

2/4/85

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

DOCKETED
USNRC

In the Matter of

TEXAS UTILITIES ELECTRIC
COMPANY, et al.

(Comanche Peak Steam Electric
Station, Units 1 and 2)

Docket Nos. 50-445
and 50-446 ^{DL} 6/11/85

(Application for an
Operating License)

CASE'S MOTION FOR RECONSIDERATION OF
LICENSING BOARD'S 6/29/84 MEMORANDUM AND ORDER
(Written-Filing Decisions, #1: Some AWS/ASME Issues)

CASE (Citizens Association for Sound Energy), Intervenor herein, files this, its Motion for Reconsideration of Licensing Board's 6/29/84 Memorandum and Order (Written-Filing Decisions, #1: Some AWS/ASME Issues). This Motion concerns the rulings by the Board regarding cap welding. In its decision, the Board stated that Applicants would be dealing with AWS/ASME design issues in a separate written motion, and that (page 5):

"At this time, we address only whether welding procedures at Comanche Peak that are based entirely on the ASME Code are adequate to assure the fabrication of sound welds [footnote omitted] -- when used by qualified welders in the context of an appropriate QC (quality control) system. (For the purpose of deciding this motion, we do not consider it relevant to determine whether Applicants use qualified welders or have an appropriate QC system.) In addition, we are concerned with the appropriateness of Applicants' procedures for weave welding, downhill welding, preheat requirements, and cap welding [footnote omitted]. This motion does not cover in any way whether the plant has been constructed according to the applicable procedures."

(Emphases added.)

Cap welding was specifically discussed in the Board's Order:

8502080466 850204
PDR ADOCK 05000445
G PDR

At page 9:

"With respect to cap welding, the core 'disagreement' is that Applicants state that there are no 'unique restrictions in placing new weld material on an old weld,' and CASE attempts to rebut this by stating that each pass of a multiple pass weld 'must have the same heat input as provided . . . by Table 2.7.' However, this does not join the issue. Applicants never contended that heat input requirements are inapplicable. Heat input is not a 'unique' restriction on a multiple pass, it is uniformly applicable to all weld passes regardless of whether they are part of a 'cap' weld made some time after the remainder of the weld is completed.

"With respect to undersized welds, there is no reason to believe that the original weld material would be subject to an increased risk of cracks. Hence, they represent no special risk and there is no reason given by CASE to prohibit repair by laying on a new weld over the top.

"With respect to underbead cracking, CASE does not indicate any AWS section to which applicants ought to comply but to which they do not comply."

(Emphases added.)

On page 11:

". . . Applicants' procedures for . . . cap welding comply with the ASME Code /13/. CASE has not indicated that there are any provisions of the AWS code that need to be applied with respect to these factors in order to assure adequate safety of the welding process. Staff has found that Applicants' procedures also comply with the AWS Code, and CASE has not persuaded us otherwise."

"/13/ Applicants' Affidavit (Affidavit of W. E. Baker, M. D. Muscente, J. D. Stevenson, and R. E. Lorentz, Jr. Regarding Allegations Involving AWS and ASME Code Provisions, April 2, 1984) at 17-21."

The underlying and primary concern of CASE has always been with the public health and safety, and the impact of the manner in which Applicants have designed and constructed Comanche Peak on such health and safety. This is also true regarding the issue of cap welds. New and significant information supports CASE's concern that the extensive use of cap welding at Comanche Peak may be unsafe and jeopardize the public health and safety.

