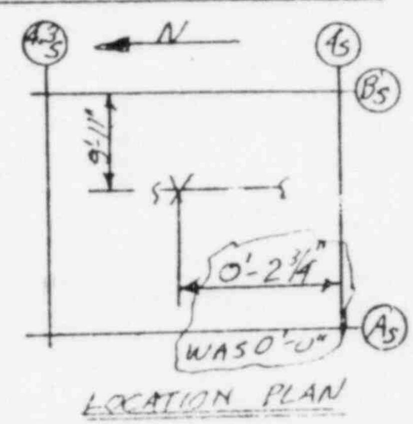
NCR M-2294 Pg. 5 of 5

ADD FW 5-12

ITEMS
C5x6.7x0'-5¼" LG (SA-36)
PL ½"x3"x0'-5" LG (SA 515 GR B) △1
PL ⅝"x3"x0'-4½" LG (SA36)

(6) SKETCH





QC PPRN

(9) DISTRIBUTION | DCC CNTL NO. | QTY

THIS REVISION VOIDS AND SUPERSEDES DOCUMENT SERIAL NO. CMC 11642R-0

QA RECORD

Brown & Root, Inc.

QUALITY ASSURANCE DEPARTMENT
NONCONFORMANCE REPORT (NCR)

(1) NCR No. M-2324

PROJECT CPSES JOB NO. 35-1195 PAGE 1 OF 3

(2) UNIT	STRUCTURE/SYSTEM	COMPONENT	TAG/ID NUMBER	LOCATION OR ELEVATION	RIR NO
1	Component Cooling	Component Support	H-CC-1-EC-007-018-3	Hanger Fab Shop	N/A

(3) NONCONFORMING CONDITION (3) DOCUMENT VIOLATED CP-QAP-16.1 REV 0 PARA 3.1.2 & 3.1.3 (4) TREND CATEGORY G-3

The above hanger has NCR M-2308 against it for material traceability. The 4x4x3/8" tube steel had heat number 05197 written on it and a hold tag applied. The number has now been changed to 051897. The disposition for NCR M-2308 has not been submitted to QA as of yet.

INFORMATION COPY PPRV

(5) REPORTED BY	(6) DATE	(9) REVIEW APPROVAL	(10) DATE
J. Patton	6/3/80		6/4/80
(7) PREPARED BY	(8) DATE	(11) ISSUED BY	(12) DATE
J. Patton	6/3/80	Clara Hackley	6/5/80

(13) DISPOSITION ASSIGNED TO	(14) DUE DATE	(15) CORRECTIVE ACTION REQUEST CAR NO.	(16) ASME CODE	CLASS
D. C. Frankum	6/17/80	☐ Required XX Not Required	XX Yes ☐ No	3

(17) DISPOSITION

REWORK ____ REPAIR ____ USE AS IS X SCRAP ____

Per MR. number 083021, correct heat number is 051897. Make correction to erroneous number.

(18) CONSTRUCTION REVIEW APPROVAL	(19) DATE	(20) QA/QC REVIEW APPROVAL	(21) DATE
	6/16/80		6/16/80
(22) ENG. REVIEW APPROVAL	(23) DATE	(24) ANI REVIEW APPROVAL	(25) DATE
	6/16/80		6/17/80

(26) VERIFICATION ☒ Satisfactory ☐ Unsatisfactory ☐ Not Req'd

(27) QA/QC ENGR/INSPR. VERIFICATION (28) DATE 6/18/80

(29) ANI CONCURRENCE (30) DATE 6/18/80

(31) QA REVIEW CLOSURE (32) DATE 6/18/80

(33) REMARKS

QA RECORD

RTN	QA REVIEW
L	KC 6-19-80
FILE NO. 151	
SUBFILE NO. CC-2324	

F01A-85-59

CC/184

INSPECTION REPORT

ITEM DESCRIPTION	IDENTIFICATION NO.	SYSTEM / STRUCTURE DESIGNATION
N F SUPPORT	2-CC-1-EC-007-018-3	

SPEC NO	REV	REF QC DOC & REV & CHANGE NO	MEASURE OR TEST EQUIPMENT NO
N/A	N/A	N/A	N/A

☐ IN PROCESS INSPECTION ☐ PRE INSTALLATION VERIFICATION ☐ INSTALLATION INSPECTION ☑ FINAL INSPECTION ☐ PRETEST INSPECTION

INSP. RESULTS

☑ INSPECTION COMPLETED, ALL APPLICABLE ITEMS SATISFACTORY

☐ INSPECTION COMPLETED, UNSATISFACTORY ITEMS LISTED BELOW

QC INSPECTOR DATE

ITEM NO	INSPECTION ATTRIBUTES	ACC	REJ	DATE	QC SIGNATURE
	DISPOSITION OF NCR M2324 has been Accomplished SAT				

REMARKS (DWGS, SPECS, ETC.)

INFORMATION COPY PPRV

RELATED NCR NO	I R CLOSED	DATE	SIGNATURE QC INSPECTOR
M2324	☐ N/A	N/A	

083041

RIR

NCCM-83-? Pg. 3 of 3

CF355

MATERIAL REQUISITION

30199 AFCO Steel Co RIR# 14515 DATE

QUANTITY	DESCRIPTION & TAG NUMBER	HEAT/LOT/SERIAL NUMBER	
5,766 lbs	%01 8pcs T.S. 4X4x 3/8 x 40' A-500 Grade B	HT# 051897	
11,879 lbs	%01 ShTS 14GA X60 X120 76pcs ASTM ~~A569?~~ ASTM A570 Grade D	HT # W10513	
250 pcs	%02 PL RD 3/4 X 20'-0 ASME SA36	HT # E92741	
50 pcs.	%2 PL RD 5/8 x 20'-0 Grade ASME SA36	HT # W10431	
~~7,500 lbs~~	~~%730 pcs PL .125 x 60 x 120 Grade D A570~~ Void DD 5-27-80	~~HT # 5 91916~~	
	IRON Fab		

INFORMATION COPY PPRV

Q C Stock color code orange

RECEIVED | AUTHORITY | ISSUED

For Bob Forest

SUPT OR FOREMAN | WAREHOUSEMAN

REQUISITIONER

QA RECORD

Brown & Root, Inc.

QUALITY ASSURANCE DEPARTMENT
NONCONFORMANCE REPORT (NCR)

(1) NCR No. M-2312

PROJECT CPSES   JOB NO. 35-1195   PAGE 1 OF 7

(2) UNIT	STRUCTURE/SYSTEM	COMPONENT	TAG ID NUMBER	LOCATION OR ELEVATION	RIR NO.
N/A	N/A	N/A	See Below	Hanger Fab Shop	N/A

(3) NONCONFORMING CONDITION
(3) DOCUMENT VIOLATED CP-CPM-6.9D REV 0 PARA 2.5.4 2.5.5
(4) TREND CATEGORY M-10

During surveillance the following was found:

1. Tube steel 6x6x½ has 3 heat numbers marked on it; 389NTA, NT389 and 389NT. (one piece)
2. Tube steel 6x6x½ has 2 heat numbers marked on it; 389NTA and 389NT. (Two pieces)
3. I beam W6x16 has 2 heat numbers marked on it; 64819 and 61819. (One piece)
4. Tube steel 8x8x½ marked NT132 and also marked at another location NT117 over NT132. (One piece)
5. Tube steel 8x6x½ marked 3185NT and at another location marked 3185RB. (One piece)
6. Tube steel 6x6x3/8 marked 734NT and at another location is marked 734. (~~Two~~ pieces) Three GMB 6-18-80

Hold tags applied

(5) REPORTED BY	(6) DATE	(9) REVIEW/APPROVAL	(10) DATE
Keith Kirkpatrick	5/31/80	[signature]	6/3/80
(7) PREPARED BY	**(8) DATE**	**(11) ISSUED BY**	**(12) DATE**
Keith Kirkpatrick	5/31/80	[signature]	6/3/80

(13) DISPOSITION ASSIGNED TO	(14) DUE DATE	(15) CORRECTIVE ACTION REQUEST CAR NO.	(16) ASME CODE CLASS
D. C. Frankum	6/14/80	☐ Required XX Not Required	XX Yes ☐ No

(17) DISPOSITION
REWORK ______ REPAIR ______ USE AS IS 3,4,5&6 SCRAP 1 & 2

See attached for disposition.

QA RECORD
INFORMATION COPY
REVIEW 6/18/80
SUBFILE NO. M-2312
PERM

(18) CONSTRUCTION REVIEW/APPROVAL	(19) DATE	(20) QA/QC REVIEW/APPROVAL	(21) DATE
H Bradford	6/12/80	[signature]	/ /
(22) ENG. REVIEW/APPROVAL	**(23) DATE**	**(24) ANI REVIEW/APPROVAL**	**(25) DATE**
Richard [signature]	6/12/80	[signature]	6/17/80

(26) VERIFICATION
☑ Satisfactory ☐ Unsatisfactory ☐ Not Req'd

(27) QA/QC ENGR/INSPR VERIFICATION: [signature] (28) DATE 6/18/80

(29) ANI CONCURRENCE: Stephen R [signature] (30) DATE 6/18/80

(31) QA REVIEW/CLOSURE: [signature] (32) DATE [illegible]

(33) REMARKS
See attached copy of RIR'S ~~for shop~~ ~~cut~~ ~~Records~~ GMB 6-18-80 for verification of disposition. [initials] 6-17-80

FOIA-85-59

CC/185

Bennett Form BR114

Disposition to
NCR M-2312

pg. 208
NCR-2312

Item 1: Scrap this material.

Item 2: Scrap this material.

Item 3: The W6x16 wide flange beam is stamped with heat number 64819. Documentation in the QA Vault shows this material received on MRR 96520 and verified by RIR 13708. Correct paint marking "61819" to read "64819".

Item 4: This tube steel is stamped with MIC number NT117. Documentation in the QA Vault shows this material received on MRR 92199 and verified by RIR 12161. Remove paint marks "NT132" and "NT132", and repair primer paint as required.

Item 5: This tube steel is stamped with MIC number 3185NT. Documentation in the QA Vault shows this material received on MRR96418 and verified on RIR 13376. Remove paint mark "3185RB" and repair primer paint as required.

Item 6: This tube steel is ~~permanently marked~~ Stamped RB 6-12-80 with MIC number 734NT. Documentation in the QA Vault shows this material received on MRR 3968 and verified on RIR 9152. Remove paint marks "734" amd repair primer paint as required. Three pieces of steel have been identified.

[illegible] PEAK [illegible]

SHEET 1 OF 1

INSPECTION REPORT

M2312

ITEM DESCRIPTION	IDENTIFICATION NO.	SYSTEM / STRUCTURE DESIGNATION
N.F. SUPPORT material	N/A	N/A

SPEC NO.	REV.	REF Q.C. DOC & REV. & CHANGE NO.	MEASURE OR TEST EQUIP. IDENT. NO.
N/A	N/A	N/A	N/A

☐ IN PROCESS INSPECTION ☐ PRE INSTALLATION VERIFICATION ☐ INSTALLATION INSPECTION ☑ FINAL INSPECTION ☐ PRETEST INSPECTION

INSP. RESULTS

☑ INSPECTION COMPLETED, ALL APPLICABLE ITEMS SATISFACTORY — [signature] QC INSPECTOR — 7-18-80 DATE (6 CH 6-20-80)

☐ INSPECTION COMPLETED, UNSATISFACTORY ITEMS LISTED BELOW

ITEM NO.	INSPECTION ATTRIBUTES	SAT	UNSAT	DATE	QC SIGNATURE
	Items 1-6 on Disposition for NCR M2312 have Been Completed SAT.				

INFORMATION COPY

REMARKS (DWGS, SPECS, ETC.)

RELATED NCR NO.	I.R. CLOSED ☐	DATE	SIGNATURE
N/A	N/A	N/A	N/A (QC INSPECTOR)

RTN. 0 | QA FI | FILE NO. 6.6 | SUBFILE NO.

Brown & Root, Inc.

REPORT NO. 12161

QUALITY ASSURANCE
RECEIVING INSPECTION REPORT

UNIT	SYSTEM	COMPONENT	IDENTIFICATION/SPIN NO.	DWG./SPECIFICATION & REV.
1 & 2	MECH.	Pipe Hanger Stock	N/A	CE-H-2323 MS46A, Rev

P.O.	MRR	CHARACTERISTIC INSPECTION: QI-QAP 2.2-12 (11-27-79)
35-1195 30220	92199	SAT. [X] UNSAT. [ ] NCR ____ HOLD TAG ____
VENDOR	QR	APPARENT RESPONSIBILITY FOR UNSATISFACTORY ITEMS: B&R [ ] VENDOR [ ] TRANSPORTER [ ] N/A
NPSI Portland	N/A	DATE DEFICIENCY DISCLOSED ____

ITEM	QTY.	DESCRIPTION/REMARKS
002	500ft.	2½"X2½"X¼" Angle, MIC No's - 300ft. A35 & 200ft. NA-2
003	150ft.	2½"X2½"X3/8" Angle, MIC No. - NA246
005	20ft.	6"X6"X3/4" Angle, MIC No. - NA224
007	250ft	3/4" Round Bar, MIC No. - NR-279
008	500ft	1" Roung Bar, MIC No - R5
009	200ft	3in X 5.7# I-Beam, MIC No. - NW-436
010	300ft	W8" at 17lbs Channel, MIC No. - W5
013	500ft	2"X4"X¼" RECT. Tube, MIC No. - NT131
014	250ft	3"X3"X¼" Sq. Tube, MIC No. - T149
015	60ft	4"X6"X¼" Rect. Tube, MIC No. - NT206
016	100ft	8"X8"X¼" Sq. Tube, MIC No's. - 60ft. NT132 and 40ft. NT117
017	140ft	6"X10"X½" Rect. Tube, MIC No. - NT217
		This steel was measured & checked for ID markings Results Acceptable.
		For Class-2 Use, Items 2,3,5,7,8,9,10 are A-36, Items 13 Thru are A-500G (11-27-79)

INFORMATION COPY PPL
BROWN & ROOT, INC
RECEIVED
NOV 30 1979
FILES NOTED
QUALITY ASSURANCE

AUTHORIZED NUCLEAR INSPECTOR NOTIFICATION:

DATE: ____ TIME: ____ MEDIA: ____ N/A ✓ INIT. [initials]

ANI WITNESS: SAT. ____ ☆☆ UNSAT. ____ ☆☆ WAIVED ____ DATE ____

☆☆ ANI'S INITIALS REQUIRED

STORAGE LOCATION: Iron Fab Shop TYPE: "E"	QC ENGINEER/INSPECTOR: John H. [signature]	DATE: 27 Nov

Brown & Root, Inc.

REPORT NO. 13708

QUALITY ASSURANCE
RECEIVING INSPECTION REPORT

INDEXED

UNIT	SYSTEM	COMPONENT	IDENTIFICATION/SPIN NO.	DWG./SPECIFICATION & REV.
X	Q Stock	CHANNEL WIDE FLANGE	N/A	N/A

P.O. 35-1195 30153

MRR 096520

VENDOR AFCO Steel

QR N/A

CHARACTERISTIC INSPECTION: ~~QC I II~~ QI QAP 7.2-12

SAT. ☐ UNSAT. ☐ NCR _____ HOLD TAG _____

APPARENT RESPONSIBILITY FOR UNSATISFACTORY ITEMS:

B&R ☐ VENDOR ☐ TRANSPORTER ☐

DATE DEFICIENCY DISCLOSED _____

ITEM	QTY.	DESCRIPTION/REMARKS
4	25 PCS.	CHANNEL 10 X 20 X 20' ASTM A36 HT # 45381
19	11 PCS.	W 6 X 16 X 40' ASTM A36 (9 PCS.) HT # 64819 (2 PCS.) HT # 84109

BROWN & ROOT, INC
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MAR 18 1980
FILES NOTED
QUALITY ASSURANCE

Q
L pwh 3-18-80
8.7
13708

INFORMATION COPY
PPRV

S.W. 1268

AUTHORIZED NUCLEAR INSPECTOR NOTIFICATION:

DATE: _____ TIME: _____ MEDIA: _____ N/A — INIT. pwh

ANI WITNESS: SAT. _____ ☆☆ UNSAT. _____ ☆☆ WAIVED _____ DATE _____

☆☆ ANI'S INITIALS REQUIRED

STORAGE LOCATION: FAB Shop TYPE: E

QC ENGINEER/INSPECTOR: Danny W. Leigh DATE: 3-14-80

Brown & Root, Inc.

REPORT NO. 13376

QUALITY ASSURANCE
RECEIVING INSPECTION REPORT

ARMS INDEX

UNIT	SYSTEM	COMPONENT	IDENTIFICATION ~~SPIN NO~~ ~~DATE~~	DWG / SPECIFICATION & REV.
X	Q Stock	TUBE Steel	N/A	N/A

P.O. 35-1195 30141

MRR 096418

VENDOR NPS

QR N/A

CHARACTERISTIC INSPECTION: JWL 3/4/80 ~~QC III~~ GI GAP 7.2-12

SAT. [X] UNSAT. [ ] NCR _____ HOLD TAG _____

APPARENT RESPONSIBILITY FOR UNSATISFACTORY ITEMS:

B&R [ ] VENDOR [ ] TRANSPORTER [ ] N/A

DATE DEFICIENCY DISCLOSED _____

ITEM	QTY.	DESCRIPTION/REMARKS
33	140 L.F.	6 X 8 X 1/2 TUBE Steel ASTM A-500 GR B MIC # 3185NT Ht # C93096

BROWN & ROOT, INC.
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MAR 06 1980
FILES NOTED
QUALITY ASSURANCE

QA RECORD
RTN: X QA REVIEW: JWL 3/4/80
FILE NO: 8.1
SUBFILE: 13376

S.W. 12.29

AUTHORIZED NUCLEAR INSPECTOR NOTIFICATION:
DATE: _____ TIME: _____ MEDIA: _____ N/A ✓ INIT. Dick

ANI WITNESS: SAT. _____ ☆☆ UNSAT. _____ ☆☆ WAIVED _____ DATE _____
☆☆ ANI'S INITIALS REQUIRED

STORAGE LOCATION: Steel FAB TYPE: E

QC ENGINEER/INSPECTOR [signature] DATE 3/4/80

Brown & Root, Inc.

REPORT NO. 09152

QUALITY ASSURANCE
RECEIVING INSPECTION REPORT

7043-S--225

UNIT	SYSTEM	COMPONENT	IDENTIFICATION/SPIN NO.	DWG./SPECIFICATION & REV.
1&2	MECH	Stock For Hanger Assys	N/A	G-H2323 MS46A Rev.

P.O.	MRR #	CHARACTERISTIC INSPECTION: QI-QAP ~~QCI 1.1~~ 7.2-11 ~~Mem 2-7-79~~
CP-0046A.1	CP-3968	SAT. ☑ UNSAT. ☐ NCR _____ HOLD TAG _____

VENDOR	QR	APPARENT RESPONSIBILITY FOR UNSATISFACTORY ITEMS:
N.P.S. Industries, Austin	N/A	B&R ☐ VENDOR ☐ TRANSPORTER ☐ NA
		DATE DEFICIENCY DISCLOSED _____

ITEM	QTY.	DESCRIPTION/REMARKS
	660ft	4in. X 4in. X 3/8in Structural Tubing, A-500 Gr.-B
		160 ft. Mic No: 145NT, and 500ft. Mic No. 497NTA
	1000ft.	6in. X 6in. X 3/8in Structural Tubing, A-500 Gr.-B ~~Mem 2-7-79~~ 232
		720ft. Mic No: 814NT, 48ft. MIC #734NT, and ~~232~~ ft. Mic # 735N

QA RECORD
IDENTIFICATION
QA REVIEW
FILE NO.
SUBFILE NO.

BROWN & ROOT, INC
RECEIVED
FEB 15 1979
FILES NOTED
QUALITY ASSURANCE
COPY
PPRV

Shipping Notice - TX-SN-7211/TDA

AUTHORIZED NUCLEAR INSPECTOR NOTIFICATION:

DATE: _____ TIME: _____ MEDIA: _____ N/A ✓ INIT. JHM

ANI WITNESS: SAT. _____ ☆☆ UNSAT. _____ ☆☆ WAIVED _____ DATE _____

☆☆ ANI'S INITIALS REQUIRED

STORAGE LOCATION	QC ENGINEER/INSPECTOR	DATE
Warehouse "B" Hanger Yard TYPE: "E"	John H Mason	7 Feb 79

QC – 1.1/3-1

QA RECORD

Brown & Root, Inc.

QUALITY ASSURANCE DEPARTMENT
NONCONFORMANCE REPORT (NCR)

(1) NCR No. M-2303

PAGE 1 OF 4

PROJECT CPSES JOB NO. 35-1195

(2) UNIT	STRUCTURE SYSTEM	COMPONENT	TAG ID NUMBER	LOCATION OR ELEVATION	RIR NO.
2	CC/Aux. Bldg.	Sway Strut	CC-2-011-004-A73R	Aux. Bldg. 873'6"	N/A

(4) TREND CATEGORY M-~~10~~ 19

(3) NONCONFORMING CONDITION CP-CPM-6.9D REV 0 PARA 2.5.5

(3) DOCUMENT VIOLATED CP-CPM-6.9D-11 REV 0

CP-CPM-6.9F 0 1.0

NPSI strut, SRS-06-RO-CC-561/8, has been shortened per CMC-35189. Material traceability was not maintained when strut was cut. Fitup was not performed by use of scribe lines as needed for a socket weld. CMC does not list a C-C dimension, only an overall hanger dimension.

Hold tag applied

(5) REPORTED BY	(6) DATE	(9) REVIEW APPROVAL	(10) DATE
Sam Bell	5/29/80	K. M. Hunnicutt	6/3/80
(7) PREPARED BY	(8) DATE	(11) ISSUED BY	(12) DATE
Sam Bell	5/29/80	Thomas A. Gilliday	6/3/80

(13) DISPOSITION ASSIGNED TO	(14) DUE DATE	(15) CORRECTIVE ACTION REQUEST CAR NO.	(16) ASME CODE CLASS
D. C. Frankum	6/12/80	X Required ~~XX~~ Not Required S-41	XX Yes _ No

(17) DISPOSITION REWORK X REPAIR ____ USE AS IS ____ SCRAP ____ X DAC 6-3-80

Rework per CMC-36686, attached.
CMC-35189 R. 2 is void.

INFORMATION COPY PPRV

(18) CONSTRUCTION REVIEW APPROVAL	(19) DATE	(20) QA QC REVIEW APPROVAL	(21) DATE
David A. Custalow	6/5/80	K. M. Hunnicutt	6/5/80
(22) ENG REVIEW APPROVAL	(23) DATE	(24) ANI REVIEW APPROVAL	(25) DATE
N/AC#	6/5/80	Stephen K. Tinko	6/5/80

(26) VERIFICATION ✓ Satisfactory ☐ Unsatisfactory ☐ Not Req'd

(27) QA QC ENGR INSPR VERIFICATION: Greg M. Bruno (28) DATE 9/22/80

(29) ANI CONCURRENCE Stephen K. Tinko (30) DATE 9/22/80

(31) QA REVIEW CLOSURE (32) DATE 9/22/80

(33) REMARKS ARMS INDEXED DATE:

QA RECORD

RTN.	QA REVIEW
L	CA 9/23/80
FILE NO.	15.1
SUBFILE NO.	N-2303

CC/186

...E PEAK STEAM
...ATION (CPSES)

COMPONENT MODIFICATION CARD (CMC)

SERIAL NO. № 35189

...ION *PIPE SUPP'T.*

D MOD [ ] Q [✓] NON-Q [ ] DESIGN CHANGE/~~DEVIATION~~ [ ]

...NO. *...-004-AF... REV. ...*

...NE NO./COMPONENT NO.

...INSTRUCTIONS:

...OVE *NA*

MCRM-0303
...

NA

(7) ORIGINATOR
DAC / B. McDONALD
NAME

[✓] CPPE

[ ] ORIGINAL DESIGNER

(4) REASON FOR CHANGE:

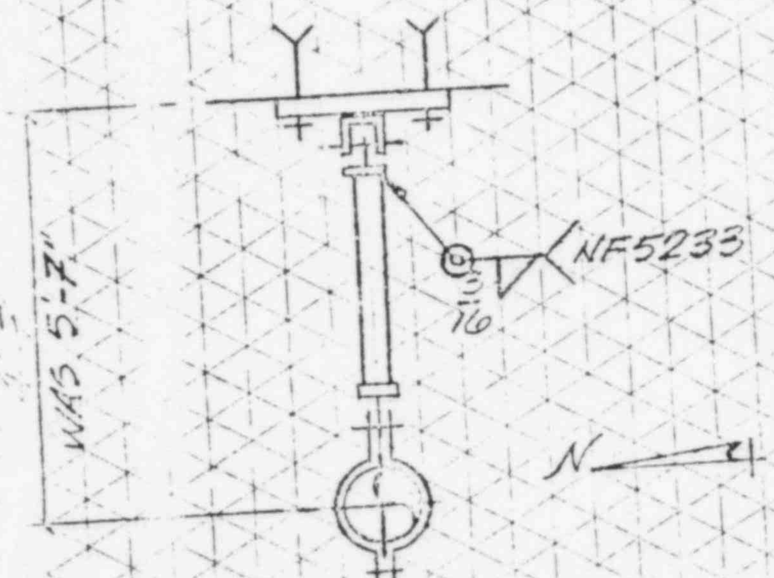
DESIGN ERROR

(8) APPROVED BY: *W.A. Custalow* *5-14-80*

	DATE
	DATE
	DATE
	DATE
	DATE
	DATE

INFORMATION COPY PPRV

(6) SKETCH



NOTE: REMOVE (1) COUPLING NUT, SHORTEN PIPE 1/2" & REWELD AS SHOWN ABOVE.

(9) DISTRIBUTION	DCC CNTL NO.	QTY
INFO COPY:		

(NCR M-2303 Pg. 3 of 4)

OMANCHE PEAK STEAM
LECTRIC STATION (CPSES)

COMPONENT MODIFICATION CARD (CMC)

SERIAL NO. N° 36686

(1) APPLICATION: PIPE SUPP'TS WELD MOD. [✓] Q [✓] NON-Q [ ] DESIGN CHANGE/~~DEVIATION~~ [ ]

(2) DWG. NO.: 2-011-004-A73R REV. 2

(3) LINE NO./COMPONENT NO.:

(4) REASON FOR CHANGE:
DESIGN ERROR
REF. NCR# M-2303

(5) INSTRUCTIONS:

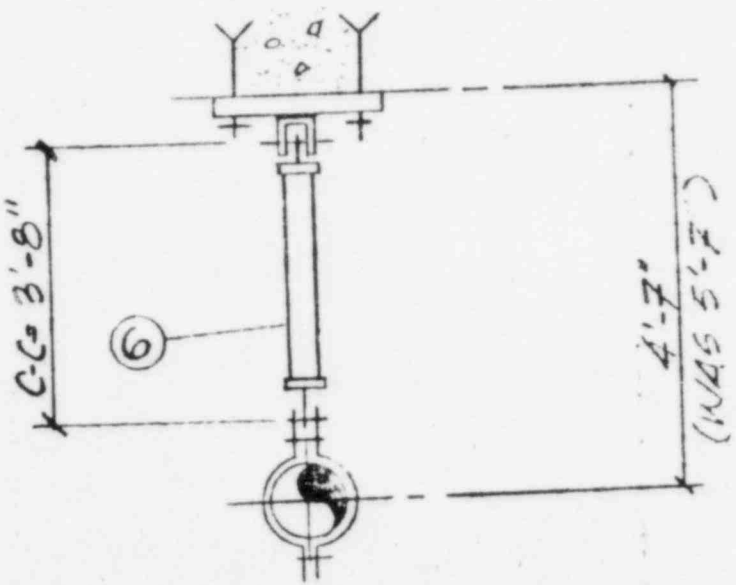
MOVE NA

AP ITEM# 3

NA

25-06-RO
WAY STRUT
C-C = 3'-8"

(6) SKETCH



FOR ENGINEERING
AND
OFFICE USE ONLY

(7) ORIGINATOR
DALE MCDONALD
NAME
[✓] CPPE
[ ] ORIGINAL DESIGNER

(8) APPROVED BY
D. A. Custalow 6-4-80
DATE
DATE
DATE
DATE
DATE
DATE

INFORMATION COPY PRM

(9) DISTRIBUTION

DCC CNTL NO.	QTY

Brown & Root, Inc.

INSPECTION REPORT

pg 4 of 4

PLANT CODE	SYSTEM CODE	COMPONENT CODE
1-4	5-10	11-16

CC-2-011-004-A73R

TAG/SPIN/IDENT NO						DRAWING/SPECIFICATION NO				SERIAL NO	
A	B	C	D	E	F	G	(Units)	H	(Units)	J	(Units)
17-55											

PUCHASE ORDER NUMBER	VEND CODE
56-69	70-73

MRR NUMBER	RIR NUMBER	VENDOR'S HEAT/LOT/BATCH NO	COUNT UNITS QUANTITY	PURCH'S OR NO	RLS/HOLD NO CODE # STATUS	INPUT DATE
74-79	80-85	86-95	96-105	106-111	112-121	122-127

PURPOSE AND TYPE OF INSPECTION/SURVEILLANCE: Close-out NCR M2303 as per Assigned disposition.

RESULTS OF INSPECTION / SURVEILLANCE: Item #3 has been Replaced w/ S&B 9/15/80 Item 6 SALVAged from Hng # BR-X-106-026-S53R. This Action completes disposition to NCR M 2303.

Hold TAG Removed

NCR NO. M 2303

QC ENGINEER/INSPECTOR

DATE 9/18/80

QUALITY CONTROL

HANGER INSPECTION REPORT

Report No. Q-1-0053

IDENTIFICATION

HANGER NO. (1) RH-1-088-065 C42R CLASS (2) 2 DATE OF INSP (3) Oct 28th 1980
DRAWING NO. REV (4) 0 CMC (5) 33213 A1 PHBP (6) N/A

MATERIAL ACCEPTABILITY

GRADE/TYPE (7)

Item #1, #4, #9 - SA 36
Item #8, #11 - A500 GR B
Item #3 - A307
Item #10 #13 - Vendor supplied

HT NO. (8)

N/A

INSTALLATION

DIMENSIONS (9) C. Patterson 10/28/80 Inspector Date
CONFIGURATION (10) C. Patterson 10/28/80 Inspector Date
FASTENERS (11) C. Patterson 10/28/80 Inspector Date

SWAY STRUT (12) C. Patterson 10/28/80 Inspector Date
LOC. PER DWG. (13) C. Patterson 10/28/80 Inspector Date

WELDING (Visual)

Fit-up Inspection (14) N/A Inspector Date

All weld per ASME Sec. III (15) C. Patterson 10/28/80 Inspector Date

ADDITIONAL NDE

(16) N/A Process NDEP Rev/Date
N/A Process NDEP Rev/Date

(17) N/A Inspector Date
N/A Inspector Date

COMMENTS: (18)

Location & Elevation determined by field eng.

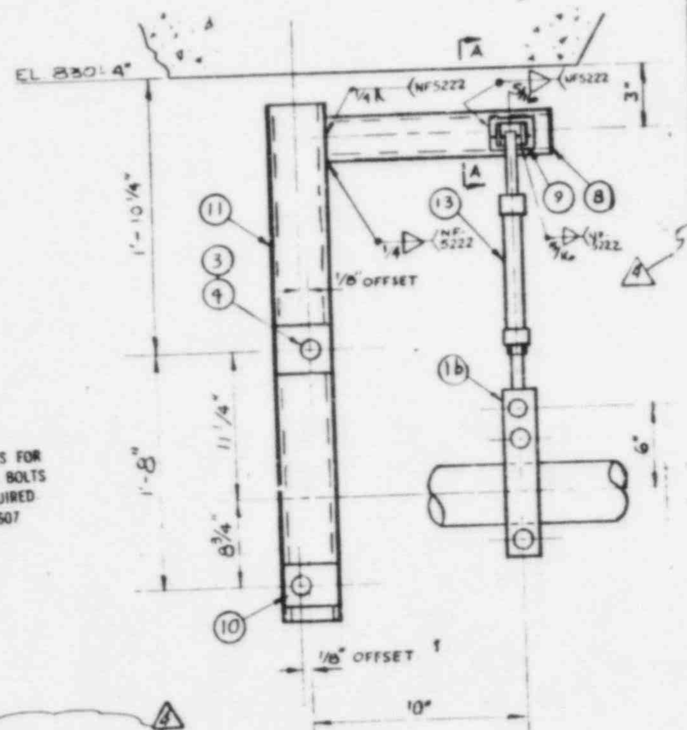
NCRs (19) *2342 - closed out.

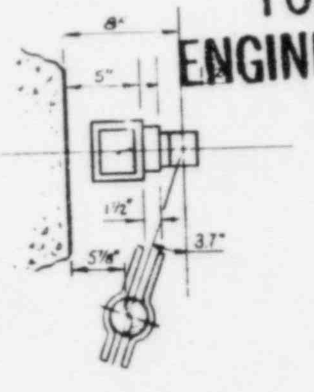
AS-BUILT

ITEM NO	NO REQ'D.	DESCRIPTION	WT.	ASME OR ASTM			MIC.
~~1~~	~~1~~	~~SRS-06-RO-CC-3'-1½" RIGID SWAY STRUT~~		—	CSS		
1b	1	SPC-06 030 DIPE CLAMP		SA36 / ~~SA36~~	CSS / P/S		
2	4	~~FB 4"×1"×4" - 1⅜"Ø HOLE IN CENTER~~		A-307	CSS		
3	4	FHN-12 HVY. HEX. NUT		SA36	CSS		
4	2	RFT-12 L=13" ROD		~~A-500 GRB~~	L		
~~5~~	~~1~~	~~TS 4×4×.375~~		~~A-500 GRB~~	L		
~~6~~	~~1~~	~~TS 4×4×.375 (BY FIELD)~~					
~~7~~	~~1~~	~~ASME III NAME PLATE~~					
8	1	T.S. 4×4×⅜" - 10½" LONG		A500 GRB	L		
9	1	FB 3×1/2×3"		SA-36	P/S		
10	4	F.B. 4×1×4" W/1⅜"Ø HOLES AS SHOWN		SA-36	P/S		
11	1	T.S. 4×4×⅜ - 3'-8¼" LONG		A500 GRB	L		
13	1	SRS-06-RO ( ) SWAY STRUT		—	CSS		

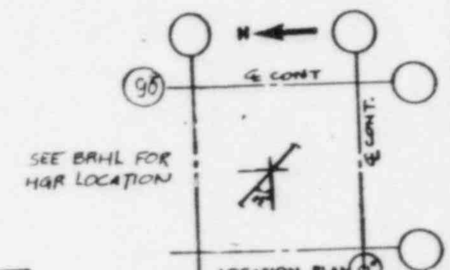
FOR OFFICE AND ENGINEERING USE ONLY

CPSES 35-1195 CONTROL COPY DOCUMENT CONTROL CENTER





SECTION A-A



LOCATION PLAN

ELEV. LOOKING NORTH EAST

NOTES
1) LOCKING DEVICES FOR HIGH STRENGTH BOLTS ARE NOT REQUIRED PER DCA 7607

VENDOR CERTIFIED
DRAWING REV. NO. 4
BY [illegible] DATE 2-1-84

TO. 5801

REV	DATE	DWN	CHK	APP	DESCRIPTION
1					ISSUE FOR CONST. F.M.'S 1-2
2	7-26	JW			REV'D AS NOTED REF CMC 33212 CK'D WEMS DELETED FW 1-2 DCA 7607 SEE NOTE 1, AS BUILT
3	7-21	RD			VENDOR CERTIFICATION, REF. [illegible] REVISED VENDOR CERT. REF CMPA 34306
4					REV'D AS BUILT, REF CMC 33212 REV 5

LOAD (LBS)	GRAV.	THER.	HYDRO	OBE	SSE	DESIGN LOADS NORMAL/UPSET	EMERG	FLTD	MVTS (IN.)	THER.	SEISMIC
UP									VERT.		
DN		•				106	86 / 126		N-S	.251	
N									E-W	.167	
S									PIPE CALC	AB-1-428 R.1	
E									DATA POINT	726	
W									SUPPT CALC	SC91-428	

REFERENCE DRAWINGS	REV.		
BRHL ISOMETRIC RH-1-RB-03	1	PIPING 2323-M1-258	
FAB. ISOMETRIC RH-1-RB-03	3	STRUCTURAL 2323-S1-2519	

195	SUPP'T ISO	NPS1 #RH-1-RB-03
REV.	ELECTRICAL 2323-E1-0500-04	10
REV.	H.V.A.C. 2323-M1-0550	4
	CODE/CLASS: III/2	PAINT CARBOZINC 11
	ZONE	3

OWNER TEXAS UTILITIES SERVICES INC.
PROJECT COMANCHE PEAK UNITS NO. 1 & 2
ENGINEER GIBBS & HILL INC.

CPSES 35-1195

Brown & Root, Inc.
HOUSTON, TEXAS

DRAWN	DATE	CHK'D	DATE	APPV'D	DATE
RD	7-17-79	[illegible]	7/19/79	[illegible]	7.20.79

P.O. NO. CP-0046 A.1 — MFG. REL. TC-211
PRODUCTION ORDER — SERIAL NUMBER — SHEET 1 of 1
2167 — MK. NO RH-1-005-009-C42R — REV. 4

NPS FORM 103 2/78

RH-1-005-009-C 42R
HANGER NUMBER

MATERIAL IDENTIFICATION LOG

Mat'l Spec	Material Description	Quantity	Heat/ID Number	Salvaged Hanger Number (where applicable)	QC Verification	Date
	STRUT # SI-2-009-406-342R		IT#13	TOBECOME RH-1-005-009-C42R		
	DUE TO NCR # 2362 ON			ORIGINAL	LW	10-23-80
	IT 10	1		VENDOR SUPC	Cyp	10/28/80
A500 GrB	IT # (8)	1	05897		Cyp	10/28/80
SA-36	IT # (9)	1	4G3901		Cyp	10/28/80
A500GrB	IT # (11)	1	05897		Cyp	10/28/80

INFORMATION COPY PPRV

STRUT FABBED PER CHG 33212 Δ 102380

NEW STRUT FABBED CHD STRUT SCRAPPED PER L.W. 10/23/80
TRANSFERRED FROM PAGE #1 OF NCR-2362 (COPY IN PKG.).
TRANSFERRED BY FB 10/28/80 Cyp-QCI - 10/28/80

RH-1-005-009-C42R
HANGER NUMBER

SWAY STRUT
MODIFICATION ONLY MATERIAL IDENTIFICATION LOG

Mat'l Spec	Material Description	Quantity	Heat/ID Number	Salvaged Hanger Number (where applicable)	QC Verification & Date	Notes
SRS-06	Bulk Strut #1	3539-1-	370 6	0338WP, To Bec	ome RH-1-005-	009-C42R
item #23	per cmc 332	12 Rev. 3	Ye =	2'3"	[signature] 6-12-82	

INFORMATION COPY PPRV

Falled strut per cmc JWB 6-12-82

Figure 16.1-1

BROWN & ROOT, INC. INDEXED
Quality Assurance Department
Nonconformance Report (NCR)
CPSES-35-1186

QA RECORD

NCR NO. M-2362

PAGE 1 OF 15

DRAWING/IDENTIFICATION	TAG/ID NUMBER	LOCATION OR ELEVATION	RIR NO.
Pipe Support	RH-1-005-009-C42R	Reactor # 1 823'	N/A

NONCONFORMING CONDITION

DOCUMENT VIOLATED: CP-CPM-6.9F REV. 0 PARA. 3.0 TREND CATEGORY M-19 ~~G-3~~

Pipe support strut has been modified per CMC-33212 by shortening strut useing 3000 pound coupling on about 4-23-80 (see WFML). Procedure CP-CPM-6.9F, VII, change notice number 2 was issued 4-28-80 to allow this type modification. The strut was modified prior to the 4-28-80 procedure issue. Therefore; strut is in an indeterminate condition as to alignment and fit-up and material traceability.

CMC directs relocating code plate which has been accomplished without QC or ANI verification or notification.

Hold tag applied

REPORTED BY: B. Snellgrove DATE: 6/18/80 | REVIEW/APPROVAL: R. M. [signature] DATE: 6-25-80 TIME: 9:15 a.m

DISPOSITION RESPONSIBILITY:	DISPOSITION ASSIGNED TO:	CAR NO.:	ASME CODE ITEM:
D. C. Frankum		S-41	X Yes ___ No

DISPOSITION:
REWORK ___ REPAIR ___ USE AS IS ___ SCRAP XX (7-16-80) RETURN TO VENDOR ___

CMC will be revised deleting original strut and a new strut will be fabricated on site. Since strut is only item on this hanger with shop weld, CMC will also indicate that ASME plate is to be removed and given to QC for disposition.

INFORMATION COPY

PPRV

CON. REVIEW/APPROVAL: Jeffrey W. Oliver DATE: 16-July-80
QA/QC REVIEW: DATE:
ENG. REVIEW/APPROVAL: N/ACH DATE: 7-16-80
ANI REVIEW: D.R. Weaver DATE: 7-18-80
QA/QC ENG/INSPR. VERIFICATION: [signature] DATE: 10-29-80
ANI CONCURRENCE: [signature] DATE: 10/30/80
QA REVIEW/CLOSURE: [signature] DATE: 10/30/80

QA RECORD
RTN. L | QA REVIEW CH 11-5-80
FILE NO. 15.1
SUBFILE NO. M-2362

FOIA-85-59

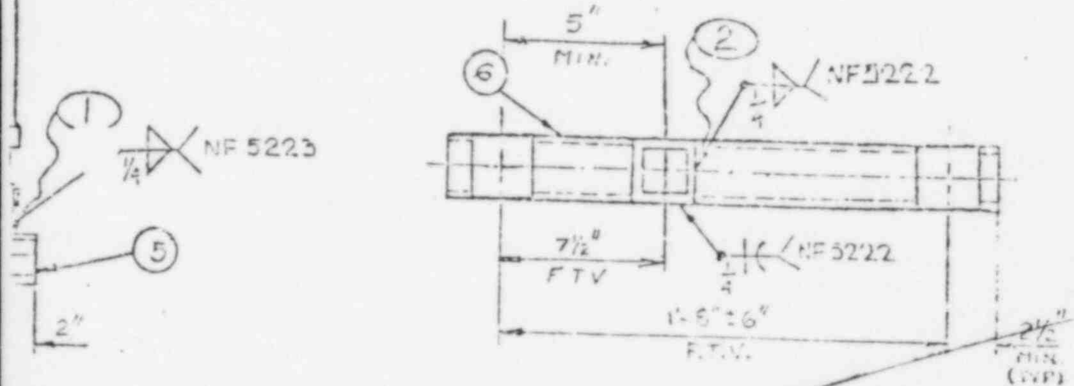
cc/188

NCR ... Pg. 2 of 15

ITEM NO	NO REQ'D	DESCRIPTION		WT.	ASME OR ASTM			MISC.
1	1	SRS-06-RO-CC = 5'-1½" RIGID SWAY STRUT	DRY	5-1-80	—	CSS		
	1	6 SPC-06-030 PIPE CLAMP	DRY	5-1-80	[illegible]	CSS		
* 2	4	~~[illegible]~~			SA36	[illegible]		
3	4	FHN-12 HVY. HEX NUT	DRY	5-1-80	A-307	CSS		
4	2	RFT-12 L=13" ROD	DRY	5-1-80	SA36	CSS		
* 5	1	~~TS 4x4x.375~~			A-500 GR B	L		
* 6	1	~~TS 5x5x.375 ...~~			A-500 GR B	L		
** 7	1	~~ASME ... PLATE~~						
8	1	per CMC 33212						
9	1	per CMC 33212	KSK	4-21-80				
10	4	per CMC 33212	KBK	4-21-80				
11	1	per CMC 33212	KBK	4-21-80				
12	1	per CMC 33212	KBK	4-21-80				
** 7	1	lined through by mistake BCM 4-21-80						

* per CMC 33212 BCM 4-21-80

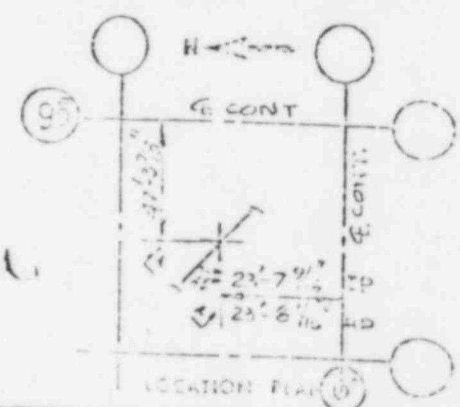
F.T.V. = FIELD TO VERIFY



SECTION B-B

For info only

A



ISSUED BY DCC

REV	PIPING	REV	ELECTRICAL	REV	CODE/CLASS	DRAWN	DATE	CHK'D	DATE	APPV'D	DATE
A	2323-MI-0255		[illegible]		[illegible]	[illegible]	7-17-79	[illegible]	7/19/79	[illegible]	7-23-79
REV	STRUCTURAL	REV	H.V.A.C.	REV	[illegible]						
0	2323-S1-0219	4	2323-...	2	ZONE						

...IES SERVICES INC. — P.O. NO. CP-0016.A1 — MFG. REF. TC-211

INSPECTION REPORT

...Y UN... NO... — PRODUCTION GAUGE — SERIAL NUMBER — SHEET

& HILL INC.

2167 ... -805-0... REV. 0

JOB NO. CHL 33212

Pg. 3 of 15

SHEET 2 OF 2

CLIENT/PROJECT USBS

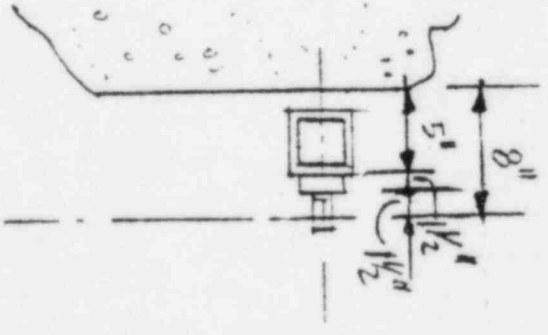
ENGR. GW DATE 4/15/80

SUBJECT RH-1-005-007-C4=17

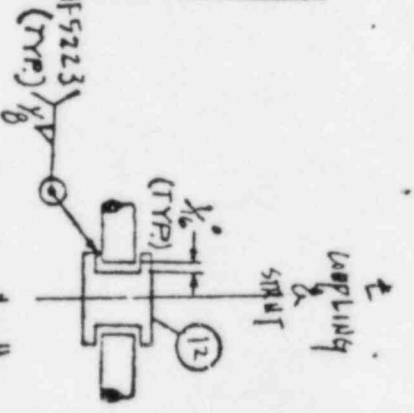
CHK'D. _____ DATE _____

for info only

SECT A-A



DETAIL "X"



SHT 1 OF 2

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

COMPONENT MODIFICATION CARD (CMC)

SERIAL NO. № 33212

(1) APPLICATION: PIPE SUPPORT WELD MOD. [X] Q [X] NON-Q [ ] DESIGN CHANGE/DEVIATION [ ]

(2) DWG. NO. NPS # 2167 REV. 0
RH-1-005-009-C42R B&R REV. 0

(3) LINE NO./COMPONENT NO. N/A

(4) REASON FOR CHANGE:
REDESIGN AS PER FIELD CONDITION (HVAC DUCT & CONDUIT INTERFERENCE)

(7) ORIGINATOR
ERNEST U. WU / HEBERT
NAME
[X] CPPE
[ ] ORIGINAL DESIGNER

(5) INSTRUCTIONS:

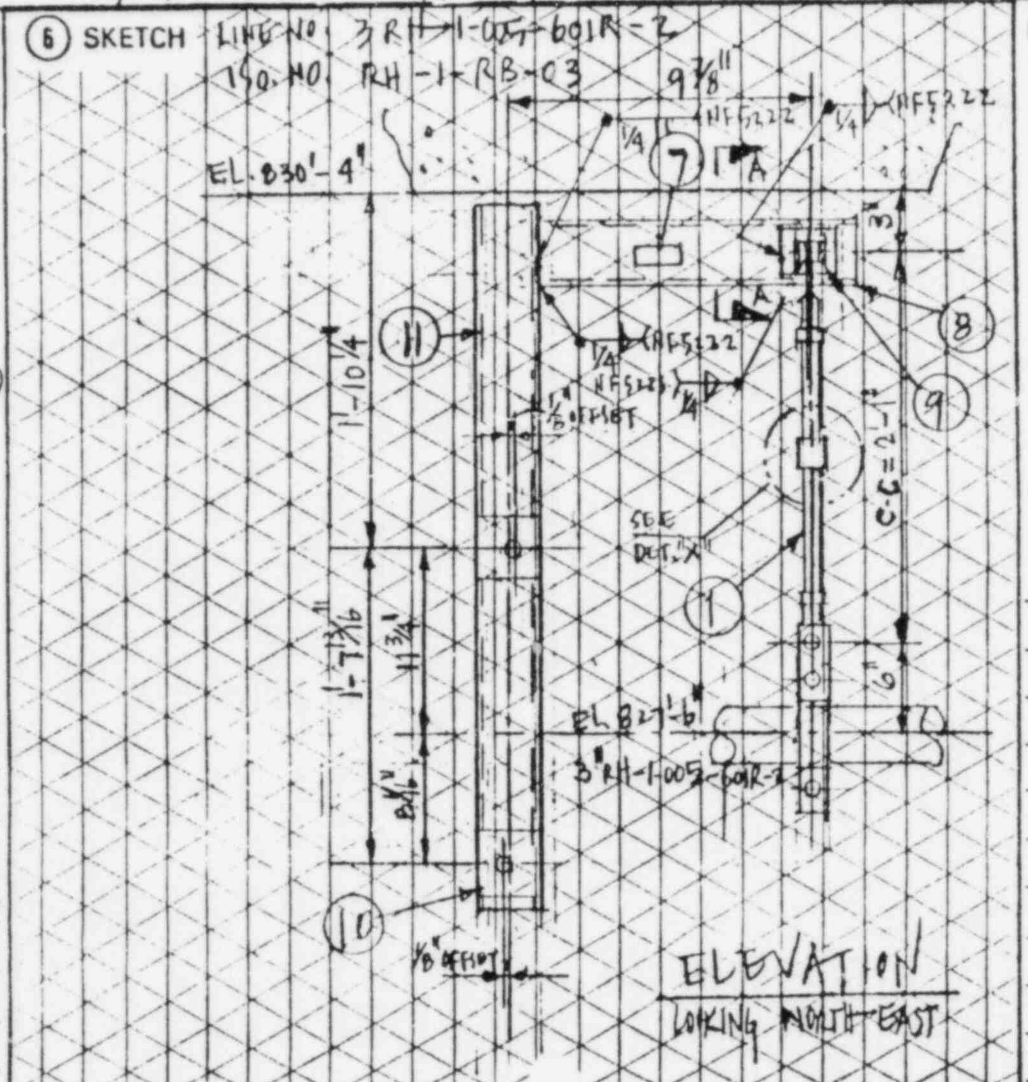
REMOVE [ ]

DELETE ITEMS:
(4) OF ITEM NO. (2)
(1) OF ITEM NO. (5)
REMOVE ITEM NO (7) FROM ITEM (5) AND RELOCATED TO ITEM NO. (8)
(1) OF ITEM NO (6)

ADD [ ]

ITEM NO.	NO. REQD	SIZES	MAT
8	1	TS 4x4 x.375 - 10 1/2" Lg	A500 GR B
9	1	FB 3" x 1 1/2" x 3"	SA-36
10	4	FB 4" x 1/2" x 4" W/ 13/16" Ø HOLES AS SHOWN	SA-36
11	1	TS 4x4 x.375 - 3'-8 1/4" Lg	A500 GR B
12	1	1" SOCKET WELD COUPLING	A105

(6) SKETCH



(8) APPROVED BY:

Ernest U Wu DATE 4/15/86

DATE

DATE

DATE

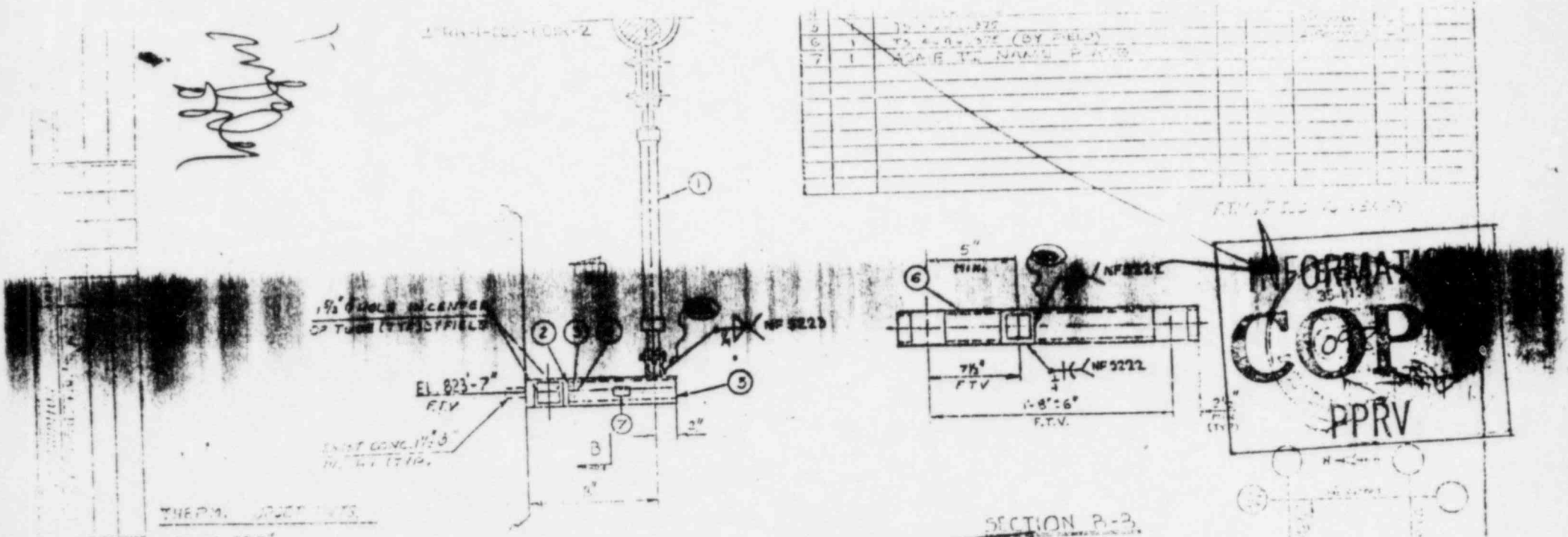
DATE

DATE

INFORMATION COPY

(9) DISTRIBUTION

DISTRIBUTION	DCC CNTL NO.	QTY
NPS1	INFO	2



SECTION A-A

SECTION B-B

TEXAS UTILITIES SERVICES INC.

