



Commonwealth Edison

One First National Plaza, Chicago, Illinois
Address Reply to: Post Office Box 767
Chicago, Illinois 60690 - 0767

September 21, 1988

Mr. Thomas E. Murley, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC. 20555

ATTN: Document Control Desk

Subject: Byron Station Units 1 and 2
Braidwood Station Units 1 and 2
Containment Leak Chase Channels
NRC Docket Nos. 50-454/455 and 50-450/457

- References (a): NRC Inspection Report Nos. 50-454/86035;
50-455/86022 dated October 2, 1986
(Byron Station)
- (b): NRC Inspection Report No. 50-456/86023;
dated February 13, 1986 (Braidwood Station)
- (c): April 29, 1987 S.C. Hunsader letter
to T.E. Murley
- (d): February 2, 1988 S.C. Hunsader letter to T.E. Murley

Dear Sir:

Reference (a) provided the results of the NRC Region III inspection of containment integrated leak rate testing (CILRT) performed at Byron Station Units 1 and 2. Reference (b) provided the results of the same kind of inspection at Braidwood Unit 1.

Open Items 50-454/86035-02; 50-455/86022-03 and 456/86023-01 required Commonwealth Edison Company to submit to NRR the justification for performing Type A tests with the leak chase channel plugs installed. Reference (c) provided that justification for Braidwood Units 1 and 2. Reference (d) applied that justification to Byron Station Units 1 and 2.

On September 16, 1988, the NRC staff provided comments via a teleconference in regard to reference (d). At the conclusions of the teleconference additional information was determined to be required by the NRC.

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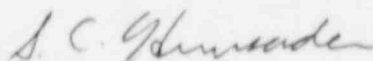
staff to facilitate their review. The purpose of this letter is to provide that information. Specifically you will find the following:

- (1) Attachment A provides the S&L and CBI drawings that show the location of the leak chase channels. Byron Unit 1 has the most channel installed that covers approximately 40% of the containment liner seam welds. Of this 40%, approximately 20% is under concrete, meaning that about 20% of the channel sees the containment air environment. The amount of channel installed per unit decreases, accordingly, for Byron Unit 2, Braidwood Unit 1 and Braidwood Unit 2. For Braidwood Unit 2 approximately 20% of the containment liner seam welds are covered by the leak chase channel and all of these are under concrete.
- (2) Attachment B provides an example of the CBI welders who installed the leak chase channel to the containment liner. All CBI welders who worked on the containment liner were qualified in accordance with ASME Section IX for overhead, horizontal and vertical position butt welds. As indicated on the qualification record, qualification on butt welds also qualified the welder for fillet welds, such as those used to weld the channel to the liner.
- (3) Attachment C provides an example of the solution film visual examination reports that document the acceptance of the channel fillet welds.
- (4) Attachment D provides the analysis that demonstrates that the channels will maintain their integrity when subjected to the loading conditions of a postulated design basis accident.

Concerns about degradation of the containment liner welds have been addressed by the performance of the CILRTs which have been witnessed by NRC Region III personnel. No degradation has been identified during these tests and to the best of our knowledge, the CILRTs at Byron and Braidwood have been performed acceptably to the NRC staff's satisfaction.

Commonwealth Edison believes this information addresses the concerns and questions discussed during the September 16, 1988 teleconference and supports the information presented in reference (d). This is being provided for NRC review and acceptance in conjunction with your review of reference (d). Please address any questions you may have concerning this matter to this office.

Very truly yours,



S. C. Hunsader

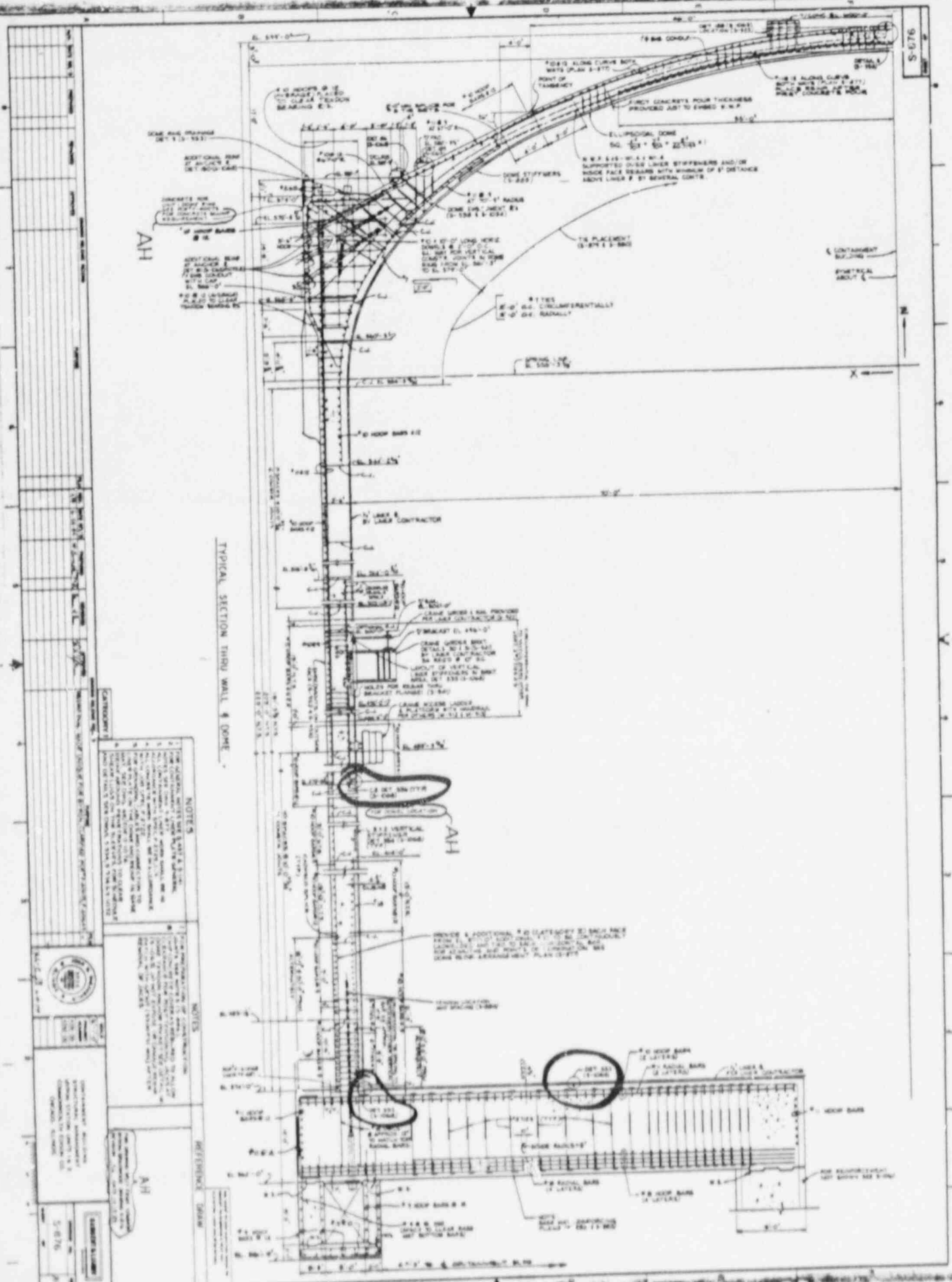
Nuclear Licensing Administrator

Att.

cc: L. N. Olshan - NRR
S. Sands - NRR
NRC Resident Inspector - Braidwood
NRC Resident Inspector - Byron
Regional Administrator - RIII

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Attachment "A"



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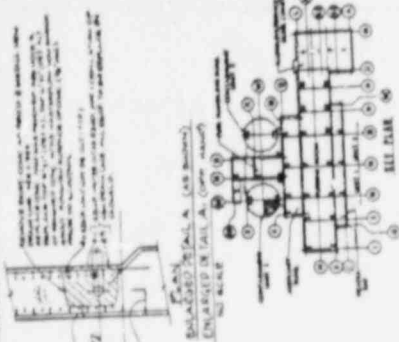
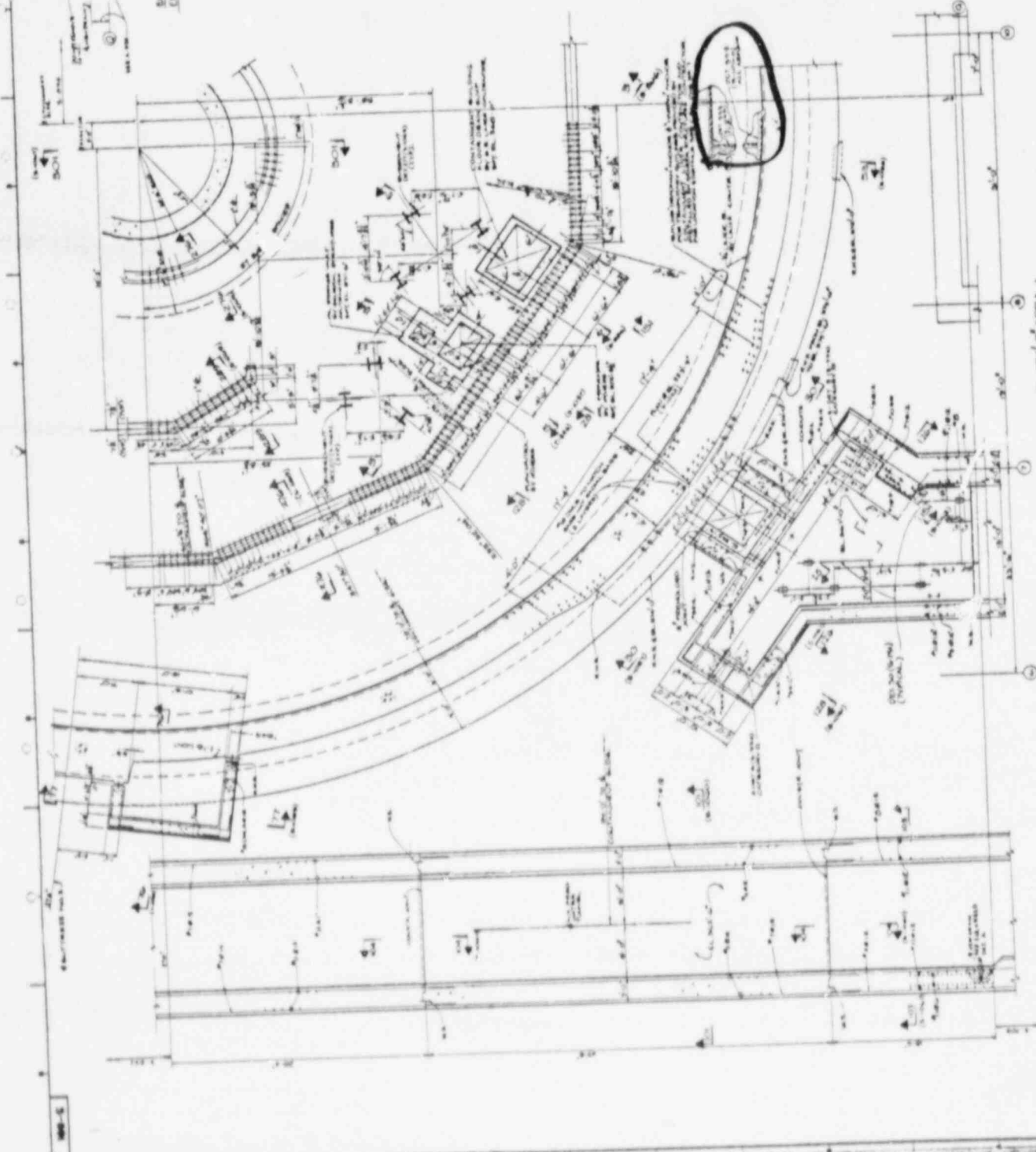
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PROJECT: [Illegible]