The basis for CASE's Motion for Reconsideration is a discussion during the 1/10/85 meeting between the NRC Staff, Cygna Energy Services, and Applicants regarding the Phase 3 Independent Assessment Program for Comanche Peak /1/. CASE moves that the Board obtain a copy of the transcript of the 1/10/85 meeting and that the Board review and take official notice of the transcript /2/, which states (pages 54-60) regarding Observation PS-04:

"MR. BRIDGES [EG&G Idaho]: The final one I have is pipe support observation 04, had to deal with the minimum size of the fillet welds. You concluded that this observation should be closed, based on a stress analysis. And my concern here is that the requirement for those minimum size welds isn't a stress requirement, but it's a procedural requirement to assure weld penetration. And it seems like you have two options to get around this: The code allows you to get around it by using special welding techniques -- for example, preheating the thicker plate -- or doing something special in terms of inspection.

"So I question qualifying this based on stress analysis since it's a --

"MR. TERAQ [NRC/TRT]: Let's see if I understand the concern here, Tom. You are saying it's not that they found undersized welds but undersized welds were specified on the design drawing; is that what you are saying?

"MR. BRIDGES: That's correct. The welds were in accordance with the drawings. They were specified.

"MS. WILLIAMS [Cygna]: We agree that there's a code violation there, so we agree on the definitional problem. I think all we were trying to say here was the basis why there was no design impact when we went back and checked the numbers.

/1/ For the convenience of the Board, we are attaching copies of the applicable pages from the Phase 3 Cygna Report; we have indicated on them the sections from which they are taken.

/2/ CASE will be referring to many portions of the 1/10/85 meeting in other pleadings in addition to references made in the instant pleading. Further, CASE believes that this entire transcript contains much information in which the Board has indicated it is interested and which will very likely be discussed in future hearings on the Cygna Reports. CASE is only quoting the portions here with which we are primarily concerned in this Motion, with enough information so that the Board can understand the context; however, there is additional information in the transcript which will be of interest to the Board. The burden should not be upon CASE to quote the entire transcript or to supply the Board with entire such transcripts.

"MR. BRIDGES: My comment is the requirement isn't a stress requirement, but it is something to assure that you have a sound weld.

"MS. WILLIAMS: Oh, from an installation standpoint.

"MR. BRIDGES: That's correct. Don, is that a correct interpretation?

"MR. LANDERS [Teledyne Eng. Services/NRC Consultant]: Yes.

"MS. WILLIAMS: We agree."

(Emphases added.)

(There then was a discussion regarding possible changes in the AWS code, which the Board may want to read also.)

"MR. BUSH [Review and Synthesis Association]: I think your question is more basic, though, and that is, do you have a good weld? That's a different matter, and that gets into what you should do to establish that you have a good weld, if it's there.

"In other words, if they are consistently 'undersized' as defined by that, the argument is that you don't have enough heat input that you might have cracking. That's another animal.

"MR. LANDERS: Except if the design drawing calls out X size weld and the procedure is adequate for an X sized weld, that's the difference; the assumption is the weld can be made to whatever size it's qualified to be made to.

"MR. BUSH: All I'm saying is you don't know that per se.

"MR. LANDERS: You have to look at the weld procedures; but the fact that it's smaller than the code requirement -- in today's world --

"MR. BUSH: Is it to the procedures or not, is it below or not, and then more importantly, is it a good weld or not? That's really the gut issue on the thing."

(Emphases added.)

.....

"MR. TERAQ: It may be a closed issue from the Cygna standpoint, but we are still left with a violation of the code. And a violation of the code is important in its own right, because it contributes to the worker's understanding of the extent to which codes are to be followed scrupulously and taken seriously. So the question really focuses on

why did this occur? How can someone specify a weld size less than minimum code when it's very clear all he has to do is look in the table and see what weld size he needs? How could that occur?

"MS. WILLIAMS: Made a mistake.

"MR. LANDERS: Unfortunately, he probably did it based on analysis. And that was demonstrated to be acceptable by Cygna in their review."

(Emphases added.)

. . . .

"MS. WILLIAMS: TUGCO did take some corrective action in the first paragraph here, just to be clear on this one too, Tom.

"MR. BRIDGES: Which was?

"MR. MINICHELLO [Cygna]: Basically -- TUGCO had committed to review the drawings, reissue them for vendor certification, and basically fix the supports. Bring the welds up to code.