PROJECT COMANCHE PEAK UNITS NO. 1 & 2

ENGINEER GIBBS & HILL INC.

WCA 11032
Pg. 6 of 15

WDC Serial No. _____

Drawing No. RH-1-005-009-CH2R

WELD FILLER MATERIAL LOG Weld No. NA

	WELD NO.	DATE	SIZE/CLASS	WELDER SYMBOL	WPS/ICN #	HEAT/LOT # or CODE #	AMT. ISS.	AMT. RT'D.	ISSUANCE APPROVAL
DRV 5-1-80	4/1	4/22/80	4S E7018	BGP	11032 T/O	A82394 026B204	30	18	Jerry Haynes PP155
DRV 5-1-80	N/A	4/23/80	3/32 X 5/64 4-22-80 E7018	BGP	11032 T/O	A64175 026B602	10	7	Gary G. Hill PP66

352	33212

WDC SERIAL #
DRAWING # [illegible]
LINE # NA

MULTIPLE WELD DATA CARD

ITEM NO.	WPS NO.	REV.	ICN	WELD FILLER MATERIAL	WELD NOS.	P NO.	FABRICATION CODE & CLASS/ ACC STD
NA	11032	7	0	E7018	NA	1-1	ASME III-2

NOTES: 1. APPLICABLE QC/ANI HOLD POINTS SHALL BE INDICATED BY CHECKMARK.
2. ANI INSPECTION POINTS INDICATED BY (X).
3. DENOTE SATISFACTORY INSPECTIONS BY AN "S"; UNSATISFACTORY INSPECTIONS BY A "U".

OPERATION #	OPERATIONS		
1	Support Number Identification	7	Spherical Bearings
2	Size, Configuration, Tolerance/Dwg.	8	All Welds/Dwg. & WPS (V.T.)
3	Material Correct/Dwg.	9	Installation Complete
4	Fasteners Correct & Complete	10	Final PT/MT (as required)
5	Location & Elevation/Dwg.	11	
6	Spring Can Stops Installed	12	

WELD NO	OPER-ATION	HOLDPOINTS WT	QC	ANI	PRODUCTION RELEASE CONST	SAT OR UNSAT	INSPECTION RESULTS (SIGN & DATE) QC OR WT	NDE CERT LEVEL	ANI	NDEP/ REV.	MT&E # CALIB DUE DATE
NA	1	NA	✓	NC		S	DRV 5-1-80	II			
NA	2	NA	✓	NC		S	DRV 5-1-80	II			
NA	3	NA	✓	NC		S	DRV 5-1-80	II			
NA	4	NA	✓	NC		S	DRV 5-1-80	II			
* NA	5	NA	✓	NC		S	DRV 5-1-80	II			
NA	6	NA	✓ [illegible]	NC			N/A				
NA	7	NA	✓	NC		S	DRV 5-1-80	II			
NA	8	NA	✓	NC		S	DRV 5-1-80	II		206 10-8-79	
NA	9	NA	NA	NC	✓ [illegible]	4-24-80					

Reviewed: [signature] 4-8-80

* Location Shot in by Field Engineers DRV 5-1-80

[signatures]

INFORMATION COPY PPRV

WE QC ANI

APPROVAL SIGNATURES SHALL BE AFFIXED IN THE LINE IMMEDIATELY BELOW THE LAST STEP SEQUENCE.

SHT 1 OF 2

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

COMPONENT MODIFICATION CARD (CMC)

SERIAL NO. № 33212 ⚠1

(1) APPLICATION: PIPE SUPPORT WELD MOD. ☒ Q ☒ NON-Q ☐ DESIGN CHANGE/~~DEVIATION~~ ☑

(2) DWG. NO. NPS "2167 REV. 0
SI-1-005-009-C42R B&R REV. 0

( ) LINE NO./COMPONENT NO. N/A

(4) REASON FOR CHANGE:
REDESIGN AS PER FIELD CONDITION
(HVAC DUCT & CONDUIT INTERFERENCE)
⚠1 REPLACE STRUT PER DCR 2362

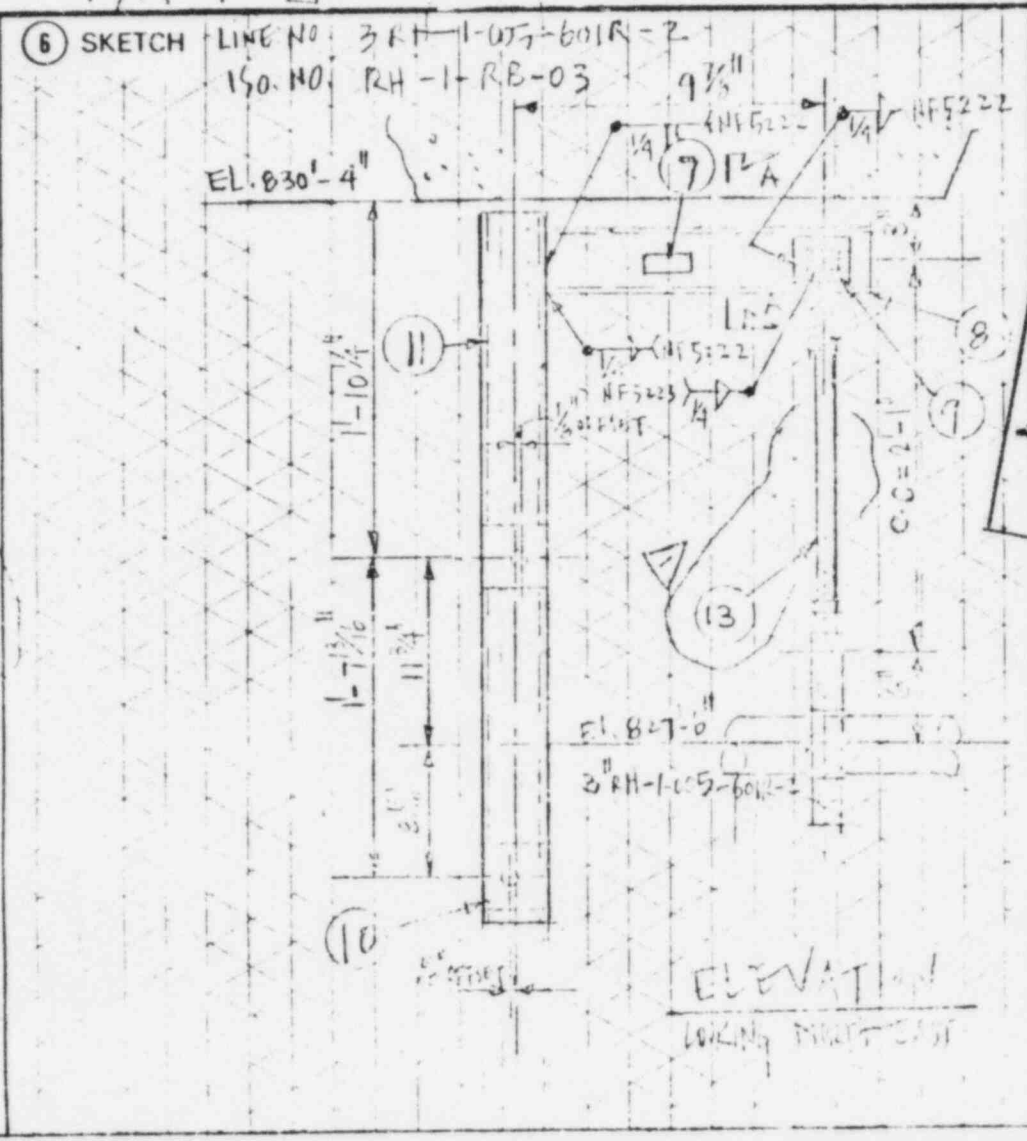
(7) ORIGINATOR
ERNEST A. WU /HEBERT
NAME
☒ CPPE
☐ ORIGINAL DESIGNER

( ) INSTRUCTIONS:

MOVE ☐

ITEM No. (2)

(6) SKETCH LINE NO: 3"RH-1-005-601R-2
ISO. NO: RH-1-RB-03



(8) APPROVED BY:

Ernest A Wu DATE 4/15/92
DATE
DATE
DATE
DATE
DATE

~~COPY~~ ~~INFORMATION~~ ~~COPY~~

(9) DISTRIBUTION

	DCC CNTL NO.	QTY
NPSI		
Ebasco Houston Off		

THIS REVISION VOIDS AND SUPERSEDES DOCUMENT SERIAL NO. 33212 REV. 1

JOB NO. ______

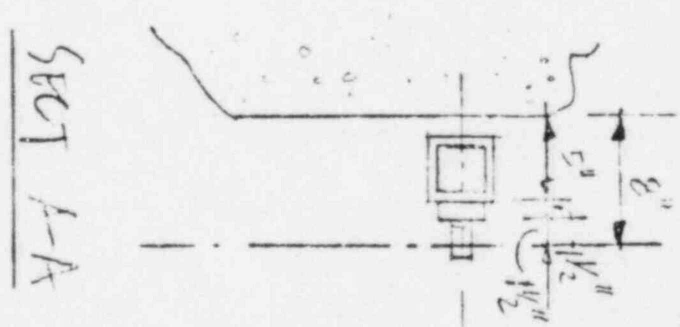
SHEET 2 OF 2

CLIENT/PROJECT SSES Pg. 9 of 15

ENGR. SW DATE 4/15/80

SUBJECT PH1-005-009-C43R

CHK'D. ______ DATE ______



NPS Form CQ 101

NCR M-2362
Pg. 10 of 15

Brown & Root, Inc.

INSPECTION REPORT

PAGE 1 OF 1

PLANT CODE	SYSTEM CODE	COMPONENT CODE
1-4	5-10	11-16

TAG SPIN IDENT NO (A B C D E F)	DRAWING SPECIFICATION NO (G (Units) H (Units))	SERIAL NO (J (Units))
17-55		
RH-1-005-009-C42R		

PUCHASE ORDER NUMBER	VEND CODE
56-69	70-73

MRR NUMBER	RIR NUMBER	VENDOR'S HEAT/LOT BATCH NO	COUNT UNITS QUANTITY	PURCH'S OR NO	RLS/HOLD NO CODE STATUS	INPUT DATE
74-79	80-85	86-95	96-105	106-111	112-121	122-127

PURPOSE AND TYPE OF INSPECTION/SURVEILLANCE: To verify the completeness of the disposition to NCR #2362.

RESULTS OF INSPECTION / SURVEILLANCE: The inspection Results to the disposition of NCR #2362 were found to be complete and satisfactorily accepted by the QCI. ~~[illegible]~~ CP 10/28/90 Stent has been repaired.

CORE PLATE HAS BEEN GIVEN TO Richard Wheeler Q.C. BCW 10/28/90

Hold Tag Removed.

INFORMATION COPY PPRV

NCR NO 2362

C. Patterson Level II QCI
QC ENGINEER INSPECTOR

DATE Oct. 28th 1990

QA-15.1-1-0-4-1-77

SHT 1 OF 2

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

NCR 2362 RB 11-14-85

PPRV

COPY

COMPONENT MODIFICATION CARD (CMC)

INFORMATION

SERIAL NO. № 33212 △1

(1) APPLICATION: PIPE SUPPORT WELD MOD. ☒ Q ☒ NON-Q ☐ DESIGN CHANGE/~~DEVIATION~~ ☑

(2) DWG. NO. NPS # 3167 REV. 0
RH-1-005-009-C42R B & R REV. 0

(3) LINE NO./COMPONENT NO. N/A

(4) REASON ~~FOR CHANGE~~:
REDESIGN AS PER FIELD CONDITION
(HVAC DUCT & CONDUIT INTERFERENCE)
△1 REPLACE STRUT PER NCR 2362

(7) ORIGINATOR
ERNEST U. WU / HERBERT
NAME
☒ CPPE
☐ ORIGINAL DESIGNER

(8) APPROVED BY:

	DATE
Ernest U Wu	4/15/80
Neff Oliver	16 - Jun - 80
	DATE
	DATE
	DATE
	DATE

(5) INSTRUCTIONS:

REMOVE ☐

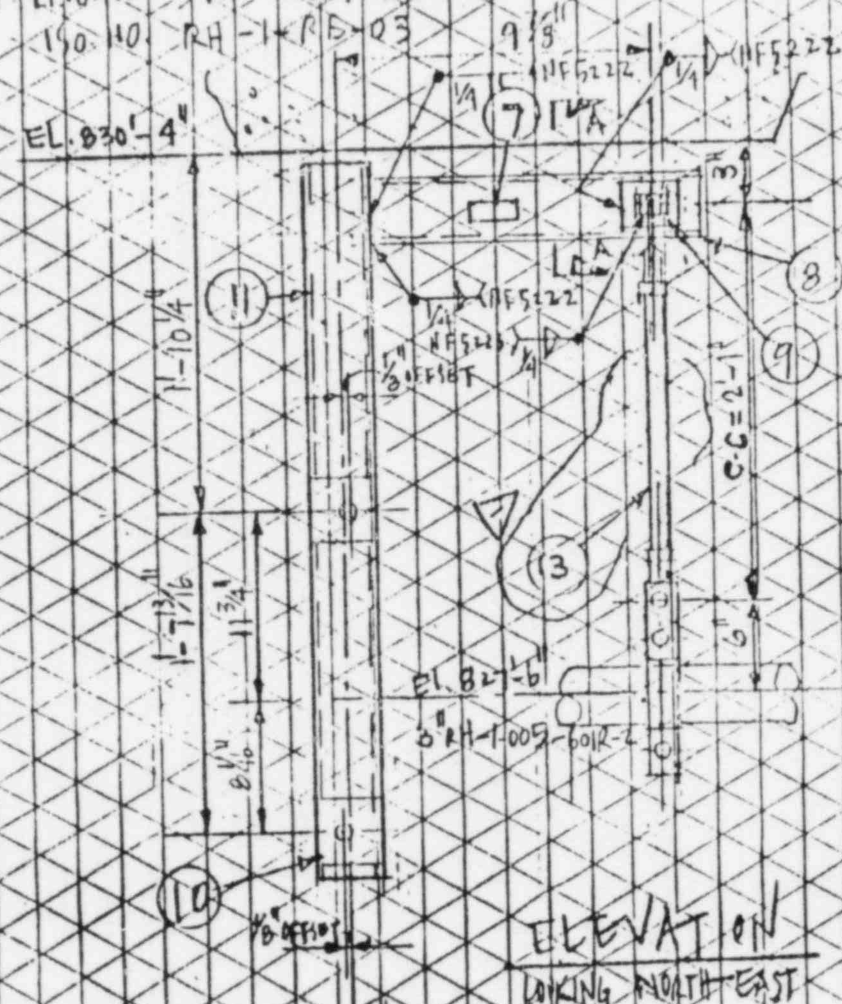
DELETE ITEMS:
(2) OF ITEM NO. (2)
ITEM NO. (5)
ITEM NO. (7) FROM ITEM
... RELOCATED TO ... (6)
OF ITEM NO. (6)
DELETE IT # 10, 12 △1
REMOVE IT "7 FROM IT" ...
... Q.C. PRESENT AND
... IT "7 TO Q.C. FOR DISPOSITION

ADD ☐

	...	...
1	TS 4 x 4 x .375 - 10 1/2"	A500 GR.B
	PL 3" x 1 1/2" x 3"	SA-36
4	PL 4" x 4" x 1/2 ... AS SHOWN	SA-36
1	TS 4 x 4 x .375 - 3'-8 1/4"	A500 GR.B
	~~...~~	...
1	SRS-06-10	

(6) SKETCH

LINE NO. 3RH-1-033-601R-2
ISO NO. RH-1-RB-03



(9) DISTRIBUTION

	DCC CNTL NO.	QTY
NPS I	INFO.	

THIS REVISION VOIDS AND SUPERSEDES DOCUMENT SERIAL NO. 33212 REV. 0

JOB NO.

SHEET 2 OF

CLIENT/PROJECT IPSES

SUBJECT RH-1-005-007-C 42R

ENGR. EW DATE 9

CHK'D. DATE

SECT A-A

NCR-23...

MULTIPLE WELD DATA CARD

DRAWING # ...
LINE # NA

ITEM NO.	WPS NO.	REV.	ICN	WELD FILLER MATERIAL	WELD NOS.	P NO.	FABRICATION CODE & CLASS/ ACC STD
NA	11032	7	0	E7018	NA	1-1	ASME III-2

NOTES: 1. APPLICABLE QC/ANI HOLD POINTS SHALL BE INDICATED BY CHECKMARK .
2. ANI INSPECTION POINTS INDICATED BY (X).
3. DENOTE SATISFACTORY INSPECTIONS BY AN "S"; UNSATISFACTORY INSPECTIONS BY A "U".

OPERATION #	OPERATIONS	#	OPERATIONS
1	Support Number Identification	7	Spherical Bearings
2	Size, Configuration, Tolerance/Dwg.	8	All Welds/Dwg. & WPS (V.T.) *
3	Material Correct/Dwg.	9	Installation Complete
4	Fasteners Correct & Complete	10	Final PT/MT (as required)
5	Location & Elevation/Dwg.	11	Verify removal of ASME nameplate per CMC 33212/1
6	Spring Can Stops Installed	12	

PRODUCTION RELEASE

WELD NO	OPERATION	HOLDPOINTS WT	QC	ANI	CONST	SAT OR UNSAT	INSPECTION RESULTS (SIGN & DATE) QC OR WT	NDE CERT. LEVEL	ANI	NDEP/ REV.	MT&E # CALIB DUE DATE
NA	1	NA	✓	NC		S	DRV 5-1-80	II			
NA	2	NA	✓	NC		S	DRV 5-1-80	II			
NA	3	NA	✓	NC		S	DRV 5-1-80	II			
NA	4	NA	✓	NC		S	DRV 5-1-80	II			
* NA	5	NA	✓	NC		S	DRV 5-1-80	II			
NA	6	NA	✓ NA	NC 1-20			N/A				
NA	7	NA	✓	NC		S	DRV 5-1-80	II			
NA	8	NA	✓	NC		S	DRV 5-1-80	II		20C 10-8-79	
NA	9	NA	NA	NC	√BLH	4-24-80					
Reviewed: CMurray 4-8-80											
NA	11	NA	✓	NC **							
Reviewed: CMurray 10-27-80											

* Location Shot in by Field Engineers DRV 5-1-80

** Hold Point #11 waived by ANI T. Harper per telecon 10-27-80 9:45 AM 10-27-80.

INFORMATION COPY PPRV

See Back

NE D.T. Whittaker 6-31-80 QC ANI

APPROVAL SIGNATURES SHALL BE AFFIXED IN THE LINE IMMEDIATELY BELOW THE LAST STEP IN EACH SEQUENCE.

* Operations 1-8 are Final Inspections.

ATION	INT	QC	ANI		UNSAT		NDE QC LEVEL	ANE	REV.	CALIB DUE DATE

STAY STRUT MODIFICATION
(Operations as Established Below)

B	Material added or deleted (document on MRS)
C	ID/Marking transfer prior to cutting
D	Acceptable WPS
E.1	Fit-up/Socket Engagement (as applicable)
E.2	
F	Final Surface/Dimensional Inspection (Reference Suppl. 6.9F-VII)
G	PT/NT VT 200 10-6-80
	Dwg. Rev./CNC NCR M232 CMC 33212 E.1

B
C WE 10-23-80
D WE 10-23-80
E WE 10-23-80
E N/A
F WE 10-24-80
G WE 10-23-80
H

WE QC ANI

MANUFACTURING RECORD SHEET THREADS OPSET (SAT)
BILL OF MATERIALS - SPOOL NO. WE 10-23-80

ITEM	QUANTITY/ LENGTH	SCHEDULE/ RATING	MATERIAL SPEC	TYPE/ GRADE	HEAT/CODE NUMBER	END PREP	APPLICABLE WELD NUMBERS	INSPECTOR INITIALS AND DATE
PL	1125	Required						

INFORMATION COPY PPRV

NO.	OPERATION	B&R QC	ANI	B&R QC INIT	DATE	ANI INIT	DATE
1	DESIGN TRACEABILITY						
2	FINAL DIM'S/SURFACE COND. IDENT. REV						

ACCEPTANCE

B&R QA SIG. & DATE ANI SIG. & DATE

NCR-3321S
NCR-3362

(NCR... Pg. 14 of 15)

WDC SERIAL # 3887
DRAWING # RH-1-CS-09-C43R
LINE # NA

MULTIPLE WELD DATA CARD

ITEM NO.	WPS NO.	REV.	ICN	WELD FILLER MATERIAL	WELD NOS.	P NO.	FABRICATION CODE & CLASS/ ACC STD
NA	11032	7		E7018	NA	1-1	ASME III-2

NOTES: 1. APPLICABLE QC/ANI HOLD POINTS SHALL BE INDICATED BY CHECKMARK.
2. ANI INSPECTION POINTS INDICATED BY (X).
3. DENOTE SATISFACTORY INSPECTIONS BY AN "S"; UNSATISFACTORY INSPECTIONS BY A "U".

OPERATION #	OPERATIONS	#	OPERATIONS
1	Support Number Identification	7	Spherical Bearings
2	Size, Configuration, Tolerance/Dwg.	8	All Welds/Dwg. & WPS (V.T.) *
3	Material Correct/Dwg.	9	Installation Complete
4	Fasteners Correct & Complete	10	Final PT/MT (as required)
5	Location & Elevation/Dwg.	11	
6	Spring Can Stops Installed	12	

PRODUCTION RELEASE

WELD NO	OPERATION	HOLDPOINTS WT	QC	ANI	CONST	SAT OR UNSAT	INSPECTION RESULTS (SIGN & DATE) QC OR WT	NDE CERT. LEVEL	ANI	NDEP/ REV.	MT&E # CALIB DUE DATE
NA	1	NA	✓	NC							
NA	2	NA	✓	NC							
NA	3	NA	✓	NC							
NA	4	NA	✓	NC							
NA	5	NA	✓	NC							
NA	6	NA	✓	NC							
NA	7	NA	✓	NC							
NA	8	NA	✓	NC							
NA	9	NA	NA	NC	✓						
Reviewed:	T. Beaudette 10/28/80										
						HIR-	R-1-0053				

WE QC ANI

APPROVAL SIGNATURES SHALL BE AFFIXED IN THE LINE IMMEDIATELY BELOW THE LAST STEP IN EACH SEQUENCE.

* Operations 1-8 are Final Inspection.

NCR MCA362
Pg. 15 of 15

WDC Serial No. [illegible]87

Drawing No. RH-1-005-009-CH2R

WELD FILLER MATERIAL LOG

Weld No. NA

WELD NO.	DATE	SIZE/CLASS	WELDER SYMBOL	WPS/ICN #	HEAT/LOT # or CODE #	AMT. ISS.	AMT. RT'D.	ISSUANCE APPROVAL
N/A	4/22/80	1/8 / E7018	BGP	11032 / 7/0	A82394 / 02bB204	30	18	Jerry Haynes / P155
N/A	4/23/80	3/32 / E7018	BGP	11032 / 7/0	A64175 / 02bB602	10	7	Gary G. Hill / P166
E1	10-23-80	3/32 / E-7018	AWS	11032 / 7-1	603875 / 02-4B607	5	0	Roger D. Trotter / P110

INFORMATION COPY PPRV

Figure 16.1-1

QA RECORD

BROWN & ROOT, INC.
Quality Assurance Department
Nonconformance Report (NCR)
CPSES-35-1195

NCR NO. M-2386 R. 1

PAGE 1 OF 4

DRAWING/IDENTIFICATION	TAG/ID NUMBER	LOCATION OR ELEVATION	RIR NO.
SW-1-027-005-J03R	SW-1-027-005-J03R	Service Water 798'9"	N/A

NONCONFORMING CONDITION

DOCUMENT VIOLATED: QAP-16.1 REV. 1 PARA. N/A TREND CATEGORY M-23

Sway strut, adjustable end has been replaced from unknown source while on hold (NCR M-2341). Disposition of initial NCR has not been determined, hold tag had been applied.

Revision 1:
To clarify disposition.

Hold tag applied

REPORTED BY:	DATE:	REVIEW/APPROVAL	DATE:	TIME:
Michal Norton	6/20/80	James C. Ryan	10/29/80	9:15 AM

DISPOSITION RESPONSIBILITY:	DISPOSITION ASSIGNED TO:	CAR NO.:	ASME CODE ITEM:
D. C. Frankum	J. J. Ryan		XX Yes ___ No

DISPOSITION:
REWORK ___ REPAIR ___ USE AS IS ___ SCRAP XX RETURN TO VENDOR ___

1. Remove and scrap eye rod assembly.

2. Crafts are to be instructed to the requirements of QAP-16.1.

CON. REVIEW/APPROVAL:	DATE:	QA/QC REVIEW:	DATE:
[signature]	10/29/80	[signature]	10/29/80
ENG. REVIEW/APPROVAL:	DATE:	ANI REVIEW:	DATE:
N/A	11-7-80		
QA/QC ENG/INSPR. VERIFICATION:	DATE:	ARMS INDEXED	
[signature]	12-9-80		
ANI CONCURRENCE:	DATE:		
[signature]	12-9-80		
QA REVIEW/CLOSURE:	DATE:		
[signature]	12-10-80		

QA RECORD

RTN.	QA REVIEW
L	1-6-85

FILE NO.

SUBFILE NO.

CC/189

INSPECTION REPORT

12/2/14

PLANT CODE	SYSTEM CODE	COMPONENT CODE
1-4	5-10	11-16

TAG/SPIN/IDENT NO.						DRAWING/SPECIFICATION NO.		SERIAL NO.
A	B	C	D	E	F	G (Units)	H (Units)	J (Units)
						SW-1-927-095-393R		
						17-55		

PURCHASE ORDER NUMBER	VEND CODE
56-69	70-73

MRR NUMBER	RIR NUMBER	VENDOR'S HEAT/LOT/BATCH NO.	COUNT	UNITS	PURCH'S QR NO.	RLS/HOLD NO.	CODE	INPUT DATE
			QUANTITY			STATUS		
74-79	80-85	86-95	96-105		106-111	112-121		122-127

PURPOSE AND TYPE OF INSPECTION/SURVEILLANCE: partial closure of NCR m-2386 rev 1.

RESULTS OF INSPECTION/SURVEILLANCE: Sway Strut has been modified and replaced per CMC 39981 per ATTACHED Documentation. THIS closes the disposition PART 1 of NCR m2386 Rev. 1

NOTE: ORIGINAL STRUT WAS SCRAPPED by CVAP but WAS NOT witnessed by QC. SEB 12/5/14

NCR NO. m-2386 R 1

Sam Bell
QC ENGINEER/INSPECTOR

12/12/14
DATE

13 3 of 4

Brown & Root, Inc.

INSPECTION REPORT

PLANT CODE 1-4	SYSTEM CODE 5-10	COMPONENT CODE 11-16	TAG SPIN IDENT NO (A B C D E F)	DRAWING SPECIFICATION NO (G Unit(s) H Units) 17-55	SERIAL NO (J Unit(s))
				SW-1-027-005-J03R	

PUCHASE ORDER NUMBER 56-69	VEND CODE 70-73

MRR NUMBER 74-79	RIR NUMBER 80-85	VENDOR'S HEAT/LOT/BATCH NO 86-95	COUNT UNITS QUANTITY 96-105	PURCH'S OR NO 106-111	RLS/HOLD NO CODE STATUS 112-121	INPUT DATE 122-127

PURPOSE AND TYPE OF INSPECTION/SURVEILLANCE: partial closure for NCR M-2386 Rev. 1

RESULTS OF INSPECTION / SURVEILLANCE: Part 2 of the disposition has been accomplished by instructing the craft foreman and General foreman on the requirements of CP-QAP-16.1 per the attached memo.

INFORMATION COPY PPRV

NCR NO. M-2386 Rev-1

J Patton
QC ENGINEER INSPECTOR

DATE 12/9/82

DAY (S/1) 1-3(7 11-77)

Brown & Root, Inc.

P.O. BOX 1001 GLEN ROSE, TEXAS 76043

34/3

MESSAGE	REPLY
To NCR M-2386 Rev-1	DATE
DATE 12/9/80	NCR M-2386 R.1 B-4 of 4
Purpose: To close NCRM-2386 R.1 part 2 of the disposition: The following personel received training on the requirements of CP-QAP-16.1. Instructor J. Patton - QC.	
- R.A. Letos A276 - General Forman	
Lonnie Holloway U869 - Forman	
BY J Patton	SIGNED

INSTRUCTIONS TO SENDER: 1. SEND TO JOB. FILE 2. SEND WHITE AND PINK COPIES WITH CARBON INTACT.

INSTRUCTIONS TO RECEIVER: 1. WRITE REPLY. 2. DETACH STUB. KEEP PINK COPY. RETURN WHITE COPY TO SENDER.

INFORMATION COPY PPRV

Figure 16.1-1

QA RECORD

BROWN & ROOT, INC.
Quality Assurance Department
Nonconformance Report (NCR)
CPSES-35-1195

NCR NO. M-2341 R.1

PAGE 1 OF 6

DRAWING/IDENTIFICATION	TAG/ID NUMBER	LOCATION OR ELEVATION	RIR NO.
SW-1-027-005-J03R	SW-1-027-005-J03R	Service Water 798'9"	N/A

NONCONFORMING CONDITION

DOCUMENT VIOLATED: QI-QAP-11.1-20 REV. 3 PARA. 3.1 TREND CATEGORY M-15

Support number SW-1-027-005-J03R, sway strut has been bent 10° off centerline, on adjustable end (West side) by unknown causes.

Revision 1:
To clarify disposition.

Hold tag applied

REPORTED BY:	DATE:	REVIEW/APPROVAL	DATE:	TIME:
Mike Norton	6/10/80		10/29/80	9:15 AM

DISPOSITION RESPONSIBILITY:	DISPOSITION ASSIGNED TO:	CAR NO.:	ASME CODE ITEM:
D. C. Frankum	J. J. Ryan		XX Yes ___ No

DISPOSITION:
REWORK ___ REPAIR ___ USE AS IS ___ SCRAP XX RETURN TO VENDOR ___

See disposition to NCR M-2386.

QA RECORD

ARMS INDEXED

DATE:

RTN	QA REVIEW
FILE NO. 15.1	
SUBFILE NO.	

CON. REVIEW/APPROVAL:	DATE:	QA/QC REVIEW:	DATE:
	10/29/80		10/29/80
ENG. REVIEW/APPROVAL:	DATE:	QA: REVIEW:	DATE:
QA/QC ENG/INSP. VERIFICATION:	DATE:		
	12-5-80		
QA CONCURRENCE:	DATE:		
	12-9-80		
QA REVIEW/CLOSURE:	DATE:		
	12-10-80		

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FOIA-85-59

CC/190

Brown & Root, Inc.

INSPECTION REPORT

PAGE ____ OF ____

PLANT CODE	SYSTEM CODE	COMPONENT CODE
1-4	5-10	11-16

TAG/SPN/IDENT NO						DRAWING/SPEC/FICATION NO				SERIAL NO	
A	B	C	D	E	F	G	UNITS	H	UNITS	J	UNITS
						17-55					

PUCHASE ORDER NUMBER	VEND CODE
56-69	70-73

MRR NUMBER	RIR NUMBER	VENDOR'S HEAT/LOT/BATCH NO	COUNT UNITS QUANTITY	PURCH'S OR NO	RLS/HOLD NO CODE STATUS	INPUT DATE
74-79	80-85	86-95	96-105	106-111	112-121	122-127

PURPOSE AND TYPE OF INSPECTION/SURVEILLANCE: _____

RESULTS OF INSPECTION / SURVEILLANCE: _____

NCR NO. _____

QC ENGINEER/INSPECTOR _____ DATE _____

QA-15.1/1-0(4-1-77)

DC LOG

WDC SERIAL

DRAWING

LINE # N/A

399481 Rev 4 10-15-80

MULTIPLE WELD DATA CARD

ITEM NO.	WPS NO.	REV.	ICN	WELD FILLER MATERIAL	WELD NOS.	P NO.	FABRICATION CODE & CLASS/ ACC STD ASME III-3
NA	11032	7	#1	E7018	NA	1-1	

NOTES: 1. APPLICABLE QC/ANI HOLD POINTS SHALL BE INDICATED BY CHECKMARK.
2. ANI INSPECTION POINTS INDICATED BY (X).
3. DENOTE SATISFACTORY INSPECTIONS BY AN "S"; UNSATISFACTORY INSPECTIONS BY A "U".

OPERATION #	OPERATIONS		
1	Support Number Identification	7	Spherical Bearings
2	Size, Configuration, Tolerance/Dwg.	8	All Welds/Dwg. & WPS (V.T.) *
3	Material Correct/Dwg.	9	Installation Complete
4	Fasteners Correct & Complete	10	Final PT/MT (as required)
5	Location & Elevation/Dwg.	11	
6	Spring Can Stops Installed	12	

PRODUCTION RELEASE

WELD NO	OPERATION	HOLDPOINTS WT	QC	ANI	CONST	SAT OR UNSAT	INSPECTION RESULTS (SIGN & DATE) QC OR WT	NDE CERT. LEVEL	ANI	NDEP/ REV.	MT&E # CALIB DUE DATE
NA	1	NA	✓	NC		S	GKC 10/16/80	II			
NA	2	NA	✓	NC		S	GKC 10/16/80	II			
NA	3	NA	✓	NC		S	GKC 10/16/80	II			
NA	4	NA	✓	NC		S	GKC 10/16/80	II			
NA	5	NA	✓	NC		S	GKC 10/16/80	II			
NA	6	NA	✓	NC		NA	GKC 10/16/80	II			
NA	7	NA	✓	NC		S	GKC 10/16/80	II			
NA	8	NA	✓	NC		S	GKC 10/16/80	II		29.4 [illegible]	
NA	9	NA	NA	NC	✓						

Reviewed: [illegible] 6-3-80

ARMS INDEXED

DATE:

L 17.1.04.13
SC FILE LOC Su-1-027-005-J03R

FOR INFORMATION ONLY

INFORMATION COPY PPRV

FINAL REVIEW J. Beaudette 10/18/80 QC [illegible] ANI

APPROVAL SIGNATURES SHALL BE AFFIXED IN THE LINE IMMEDIATELY BELOW THE LAST STEP IN EACH SEQUENCE.

* Operations 1-8 are Final Inspections.

PRODUCTION RELEASE

WELD NO.	OPERATION	WT	QC			SAT OR INSPECTION UNSAT QC OR W		LEVEL	ANI	REV.	CALIB DUE DATE
									NCR M-23 / Rev. #2		

STAY STRUT MODIFICATION

(Operations as Established Below)

B	Material added or deleted (document on MRS)	B N/A
C	ID/Marking transfer prior to cutting	C SW 10-7-80
D	Acceptable WPS	D SW 10-7-80
E	Fit-up/Socket Engagement (as applicable)	E SW 10-7-80
E		E N/A
F	Final Surface/Dimensional Inspection (Reference Suppl. 6.9F-VII)	F
G	PT/MT (VT) 200 10-8-79	G SW 10-7-80
	Dwg. Rev./CMC 40020 R-1	H

FOR INFORMATION ONLY

WE QC ANI

THReads UPset SAT SW 10-7-80

MANUFACTURING RECORD SHEET

BILL OF MATERIALS - SPOOL NO. ____________

ITEM	QUANTITY/ LENGTH	SCHEDULE/ RATING	MATERIAL SPEC	TYPE/ GRADE	HEAT/CODE NUMBER	END PREP	APPLICABLE WELD NUMBERS	INSPECTOR INITIALS AND DATE
NO	M	RS	Required					

INFORMATION COPY PPRV

NO.	OPERATION	B&R QC	ANI	B&R QC INIT	DATE	ANI INIT	DATE
1	DESIGN TRACEABILITY						
2	FINAL DIM'S/SURFACE COND. IDENT. REV						

ACCEPTANCE

B&R QA SIG. & DATE

ANI SIG. & DATE

WPS #
11032

NCE M-534 R
Pg. 4 of 6
SCA 10-10-80

WELD FILLER MATERIAL LOG

WDC Serial No. 07914
Drawing No. SW-1-027-005-J
Weld No. N/A

WELD NO.	DATE	SIZE/CLASS	WELDER SYMBOL	WPS/ICN #	HEAT/LOT # or CODE #	AMT. ISS.	AMT. RT'D.	ISSUANCE APPROVAL
E'	[illegible]	3/32 E-7018	B-H	11032 7-1	443825 0268607	5	1	Roger D. [illegible] P109
NA	10/8/80	E 7018 1/8	B S R	11032 7-1	N94338 026B210	30	24	Louie Holloway [illegible]
N/A	10/13/80	E 7018 1/8	B G N	11032 7-1	N94338 E026B210	20	0	Glenn [illegible] P209
NA	10/9/80	E 7018 1/8	B G N	11032 7-1	N94338 026B210	20	11	Louie Holloway P-209

SW 10-7-80

10/16/80
ALL ENTRIES

FOR INFORMATION ONLY

INFORMATION COPY
PPRV

100
SW

SW-1-027-005-J03R
HANGER NUMBER

INFORMATION COPY PPRV

MATERIAL IDENTIFICATION LOG

Mat'l Spec	Material Description	Quantity	Heat/ID Number	Salvaged Hanger Number (where applicable)	QC Verification	Date
	Heat Ser	3728-3-5		to become SW-1-027-005-J03R		
	Per CMC-40020		17 9 D	SW 10-6-80	SW	10-7-80
SA36	1¼ X 7 X 14½ PL	1	17 15 367810	N/A	SW	10-7-80
A500 GRB	4X4X½ X 11'-0" TS	1	17 13 354492	N/A	SW	10-7-80
A500 GRB	4X4X½ X 35⅜"	1	17 13 EC8854	N/A	SW	10-10-80

FOR INFORMATION ONLY

Fabbed item 15, 13, 9 10-7-80

Brown & Root, Inc.

QUALITY ASSURANCE DEPARTMENT
CORRECTIVE ACTION REQUEST

OJECT: CPSES JOB NO: 35-1195 UNIT: 1 & 2 PAGE ____ OF ____

QUEST NO: S-41 GROUP ORGANIZATION: Hanger Group/ Hal Goodson REPLY DUE DATE: 6-23-80

REFERENCE DOCUMENT: ASME III, NF-2150, NF-4122, MS-46A, ACP-3 and CP-CPM-6.9C

CONDITION DESCRIPTION

During ASME QA Surveillances S-003 (4-23/23-80) and S-009 (6-2 to date, 1980) identification of numerous discrepancies indicates there are significant generic problems in implementation of procedural and specification requirements.

This is a list of hanger related NCR's opened since 4-23-80 to present.

NCR M-2234	NCR M-2277	NCR M-2294 ✓	NCR M-2303 ✓	NCR M-2322
NCR M-2239	NCR M-2281	NCR M-2296	NCR M-2308	NCR M-2324 ✓
NCR M-2248	NCR M-2283	NCR M-2297	NCR M-2312 ✓	NCR M-2325
NCR M-2263	NCR M-2289	NCR M-2298	NCR M-2316	NCR M-2326
NCR M-2265	NCR M-2292	NCR M-2300	NCR M-2318	

See attached for list of findings.

A

INITIATED BY: R. M. Kinnier 6-9-80
PROJECT QA MANAGER DATE

REPLY REQUESTED FROM: D. C. Frankum
ACTION ADDRESSEE

CAUSE AND CORRECTIVE ACTION

See IRN-19464

INFORMATION
COPY
PPRV

QA RECORD

RTN.	QA REVIEW
L	CH/12-8-81
FILE NO.	16.1
SUBFILE NO.	CARS-41

PREPARED BY: D C Frankum 8/29/80 AUTHORIZED BY: D C Frankum 12-17-80
NAME DATE NAME DATE

CORRECTIVE ACTION VERIFIED BY: [signature] 1/28/81
DATE

QA REVIEW CLOSURE BY: [signature] 1-28-81
DATE

DISTRIBUTION:

FOIA-85-59

cc/191

Attachment to
CAR S-41

Finding Number 1: Documentation

A. MR. number 17988 has a discrepancy between the heat number and the MIC number (MRR88052). MR 17455 does not list vendor, RIR number or P.O. number.

B. Person receiving material is not entering their badge number on MR. MR numbers 5243, 081309, 17455, 73870 and 72748

C. Nuclear code class not entered on MR.

MR numbers:	5043	60839	33298
	71035	60210	19452
	70378	60163	5243
	61240	49823	5211
	5042	5271	5041

D. No "intended use" entry on MR.
MR numbers: 64212, 46049 and 69812

Finding number 2: Hardware

A NPS - supplied SA-36 5/8" plate (RIR09590) is marked Grinnell with Nissen Marker.

B. 5/8" plate marked SA-36 and SA-515 grade 65. 5/8" plate stamped "V", tag shows SA-36. Angle (MIC number 253NA) has wrong heat number. S/S 4"x20", 3"x9' and 3"x8'1" have no heat number.

C. Either no or incorrect*color code on the following:

Angle 4x4x¼	Ht. 2226NL	SA-36	No color code
Angle 3x3x3/8	Ht. 86716	SA-36	No color code
W 8x17	Ht. W5	SA-36	No color code
W 6x16	Ht. 84154	A-36*	Color orange
W 4x13	Ht. 170H355	A-36*	Color orange
Plt 1-3/4	Ht. 46291	SA-515	No color code
Plt ½	4G2901	SA-36	No color code
Plt 3/4	3G7719	SA-36	No color code
Plt 5/8	Mic 870NF E70986	SA-36	No color code

Finding number 3: Craft Work Observation

A. Craft using material from Laydown Yard without regard to heat number stamped in material.

B. Craft person in Laydown Area number 6 not sure if material is intended for salvage or scrap.

C. Craft using material from Laydown Area which has "Q" and Non "Q" mixed together.

D. Craft not transferring material identification marking at the time the material is cut.

Attach to
CAR S-41

6-19-80

This is a list of new NCR's against hangers issued since CAR S-41 was issued.

NCR M-2334	NCR M-2354
NCR M-2338	NCR M-2359
NCR M-2341 ✓	NCR M-2361
NCR M-2346	NCR M-2362 ✓
NCR M-2347	NCR M-2365
NCR M-2352	NCR M-2366

35-1195
8/28/80

Brown & Root, Inc.

INFORMATION
COPY
PPRV

INTEROFFICE MEMO

IM-19464

TO: J.V. Hawkins

DATE: August 28, 1980

FROM: J.P. Clarke, III

SUBJECT: Response to CAR S-41

An analysis of the NCR's referenced in the subject CAR revealed that of the NCR's referenced, approximately ten were due to inadequate traceability. To help in eliminating the inadequacies in the material traceability program, the following preventative actions have been taken:

1) Material identification markings have been reviewed and ASME materials identified and segregated from other safety-related materials.

2) The use of ink or paint markings only has been discontinued. Henceforth, heat number (or MIC, code, etc.) identification will be mechanically marked prior to cutting.

The remaining NCR's referenced in the CAR reflect predictable construction occurances and are not addressed in this response. Instead, these varied types of problems are addressed daily by the appropriate levels of supervision to the craftspersons involved.

The following is offered in response to the findings discussed in the subject CAR:

Finding #1

A. The NCR referenced MR#17988. The correct number is MR#17998. The RIR and MR for this item contains no discrepancy between heat and MIC numbers. The second allegation that MR#17455 does not list the vendor, RIR, or P.O. number is erroneous for two reasons: first, the correct MR number is MR#77453; secondly, the correct MR is on bulk pipe for which there is no requirement that vendor, P.O., or RIR number be noted.

B. Four of the five MR's referenced do not have badge numbers listed. The first MR, number 5243 does have the receiver's badge number. The warehouse superintendent has cautioned all warehouse issue personnel to always require the receiving person's badge number.

C. The referenced MR's issued miscellaneous, bulk material to the field. According to TUGCO QA and B&R QC receiving, procedure CPM 6.9C does not require entry of nuclear code class on MR's for miscellaneous bulk material.

D. Three MR's were referenced which were indicated to lack an entry for "intended use". The first and last MR's were incorrectly identified and should be numbers 64272 and 69612, respectively, while two of the MR's do not have an "intended use" entry, the last MR, number 69612 does.

In conjunction with B above, warehouse personnel have been cautioned to always require an entry for "intended use" on MR's.

Finding #2

A. The RIR referenced is on a NPS supplied plate. However, that plate is not marked Grinnell. The plate marked Grinnell was received/inspected per RIR-11180.

B. The plate received/inspected per RIR-11180 has a metal tag (affixed by Grinnell) marked "SA-36/SA-515, grade 65". This plate was received on purchase order CP-46A/MR-17234 as SA-515, code "v". The angle referenced (MIC-253NA) had been identified by the Fab Shop as improperly documented and was relocated to "Yard 7", which is a non-Q yard. The material was moved while the surveillance was in progress.

C. The craft's understanding of component support color coding is that it is not required to be maintained after it is issued from the warehouse, since they maintain material traceability by heat number or material specification number identification. To clear up this misunderstanding, the color coding has been deleted from the procedure as traceability is maintained by I.D. markings.

Finding #3

A. The craft is not aware of this situation occurring. There is not adequate information contained in the finding to be able to address it.

B. Material in Yard #6 is traceable Q material. Much of this material is from hangers which have been voided or deemed non-useable for their intended purpose. The decision to use this material will be on a case-by-case basis in accordance with CPM-6.9E, paragraph 3.13.

C. The craft has no laydown yard where Q and non-Q are mixed. All yards except #7 are Q, and Yard #7 is non-Q. The "laydown area" referenced in the finding cannot be determined without further information.

D. The craft marks all material, either mechanically or utilizing Nissen or Marsh markers, prior to cutting. This applies to material in the yards and in the shop.

J.P. Clarke, III
Senior Staff Engineer

JPC/cln

Brown & Root, Inc.

INSPECTION REPORT

PAGE 1 OF ___

PLANT CODE	SYSTEM CODE	COMPONENT CODE
1-4	5-10	11-16

TAG/SPIN/IDENT NO.						DRAWING/SPECIFICATION NO.				SERIAL NO	
A	B	C	D	E	F	G (Units)		H (Units)		J	(Units)
17-55											

PUCHASE ORDER NUMBER	VEND CODE
56-69	70-73

MRR NUMBER	RIR NUMBER	VENDOR'S HEAT/LOT/BATCH NO.	COUNT UNITS QUANTITY	PURCH'S OR NO.	RLS/HOLD NO. CODE STATUS	INPUT DATE
74-79	80-85	86-96	96-105	106-111	112-121	122-127

PURPOSE AND TYPE OF INSPECTION/SURVEILLANCE: To verify corrective action per CAR# 5-41.