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REFERENCE DRAWINGS

SEE DRAWING NO. 5-881 FOR THE SHIELDING OF THE SHIELDING



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3	12/15/54	REVISED	J. J. ...	J. J. ...
4	1/15/55	REVISED	J. J. ...	J. J. ...
5	2/15/55	REVISED	J. J. ...	J. J. ...
6	3/15/55	REVISED	J. J. ...	J. J. ...
7	4/15/55	REVISED	J. J. ...	J. J. ...
8	5/15/55	REVISED	J. J. ...	J. J. ...
9	6/15/55	REVISED	J. J. ...	J. J. ...
10	7/15/55	REVISED	J. J. ...	J. J. ...
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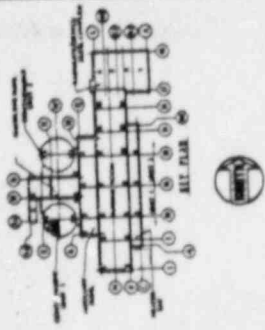
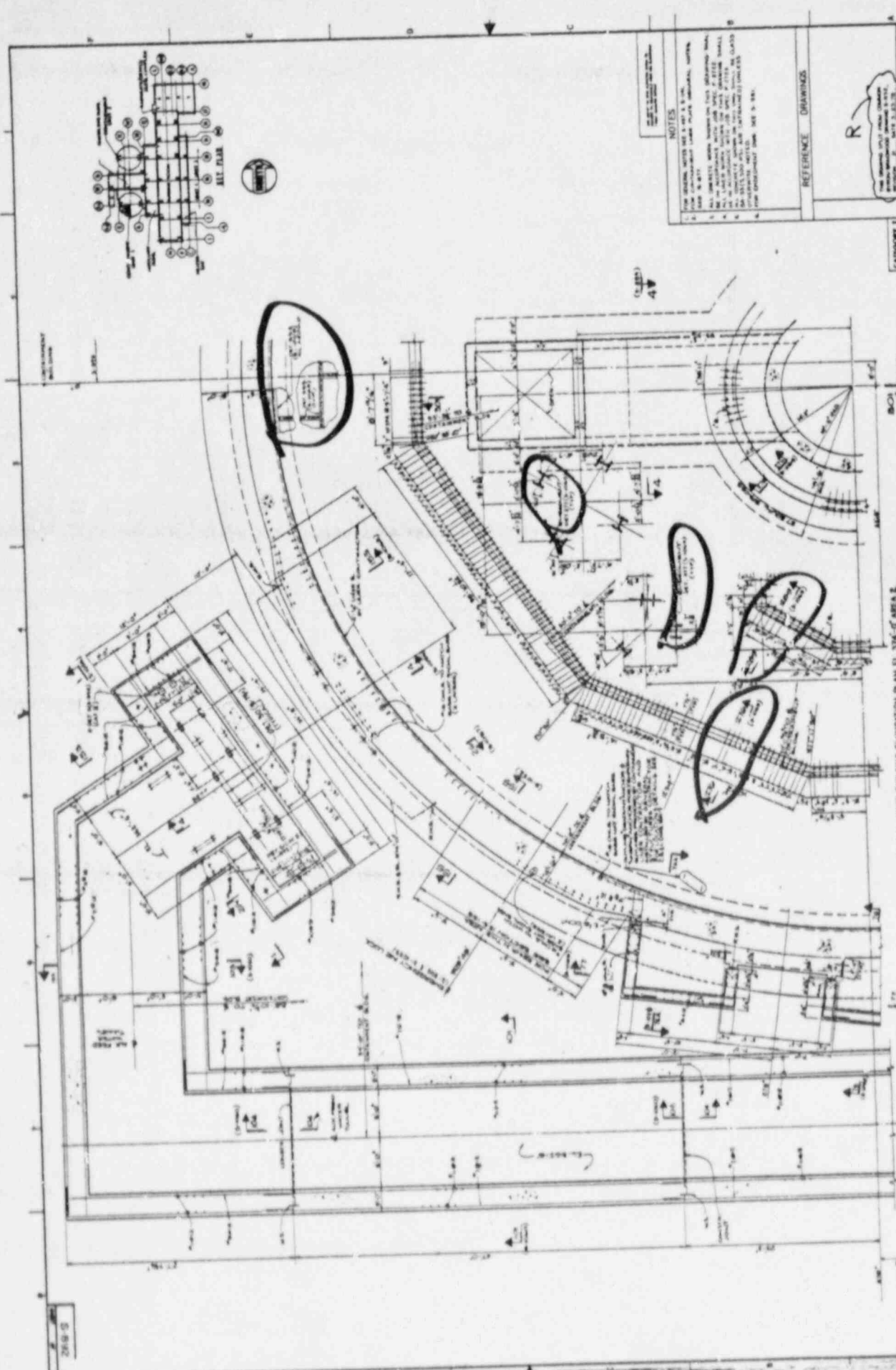
CONFINEMENT BLDG FOR
PLAN EL. 314'-0" AREA 1
BYRON STATION UNIT 1
COMMONWEALTH EDISON CO.
CHICAGO, ILLINOIS

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CONFINEMENT BLDG FOR PLAN EL. 314'-0" AREA 1

5-881



NOTES

1. SEE GENERAL NOTES ON SHEET 1 & 2.
2. SEE GENERAL NOTES ON SHEET 3 & 4.
3. SEE GENERAL NOTES ON SHEET 5 & 6.
4. SEE GENERAL NOTES ON SHEET 7 & 8.
5. SEE GENERAL NOTES ON SHEET 9 & 10.
6. SEE GENERAL NOTES ON SHEET 11 & 12.

REFERENCE DRAWINGS

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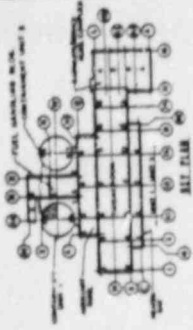
CATALOGUE I

CONSTRUCTION MATERIALS
 INFORMATION PLAN NO. 100-100-1
 BUREAU OF CONSTRUCTION
 CHICAGO, ILLINOIS

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CONTAINMENT BUILDING DRAWING ON PLAN EL. 310' C. AREA L.

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REFERENCE DRAWINGS

SEE DRAWING NO. S-8933 FOR FOUNDATION PLAN OF AREA 1.

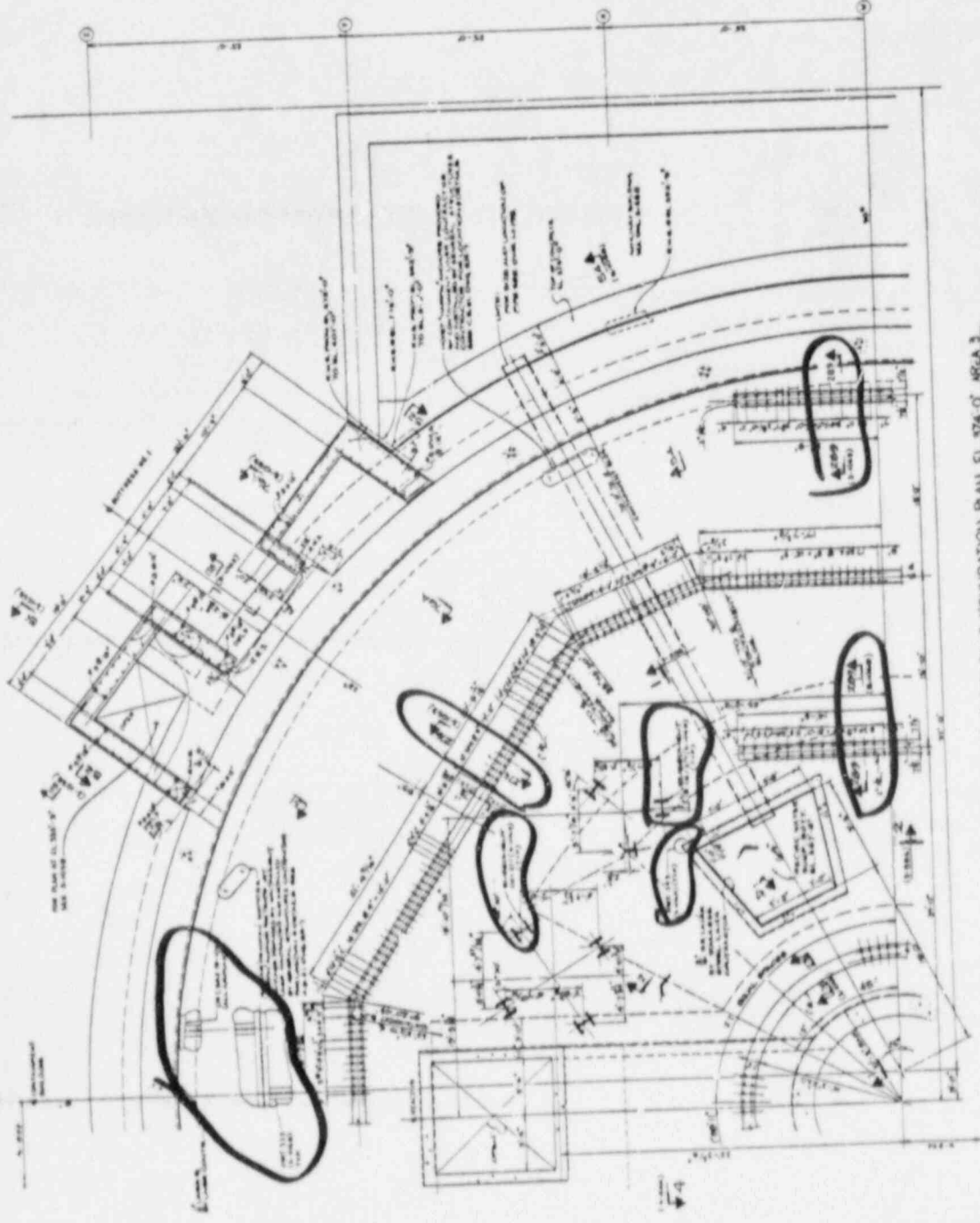
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CONSTRUCTION OF FOUNDATION FOR AREA 2 OF AREA 1.