"MR. BUSH: You can do that by putting a wash pass on and that will make it worse, not better. You've got to be careful of that.

"MR. LANDERS: That's right. If what we are worried about here is safety, that's not the best approach.

"MR. BUSH: That might make it worse, not better. Because the standard procedure is often to put a wash pass on and that doesn't accomplish much of anything, based on practical experience. I'm not talking, now, about precisely meeting the code.

"MR. GEORGE [TUGCO]: We have done just that on a lot of welds that were supposedly quarter-inch fillet welds. QC put gauges on them and they come up with findings like those -- in fact 7/32 instead of one quarter; and the corrective action is we go in there and do just what you said. It's been done all over the plant.

"MR. BUSH: I know it. At about \$1500 a weld.

"MR. GEORGE: That's correct. . . ."

(Emphases added.)

(Additional discussion followed regarding possible change in procedures and the codes, significance, whether it met the code as it was at the time, etc.)

As indicated by the preceding, CASE's concerns regarding cap welding (that it may cause cracking, and even be worse than leaving the weld undersized, thereby making the weld unsafe) appear to be shared by Messrs. Bridges, Landers, and Bush. Particularly disturbing is Mr. George's statement that this has been done all over the plant, thereby making this a generic problem to Comanche Peak, the exact extent of which is unknown but apparently extensive.

CASE realizes that the statements made during the 1/10/85 Cygna/Staff /Applicants meeting were not under oath. However, it is a well-established principle that Applicants are expected to tell the truth to the NRC regardless of whether or not statements are made under oath; Applicants are aware of this. Also, there is no reason to expect that Cygna or the NRC Staff or their representatives would not have made the same statements had they been under oath. CASE moves that the Board invite Cygna, the NRC Staff, and Applicants to correct the transcript of the 1/10/85 meeting (similar to the opportunity afforded in the Board's 11/9/84 Memorandum (Official Notice Concerning Pipe Supports), where the Board allowed the parties to file corrections within ten days). In the alternative, if the Board believes it needs additional information, CASE moves that the Board invite the parties to further discuss and clarify this matter /3/.

/3/ It should be noted that CASE has filed this Motion for Reconsideration at the request of CASE Witness Jack Doyle, following his review of the 1/10/85 meeting transcript.

IN CONCLUSION:

For the reasons discussed in the preceding, CASE moves:

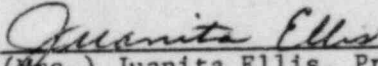
- (1) That the Board: obtain a copy of the transcript of the 1/10/85 Cygna/NRC Staff/Applicants meeting; review such transcript; and take official notice of the transcript.
- (2) That the Board invite the parties and Cygna to correct the transcript of the 1/10/85 meeting (similar to the opportunity afforded in the Board's 11/9/84 Memorandum (Official Notice Concerning Pipe Supports), where the Board allowed the parties to file corrections within ten days).
- (3) That the Board reconsider its 6/29/84 Memorandum and Order (Written-Filing Decisions, #1: Some AWS/ASME Issues) regarding cap welding, and find that:
 - (a) The practice of capping welds by putting a wash pass on over an undersized weld may make it worse (not better), and may cause cracking.
 - (b) Such practice may jeopardize the public health and safety.
 - (c) Applicants have made a practice of capping welds by putting a wash pass on over an undersized weld, and the exact extent of such practice at Comanche Peak is unknown but extensive and has been done all over the plant, including safety-related areas.

- (d) Under such circumstances, even if Applicants are in compliance with applicable codes, the following provisions of 10 CFR Part 50, Appendix A, Criterion 1, must be applied:

"Where generally recognized codes and standards are used, they shall be identified and evaluated to determine their applicability, adequacy, and sufficiency and shall be supplemented or modified as necessary to assure a quality product in keeping with the required safety function."