RESULTS OF INSPECTION / SURVEILLANCE: This inspection report is to verify the corrective action listed per IR# 19464 & CAR# 5-41 has been satisfactorily accomplished.

~~NCR NO.~~ CAR# 5-41

QC ENGINEER/INSPECTOR J. Patton

DATE 1/28/81

Brown & Root, Inc.

P.O. BOX 1001 GLEN ROSE, TEXAS 76043

MESSAGE

To Jim Hawkins

FR: T R Shaw

DATE 9-9-80

SUBJECT: CAR-41

Unable to accept Construction Response to CAR due to the following.

QA Surveillances S-003 and S-009 have not been presented nor closed

The following NCR's are still O/S. ~~M-2239~~, M 2248, ~~M-2263~~, M 2265 ~~M-2279~~, M-2281, ~~M-2289~~, ~~M-2297~~, ~~M-2303~~

BY Terry R Shaw

REPLY

DATE

AND ~~M-2318~~

INFORMATION COPY PPRV

SIGNED

DETACH AND FILE FOR FOLLOW-UP

35-1195
8/28/80

Brown & Root, Inc.

INTEROFFICE MEMO

IM-19465

TO: J.V. Hawkins

DATE: August 28, 1980

FROM: D.C. Frankum

SUBJECT: Open CAR's
Reference: IM-19453

Concerning the referenced memo, the following information is provided.

CAR-32 - response submitted to QA, but "original" never returned to Construction for signature. This response was submitted sometime in April, 1980.

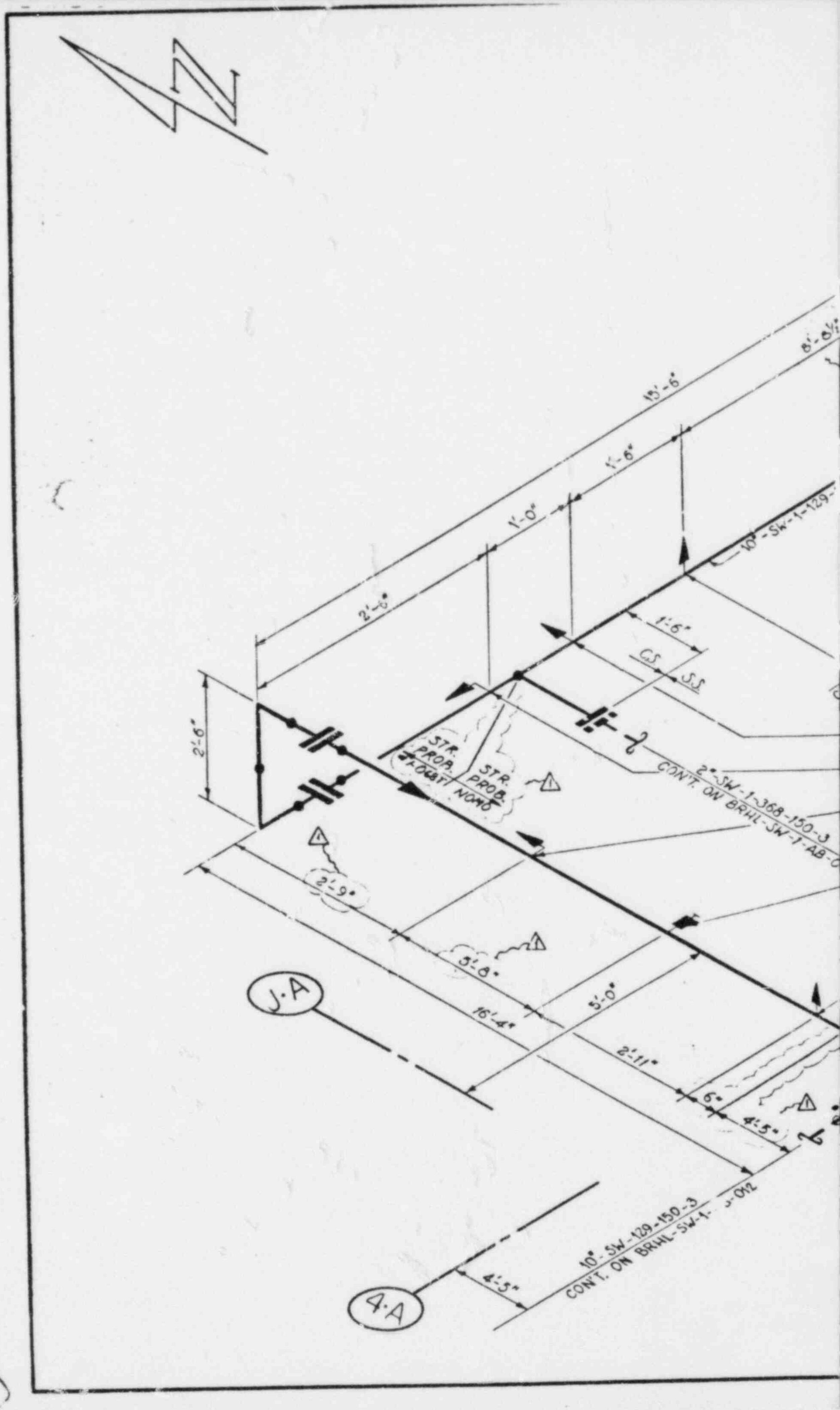
CAR-38 - response submitted to QA 9/17/79.

CAR-40 - closed 8/26/80.

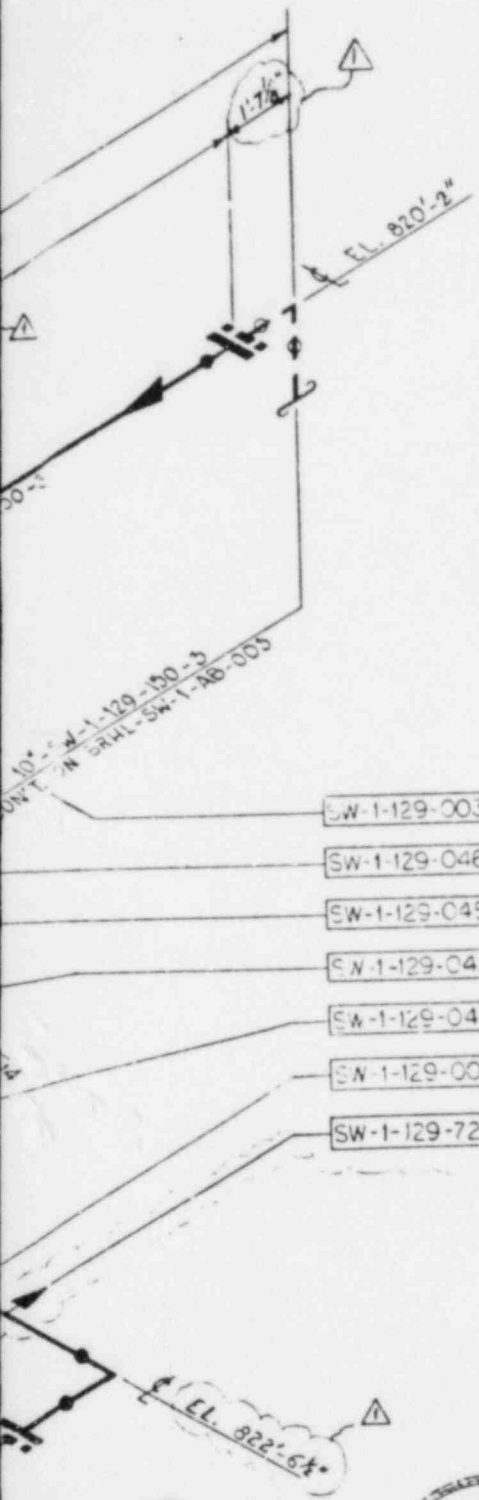
CAR-41 - draft response submitted to QA 6/2[illegible]/80 for review and comment. No comments received as of today, so final response will be submitted by 8/29/80.

D.C. Frankum
Project Manager

DCF/cln
cc:
J.T. Merritt
R.G. Tolson
B.J. Murray
P.F. Foscolo



N
15'-6"
1'-6"
1'-0"
2'-6"
10"-SW-1-129-
1'-6"
C.S.
S.S.
2'-6"
STR. PROB.
STR. PROB.
2"-SW-1-368-150-3
CONT. ON BRHL-SW-1-AB-
2'-9"
5'-8"
J-A
16'-4"
5'-0"
2'-11"
6"
4'-5"
10"-SW-129-150-3
4'-5"
4-A



PC NO	REQ	HEAT NO.	DESCRIPTION	ASME SPEC	GRADE	COLOR CODE

REV.	DATE	DESCRIPTION	DWN.	CK'D.	APP'D.
2	1-30	ISSUED FOR HANGER IDENTIFICATION AND ACCOUNTABILITY ONLY	JC		
1	4-8-82	REDRAWN; REVISED AS NOTED & VERIFIED FOR STR. PROB. #1-0687	[illegible]	MBS	

WELD NO.												
RT												
MT												
LP												
UT												

COST CODE	PAINT	INSUL.	CL.	THERM.
FLOW DIAG.	COMPOSITE	SPEC.	DESIGN CL. / CL.	

NOTES

FOR OFFICE AND ENGINEERING USE ONLY

TEXAS UTILITIES SERVICES INC.

C. P. S. E. S. GLEN ROSE, TEXAS

Brown & Root, Inc.

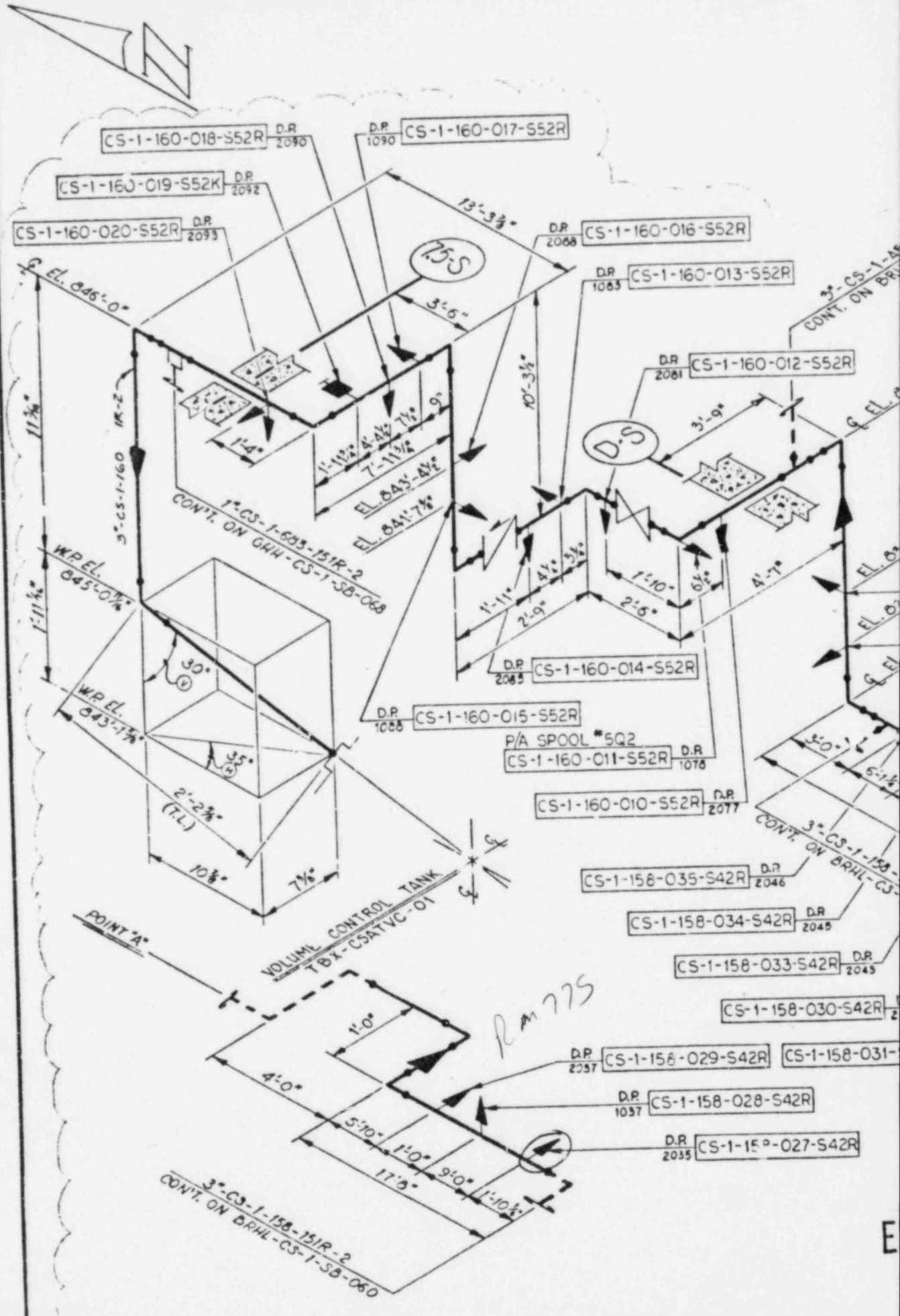
ENGINEERS AND CONSTRUCTORS

HOUSTON, TEXAS

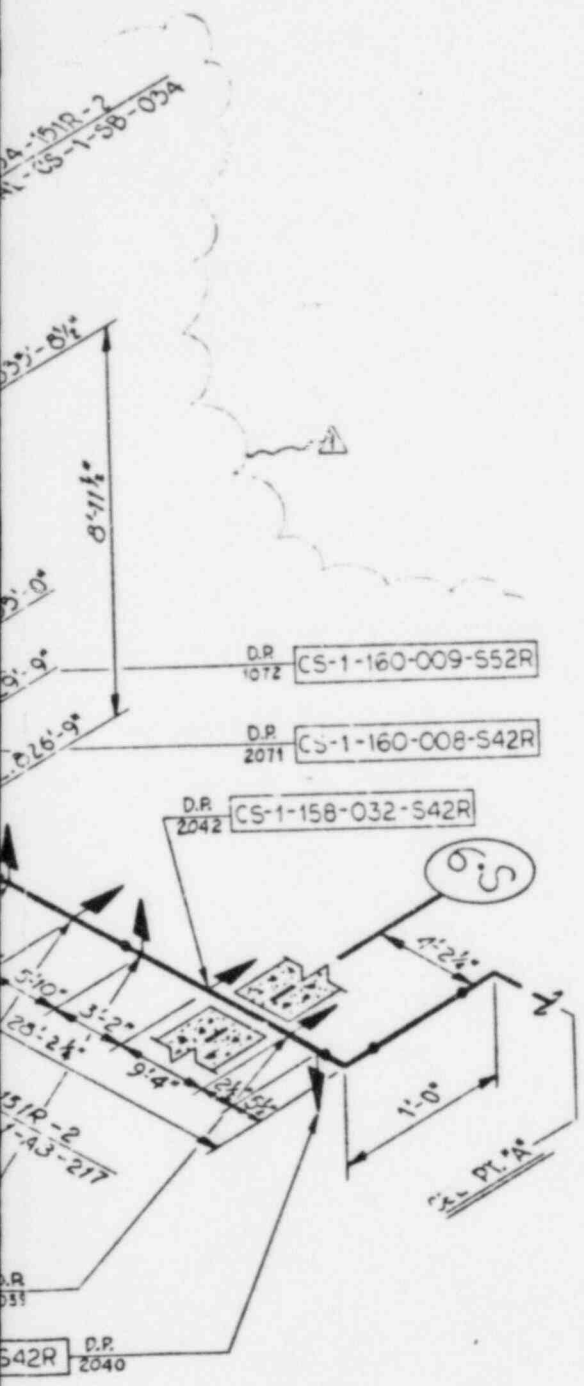
DRAWING TITLE

STATION SERVICE WATER

"Q"	PURCHASE NO. 0402	DWG NO. 2RHL-SW-1-A3-005	REV 1



PIPE @ 826



FOR OFFICE AND ENGINEERING USE ONLY

CC/193

BILL OF MATERIAL

PC NO.	HEAT NO.	DESCRIPTION	ASME/ASTM	GRADE	COLOR CODE

REV.	DATE	DESCRIPTION	DWR.	CK'D.	APP'D.
2	4/21/86	ISSUED FOR HANGER IDENTIFICATION AND ACCOUNTABILITY ONLY		MJP	WS
1	4/8/86	REDRAWN & REVISED AS NOTED; VERIFIED FOR STRESS PROBLEM #1-052			

WELD NO												
RT												
MT												
LP												
UT												

COST CODE	PAINT	INSUL.	CL.	TRANS
FLOW DIAG.	COMPOSITE	SPEC.	DESIGN LAT./CL.	

NOTES

8607100243--23

TEXAS UTILTIES SERVICES INC.

C. P. S. E. S. GLEN ROSE, TEXAS

Brown & Root, Inc.

ENGINEERS AND CONSTRUCTORS

HOUSTON, TEXAS

DRAWING TITLE

CHEMICAL & VOLUME CONTROL

	TURNOVER NO.	DWG. NO.	REV.
Q	RFT M-4901	FSRHL-CS-1-[illegible]	1

CC/193

QUALITY CONTROL

HANGER INSPECTION REPORT

QI-QAP-11.1-28 Rev. 9
QI-QAP-10.2-1 Rev. N/A
QI-QAP-10.2-2 Rev. N/A

IDENTIFICATION

Hanger No. (1) [illegible] Class (2) 2
Drawing No. Rev. (3) [illegible]

I. MATERIAL ACCEPTABILITY PER DRAWING AND NOTED ON M.I.L.

(4) H Johnson — Inspector; II — Level; 4-27-82 — Date

II. INSTALLATION COMPLETE PER DRAWING

(5) H Johnson — Inspector; II — Level; 4-27-82 — Date

a. Comments:
(i.e.) Snubber Not Installed H Johnson 4-27-82
Other Sight holes Set H Johnson 4-27-82

III. WELDING PER DRAWING INCLUDING ATTACHEMNTS

a. All weld per ASME Sec. III (6) H Johnson — Inspector; II — Level; 4-27-82 — Date

b. ADDITIONAL NDE c. HEAT TREAT — N/A — Inspector; N/A — Level; N/A — Date

(7)

Process	NDE/P	Rev/Date	Inspector	Level	Date
	N/A			N/A	
	N/A			N/A	

COMMENTS: (8) N/A

NCRs: (9) NM-3354

K. Huff
x 623

10-I

MS-1-076-009-552K
HANGER NUMBER

MATERIAL IDENTIFICATION LOG

INFORMATION COPY

Item	Mat'l Spec	Material Description	Quantity	Heat/ID Number	Salvaged Hanger Number (where applicable)	QC Verification		Date
10 (10 jud 4/26/82)	NA	1"x12" SUPER HILTI KWIK BOLTS	8	NA	NA PPRV	Kirby Scott		3/12/82
★1 / 14	SA 36 / SA515 GR65	1" x 13 1/8 x 15 7/8 C.S. PLATE	1	803P726	N/A	JJ Reed 1-23-82		
★2	SA 36 / SA515 GR65	1 1/4" x 13 3/8 x 15 7/8 C.S. PLATE	1	389591	N/A	JJ Reed 1-23-82	H Johnson 4-27-82	
★3 / (3)	SA36	5/8" PL 11"x 22 3/4"	1	389564	N/A	JJ Reed 1-23-82	H Johnson 4-27-82	
8 + 2 / (15)	A500 GR B	1/2" 6x6 TS 4'4"	8'6" (HJ 4-27-82)	C11645	NA	H Johnson 4-27-82		(*)
(13)	SA 515 GR 65	1" 10"x10" pl	1	CODE V	NA	B. Lup 2-11-82	H Johnson 4-27-82	B. Lup 2-11-82 MR#5271
15	A500 GR B	1/2" 6x6 T.S. 5'1"	1	C11645	NA	B. Lup 2-11-82	H Johnson 4-27-82	B. Lup 2-11-82 MR#130246
~~16~~ (Deleted 3-18-82 Km)	~~A500 GR B~~	~~4x4x3/8 TS 5'8"~~	~~1~~	~~26695~~	~~NA~~	B. Lup 2-11-82		B. Lup 2-11-82 MR#[illegible]
~~17~~ (3-18-82 Km)	~~SA 36~~	~~3/4" 5"x5" pl~~	~~1~~	~~HC 5629~~	~~NA~~	B. Lup 2-11-82		B. Lup 2-11-82 MR#[illegible]
(11)	SA515 GR 65	1" pl-15 7/8" x 13 7/8"	1	CODE V	NA	B. Lup 2-11-82	H Johnson 4-27-82	B. Lup 2-11-82 MR#5271
(7)	NA	5/8 x 8 1/2 HKB	6	NA	NA	Kirby Scott		3/12/82
~~[illegible]~~ (3-18-82 Km)	~~[illegible]~~	~~SAS 08 STRUT~~	~~1~~	~~48841 [illegible]~~	~~[illegible]~~ (HJ 4-27-82)			
(9)	SA36 / A668 D	XRB-10 Red-I-Bolt QIKE	1	61-4NF 16660	NA	H Johnson 4-27-82		
(9A)	SA36 / A664 [illegible]	XRR 08 Red-I-Bolt [illegible]	2	[illegible]934	NA	H Johnson 4-27-82		

Fobbet RS Km mill 1-23-82 JRB

(*) SEE MR NM-3354 H Johnson 4-27-82

★3 MR 134474 - JJ Reed 1-23-82
★2 MR 134344 - JJ Reed 1-23-82
★1 MR 174053 - JJ Reed 1-23-82
FAB PER CMC #12,13,15,16,17, 11 PER MIL 2-11-82 G Wesson

MS-1-076-009-S57RK
HANGER NUMBER

MATERIAL IDENTIFICATION LOG

Mat'l Spec	Material Description	Quantity	Heat/ID Number	Salvaged Hanger Number (where applicable)	QC Verification & Date	Notes
A500/B	T.S. 6X6X½ 12" Lg.	1	C11645	N/A	J.J. Reed 3-1-82 / A. Johnson 4-27-82	NR 130246 JJR 3-12-82

Fabricated T.S. JRN 3-12-82

INFORMATION COPY PPRV

QI-QAP-11.1-28 Rev. 9
QI-QAP-10.2-1 Rev N/A
QI-QAP-10.2-2 Rev N/A

QUALITY CONTROL

HANGER INSPECTION REPORT

IDENTIFICATION

Hanger No. (1) CS-1-158-027-S42R Class (2) 2
Drawing No. Rev. (3) 2

I. MATERIAL ACCEPTABILITY PER DRAWING AND NOTED ON M.I.L.

(4) H Johnson — Inspector; II — Level; 4-27-82 — Date

II. INSTALLATION COMPLETE PER DRAWING

(5) H Johnson — Inspector; II — Level; 4-27-82 — Date

a. Comments:
(i.e.) Snubber Not Installed N/A
Other N/A N/A

III. WELDING PER DRAWING INCLUDING ATTACHEMNTS

a. All weld per ASME Sec. III (6) H Johnson — Inspector; II — Level; 4-25-82 — Date

b. ADDITIONAL NDE

c. HEAT TREAT N/A — Inspector; N/A — Level; N/A — Date

(7) Process; NDEP N/A Rev/Date; Inspector; N/A Level; Date

Process; NDEP N/A Rev/Date; Inspector; N/A Level; Date

COMMENTS: (8) N/A

NCRs: (9) m-3168

Per IRN# 113191, 124741 + 127322
CR 4/22/82

Figure 16.1-1

QA RECORD

BROWN & ROOT, INC.
Quality Assurance Department
Nonconformance Report (NCR)
CPSES-35-1195

NCR NO. M-3168

PAGE 1 OF 13

DRAWING/IDENTIFICATION	TAG/ID NUMBER	LOCATION OR ELEVATION	RIR NO.
CS-1-158-027-S42R	CS-1-158-027-S42R	Safeguard #1 829'9"	N/A

NONCONFORMING CONDITION

T/O 4900
TREND CATEGORY M-14

DOCUMENT VIOLATED: CS-1-158-027-S42R REV. 2 PARA. N/A

The drawing requires that item 3 be fabricated from S 3"x5.7. Contrary to the above, 3"x4.1 channel has been installed.

Note: IRN # 124741 issued to remove channel.

FOR INFORMATION ONLY

Hold tag applied

REPORTED BY: J. P. Patton	DATE: 1/26/82	REVIEW/APPROVAL: Prem Lahoti	DATE: 1/27/82	TIME: 10AM
ACTION ADDRESSEE: J. Finneran		CAR NO.:	ASME CODE ITEM: XX Yes ___ No	

DISPOSITION:
REWORK ___ REPAIR ___ USE AS IS XX SCRAP ___ RETURN TO VENDOR ___

Field survey indicates that support is installed per design. Rework has been accomplished in accordance with IRN's 113191, 127322, 124741 QC to re-inspect, and document re-inspection to above IRN's.

ARMS INDEXED DATE:

QA RECORD
INFORMATION COPY
ATN 2 QA REVIEW CHS-2782
FILE NO. 15.1
SUBFILE NO. M-3168
PPRF

CON. REVIEW/APPROVAL: [signature]	DATE: 4-14-82	QA/QC REVIEW: [signature]	DATE: 4/16/82
ENG. REVIEW/APPROVAL: [signature]	DATE: 4-14-82	ANI REVIEW: Joe C. Hair	DATE: 4-19-82
QA/QC ENG/INSPR. VERIFICATION: [signature]	DATE: 5-3-82		
ANI CONCURRENCE: Joe C. Hair	DATE: 5-24-82		
QA REVIEW/CLOSURE: [signature]	DATE: 5/24/82		

INSPECTED ITEM REMOVAL NOTICE

LOCATION	ITEM DESCRIPTION
SI-I 810 Elev	Pipe Hanger

SYSTEM/STRUCTURE DESIGNATION	IDENTIFICATION	QC NOTIFIED BY
CS	CS-1-158-027-S42R	[illegible]

REASON FOR REMOVAL

This IRN is to clarify IRN [illegible] and IRN# 12732 [illegible] to be removed and [illegible] new material to be re-installed

MODIFICATION

MARTIN

INSPECTED ITEM REMOVAL NOTICE

IDENTIFICATION	QC NOTIFIED BY
CS-1-158-027	[illegible]

Remove torque so that base plate [illegible] be replaced

Mike Holzer
Gen. Foreman [illegible]

REQUEST HANGER OR PARTS Date: 1/21/82

FOREMAN: NORMAN HANGER NO.: CS-1-158-027-542R REV.: 2

ITEMS NEEDED PER PRINT: 3, 4

ITEMS NEEDED PER CMC: ———

CMC NO.: 31826 (INCORPORATED IN ISO.) REV.: 1 T/O No.:

REQUEST MISC. MATERIAL FOR ABOVE HANGER

REQUEST ITEMS REFABBED & REASON

REQUEST RECEIVED BY: Warren DATE: 1-21-82 TIME: 10:23

BELOW TO BE FILLED OUT AT WAREHOUSE "A"

REQUEST REVIEWED BY: Ronnie DATE: 1-21-82 TIME: 11:00

ITEMS TO TO BE FURNISHED BY WAREHOUSE:

ITEMS TO BE FABBED ON SITE: 3, 4, 5

ITEMS NOT AVAILABLE ON JOB SITE – ORDERED ON CPPA

Donna J. Ivey 1-21-82

TO FILLED OUT AT FAB SHOP

FABBED BY: J. R. Barron DATE: 1-21-82

ITEMS FABBED	HT. NO.'S
3 53'5" T Beam	A
4 1/4" x 2" x 2" L	1078NL
5 5/8" PL	190200

REQUEST RETURNED TO FIELD
REASON:

DATE:

CS-1-158-022-S42R
HANGER NUMBER

MATERIAL IDENTIFICATION LOG

	Mat'l Spec	Material Description	Quantity	Heat/ID Number	Salvaged Hanger Number (where applicable)	QC Verification & Date		Notes
#3	SA 36	S 3 X 5.7 1'10"	2	A	N/A	J Reed 1-21-82	H Johnson 4-20-82	
#4	SA 36	1/4" x 2" x 2" 4 1/2"	2	1078NL	N/A	J Reed 1-21-82	H Johnson 4-27-82	
#5	SA 36	1/2" x 10 3/8" x 15"	1	830200	N/A	J Reed 1-21-82	H Johnson 4-27-82	
#6	SA-36	* AFT ... 1" X 6" WFT	1	G 5465	N/A	PL May 1-22-82	WTS 1/22/82	
#?	N/A	1/2 x 5 1/2 HKB	3	N/A	N/A	PL May 1-22-82		SHIMS NA
#7	SA 307/B	1" HEX NUTS	2	N/A	N/A	H Johnson 4-27-82		
	*	WTS 1/22/82						

INFORMATION
COPY
PPRV

Fabricated 3 & 4 as rev print [2] 1-21-82
item #4 - MR 17217 J Reed - 1-21-82
#3 - MR - 5042 J Reed - 1-21-82
#5 - MR - 098236 J Reed - 1-21-82

B&[illegible] 35-119[illegible] CPSES

INSPECTED ITEM REMOVAL NOTICE

DATE	LOCATION	ITEM DESCRIPTION
12-21-81	SAFEGUARD	ALL
SYSTEM/STRUCTURE DESIGNATION	**IDENTIFICATION**	**QC NOTIFIED BY**
PIPE SUPPORT	CS-1-158-027-S42R	CHAMBERLAIN

REASON FOR REMOVAL

CHANNELS WERE USED INSTEAD OF "S"
SHAPES ON THE FRAME.

[illegible] TO ENG'G

INFORMATION COPY
MODIFICATION
PPRV

CS-1-158-027-S42R
HANGER NUMBER

MATERIAL IDENTIFICATION LOG

Mat'l Spec	Material Description	Quantity	Heat/ID Number	Salvaged Hanger Number (where applicable)	QC Verification	Date
SA 36	BASE PLATE	1	#5 462901	GKC 3/17/81		
SA36	1/4X2X2) 0'-4 1/2"	2	#4 NA258	GKC 3/17/81		
SA36	S3X5.7 1'-10"	2	#3 NW436	GKC 3/17/81		
NA	1/2" X 5 1/2" Hiltis	3	#1 NA	NA	→ PAM	3-4-81
NA	1"X6" Fig 140 all thd.	1	#2 NA	GKC 3/17/81		
SA307	1" Hex nut	2	#7 NA		GKC	3/17/81
SA36	S3X5.7 = 1' 10"	2	#3 C-31		GKC	3/17/81
SA36	.25"X2"X2" ∠ = 0' 4 1/2"	2	#4 C-5426		GKC	3/17/81
SA36	1/2" X 10 7/8" X 16 1/16" R	1	#5 3G8578		GKC	3/17/81
SA36	0' 8 RFT = 6 1/2"	1	#6 C5465			
	1/2" X 5 1/2" Hiltis	3		Reverified	VKS	3-11-81
	This material removed per IRN 104159 [illegible] 4/30/82					

Item # 3,4,5 & 6 Per Print Rev [illegible] [illegible] 3/16/81

INFORMATION COPY PPRV

REQUEST HANGER OR PARTS Date: 3/9/81

FOREMAN: CARTRET HANGER NO.: CS-1-158-027-S42 REV.: 2

ITEMS NEEDED PER PRINT: #3-#4-#5-6#7 (INSTALL)

ITEMS NEEDED PER CMC: NONE

CMC NO.: _____ REV.: _____ T/O No.: 4900

REQUEST MISC. MATERIAL FOR ABOVE HANGER

_____

REQUEST ITEMS REFABBED & REASON

BASE PL. WRONG THICKNESS IRN# 104199

REQUEST RECEIVED BY: Cooley DATE: 3-9-81 TIME: 1.45

BELOW TO BE FILLED OUT AT WAREHOUSE "A"

REQUEST REVIEWED BY: Tom DATE: 3-9-81 TIME: 3:30

ITEMS TO TO BE FURNISHED BY WAREHOUSE: ✓ ✓ ✓ ✓

ITEMS TO BE FABBED ON SITE: 3, 4, 5, 6,

ITEMS NOT AVAILABLE ON JOB SITE – ORDERED ON CPP

INFORMATION COPY PPRV

TO FILLED OUT AT FAB SHOP

FABBED BY: [signature] DATE: 3/10/81

KGK 3-10-81

ITEMS FABBED	HT. NO.'S	
#3 3"x5.7	C-31	B.E. 3-11-81
4 .35"x2"x2" ∠	C5426	B.C. 3-11-81
5 1/2" PL	3G7577	B.C. 3-11-81
6 1" Round Rod	G5465	B.C. 3-11-81

RETURNED TO FIELD DATE: _____

MATERIAL RECORD

MARK NO. CS-1-158-027-S42R REV. CA PROD. RELEASE 28C8 CODE ASME III/2

ITEM NO.	01	02	03	04	05	06	07	08	09	10
MIC NO.	BY FIELD	NF855	NW436	NA258						
ITEM NO.	11	12	13	14	15	16	17	18	19	20
MIC NO.										
ITEM NO.	21	22	23	24	25	26	27	28	29	30
MIC NO.										

SUBASSEMBLIES

DRAWING/ITEM NO.

MATERIAL	MIC NO.

DRAWING/ITEM NO.

MATERIAL	MIC NO.

DRAWING/ITEM NO.

MATERIAL	MIC NO.

INFORMATION COPY PPRV

DRAWING/ITEM NO.

MATERIAL	MIC NO.

DRAWING/ITEM NO.

MATERIAL	MIC NO.

DRAWING/ITEM NO.

MATERIAL	MIC NO.

Q.A. Review Lola Adams Date [illegible]

S.I. Review ______ Date ______

MIC NO NW 436

BETHLEHEM STEEL CORPORATION
METALLURGICAL DEPARTMENT

3 3 1 H 466

DATE SHIPPED	SHIPMENT NO.	CARRIER, INITIAL AND NO.	PLANT
3-27-79	3301-1656 1/6 to 6/6	NP. 57507	SEATTLE

SOLD TO: GILMORE STEEL CORP.

SHIPPED TO: PORTLAND

REPORT OF MECHANICAL AND CHEMICAL TESTS

Customer's Order No.	Section Slab or Mill Order No.	Heat No.	Description	Thickness	Yield Point	Tensile Strength	Elong. %	Red. %	Bends	CHEMICAL ANALYSIS C	Mn	P	S	Specifications or Remarks
				ASTM:	A36-77A		8"							
7902-42	UJ234-1764C	330H290	L 3½x3x3/8		45610	67510	21.0		ok	.23	.50	.008	.020	
		331H488	L 3½x3x5/16		49060	68070	23.0		ok	.19	.50	.007	.019	
		331H491	L 3½x3x1/4		48920	67840	22.0		ok	.23	.44	.012	.025	
		331H488	L 3½x3x1/4		46440	66110	25.5		ok	.19	.50	.007	.019	
7902-15	UJ234-1732B	330H290	L 3½x3x3/8		45610	67510	21.0		ok	.23	.50	.008	.020	
		331H488	L 3½x3x5/16		49060	68070	23.0		ok	.19	.50	.007	.019	
7902-03	UJ234-1687*	331H498	L 3x2x1/4		47210	65300	22.5		ok	.19	.45	.007	.034	
		330H301	L 3x2x1/4		47330	64910	22.5		ok	.19	.40	.007	.023	
7809-25	UJ234-1477D*	330H290	L 3½x3x3/8		45610	67510	21.0		ok	.23	.50	.008	.020	
7902-16	UJ234-1732A	330H280	L 3½x3½x3/8		46970	67230	27.0		ok	.21	.47	.021	.031	
7901-10	UJ234-1622B	331H466	S 3x5.7#		51780 ✓	70730 ✓	21.5 ✓	✓	ok	.23 ✓	.45 ✓	.015 ✓	.022 ✓	
					WEIGHT	#157820								

DOCUMENT REVIEWED

P.O. #	MIC #
10162	NW 436
Q.C. SUPERVISOR RBW	DATE 4/16/79

GILMORE STEEL CORP.
APPROVED BY: M. Y.
Q. C. CLERK
DATE APR 05 1979

I certify that the above results are a true and correct copy of records prepared and maintained by Bethlehem in compliance with the requirements of the specification cited above.

C. T. BURTCH
CHIEF METALLURGIST

For PETE

10162

MATERIAL VERIFICATION CHECKLIST

HANGER MARK # H-CC-1-EC-007-018-3

△ of BRH lists items # _____

(1) of CP-AA 102 lists items # 1, 2, 3

△ of CP-AA _____ lists items # _____

CMC _____ △ Revised items # _____

CMC 37146 (0) Deleted items # 1

CMC 37146 (2) Added items # 4, 5

REVISED BILL OF MATERIAL

ITEM #	QNTY	DESCRIPTION	HEAT, MIC, SALVAGE	QC VERIFIED
2	1	PL 1x12x12	RIR 13942 MB 73411	✓
3	4	3/4x8 1/2 H.H.	N/A	✓
4	1	TS 4x4x3/8x6"	051392	✓
5	1	SMF-1-80 Snubber	Not Installed	
	2	Rear Brackets	NF 767	✓

Susie Woomann 5-17-82

NEED HEAT # FOR ITEMS # _____

ALL ITEMS TRACEABLE

CC/196

Figure 16.1-1

QA RECORD

BROWN & ROOT, INC.
Quality Assurance Department
Nonconformance Report (NCR)
CPSES-35-1195

NCR NO. M-3168

PAGE 1 OF 13

DRAWING/IDENTIFICATION	TAG/ID NUMBER	LOCATION OR ELEVATION	RIR NO.
CS-1-158-027-S42R	CS-1-158-027-S42R	Safeguard #1 829'9"	N/A

NONCONFORMING CONDITION

T/O 4900
TREND CATEGORY M-14

DOCUMENT VIOLATED: CS-1-158-027-S42R REV. 2 PARA. N/A

The drawing requires that item 3 be fabricated from S 3"x5.7. Contrary to the above, 3"x4.1 channel has been installed.

Note: IRN # 124741 issued to remove channel.

Hold tag applied

REPORTED BY:	DATE:	REVIEW/APPROVAL	DATE:	TIME:
J. P. Patton	1/26/82	[signature]	1/27/82	10 AM

ACTION ADDRESSEE	CAR NO.:	ASME CODE ITEM:
J. Finneran		XX Yes ___ No

DISPOSITION:

REWORK ___ REPAIR ___ USE AS IS XX SCRAP ___ RETURN TO VENDOR ___

Field survey indicates that support is installed per design. Rework has been accomplished in accordance with IRN's 113191, 127322, 124741 QC to re-inspect and document re-inspection to above IRN's.

ARMS INDEXED
DATE:

QA RECORD INFORMATION COPY
RTN. L
QA REVIEW [illegible]
FILE NO.
SUBFILE NO. M-3168
PRV

CONST. REVIEW/APPROVAL: [signature]	DATE: 4-14-82	QA/QC REVIEW: [signature]	DATE: 4/16/82
ENG. REVIEW/APPROVAL: [signature]	DATE: 4-14-82	ANI REVIEW: Joe C. Hair	DATE: 4-19-82
QA/QC ENG/INSPR. VERIFICATION: [signature]	DATE: 5-3-82		
ANI CONCURRENCE: Joe C. Hair	DATE: 5-24-82		
QA REVIEW/CLOSURE: [signature]	DATE: 5/24/82		

FOIA-85-59
cc 197

Brown & Root, Inc.

INSPECTION REPORT

NCR-M-3168
Pg. 6 of 13

PAGE 1 OF 1

PLANT CODE	SYSTEM CODE	COMPONENT CODE
1-4	5-10	11-16

TAG/SPIN/IDENT NO.						DRAWING/SPECIFICATION NO.		SERIAL NO.
A	B	C	D	E	F	G (Units)	H (Units)	J (Units)
						17-56		

PURCHASE ORDER NUMBER	VEND CODE
56-69	70-73

MRR NUMBER	RIR NUMBER	VENDOR'S HEAT/LOT/BATCH NO.	COUNT	UNITS	PURCH'S OR NO.	RLS/HOLD NO.	CODE	INPUT DATE
			QUANTITY			STATUS		
74-79	80-85	86-95	96-105		106-111	112-121		122-127

PURPOSE AND TYPE OF INSPECTION/SURVEILLANCE: NCR - M-3168

RESULTS OF INSPECTION/SURVEILLANCE: Re-work and documentation accomplished satisfactorily per disposition of NCR-M-3168

Weld Tag Removed.

NCR NO. M-3168

C Johnson
QC ENGINEER/INSPECTOR

1/26/82
DATE

NCEM-3168
Pg. 12 of 13

31826-B-1 [illegible] 1-22-82
31826 B 4-29-82

MCC SERIAL # 58276
DRAWING # CS-1-158-027-C42R
LINE # NA

MULTIPLE WELD DATA CARD

[illegible] NO.	WPS NO.	REV.	[illegible]	WELD FILLER MATERIAL	WELD NOS.	P NO.	FAB CODE & CLASS/ ACC. STD.
NA	11032	7	4	E7018	NA	1-1	ASME III - 2 CPM-9.10

NOTES: 1. APPLICABLE QC/ANI HOLD POINTS SHALL BE INDICATED BY CHECKMARKS.
2. ANI INSPECTION POINTS INDICATED BY (X).
3. DENOTE SATISFACTORY INSPECTIONS BY AN "S"; UNSATISFACTORY INSPECTIONS BY A "U".

OPERATIONS

OPERATION #			
1	Support Number Identification	7	Spherical Bearings
2	Size, Configuration, Tolerance/Dwg.	8	All Welds/Dwg. & WPS (V.T.)
3	Material Correct/Dwg.	9	Installation [illegible]
4	Fasteners Correct & Complete	10	Final [illegible] Req'd
5	Location & Elevation/Dwg.	11	
6	Spring Can Settings Installed	12	

QC 11-1-28 QPP 1-23-82 QPP 1-23-82

INFORMATION COPY

PPRV

PREP. Carol Randall 1/21/82

PRODUCTION RELEASE

WELD NO.	OPERATION	HOLD POINTS WT	QC	ANI	CONST.	SAT OR UNSAT	INSPECTION RESULTS QC OR WT	QC CERT LEVEL	ANI	REV.	GAGE # CALIB DUE DATE
NA	1	NA	✓	NC		S	H Johnson 4-28-82	II			
NA	2	NA	✓	NC		S	H Johnson 4-28-82	II			
NA	3	NA	✓	NC		S	H Johnson 4-28-82	II			
~~NA~~	~~4~~	~~NA~~	~~✓~~	~~NC~~ [illegible] 4/27/82							
NA	5	NA	✓	NC		S	H Johnson 4-28-82	II			
~~NA~~	~~6~~	~~NA~~	~~✓~~	~~NC~~ [illegible] 4/27/82							
~~NA~~	~~7~~	~~NA~~	~~✓~~	~~NC~~ [illegible] 4/27/82							
NA	8	NA	✓	NC		S	H Johnson 4-28-82	II		(9)	
NA	9	NA	NA	[illegible] FD 1-22		82					

Reviewed: B Nutt 1/21/82 — [illegible] 1/22/82

* ~~7-A 10 NA NC~~
* ~~8-A 10 NA NC~~
* ~~9-A 10 NA NC~~

Reviewed: B Nutt 1/22/82 4/13/82

Mod Pkg Per IRN 124741. QC inspector should sign off hold points applicable to rework and NC all unnecessary items. LWyatt 1-22-82 4/13/82

[illegible] NA	NA	NA	NA	NA
NA	NA	NA	NA	NA

IRMH# 36134 Torqued and seated shims nut (3) 1/2 x 5 1/2 Hilti Bolt, and verified (1) 1" x 6" all thread rod "snug tight" embedment ok. [illegible] 1-22-82

* ~~10-A 10 NA NC~~
* ~~11-A 10 NA NC~~
* ~~12-A 10 NA NC~~

Reviewed: B Nutt 1/23/82 — [illegible] 4/13/82

Torque, Shims & layout previously verified H Johnson 4-28-82

INFORMATION COPY

THIS DOCUMENT IS FOR INFORMATION ONLY. CONTACT DOCUMENT CONTROL FOR CURRENT STATUS AND REVISION.

W. Cochran 4/28/82
~~W Cochran 4/2~~ [illegible] 4/28/82
~~LWyatt 1-22-82~~ [illegible] 1/23/82

APPROPRIATE SIGNATURES SHALL BE AFFIXED IN THE LINE IMMEDIATELY BELOW THE LAST STEP IN EACH SEQUENCE.

* Operations 1-6 are final inspections.

* Deleted Per CMC 31826 [illegible] 4/27/82

(2) MODIFICATION Per IRN #124741 CR 1/21/82
[illegible] 113191 [illegible] 1/22/82

INSTALLATION TO BE IN ACCORDANCE WITH PROCEDURES REFERENCED IN CPM-6.11

* RE-ASSIGNED WELD #'s PER IRN 113191. FW 7-12 ON MWDC #42899 HAVE BEEN SCRAP'd [illegible] 4/13/82

QI-QAP-11.1-28 Rev. 9
QI-QAP-10.2-1 Rev. NA
QI-QAP-10.2-2 Rev. NA

QUALITY CONTROL

HANGER INSPECTION REPORT

IDENTIFICATION

Hanger No. (1) SW-1-129-045-A43R Class (2) 3
Drawing No. Rev. (3) 3

I. MATERIAL ACCEPTABILITY PER DRAWING AND NOTED ON M.I.L.

Richard M Smith — Inspector; II — Level; 5-28-82 — Date

II. INSTALLATION COMPLETE PER DRAWING

(5) Richard M Smith — Inspector; II — Level; 5-28-82 — Date

a. Comments:
(i e.) Snubber Not Installed NA
Other SIGHT HOLE PRESENT RMS 5-28-82

III. WELDING PER DRAWING INCLUDING ATTACHEMNTS

a. All weld per ASME Sec. III (6) Richard M Smith — Inspector; II — Level; 5-28-82 — Date

b. ADDITIONAL NDE c. HEAT TREAT NA — Inspector; NA — Level; NA — Date

(7) Process NA NDEP Rev/Date — Inspector NA Level Date

Process NA NDEP Rev/Date — Inspector NA Level Date

COMMENTS: (8) NA

NCRs: (9) M-3431

MODIFICATION PACKAGE
MOD. WORK PER IRN 12496
ORIGINAL IN VAULT RS 5-24-82

650°5

[illegible]
744453R / 5/27/82 [illegible]

MULTIPLE WELD DATA CARD

WDC SERIAL #
DRAWING # SW-1-129-045-A43R
LINE # NA

ITEM NO.	WPS NO.	REV.	ICN	WELD FILLER MATERIAL	WELD NOS.	P NO.	FAB CODE & CLASS/ ACC. STD.
NA	11032	8	0	E7018	NA	1-1	ASME III -3 CPM-9.10

NOTES: 1. APPLICABLE QC/ANI HOLD POINTS SHALL BE INDICATED BY CHECKMARKS
2. ANI INSPECTION POINTS INDICATED BY (X).
3. DENOTE SATISFACTORY INSPECTIONS BY AN "S"; UNSATISFACTORY INSPECTIONS BY A "U".

OPERATIONS

OPERATION #			Spherical Bearings
1	Support Number Identification	7	All Welds/Dwg. & WPS [illegible]
2	Size, Configuration, Tolerance/Dwg.	8	Installation Complete
3	Material Correct/Dwg.	9	Final PT/MT (as required) [illegible]
4	Fasteners Correct & Complete	10	
5	Location & Elevation/Dwg.	11	
6	Spring Can Settings Installed	12	

PREP: R. SLATER 5-24-82

PRODUCTION RELEASE

WELD NO.	OPERATION	HOLDPOINTS WT	QC	ANI	CONST	SAT OR UNSAT	INSPECTION RESULTS (SIGN & DATE) QC OR WT	NDE CERT LEVEL	ANI	NCR/ REV.	MT&E # CALIB DUE DATE
NA	1	NA	✓	NC		S	Gerald M. Smith 5-28-82	II			
NA	2	NA	✓	NC		S	Gerald M. Smith 5-28-82	II			
NA	3	NA	✓	NC		S	Gerald M. Smith 5-28-82	II			
NA	4	NA	✓	NC		S	Gerald M. Smith 5-28-82	II			
NA	5	NA	✓	NC		S	Gerald M. Smith 5-28-82	II			
NA	7	NA	✓	NC		S	Gerald M. Smith 5-28-82	II		9	
NA	8	NA	✓	NC		S	Gerald M. Smith 5-28-82	II			
NA	9	NA	NA	NA	✓ [illegible] 5-27-82				[illegible] 5-24-82		

Reviewed [illegible] 5/24/82

* VERIFIED REMOVAL OF ITEMS # 7 & 8 – NO HT. NOS PRESENT – REMOVED ITEMS 7 & 8 AND REPLACED WITH NEW ITEMS 7 & 8 (E48435) [illegible] 5-28-82

NO GROUT REQUIRED Gerald M. Smith II 5-28-82

INFORMATION COPY PPRV

IRN # 43853 Torqued and sealed shims na (4) 1/2 x 5 1/2 Hilti, and (1) 1/2 x 9 Hilti [illegible] May 5-27-82

NCR M 3431 was closed 5-30-82 [illegible] 6-24-82

ANI R. Byers 9/22/83

J.W. Cochrane 5/27/82 QC

[illegible] THE LINE IMMEDIATELY BELOW THE LAST STEP IN EACH [illegible]

MODIFICATION PACKAGE
MOD. WORK PER IRN 124965
ORIGINAL IN VAULT RS 5-24-82

INSTALLATION TO BE IN ACCORDANCE WITH PROCEDURES REFERENCED IN CPM-6.11

SAL-1-129-045-A43R
WATER INJECTION

MATERIAL IDENTIFICATION LOG

	Mat'l Spec	Material Description	Quantity	Heat/ID Number	Salvaged Hanger Number (where applicable)	QC Verification & Date	Notes
(5)	SA36	PL ½ x 8¼ x 8½	1	E48435	N/A	[illegible] 5-26-82 [illegible] 5-28-82	MR 20187G
(8)	SA36	PL ½ x 8¼ x 8¼	1	E48435	N/A	[illegible] 5-26-82 [illegible] 5-28-82	MR 20187G
(2)	NA	1/2 X 5 1/2 HKB	7	NA	NA	[illegible] 5/27/82	
(11)	NA	1/2 X 9 HKB	1	NA	NA	[illegible] 5/27/82	

Failed items 7 & 8 per print JWB 5-26-82

INFORMATION COPY

PPRV

(UN)INSPECTED ITEM REMOVAL NOTICE

B&R Job 35-1195, CPSES

№ 124915

DATE	LOCATION	ITEM DESCRIPTION
4/29/82	Aux	See Below
SYSTEM/STRUCTURE DESIGNATION	IDENTIFICATION	QC NOTIFIED BY
SW-1	SW-1-129-045-A43R	Pete Mason

REASON FOR REMOVAL

Cut items 7+8 (Ai) from item #10 (T.S.) if no heat #1 ... items 7+8 (Ai) and see if heat ... - Per

MODIFIED

SEE ADDITIONAL CERTIFICATION

NCR M-3431

Rec'd 4-27-82 [illegible]

PV Print 3 NCR M3431

D.G. 5-19-82

MATERIAL VERIFICATION CHECKLIST

HANGER MARK # SW-1-129-045-A43R IIRN124915

(3) of BRH lists items # 2, 3, 4, 5, 6, 7, 8, 9, 10

(1) CMC 74483 — REVISED DELETED items # 2 QTY(7)

(3) CMC ____ — DELETED items # ____

(1) CMC 74483 — ADDED items # 11

(3) CMC ____ — ADDED items # ____

(3) CMC ____ — ADDED items # ____

INFORMATION COPY PPRV

REVISED BILL OF MATERIAL

ITEM #	QNTY	DESCRIPTION	HEAT, MIC, SALVAGE	QC VERIFIED
*2	7	½"x5½" Hilti	NA	✓
3	1	Fig 211B Strut	B-8678	✓
	1	Clamp	"A"	✓
	1	Rear Brkt	B-8678	✓
4	1	Fig 211 B Strut	B-8678	✓
	1	Clamp	"A"	✓
	1	Rear Brkt	B-8678	✓
5	1	4" Stanchion	"H"	✓
			~~"H"~~	~~✓~~
6	1	4" Stanchion	"H"	✓
*7	1	PL ½"x3¼"x8½"	E ~~48435~~ 48435	✓
*8	1	PL ½"x8¼"x8¼"	E48435	✓
9	2	PL ½"x6"x6½"	1Q0200	✓
10	2	TS ½"x4"x4"x10"	88484	✓
*11	1	½"x9" Hilti	NA	✓

NEED HEAT # FOR ITEM # ____

ALL ITEMS TRACEABLE

* Verified IN IIRN 124915 MODification package.