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CHECKED BY: [Name]

DATE: [Date]



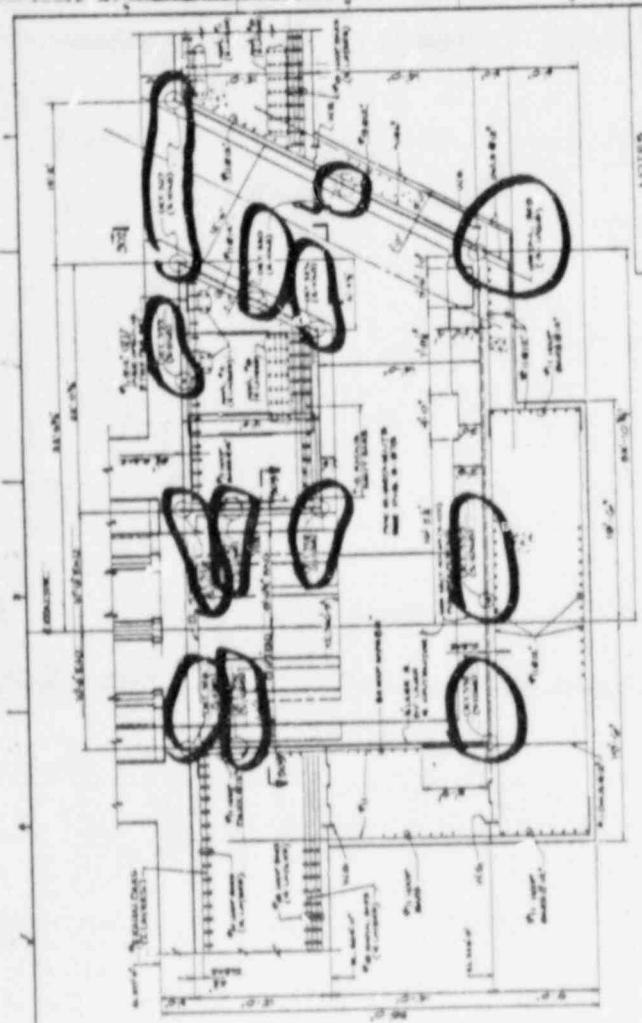
CONTAINMENT BUILDING FOUNDATION PLAN EL. 374 OF AREA 2



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1. SEE GENERAL NOTES AND SPECIFICATIONS.
2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE SPECIFICATIONS FOR STRUCTURAL STEEL, CONCRETE, MASONRY, PAINTS, AND FINISHES.
3. ALL MATERIALS SHALL BE OF THE BEST QUALITY AND SHALL BE APPROVED BY THE ARCHITECT BEFORE ORDERING.
4. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE SPECIFICATIONS FOR STRUCTURAL STEEL, CONCRETE, MASONRY, PAINTS, AND FINISHES.
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REVISIONS

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APPROVED

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ENGINEER: [Signature]

SEAL

REGISTERED PROFESSIONAL ENGINEER

STATE OF ILLINOIS

NO. [Number]

EXPIRES [Date]

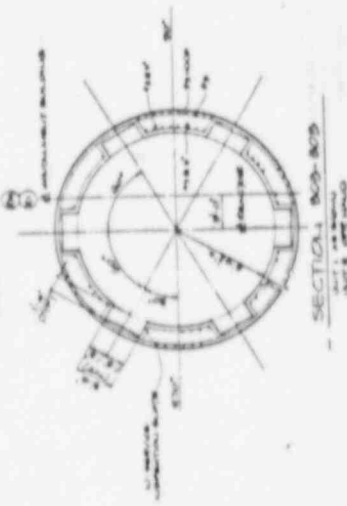
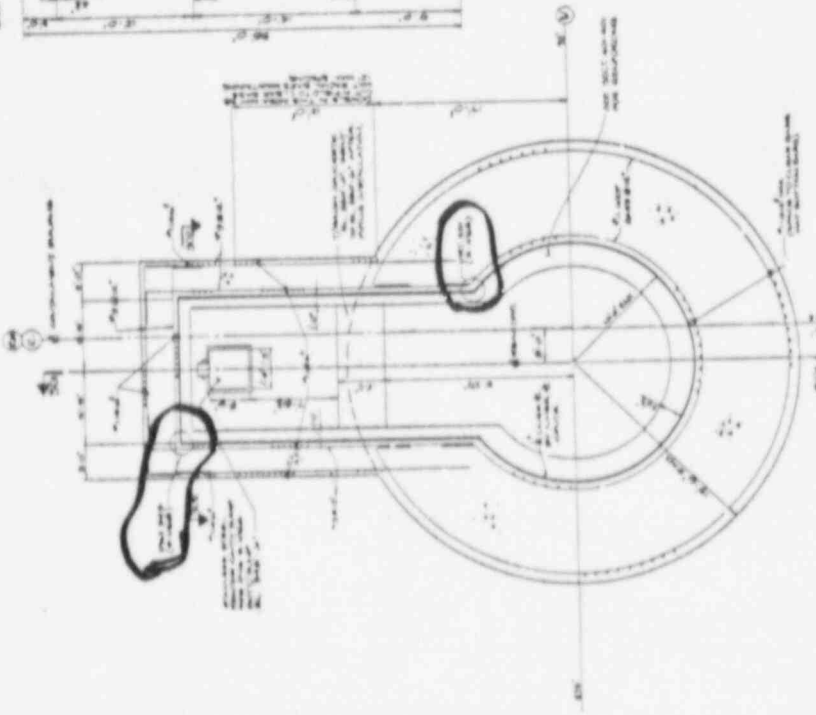
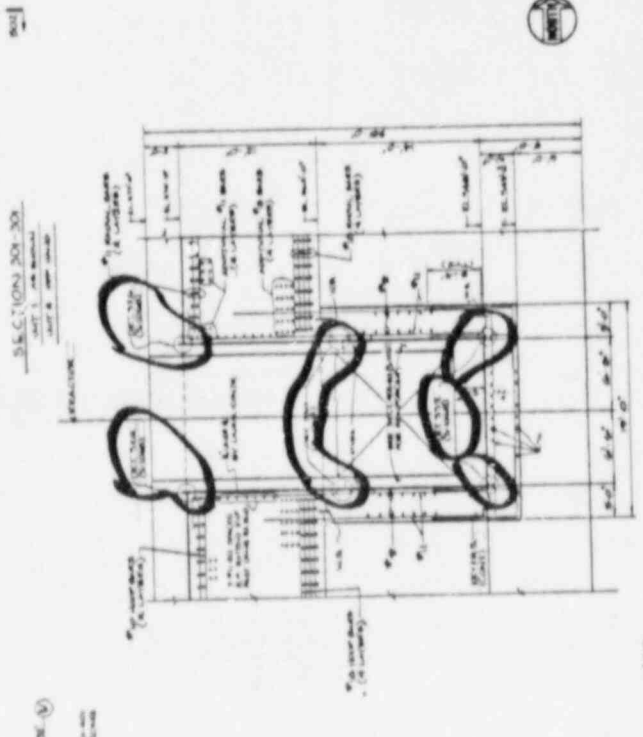
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BYRON STATION UNIT I & 2
COMMONWEALTH EDISON CO.
CHICAGO, ILLINOIS

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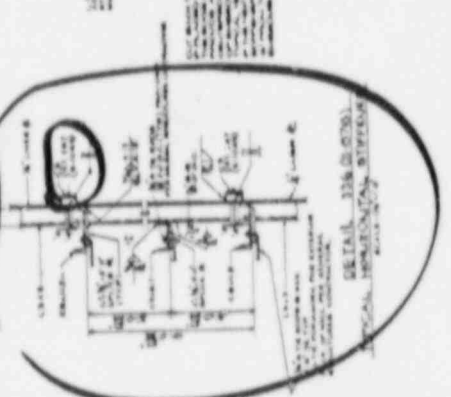
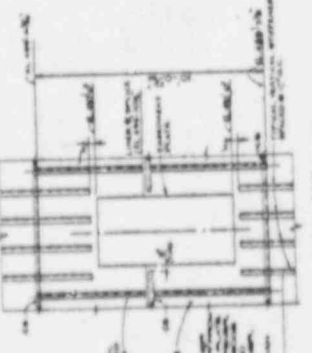
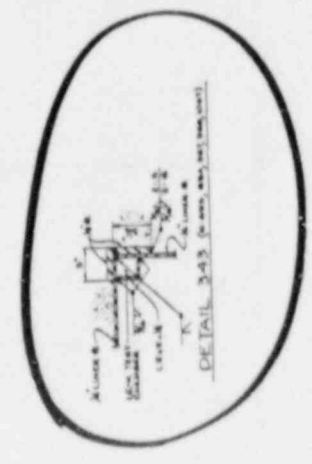
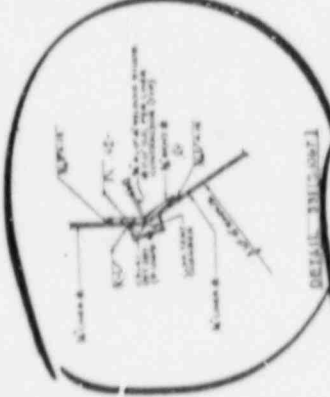
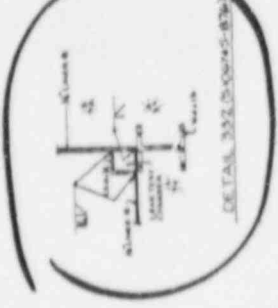
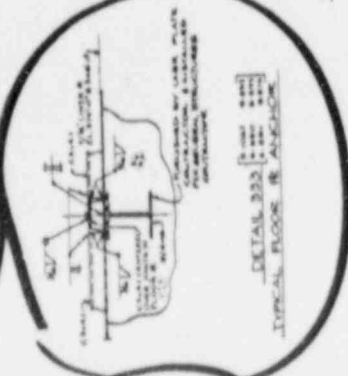
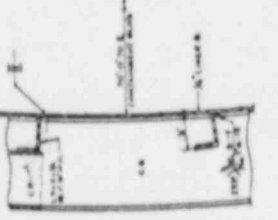
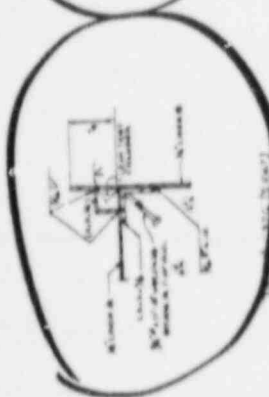
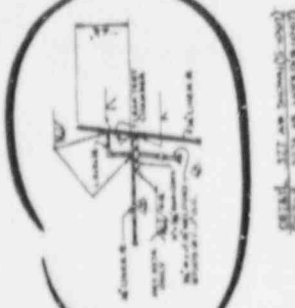
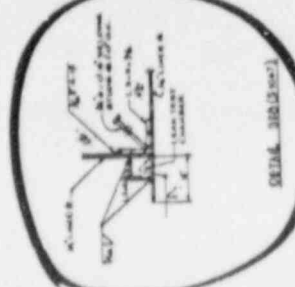
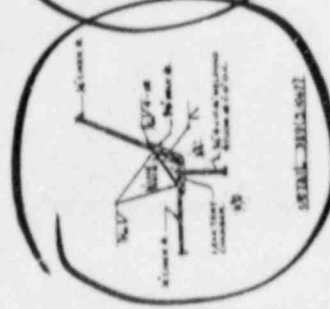
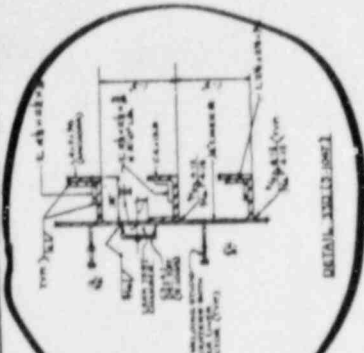