- (e) At the present time, a condition exists at Comanche Peak (the exact extent of which is unknown but which is extensive and has been done all over the plant, including safety-related areas) which renders the adequacy of welds which have been capped, as well as the safety of the plant, and the public health and safety, indeterminate at best.

Respectfully submitted,



(Mrs.) Juanita Ellis, President
CASE (Citizens Association for Sound
Energy)

1426 S. Polk
Dallas, Texas 75224
214/946-9446

FINAL REPORT
INDEPENDENT ASSESSMENT PROGRAM

OF

COMANCHE PEAK STEAM ELECTRIC STATION
(PHASE 3)

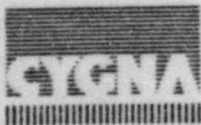
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Dallas, Texas 75201

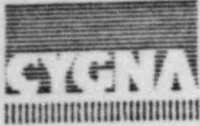
Prepared by
Cygn Energy Services
101 California Street, Suite 1000
San Francisco, California 94111

Approved by N. H. Williams 7/16/84
Project Manager Date

Approved by [Signature] 7/16/84
Senior Review Team Date

July 16, 1984





Vol. 1
Appendix G

Observation Record

Checklist No.	PS-042, PS-050	Revision No.	0
Observation No.	PS-04	Sheet 1	of 1
Originated By	C.K. Wong	Date	7/1/84
Reviewed By	G. Bjorkman	Date	7/10/84

1.0 Description

The fillet weld size specified on the following drawings is smaller than the minimum fillet weld size required by the ASME B&PV Code:

- Support CC-1-028-725-S33R, fillet weld between items 1 and 4.
- Support CC-1-031-009-S33R, fillet weld at support nodes 6 and 11.

2.0 Requirement

- 2.1 Gibbs and Hill, Inc., Specification 2323-MS-46A, Rev. 5, for the Comanche Peak Steam Electric Station, Section 3.3 "Codes and Standards", subparagraph a.(2) (p).
- 2.2 ASME B&PV Code, Section III, 1977 edition plus addenda through winter of 1979. Table XVII - 2452.1-1 "Minimum Size of Fillet Welds and Partial Penetration Welds".

3.0 Document Reference

- 3.1 Brown and Root Pipe Support Drawing CC-1-028-725-S33R, Rev. 3
- 3.2 Brown and Root Pipe Support Drawing CC-1-031-009-S33R, Rev. 3

4.0 Potential Design Impact

For the two minimum fillet weld size violations observed, the weld stresses are well within allowable stress with the weld size indicated on the drawing. Thus, there is no impact on the design. However, they are code violations.

Attachment

- A. Observation Record Review.

Extent		
Isolated	X	Extensive
		Other (Specify)



Observation Record Review Attachment A

Checklist No.	PS-042, PS-050	Revision No.	0
Observation No.	PS-04	Sheet	1 of 1

	Yes	No
Valid Observation	X	
Closed	X	

Comments

1.0 Probable Cause

Design oversight/documentation error.

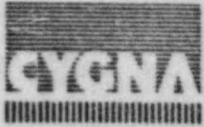
2.0 Resolution

In their response, dated June 8, 1984, question 31, TUGCO concurs with Cygna's observations that the welds are 1/16" undersize on the drawing. In that letter, TUGCO has noted that both drawings were revised and reissued for vendor certification.

In the 131 supports (with numerous welds) reviewed by Cygna in Phase 3, these were the only two weld size violations. As such, Cygna considers the error isolated. In addition, neither weld violation had design impact since the loads on both welds were small. Therefore, this observation is closed.