MATERIAL VERIFICATION CHECKLIST

HANGER MARK # SH1-129-045-R43R Original

of BRH lists items 2,3,4,5,6,7,8

CMC 48741 △ Deleted items 1

CMC 48741 △1 Added items 9,10

REVISED BILL OF MATERIAL

QNTY	ITEM #	DESCRIPTION	HT,MIC, or SALVAGE #	VERIFIED BY QC
8	2	HKB	N/A	✓
1	3	Strut 211 "B"	B-8678	✓
1	4	Strut 211 "B"	B-8678	✓
1	5	H.S. 63 "C" C.S.	H	✓
1	6	H.S. 63 "C" C.S.	H	✓
1	7	½ × 8¼ × 8½ PL.	~~Sample~~ lot 4-1-82	
1	8	½ × 8¼ × 8¼ PL.	~~Sample~~ lot 4-1-82	
2	9	½ × 6 × 6½ PL.	HIG0200	✓
2	10	½ × 4 × 4 PL.	HT88484	✓
		ClAMP	A	✓
		R. BRACKET	B8678	✓

Check item # 7+8 for heat #. No HT # FOR ITEM # 7,8

4/8/82 D. Earl 4/12/82

Tracy Timmons

See Modification 11RN124915

Weld attachment in 11RN124915 Modification Package

ALL ITEMS TRACEABLE

Figure 16.1-1

QA RECORD

BROWN & ROOT, INC.
Quality Assurance Department
Nonconformance Report (NCR)
CPSES-35-1195

NCR NO. M-3431

PAGE 1 OF 7

DRAWING/IDENTIFICATION	TAG/ID NUMBER	LOCATION OR ELEVATION	RIR NO.
SW-1-129-045-A43R	SW-1-129-045-A43R	A.B. 820'2"	N/A

NONCONFORMING CONDITION

T/O 0402
TREND CATEGORY M-19

DOCUMENT VIOLATED: CP-QAP-16.1 REV. 9 PARA. 2.2.2

Traceability for Items 7 and 8, the base plates for SW-1-129-045-A43R, can not be verified. There are no heat numbers on the documentation package or on the base plates.

ARMS INDEXED
DATE:

QA RECORD
RTN X | QA REVIEW 5-6-82
FILE NO. 16.1
SUBFILE NO. M-3431

Hold tag applied.

REPORTED BY: Richard Gray DATE: 4-16-82
REVIEW/APPROVAL: DATE: TIME: 2:30 PM
ACTION ADDRESSEE: C. Moehlman
CAR NO.:
ASME CODE ITEM: XX Yes ___ No

DISPOSITION:
REWORK XX REPAIR ___ USE AS IS ___ SCRAP ___ RETURN TO VENDOR ___

Remove Item 7 and 8 from wall, if heat number is visible at this time, transfer to a visible location with QC witness and re-install hanger. If heat numbers do not exist then replace Items 7 and 8 with new plates which have the proper traceability.

INFORMATION COPY PPRV

CON. REVIEW/APPROVAL:	DATE: 4-22-82	QA/QC REVIEW: R C Washington	DATE: 4-23-82
ENG. REVIEW/APPROVAL: N/A CH	DATE: 4-22-82	ANI REVIEW: Joe C. Hair	DATE: 4-26-82
QA/QC ENG/INSPR. VERIFICATION: D R Dodson	DATE: 5-30-82		
ANI CONCURRENCE: Joe C. Hair	DATE: 5-30-82		
QA REVIEW/CLOSURE: D R Dodson	DATE: 5-30-82		

CC|199

Brown & Root, Inc.

INSPECTION REPORT

NCR #M-3431
page 3 of 7

PAGE 1 OF 1

PLANT CODE	SYSTEM CODE	COMPONENT CODE
1-4	5-10	11-16

SW1-129-045-A43R

TAG/SPIN/IDENT NO.						DRAWING/SPECIFICATION NO.		SERIAL NO.
A	B	C	D	E	F	G (Units)	H (Units)	J (Units)
						17-56		

PURCHASE ORDER NUMBER	VEND CODE
58-69	70-73

MRR NUMBER	RIR NUMBER	VENDOR'S HEAT/LOT/BATCH NO.	COUNT	UNITS	PURCH'S OR NO.	RLS/HOLD NO.	CODE	INPUT DATE
			QUANTITY			STATUS		
74-79	80-85	86-95	96-105		106-111	112-121		122-127

PURPOSE AND TYPE OF INSPECTION/SURVEILLANCE: CLOSURE OF NCR # M-3431. REMOVAL OF BASE PLATES ITEMS 7 & 8 TO CHECK FOR HT. NO.

RESULTS OF INSPECTION/SURVEILLANCE: VERIFIED REMOVAL OF BASE R ITEM # 7 & 8 AND NO HEAT NUMBER EXISTED - ITEMS 7 & 8 WERE RE-PLACED WITH NEW PLATES HT. NO. (E48435)

(1) HOLD TAG REMOVED

NCR NO. M-3431

D. L. Smith II
QC ENGINEER/INSPECTOR

5/28/82
DATE

VOIDED

QA RECORD

BROWN & ROOT, INC.
Quality Assurance Department
Nonconformance Report (NCR)
CPSES-35-1195

NCR NO. M-3354 R1

PAGE 1 OF 1

DRAWING/IDENTIFICATION	TAG/ID NUMBER	LOCATION OR ELEVATION	RIR NO.
MS-1-076-009-S52K	MS-1-076-009-S52K	839' El. 5'10" North of 5-S	N/A

NONCONFORMING CONDITION

T/O #3401
TREND CATEGORY M-19

DOCUMENT VIOLATED: QI-QAP-11.1-28 REV. 9 PARA. 3.1.1

Item number 12, T.S. ½" x 6" x 6", fabbed without QC verification for heat number transfer prior to cutting in Fab Shop. Hanger has been installed and welded. Heat #C11645

Revision 1: To re-open and change disposition.

HOLD TAG APPLIED

REPORTED BY:	DATE:	REVIEW/APPROVAL	DATE:
H. Johnson	3/23/82	R C Washington	9-2-82

ACTION ADDRESSEE	CAR NO.:	ASME CODE ITEM:
J. Finneran	NA	X Yes ___ No

DISPOSITION:
REWORK ___ REPAIR ___ USE AS IS XX SCRAP ___ RETURN TO VENDOR ___

C11645 is a valid heat number for 6" x 6" x ½" T.S. and is documented on shop records (attached) for a length of tube steel sufficient to fabricate items 12 & 15. These records conform to the information recorded on the MIL.

QA RECORD

RTN	QA REVIEW
1	DR 9 10 82
FILE NO.	
13.1	
SUBFILE NO.	
M-3354 R 1	

CON. REVIEW/APPROVAL:	DATE: 9-2	QA/QC REVIEW: R C Washington	DATE: 9-9-82
ENG. REVIEW/APPROVAL: R C Whitt	DATE: 9-8-82	ANI REVIEW: Cons	DATE: 9/8/82
QA/QC ENG/INSPR. VERIFICATION: R C Washington	DATE: 9-9-82		
ANI CONCURRENCE:	DATE: 9-9-82		
QA REVIEW/CLOSURE: Ellen J Hollis	DATE: 9-14-82		

CC/200

NCR# M-3354P1
PG 2 OF 10

FABRICATOR: G. Wesson DATE: 2-11-82

MATERIAL TYPE: (A-36 or SA-36) PAINT: (IF, RB, NP)	MATERIAL SIZE	MATERIAL KIND	FOOTAGE USED	DRAWING NO. OR MR NO. OR HANGER NO.	HEAT NO. OR MIC. NO. OR CODE
PP 00430 A500 GRB	3/8"x4"x4"	✓ TS	36"	CC2-215-415-C53R	26695 MR128491
PP 00424 SA36	3/4"	✓ PL	12 1/2"x15 3/4"	CC-2-215-415-C53R	4G5629 MR174185
PP A500 GRB	1/2"x6"x6"	✓ TS	11'-5"	MS1-076-009-552K	C11645 MR130245
SA 515 IF	1"	✓ PL	10"x10"	MS1-076-009 552K	CODE V MR 5271
PP A500 GRB	3/8"x4"x4"	✓ TS	0'-5 1/8"	MS1-076009 552K	26695 MR128491
SA 36 IF	3/4"	✓ PL	5"x5"	MS1 076 009552K	4G5629 MR174185
SA 515 IF	1"	✓ PL	15 7/8"x13 7/8"	MS1 076009 552K	CODE V MR5271

x 625 16-I

HANGER NUMBER

MATERIAL IDENTIFICATION LOG

Mat'l Spec	Material Description	Quantity	Heat/ID Number	Salvaged Hanger Number (where applicable)	QC Verification	Date
NA	[illegible]	8	NA	NA	[illegible]	1/…/82
[illegible]	[illegible]	1	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	1	[illegible]	N/A	[illegible]	
[illegible]	[illegible] x 20¾"	1	[illegible]	N/A	[illegible]	
[illegible]	[illegible]	1	C1164S	NA		
[illegible]	[illegible]	1	[illegible] V	[illegible]	[illegible]	[illegible]
[illegible]	[illegible] 3¼"	1	C11645	NA	[illegible]	[illegible]
[illegible]	[illegible] 3¼"	1	[illegible]	NA	[illegible]	[illegible]
[illegible]	[illegible]	1	[illegible]	NA	[illegible]	[illegible]
[illegible]	[illegible] 15" x 13⅞"	1	[illegible] V	[illegible]	[illegible]	[illegible]
NA	[illegible] 8½ HEB	6	NA	NA	[illegible]	3/12/82
[illegible]	[illegible]	1	[illegible]			
[illegible]	[illegible]		[illegible]	[illegible]		
	[illegible]	[illegible]	[illegible]	NA		

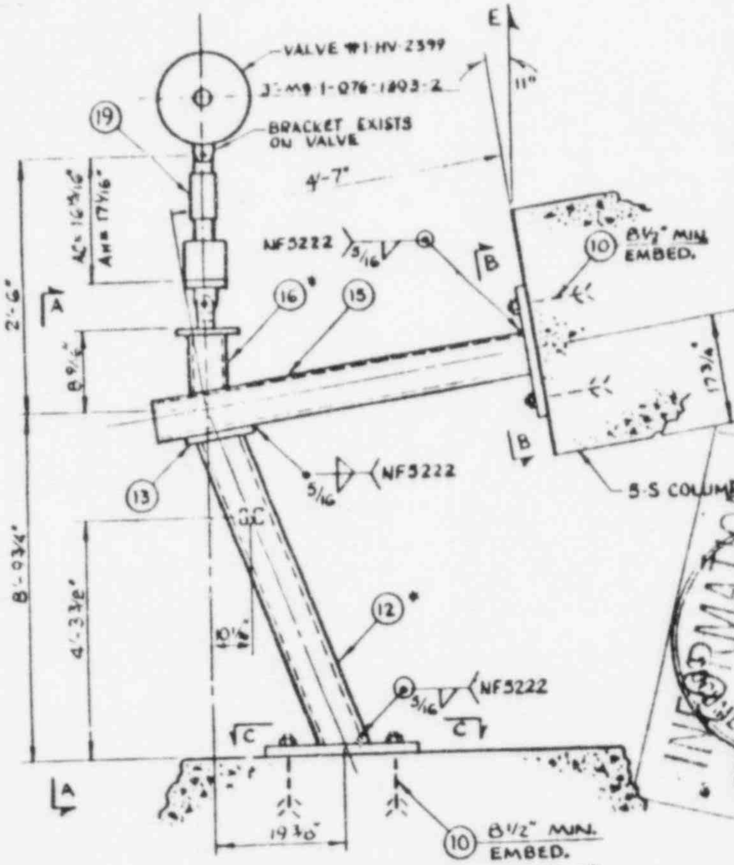
[illegible] mill 1-23-82 JRA

* [illegible] 1-23-82
[illegible] 1-23-82
[illegible] 1-23-82
[illegible] 2-11-82 [illegible]

BLUELINE 1-25-82

NOTES
1) PER REVIEW BY G&H SITE ANALYSIS, SUPPORT NEED BE DESIGNED TO DESIGN LOAD ONLY & NOT TO MAX. SNUBBER RATING. (REF. GTN 48522 & 1007 PSE)
2) VALVE DWG. 3SA226 RF LOAD & VALVE INFO. FROM GTN 48522

* FIELD TRIM TO SUIT

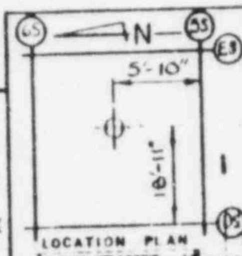


PLAN VIEW @ ELEV. 839'-0"

MVTS.
X= .038
Y= .128
Z= .093

PIPE MI-0608 REV. 10
G.H.I. Iso. MI-3239-41 REV. J
I.P.D. Iso. MS-1-SB-03 REV. 4
Data Point 1341/#1-79 D R 2B
Pipe Mat'l. SA333 GR6
Insul. [illegible] Bldg. 5

T. O. 3401



THIRD PARTY INSPECTION
CODE CLASS: ASME III-2

ITEM NO.	MATERIALS & OPERATIONS	QUAN.	SHIP
7	5/8" x 8 1/2" HILTI-KWIK CONC. ANCHORS	6	
8	5/8" THK. C.S. PLATE, PER SECT. D-D (SA36/SA515GR65)	1	
9	SR9-08-BA, C-C= 5'-4", SWAY STRUT	1	
10	1" x 12" SUPER HILTI CONC. ANCHORS	8	
11	1" THK. C.S. PLATE, PER SECT. C-C (SA36/SA515GR65)	1	
12	[illegible] T.S., 9'-4" LG. ([illegible])	1	
13	1" x 10" x 10" C.S. PLATE (SA36/[illegible])	1	
14	1 1/4" THK. C.S. PLATE, PER SECT. B-B (SA36/SA515GR65)	1	
15	1/2" x 6" x 6" T.S., 5'-1" LG. (A500 GR. B)	1	
16	3/8" x 4" x 4" T.S., 0'-5 7/8" LG. (A500 GR. B)	1	
17	3/4" x 5" x 5" C.S. PLATE (SA36/[illegible])	1	
18	XRB-10 REAR BRACKET (A500 [illegible] A36)	1	
19	SMF-03-80 FIXED SNUBBER, L=2", C-C= 18 15/16"	1	

MARK # MS-1-076-009-S52K
PAINT: CARBO ZINC # 11

INFORMATION COPY PPRV

FOR MATERIALS AND OPERATIONS SEE SKETCH NO. SHEET OF

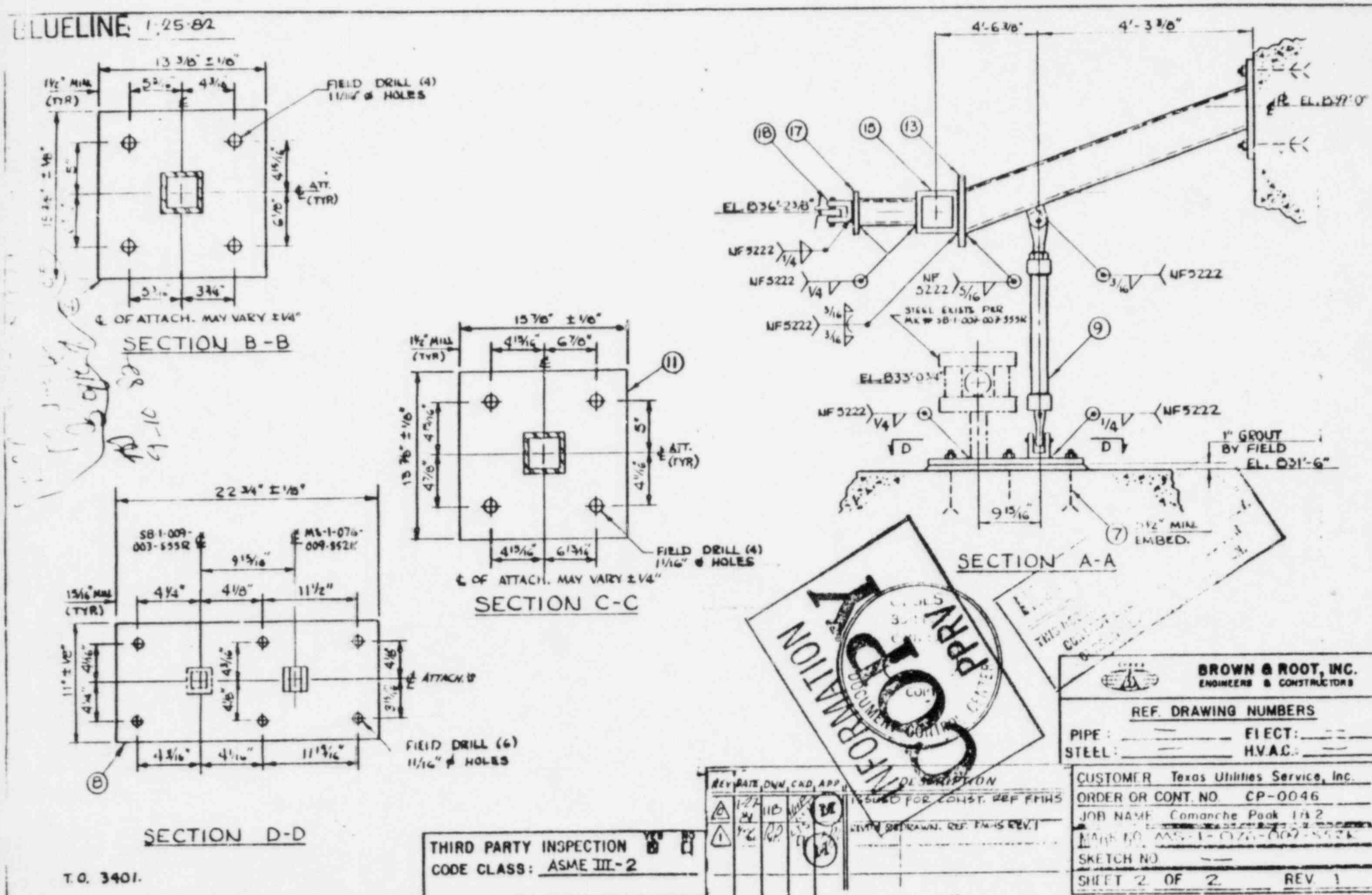
BROWN & ROOT, INC.
ENGINEERS & CONSTRUCTORS

REF. DRAWING NUMBERS
PIPE: [illegible] 1254
STEEL: SI-0605 R-4
ELECT: [illegible] 0602 035 R2
H.V.A.C.: MI-0653 R6

REV	DATE	DWN	CHK	APP	DESCRIPTION
0	[illegible]	HE	[illegible]	[illegible]	ISSUED FOR CONST. REF. FMHS
1	[illegible]	SP	[illegible]	[illegible]	REVD & REDRAWN. REF. FMHS REV. 1

CONDITIONS	Fx	Fy	Fz	Mx	My	Mz
DESIGN						
NORMAL & UPSET			±1175			
EMERGENCY			±2350			
FAULTED						

CUSTOMER Texas Utilities Service, Inc.
ORDER OR CONT NO CP-0046
JOB NAME Comanche Peak 1 & 2
MARK NO MS-1-076-009-S52K
SKETCH NO
SHEET 1 OF 2 REV



THIRD PARTY INSPECTION YES ☒ NO ☐

CODE CLASS: ASME III-2

REV	DATE	DWN	CKD	APP	DESCRIPTION
2	1-27-84	HB			ISSUED FOR CONST. REF FMHS
1					REDRAWN. REF. FMHS REV. 1

BROWN & ROOT, INC.
ENGINEERS & CONSTRUCTORS

REF. DRAWING NUMBERS

PIPE: —— ELECT: ——
STEEL: —— H.V.A.C.: ——

CUSTOMER Texas Utilities Service, Inc.
ORDER OR CONT. NO. CP-0046
JOB NAME Comanche Peak 1 & 2
MARK NO. MS-1-076-009-S52K
SKETCH NO. ——
SHEET 2 OF 2 REV. 1

Chicago, Illinois 60638 U.S.A.

Invoice No _____

TEST REPORT

Date 4-6-81

Customer

Gulfalloy Inc.
4730 Darien St
P. O. Box 52518
Houston, Tx 77052

FOR INFORMATION ONLY

Specification

6 Sq x ½ structural tubing
ASTM A 500 Grade B 80
Material produced in accordance with Q. A. program surveyed by Gulfalloy on 8-21-80

HEAT NO	CHEMICAL ANALYSIS, %										
	C	Mn	P	S							
C11645	.21	.75	.006	.018							
811N05270	.24	.80	.022	.023							

MECHANICAL PROPERTIES

HEAT NO	LAB NO	YIELD STRENGTH PSI	TENSILE STRENGTH PSI	ELONGATION %	HARDNESS R_b
C11645	25580	69,500	77,900	25	
811N05270	25596	66,200	72,100	27	

YIELD STRENGTH 0.2% OFFSET — ELONGATION IN 2 INCHES

INFORMATION COPY PPRV

Subscribed and sworn to before me a Notary Public in and for the State of _____ County of _____ this _____ day of _____ 19 _____

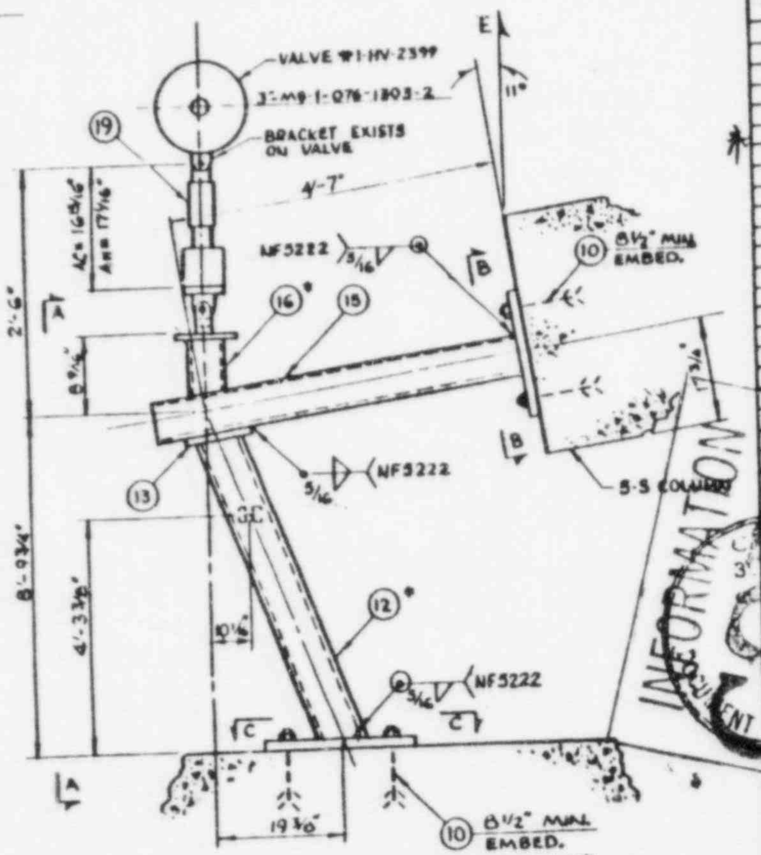
Metallurgist

BLUELINE 1-25-82

NOTES

1) PER REVIEW BY G&H SITE ANALYSIS, SUPPORT NEED BE DESIGNED TO DESIGN LOAD ONLY & NOT TO MAX. SNUBBER RATING. (REF GTN 48522 & 1007 PSE)

2) VALVE DWG. 35A226 RF LOAD & VALVE INFO. FROM GTN 48522.



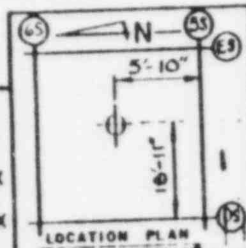
FIELD TRIM TO SUIT

PLAN VIEW @ ELEV. 839'-0"

MVTS.
X=.038
Y=.128
Z=.093

PIPE MI-0608 REV. 10
G.H.I. Iso. MI-3239-41 REV. J
I.P.D. Iso. MS-1-SB 03 REV. 4
Data Point 1341/#1-79 D & 28
Pipe Mat'l. SA333 GR6
Insul. 1½ Bldg. 8

T. O. 3401



THIRD PARTY INSPECTION

CODE CLASS: ASME III-2

ITEM NO.	MATERIALS & OPERATIONS	QUAN	SHIP		PBS	L	CSS	PRIM	SEC	AISC
7	5/8" x 8 1/2" HILTI-KWIK CONC. ANCHORS	6					X			
8	5/8" THK. C.S. PLATE, PER SECT. D-D (SA36/SA515 GR65)	1			X			X		
9	SR9-08-BA, C-C = 5'-4", SWAY STRUT	1					X			
10	1" x 12" SUPER HILTI CONC. ANCHORS	8					X			
11	1" THK. C.S. PLATE, PER SECT. C-C (SA36/SA515 GR65)	1			X			X		
12	1/2" x 6" x 6" T.S., 9'-4" LG. (A500 GR B)	1				X		X		
13	1" x 10" x 10" C.S. PLATE (SA36/SA515 GR65)	1			X			X		
14	1 1/4" THK. C.S. PLATE, PER SECT. B-B (SA36/SA515 GR65)	1			X			X		
15	1/2" x 6" x 6" T.S., 5'-1" LG. (A500 GR B)	1				X		X		
16	3/8" x 4" x 4" T.S., 0'-5 1/8" LG. (A500 GR B)	1				X		X		
17	3/4" x 5" x 5" C.S. PLATE (SA36/SA515 GR65)	1			X			X		
18	XRB-10 REAR BRACKET (A668 D/SA 36)	1					X			
19	SMF-03-80 FIXED SNUBBER, L=2", C-C=18 ?/16"	1					X			

MARK # MS-1-076-009-S52K
PAINT: CARBO ZINC # 11

FOR MATERIALS AND OPERATIONS SEE SKETCH NO. SHEET OF

BROWN & ROOT, INC.
ENGINEERS & CONSTRUCTORS

REF. DRAWING NUMBERS

PIPE: PECD 1254 ELECT: EI-0602-03 R2
STEEL: SI-0600 R-4 H.V.A.C.: MI-0653 R6

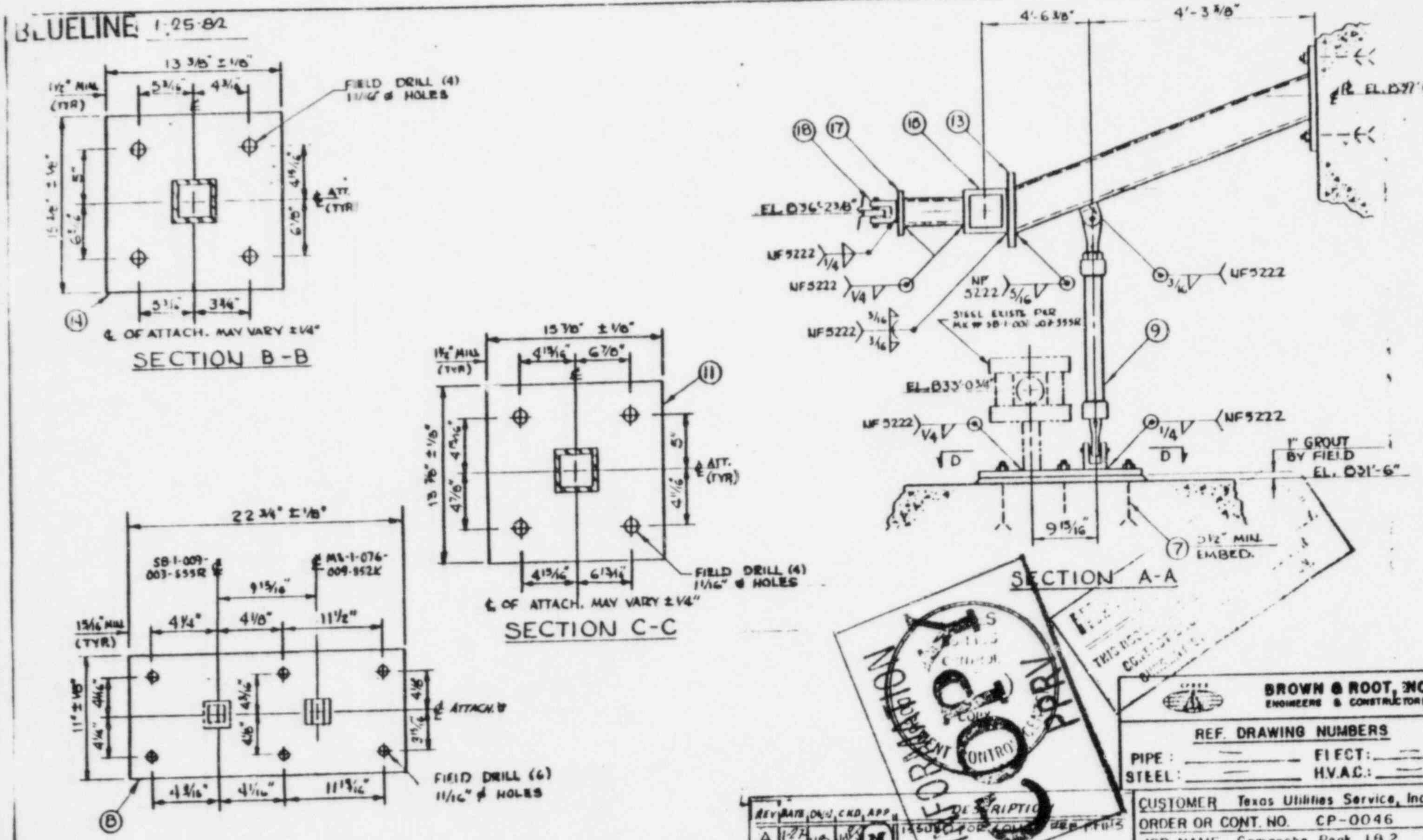
REV	DATE	DWN	CHK	APP	DESCRIPTION
0	1/27				ISSUED FOR CONST. REF. FMHS
1					REV'D & REDRAWN. REF. FMHS REV. 1

CONDITIONS	Fx	Fy	Fz	Mx	My	Mz
DESIGN						
NORMAL & UPSET	—	—	11175			
EMERGENCY	—	—	12350			
FAULTED						

CUSTOMER Texas Utilities Service, Inc
ORDER OR CONT NO. CP-0046
JOB NAME Comanche Peak 1 & 2
MARK NO. MS-1-076-009-S52K
SKETCH NO.
SHEET 1 OF 2 REV 1

INFORMATION COPY

BLUELINE 1-25-82



T.O. 3401.

THIRD PARTY INSPECTION
CODE CLASS: ASME III-2

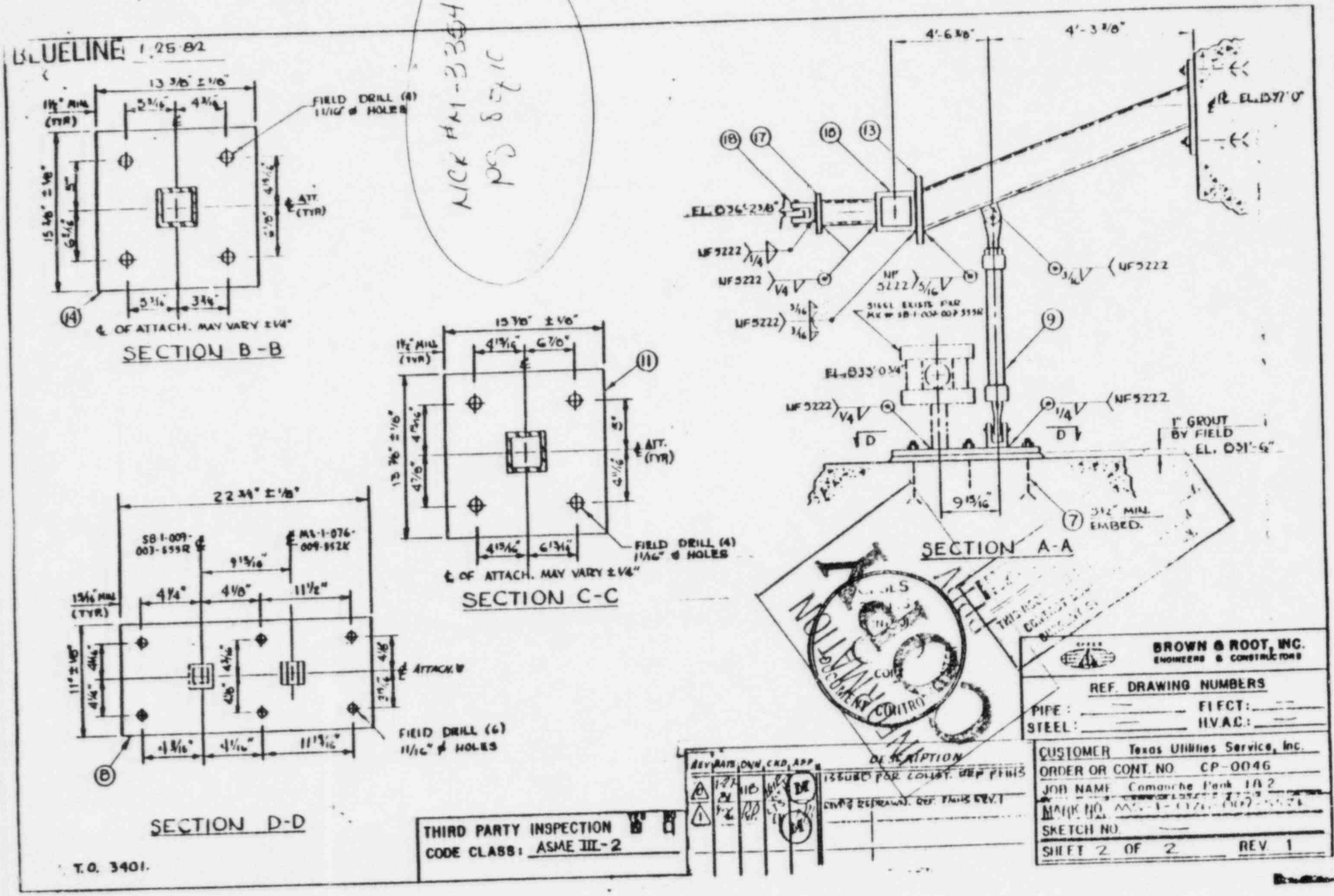
REV	DATE	DWN	CKD	APP	DESCRIPTION
2	1-27-82	HB			ISSUED FOR CONST. PER FP113
1					REVISED REDRAWN PER FP113 REV. 1

BROWN & ROOT, INC.
ENGINEERS & CONSTRUCTORS

REF. DRAWING NUMBERS

PIPE: — ELECT.: —
STEEL: — H.V.A.C.: —

CUSTOMER Texas Utilities Service, Inc.
ORDER OR CONT. NO. CP-0046
JOB NAME Comanche Peak 1 & 2
MARK NO. MS-1-076-009-S52K
SKETCH NO. —
SHEET 2 OF 2 REV. 1



BLUELINE 1-25-82
MCK #M1-335-4R1
13 3/8" ± 1/8"
FIELD DRILL (4) 11/16" ⌀ HOLES
℄ OF ATTACH. MAY VARY ± 1/4"
SECTION B-B
15 3/8" ± 1/8"
FIELD DRILL (4) 11/16" ⌀ HOLES
℄ OF ATTACH. MAY VARY ± 1/4"
SECTION C-C
22 3/4" ± 1/8"
FIELD DRILL (6) 11/16" ⌀ HOLES
SECTION D-D
4'-6 3/8"
4'-3 3/8"
EL. 836'-2 3/8"
EL. 833'-0 3/4"
1" GROUT BY FIELD
EL. 831'-6"
3 1/2" MIN. EMBED.
SECTION A-A
NF5222
THIRD PARTY INSPECTION
CODE CLASS: ASME III-2
T.O. 3401.
DESCRIPTION
ISSUED FOR CONST.
BROWN & ROOT, INC.
ENGINEERS & CONSTRUCTORS
REF. DRAWING NUMBERS
PIPE:
STEEL:
ELECT:
H.V.A.C.:
CUSTOMER Texas Utilities Service, Inc.
ORDER OR CONT. NO. CP-0046
JOB NAME Comanche Peak 1 & 2
MARK NO.
SKETCH NO.
SHEET 2 OF 2
REV. 1

Brown & Root, Inc.

INSPECTION REPORT

PLANT CODE 1-4	SYSTEM CODE 5-10	COMPONENT CODE 11-18

TAG/SPIN/IDENT NO A B C D E F	DRAWING/SPECIFICATION NO. G (Units)	H (Units)	SERIAL NO J (Units)
17-56			

PURCHASE ORDER NUMBER 56-69	VEND CODE 70-73

MRR NUMBER 74-79	RIR NUMBER 80-85	VENDOR'S HEAT/LOT/BATCH NO. 86-95	COUNT UNITS QUANTITY 96-105	PURCH'S QR NO. 106-111	RLS/HOLD NO. CODE STATUS 112-121	INPUT DATE 122-127

PURPOSE AND TYPE OF INSPECTION/SURVEILLANCE: NCR M-3354

RESULTS OF INSPECTION/SURVEILLANCE: USE AS IS disposition of NCR-M3354 accomplished Satisfactorily.

Hold Tag Removed.

NCR NO. M-3354

QC ENGINEER/INSPECTOR

DATE 4/18/85

Figure 16.1-1

BROWN & ROOT, INC.
Quality Assurance Department
Nonconformance Report (NCR)
CPSES-35-1195

QA RECORD

NCR NO. M-3354

PAGE 1 OF 47

DRAWING/IDENTIFICATION	TAG/ID NUMBER	LOCATION OR ELEVATION	RIR NO.
MS-1-076-009-S52K	MS-1-076-009-S52K	839' 5'10" North of 5-S	N/A

NONCONFORMING CONDITION

T/O 3401
TREND CATEGORY M-19

DOCUMENT VIOLATED: QI-QAP-11.1-28 REV. 9 PARA. 3.1.1

Item number 12, T.S. ½"x6"x6", fabbed without QC verification for heat number transfer prior to cutting in Fab Shop. Hanger has been installed and welded.

NCR# M-3354 R1 pg. 10 of 10

Heat # C11645

Hold tag applied

REPORTED BY:	DATE:	REVIEW/APPROVAL:	DATE:	TIME:
H. Johnson	3/23/82	[signature]	3/24/82	10 AM

ACTION ADDRESSEE	CAR NO.:	ASME CODE ITEM:
J. Finneran		XX Yes ___ No

DISPOSITION:
REWORK ____ REPAIR ____ USE AS IS XX SCRAP ____ RETURN TO VENDOR ____

C11645 is a valid heat number for 6"x 6"x ½" T.S..

INFORMATION COPY PPRV

QA RECORD
QA REVIEW 2-14-82
15.1
NO. M-3354

	DATE:		DATE:
CON. REVIEW/APPROVAL: [signature]	4-8-82	QA/QC REVIEW: [signature]	4/14/82
ENG. REVIEW/APPROVAL: [signature]	4-8-82	ANI REVIEW: [signature]	4-14-82
QA/QC ENGINEER VERIFICATION: [signature]	4/15/82		
ANI CONCURRENCE: John H. Richardson	4/15/82		
QA REVIEW/CLOSURE: [signature]	4/15/82		

Figure 16.1-1

QA RECORD

BROWN & ROOT, INC.
Quality Assurance Department
Nonconformance Report (NCR)
CPSES-35-1195

NCR NO. M-3354

PAGE 1 OF 4

DRAWING/IDENTIFICATION	TAG/ID NUMBER	LOCATION OR ELEVATION	RIR NO.
MS-1-076-009-S52K	MS-1-076-009-S52K	839' 5'10" North of 5-S	N/A

NONCONFORMING CONDITION

T/O 3401
TREND CATEGORY M-19

DOCUMENT VIOLATED: QI-QAP-11.1-28 REV. 9 PARA. 3.1.1

Item number 12, T.S. ½"x6"x6", fabbed without QC verification for heat number transfer prior to cutting in Fab Shop. Hanger has been installed and welded.

Heat # C11645

Hold tag applied

REPORTED BY:	DATE:	REVIEW/APPROVAL	DATE:	TIME:
H. Johnson	3/23/82		3/24/82	10 AM

ACTION ADDRESSEE	CAR NO.:	ASME CODE ITEM:
J. Finneran		XX Yes ___ No

DISPOSITION:
REWORK ___ REPAIR ___ USE AS IS XX SCRAP ___ RETURN TO VENDOR ___

C11645 is a valid heat number for 6"x 6"x ½" T.S..

ARMS
INDEXED

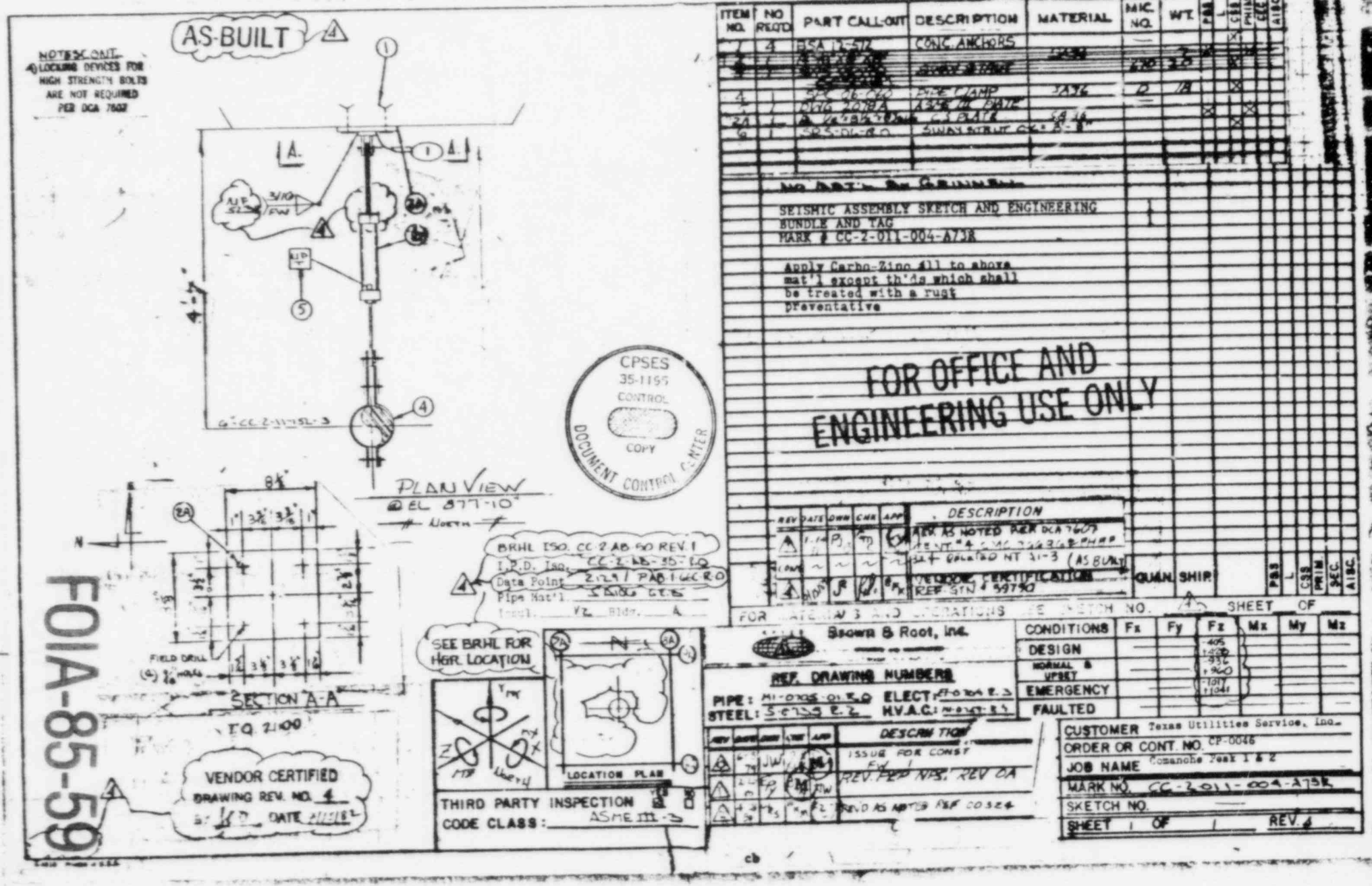
DATE:

QA RECORD

RTN TO QA REVIEW
L CN 4/7/82
FILE NO.
15.1
SUBFILE NO.
M-3354

CON. REVIEW/APPROVAL:	DATE: 4-8-82	QA/QC REVIEW:	DATE: 4/14/82
ENG. REVIEW/APPROVAL:	DATE: 4-8-82	QA MGR. REVIEW:	DATE: 4-14-82
QA/QC ENGINEER VERIFICATION:	DATE: 4/15/82		
QAM CONCURRENCE: John D. Richardson	DATE: 4/15/82		
QA REVIEW/CLOSURE:	DATE: 4/15/82		

INFORMATION ONLY



CC/201

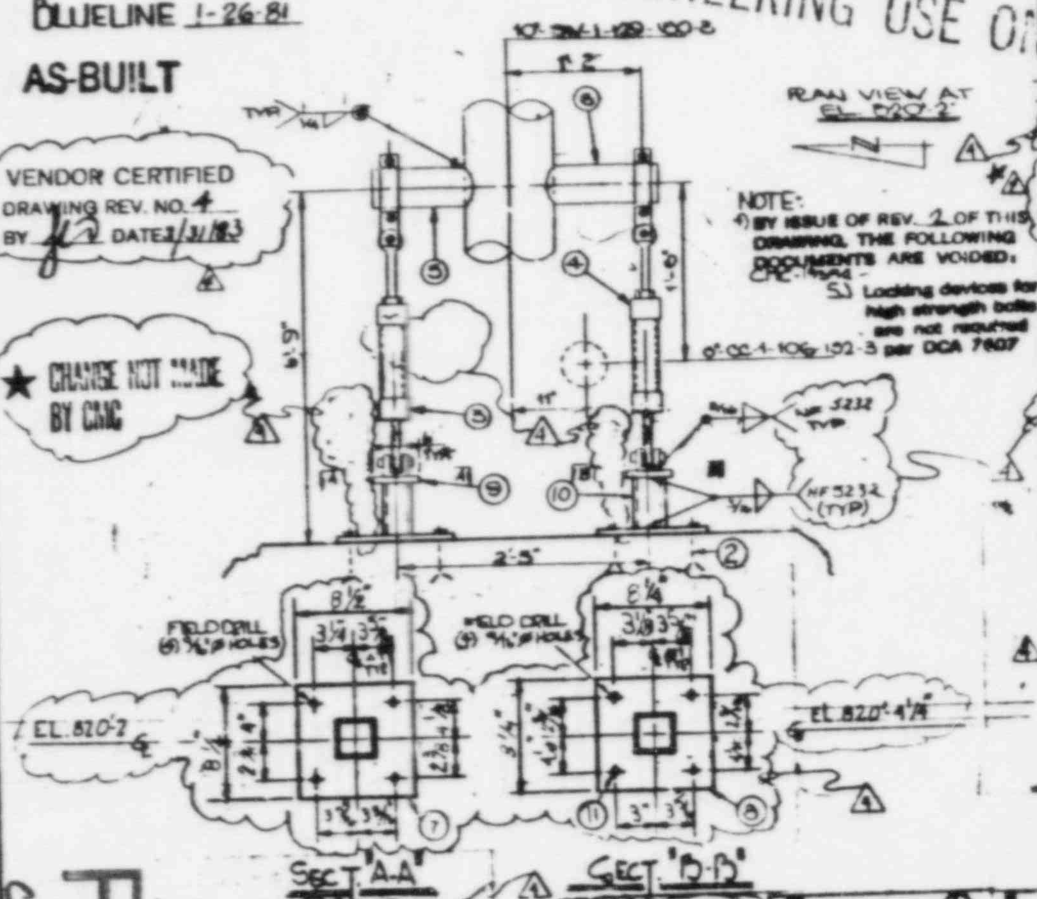
FOR OFFICE AND ENGINEERING USE ONLY

BLUELINE 1-26-81

AS-BUILT

VENDOR CERTIFIED
DRAWING REV. NO. 4
BY [illegible] DATE 3/31/83

★ CHANGE NOT MADE BY CMC



BRHL ISO. SW-1-AB-05 R1
I.F.D. Iso. SW-1-AB-05 R7
Data Point 237 / AB-1-46T R0
Pipe Mat'l. SA106 GR B
Insul. — Bldg. A

THIRD PARTY INSPECTION
CODE CLASS: ASME III-3

TC# 402

ITEM NO.	MATERIALS & OPERATIONS	QUAN.	SHIP.		PBS	L	CS9	PRIM.	SEC.	AISC
	SEISMIC SWAY STRUT ASSEMBLY CONSISTING OF:	ONE								
1	1/2"x8" Carbon Steel (SA-515 GR 65 or SA-36) 0'-8" Long. TW-10#	2			X				X	
2	1/2"x5 1/2" Hilti Kwik Concrete Anchors (111A1)	7	[illegible]						X	
3	Fig. 211 "B" Sway Strut Assembly, 4 1/2" O.D. Pipe, Carbon Steel, W=4'-1 3/8" Load= 1293 #	1							X	
4	Fig. 211 "B" Sway Strut Assembly, 4 1/2" O.D. Pipe Carbon Steel, W=4'-1 3/8" Load= 1207 #	1							X	
5	H.S. 63 "C" Carbon Steel (SA-106 GR B) 4" Stanchion 10" Pipe, D=1'-2 1/4", E=0'-9 3/8" Less Base Plate, TW-8#	1								
6	H.S. 63 "C" Carbon Steel (SA-106 GR B) 4" Stanchion, 10" Pipe, D=1'-7 1/4", E=1'-2 3/8" Less Base Plate, TW-13#	1								
11	1/2"x7" HILTI KWIK BOLT 4" MIN EMB. *BY GRINNELL							X		
	SEISMIC ASSEMBLY SKETCH AND ENGINEERING	1								
	BUNDLE AND TAG	1								
	MARK # SW-1-129-045-A43R									
	Apply one coat of Carbo Zinc #11 to above mat'l except th'ds which shall be coated w/a rust preventative.									
7	1/2" THK CS PLATE PER SECTION A-A (SA-36)	1			X				X	
8	1/2" THK CS PLATE PER SECTION "B-B" (SA-36)	1			X				X	
9	CS P [illegible] (SA 36 or SA515 GR 65)	2			X		X		Y	
10	TS [illegible] (A500 GR B)	2			X		X		Z	

REV	DATE	DWN	CHK	APPR	DESCRIPTION
3	[illegible]	[illegible]	CB	[illegible]	[illegible] SEE NOTE 5 (AS BUILT)
4	[illegible]	[illegible]	Q	[illegible]	REV. AS BUILT REF CMC 74483; VENDOR CERTIFIED REF [illegible]

FOR MATERIALS AND OPERATIONS SEE SKETCH NO. [illegible] SHEET OF

Brown & Root, Inc.

