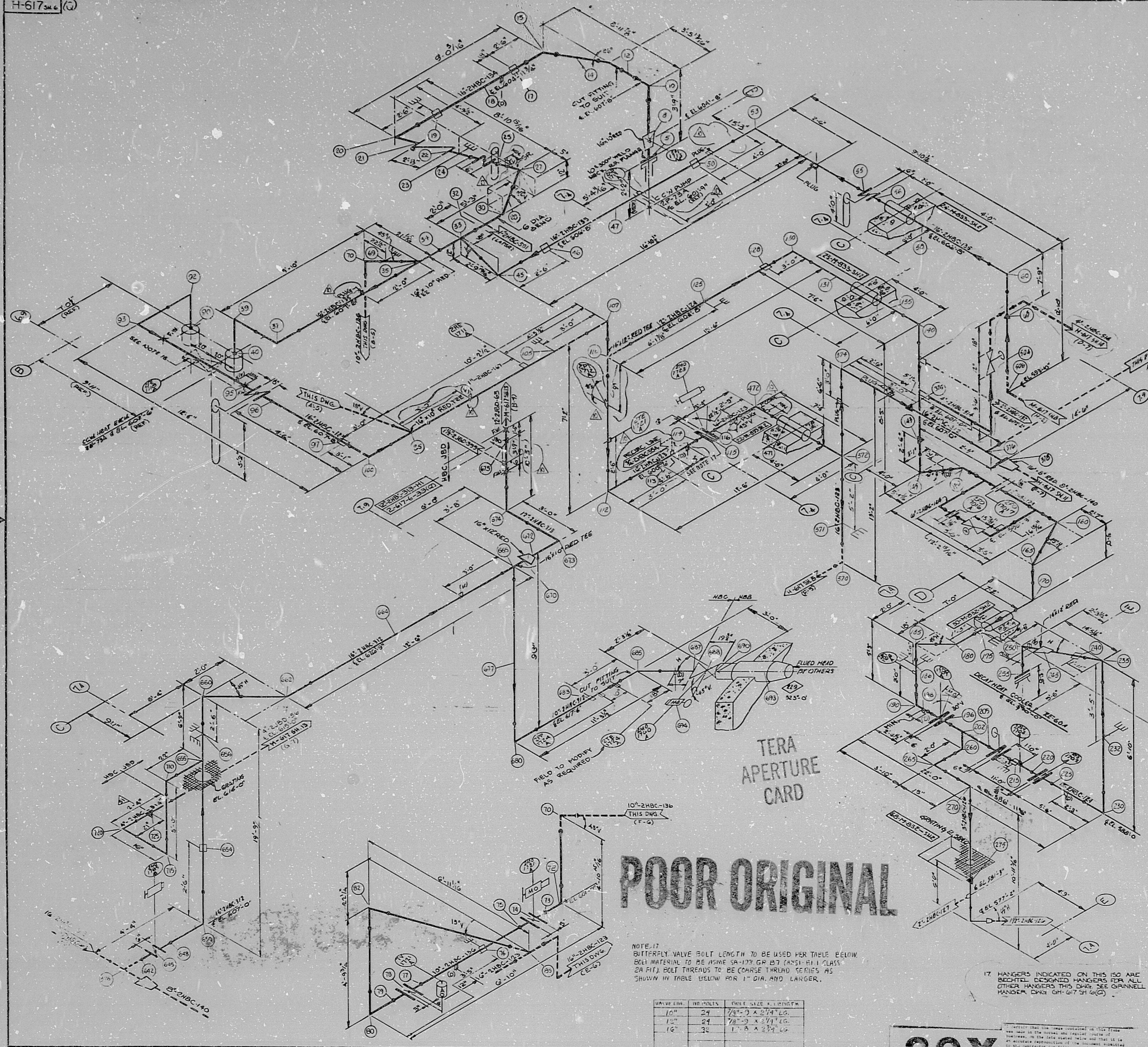


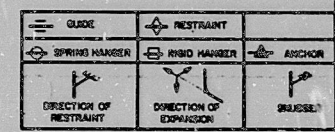
H-617 SH.6 (Q)



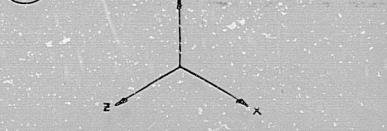
APPROX LF 429
STRESS ANALYSIS DATA

MATERIAL	PIPE	VALVE	FITTING

MATERIAL	PIPE	VALVE	FITTING



- NOTES:
- ALL FITTING TO BE FABRICATED AND INSTALLED IN ACCORDANCE WITH SPECIFICATION 7220-301, M-24, M-25, M-26.
 - FOR MATERIAL DESCRIPTION OF PIPE, VALVES AND FITTINGS, SEE PIPING CLASS SHEET (S) NO. M-481.
 - FOR PIPING AND INSTRUMENT SYMBOLS SEE SPEC. M-477, M-478, M-479.
 - FOR INSTRUMENT CONNECTIONS SEE SPEC. M-482.
 - NO ALLOWANCE HAS BEEN MADE FOR WELD JOINTS OR GASKETS AND ALL FITTING IS ASSUMED TO BE THE CORRECT POSITION UNLESS OTHERWISE NOTED ON THE DRAWING.
 - FOR PIPELINE STEERING COORDINATE DRAWING(S) THIS AREA SEE M-30, M-32, M-34, M-35, M-36, M-37, M-38, M-39, M-40, M-41, M-42, M-43, M-44, M-45, M-46, M-47, M-48, M-49, M-50, M-51, M-52, M-53, M-54, M-55, M-56, M-57, M-58, M-59, M-60, M-61, M-62, M-63, M-64, M-65, M-66, M-67, M-68, M-69, M-70, M-71, M-72, M-73, M-74, M-75, M-76, M-77, M-78, M-79, M-80, M-81, M-82, M-83, M-84, M-85, M-86, M-87, M-88, M-89, M-90, M-91, M-92, M-93, M-94, M-95, M-96, M-97, M-98, M-99, M-100.
 - FOR VALVE AND GASKETS SEE DRAWING M-482. VALVE AND GASKETS ARE INDICATED (V) AND (G).
 - ALL FACE TO FACE AND END TO END DIM. OF PERSONS VALVES ARE PER ANSI B16.10. (SEE OTHER DRAWING SHEET).
 - INDICATES BRACKET BUILDING EXTERIOR WALL PENETRATION.
 - INDICATES FLOOR OR WALL PENETRATION.
 - THIS SPOOL TO BE SUPPLIED 1" LONGER THAN THE FINAL SPOOL DIMENSIONS & SHIPPED TO THE VENDOR MANUFACTURER FOR INSTALLATION & TESTING.