III Approvals

Originator	C. K. Wong	Date	7/6/84
Project Engineer	<i>John C. Williams</i>	Date	7/13/84
Project Manager	<i>John C. Williams</i>	Date	7/16/84
Senior Review Team	<i>Robert C. Williams</i>	Date	7/16/84



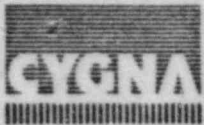
Vol. 2
Appendix J

Independent Design Review Checklist

PIPE SUPPORT CC-1-028-725-S33R

Reviewer	J.P. Russ/C. Wong	Approver	J. Minichiello	Checklist No.	PS-042	
Calculation No. CC-1-028-725-S33R, Rev. 2; B&R Drawing No. CC-1-028-725-S33R, Rev. 3					Date	3/15/84

Item	Satisfactory			Comments
	Yes	No	N/A	
21. Is the design of the support frame member in accordance with Cygna Criteria 84042-DC-2, Section 4.1.10?	X			
22. Is the design of the welded connection of the members in accordance with Cygna Criteria 84042-DC-2, Section 4.1.10?		X		Weld of Item 1 to Item 4 is shown and checked as a 1/4" fillet. 5/16" fillets are minimum required. Weld is acceptable per TIGCO response dated June 8, 84 to Cygna Question 31 (see Observation PS-04). The weld of Item 3 to Item 1 is checked using enveloped emergency loads. The actual and allowable loads were incorrect, and wrong weld pattern was used in calculations. However, the welds are acceptable per Cygna calculation F-13 (84042, 4-F).
23. Is the design of the member connection, including local stiffening, adequate for load transfer in accordance with Cygna Criteria 84042-DC-2, Section 4.1.10?	X			See comments under Item 22.

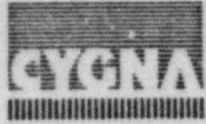


Independent Design Review Checklist

PIPE SUPPORT CC-1-028-725-S33R

Reviewer J.P. Russ/C. Wong Approver J. Minichiello Checklist No. PS-042
 Calculation No. CC-1-028-725-S33R, Rev. 2; B&R Drawing No. CC-1-028-725-S33R, Rev. 3 Date 3/15/84

Item	Satisfactory			Comments
	Yes	No	N/A	
21. Is the design of the support frame member in accordance with Cygna Criteria 84042-DC-2, Section 4.1.10?	X			
22. Is the design of the welded connection of the members in accordance with Cygna Criteria 84042-DC-2, Section 4.1.10?			X	Weld of Item 1 to Item 4 is shown and checked as a 1/4" fillet. 5/16" fillets are minimum required. Weld is acceptable per TUGCO response dated June 8, 84 to Cygna Question 31 (see Observation PS-04). The weld of Item 3 to Item 1 is checked using enveloped emergency loads. The actual and allowable loads were incorrect, and wrong weld pattern was used in calculations. However, the welds are acceptable per Cygna calculation F-13 (84042, 4-F).
23. Is the design of the member connection, including local stiffening, adequate for load transfer in accordance with Cygna Criteria 84042-DC-2, Section 4.1.10?	X			See comments under Item 22.