REF. DRAWING NUMBERS
PIPE: BL-0700 E.11 ELECT: [illegible]
STEEL: S-0711 E.6 H.V.A.C.: 0700 [illegible]

REV	DATE	DWN	CHK	APPR	DESCRIPTION
1	[illegible]	[illegible]	[illegible]	[illegible]	ISSUE FOR LOOSE FIELDIT. FW 1-4
2	[illegible]	[illegible]	[illegible]	[illegible]	ITEM 3 BY GRINNELL; [illegible] REV. 1
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
—	—	~	—	~	[illegible]

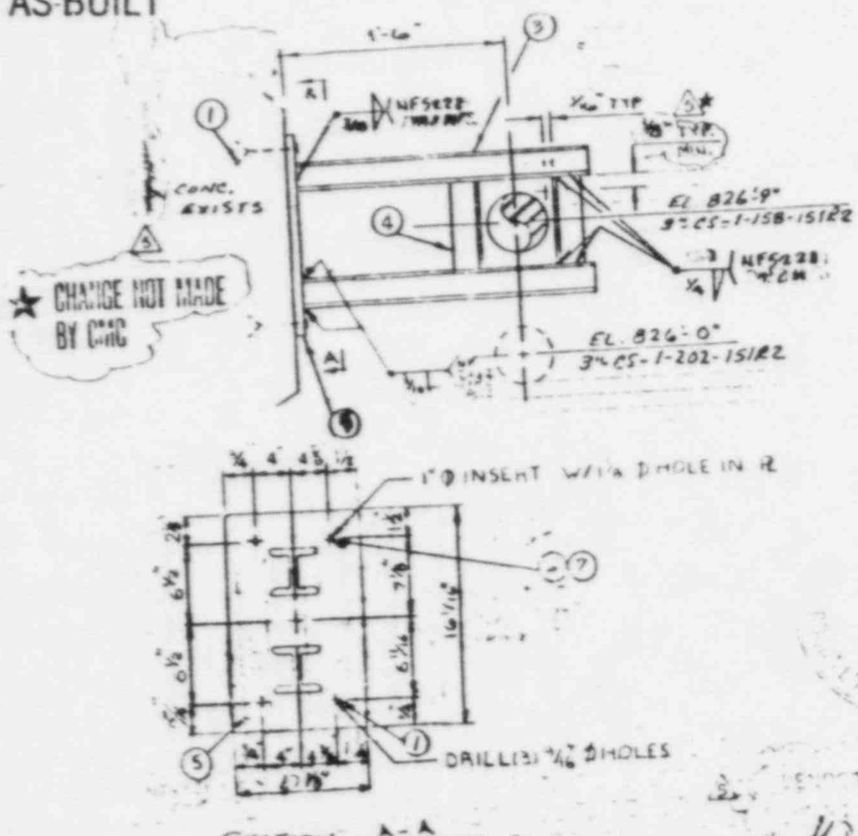
CONDITIONS	Fx	Fy	Fz	Mr	My	Mz
DESIGN						
NORMAL & UPSET			1451 / 2194			
EMERGENCY			2137 / 2205			
FAULTED						

CUSTOMER	Texas Utilities Service, Inc.
ORDER OR CONT. NO.	CP-0046
JOB NAME	Comanche Peak 1 & 2
MARK NO.	SW-1-129-045-A43R
SKETCH NO.	
SHEET 1 OF 1	REV. 4

FOIA-85-59

CC/202

AS-BUILT



ITEM NO.	MATERIALS & OPERATIONS	QUAN.	SHIP.
	SEISMIC PIPE RESTRAINT CONSISTING OF:	ONE	
1	1/2"x5 1/2" Hilti Kwik Concrete Anchors		
2	~~3/8"x10" Carbon Steel (SA-36 or SA-515 GR 65) Plate 1'-3" Long, TW-12B~~	1	
3	S3x5.7 (SA-36) 1'-10 Long, TW-12B	2	
4	1/4"x2"x2" Carbon Steel (SA-36) Angle, 0'-4 1/2" Long, TW-2B	2	
5	2 THK (PER SECTION A-A) CS PLATE; No Mat'l By Field	1	
	SEISMIC ASSEMBLY SKETCH AND ENGINEERING	1	
	BUNDLE AND TAG	1	
	MARK # CS-1-158-017-S42R		
6	1"x6" FIG 140N W/ THREAD FULL LENGTH	1	
7	1" HEX NUTS (SA 307 GR B)	2	

FOR OFFICE AND ENGINEERING USE ONLY

REV	DATE	DWN	CHK	DESCRIPTION
1		JMB		VENDOR CERTIFICATION; REF GTN 60434
2	8-4-83			REV. VENDOR CERT; REF NCR M75695

Approved By: C.E.G.
Date: 1-22-79

VENDOR CERTIFIED

FOR MATERIALS AND OPERATIONS SEE SKETCH NO. ____ SHEET ____ OF ____

Brown & Root, Inc.

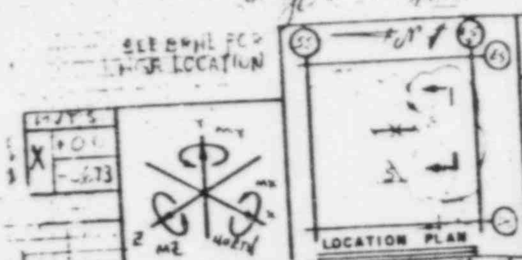
REF. DRAWING NUMBERS
PIPE: AII-0612 REV 13 ELECT: EI-0602-01
STEEL: SI-0605 REV 9 H.V.A.C.: M-0652

CONDITIONS	Fx	Fy	Fz	Mx	My	Mz
DESIGN						
NORMAL & UPSET						
EMERGENCY						
FAULTED						

REV	DATE	DWN	CHK	APP	DESCRIPTION
0					ISSUE FOR CONST
1	4-19-80				REV AS NOTED PER CMC 26-PHBP 475 R1
2					REV AS NOTED PER CMC
3					REV ... SEE NOTE AS-BUILT

CUSTOMER	Texas Utilities Service, Inc
ORDER OR CONT. NO.	CP-0046
JOB NAME	Comanche Peak 1 & 2
MARK NO.	CS-1-158-027-S42R
SKETCH NO.	
SHEET 1 OF 1	REV. 5

SEE DWG FOR LOCATION



THIRD PARTY INSPECTION
CODE CLASS: ASME III-2

Note:
4) LOCKING DEVICES FOR HIGH STRENGTH BOLTS ARE NOT REQUIRED

T.O. 4901
SRNE. Iso. CS-1-SB-032 / REV 1
I.P.D. Iso. CS-1-SB-32 - Rev 5
Data Point 2095
Pipe Mat'l. SA312 TP 304
Insul. ____ Bldg. SB

FOIA-85-59

CC/203

This Is A Duplicate Package Required For Modification Work (NCR 2341 and NCR 238...)

QC LOG	
40020 A	VOID 12/3/80
39981 A	
39981 A	12/03/80

Original In Vault

MULTIPLE WELD DATA CARD

WDC SERIAL # 41023

DRAWING # SW-1-027-005-J03R

LINE # NA

INDEXED

ITEM NO.	WPS NO.	REV.	ICN	WELD FILLER MATERIAL	WELD NOS. DATE:	P NO.	FABRICATION CODE & CLASS/ ACC STD
NA	11032	7	1	E7018	NA	1-1	ASME III-3

NOTES: 1. APPLICABLE QC/ANI HOLD POINTS SHALL BE INDICATED BY CHECKMARK.
2. ANI INSPECTION POINTS INDICATED BY (X).
3. DENOTE SATISFACTORY INSPECTIONS BY AN "S"; UNSATISFACTORY INSPECTIONS BY A "U".

OPERATION #	OPERATIONS		
1	Support Number Identification	7	Spherical Bearings
2	Size, Configuration, Tolerance/Dwg.	8	All Welds/Dwg. & WPS (V.T.) *
3	Material Correct/Dwg.	9	Installation Complete
4	Fasteners Correct & Complete	10	Final PT/MT (as required)
5	Location & Elevation/Dwg.	11	
6	Spring Can Stops Installed	12	

PRODUCTION RELEASE

WELD NO.	OPERATION	HOLDPOINTS WT	HOLDPOINTS QC	HOLDPOINTS ANI	CONST	SAT OR UNSAT	QC OR WT	NDE CERT LEVEL	ANI	NDEP/ REV.	MT&E # CALIB DUE DATE
NA	1	NA	✓	NC							
NA	2	NA	✓	NC							
NA	3	NA	✓	NC							
NA	4	NA	✓	NC							
NA	5	NA	✓	NC							
NA	6	NA	✓	NC							
NA	7	NA	✓	NC				12/14/80 II			
NA	8	NA	✓	NC				12/14/80 II	*		
NA	9	NA	NA	NC	[illegible]						

Reviewed: B. Moeller 11-21-80

PERM. PLT. RECORD
L 17.1.04.13
SW-1-027-005-J03R

MODIFICATION

Strut was removed per IR N1040 68 and NCR 2386 A. QC will "NA" all holdpoints unnecessary to the re-installation of the strut and sign the appropriate boxes. 12-3-80

INFORMATION COPY PPRV

*NA's on NCR 2386 A 3/17/82

WE [signature] QC ANI [signature] 10/23/83

APPROVAL SIGNATURES SHALL BE AFFIXED IN THE LINE IMMEDIATELY BELOW THE LAST STEP IN EACH SEQUENCE.

* ... are Final Inspections.

CC/204

FOIA-85-59

INSPECTED ITEM REMOVAL NOTICE

B&R Job 35-1195 CPSES

№ 104058

DATE	LOCATION	ITEM DESCRIPTION
11-19-80	SWI.	HANGER
SYSTEM/STRUCTURE DESIGNATION Service Water 798' 9"	IDENTIFICATION SW-1-027-005-~~J03R~~ J04R	QC NOTIFIED BY

REASON FOR REMOVAL

Per II 21-80

TO CLOSE NCR'S M2341 & M-2386

MODIFIED
SEE ADDITIONAL CERTIFICATION

ARMS
INDEXED

SW-1-027-005-S03[illegible]
HANGER NUMBER

MATERIAL IDENTIFICATION LOG

Mat'l Spec	Material Description	Quantity	Heat/ID Number	Salvaged Hanger Number (where applicable)	QC Verification	Date
	~~Heat~~ Ser'd	3778-3-5		to become SW-1-027-005-S03[illegible]		
	Per CMC-40020		9 D	[illegible] 10-6-80	SW	10-7-80
SA36	1¼ X 7 X 14½ PL	1 (15)	15 367810	N/A	SW	10-7-80
~~A500 GRB~~	~~4X4X½~~ X 11'-0" TS	1	13 054492	✓ N/A	SW	10-7-80
A500 GRB	4X4X½ X 35⅜"	1 (13)	13 EC3854	N/A	SW	10-10-80
A500 GRB	PLATE ~~24X24X1~~	1	202837	N/A Edward J Morris 4/26/82		
* Refer to MR# 9875						

Stabbed item 15, 13, 9 10-7-80

INFORMATION COPY PPRV

SWAY STRUT
MODIFICATION ONLY

SW-1-027-005-J03R
HANGER NUMBER

MATERIAL IDENTIFICATION LOG

	Mat'l Spec	Material Description	Quantity	Heat/ID Number	Salvaged Hanger Number (where applicable)	QC Verification & Date	Notes
#9	SRS-10 Bergen	STRUT # H8H1-27-H	1	NPH29 CoBe...	SW-1-027-005-J03R	JHue 12-16-81	

INFORMATION COPY PPRV

Flobbed item 9 per print C-C= 2'-3½ 12-16-81 R.W.

SW-1-027-005-J03R
HANGER NUMBER

SWAY STRUT
MODIFICATION ONLY

MATERIAL IDENTIFICATION LOG

Mat'l Spec	Material Description	Quantity	Heat/ID Number	Salvaged Hanger Number (where applicable)	QC Verification & Date	Notes
(9) USED SA	SWS-10 STRUT LVAGE EYEROD ASSY		NP429	4841-27-44-S	B. Lee 12-23-81	
AND S	ALVAGE BULK BARREL		NP428	4841-52-5-S	B. Lee 12-23-81	
TO BEC	OME SW-1-027-005-		J03R PER PRINT C-C=2'-4½"			

FABBED ITEM #9 PER PRINT 12-23-81 J.R.G.

MATERIAL VERIFICATION CHECKLIST

HANGER MARK # SW-1-027-005-J03R

△3 of BRH lists items # 1, 6, 9, 10, 13, 15, 16

△5 CMC 39981 REVISED DELETED items # 3, 7, 8, 2, 11 — REVISED QUANTITY of Item 10 to 6

△2 CMC 40020 DELETED items # 2

△5 CMC 39981 ADDED items # 9, 10, 13, 15

△2 CMC 40020 ADDED items # 9

△ CMC ______ ADDED items # ______

REVISED BILL OF MATERIAL

ITEM #	QNTY	DESCRIPTION	HEAT, MIC, SALVAGE	QC VERIFIED
1	1	T.S. 1/2 X 6 X 6 X 2'9"	*	
6	1	PL 1 1/4 X 2 X 2	MR# 9875	HT 202837 ✓
9	1	SRS-10-PC	EYE ROD ASSY BARREL	HT NP 429 HT NP 428 ✓
	1	SPC-10-100	MR# 173323	HT 2147 NF ✓
	1	REAR BRACKET XRB-10		HT NF 1432
10	6	1 X 12 HUB		HT N/A
13	1	Tube Steel 1/2 X 4 X 4		HT EC 8854 ✓
15	1	PL 1 1/4" X 7" X 14 1/2"		HT 3G 7810 ✓
16	1	ASME III NAME PLATE		HT N/A ✓

Comment: Sway Strut Mod. Both Vendor Welds Modified. (EIA-E-2)

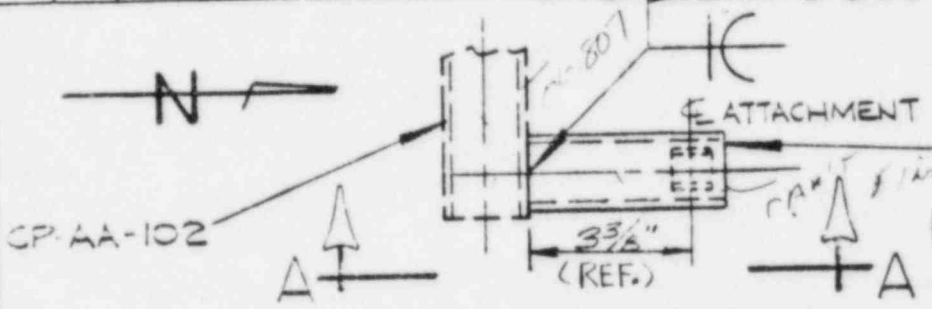
*No heat MVQ

NEED HEAT # FOR ITEM # Edwin Simmons for E. Lloyd

ALL ITEMS TRACEABLE ✓ 4/26/82

ITEM NO	QTY REQD	MATERIAL DESCRIPTION	ASTM DESIG.
4	1	TS 4 x 4 x .375 x 0'-6" LONG	A500 GR B
5	1	SIJBEER SMF-½ TYPE 50 HS = 2"; CS = 2";	
6	1	EAR ¾ t x 0'-0½"LG (PER DET. 1)	SA-36
7	2	PIN ⅜ Ø SMPP-06	
8	1	SMRB-1 W/O PIN	

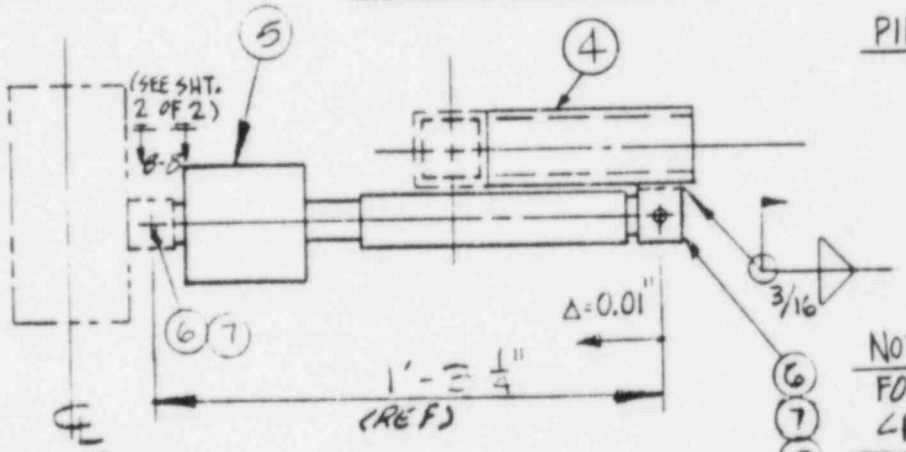
FOR OFFICE AND ENGINEERING USE ONLY



PLAN VIEW

DESIGN LOADS (LBS.)
LEVEL A: X = 0
LEVEL B: X = 484
LEVEL C: X = 612

PIPE MVMT. (IN.)
Δx = -0.01
Δy = 0.00
Δz = 0.00



℄ VALVE 1-HV-4603B

SECTION A-A

NOTE:
FOR GEN. NOTES, SEE CP-AA-001

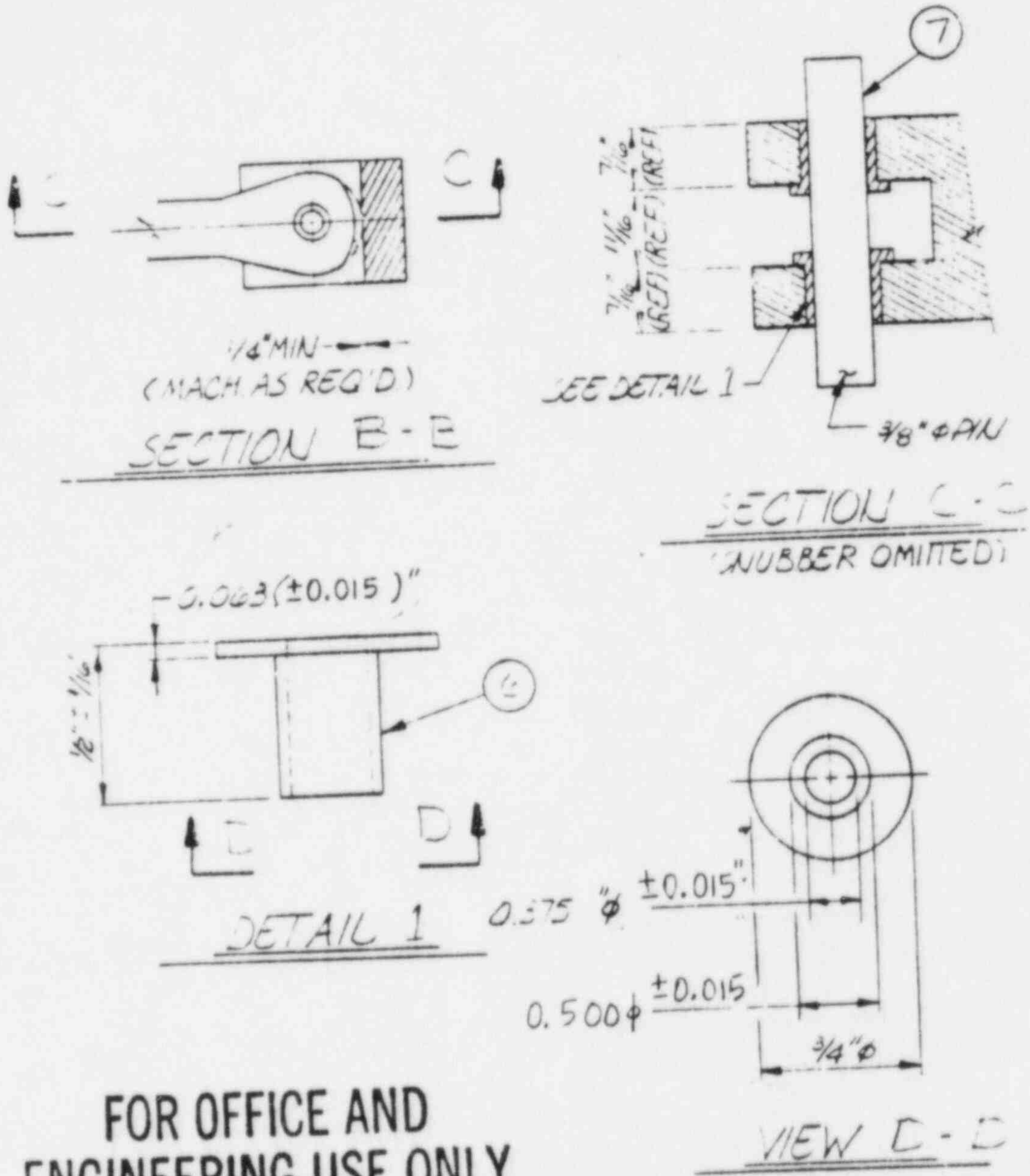
2 ★ CHANGES NOT MADE BY CMC

REV	DATE		DWN	CHKD	APPR	DESCRIPTION
3	11-7-83		[illegible]	[illegible]	[illegible]	FINAL REVIEW REVISED AS NOTED
2	9-19-83		[illegible]	RWE	[illegible]	FINAL REVIEW REVISED AS NOTED
1	3-4-83		DR	[illegible]	[illegible]	FINAL REVIEW & INCORP. CMC 3714 & R.5 & REDRAWN
						RELEASED FOR CONSTRUCTION

TEXAS UTILITIES SERVICES INC.
COMANCHE PEAK STEAM ELECTRIC STATION
PIPE SUPPORT ENGINEERING

DRAWING NO. H-CC-1-EC-007-018-53 | REV. 3 | SHT 1 OF 2

3 ★

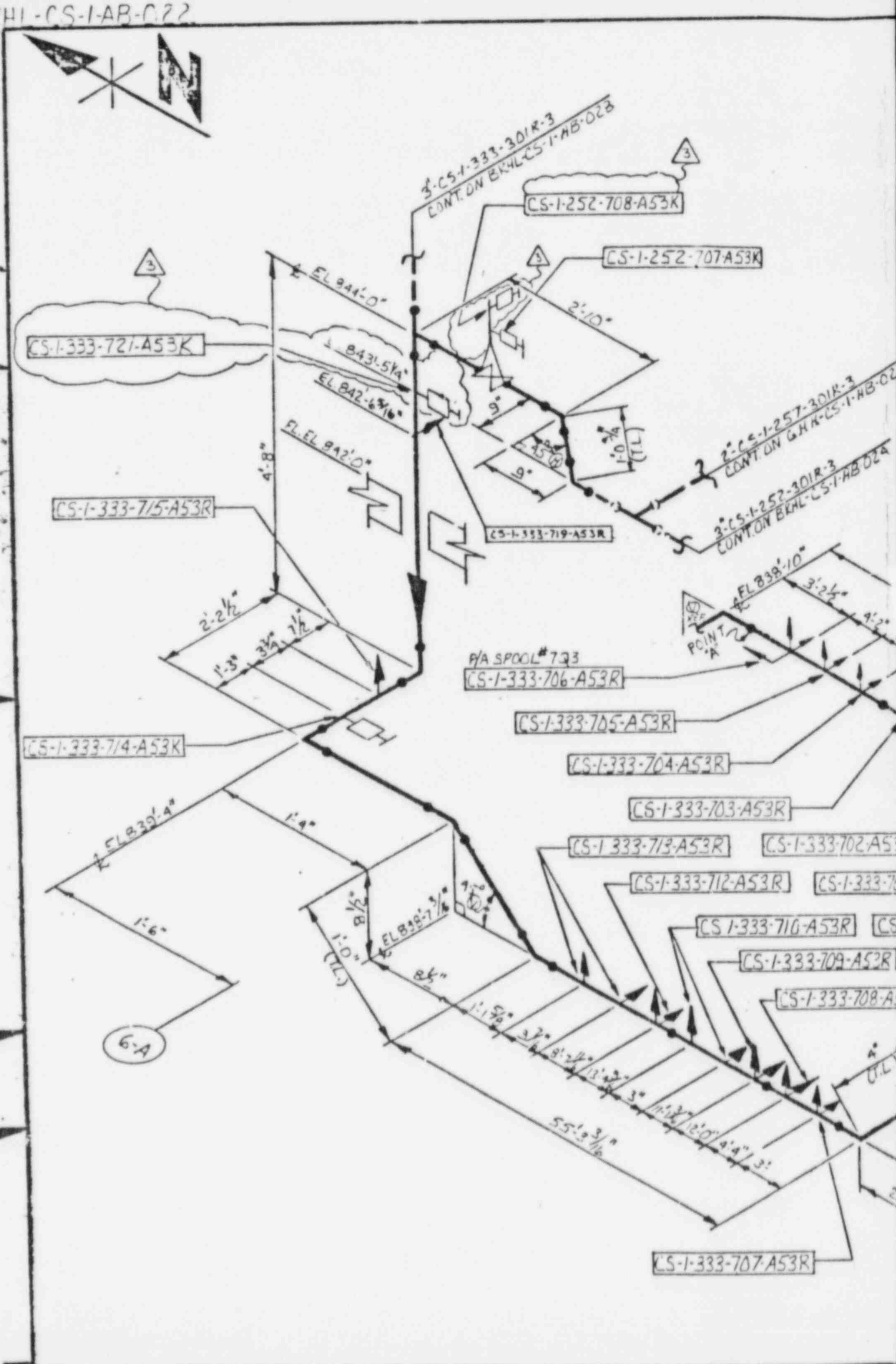


FOR OFFICE AND ENGINEERING USE ONLY

REV	DATE	DWN	CHKD	APPR	DESCRIPTION
3	11-7-83	cw	CG	DW	FINAL REVIEW - REVISED AS NOTED
2	9-19-83	cw	RWE	CMR	FINAL REVIEW - REV'D AS NOTED
1	3-4-83	DR	CG	RC	FINAL REVIEW & INCORP. CMC 37146 R.5 & REDRAWN
					RELEASED FOR CONSTRUCTION

TEXAS UTILITIES SERVICES INC.
COMANCHE PEAK STEAM ELECTRIC STATION
PIPE SUPPORT ENGINEERING

DRAWING NO H-CC-1-EC-007-018-53 | REV 3 | SHT 2 OF 2

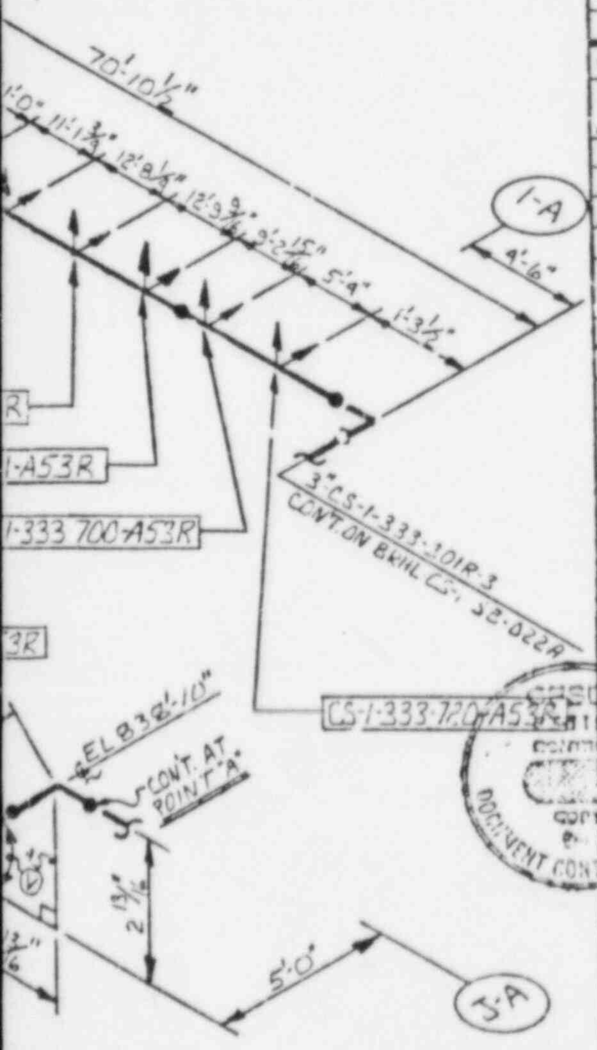

3"-CS-1-333-301R-3
CONT. ON BRHL-CS-1-AB-028
CS-1-252-708-A53K
CS-1-252-707-A53K
CS-1-333-721-A53K
EL 844'-0"
EL 843'-5 1/4"
EL 842'-6 3/16"
FL. EL 842'-0"
2'-10"
4'-8"
9"
CS-1-333-715-A53R
CS-1-333-719-A53R
2"-CS-1-257-301R-3
CONT. ON GHH-CS-1-HB-02
3"-CS-1-252-301R-3
CONT. ON BRHL-CS-1-HB-024
EL 838'-10"
POINT "A"
P/A SPOOL# 723
CS-1-333-706-A53R
CS-1-333-705-A53R
CS-1-333-704-A53R
CS-1-333-703-A53R
CS-1-333-714-A53K
2'-2 1/2"
1'-3"
1'-4"
EL 839'-4"
1'-6"
CS-1-333-713-A53R
CS-1-333-712-A53R
CS-1-333-710-A53R
CS-1-333-709-A53R
CS-1-333-708-A5
CS-1-333-702-A5
EL 838'-7 3/16"
8 1/2"
1'-0" (T.L.)
6-A
55'-3 3/16"
3"
12'-0"
4'-4"
CS-1-333-707-A53R

8.5"

11"

17"

M-3379



BILL OF MATERIAL

PC NO	REQ	HEAT NO	DESCRIPTION	ASME ASTM	GRADE	COLOR CODE

REV	DATE	DESCRIPTION	DWN	CKD	APPD
0	7-22-85	ISSUED FOR HANGER IDENTIFICATION AND ACCOUNTABILITY ONLY	[illegible]	[illegible]	[illegible]
1	[illegible]	REV. AS NOTED, REDRAWN VERIFIED FOR STRESS PROB. # 1-N009	MK	[illegible]	[illegible]
2	[illegible]	VERIFIED FOR STRESS PROB. #1-N009	MK	[illegible]	[illegible]
3	11-15-85	VERIFIED FOR STRESS PROB. # 1-N009	[illegible]	[illegible]	[illegible]

WELD NO / RT / MT / LP / UT

FOR OFFICE AND ENGINEERING USE ONLY

COST CODE | PAINT | INSUL. | CL. | THKNS

FLOW DIAG | COMPOSITE | SPEC. | DESIGN CAT./CL.

NOTES

8607100243-24

CPSES DOCUMENT CONTROL

TEXAS UTILITIES SERVICES INC.
C. P. S. E. S. GLEN ROSE, TEXAS

Brown & Root, Inc.
ENGINEERS AND CONSTRUCTORS
HOUSTON, TEXAS

DRAWING TITLE
CHEMICAL & VOLUME CONTROL

"Q" | RFT-M-4905 | DWG NO. BRHL-CS-1-AB-022 | REV 3

cc/206

TI APERTURE CARD

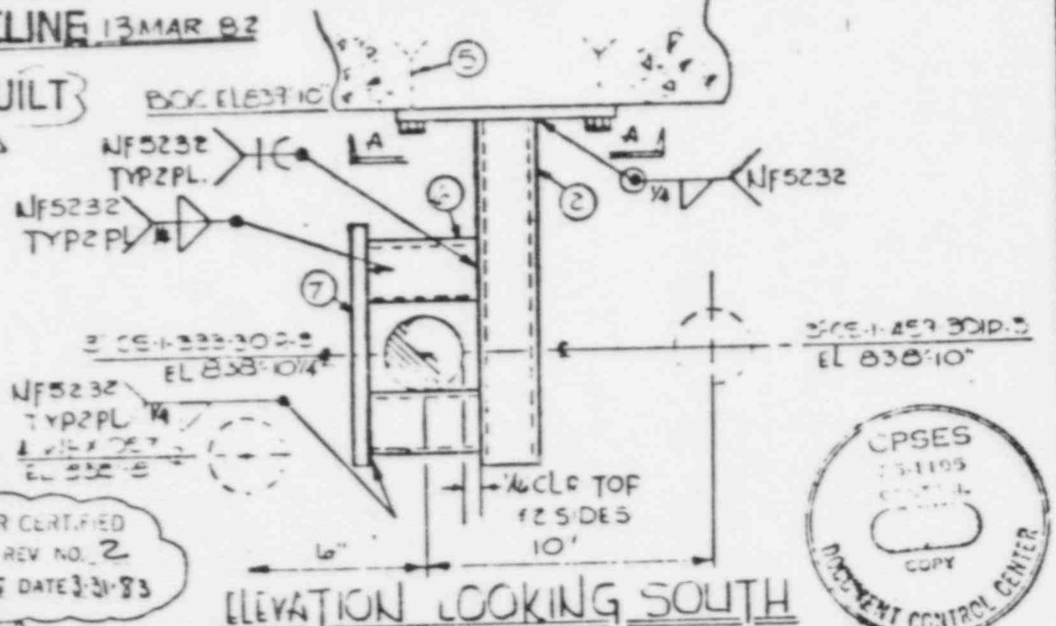
Also Available On Aperture Card

FOIA-85-59

17" 11" 8.5" 8.5" 11" 17"

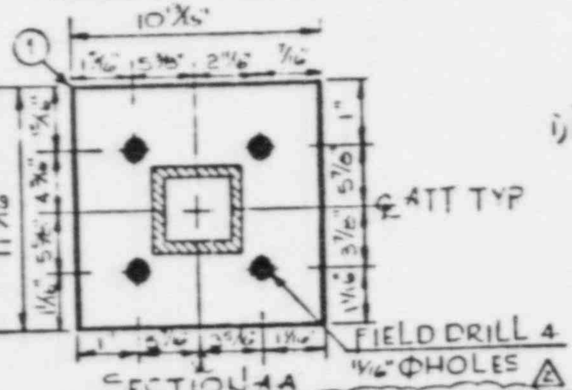
BLUELINE 13 MAR 82

AS-BUILT



ELEVATION LOOKING SOUTH

VENDOR CERTIFIED
DRAWING REV NO. 2
3 NMS DATE 3-31-83



SECTION A-A

NOTES CONT.
2) Locking devices for high strength bolts are not required per DCA 7607

NOTE:
1) By issue of rev. 1 of this Drawing, the following Documents are voided:
CMC 36742

FOR OFFICE AND ENGINEERING USE ONLY

PROB. # AB-1-4009 R.8

ITEM NO	QTY REQ'D	MATERIAL DESCRIPTION
1	1	[illegible] PER SECTION A-A SA-36/SA-515 GR65
2	1	[illegible]
5	4	[illegible] HILTI KWIK BOLTS 5/8" MIN EMB
6	[illegible]	[illegible]
7	1	CS PL ½"×4¼"×10 3/16" SA36/SA515 [illegible]

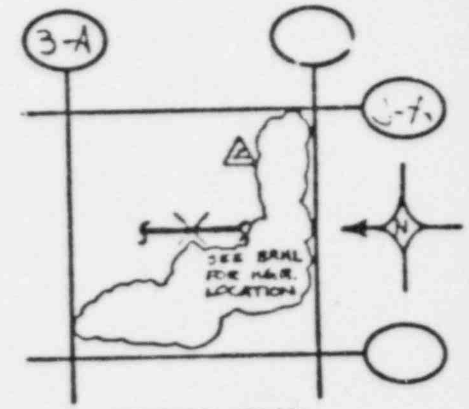
REV	DESCRIPTION	DATE	DWN	CHKD	APPVD
2	REV AS-BUILT REF. [illegible] AS-BUILT	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	VENDOR CERTIFICATION [illegible]	~	~	~	~

PAINT: CARBO ZINC #11

CPSES DOCUMENT CONTROL CENTER COPY

ASME CODE EDITION 1974
ADDENDA: WINTER
DESIGN SPEC: MS-46A

PE CERTIFICATION



LOCATION PLAN

TO: 4902

DATA PT.	SUPPORT LOADS (LB)				PIPE MVTS INCHES
370	DESIGN	A	B	C	D
VERT.	-127 / -127	-175 / -59	-231 / -24		
N-S					0.0 / .201
E-W	-1 / 0	-26 / +25	-40 / +39		

AUTHORIZED EXCEPTIONS: YES ☐ NO ☐
ASME CODE CLASS 3

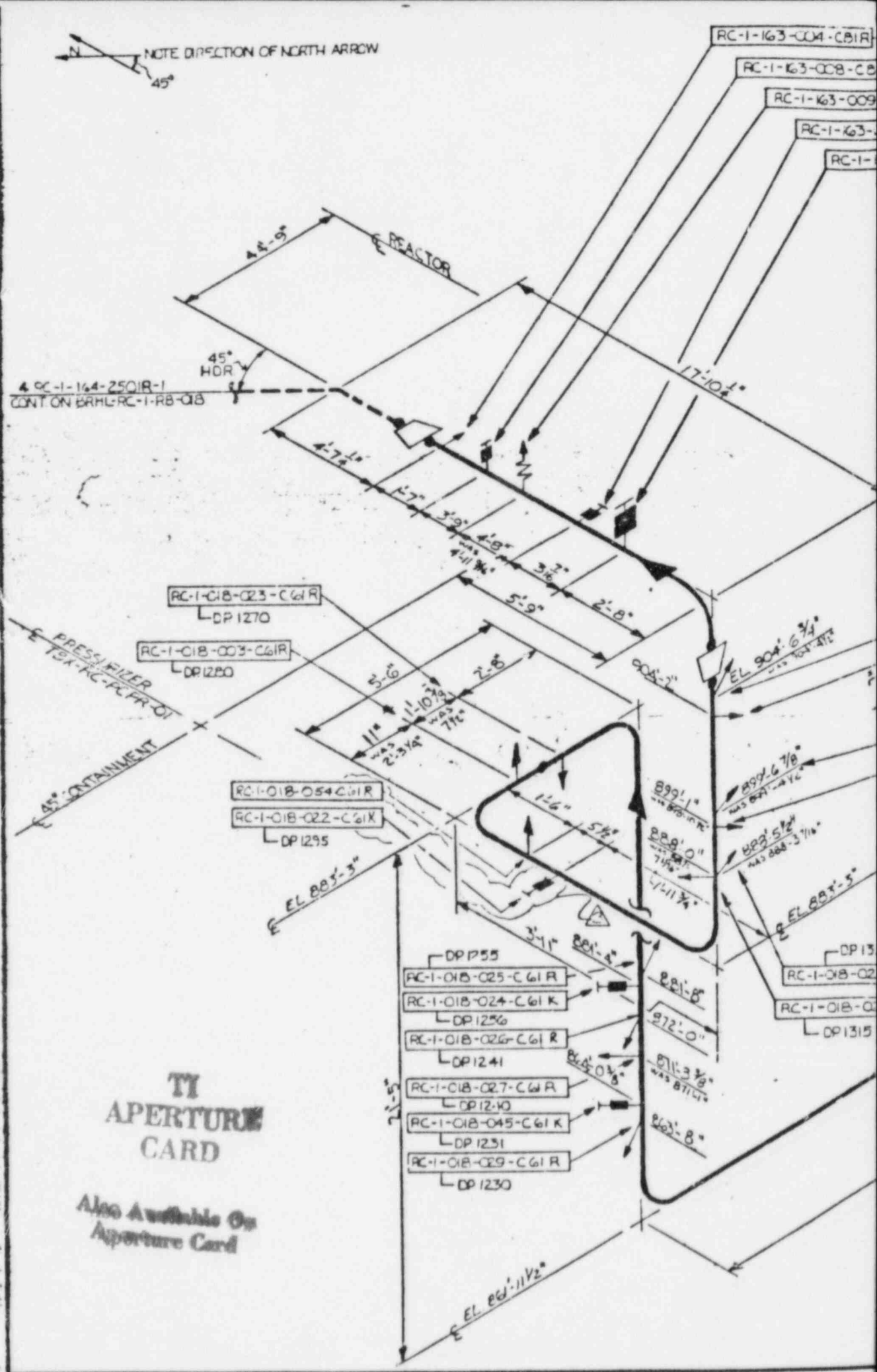
REF DWGS		REV	MECHANICAL	REV	ELECTRICAL	REV
	BRHL 130 / CS-1-AB-022	2	MI-0710	E	E1-0702	E
	FAB 130 / CS-1-AB-022	C	STRUCTURAL S-0725	2	HVAC MI-0755	6

REV	DESCRIPTION	DATE	DWN	CHKD	APPVD
0	ISSUED FOR CONSTRUCTION	12-14-79	ECMS	[illegible]	[illegible]
1	[illegible]	1-13-82	YLM	[illegible]	[illegible]
2	SEE NOTE 1	~	~	~	~

Brown & Root, Inc.
HOUSTON, TEXAS

CLIENT TUSI
PLANT COMANCHE PEAK
JOB NO. 2323

SUPPORT NO. CS-1-333-703-A53R
SHEET 1 OF 1 REV. 2


NOTE DIRECTION OF NORTH ARROW
45°
RC-1-163-004-C81R
RC-1-163-008-C8
RC-1-163-009
REACTOR
45° HDR
4 RC-1-164-25018-1
CONT ON BRHL-RC-1-RB-018
17'-10 1/4"
4'-7 1/2"
1'-7"
3'-9"
4'-8"
3'-7"
5'-9"
2'-8"
RC-1-018-023-C61R
DP 1270
RC-1-018-003-C61R
DP 1280
PRESSURIZER
TSX-RC-PC PR-01
45° CONTAINMENT
5'-6"
2'-8"
11"
RC-1-018-054-C61R
RC-1-018-022-C61K
DP 1295
EL 885'-3"
EL 904'-6 3/4"
904'-2"
899'-1"
899'-6 7/8"
888'-0"
892'-5 1/2"
1'-6"
5 1/2"
3'-11"
881'-8"
DP 1255
RC-1-018-025-C61R
RC-1-018-024-C61K
DP 1256
RC-1-018-026-C61R
DP 1241
RC-1-018-027-C61R
DP 1240
RC-1-018-045-C61K
DP 1231
RC-1-018-029-C61R
DP 1230
881'-8"
272'-0"
863'-8"
EL 861'-11 1/2"
RC-1-018-02
DP 1315
TI APERTURE CARD
Also Available On Aperture Card

-DP 1405

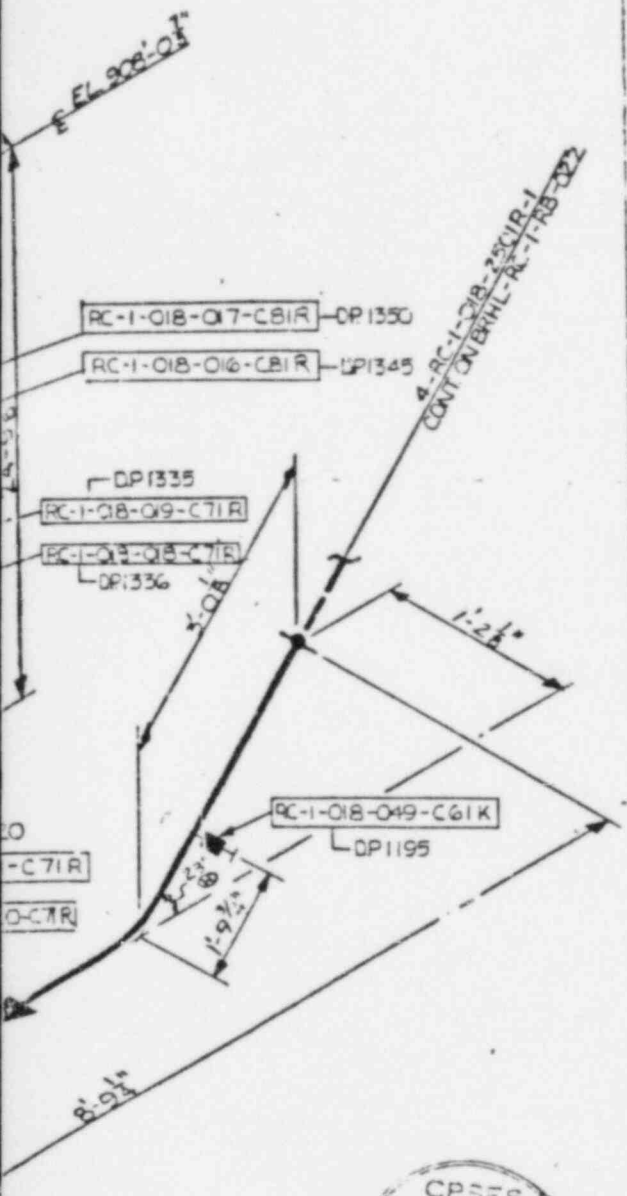
K -DP 1400

-C81S -DP1390

02 C81K -DP1380

63-003-C81K -DP1375

M-3214



REV.	DATE	DESCRIPTION	DWN.	CK'D.	APP'D.
2	4-7-83	ISSUED FOR HANGER IDENTIFICATION AND ACCOUNTABILITY ONLY	MJP		
1	7-1-82	REVISED & REDRAWN AS NOTED VERIFIED FOR STRESS PROB #1-054A	LM		
2	4-7-83	VERIFIED FOR STRESS PROB #1-054A.	LBJ		
3	12-1-83	REVD AS NTD.	VM		

WELD NO												
RT												
MT												
LP												
UT												

COST CODE | PAINT | INSUL. | GL. | TAGS

FLOW DIAG. | COMPOSITE | SPEC. | PIPING CAT. / —

NOTES

8607100243-25

TEXAS UTILITIES SERVICES INC.

C. P. S. E. S. GLEN ROSE, TEXAS

Brown & Root, Inc.

ENGINEERS AND CONSTRUCTORS

HOUSTON, TEXAS

DRAWING TITLE

REACTOR COOLANT

"Q"	TURNOVER NO. 2FT-M-5501	DWG. NO. ERHL-RC-1-RB-021	REV. 3

FOIA-85-59

CPSES 05-1130

FOR OFFICE AND ENGINEERING USE ONLY

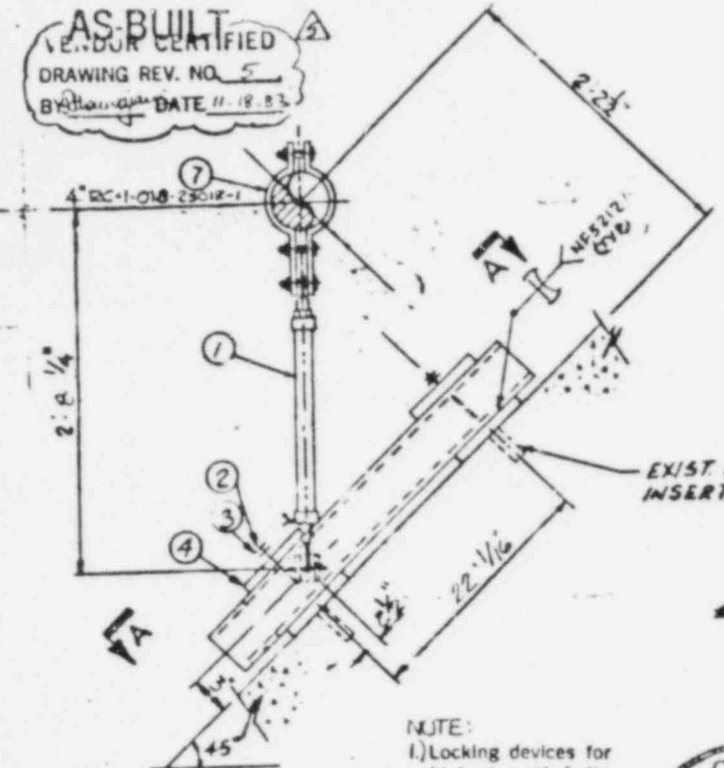
CC/207

BLUELINE: 5 JAN. 82

AS-BUILT
VENDOR CERTIFIED
DRAWING REV. NO. 5
BY [illegible] DATE 11-18-83

ITEM NO	NO REQ'D	DESCRIPTION			ASME OR ASTM			MIC.
1	1	a) SRS-06-RO RIGID SWAY STRUT			–	CSS		
2	2	RFT-12-013" ROD			SA 36	CSS		
3	4	CHN-12 HEAVY HEX NUT			SA 307 GR B	CSS		
4	4	FB-4" x 1" x 4" W/ 1 3/16" ϕ HOLE ON ℄			[illegible]	L		
5	1	TS-4" x 4" x 1/2"			A 500 GR B	L		
~~6~~	~~1~~	~~NAME PLATE~~						
7	1	SPC-06-040 PIPE CLAMP			SA 36	CSS		

FOR OFFICE AND ENGINEERING USE ONLY

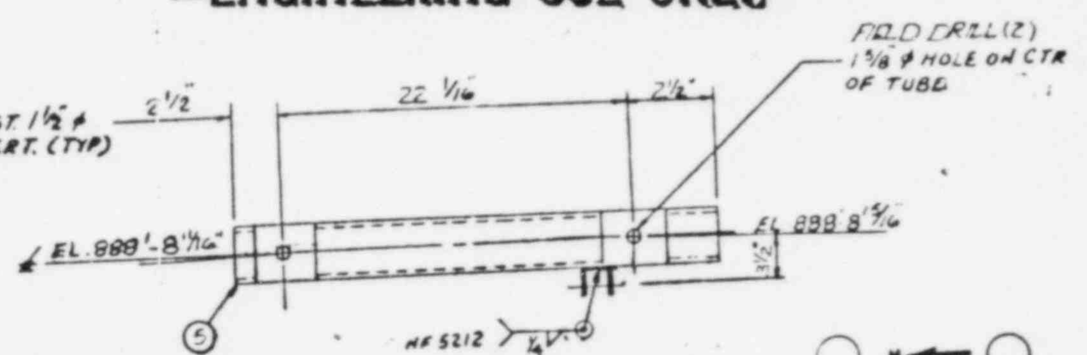


NOTE:
1.) Locking devices for high strength bolts are not required per DCA 7607

N PLAN
EL. 888'-4 9/8"

K = 0.1631 x 10^6 #/IN

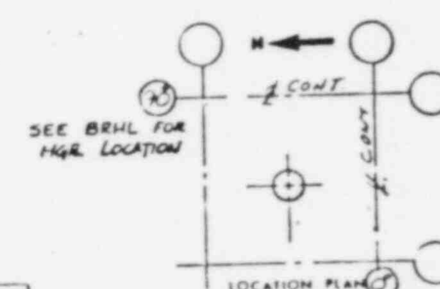
TO: 5501



SECTION A-A

CPSES 35-1195 CONTROL

FIELD REVIEW OF SUPPORT DESIGN
AS BUILT CONDITION CPPA [illegible]
DATE: 12-13-83 REVIEWED BY W.N.