NO.	DESCRIPTION	DATE	BY	CHKD
1	ISSUED FOR REVIEW			
2	REVISED TO REFLECT REV. 1			
3	REVISED TO REFLECT REV. 2			
4	REVISED TO REFLECT REV. 3			
5	REVISED TO REFLECT REV. 4			
6	REVISED TO REFLECT REV. 5			
7	REVISED TO REFLECT REV. 6			
8	REVISED TO REFLECT REV. 7			
9	REVISED TO REFLECT REV. 8			
10	REVISED TO REFLECT REV. 9			
11	REVISED TO REFLECT REV. 10			
12	REVISED TO REFLECT REV. 11			
13	REVISED TO REFLECT REV. 12			
14	REVISED TO REFLECT REV. 13			
15	REVISED TO REFLECT REV. 14			
16	REVISED TO REFLECT REV. 15			
17	REVISED TO REFLECT REV. 16			
18	REVISED TO REFLECT REV. 17			
19	REVISED TO REFLECT REV. 18			
20	REVISED TO REFLECT REV. 19			
21	REVISED TO REFLECT REV. 20			
22	REVISED TO REFLECT REV. 21			
23	REVISED TO REFLECT REV. 22			
24	REVISED TO REFLECT REV. 23			
25	REVISED TO REFLECT REV. 24			
26	REVISED TO REFLECT REV. 25			
27	REVISED TO REFLECT REV. 26			
28	REVISED TO REFLECT REV. 27			
29	REVISED TO REFLECT REV. 28			
30	REVISED TO REFLECT REV. 29			
31	REVISED TO REFLECT REV. 30			
32	REVISED TO REFLECT REV. 31			
33	REVISED TO REFLECT REV. 32			
34	REVISED TO REFLECT REV. 33			
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36	REVISED TO REFLECT REV. 35			
37	REVISED TO REFLECT REV. 36			
38	REVISED TO REFLECT REV. 37			
39	REVISED TO REFLECT REV. 38			
40	REVISED TO REFLECT REV. 39			
41	REVISED TO REFLECT REV. 40			
42	REVISED TO REFLECT REV. 41			
43	REVISED TO REFLECT REV. 42			
44	REVISED TO REFLECT REV. 43			
45	REVISED TO REFLECT REV. 44			
46	REVISED TO REFLECT REV. 45			
47	REVISED TO REFLECT REV. 46			
48	REVISED TO REFLECT REV. 47			
49	REVISED TO REFLECT REV. 48			
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76	REVISED TO REFLECT REV. 75			
77	REVISED TO REFLECT REV. 76			
78	REVISED TO REFLECT REV. 77			
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86	REVISED TO REFLECT REV. 85			
87	REVISED TO REFLECT REV. 86			
88	REVISED TO REFLECT REV. 87			
89	REVISED TO REFLECT REV. 88			
90	REVISED TO REFLECT REV. 89			
91	REVISED TO REFLECT REV. 90			
92	REVISED TO REFLECT REV. 91			
93	REVISED TO REFLECT REV. 92			
94	REVISED TO REFLECT REV. 93			
95	REVISED TO REFLECT REV. 94			
96	REVISED TO REFLECT REV. 95			
97	REVISED TO REFLECT REV. 96			
98	REVISED TO REFLECT REV. 97			
99	REVISED TO REFLECT REV. 98			
100	REVISED TO REFLECT REV. 99			

BECHTEL
ANN ARBOR, MICHIGAN

MIDLAND PLANT UNITS 1 & 2
CONSUMERS POWER COMPANY

HANGER ISOMETRIC
COMPONENT COOLING WATER SUPPLY
SYSTEM "A" UNIT 2

JOB NO. 7220 DRAWING NO. H-617 SH.6 (Q) REV. 10

POOR ORIGINAL

NOTE: 17
SHIFTER VALVE BOLT LENGTH TO BE USED PER TABLE BELOW.
BOLT MATERIAL TO BE ASTM SA-193 GR. B7 (ANSI B1 CLASS 2A FIT). BOLT THREADS TO BE COARSE THREAD SERIES AS SHOWN IN TABLE BELOW FOR 1" DIA. AND LARGER.

VALVE DIA.	NO. BOLTS	BOLT SIZE & LENGTH
1 1/2"	24	3/4" x 2 1/4" LG.
1 3/4"	24	7/8" x 2 1/4" LG.
2"	24	1" x 2 1/4" LG.

30X

11

11

8.5"

8.5"

11"

17"

11

11

8.5"

8.5"

11"

17"

RIDS

8112220323