Independent Design Review Checklist

PIPE SUPPORT CC-1-028-725-S33R

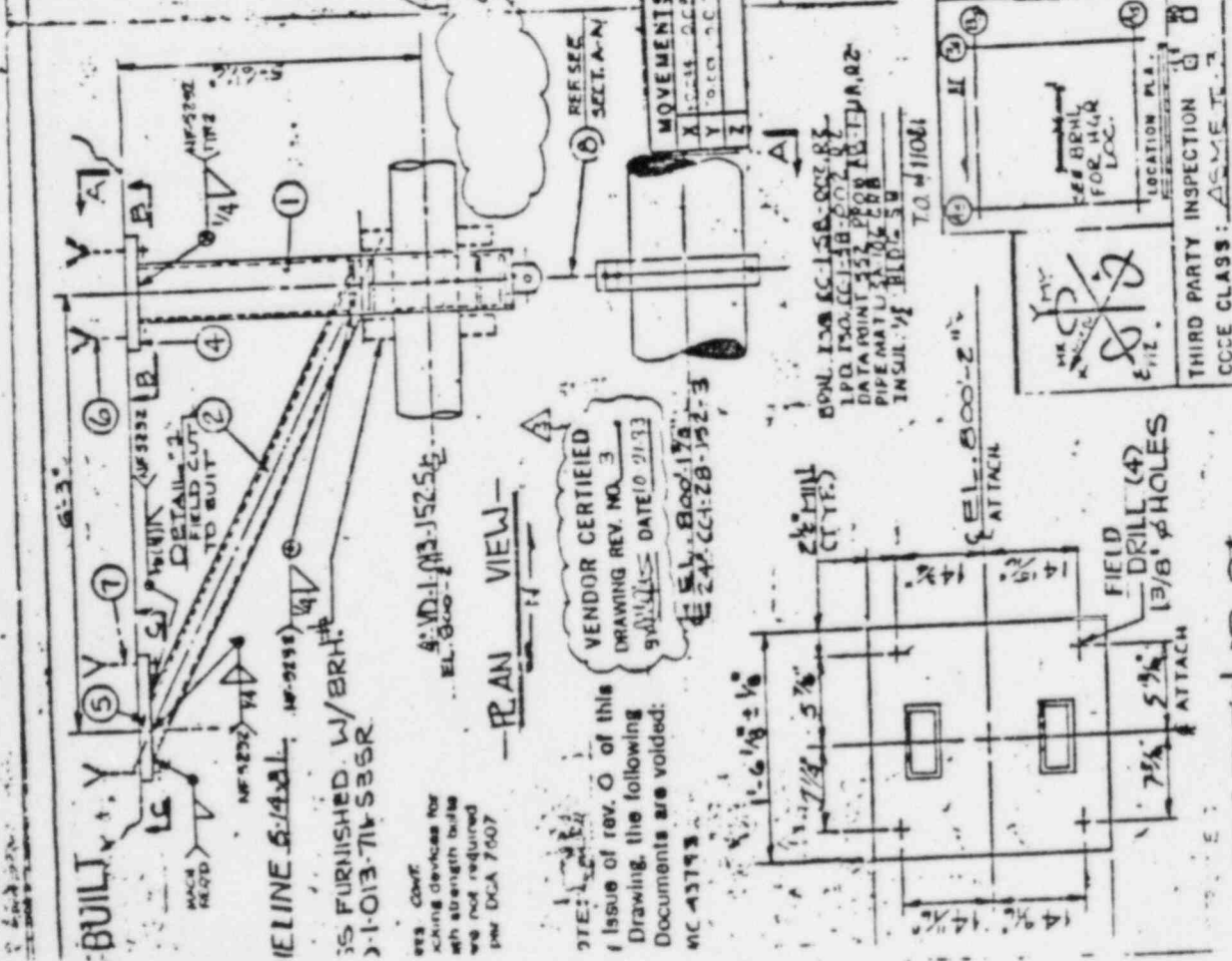
Reviewer J.P. Russ/C. Wong Approver J. Minichiello Checklist No. PS-042
 Calculation No. CC-1-028-725-S33R, Rev. 2; B&R Drawing No. CC-1-028-725-S33R, Rev. 3 Date 3/15/84

Item	Satisfactory			Comments
	Yes	No	N/A	
24. Code Allowable Stress Requirements: a. Does the design meet the requirements of Cygna Criteria 84042-DC-2, Section 4.4? b. Does the design meet the requirements of G&H Specification 2323-MS-46A, Rev. 5, Section 3.6? c. For buckling, is the appropriate length used, considering the full <u>unstiffened</u> span?	X			See comments under Item 22.
	X			
	X			
25. As-Built Support: Do the dimensions, section properties and configuration of the as-built support conform to the final design calculation?	X			