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REFERENCE DRAWINGS

C/N

CONTAINMENT BUILDING

UNITED STATES ATOMIC ENERGY COMMISSION
 OFFICE OF ENGINEERING RESEARCH AND DEVELOPMENT
 CHICAGO, ILLINOIS



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INDOOR

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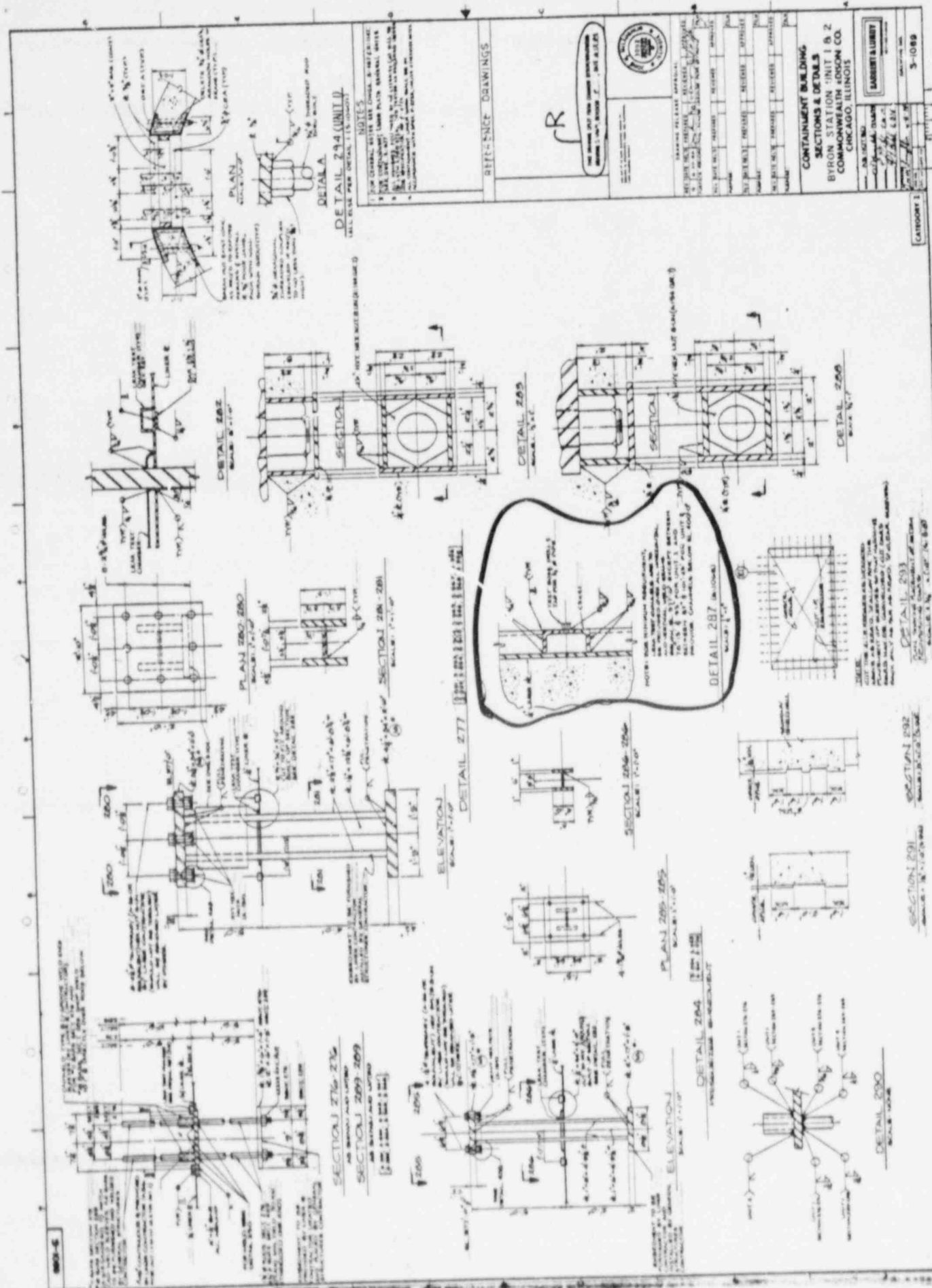
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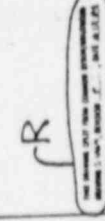
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DETAIL 294 (UNIT 1)
SCALE: 1/8" = 1'-0"

NOTES:
1. SEE GENERAL NOTES AND DETAILS 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

REFERENCE DRAWINGS



CONTAINMENT BUILDING
SECTIONS & DETAILS
BYRON STATION UNIT 1 & 2
COMMONWEALTH EDISON CO.
CHICAGO, ILLINOIS

NO. 1001	NO. 1002	NO. 1003	NO. 1004	NO. 1005	NO. 1006	NO. 1007	NO. 1008	NO. 1009	NO. 1010

REVIEWED FOR

BYRON

UNIT 1

SPEC. NO. F-2725

PROJECT NO. 437E

COMMONWEALTH EDISON CO.

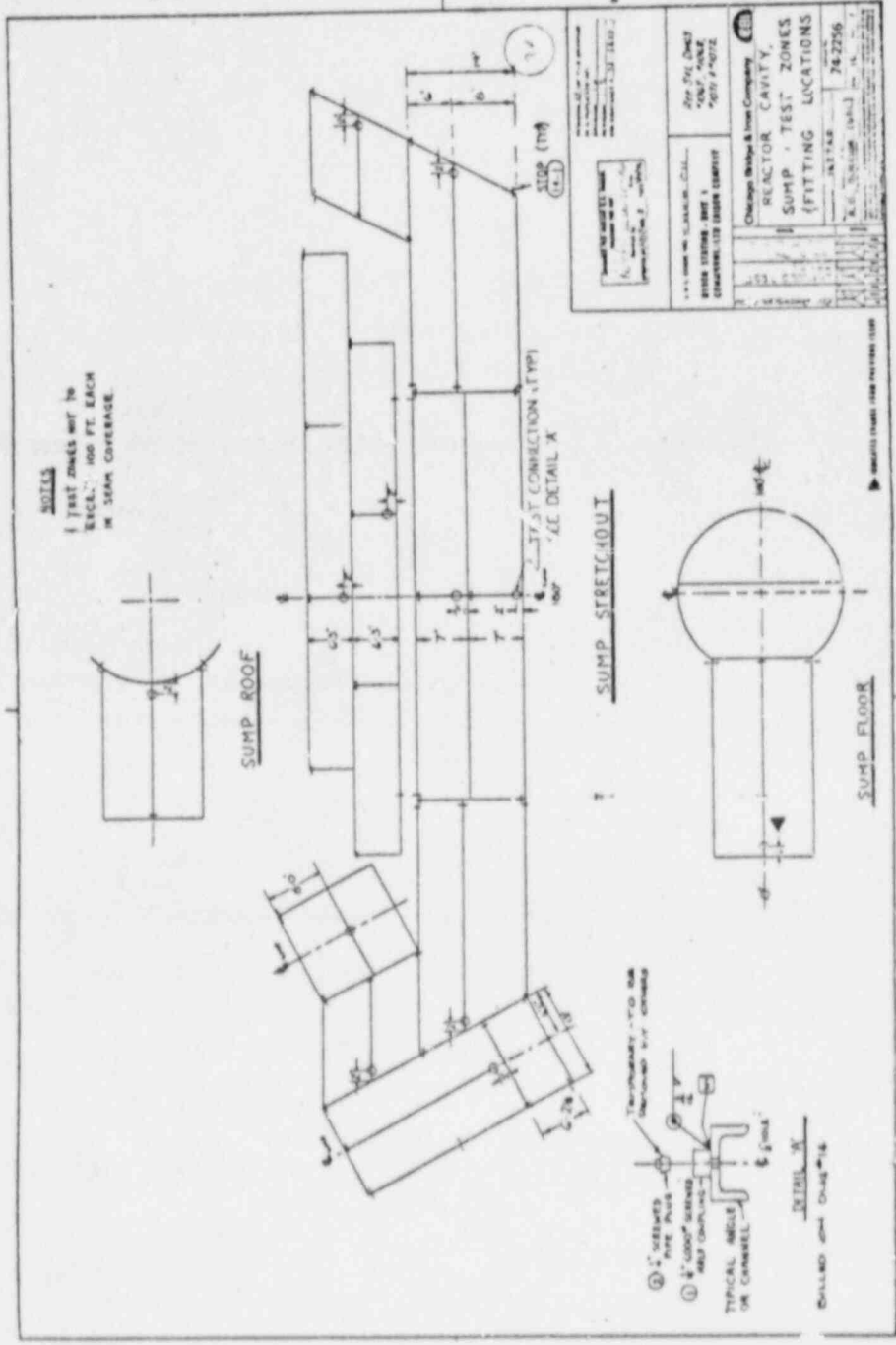
SARGENT & LUNDY

ENGINEERS

- 1. NO. EXCEPTION TAKEN FOR FABRICATION OR CONNECTIONS OR WITH FABRICATION OR CONNECTIONS CAN PROCEED AS SHOWN.
- 2. CONNECTIONS CAN PROCEED AS SHOWN.
- 3. REVISIONS AS NOTED AND WOULD FABRICATION.

ANY ACTION SHOWN ABOVE IS SUBJECT TO THE TERMS AND CONDITIONS OF THE CONTRACT UNDER WHICH THIS CONTRACT IS BEING PERFORMED, INCLUDING DESIGN AND DETAILS FOR CONTAINMENT LINER

BY: R. K. 1980 DATE: JUL 13 1980



16X

Spec. No. 2-213
 REVIEWED FOR

BYRON

SPEC. NO. F-775 PROJ. NO. 4391

COMMONWEALTH EDISON CO.
 SARGENT & Lundy
 ENGINEERS

- 1. NO EXCEPTION TAKEN
 CONTRACTOR CAN PROCEED
 WITH FABRICATION OR
 CONSTRUCTION UNLESS
 BASED ON MAKING REVISIONS
 NOTED AND REVISIT AND
 RESUBMIT FOR APPROVAL
 HOLD FABRICATION
- 2. ANY ACTION SHOWN ABOVE IS
 SUBJECT TO THE REVIEW OF THE
 CONTRACTOR'S SUPERVISOR NOT RELIEVE
 CONTRACTOR FROM HIS OBLIGA-
 TIONS UNDER THE CONTRACT,
 INCLUDING DESIGN AND DETAILING
 FOR CONTAINMENT LINER

EQUIPMENT NO. _____ DATE _____
 BY: S. K. THO

NO.	REVISION	DATE	BY	DESCRIPTION
1	AS SHOWN			
2				
3				
4				
5				
6				
7				
8				
9				
10				

Thoroughly check the
 dimensions of concrete
 before pouring.