REV	DATE	DWN	CHK	APV	DESCRIPTION
1	8-7-79	F.T.	[illegible]	[illegible]	ISSUE FOR CONST. F.M.L.
2	9-26-80	JF	[illegible]	[illegible]	REV. [illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	REVISED REF. DRC [illegible]
4	9-27-82	[illegible]	[illegible]	[illegible]	VENDOR CERTIFICATION [illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	VENDOR CERTIFICATION [illegible]

LOAD (LBS)	GRAV.	THER.	HYDRO	OBE	SSE	DESIGN LOADS		MVT (IN)		SEISMIC
UP								VERT		
DN								N-S	.005	
N								E-W		AB-1-05124
S						751	783			1320
E						1971	2003			SC74X54A
W										

REFERENCE DRAWINGS		REV		REV		REV
BRHL ISOMETRIC	RC-1-RB-21	2	PIPING 2323-MI-C506	8	ELECTRICAL 2323-EI-0503	7
FAB. ISOMETRIC	RC-1-RB-21	5	STRUCTURAL 2323-SI-C530	2	H.V.A.C. 2323-MI-0552	5

183 SUPPT 150 NPS1-RC-1-RB-21

CODE/CLASS: II/1
AT AT C48 / 11 [illegible]
ZONE

OWNER TEXAS UTILITIES SERVICES INC.
PROJECT COMANCHE PEAK UNITS NO. 1 & 2
ENGINEER GIBBS & HILL INC.

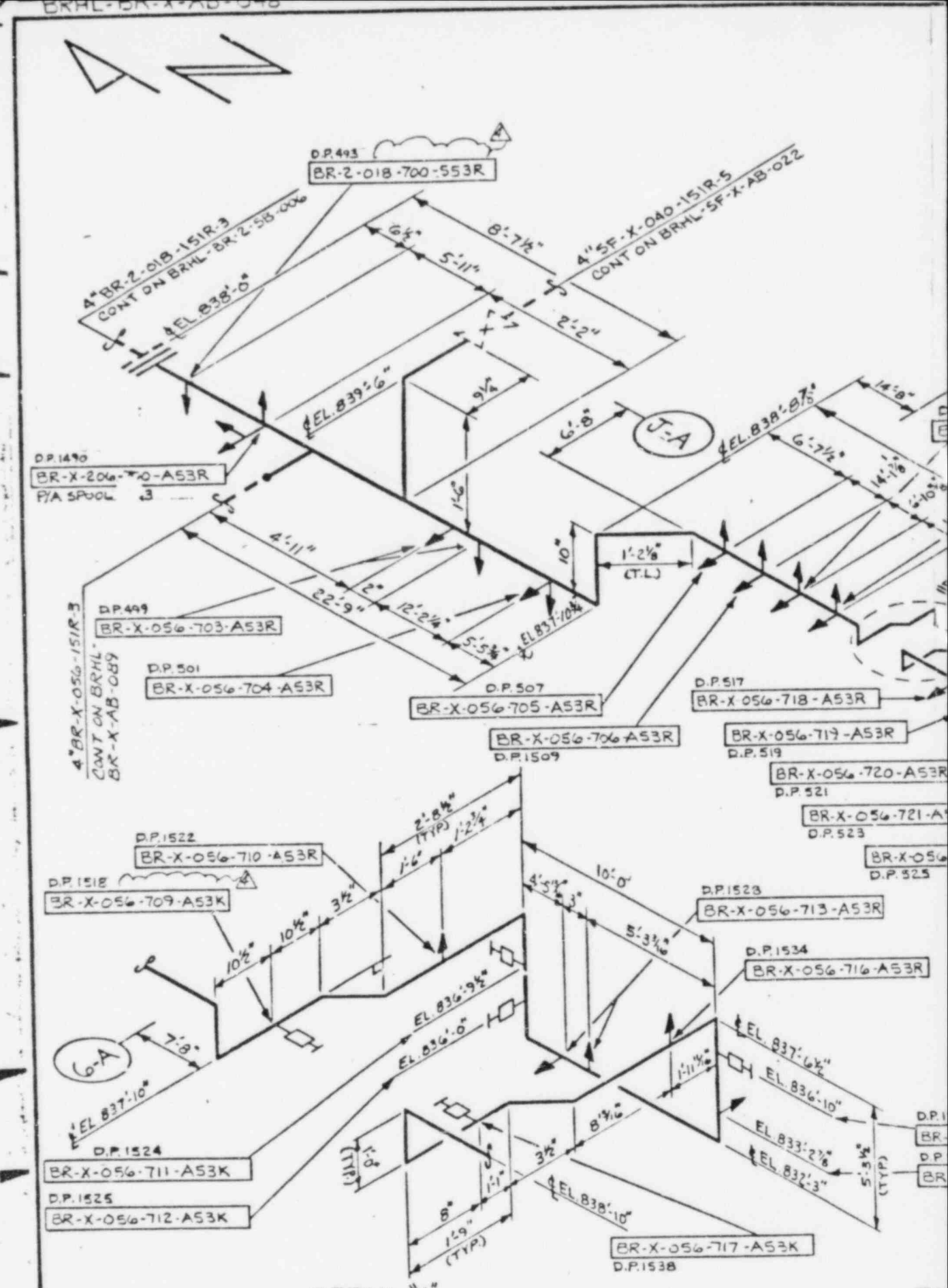
CPSES
Brown & Root, Inc.
ENGINEERS AND CONSTRUCTORS
HOUSTON, TEXAS

DRAWN	DATE	CHK'D	DATE	APPV'D	DATE
RS / LT	1-15-79	ND / AM	4-9-79	WO	4-27-79

P.O. NO. CP-0046A-1 | MFG. REL. TC-175

PRODUCTION ORDER	SERIAL NUMBER	SHEET
		1 OF 1

1809 | MK NO RC-1-018-021-C71R | REV 5



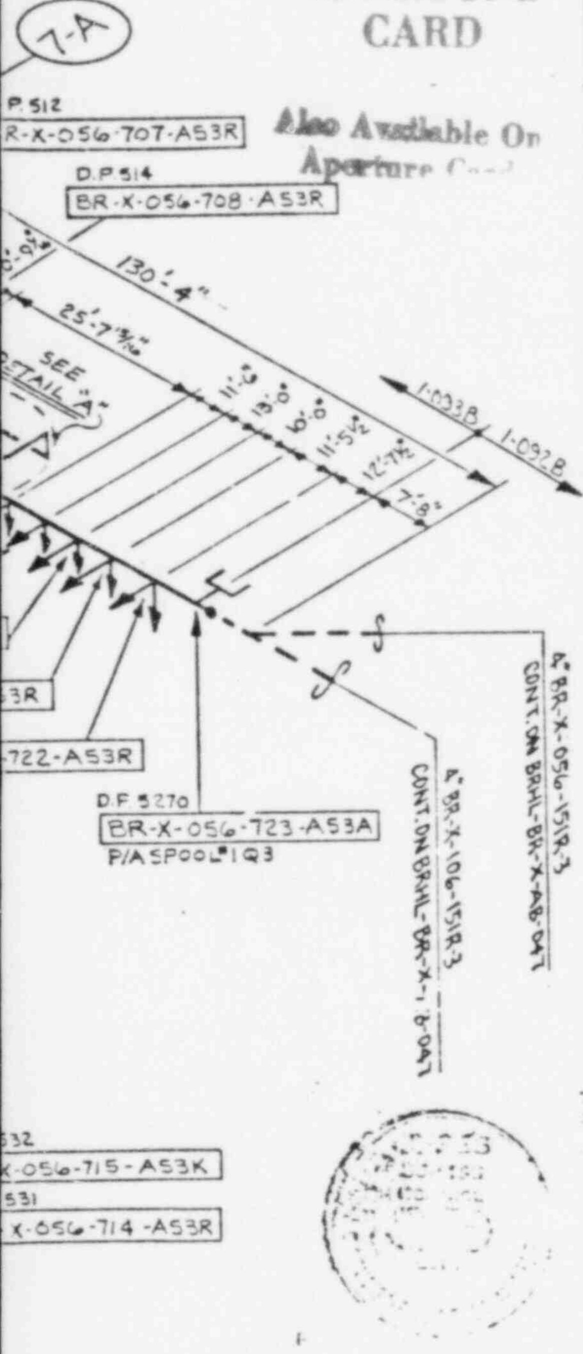
DETAIL "A"

FO
ENGIN

M-3137

TI APERTURE CARD

Also Available On Aperture Card



BILL OF MATERIAL

PC NO	PER	HEAT NO	DESCRIPTION	ASME ASTM	GRADE	COLOR CODE

REV.	DATE	DESCRIPTION	DWN.	CK'D.	APP'D.
0		ISSUED FOR HANGER IDENTIFICATION AND ACCOUNTABILITY ONLY		MJP	
1		REVISED AS NOTED	GLL		
2		REDRAWN & REVISED AS NOTED.			
3		VERIFIED FOR STRESS PROB. # 1-093B			
4		VERIFIED FOR STRESS PROB # 1-093 B			

FIELD NO										
RT										
MT										
LP										
UT										

COST CODE | PAINT | INSUL. | CL. | THKNS

FLOW DIAG | COMPOSITE | SPEC. | DESIGN CAT / CL.

NOTES

8607100243-26

TEXAS UTILITIES SERVICES INC.

C. P. S. E. S. GLEN ROSE, TEXAS

Brown & Root, Inc.

ENGINEERS AND CONSTRUCTORS

HOUSTON, TEXAS

DRAWING TITLE

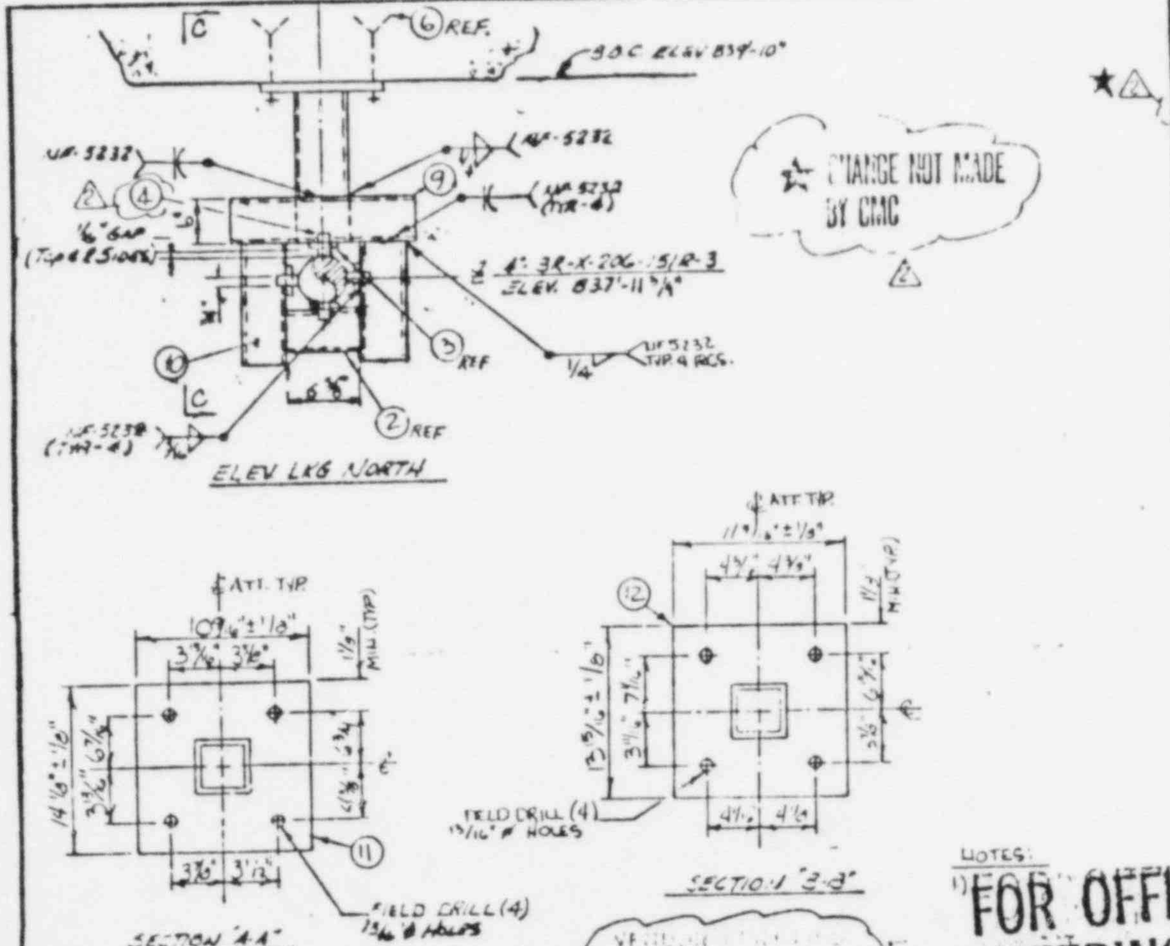
BORON RECYCLE

FOIA-85-59

	TURNOVER NO	DWG. NO	REV
0	RFT-H-5601	BRHL-BR-X-AB-048	4

R OFFICE AND EERING USE ONLY

CC/208



ITEM NO	QTY REQD	MATERIAL DESCRIPTION						
1	2	4"x4"x1/4" x 2'-4 1/4" LG. TUBE A500 GR B						
2	1	4"x4"x1/4" x 6 3/16" LG. TUBE A500 GR B						
3	4	1" THK CS PL 2"x4" SA-36						
4	8	[illegible] 3/4" x 2" SA-240 TYPE 304						
5	1	1 1/4" THK CS PL SA-36 - SEE SECTION A-A						
6	8	3/4" x 8" HILTI KWIK CONCRETE ANCHORS						
7	1	TS 4"x4"x1/2"x 11 1/4" LG. A500 GRB						
8	1	TS 3"x3"x1/4"x 23" LG. A500 GRB (CUT TO SUIT)						
9	1	TS 4"x4"x1/2"x 1 1/4" LG. A500 GRB						
10	2	TS 4"x4"x1/2"x 11 1/16" LG. A500 GRB						
11	1	1 1/4" THK. CS PL SEE SECTION A-A' SA-36/SA515 GR 65						
12	1	1 1/4" THK. CS PL SEE SECTION B-B' SA-36/SA515 GR 65						

REV	DESCRIPTION	DATE	DWN.	CHKD.	APVD.
A	REV'D VENDOR CERT	11-26-83	[illegible]	CBT	ECH

PAINT [illegible] ZINC [illegible]

PROBLEM # [illegible]

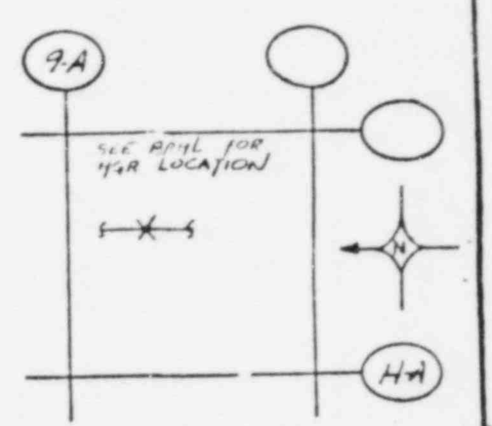
ASME CODE EDITION 1974
ADDENDA WINTER
DESIGN SPEC: MS-46A

PE. CERTIFICATION

NOTES:

FOR OFFICE AND ENGINEERING USE ONLY

VERIFIED [illegible] DRW [illegible] 2
BY RW DATE 11-26-83



LOCATION PLAN

TO. # 5601

DATA PT	SUPPORT LOADS (LBS)				PIPE MVTS (INCHES)
1470	DESIGN	SERVICE LEVEL LIMITS			
VERT	–	[illegible]	[illegible]	[illegible]	–
N-S	–	[illegible]	[illegible]	[illegible]	–
E-W	–	[illegible]	[illegible]	[illegible]	–

NOTE +N,E,UP -S,W,DN

AUTHORIZED NUCL. INSP. YES ☒ NO ☐
ASME CODE CLASS 3

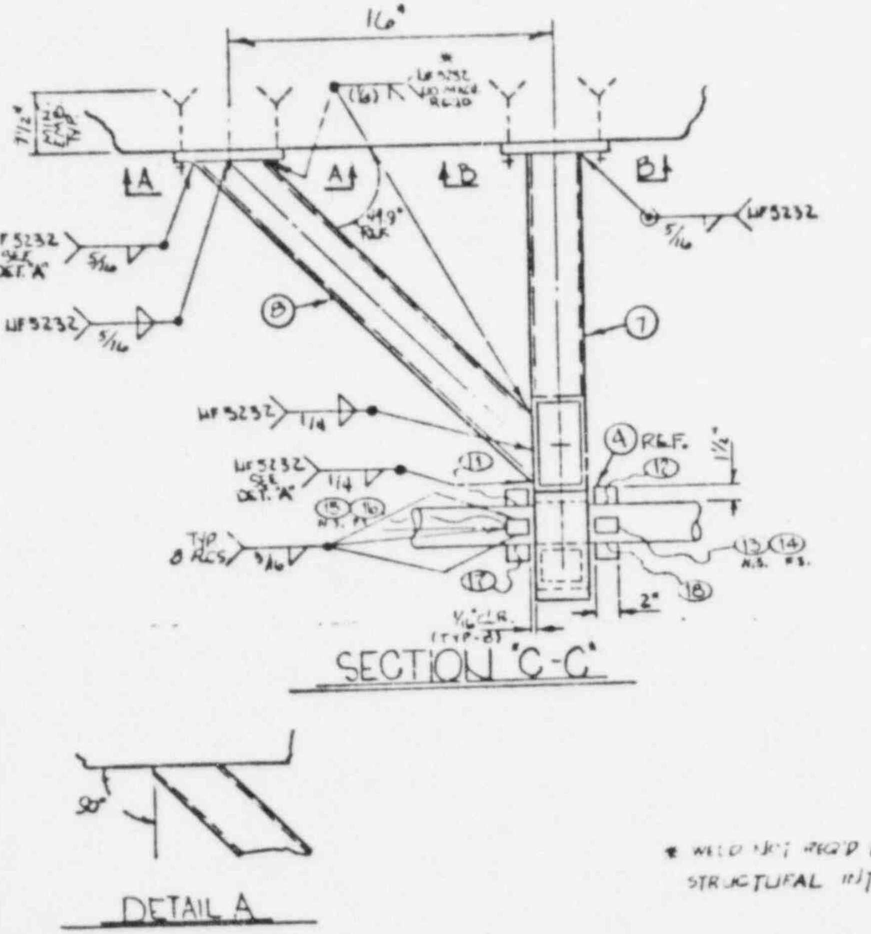
REF DWGS		REV		REV		REV
	BRHL 130		MECHANICAL		ELECTRICAL	
	3R-X-AB-48	2	M1-[illegible]	2	E1-0702	3
	FAB 130	REV	STRUCTURAL	REV	HVAC	REV
	3R-X-AB-48		S-0[illegible]	3	[illegible]	5

REV	DESCRIPTION	DATE	DWN	CHKD	APPVD
[illegible]	[illegible]	11/3/83	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
0	ISSUED FOR CONSTRUCTION	2-6-80	[illegible]	[illegible]	[illegible]

Brown & Root Inc.
ENGINEERS AND CONSTRUCTORS
HOUSTON, TEXAS

CLIENT T.U.S.I.
PLANT COMANCHE PEAK
JOB NO 2323

SUPPORT NO. 3R-X-206-[illegible]-453R
SHEET 1 OF 2 REV. 2



ITEM NO.	QTY. REQ'D.	MATERIAL DESCRIPTION	PBS	L	CSS	...	SEC.	415C

REV	DESCRIPTION	DATE	DWN.	CHKD.	APPVD.
2	REV'D VENDOR CERT	11-28-83	[illegible]	CBH	CBD

ASME CODE EDITION: [illegible]

ADDENDA: [illegible]

DESIGN SPEC: 2

VENDOR CERTIFIED ... 2 BY RW ... 11-28-83

* WELD NOT REQ'D FOR STRUCTURAL INTEGRITY

FOR OFFICE AND ENGINEERING USE ONLY

TO. # 5601

DATA PT.	SUPPORT LOADS (lbs)					PIPE MVTS (INCHES)
1490	DESIGN	SERVICE LEVEL LIMITS A	B	C	D	
VERT.						
N-S						
E-W						

NOTE +N,E,UP −S,W,DN

AUTHORIZED NUCL. INSP. YES ☒ NO ☐

ASME CODE CLASS 3

REF. DWGS.	ISO.	REV.	MECHANICAL	REV.	ELECTRICAL	REV.
			MI-0714	5	EI-0702	0
	FAB. ISO.	REV.	STRUCTURAL	REV.	H.V.A.C.	REV.
	BR-X-AB-48		S-0718	3	MI-0755	5

REV	DESCRIPTION	DATE	DWN.	CHKD.	APPVD.
1	ISSUED FOR VENDOR CERTIFICATION	[illegible]	[illegible]	Q	CBD
[illegible]	[illegible] ... 34603				

Brown & Root, Inc. HOUSTON, TEXAS

CLIENT T.U.S.I.

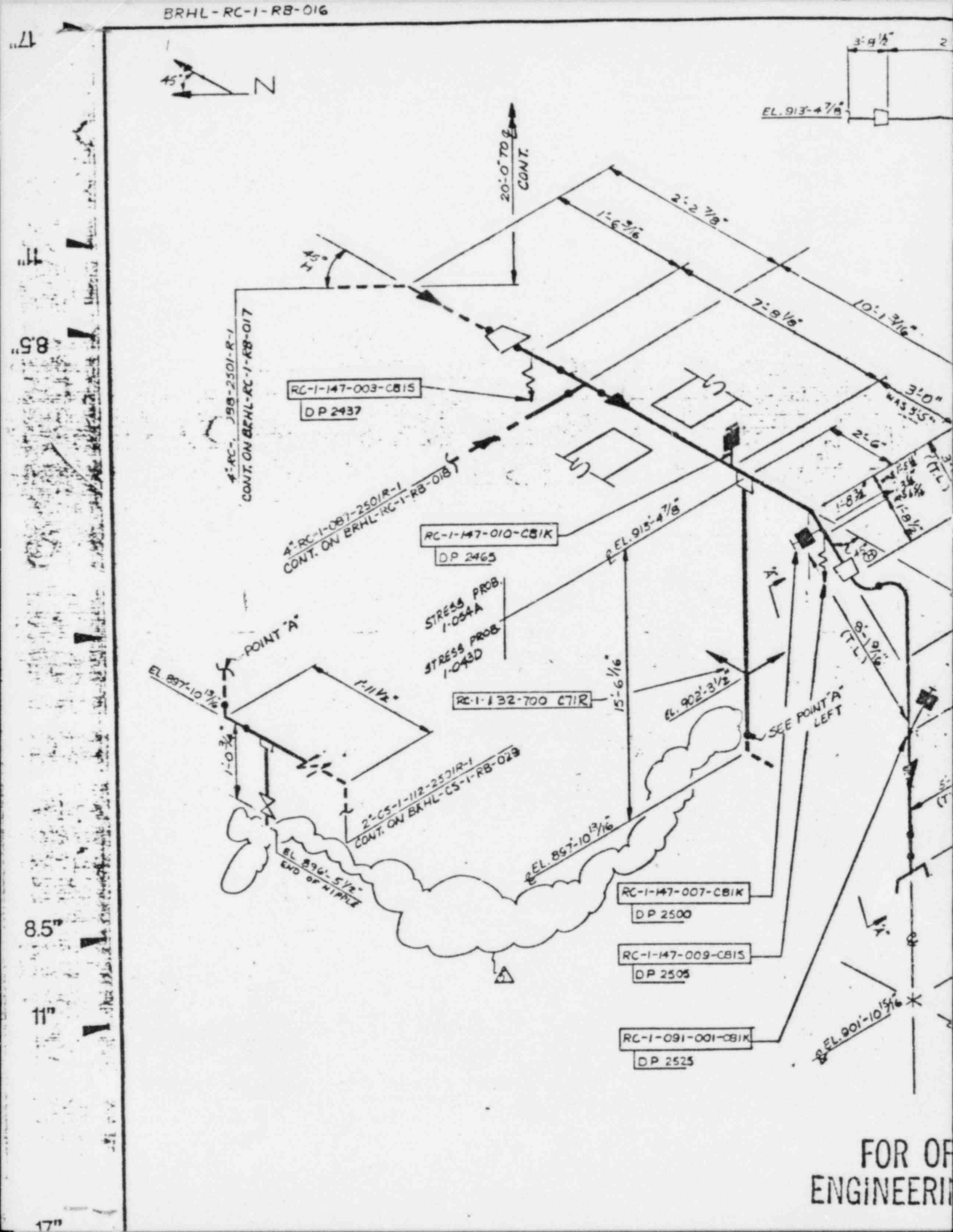
PLANT COMANCHE PEAK

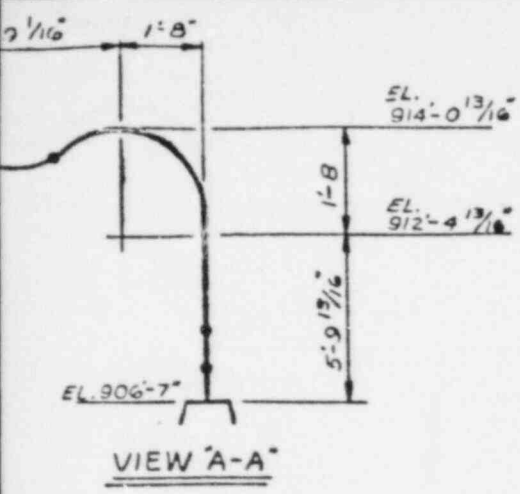
JOB NO. 2323

SUPPORT NO. BR-X-206-700-A53R

SHEET 2 OF 2 REV. 2

BRHL-RC-1-RB-016





VIEW "A-A"

M-3345

TI APERTURE CARD

Also Available On Aperture Card

EL. 313'-4 7/8"

EL. 912'-4 5/8"
WAS 912'-5 1/8"

EL. 906'-7"

4'-8 1/16"

50'-0" TO ℄ REACTOR

PRESSURIZER TBX-RCPCPR-01

FICE AND
NG USE ONLY

cc/209

BILL OF MATERIAL

PC NO.	REQ.	HEAT NO.	DESCRIPTION	ASME/ASTM	GRADE	COLOR CODE

REV.	DATE	DESCRIPTION	DWR.	CKD.	APP'D.
3	7-16-87	ISSUED FOR HANGER IDENTIFICATION AND ACCOUNTABILITY ONLY	MJP		LMS
2	7-16-87	REVISE & REDRAW. VERIFIED FOR STRESS PROB. # 1-043D.	TJW		
1	1-14-87	VERIFIED FOR STRESS PROB. # 1-054A	TEH		
	7-11-85	VERIFIED FOR STRESS PROB. # 1-043D.	LBJ		
4	9-16-85	VERIFIED FOR STRESS PROB. # 1-054A	LBJ		
	1-6-84	VERIFIED FOR STRESS PROB. # 1-043D	DB		

WELD NO.													
RT													
MT													
LP													
UT													

COST CODE	PAINT	INSUL.	CL.	THKNS
FLOW DIAG.	COMPOSITE	SPEC.	DESIGN CAT. / CL.	

NOTES

8607100243-27

TEXAS UTILITIES SERVICES INC.

C. P. S. E. S. GLEN ROSE, TEXAS

Brown & Root, Inc.

ENGINEERS AND CONSTRUCTORS

HOUSTON, TEXAS

DRAWING TITLE

REACTOR COOLANT

"O"	TURNOVER NO.	DWG NO.	REV.
		5BHL-RC-1-RB-016	5

11"

11"

8.5"

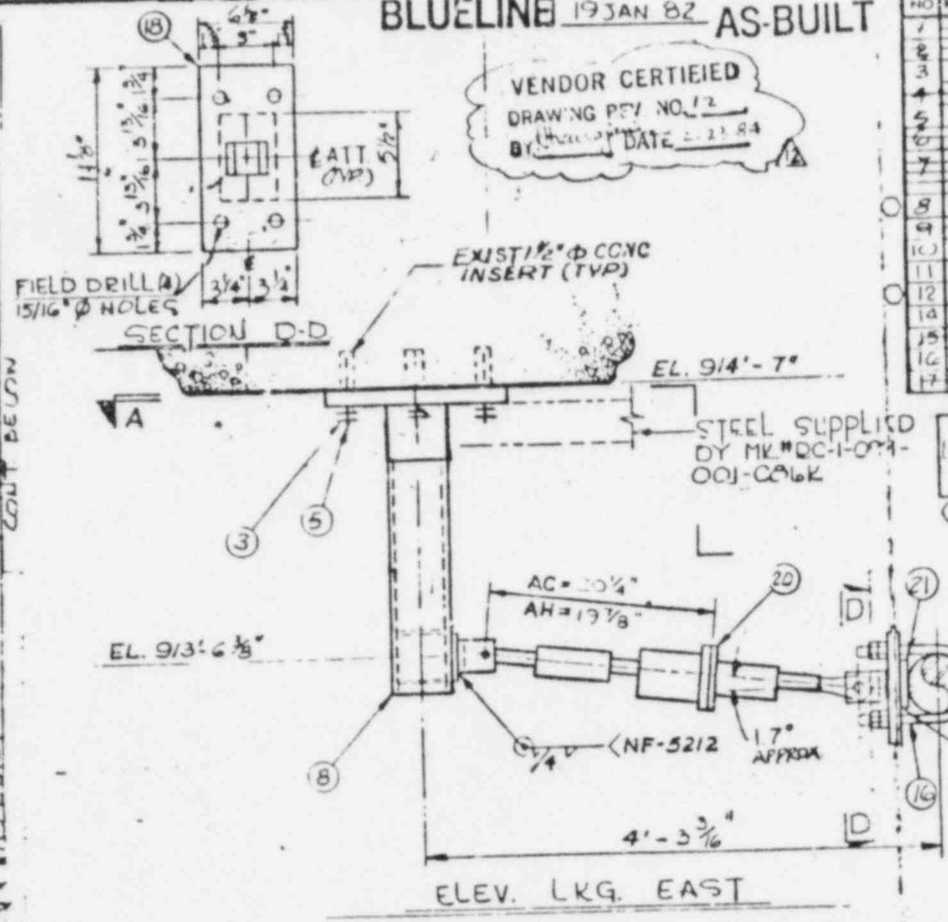
8.5"

11"

17"

BLUELINE 19 JAN 82 **AS-BUILT**

VENDOR CERTIFIED
DRAWING REV. NO. 12
BY ____ DATE 2-23-84



ITEM NO	NO REQ'D	DESCRIPTION			ASME OR ASTM			MIC.
		SNUBBER			—	CSS		
1	1	SMA-3-50			SA-36	CSS		
2	1	SPC-10-060 PIPE CLAMP			SA-307GRB	CSS		
3	8	FHN-1½" HVY HEX NUT		SA-193GR B7	SA-36	FES		
4	1	1" CS PL PER SECT A-A			SA-36	CSS		
5	3	RFT-12 L=10" FULL THD. ROD			SA-36	CSS		
6	1	RFT-12 L=13" FULL THD. ROD			—			
7	1	ASME NAMEPLATE OR ALTERNATE MARKING				—		
8	2	3/8"x4"x4" T.S. 16" LG			A500GR B			
9	1	XRD-10 REAR BRACKET		A500 B	SA36	CSS		
10	1	1" CS PL PER SECT. A-A		SA515 GR65	SA36			
11	1	RFT-12 ROD L=17"			SA36			
12	1	T.S. 4"x4"x3/8"x11"			A500GRB			
14	1	1/2" CS PL 4"x6"			SA36			2
15	1	1" CS PL PER SECT. D-D			SA36			
16	2	PUH-060 U-BOLT W/NUTS			SA36			
17	1	1" CS PL 8"x3"			SA36			

NOTE:
1) Locking devices for high strength bolts are not required per DCA 7607

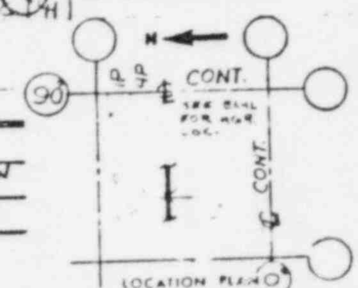
THIS SUPPORT VOIDS & SUPERSEDES NPS 1763 MK RC-1-147-005-C81K.

○ FIELD CUT TO SUIT.

REV.	DATE	DRW	CHK	APP	DESCRIPTION
6	11-6-83				REV'D VENDOR CERT.
7	11-30-83				REV VENDOR CERT; REF: CMC 95120 R1
8	12-8-83				REV. VENDOR CERT.

REV.	DATE	DR.	CHK	APR	DESCRIPTION
9	12-22-83				REV'D VENDOR CERT.
10	1-11-84	Q			Rev. VENDOR CERTIFICATION
11	2-20-84				REV. VENDOR CERTIFICATION

K7 = .093 x 10⁶ #/IN.



REV'D VENDOR CERT.

FOR OFFICE AND ENGINEERING USE ONLY

179 SUPP'T ISO NPSI-RC-1-RB-16

REFERENCE DRAWINGS	ISOMETRIC RC-1-RB-015	REV 4	PIPING 2323-MI-0514	REV +	ELECTRICAL 2323-EI-0503
	FAB. ISOMETRIC RC-1-RB-16	REV 5	STRUCTURAL 2323-SI-0534	REV 2	H.V.A.C. 2323-MI-0553

CODE/CLASS III/1 — REV 7
PAINT CP — REV 4
ZONE —

DRAWN	DATE	CHK'D	DATE	APPV'D	DATE
	2-18-81	FP	2-3-81		3-3-81

P.O. NO. CP-0048 — MFG. REL.

OWNER: TEXAS UTILITIES SERVICES INC.
PROJECT: COMANCHE PEAK UNITS NO. 1 & 2
ENGINEER: GIBBS & HILL INC.

Brown & Root, Inc.
FT. WORTH, TEXAS

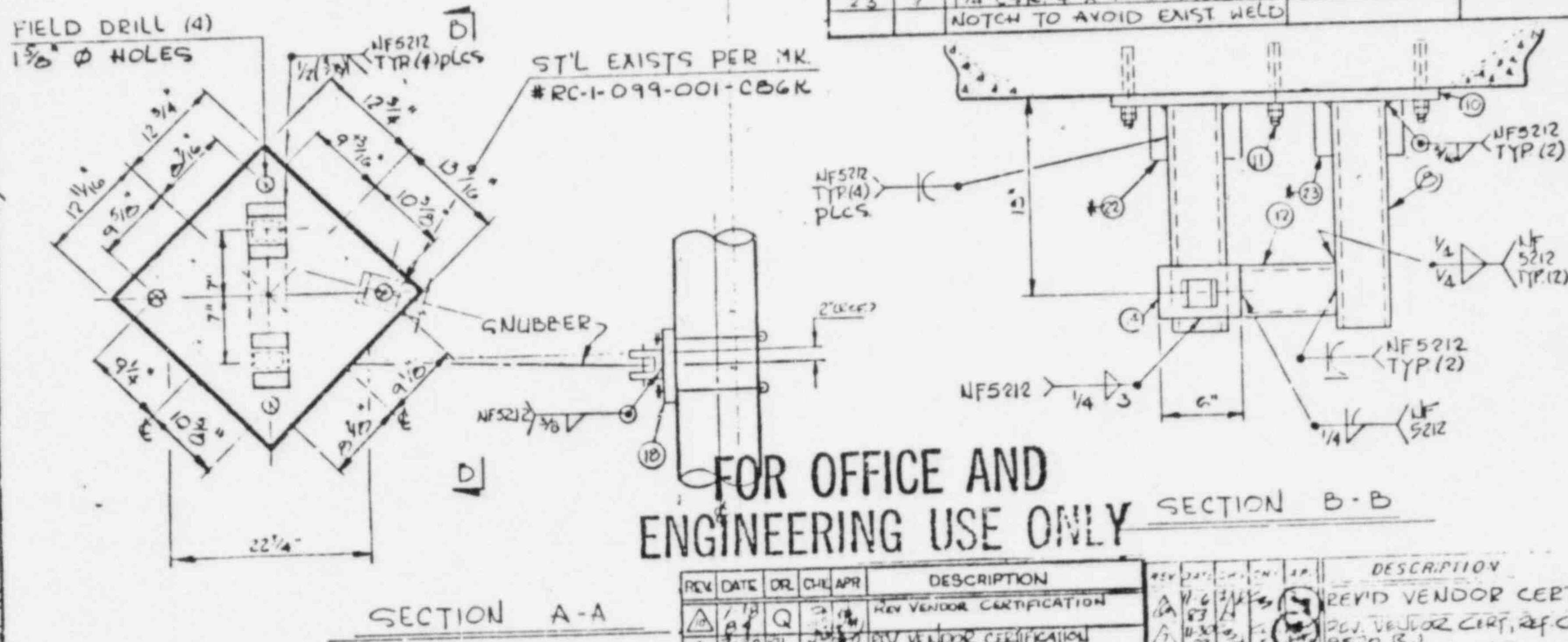
PRODUCTION ORDER — SERIAL NUMBER — SHEET 1 of 2

3/48 MK. NO. RC-1-147-007-C81K REV. 12

AS-BUILT

VENDOR CERTIFIED
DRAWING REV. NO. 12
BY [illegible] DATE 2-23-84

ITEM #	NO. REQ'D	DESCRIPTION	ASME/ASTM		
18	1	3" CS PL PER SECT. "D-D"	SA36		
20	1	SMA-10-BA			
21	1	1" CS PL 3" x 5 1/2" LG.	SA-515 GR 65/SA36		
22	2	1 1/4" CS PL 4" x 4" ** FIELD NOTCH TO AVOID EXIST. WELD	SA36		
23	2	1 1/4" CS PL 4" x 4" ** FIELD NOTCH TO AVOID EXIST. WELD	SA36		



FOR OFFICE AND ENGINEERING USE ONLY

REV	DATE	DR.	CHK	APR	DESCRIPTION
4	4-7-83				REV'D VENDOR CERT. REF. CMC 93827
5	9-28-83				REV'D VENDOR CERT.
6	5-7-84				REV'D VENDOR CERT. REF. NCR-M-11279

REV	DATE	DR.	CHK	APR	DESCRIPTION
1	6-1-83				ISSUE FOR AS-BUILT REF. CMC 65740 R.1 DCA 7426
2					SEE NOTE 1) VENDOR CERTIFICATION REF. CMC 29352
3	8-10-83				REV'D VENDOR CERT.

REV	DATE	DR.	CHK	APR	DESCRIPTION
10	1-7-84	Q			REV VENDOR CERTIFICATION
11	2-20-84				REV. VENDOR CERTIFICATION
12	2-23-84				REV'D VENDOR CERT.

REV	DATE	DR.	CHK	APR	DESCRIPTION
9	11-6-83				REV'D VENDOR CERT.
7	11-30-83				REV. VENDOR CERT, REF. CMC 95520 R.1
8	12-8-83				REV. VENDOR CERT.
[illegible]	[illegible] 83				REV'D VENDOR CERT.

*FIELD TRIM TO SUIT
TO #5501
** TRIM PL TO BE FLUSH W/ EDGE OF T.S.

179 SUPP'T ISO. NPSI-RC-1-RB-16

LOAD (LBS)	GRAV.	THER.	HYDRO	OBE	SSE	DESIGN LOADS			MVTS (IN.)	THER.	SEISMIC
UP									VERT.		
DN									N-S		
N									E-W		
S									PIPE CALC. DATA	AB-1-054A N4	
E									POINT	2500	
W									SUPP'T CALC.	SC-74X-543	

REFERENCE DRAWINGS: BRHL ISOMETRIC RC-1-RB-016 REV. 4; FAB. ISOMETRIC; PIPING 2323-M; STRUCTURAL 2323-S; ELECTRICAL 2323-E; H.V.A.C. 2323-M
CODE/CL SS: III/1 — PAINT — ZONE

OWNER: TEXAS UTILITIES SERVICES INC.
PROJECT: COMANCHE PEAK UNITS NO. 1 & 2
ENGINEER: GIBBS & HILL INC.

Brown & Root, Inc.
ENGINEERS AND CONSTRUCTORS
HOUSTON, TEXAS

DRAWN	DATE	CHK'D	DATE	APPV'D	DATE

P.O. NO. CP-0046 A.1 — MFG. REL.
PRODUCTION ORDER — SERIAL NUMBER — SHEET 2 of 3
3148 — MK. NO. RC-1-147-007-C81S — REV 12

4-84-00C ; 3/7/84
P.5-

AH-3

that Corrective Action Report No. 41 had been "pencil-whipped" (dispositioned without actually conducting the rework)

[redacted] stated he believed the above described instances constituted intimidation and harassment. [redacted] said he had already testified to many of these concerns before the ASLB and that the NRC was already aware of these issues.

[redacted] stated that his discriminatory termination suit was presently before the U.S. Fifth Circuit Court of Appeals, and that he plans to testify in the next CPSES hearings. [redacted] stated he was presently in possession of color pictures of hangers and supports he believes would lead to the necessary correction of at least a half million dollars worth of steel, which be believed would amount to 3 to 5 million dollars worth of backfit at CPSES. [redacted] stated he had not provided this material to the intervenor, CASE, and was unwilling to provide this information to the U.S. Nuclear Regulatory Commission. [redacted] indicated he would present it to the CPSES ASLB hearing himself.

cc/210

BLUELINE 12-6-83

VENDOR CERTIFIED
DRAWING REV. NO. 7
BY BA DATE 1-23-84

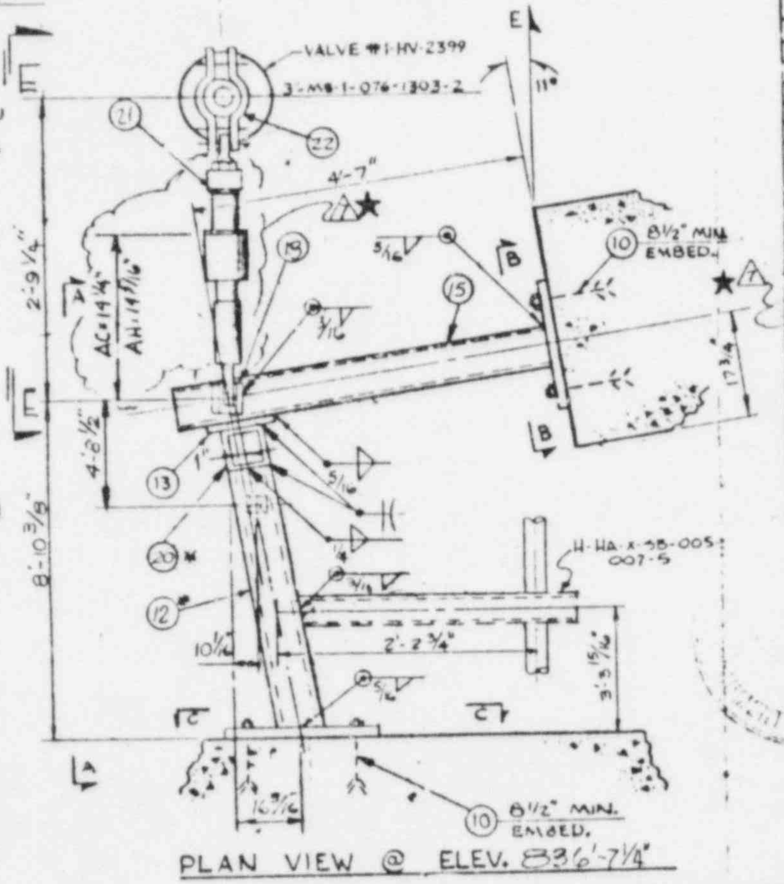
NOTES

1) PER REVIEW BY G&H SITE ANALYSIS, SUPPORT NEED BE DESIGNED TO DESIGN LOAD ONLY & NOT TO MAX SNUBBER RATING. (REF. GTN 48322 & 1007 PSE)

2) VALVE DWG. 33A226 RE LOAD & VALVE INFO. FROM GTN 48322.

3) LOCKING DEVICES FOR HIGH STRENGTH BOLT ARE NOT REQUIRED PER CCA 2607.