RECEIVED

FEB 7 1964

ITEM NO.	MATERIALS & OPERATIONS	QUANTITY	UNIT	REVISIONS	DATE	BY	CHKD	APP'D
1	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
2	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
3	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
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58	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
59	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
60	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
61	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
62	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
63	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
64	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
65	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
66	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
67	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
68	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
69	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
70	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
71	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
72	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
73	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
74	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
75	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
76	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
77	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
78	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
79	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
80	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
81	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
82	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
83	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
84	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
85	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
86	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
87	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
88	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
89	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
90	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
91	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
92	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
93	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
94	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
95	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
96	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
97	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
98	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
99	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					
100	TS 3/16" S.S. 3' x 3' x 1/8" (A 500 G.R.B.)	2	EA					



VENDOR CERTIFIED
DRAWING REV. NO. 3
DATE 10/2/53

EL. 500-175
24-CC-28-152-3

SECTION B-B
FIELD DRILL (4)
13/8" HOLES

THIRD PARTY INSPECTION
CLASS: ASME

NOTE: Issue of rev. O of this Drawing, the following Documents are voided:
DC 4373

EL. 500-2
ATTACH

FIELD DRILL (4)
13/8" HOLES

SECTION B-B

FOR MATERIALS AND OPERATIONS SEE SKETCH NO. 1001
BROWN & ROOT, INC. ENGINEERS & CONSTRUCTORS
REF. DRAWING NUMBERS
PIPE: 11-0024 R14 ELECT. EL. 06101
STEEL: 31-0026 R12 H.V.A.C. H1-00121
DESCRIPTION: REMOVED FOR CONSTRUCTION DIFFERENCES P.S.D.G. P.O. SEE NOTE.
REV. DATE: 11/1/53
BY: J.W. [Signature]
CHKD: [Signature]
APP'D: [Signature]

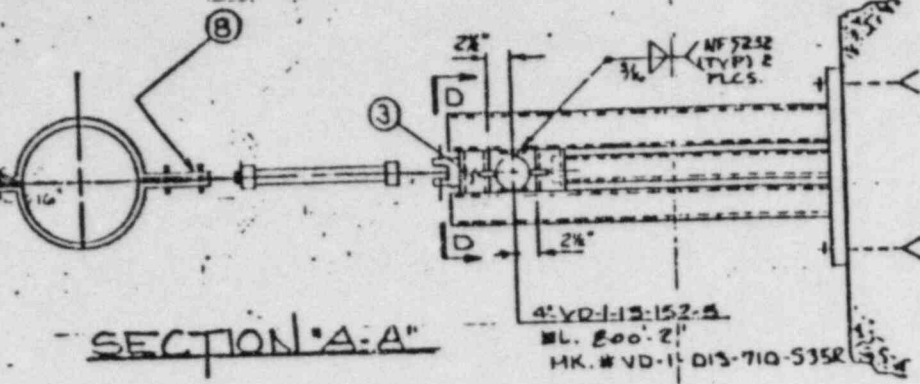
APPLY ONE COAT CARBO ZINC FILL TO ABOVE EXCEPT THREADS WHICH SHALL BE TREATED WITH PREVENTATIVE.
DESCRIPTION: REV'D VENDOR ENGINEERING USE ONLY
REV'D VENDOR C.C.E.T.
QUANTITY: 2
UNIT: EA

CONDITIONS: 1-SET EMERGENCY FAULTED
CUSTOMER TEXAS UTILITIES SERVICE INC.
ORDER OR CONT. NO. CP-0046
JOB NAME COMANCHE PEAK 1E2
MARK NO. 55-1080-125-528
SKETCH NO. [Blank]
SHEET 1 OF 2