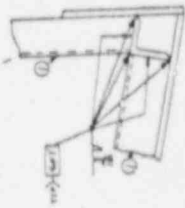


FIG. 1 - ELEVATION
 (See Note 1)

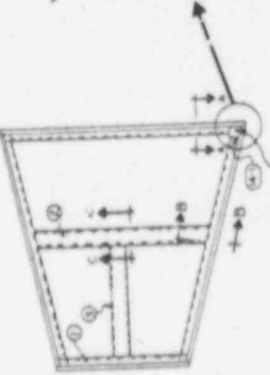
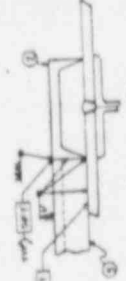


FIG. 2 - PLAN

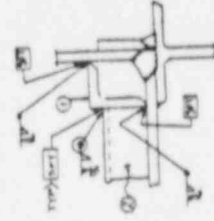


NOTE:
 Field Cut Areas And Corners To
 Conform All Specs.

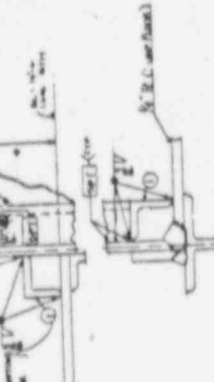
FIG. 3 - FIELD CUT



SECTION-AA



SECTION-BB



SECTION-CC

16X

Over 24 Hrs. Check
 for leaks, etc. to
 be made.

Chicago Bridge & Iron Company
 Inspection Super
 Lead Center

78-2796

REVISED FOR

BY

DATE

COMMONWEALTH ENGINEERING CO.

ENGINEERS

NO EXCEPTION TAKEN

CONTRACTOR CAN PROCEED

CONSTRUCTION ON

CONTRACTOR CAN PROCEED

BASED ON MARKINGS

NOTED AND RESUBMIT

RESUBMIT NOTED AND

HOLD FABRICATION

ACTION SHOWN ABOVE IS

SUBJECT TO THE TERMS OF THE

CONTRACT AND DOES NOT RELIEVE

ENGINEER FROM LIABILITY FOR

WORK UNDER THE CONTRACT

INCLUDING DESIGN AND DETAILING

FOR CONTAINMENT LINER

EQUIPMENT NO.

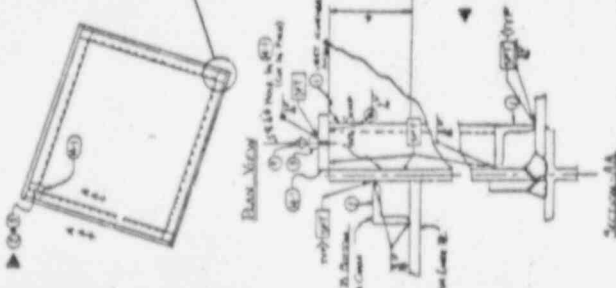
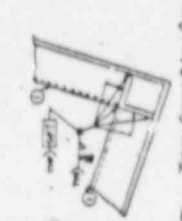
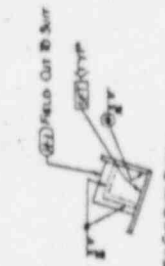
BY

DATE

SHEET

OF

NO.	DATE	DESCRIPTION
1	1/1/58	AS SHOWN
2	1/15/58	REVISION
3	1/22/58	REVISION
4	2/5/58	REVISION
5	2/12/58	REVISION
6	2/19/58	REVISION
7	2/26/58	REVISION
8	3/5/58	REVISION
9	3/12/58	REVISION
10	3/19/58	REVISION
11	3/26/58	REVISION
12	4/2/58	REVISION
13	4/9/58	REVISION
14	4/16/58	REVISION
15	4/23/58	REVISION
16	4/30/58	REVISION
17	5/7/58	REVISION
18	5/14/58	REVISION
19	5/21/58	REVISION
20	5/28/58	REVISION
21	6/4/58	REVISION
22	6/11/58	REVISION
23	6/18/58	REVISION
24	6/25/58	REVISION
25	7/2/58	REVISION
26	7/9/58	REVISION
27	7/16/58	REVISION
28	7/23/58	REVISION
29	7/30/58	REVISION
30	8/6/58	REVISION
31	8/13/58	REVISION
32	8/20/58	REVISION
33	8/27/58	REVISION
34	9/3/58	REVISION
35	9/10/58	REVISION
36	9/17/58	REVISION
37	9/24/58	REVISION
38	10/1/58	REVISION
39	10/8/58	REVISION
40	10/15/58	REVISION
41	10/22/58	REVISION
42	10/29/58	REVISION
43	11/5/58	REVISION
44	11/12/58	REVISION
45	11/19/58	REVISION
46	11/26/58	REVISION
47	12/3/58	REVISION
48	12/10/58	REVISION
49	12/17/58	REVISION
50	12/24/58	REVISION



16X

24

16X

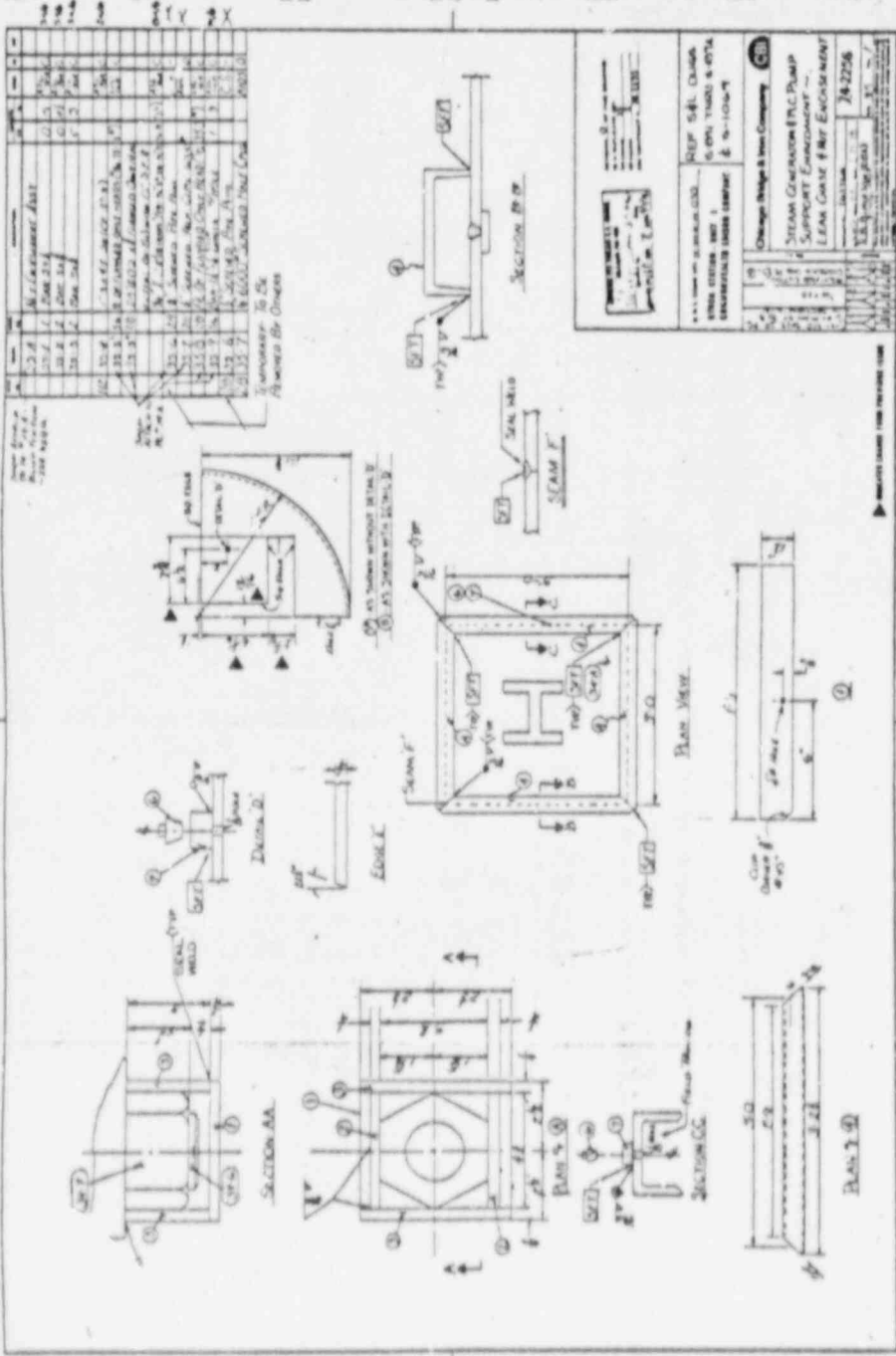
REVIEWED FOR

BYRON
UNIT 1
SPEC NO. F-2725 PROJ. NO. 4191
COMMONWEALTH EDISON CO.

SARGENT & LUNDY
ENGINEERS

1. NO EXCEPTION TAKEN
CONTRACTOR TO PROCEED
WITH FABRICATION OR
CONSTRUCTION
2. CONTRACTOR CAN PROCEED
BASED ON DRAWINGS
NOTED AND N.E. BY
RESIDENT
HOLD FABRICATION
3. REVISION AS NOTED AND
HOLD FABRICATION

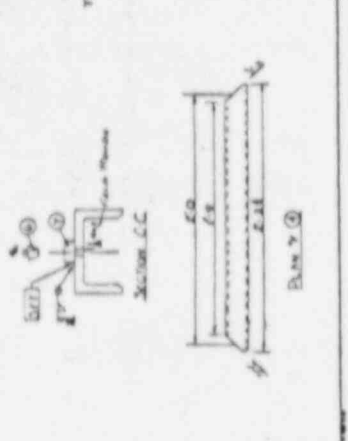
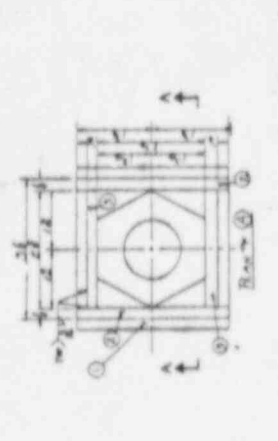
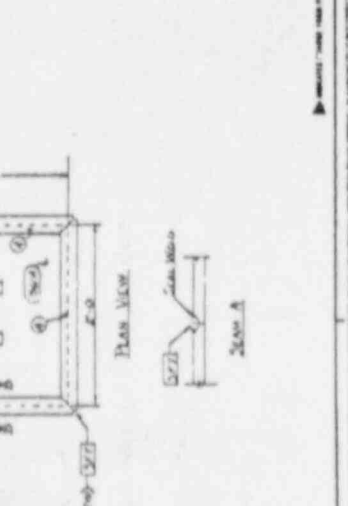
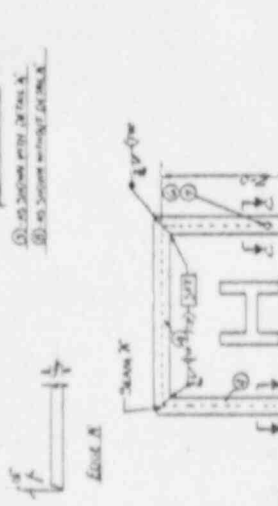
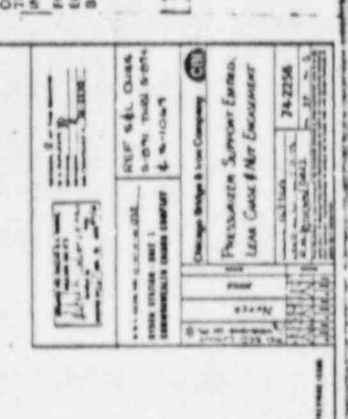
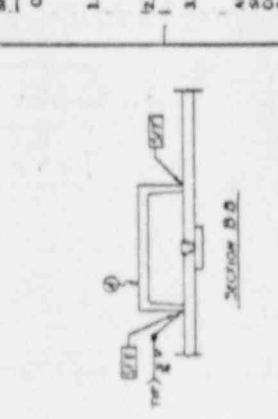
ANY ACTION SHOWN ABOVE IS
SUBJECT TO THE TERMS OF THE
CONTRACT AND THE CONTRACTOR
TAKES UNDER THE CONTRACT,
INCLUDING DESIGN AND DRAWING,
FOR CONTAINMENT LINER
EQUIPMENT NO. 24-2256
BY R. S. TROD DATE MAY 13 1978