* FIELD TRIM TO SUIT



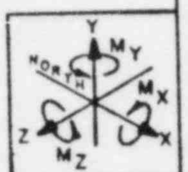
PLAN VIEW @ ELEV. 836'-7¼"

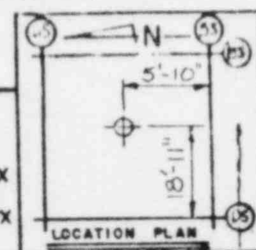
NORM OPER DISPL.	
DX	+.202
DY	+.138
DZ	+.058

MOVEMENTS	
X	+0 / -.202
Y	+.138 / -.007
Z	+.058 / -.005

GROUP B, D-KA, V-MP

PIPE MI-0608 REV. 10
PCHL Iso. MS-1-SB-03 REV.1
P.D. iso. MS-1-SB 03 REV. 4
Data Point 960 / Pipe# AB-1-79D R.1
Pipe Mat'l. SA333 GR6
Insul. 1½ Bldg. 8
T. O. 3401





THIRD PARTY INSPECTION
CODE CLASS: B31.1-5

ITEM NO.	MATERIALS & OPERATIONS	QUAN.	SHIP		PBS	L	CSS	PRIM.	SEC	AISC
7	5/8" x 8½" HILTI-KWIK CONC. ANCHORS	6					X			
8	5/8" THK. C.S. PLATE, PER SECT. D-D (A36/SA515GR65)	1			X			X		
9	SRS-08-BA, SWAY STRUT	1					X			
10	1" x 12" SUPER HILTI CONC. ANCHORS	8					X			
11	1" THK. C.S. PLATE, PER SECT. C-C (A36/SA515GR65)	1			X			X		
12	1/2" x 6" x 6" T.S., 9'-4" LG. (A500 GR. B)	1				X		X		
13	1" x 10" x 10" C.S. PLATE (A36/SA515GR65)	1			X			X		
14	1¼" THK. C.S. PLATE, PER SECT. B-B (A36/SA515GR65)	1			X			X		
15	1/2" x 6" x 6" T.S., 5'-1" LG. (A500 GR. B)	1				X		X		
16	3/8" x 4" x 4" T.S., 0'-5¼" LG. (A500 GR. B)	1				X		X		
17	3/4" x 8" x 8" C.S. PLATE (SA36/SA515 GR65)	1			X			X		
18	XRB-03 REAR BRACKET (A668 D/SA-36)	1					X			
19	SMF-03-80 SNUBBER	1					X			
20	T.S. 1/2" x 6" x 6" x 12" LG (A500 GR B)	1				X		X		
21	SMF-1-50 SNUBBER	1								
22	SPC-03-080 PIPE CLAMP (SA36)	1								

REV	DATE	DWN	CHK	APP	DESCRIPTION
3	9/6/83				REV'D. VENDOR CERTIFIED, REF GTN# 60581 & 65256
4	9-23-83				REV'D VENDOR CERT.
5	12-6-83				REV. AS CD. & REF FMMS 2-1, MK #'S -SACK, SMA 16-31, ADD SHT.3
CCP	—	—	—	—	
6	1-6-84				VENDOR CERTIFICATION. REF: CMC 96847
7	1-24-84				REV. VENDOR CERTIFICATION

MARK # MS-1-076-009-S55R
PAINT: CARBO ZINC # 11

FOR OFFICE AND ENGINEERING USE ONLY

QUAN.	SHIP	PBS	L	CSS	PRIM	SEC	AISC

FOR MATERIALS AND OPERATIONS SEE SKETCH NO. ____ SHEET ___ OF ___

BROWN & ROOT, INC.
ENGINEERS & CONSTRUCTORS

REF. DRAWING NUMBERS

PIPE: DECD 1254 ELECT: E1-0602-01 R2
STEEL: S1-0608 R4 H.V.A.C.: A1-0651 R4

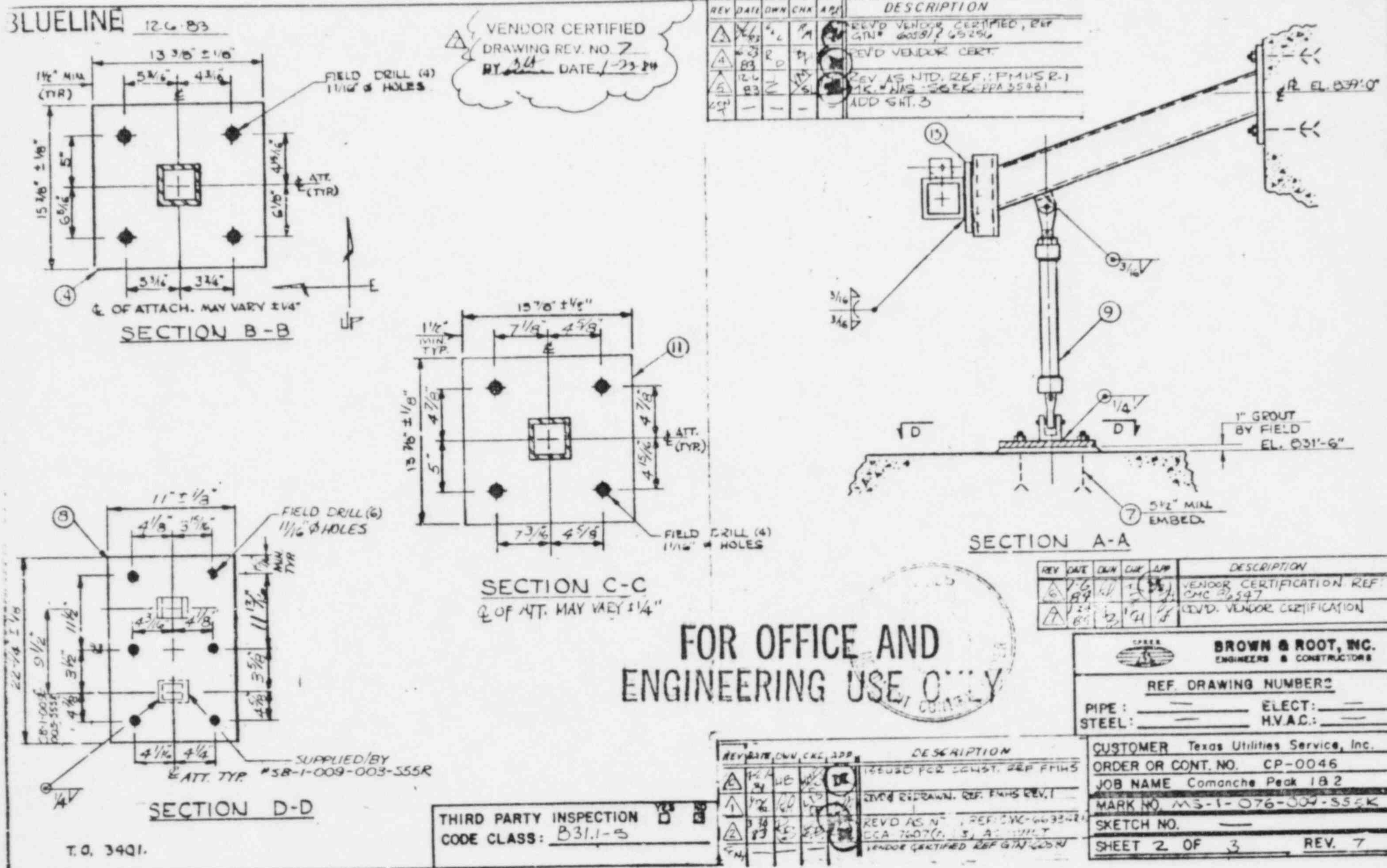
REV	DATE	DWN	CHK	APP	DESCRIPTION
0	4-29-81	HC			ISSUED FOR CONST. REF FMMS.
1					REV'D & REDRAWN. REF. FMMS REV. 1.
2	5-30				REV'D AS-BUILT, REF CMC-66334R6 DCA-760 (NT 3) AS BUILT VENDOR CERTIFIED REF GTN 60581

CONDITIONS	Fx	Fy	Fz	Mx	My	Mz
DESIGN						
NORMAL & UPSET			±798			
EMERGENCY			±1079			
FAULTED						

CUSTOMER Texas Utilities Service, Inc.
ORDER OR CONT. NO. CP-0046
JOB NAME Comanche Peak 1 & 2
MARK NO. MS-1-076-009-S55R
SKETCH NO.
SHEET 1 OF 3 REV. 7

FOIA-85-59

CC/211



FOR OFFICE AND ENGINEERING USE ONLY

REV	DATE	DWN	CHK	APP	DESCRIPTION
3					REV'D VENDOR CERTIFIED, REF GTN# 60591 / 65256
4	83				REV'D VENDOR CERT.
5	12-6 83				REV AS NTD. REF: FMHS R-1
		—	—	—	ADD SHT. 3
6					VENDOR CERTIFICATION REF: CMC 96547
7					REV'D. VENDOR CERTIFICATION

REV	DATE	DWN	CHK	APP	DESCRIPTION
					ISSUED FOR CONST. REF FMHS
1					REV'D REDRAWN. REF. FMHS REV. 1
2	83				REV'D AS N... REF: CMC-66334 ... CCA 7607 ... AS BUILT
					VENDOR CERTIFIED REF GTN 60591

BROWN & ROOT, INC.
ENGINEERS & CONSTRUCTORS

REF. DRAWING NUMBERS

PIPE: — ELECT: —
STEEL: — H.V.A.C.: —

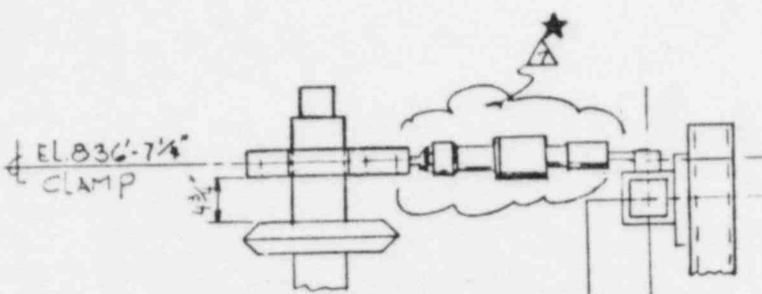
CUSTOMER Texas Utilities Service, Inc.
ORDER OR CONT. NO. CP-0046
JOB NAME Comanche Peak 1 & 2
MARK NO. MS-1-076-009-S55K
SKETCH NO. —
SHEET 2 OF 3 REV. 7

THIRD PARTY INSPECTION YES NO
CODE CLASS: B31.1-5

BLUELINE: 12-6-83

VENDOR CERTIFIED
DRAWING REV. NO. 7
BY [illegible] DATE [illegible]

☆ CHANGE NOT MADE BY CMC



SECTION "E-E"

FOR OFFICE AND ENGINEERING USE ONLY

BROWN & ROOT, INC. ENGINEERS & CONSTRUCTORS

REF. DRAWING NUMBERS

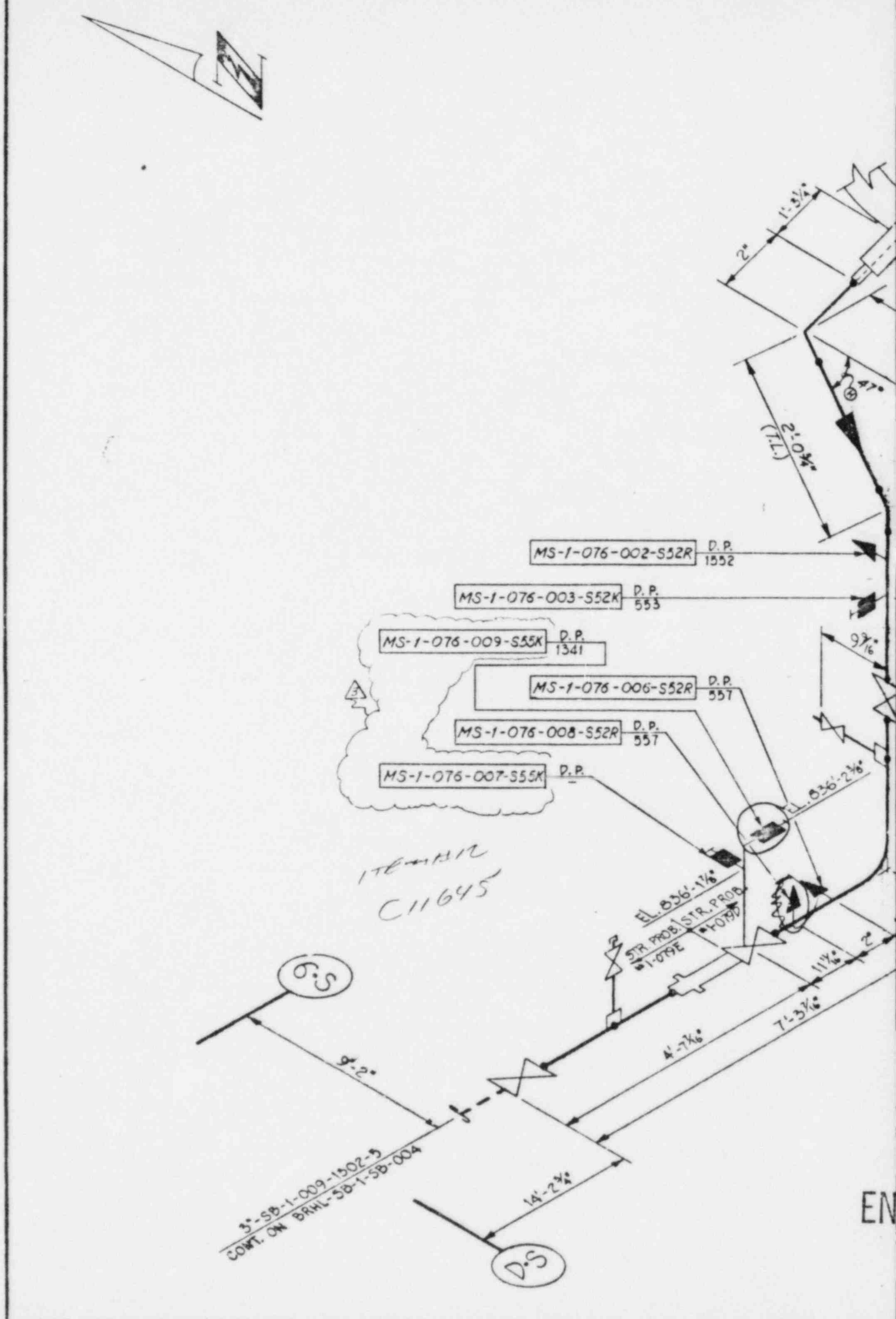
PIPE: ______ ELECT: ______
STEEL: ______ H.V.A.C.: ______

REV	DATE	DWN	CHK	APP	DESCRIPTION
4	2-6-83	JC			ISSUE FOR CONST. REF: FMHS 2-LMK # WAS - 5ALK.
CONT.	—	—	—	—	CFPA 3643
6					VENDOR CERTIFICATION REF CMC 9654
7	2-2-84				REV. VENDOR CERTIFICATION

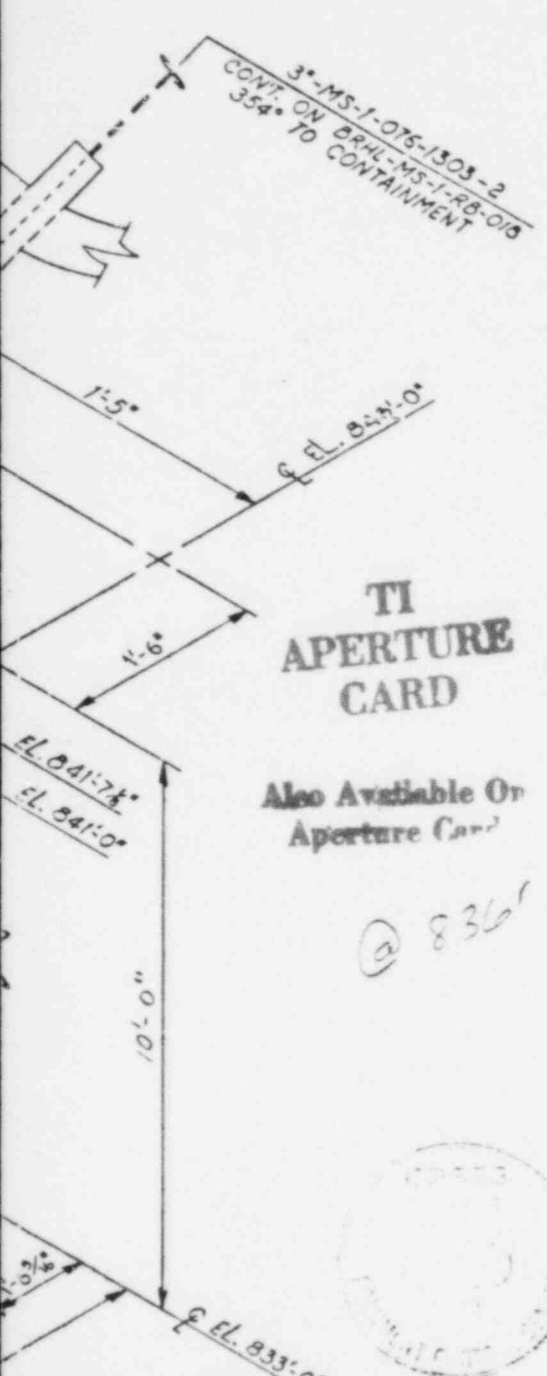
CUSTOMER Texas Utilities Service, Inc.
ORDER OR CONT. NO. CP-0046
JOB NAME Comanche Peak 1 & 2
MARK NO. MS-1-076-009-S55K
SKETCH NO. ______
SHEET 3 OF 3 REV. 7

THIRD PARTY INSPECTION YES ☐ NO ☐
CODE CLASS: B.31.1-5

10.3401



MS-1-076-002-S52R D.P. 1552
MS-1-076-003-S52K D.P. 553
MS-1-076-009-S55K D.P. 1341
MS-1-076-006-S52R D.P. 557
MS-1-076-008-S52R D.P. 557
MS-1-076-007-S55K D.P.
EL. 836'-2⅜"
EL. 836'-1⅛"
STR. PROB. #1-079E
STR. PROB. #1-079D
3"-SB-1-009-1302-5
CONT. ON BRHL-SB-1-SB-004
S-9
D-S
ITEM 812
C11645
EN



@ 836'

PC NO	REQ	HEAT NO	DESCRIPTION	ASME ASTM	GRADE	COLOR CODE

REV.	DATE	DESCRIPTION	DWN.	CKD.	APP'D.
0	1-?-83	ISSUED FOR HANGER IDENTIFICATION AND ACCOUNTABILITY ONLY	GLL	MJP	[illegible]
1	7-?-83	REV. AS NOTED; REDRAWN; VERIFIED FOR STRESS PROBLEM #1-079D	[illegible]	[illegible]	[illegible]
2	1-?-84	REV. AS NOTED; VERIFIED FOR STRESS PROB 1-079E	TEH	MBS	[illegible]
3	6-?-84	REV AS NOTED, AS BUILT VERIFIED FOR STRESS PROB. #1-079E	Q	[illegible]	[illegible]

WELD NO												
RT												
MT												
LP												
UT												

COST CODE | PAINT | INSUL. | CL. | THKNS

FLOW DIAG. | COMPOSITE | SPEC. | DESIGN CAT. / CL.

NOTES

8607100243-28

TEXAS UTILITIES SERVICES INC.
C. P. S. E. S. GLEN ROSE, TEXAS

Brown & Root, Inc.
ENGINEERS AND CONSTRUCTORS
HOUSTON, TEXAS

FOIA-85-59

DRAWING TITLE
MAIN STEAM, REHEAT, & STEAM DUMP

Q & NON-Q | TURNOVER NO RFT-M-3401 | DWG. NO BRHL-MS-1-SB-003 | REV 3

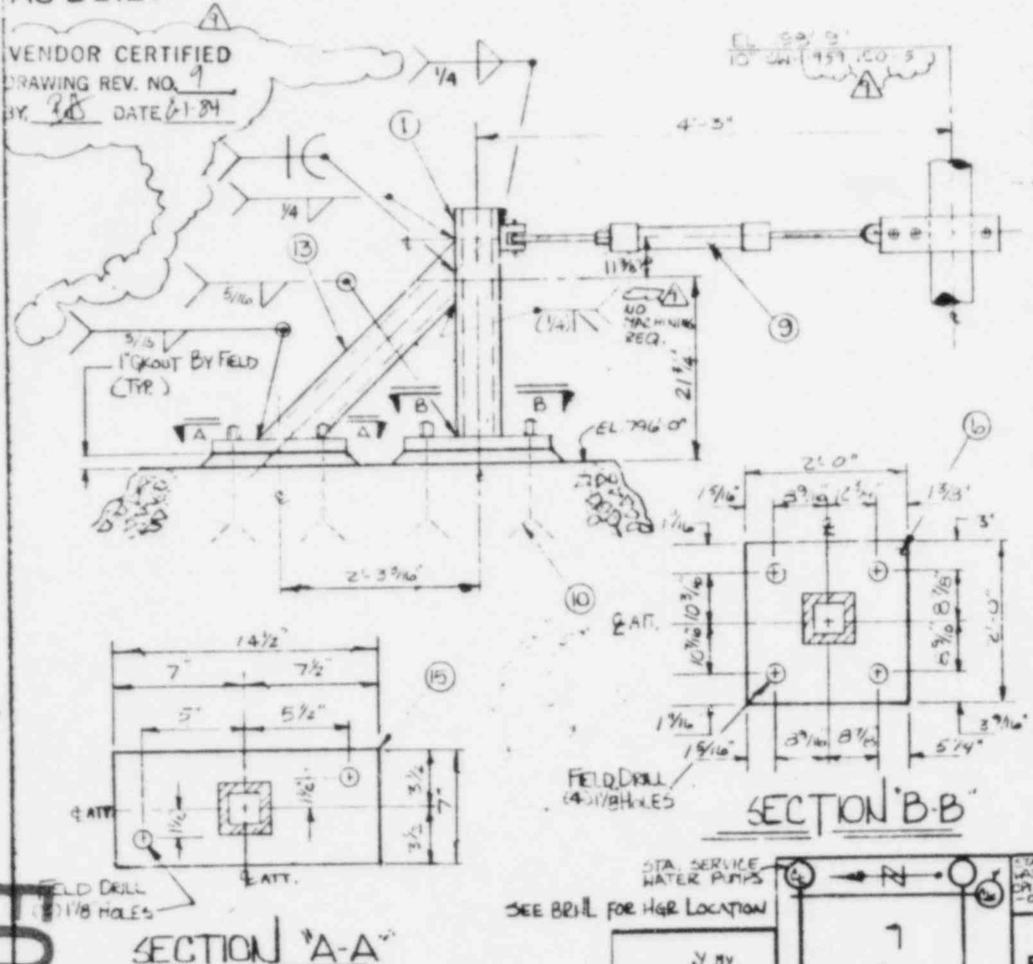
FOR OFFICE AND
GINEERING USE ONLY

CC/212

11" 8.5" 8.5" 11" 17"

AS-BUILT

VENDOR CERTIFIED
DRAWING REV. NO. 9
BY. [illegible] DATE 6-1-84



ITEM NO.	MATERIALS & OPERATIONS	QUAN.	SHIP.		PBS	L	CSS	PRIM.	SEC.	AISC
1	1/2" X 6" X 6" X 2'-3" TUBE STEEL (A500 GR B)	1				X		X		
6	1/4" X 2'-0" X 2'-0" CS PLATE (A36 or SA 36 GR B)	1			X			X		
9	SRS-10-PC W/SPC-15-[illegible] (SA-36)	1					X			
10	1" X 12" HILTI KWIK CONC. ANCHORS	6					X			
13	4" X 4" X 1/2" X 4'-0" L3. TS (A500 GR B) CUT TO SUIT	1				X		X		
15	1 1/4" CS PLATE PER SEC. A-A (A36)	1			X			X		
30	ASME III NAMEPLATE									

FOR OFFICE AND ENGINEERING USE ONLY

REV	DATE	DWN	CHK	APP	DESCRIPTION
A					VENDOR CERTIFICATION REF. CPPA 22539 & 23598
1					REV D VENDOR CERTIFIED
2					[illegible]

REV	DATE	DWN	CHK	APP	DESCRIPTION
3	10-13-83	Q			REV'D VENDOR CERTIFICATION. REF: WPT # 05981 & 06660
4					REV VENDOR CERT. REF CPPA 34903 39450 MK# WAS SW-1-027-005-J05R

PAINT: CARBO ZINC #11
SEISMIC ASSEMBLY SKETCH & ENGINEERING
BUNDLE & TAG
MARK SW-1-959-002-J05R

REV	DATE	DWN	CHK	APP	DESCRIPTION
3					REV'D AS NP REF. CMC 39581 [illegible] CPPA 30041 [illegible] WEMS
					DLT FW#31-5, DLT NTS 1-4 REINSTATED (AS BUILT)
4					REV'D 'AS-BUILT'

FOR MATERIALS AND OPERATIONS SEE SKETCH NO. ______ SHEET ___ OF ___

Brown & Root, Inc.

STA. SERVICE WATER PUMP CH. SHAFT -02

REF. DRAWING NUMBERS

PIPE: M1-1108 REV. 9 ELECT: ___
STEEL: S-1107 REV 7 H.V.A.C.: ___

CONDITIONS	Fx	Fy	Fz	Mx	My	Mz
DESIGN						
NORMAL & UPSET			-.586 / +.443 / -.384 / +.294			
EMERGENCY						
FAULTED						

REV	DATE	DWN	APP	DESCRIPTION
0	6/1/78			ISSUED FOR CONST. (1/4) FIELD WELDS: 2
1	10-24-79			REV'D AS NOTED PER IFC REV. 1 / I.F.C. FUS 3-5 REF CMC #4197 R.3
2				REV'D AS NOTED PER CPPA [illegible] SEE NOTE & SKETCH REV. O-A [illegible]
		COMP		

CUSTOMER TEXAS UTILITIES SERVICE INC.
ORDER OR CONT. NO. CP-0040
JOB NAME COMANCHE PEAK 1 & 2
MARK NO. SW-1-959-002-J05R
SKETCH NO.
SHEET 1 OF 1 REV. 9

THIRD PARTY INSPECTION
CODE CLASS: B31.1-5

NOTE
5. [illegible] devices for [illegible] per CMC [illegible]

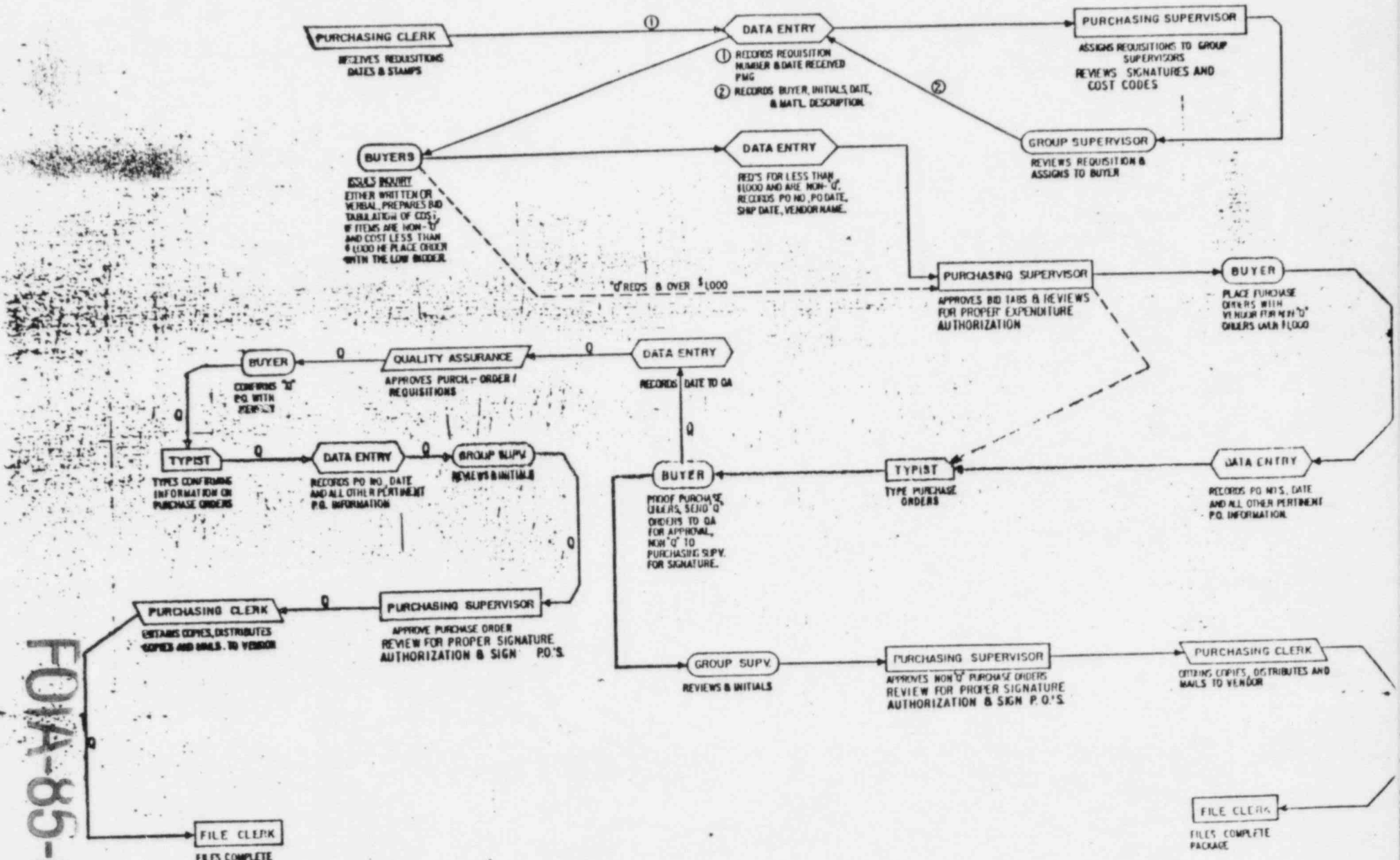
MVTS
X +0.010 -0.007
Y +0.019 -0.038

BRHL 150 SW-1-31-01-R4
IPD 150 SW-1-31-01-R.6
DATA PT 2940/P AB1-68A R4
PIPE MAT'L SA106 GRB
WEUL. 1/2" BLDG. 51

CC/213

FOIA-85-59

REQUISITION / PURCHASE ORDER
(FLOW THRU PURCHASING)



FOIA-85-59

cc/214

4-53 [redacted] AH-7

DATE : September 15, 1983

I, [redacted] hereby make the following voluntary statement to H. Brooks GRIFFIN, who has identified himself to me as an Investigator with the U. S. Nuclear Regulatory Commission. I make this statement freely, with no threats or promises of reward having been made to me. 7C

[redacted]

During the time I was employed at Comanche Peak, there were several occasions on which I was threatened with termination if I failed to follow instructions from supervisors which I knew were improper. In about April 1981, [redacted] my foreman, told me to use scrap I-beam to replace a piece in a hanger. I cut a new piece, and attempted to weld it. The new piece was magnetized and would not accept the weld. I told [redacted] it would not work, but he told me to weld it or "there was no need for me to come in tomorrow". I followed [redacted] instructions and welded the hanger. [redacted] 7C

Most of the time that I worked at Comanche Peak I believed I was doing my work properly, until I started helping [redacted] prepare for [redacted] QC tests. I realized that a "plug weld" that [redacted] told me to perform in about February 1980 was improper. I remember [redacted] even watched for QC while I made the weld. I provided this information to the NRC.

During about September 1980, I remember an incident in which [redacted] threatened my superintendent [redacted] with termination. [redacted] told [redacted] "if you don"t finish this pipe line before 5:30PM, you and your crew will be kicking your hats out the front gate". This particular pipe line had been in process for a long time and there had been a lot ot problems with it. [redacted] arranged for a lot of welders to start working and they "messed up" much of the work. I believe the pipe was bought off. [redacted]

In July 1981 [redacted] my foreman, instructed me to make a "down I" pass to cover a gouge in a pipe I was welding. I believe [redacted] told me to do this to protect [redacted] job. I told [redacted] I would rather not do it. I called [redacted] and [redacted] suggested we contact another QC inspector to come look at the weld so my supervisor would not know I had notified QC. A QC inspector by the name of [redacted] came to the location, and [redacted] and [redacted] caught me sh ing [redacted] the gouge. [redacted] the next week, but [redacted] was not. ked to [redacted] who said [redacted] had sent a memo saying to fire me. I went to [redacted] office and ta to [redacted] who said to call him the next we back the foll ing week and talked to [redacted] told me he story and wou d call me. Two weeks later, I called him and he never returne y call. I heard from other employees on site th came from [redacted] 7C

CC/215

AH-7

Interview of [redacted]

On September 15, 1983, [redacted], a former Brown & Root, Inc., welder at CPSES, was interviewed by NRC Investigator H. Brooks GRIFFIN in Arlington, Texas. [redacted] related the following four instances which he represented as intimidation that he had presented in his testimony before the CPSES ASLB:

(1) [redacted] stated that in April 1981, [redacted], his foreman, told him to substitute a scrap piece of I-beam into a hanger, and he ([redacted]) followed [redacted] instructions.

(2) [redacted] stated that in February 1980, [redacted], a supervisor, instructed him to perform some improper "plug welds" while he ([redacted]) watched out for QC.

(3) [redacted] said that in about September 1980, [redacted] and [redacted] superintendents, threatened [redacted] (a B&R employee) and his crew (including [redacted]) with termination if they did not finish welding a pipe before 5:30 p.m. [redacted] said the pipe was completed in a hurry with many deficiencies, and he believed the pipe was accepted by QC.

(4) [redacted] said that in July 1981, [redacted] foreman, instructed [redacted] to make an improper "downhill weld" to cover a gouge in a pipe. [redacted] said [redacted] was caught by his foreman showing the gouge to a QC inspector after [redacted] had refused to cover the gouge. [redacted] said [redacted] was [redacted] a few days later.

[redacted] provided the NRC with a signed, sworn statement, Attachment (7), that identified locations of the above described deficiencies. [redacted] technical concerns were forwarded to Region IV staff for evaluation.

CC/216

7C

ASK BROOKS GRIFFIN FOR RMASTERSON

1) DO YOU HAVE ANY MORE INFORMATION ABOUT THIS?

2) WAS THIS EVER FOLLOWED UP IN A REGION IV IR?

3) WHO AT THE NRC TOLD HIM?

BOB STEWART
1-860-8154

Bob
GRIFFIN DIDN'T SHOW UP
JFM

REGION III OFFICE HAS BEEN INVESTIGATING [redacted] ALLEGATIONS FOR 3 OR MORE YEARS — BROOKS DOESN'T HAVE ANY DISCRETE INFO. SUGGESTS THAT YOU TALK TO REGION III

JFM 8/20/84 pm

cc/217

9/11/84 7C

Record of Telephone Conversation

To: [redacted] (Alleger)

From: Ernest G. Thompson
NRC-TRT

Telephone Number: (501) 832-5477

Date: September 10, 1984

Time: 8:10 to 8:35 p.m.

Subject: 1) Clarification of welding allegations
2) Clarification of allegation AH-7 related to welding of magnetized steel.

The substance of the questions addressed to [redacted] and his responses are as noted: 7C

Subject #1

1. Were you ever asked to perform welding outside of approved procedures?

   Yes.

2. What kinds of unauthorized welds did you make?

   a) Plug welding of misdrilled holes.
   b) Making flare bevel welds with excessive root gap by knocking the flux off a coated electrode and laying the core wire in the gap to fill it, then welding over it.
   c) Making "downhill" fillet welds on pipe hanger I-beams instead of "uphill" welds. Normally I used a 3/32" diameter electrode to make 5/16" fillet welds.

3. Did you ever "plug weld" mislocated holes which had the edges beveled.

   No.

4. There are several categories of hangers or pipe supports (ASME Class 1, Class 2, Class 3 and B31.1 pipe supports, categories 5 and 6). Which of these types did you weld on?

   All.

5. What welding processes did you personally use to weld hangers?

   Shielded metal-arc welding

6. Did you ever use gas tungsten-arc welding?

   Never. I wasn't qualified for gas tungsten-arc welding.

CC/218

Record of Telephone Conversation

7. When you lay down a stringer bead of good configuration using shielded metal-arc welding, how wide is it in terms of weld rod diameter?

   About 2 times the rod diameter.

8. Did you ever weld a support attachment to an ASME pipe?

   Yes. I welded lugs and stanchions to ASME pipe using shielded metal-arc welding.

9. Do you remember what weld procedure specification you used for welding such attachments to ASME pipe?

   I think it was WPS 11032.

10. What were your welder's identification letters?

    BNU.

11. Do you recall a "pipe line segment" which had to be "completed by 5:30 pm" or the crew was in trouble?

    Yes.

12. Was the welding related to the pipe line or to hangers for this pipe line?

    To hangers.

13. Can you identify the pipe line?

    It is in the south yard tunnel. Walking into the tunnel to head south, you take the elevator to the 790' level. Make a right turn. Go to the ladder near the end of the tunnel (where the elevation changes from 790' to 800'. Go up the ladder. At the top at about chest high on your right you will find a 3" or 4" pipe near the center of the aisle. This is the pipe line in question. Supports for this pipe are made of tube steel and channel iron.

14. According to your testimony, you can "plug weld" a 1 1/4" diameter hole in 2" thick plate with 2 electrodes in 2 minutes. The volume of this hole is such as to require much more than two electrodes.

    a) What size electrode did you use?

       The largest electrode I ever welded with was 1/8" diameter. The two electrodes is just an estimate. It could have been 5 electrodes.

Record of Telephone Conversation

b) Did you completely fill the hole?

No. It was capped on either face and had slag and an air pocket in the middle.

15. If you "plug welded" a mislocated hole and the new hole drilled in the correct location over-lapped the weld - repaired hole----

You had to weld repair the side of the new hole because the "plug weld would have defects.

Subject #2

1. Did you recall a scrap I-beam which was magnetized and used to repair a hangar?

Yes.

2. Was this hangar in the north pump room?

No. It was in the south yard tunnel at about 820' elevation.

3. Who at the NRC did you make aware of this incident?

Don Driskell

4. Who at the NRC told you that the hangar had been scrapped?

Don Driskell and Richard Herr told me it had been removed because of design changes.

7C

QUESTIONS FOR [redacted]

1) THE HANGER WITH THE SCRAP I-BEAM IS IN THE NORTH PUMP ROOM ACCORDING TO MY CONVERSATION WITH H. S. ON 2/28/84 CAN HE LOCATE THIS ROOM IN A PARTICULAR BUILDING AND ELEVATION?

2) WERE THESE SPECIFIC TYPES OF PUMPS, SUCH AS FEEDWATER, ETC? Identify pump type

3) WHO AT THE NRC DID YOU MAKE AWARE OF THIS INCIDENT?

4) WHO AT THE NRC TOLD YOU THAT THE HANGER HAD BEEN SCRAPPED?

BOB Masterson

CC/219

Subject #2

1. Do you recall a scrap I-beam which was magnetized and used to repair a hangar?

Yes

2. Was this hangar in the north pump room?

No. It was in the south yard tunnel at about 820' elevation.

3. Who at the NRC did you make aware of this incident?

Don Driskell

4. Who at the NRC told you that the hangar had been scrapped?

Don Driskell and Richard Herr told me it had been removed because of design changes. ~~After I had reported this incident to them they acted as if I had told anyone else. I said "No, why?" They said, "Because it has been removed for design changes.~~

TEXAS UTILITIES GENERATING CO. CPSES	INSTRUCTION NUMBER	REVISION	ISSUE DATE	PAGE
	QI-QP-11.6-1	6	JUL 1 1982	1 of 45

INSTALLATION INSPECTIONS OF NNS SEISMIC CATEGORY II SUPPORTS FOR CLASS V PIPING

PREPARED BY: William Hawthorn 7-13-82 DATE

APPROVED BY: C. T. Woods 7-13-82 DATE

APPROVED BY: B. B. Scott 7/13/82 DATE

FOR INFORMATION ONLY

1.0 REFERENCES

1-A CP-QP-18.0, "Inspection Reports"

1-B CP-QP-16.0, "Nonconformances and Deficiencies"

1-C QI-QP-16.0-5, "Reporting of Base Metal Defects"

2.0 GENERAL

2.1 PURPOSE AND SCOPE

This Instruction sets forth the criteria and requirements to be used when performing installation inspection of Class 5 pipe supports. If a conflict exists between this Instruction and the support drawing, the drawing shall take precedent. This Instruction does not apply to Class 1, 2 or 3 pipe supports.

2.2 MATERIALS

Hanger materials shall comply with the drawing requirements, e.g., material size and type, etc. Material used in the fabrication of Class 5 pipe supports may be ASTM or ASME material.

2.2.1 Transfer of Protective Coating Unique Identification Number

For all coated bulk steel intended for use in the Reactor Building (as designated by the presence of a "QP" unique identification number, the QC inspector shall verify and document the transfer of the "QP" number (prior to cutting) in accordance with QI-QP-11.4-22.

COMANCHE PEAK STEAM ELECTRIC STATION

INSPECTION REPORT

SHEET ____ OF ____

NO. MAS 1-0034702

ITEM DESCRIPTION	IDENTIFICATION NO.	SYSTEM / STRUCTURE DESIGNATION
CLASS I PIPING SUPPORTS	CT-1-073-001-Y45R	CT. SAFE? RM. #1 @ 820' - RM #85D

SPEC. NO.	REV.	REF. Q.C. DOC. & REV. & CHANGE NO.	MEASURE OR TEST EQUIP. IDENT. NO.
MS-100	6	QI-QP-11.16-1 / 30	n/A

☐ IN PROCESS INSPECTION ☐ PRE INSTALLATION VERIFICATION ☐ INSTALLATION INSPECTION ☑ FINAL INSPECTION ☐ PRETEST INSPECTION

INSP. RESULTS

☑ INSPECTION COMPLETED, ALL APPLICABLE ITEMS SATISFACTORY

☐ INSPECTION COMPLETED, UNSATISFACTORY ITEMS LISTED BELOW

[signature] — QC INSPECTOR — DATE: 22MAR84

ITEM NO.	INSPECTION ATTRIBUTES	SAT	UNSAT	DATE	QC SIGNATURE
	ALL REWORK, REINSPECTION TO THE DISPOSITION OF NCR # M-84-00754-S IS COMPLETE.	✓			
	ONE HOLD TAG REMOVED	✓			

INFORMATION COPY PPRV

RTN ___ FILE LOC. F11.48.13
SUBFILE LOC. CT-1-073-001-Y45R

ARMS INDEXED
DATE

REMARKS (DWGS, SPECS, ETC.)

THIS I.R. CLOSES NCR # M-84-00754-S.

RELATED NCR NO.	I.R. CLOSED	DATE	SIGNATURE
M-84-00754S	n/A ☐	n/A	n/A QC INSPECTOR

FOIA-85-59

CC/221

COMANCHE PEAK STEAM ELECTRIC STATION

INSPECTION REPORT

SHEET 1 OF 1

IR- NO. MH5-1-0027548

ITEM DESCRIPTION Class V Support Package Document Review	IDENTIFICATION NO. CT-1-073-001-445R	SYSTEM / STRUCTURE DESIGNATION CT/56 1¢ 820 YARD 850 TUNNEL
SPEC. NO. N/A	REV. N/A	REF. Q.C. DOC. & REV. & CHANGE NO. QI-QP-11.16-1 Rev. 30
MEASURE OR TEST EQUIP. IDENT. NO. N/A		

☐ IN PROCESS INSPECTION ☐ PRE INSTALLATION VERIFICATION ☐ INSTALLATION INSPECTION ☒ FINAL INSPECTION ☐ PRETEST INSPECTION

INSP. RESULTS [illegible]

☐ INSPECTION COMPLETED, ALL APPLICABLE ITEMS SATISFACTORY

☒ INSPECTION COMPLETED, UNSATISFACTORY ITEMS LISTED BELOW

QC INSPECTOR [signature] DATE 2-27-84

ITEM NO.	INSPECTION ATTRIBUTES	SAT	UNSAT	DATE	QC SIGNATURE
A.	DRAWING REVIEW (Para. 3.16.2.b)				
1.	Drawing No. CT-1-073-001-445R Rev. 3	✓		[illegible]	[signature]
	Reviewed - Reinspection not required.				
B.	COMPONENT MODIFICATION CARD REVIEW				
1.	Design required by CMC N/A Rev. N/A				
	Has been satisfactorily accepted by QC.				
	PER REINSPECTION - NO. SO. DIMENSION @ SOUTH END (℄ OF HILTI TO EDGE) NOT PRESENT. - WORK THIS I.R. WITH NCR# M-84-00754-S. [signature] 7MAR84				
	PER REINSPECTION - WELDS GO BEYOND 1" TO EDGE OF EMBED PL - BASEPLATE DIMENSION INCORRECT [signature] 21MAR84				
	21MAR84				

INFORMATION COPY

ARMS INDEXED

DATE

REMARKS (DWGS, SPECS, ETC.)

REV 1 OF CMC 46762 NEVER INSPECTED
REV 0 & 1 OF CMC 34365 NEVER INSPECTED
BOTH CMC'S INCORPORATED TO REV 2 OF DRAWING

SIGNATURE [signature] QC INSPECTOR

RELATED NCR NO. M-84-00754-S | I.R. CLOSED ☑ | DATE 22MAR84

THIS I.R. SAT PER THE DISPO. TO NCR# M-84-00754S - DIMENSION SAT PER INSPECTOR ERROR. [signature] 22MAR84

PERM. PLT. RECORD

RTN L | FILE LOC. 17.1.48.13

SUBFILE LOC. CT-1-073-001-445R

TEXAS UTILITIES GENERATING CO

COMANCHE PEAK STEAM ELECTRIC STATION
NONCONFORMANCE REPORT (NCR)

NCR No. III-84-00154-S

UNIT	STRUCTURE/SYSTEM	ITEM/COMPONENT	TAG/ID NUMBER	LOCATION OR ELEVATION	RIR NO.
ONE	YARD FUN. / CT	SEISMIC CLASS I PIPE SUPPORT	CT-1-072-001-Y45R	YARD FUN. @ 820 RM # B5 D	n/a

REPORTING PERSONNEL

NONCONFORMING CONDITION: I.R. # MAS-1352 WAS ISSUED PER "CT-1-072-001-Y45R/1". AND CMC# 46762/0 AS SAT ON 12JAN81. HOWEVER CMC# 46762/1. AND CMC# 34365/1 WERE ISSUED AGINST "BRH/1" ON 20 OCT 80.

BOM #©. AND ① EXIST PER CMC# 34365/1 (HILTI I.R. NOT IN PACKAGE). WITH ℄ OF HILTI TO ℄ OF ATT. PER SAME. WELDING OF BOM #© TO EMBED PLATE EXIST PER CMC# 46762/0. BRH/2 ISSUED TO INCOR. BOTH CMC'S REV/1. WELDS CALLOUT PER BRH/2 IS PER CMC# 34365/1 ON #© TO EM. PL WHICH WAS DELETED BY CMC# 46762/1.

DUE TO THE CONFLICT BETWEEN EXISTING FIELD CONDITION. AND DOCUMENTATION THE QUALITY THIS HANGER IS INDETERMINATE.

ONE HOLD TAG APPLIED.

REFERENCE DOCUMENT: 10CFR50 APP. B-CRIT. XI YQS-QP-11.1 REV N.A./30 PARA —

REPORTED BY: DOUGLAS MCCALLUM / Douglas McCallum DATE: 7 MAR 84

QE REVIEW/APPROVAL: Douglas W. Snow DATE: 3.8.84

ACTION ADDRESSEE

ACTION ADDRESSEE: B. Goff DEPARTMENT: Hanger Engr.

DISPOSITION:

REWORK ____ REPAIR ____ USE AS IS X

QC to reinspect HGR per latest issue of VCD.

Review of issue dates for CMC's 46762 Rev. 1 and 34365 Rev. 1 found issue date for both uas 10 Oct. 82. not 10 Oct. 80.

QC program on date of MH IR did not require IR to be put in HGR Pkg.

HOLD TAG REMOVED BY [illegible] 21 MAR 84

CLOSED I.R. ISSUED [illegible] 22 MAR 84

INFORMATION COPY PRINT

ENG. REVIEW/APPROVAL: Bob Goff DATE: 3/20/84

QE REVIEW APPROVAL: George Willis DATE: 3/20/84

DISPOSITION VERIFICATION & CLOSURE: George Willis DATE: 4/4/84

COMMENTS:

QE

ACTION ADDRESSEE

QE

INSPECTION REPORT

ITEM DESCRIPTION	IDENTIFICATION NO.	BOILER / STRUCTURE DESIGNATION
Class V Support Package Document Review	CT-1-CT	

SPEC. NO.	REV.	REF Q.C. DOC. & REV. & CHANGE NO.	MEASURE OR TEST EQUIP. IDENT. NO.
N/A	N/A	QI-QP-11.16-1 Rev. 5	N/A

☐ IN PROCESS INSPECTION ☐ PRE INSTALLATION VERIFICATION ☐ INSTALLATION INSPECTION ☒ FINAL INSPECTION ☐ PRE TEST INSPECTION

INSP. RESULTS

☐ INSPECTION COMPLETED, ALL APPLICABLE ITEMS SATISFACTORY

☒ INSPECTION COMPLETED, UNSATISFACTORY ITEMS LISTED BELOW

[signature] QC INSPECTOR 2-27-84 DATE

ITEM NO.	INSPECTION ATTRIBUTES	SAT	UNSAT	DATE	QC SIGNATURE
A.	DRAWING REVIEW (Para. 3.16.2.b)		✓		
1.	Drawing No. CT-1-073-001-445R Rev. 3				
	Reviewed - Reinspection not required.				
	FOR INFO. ONLY				
B.	COMPONENT MODIFICATION CARD REVIEW				
1.	Design required by CMC N/A Rev. N/A		N/A		
	Has been satisfactorily accepted by QC.				
	PER REINSPECTION 1 - NO SO. DIMENSION @ SOUTH END (C OF HILTI TO EDGE) NOT PRESENT. - LOOK THIS I.R. WITH NCR # M-84-00754-S.				

INFORMATION COPY PPRV

REMARKS (DWGS, SPECS, ETC.)

REV 1 OF CMC 46762 NEVER INSPECTED
REV 0 & 1 OF CMC 34365 NEVER INSPECTED
BOTH CMC'S INCORPORATED TO REV 2 OF DRAWING

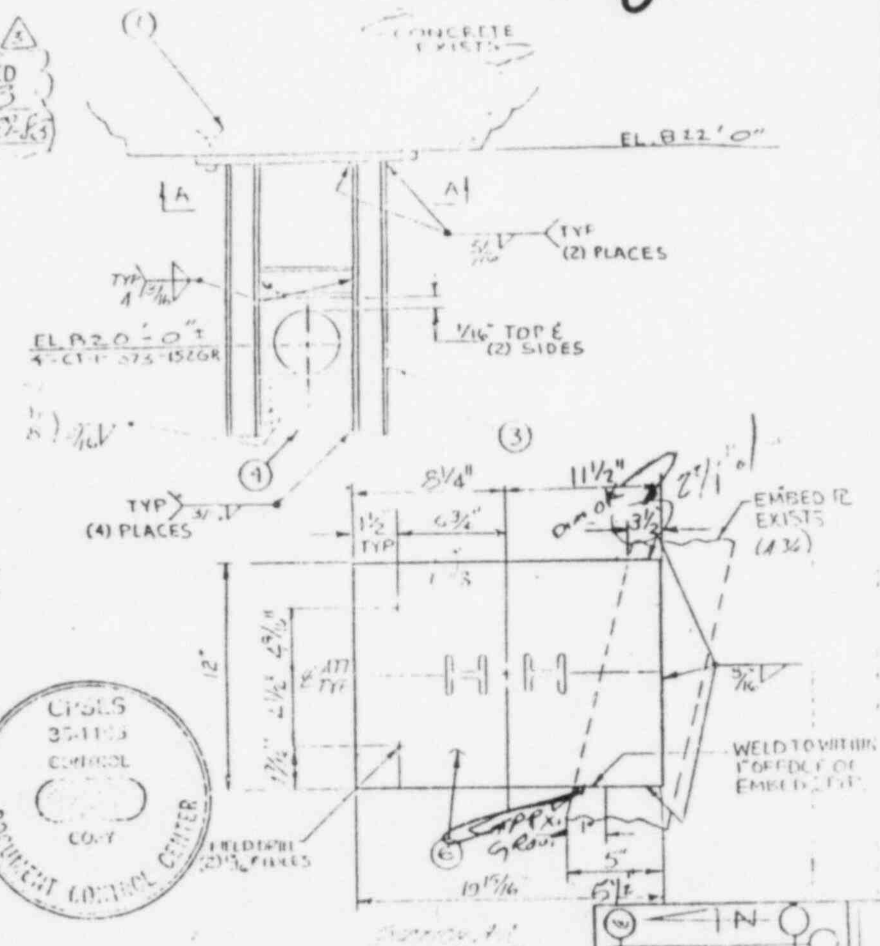
RELATED NCR NO. M-84-00754-S | I.R. CLOSED ☐ DATE | SIGNATURE QC INSPECTOR

CHECK CURRENT REVISION OF DCA-5021 FOR HANGER CLASSIFICATION.

FOR INFO. ONLY.

AS-BUILT

VENDOR CERTIFIED
DRAWING REV. NO. 3
BY [illegible] DATE 8-27-83



NOTES:

1) Locking devices for high strength bolts are not required per DCA 7607

CPSES 35-1195 CONTROL COPY DOCUMENT CONTROL CENTER

TO 4801
BRHL ISO CT-1-YD-02 R 3
IPD ISO CT-1-YD-02 REV. 1
DATA POINT 125/ PROB. NO. AB1 N0996
PIPE MAT'L SA 106 GRB
INSUL — BLDG YD

ITEM NO	MATERIALS & OPERATIONS	QUAN	SHIP
	SEISMIC PIPE RESTRAINT CONSISTING OF:	ONE	
1	Carbon Steel Plate/Section A-A, TW=51#	1	
2	5/8"x8 1/2" Hilti Kwik Bolt Concrete Anchors, TW=3#	4	
3	W6x13, 2'-5 3/4" Long, TW=[illegible] Shop Weld To Item #1, as Shown	2	
4	W6x13, 0'-4 5/8" Long, TW-[illegible]	2	
	SEISMIC ASSEMBLY SKETCH & ENGINEERING	1	
	BUNDLE & TAG	1	
	MARK# CT-1-073-001-Y45R		
	Apply one coat of Carbo Zinc 11 to above mat'l except th'ds which shall be coated w/a rust preventative.		
5	[illegible]		
6	1" x 12" CARBON STEEL PLATE 1'-7 11/16" LG.		
7	3/4" x 10" HILTI KWIK BOLT CONCRETE ANCHOR		

REV	DATE	DWN	CHK	APP	DESCRIPTION
1	8-21-83	[illegible]	Q	[illegible]	REV'D VENDOR CERTIFIED, REF. [illegible] 29811

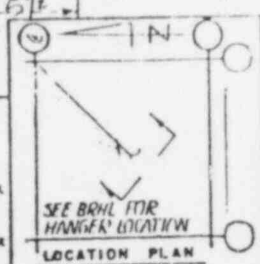
Approved By: DCP
Date: 3/28/[illegible]

INFORMATION COPY

DOCUMENT CONTROL CPSES 35-1195 INFORMATION COPY

FOR MATERIALS AND OPERATIONS SEE SKETCH NO SHEET OF

Brown & Root, Inc.