FEB 7 1954

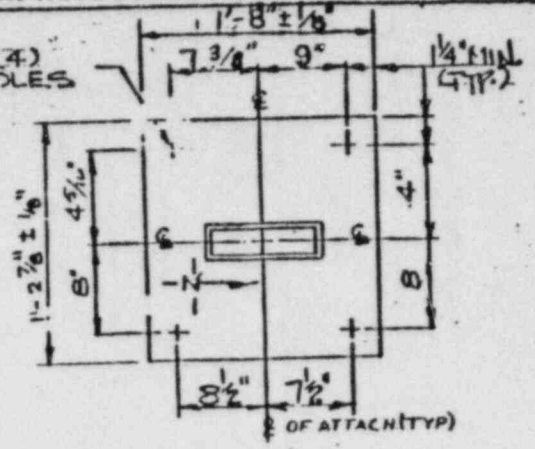
LINE 5-A-BL
AS-BUILT

24" CC. LOC. USE 3"
EL. 800' 116" 30"



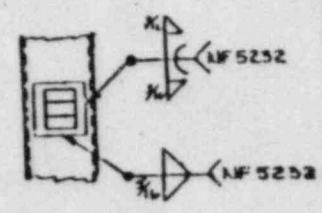
SECTION "A-A"

FIELD DRILL (4)
1/4" HOLES

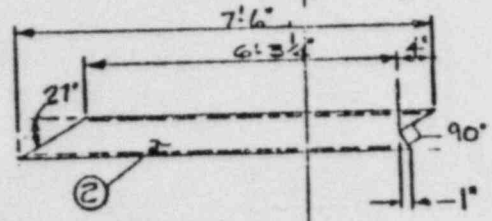


SECTION "Y-C"

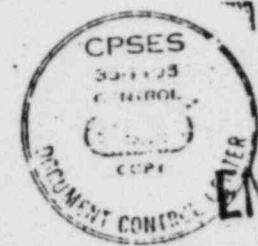
★ CHANGE NOT MADE BY CIAC



WELD DETAIL



DETAIL "1"



FOR OFFICE AND ENGINEERING USE ONLY

VENDOR CERTIFIED
DRAWING REV. NO. 3
BY KLN DATE 10 01 53

REV	DATE	OWN	CHK	APP	DESCRIPTION
1	7-11-53	C	F	H	REV'D VENDOR CERTS
2	8-21-53	A	C	T	REV'D VENDOR CERT.

SECTION "D-D"

BROWN & ROOT, INC.
ENGINEERS & CONSTRUCTORS

REF. DRAWING NUMBERS
PIPE 1: Sheet 3 ELECT: "
STEEL: " HVAC: "

THIRD PARTY INSPECTION
CODE CLASS: ASME III-3

REV	DATE	OWN	CHK	APP	DESCRIPTION
1	5-11-53	JW	R	M	ISSUED FOR CONSTRUCTION REF. FMHSEPS D.G. R-O SEE NOTE 1
2	7-23-53	J	A	G	OK As MD 2500 4354-412-4 REV'D BY ENR 207 208 209 210 No change made to drawing

CUSTOMER TEXAS UTILITIES SERVICE INC

ORDER OR CNT. NO. CP.0046
JOB NAME COMANCHE PEAK 112
MARK NO. CC-1-028-722-5338
SKETCH NO. "
SHEET 2 OF 2 REV. 3

Chairman
Atomic Safety and Licensing Appeal
Board Panel
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Mr. Robert Martin
Regional Administrator, Region IV
U. S. Nuclear Regulatory Commission
611 Ryan Plaza Dr., Suite 1000
Arlington, Texas 76011

Lanny A. Sinkin
Executive Director
Nuclear Information and Resource
Service
1346 Connecticut Avenue, N. W.,
4th Floor
Washington, D. C. 20036

Dr. David H. Boltz
2012 S. Polk
Dallas, Texas 75224

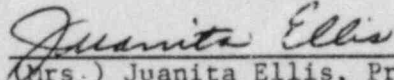
Michael D. Spence, President
Texas Utilities Generating Company
Skyway Tower
400 North Olive St., L.B. 81
Dallas, Texas 75201

Docketing and Service Section
(3 copies)
Office of the Secretary
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

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Washington, D. C. 20555



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