16X

NO.	REV.	DESCRIPTION	DATE	BY	CHKD.
1		ISSUED FOR CONSTRUCTION	10/1/00	J. J. LUNDY	J. J. LUNDY
2		REVISED TO SHOW REVISIONS	10/1/00	J. J. LUNDY	J. J. LUNDY
3		REVISED TO SHOW REVISIONS	10/1/00	J. J. LUNDY	J. J. LUNDY
4		REVISED TO SHOW REVISIONS	10/1/00	J. J. LUNDY	J. J. LUNDY
5		REVISED TO SHOW REVISIONS	10/1/00	J. J. LUNDY	J. J. LUNDY
6		REVISED TO SHOW REVISIONS	10/1/00	J. J. LUNDY	J. J. LUNDY
7		REVISED TO SHOW REVISIONS	10/1/00	J. J. LUNDY	J. J. LUNDY
8		REVISED TO SHOW REVISIONS	10/1/00	J. J. LUNDY	J. J. LUNDY
9		REVISED TO SHOW REVISIONS	10/1/00	J. J. LUNDY	J. J. LUNDY
10		REVISED TO SHOW REVISIONS	10/1/00	J. J. LUNDY	J. J. LUNDY

REVISIONS TO BE MADE BY CONTRACTOR



REVIEWED FOR
BYRON
UNIT 1
SPEC NO P 2 72 3 PROJ NO 4391
COMMONWEALTH EDISON CO.
SARGENT & LUNDY
ENGINEERS

1. NO EXCEPTION TAKEN
CONTRACTOR CAN PROCEED
WITH FABRICATION OR
CONS. REACTION OR
CONTRACTOR C/M PROCEED
BASED ON ANY REVISIONS
HOLD AND I COMMIT
REVISIONS NOTED AND
HOLD FABRICATION

ANY ACTION SHOWN ABOVE IS
SUBJECT TO THE CONTRACTOR
CONTRACTOR FROM HIS OBLIGA-
TIONS UNDER THE CONTRACT,
INCLUDING DESIGN AND DETAILING
FOR CONTAINMENT LINER

EQUIPMENT NO. _____ DATE _____
BY: A. K. TRQ. DATE: 10/1/00

16X

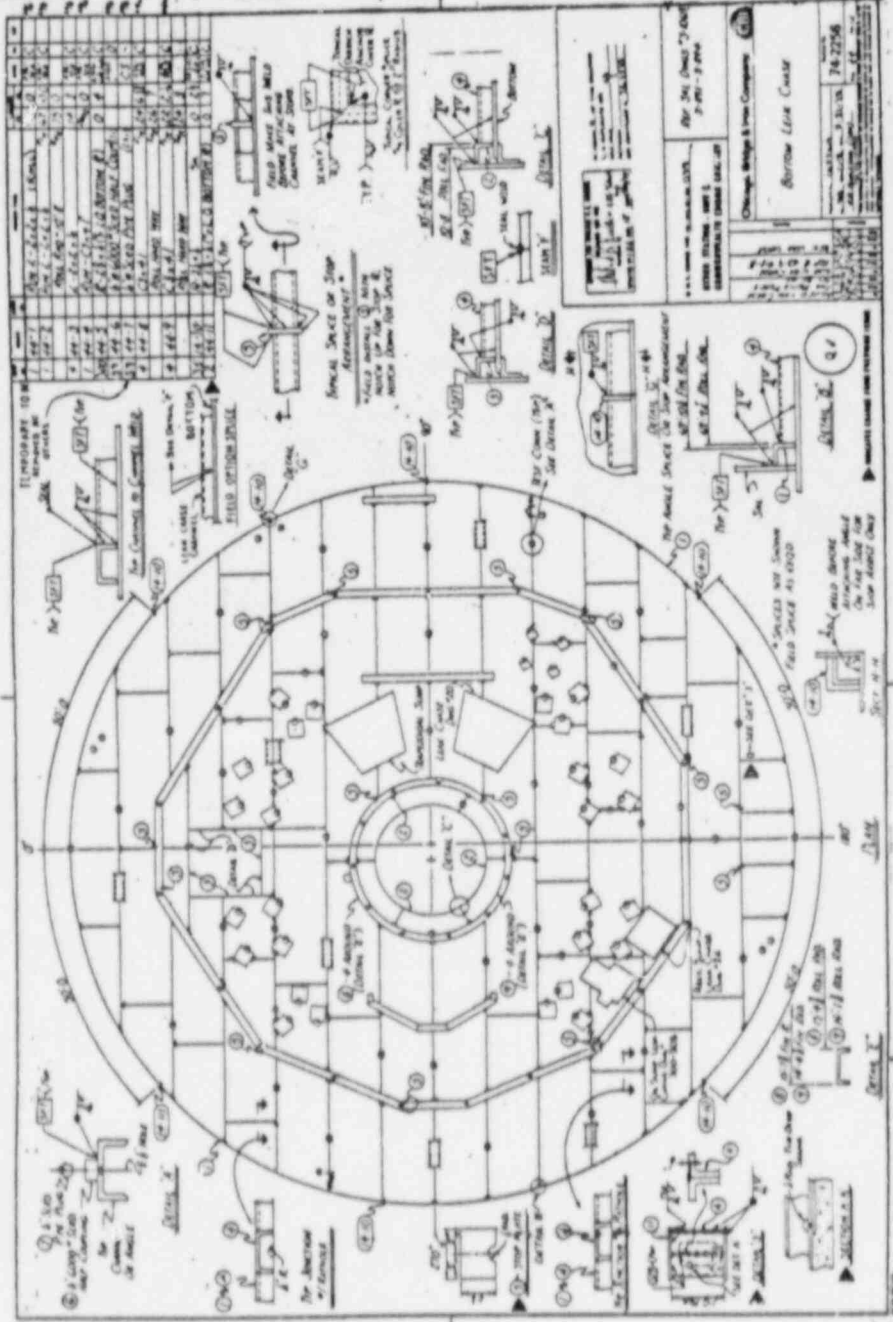
RECEIVED
JUN - 1 - 1977
BARCLAY
LUNDY

REVIEWED FOR

BYRON
VOL 1
SPEC NO. 4-2135 PROJ NO 4391
COMMONWEALTH EDISON CO.

SARGENT & LUNDY
ENGINEERS

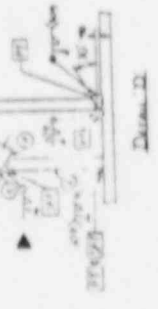
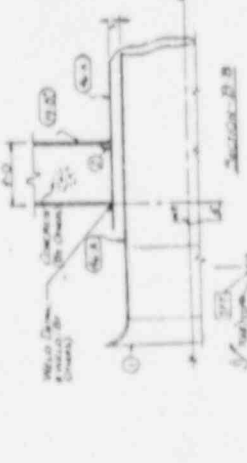
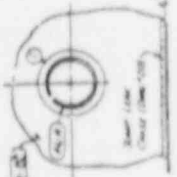
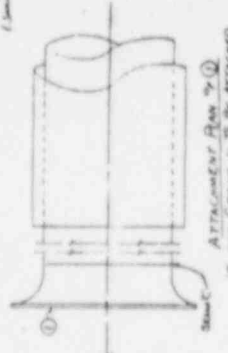
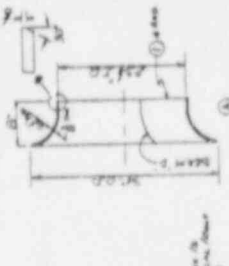
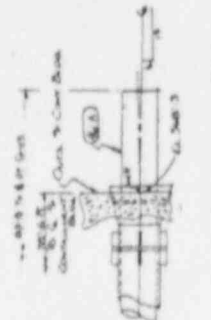
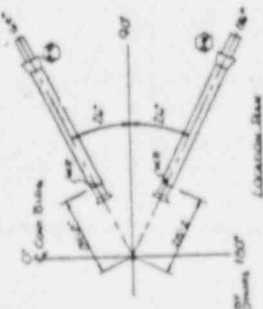
1. NO EXCEPTION TAKEN. CONTRACTOR CAN PROCEED WITH FABRICATION ON CONDITIONS CAN PROCEED BASED ON SARGENT & LUNDY'S NOTED AND IS SUBJECT TO REVISIONS AND HOLD FABRICATION SUBJECT TO THE TERMS OF THE CONTRACT AND NOT TO BE HELD CONTRACTOR FROM HIS OBLIGATIONS UNDER THE CONTRACT INCLUDING DELIVERY AND INSTALLATION FOR CONTAINMENT LINER EQUIPMENT FOR BY A. S. 1960 CAUER 2.3.1977.
2. REVISIONS CAN BE MADE AS NOTED AND IS SUBJECT TO REVISIONS AND HOLD FABRICATION SUBJECT TO THE TERMS OF THE CONTRACT AND NOT TO BE HELD CONTRACTOR FROM HIS OBLIGATIONS UNDER THE CONTRACT INCLUDING DELIVERY AND INSTALLATION FOR CONTAINMENT LINER EQUIPMENT FOR BY A. S. 1960 CAUER 2.3.1977.
3. REVISIONS CAN BE MADE AS NOTED AND IS SUBJECT TO REVISIONS AND HOLD FABRICATION SUBJECT TO THE TERMS OF THE CONTRACT AND NOT TO BE HELD CONTRACTOR FROM HIS OBLIGATIONS UNDER THE CONTRACT INCLUDING DELIVERY AND INSTALLATION FOR CONTAINMENT LINER EQUIPMENT FOR BY A. S. 1960 CAUER 2.3.1977.



15X

PREPARED BY
SARGENT & LUNDY
ENGINEERS
NEW YORK, N.Y.