THIRD PARTY INSPECTION YES ☐ NO ☐
CODE CLASS: B31.1-(5)

REF. DRAWING NUMBERS
PIPE: M1-1006-3 ELECT: —
STEEL: S1-0210-7 H.V.A.C: —

CONDITIONS	Fx	Fy	Fz	Mx	My
DESIGN					
NORMAL & UPSET					
EMERGENCY					
FAULTED					

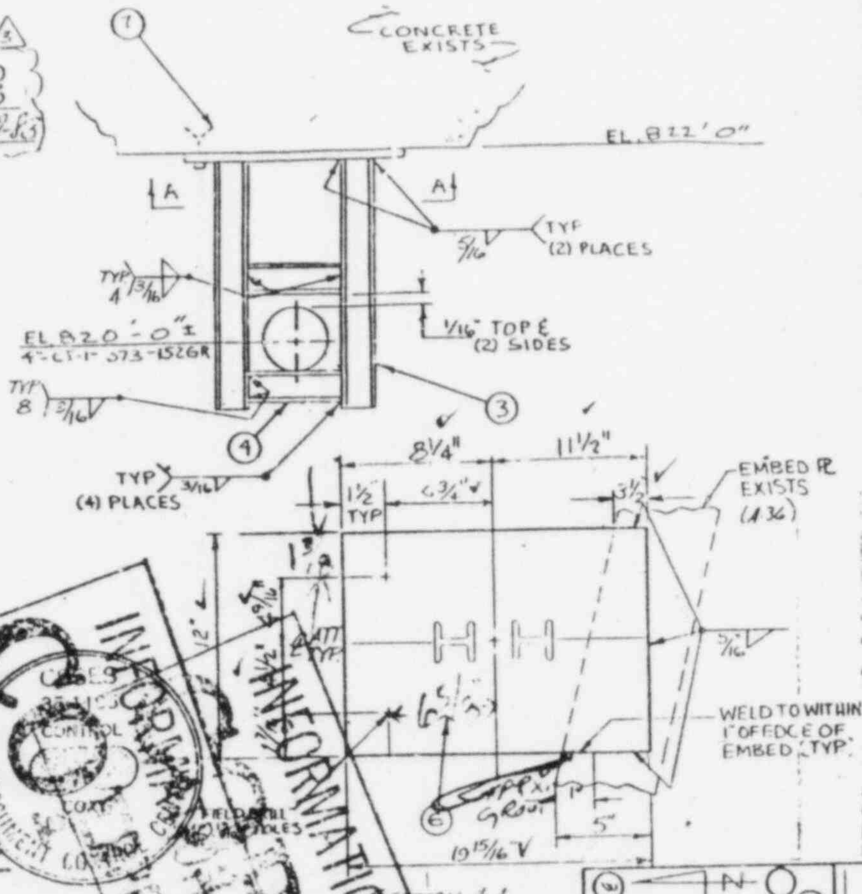
REV	DATE	DWN	APP	DESCRIPTION
F	5/5/[illegible]	[illegible]	[illegible]	ISSUED FOR CONST.
1	2-21-83	[illegible]	[illegible]	[illegible]
2	3-31-83	JN	[illegible]	REV'D AS NOTED, REF. CMC [illegible]; REV'D PER [illegible] AS BUILT

CUSTOMER Texas Utilities Services
ORDER OR CONT. NO CP-0016[illegible]
JOB NAME Comanche Peak 1 [illegible]
MARK NO. CT-1-073-[illegible]
SKETCH NO
SHEET 1 OF

CHECK CURRENT REVISION OF DCA-5021 FOR HANGER CLASSIFICATION.

AS-BUILT

VENDOR CERTIFIED DRAWING REV. NO. 3 BY [illegible] DATE 8-27-83



NOTES:

1.) Locking devices for high strength bolts are not required per DCA 7607

T.O. 1801

BRHL 150 CT-1-YD-[illegible]

TPD 150 CT-1-YD-02 REV. 1

DATA POINT 125/PROB. NO. AB-1-N051R1

PIPE MAT'L SA 106 GR B

INSUL — BLDG YD

ITEM NO	MATERIALS & OPERATIONS	QUAN	SHIP
	SEISMIC PIPE RESTRAINT CONSISTING OF:	ONE	
1	Carbon Steel Plate/Section A-A, TW=51#	1	
2	5/8"x8 1/2" Hilti Kwik Bolt Concrete Anchors, TW=3#	4	
3	M4x13, 2'-5 3/4" Long, TW=64# Shop Weld To Item #1, as Shown	2	
4	M4x13, 0'-4 5/8" Long, TW=10#	2	
	SEISMIC ASSEMBLY SKETCH & ENGINEERING	1	
	BUNDLE & TAG	1	
	MARK# CT-1-073-001-Y45R		
	Apply one coat of Carbo Zinc #11 to above mat'l except th'ds which shall be coated w/a rust preventative.		
5	[illegible]	1	
6	1"x12" CARBON STEEL PLATE 1'-7 1/16" LG.	1	
7	3/4"x10" HILTI KWIK BOLT CONCRETE ANCHORS	[illegible]	

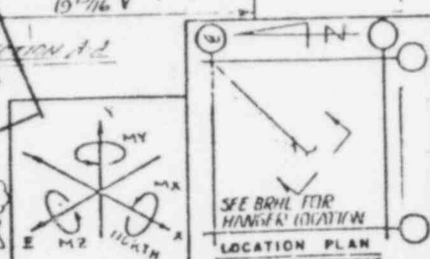
REV	DATE	DWN	CHK	APP	DESCRIPTION
3	8-27-83	G.L.	Q	C.B.	REV'D VENDOR CERTIFIED, REF. CP 29811

Approved By: DEP

Date: 3/27/83

FOR MATERIALS AND OPERATIONS SEE SKETCH NO. SHEET OF

CPSES 85-1195 CONTROL COPY 098 DOCUMENT CONTROL CENTER



THIRD PARTY INSPECTION YES ☐ NO ☒

CODE CLASS: B31.1(5)

Brown & Root, Inc.

REF. DRAWING NUMBERS

PIPE: MI-1006-3 ELECT: —

STEEL: SI-0218-7 H.V.A.C.: —

CONDITIONS	Fx	Fy	Fz	Mx	My	Mz
DESIGN 3						
NORMAL & UPSET	-135 +132	-1307 +672	-437 +962			
EMERGENCY	[illegible]	[illegible]	[illegible]			
FAULTED						

REV	DATE	DWN	APP	DESCRIPTION
F	6/5/78	E/J		ISSUED FOR CONST.
1	2-21-80	L.C.		[illegible]
2	3-31-83	LN		REVD AS NTD; REF. CMC [illegible] AS BUILT [illegible]
CONT				

CUSTOMER Texas Utilities Service, Inc.

ORDER OR CONT. NO CP-0046B

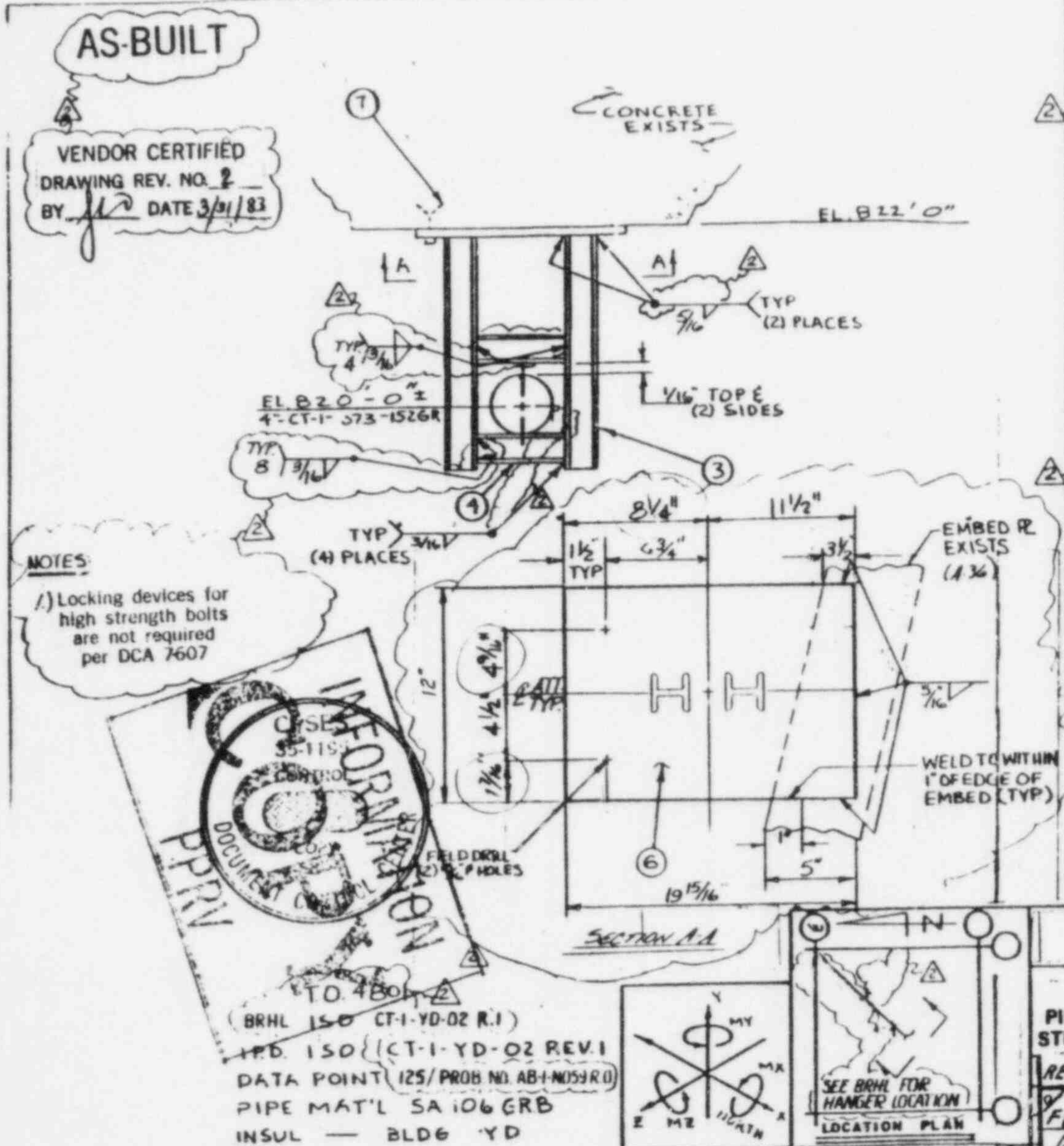
JOB NAME Comanche Peak 1 & 2

MARK NO. CT-1-073-001-Y45R

SKETCH NO. —

SHEET 1 OF 1 REV.

CHECK CURRENT REVISION OF DCA-5021 FOR HANGER CLASSIFICATION.



ITEM NO	MATERIALS & OPERATIONS	QUAN	SHIP
	SEISMIC PIPE RESTRAINT CONSISTING OF:	ONE	
1	~~Carbon Steel Plate/Section A-A, TW=51#~~	1	
2	~~5/8"x8 1/2" Hilti Kwik Bolt Concrete Anchors, TW-3#~~	4	
3	M4x13, 2'-5 3/4" Long, TW-64# Shop Weld To Item #1, as Shown	2	
4	M4x13, 0'-4 5/8" Long, TW-10#	2	
	SEISMIC ASSEMBLY SKETCH & ENGINEERING	1	
	BUNDLE & TAG	1	
	MARK# CT-1-073-001-Y45R		
	Apply one coat of Carbo Zinc #11 to above mat'l except th'ds which shall be coated w/a rust preventative.		
5	~~[illegible] CARBON STEEL PLATE [illegible]~~	1	
6	1"x12" CARBON STEEL PLATE 1'-7 15/16" LG.	1	
7	3/4"x10" HILTI KWIK BOLT CONCRETE ANCHORS	2	

CPSE 85-1195 CONTROL 698 COPY DOCUMENT CONTROL CENTER

Approved Date

FOR MATERIALS AND OPERATIONS SEE SKETCH NO. ______ SHEET ___ OF ___

Brown & Root, Inc.

REF. DRAWING NUMBERS

PIPE: M1-1006-3 ELECT: —

STEEL: ~~M-0318-7~~ H.V.A.C.: —

CONDITIONS	Fx	Fy	Fz	Mx	My	Mz
DESIGN	—	—	—	—	—	—
NORMAL & UPSET	-132 +128	-1336 +692	-938 +936	—	—	—
EMERGENCY	-150 +176	-1463 +815	-1251 +1218	—	—	—
FAULTED	—	—	—	—	—	—

REV	DATE	DWN	APP	DESCRIPTION
0/F	6/3/78			ISSUED FOR CONST.
1	2-21-80	LC		REVD PER CMC [illegible]
2	3-31-83	LN		REVD AS NTD; REF. CMC [illegible]; DCA-7607 NT. 1, AS BUILT VENDOR CERTIFICATION REF CPPA# 25401.
CONT.	~	~	~	

CUSTOMER Texas Utilities Service, Inc.

ORDER OR CONT. NO. CP-0046B

JOB NAME Comanche Peak 1 & 2

MARK NO. CT-1-073-001-Y45R

SKETCH NO. —

SHEET 1 OF 1 REV. 2

THIRD PARTY INSPECTION YES ☐ NO ☒

CODE CLASS: B31.1(5)

CPSES 85-1195 CONTROL COPY DOCUMENT CONTROL CENTER INFORMATION ONLY

COMANCHE PEAK STEAM
ELECTRIC STATION (CPSES)

COMPONENT MODIFICATION CARD (CMC)

SERIAL NO. № 34365 △1

(1) APPLICATION: Pipe Supports — WELD MOD. N/A — Q N/A — NON-Q ☐ — DESIGN CHANGE/~~DEVIATION~~ ☑

(2) DWG. NO. BRH Rev 1
CT-1-073-001-Y42R

(3) LINE NO./COMPONENT NO.
CT-1-073-001-Y45R

(4) REASON FOR CHANGE:
INACCESSIBLE WELDS

△ AS-BUILT R DIM
PHDX-2697

(5) INSTRUCTIONS:

REMOVE N/A

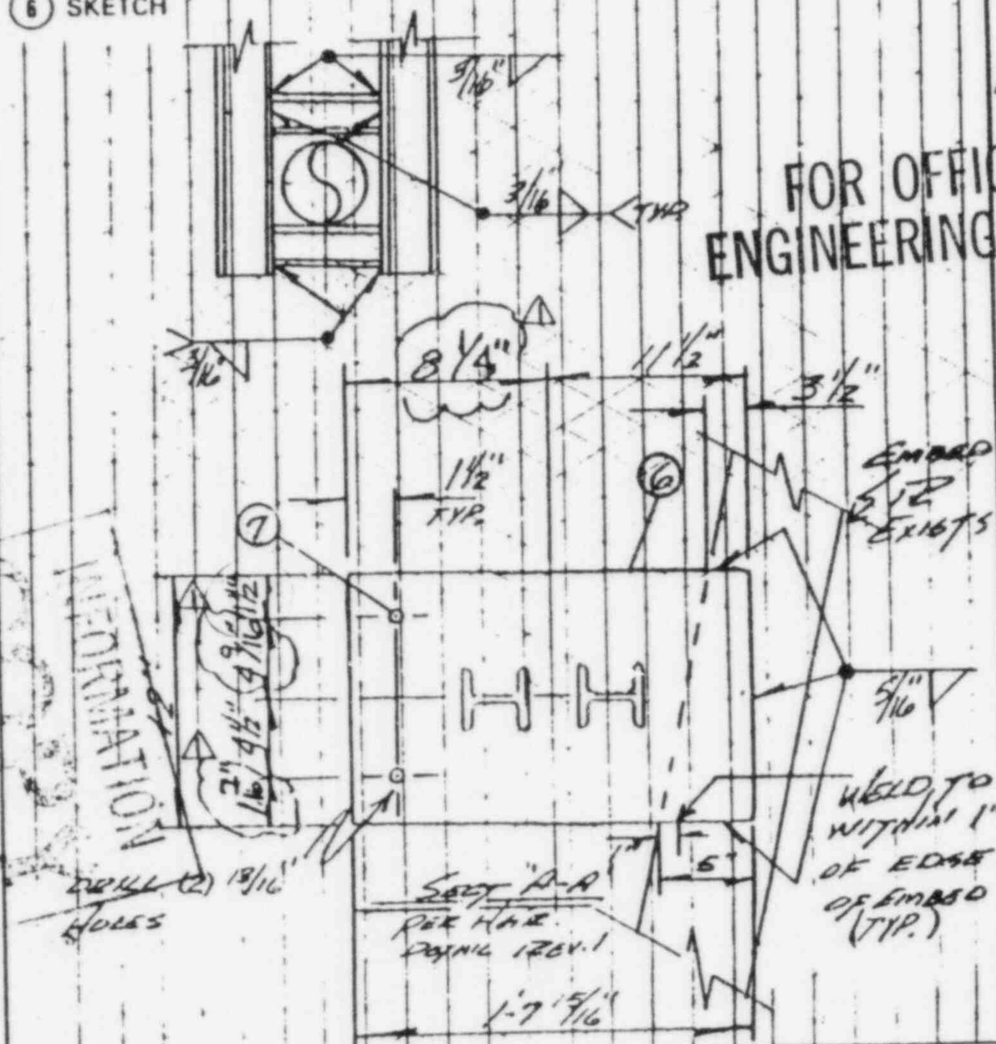
DELETE ITEM
#5 & ITEM #2

ADD ☐

6-1"x12x1-7 5/16 R? ?

7-3/4"x10" Hilti
[illegible]

(6) SKETCH



FOR OFFICE AND
ENGINEERING USE ONLY

INFORMATION

(7) ORIGINATOR
S. Smith / L. Thompson
NAME
☑ CPPE
NA ORIGINAL DESIGNER

(8) APPROVED BY:
Richard D. Hall — 4-28-80 — DATE
KLM △ Barry J. Hall — 10-20-80 — DATE

DATE

DATE

DATE

DATE

(9) DISTRIBUTION	DCC CNTL NO.	QTY
TECH SERVICES	INFO	2
SITE DAMAGE STUDY GROUP	INFO	
SYSTEMS PLANNING	INFO	1

THIS REVISION VOIDS AND SUPERSEDES DOCUMENT SERIAL NO. 34365 REV 0

AREA MANAGEMENT INFO

INCORPORATED

SHT. 1 OF 2

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

COMPONENT MODIFICATION CARD (CMC)

SERIAL NO. Nº 46762 ⚠1

(1) APPLICATION: PIPE SUPPORT WELD MOD. ✓ Q NA NON-Q ✓ DESIGN CHANGE/~~DEVIATION~~ ✓

(2) DWG. NO. BRH-R1. CT-1-073-001-Y45R

(3) LINE NO./COMPONENT NO. NA

(4) REASON FOR CHANGE: SHOP WELD NEEDS TO BE FW, BOLT HOLES DRILLED, INTERFERENCE
⚠1 Rev'd Hilti size, R Hole ø, Rev'd R Dim, Deleted welds to embed R, as they are shown on CMC 34365-PHDX 2697

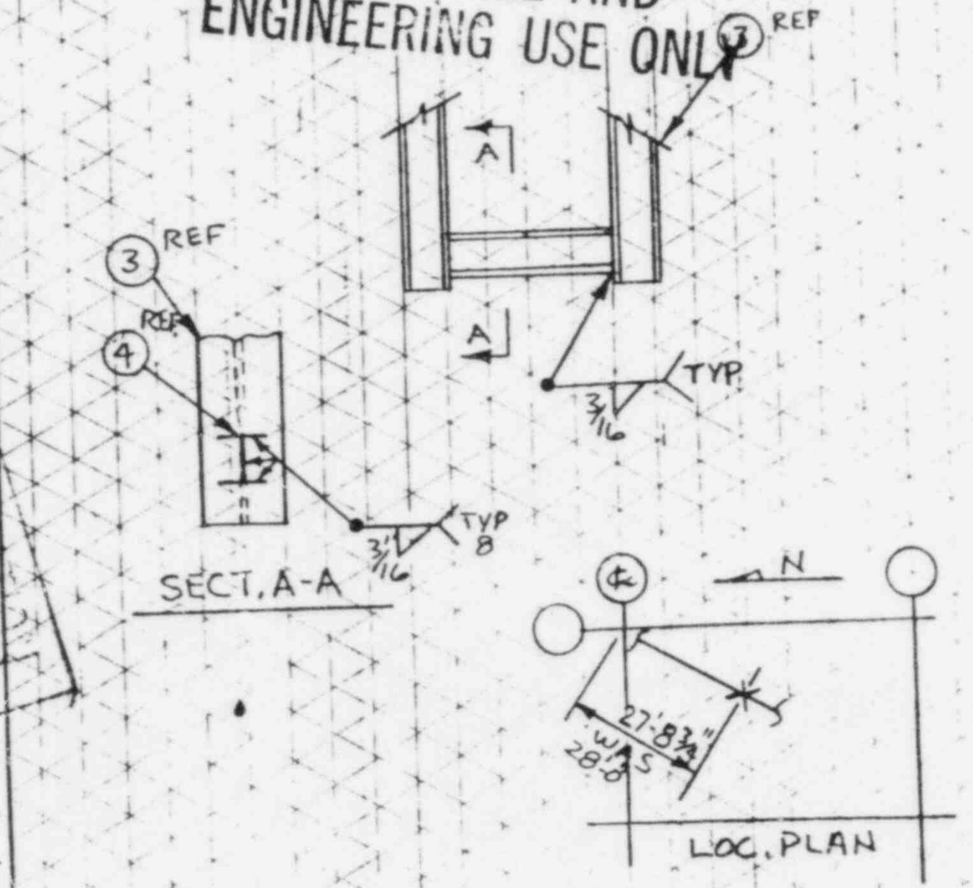
(5) INSTRUCTIONS:

REMOVE NA

ADD NA

(6) SKETCH ISO# CT-1-YD-02 R1

FOR OFFICE AND ENGINEERING USE ONLY



(7) ORIGINATOR

DONNIE A. JOYNER

NAME

✓ CPPE

NA ORIGINAL DESIGNER

(8) APPROVED BY:

[signature] 1-12-81 DATE

⚠1 [signature] 10-10-8? DATE

DATE

DATE

DATE

DATE

(9) DISTRIBUTION	DCC CNTL NO.	
TECH SERVICES		INFO
SITE DAMAGE STUDY GROUP		INFO
SYSTEMS PLANNING		INFO

THIS REVISION VOIDS AND SUPERSEDES DOCUMENT SERIAL NO. 46762 REV 0

CMC46102 R.1

Sheet 2 of 2

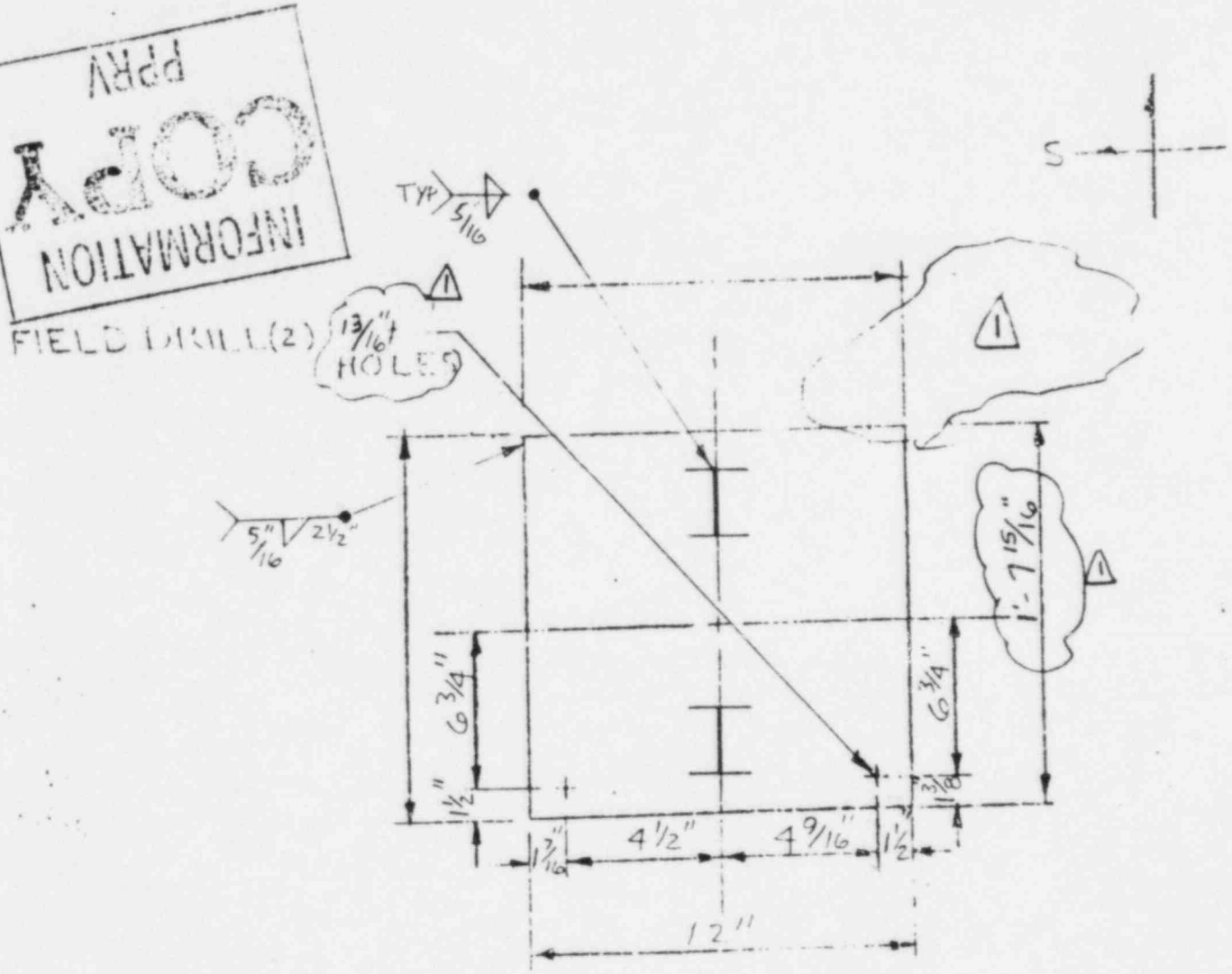
S/R #: CT-1-073-001-Y45R

Pl thickness: 1"

Anchor size: 3/4 x 10" Qty: 2

Insert exists: yes ___ NO ✓

Pl identification in relation to pipe supp.
ITEM # 5 (REF.)



This Paperwork is Bought Off

COMANCHE PEAK STEAM ELECTRIC STATION

SHEET 1 OF 1

INSPECTION REPORT

NO. 1K-MH5-1355

ITEM DESCRIPTION	IDENTIFICATION NO.	SYSTEM / STRUCTURE DESIGNATION
CLASS 5 PIPE SUPPORT 2	CT-1-073-001-Y45R 3	CT/820' YARD TURNER #1 4

SPEC. NO.	REV.	REF. Q.C. DOC. & REV. & CHANGE NO.	MEASURE OR TEST EQUIP. IDENT. NO.
NA 5	NA 6	QI-QP-11.11-1 REV. 5 7	NA 8

☐ IN PROCESS INSPECTION ☐ PRE INSTALLATION VERIFICATION ☒ INSTALLATION INSPECTION ☐ FINAL INSPECTION ☐ PRE TEST INSPECTION 9

INSP. RESULTS

☐ INSPECTION COMPLETED, ALL APPLICABLE ITEMS SATISFACTORY

☒ INSPECTION COMPLETED, UNSATISFACTORY ITEMS LISTED BELOW

Ronald D. Smith 10/22/81
QC INSPECTOR DATE 10

ITEM NO. 11	INSPECTION ATTRIBUTES 12	SAT	UNSAT.	DATE	QC SIGNATURE 13
5.	BASE PLATE DOES NOT MEET REQUIREMENTS OF QI-QP-11.11-1 PARA 3.4; GROUTING IS REQUIRED.	✓	✓	10/22/82	Brian Belew
	LOCATION: 27'8 3/4" S.W. OF E TANK* *REFUELING WATER STORAGE TANK.				

PERM. PLT. RECORD
ITEM 1 DRAWING 17.1.48.13
ISOMETRIC LOC. CT-1-073-001-Y45R

INFORMATION ONLY

ARMS INDEXED

DATE:

REMARKS (DWGS, SPECS, ETC.)

Surface Temp 66°
Celcote 658-N LOT #16

SHIMS INSTALLED

SAT	UNSAT
N/A	

14

RELATED NCR NO.	I.R. CLOSED	DATE	SIGNATURE
N/A 15	☒	10/22/82	Brian Belew QC INSPECTOR 16

COMANCHE PEAK STEAM ELECTRIC STATION

INSPECTION REPORT

SHEET 1 OF 1

NO. IR-MH5-1352

ITEM DESCRIPTION NNS SEISMIC CAT. II SUPPORTS FOR CLASS V PIPING	IDENTIFICATION NO. CT-1-073-001-Y45R	SYSTEM / STRUCTURE DESIGNATION CT/820' YARD TUNNEL #1	
SPEC. NO. MS-100	REV. 5	REF. Q.C. DOC. & REV. & CHANGE NO. QI-QP-11.11-1, Rev. 5	MEASURE OR TEST EQUIP. IDENT. NO. NA

☐ IN PROCESS INSPECTION ☐ PRE INSTALLATION VERIFICATION ☐ INSTALLATION INSPECTION ☑ FINAL INSPECTION ☐ PRETEST INSPECTION

INSP. RESULTS

☑ INSPECTION COMPLETED, ALL APPLICABLE ITEMS SATISFACTORY — [signature] 01/12/81 — QC INSPECTOR / DATE

☐ INSPECTION COMPLETED, UNSATISFACTORY ITEMS LISTED BELOW

ARMS INDEXED DATE:

ITEM NO.	INSPECTION ATTRIBUTES	SAT	UNSAT	DATE	QC SIGNATURE
A.	FABRICATION	✓			
1.	Check hanger materials for compliance with bill of materials (Paragraph 2.2)	✓			
2.	Support dimensions comply with dwg/instruction (Paragraph 2.2)	✓			
3.	Weld area clear of scale, grease, etc. (Para. 3.2.1)	NA			
4.	Fit-up* per dwg/WPS (Para. 3.1.2)	NA			
5.	Weld free of slag, undercut, porosity (Para. 3.2.2)	✓			
6.	Weld as per drawing (Para. 3.1.2)	✓			
7.	Support level and plumb (Para. 3.7)	✓			
8.	Location (Para. 3.7)	✓			
B.	SEISMIC LIMITERS/SWAY STRUTS/SPRING CANS**	NA			
1.	Spherical bearing alignment/condition (Para. 3.8.1.1.c; Para. 3.9.1; 3.10)	NA			
2.	Correct location and orientation (Para. 3.7.2)	NA			
3.	Threads upset (Para. 3.8.2)	NA			
4.	Cold setting as per drawing (Para. 3.9.5)	NA			
5.	Cycle inspection (Para. 3.9.1)	NA			
6.	Hardware correctly installed (Para. 3.8; 3.9)	NA			
C.	RECORD THE FOLLOWING:	✓			
1.	Support Drawing No. CT-1-073-001-Y45R Rev. 1	✓			
2.	CMC No. 46762 Rev. 0	✓			
3.★	Welder Symbol BTH, BNU HT NO NA	✓			
4.	WFML No. E7018 WPS 11032	✓			

INFORMATION COPY

PERM. PLT. RECORD — BTN 12/1/148 — SUBFILE LOC. CT-1-073-001-Y45R

REMARKS (DWGS, SPECS, ETC.)

C.3. ★ "BMO" AND "AHN" WELDS DELETED BY REWORK. 01/12/81

*Full penetration welds require fit-up inspection prior to weld out.

**Spring can travel stops installed. (Para. 3.10)

TORQUE SEALANT INTACT 01/12/81

RELATED NCR NO.	I.R. CLOSED ☐	DATE	SIGNATURE	QC INSPECTOR
NA	NA	NA	NA	

COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)

COMPONENT MODIFICATION CARD (CMC)

SERIAL NO NO 46762

(1) APPLICATION PIPE SUPPORT WELD MOD [X] Q [ ] NON Q [ ] DESIGN CHANGE/DEVIATION [ ]

(2) DWG. NO CT-1-013-001-Y45R SH-R1

(3) LINE NO./COMPONENT NO. NA

(4) REASON FOR CHANGE [illegible]

(7) ORIGINATOR DONNIE A. JOYNER
NAME
[X] CPPE
[ ] ORIGINAL DESIGNER

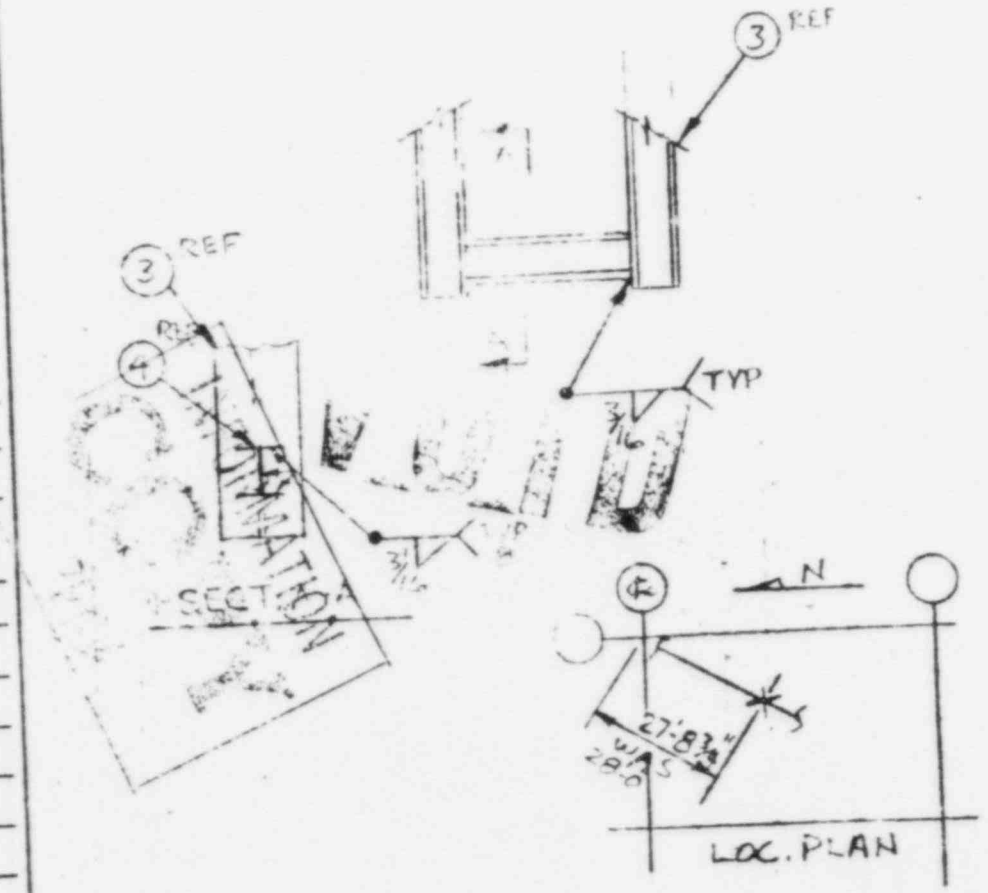
(8) APPROVED BY: [signature] /
DATE
DATE
DATE
DATE
DATE
DATE

(5) INSTRUCTIONS

REMOVE NA

ADD NA

(6) SKETCH



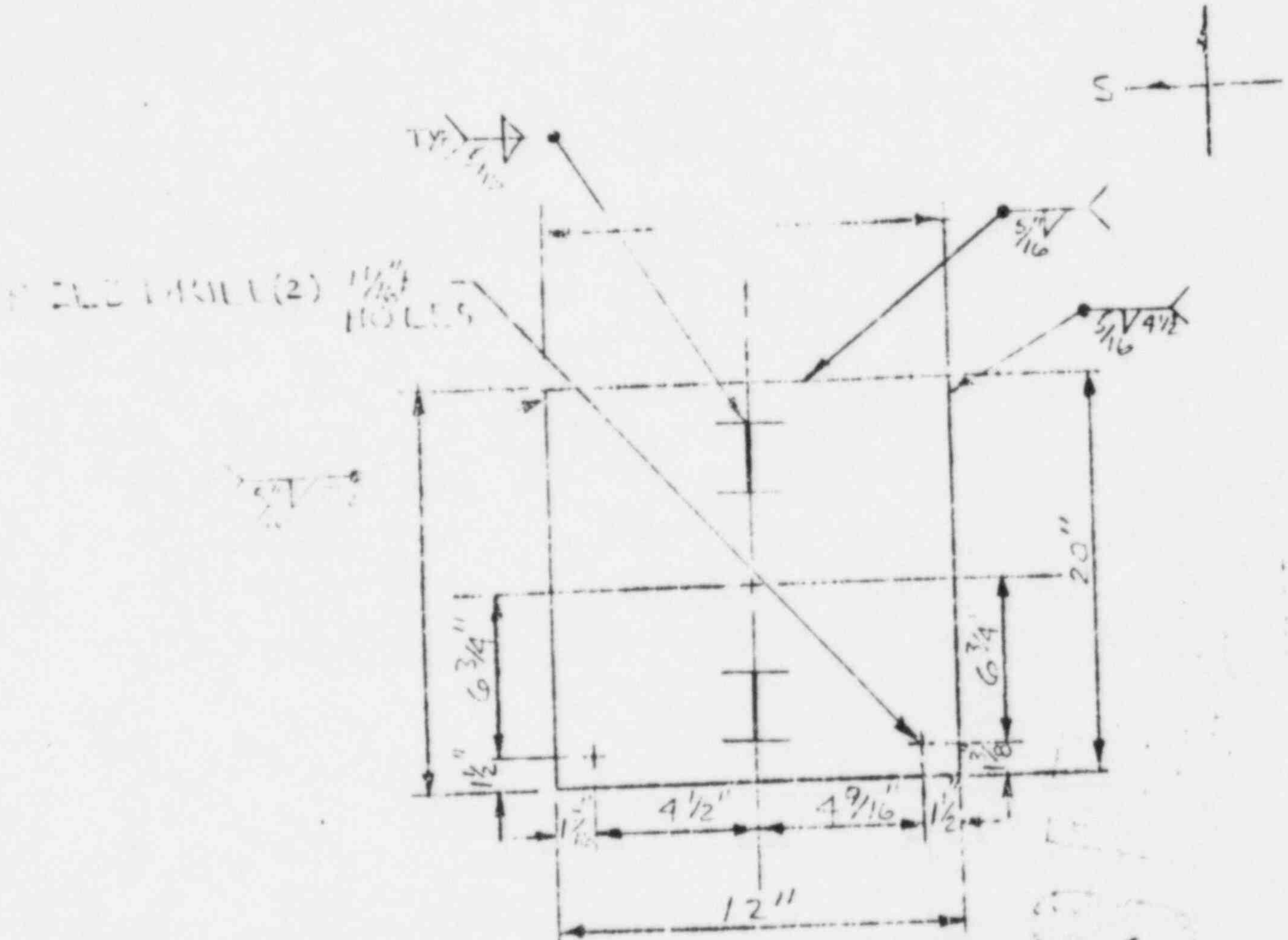
(9) DISTRIBUTION

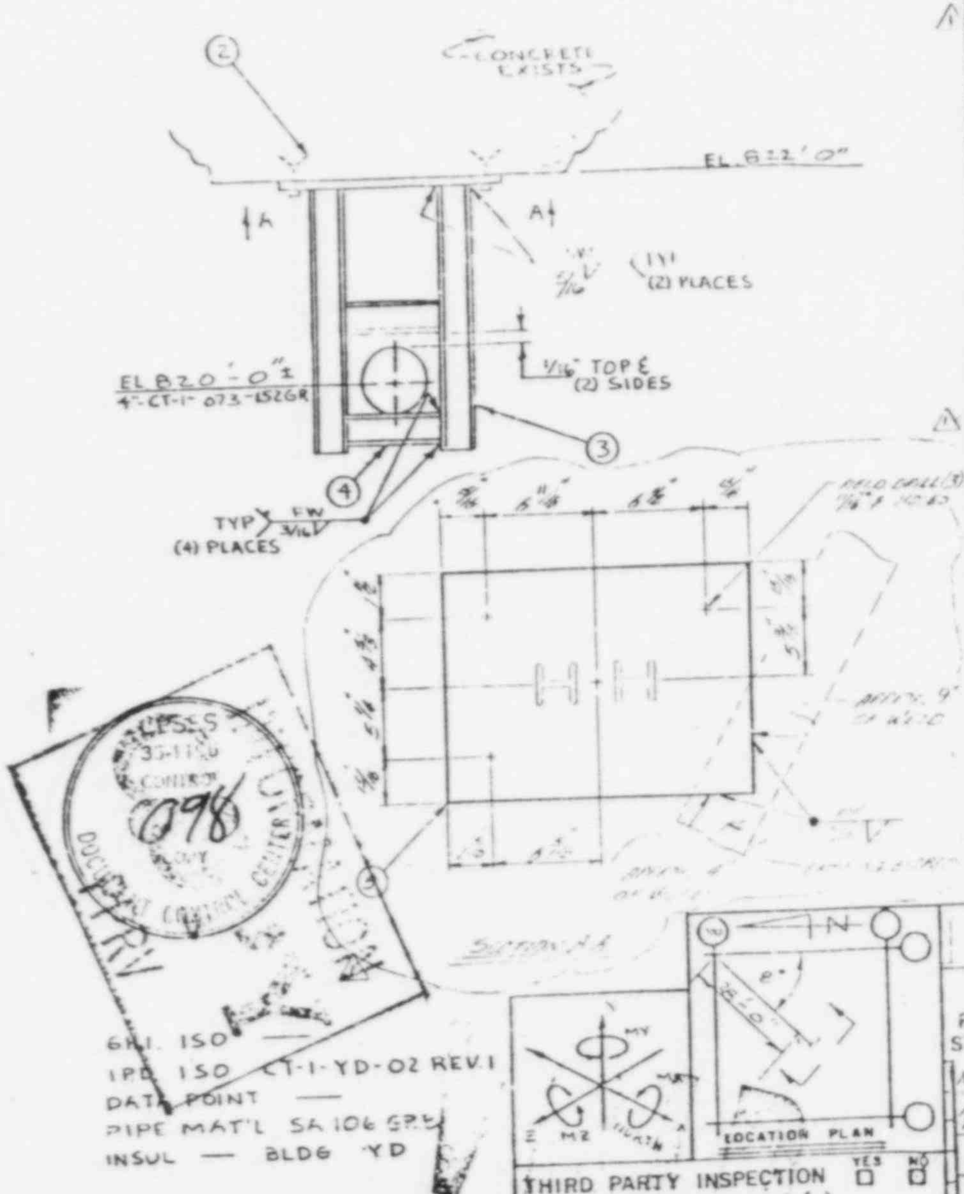
DCC CNTL NO.	QT

Sheet _ of _2

S/R #: C-T-1-073-001-145R
Pl thickness: 1"
Anchor size: 5/8 x 13½ Qty: 2
Grout exists: yes ___ no ✓

Pl identification in relation to pipe supp:
ITEM # 5 (REF.)





ITEM NO	MATERIAL & OPERATIONS	QUAN.	SHIP.
	SEISMIC PIPE RESTRAINT CONSISTING OF:	ONE	
1	Carbon Steel Plate/Section A-A TW-51#	1	
2	5/8"x8 1/2" Hilti Kwik Bolt Concrete Anchors, TW-3#	4	
3	M4x13, 2'-5 3/4" Long, TW-64# Shop Weld To Item #1, as Shown	2	
4	M4x13, 0'-4 5/8" Long, TW-15#	2	
	SEISMIC ASSEMBLY SKETCH & ENGINEERING	1	
	BUNDLE & TAG	1	
	MARK: CT-1-073-001-Y45R		
	Apply one coat of Carbo Zinc #11 to above mat'l except th'ds which shall be coated w/a rust preventative.		

Approved By: TKP
Date: 3/27/80

FOR MATERIALS AND OPERATIONS SEE SKETCH NO. ______ SHEET

Brown & Root, Inc.

REF. DRAWING NUMBERS
PIPE: M1-1006-2 ELECT: —
STEEL: S1-0310-2 HV.A.C.: —

CONDITIONS	Fx	Fy	Fz	Mx
DESIGN	—	—	—	—
NORMAL & UPSET	—	-815 / -220	229	—
EMERGENCY	—	815 / 220	289	—
FAULTED	—	—	—	—

REV	DATE	DWN	APP	DESCRIPTION
F	1/5/80			ISSUED FOR CONST.
1	2-21-80	L	C	

6RI. ISO —
IPD ISO CT-1-YD-02 REV.1
DATA POINT —
PIPE MAT'L SA 106 GR.B
INSUL — BLDG YD

THIRD PARTY INSPECTION YES ☐ NO ☐
CODE CLASS: B31.1 (c)

CUSTOMER Texas Utilities Services
ORDER OR CONT. NO CP-0046
JOB NAME Comanche Peak 1 & 2
MARK NO. CT-1-073-001-Y45R
SKETCH NO. —
SHEET 1 OF 1 REV.

MAR 5 1980

WPS #
11032

WDC Serial No. NA

Drawing No. CT-1-073-001-Y45R

WELD FILLER MATERIAL LOG

Weld No. NA

WELD NO.	DATE	SIZE/CLASS	WELDER SYMBOL	WPS/ICN #	HEAT/LOT # or CODE #	AMT. ISS.	AMT. RT'D.	ISSUANCE APPROVAL
NA	1/8/81	3/32 E7018	BTH	11032 7/1	643575 036B607	50	15	Michael W. Norman P.203

WPS #

WDC Serial No. N/A

Drawing No. CT-1-073-001-Y45R

WELD FILLER MATERIAL LOG Weld No. N/A

WELD NO.	DATE	SIZE/CLASS	WELDER SYMBOL	WPS/ICN #	HEAT/LOT # or CODE #	AMT. ISS.	AMT. RT'D.	ISSUANCE APPROVAL
N/A	6/3/80	1/8 E-7018	BNU	11032 N/A	A82394 0268204	75	39	Hollis Upchurch P-196

11032

WDC Serial No. NA

Drawing No. CT-1-073-001-Y#5R

WELD FILLER MATERIAL LOG

Weld No. NA

WELD NO.	DATE	SIZE/CLASS	WELDER SYMBOL	WPS/ICN #	HEAT/LOT # or CODE #	AMT. ISS.	AMT. RT'D.	ISSUANCE APPROVAL
NA	4/24/80	E7018 1/8	BNU	11032 7-0	A82394 D26B204	30	0	Larry Thompson Q-77

11032

WDC Serial No. NA

Drawing No. CT-1-023-~~XX~~-KSR

WELD FILLER MATERIAL LOG Weld No. N/A

WELD NO.	DATE	SIZE/CLASS	WELDER SYMBOL	WPS/ICN #	HEAT/LOT # or CODE #	AMT. ISS.	AMT. RT'D.	ISSUANCE APPROVAL
N/A	4/27/88	E7018 1/8	BNU	11032 P/O	A82394 0263204	40	25	Larry Thompson 4-28

INFORMATION

11032 4 BOP

WDC Serial No. N/A

Drawing No. CT-1-073-001-Y45R

WELD FILLER MATERIAL LOG Weld No. N/A

WELD NO.	DATE	SIZE/CLASS	WELDER SYMBOL	WPS/ICN #	HEAT/LOT # or CODE #	AMT. ISS.	AMT. RT'D.	ISSUANCE APPROVAL
N/A	8/1/19	E7018 1/8	AHN	11032 5/4	A80964 0263203	10	0	P137

BOP
11032

4

WDC Serial No. N/A

Drawing No. CT-1-073-001-Y45R

WELD FILLER MATERIAL LOG Weld No. N/A

WELD NO.	DATE	SIZE/CLASS	WELDER SYMBOL	WPS/ICN #	HEAT/LOT # or CODE #	AMT. ISS.	AMT. RT'D.	ISSUANCE APPROVAL
N/A	8/6/79	1/8 E7018	AHN	11032 5-4	A80964 0260203	20	0	J R Barnett P78
N/A	8/6/79	1/8 E7018	AHN	11032 5-4	↓	20	7	J R Barnett P78

INFORMATION COPY

11032

WDC Serial No. NA

Drawing No. CT-1-073-001-Y4S

Weld No. N/A

WELD FILLER MATERIAL LOG

WELD NO.	DATE	SIZE/CLASS	WELDER SYMBOL	WPS/ICN #	HEAT/LOT # or CODE #	AMT. ISS.	AMT. RT'D.	ISSUANCE APPROVAL
N/A	8/22/80	E7018 1/8	BMO	11032 7-0	A82394 0?6B204	40	27	Larry Thompson 1-07

INFORMATION

FOLDER NO. 18

Draft No. ____ Date _____

COMANCHE PEAK ALLEGATION WORK PACKAGE

MECHANICAL & PIPING Category 18 - Hanger Construction

Allegation Numbers: AH-7, AH-12

Statement of Allegation: Fabrication of hangers including concerns that procedures, incorrect materials, incorrect assembly, and generally poor workmanship occurred.

Reference Documents:

See source documents marked on attached pages from allegation list.

Source of Allegation: Various - see enclosed allegations list

Date Received: 1983 - 1984

The above information prepared by D. M. Hunnicutt (Name) 6/4/84 (Date)

Group Leader _____ (Name) _____ (Date Assigned)

Team Members _____ _____ (Date Assigned)

_____ _____ (Date Assigned)

_____ _____ (Date Assigned)

_____ _____ (Date Assigned)

10/1:/84

Category #1

Allegation AW-25

7c

[redacted] was called at Wolf Creek, Kansas on 10/1:/84 to determine if he had absolute knowledge that his badge had been removed as the alleger said he had been advised. He said he remembered the incident but the specific badges were not identified by the alleger and there was no way to determine if the badges had been removed.

Ernest E. Fitz,

CC/223