NO.	REVISION	DATE	BY	CHKD.
1	AS SHOWN	12/15/50		
2	REVISED TO SHOW	1/10/51		
3	REVISED TO SHOW	1/10/51		
4	REVISED TO SHOW	1/10/51		
5	REVISED TO SHOW	1/10/51		
6	REVISED TO SHOW	1/10/51		
7	REVISED TO SHOW	1/10/51		
8	REVISED TO SHOW	1/10/51		
9	REVISED TO SHOW	1/10/51		
10	REVISED TO SHOW	1/10/51		



ATTACHMENT PLAN TO (1)
 (LINED FITTINGS TO BE ATTACHED
 AFTER PILING ASSEMBLY IS IN PLACE)

RECEIVED
 FEB - 2 1977
 SARGENT
 LUNDY

REVIEWED FOR

BYRON
 UNIT
 SPEC. NO. F-2128 (PHD) NO. 4191
 COMMONWEALTH - DIXON CO.
 SARGENT & LUNDY
 ENGINEERS

- 1. NO EXCEPTION TAKEN
 CONTRACTOR CAN PROCEED
 WITH FABRICATION OR
 CONSTRUCTION
- 2. CONTRACTOR CAN PROCEED
 BASED ON MAKING REVISIONS
 NOTED AND IN SUBMIT
 REVISE AS NOTED AND
 RESUBMIT
- 3. HOLD FABRICATION

ANY ACTION SHOWN ABOVE IS
 SUBJECT TO THE TERMS OF THE
 CONTRACT AND DOES NOT CONSTITUTE
 A GUARANTEE OF THE QUALITY OF THE
 FABRICATION OR CONSTRUCTION.
 FOR CONTAINMENT LINER
 EQUIPMENT NO.
 BY M. K. TRO - D.A.C. - 11/77

16X

REVISED FOR
BYRON

COMMONWEALTH EDISON CO.
ENGINEERS

1. NO EXCEPTION TAKEN
CONTRACTOR CAN PROCEED
WITH FABRICATION OR
CONSTRUCTION CAN PROCEED
BASED ON THIS DRAWING
UNLESS NOTED OTHERWISE
2. REVISE AS NOTED AND
RESUBMIT
3. HOLD FABRICATION
ANY ACTION SHOWN ABOVE IS
SUBJECT TO THE TERMS OF THE
CONTRACT AND DOES NOT RELIEVE
CONTRACTOR FROM HIS OBLIGA-
TIONS UNDER THE CONTRACT
INCLUDING DESIGN AND DETAILING
FOR CONTAINMENT LINER

EQUIPMENT NO.
BY: R. N. 100 DATE: SEP 22 1978

16X

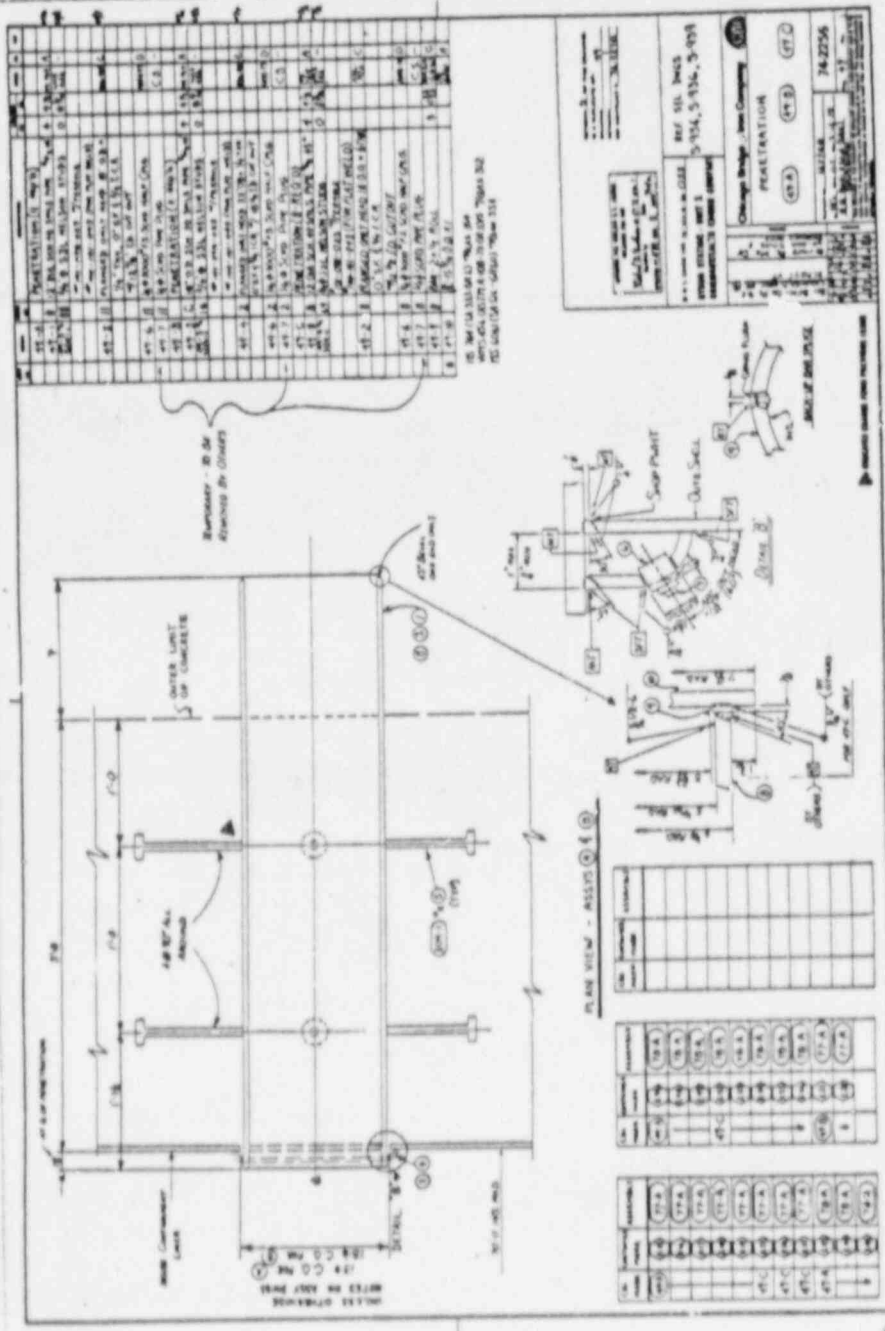


Fig 10
AS 0218
REVIEWED FOR

EYRON
SPEC NO. 2723 PROJ NO. 4391

COMMONWEALTH EDISON CO.
SARGENT & LUNDY
ENGINEERS

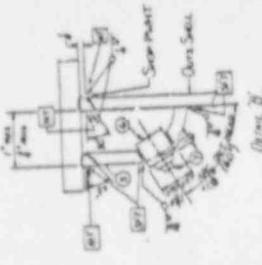
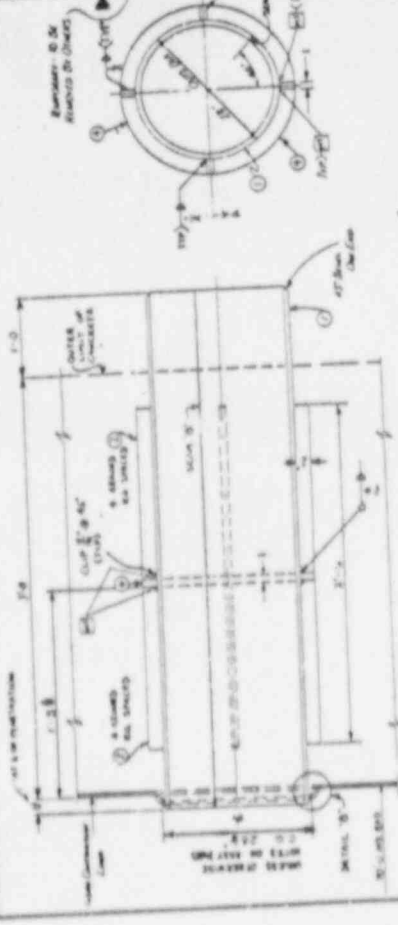
1. NO EXCEPTION TAKEN
CONTRACTOR CAN PROCEED
FABRICATION OR
CONSTRUCTION
2. CONTRACTOR CAN PROCEED
BASED ON MARKING REVISIONS
NOTED AND RESUBMIT.
3. REVISE AS NOTED AND
RESUBMIT.
HOLD FABRICATION

ANY ACTION SHOWN ABOVE IS
SUBJECT TO THE TERMS OF THE
CONTRACT AND DOES NOT RELIEVE
CONTRACTOR OF HIS OBLIGA-
TIONS UNDER THE CONTRACT,
INCLUDING DESIGN AND DETAILING
FOR CONTAINMENT LINER

EQUIPMENT NO. _____ DATE SEP 3 1974
BY W. R. TBO

NO.	DESCRIPTION	DATE	BY
1	AS SHOWN	7/24/74	W. R. TBO
2	REVISED TO SHOW ALL DIMENSIONS	8/1/74	W. R. TBO
3	REVISED TO SHOW ALL DIMENSIONS	8/1/74	W. R. TBO
4	REVISED TO SHOW ALL DIMENSIONS	8/1/74	W. R. TBO
5	REVISED TO SHOW ALL DIMENSIONS	8/1/74	W. R. TBO
6	REVISED TO SHOW ALL DIMENSIONS	8/1/74	W. R. TBO
7	REVISED TO SHOW ALL DIMENSIONS	8/1/74	W. R. TBO
8	REVISED TO SHOW ALL DIMENSIONS	8/1/74	W. R. TBO
9	REVISED TO SHOW ALL DIMENSIONS	8/1/74	W. R. TBO
10	REVISED TO SHOW ALL DIMENSIONS	8/1/74	W. R. TBO

ALL DIM. (SEE FIG. 10) 7/24/74 W. R. TBO



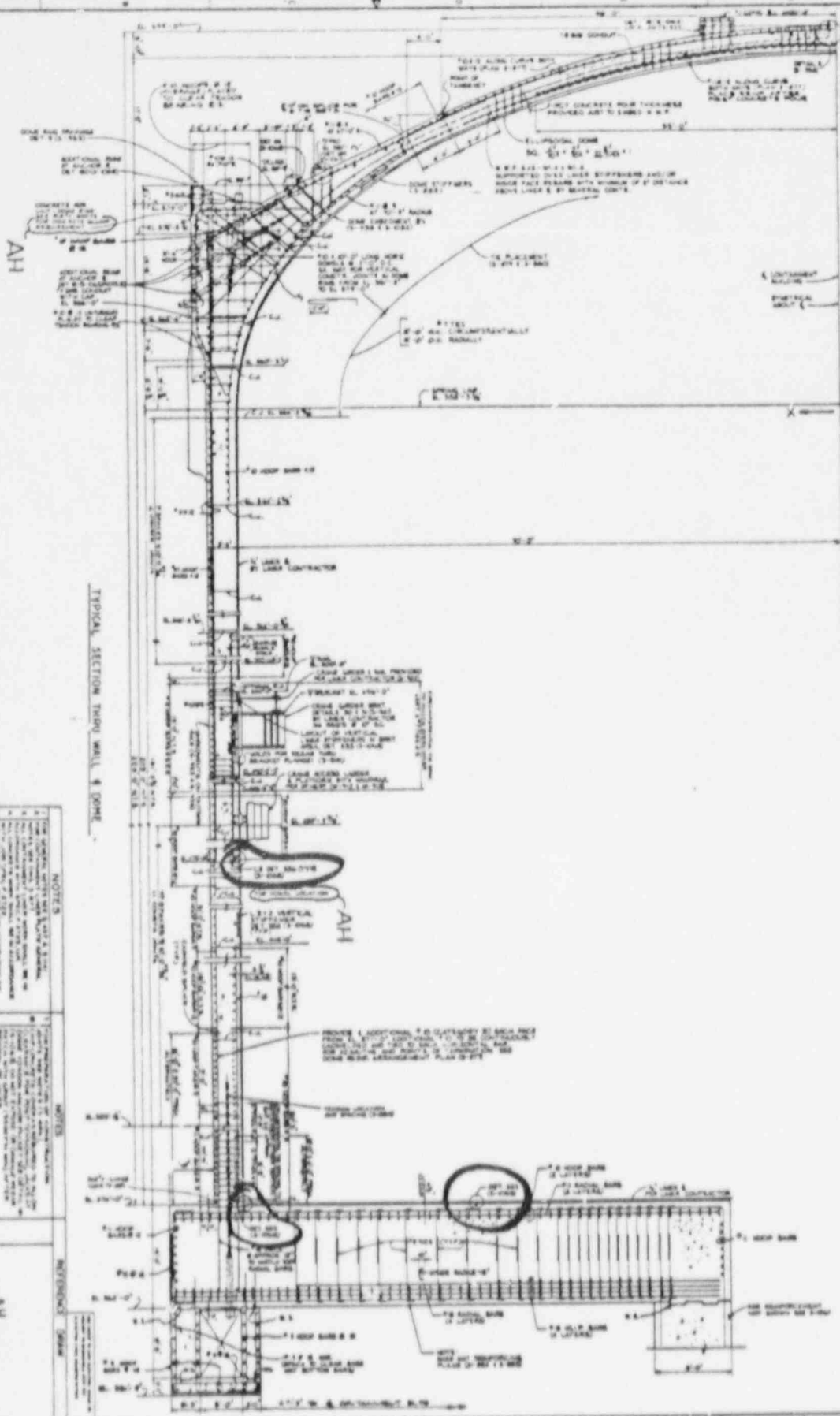
NO.	DESCRIPTION	DATE	BY
1	AS SHOWN	7/24/74	W. R. TBO
2	REVISED TO SHOW ALL DIMENSIONS	8/1/74	W. R. TBO
3	REVISED TO SHOW ALL DIMENSIONS	8/1/74	W. R. TBO
4	REVISED TO SHOW ALL DIMENSIONS	8/1/74	W. R. TBO
5	REVISED TO SHOW ALL DIMENSIONS	8/1/74	W. R. TBO
6	REVISED TO SHOW ALL DIMENSIONS	8/1/74	W. R. TBO
7	REVISED TO SHOW ALL DIMENSIONS	8/1/74	W. R. TBO
8	REVISED TO SHOW ALL DIMENSIONS	8/1/74	W. R. TBO
9	REVISED TO SHOW ALL DIMENSIONS	8/1/74	W. R. TBO
10	REVISED TO SHOW ALL DIMENSIONS	8/1/74	W. R. TBO

PROJECT NO.	2723
PROJECT NAME	EDISON CO. CONTAINMENT LINER
PROJECT LOCATION	EDISON CO. PLANT
PROJECT DATE	SEP 3 1974
PROJECT ENGINEER	W. R. TBO
PROJECT CHECKER	W. R. TBO
PROJECT APPROVER	W. R. TBO
PROJECT REVIEWER	W. R. TBO
PROJECT DESIGNER	W. R. TBO
PROJECT DRAFTER	W. R. TBO
PROJECT ESTIMATOR	W. R. TBO
PROJECT BUDGETER	W. R. TBO
PROJECT SCHEDULER	W. R. TBO
PROJECT COORDINATOR	W. R. TBO
PROJECT MANAGER	W. R. TBO
PROJECT SUPERVISOR	W. R. TBO
PROJECT OPERATOR	W. R. TBO
PROJECT MAINTENANCE	W. R. TBO
PROJECT INSPECTION	W. R. TBO
PROJECT TESTING	W. R. TBO
PROJECT RECORDS	W. R. TBO
PROJECT ARCHIVE	W. R. TBO
PROJECT RETRIEVAL	W. R. TBO
PROJECT SECURITY	W. R. TBO
PROJECT ACCESS	W. R. TBO
PROJECT PERMISSION	W. R. TBO
PROJECT DENY	W. R. TBO
PROJECT REVOKE	W. R. TBO
PROJECT RESTORE	W. R. TBO
PROJECT BACKUP	W. R. TBO
PROJECT RECOVERY	W. R. TBO
PROJECT DELETION	W. R. TBO
PROJECT PURGE	W. R. TBO
PROJECT ARCHIVE	W. R. TBO
PROJECT RETRIEVAL	W. R. TBO
PROJECT SECURITY	W. R. TBO
PROJECT ACCESS	W. R. TBO
PROJECT PERMISSION	W. R. TBO
PROJECT DENY	W. R. TBO
PROJECT REVOKE	W. R. TBO
PROJECT RESTORE	W. R. TBO
PROJECT BACKUP	W. R. TBO
PROJECT RECOVERY	W. R. TBO
PROJECT DELETION	W. R. TBO
PROJECT PURGE	W. R. TBO

16X

Attachment "A"

S-876



TYPICAL SECTION THRU WALL & DOME

NOTES

1. THE GENERAL NOTES FOR THIS PROJECT APPLY TO THIS SECTION.
2. ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE SPECIFIED.
3. MATERIALS AND METHODS OF CONSTRUCTION SHALL BE AS SPECIFIED IN THE SPECIFICATIONS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS.
5. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AT ALL TIMES.
6. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND STRUCTURES.
7. THE CONTRACTOR SHALL MAINTAIN RECORD DRAWINGS THROUGHOUT THE PROJECT.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL ADJACENT PROPERTIES.
9. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AT ALL TIMES.
10. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND STRUCTURES.

NOTES

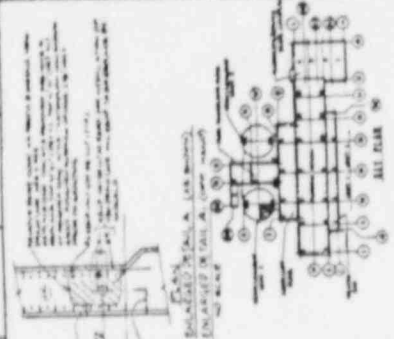
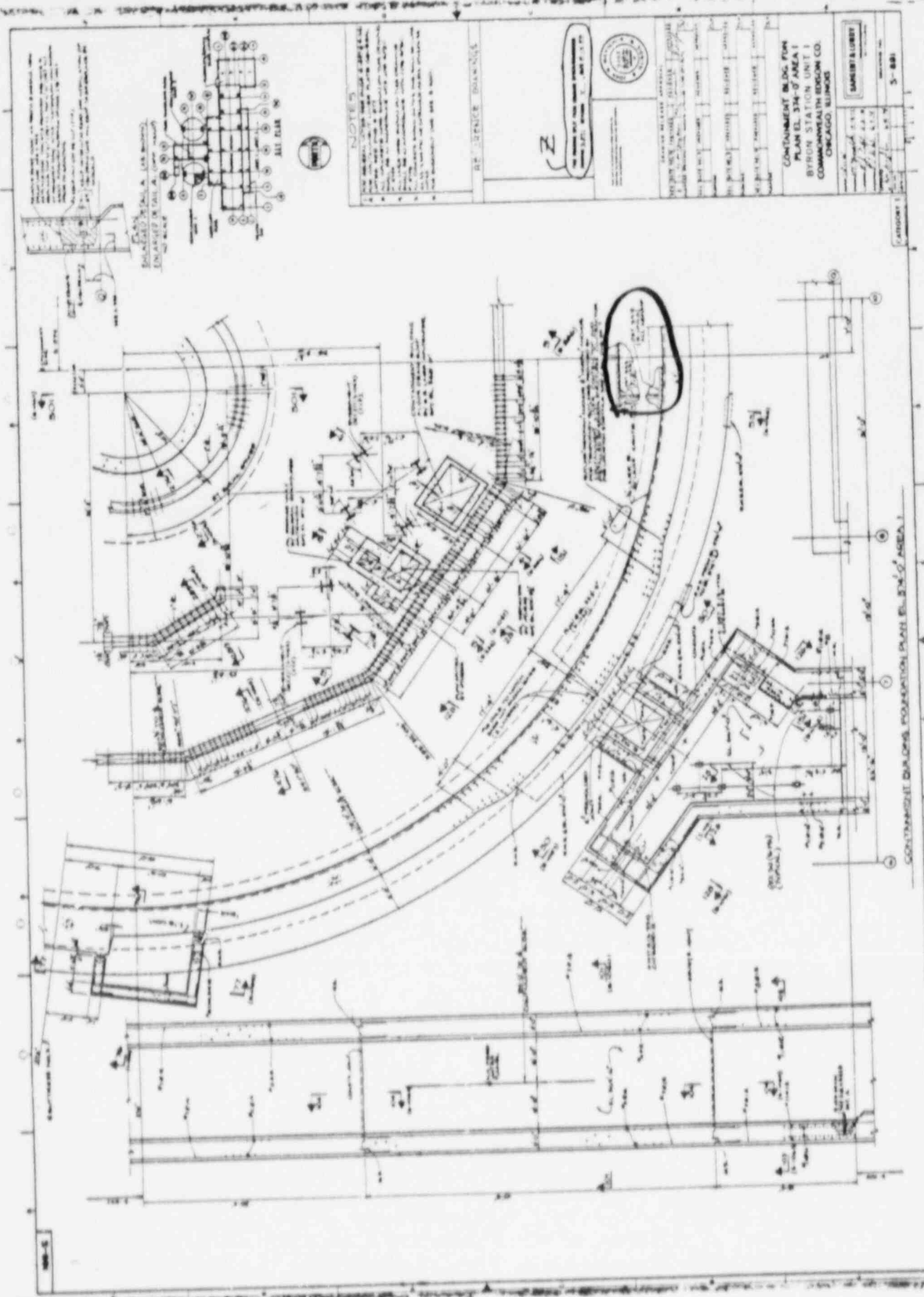
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS.
2. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AT ALL TIMES.
3. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND STRUCTURES.
4. THE CONTRACTOR SHALL MAINTAIN RECORD DRAWINGS THROUGHOUT THE PROJECT.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL ADJACENT PROPERTIES.

REFERENCES

SEE SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.

NO.	DESCRIPTION	QUANTITY	UNIT	PRICE	TOTAL
1	CONCRETE	100	CU YD	100.00	100.00
2	STEEL	50	TONS	50.00	50.00
3	LABOR	1000	HOURS	1000.00	1000.00
4	EQUIPMENT	10	UNITS	100.00	100.00
5	PERMITS	1	SET	100.00	100.00
6	PROTECTION	100	UNITS	100.00	100.00
7	UTILITIES	10	UNITS	100.00	100.00
8	RECORDING	100	UNITS	100.00	100.00
9	ADJACENT PROPERTIES	100	UNITS	100.00	100.00
10	UTILITIES AND STRUCTURES	100	UNITS	100.00	100.00

5-876



NOTES

1. ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED ARE IN FEET AND INCHES.
2. FINISHES ARE AS SHOWN ON THE FINISH SCHEDULE.
3. MATERIALS ARE AS SHOWN ON THE MATERIAL SCHEDULE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.
5. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AT ALL TIMES.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES AND STRUCTURES.
7. THE CONTRACTOR SHALL MAINTAIN A SAFE WORK AREA AT ALL TIMES.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL ADJACENT PROPERTIES.
9. THE CONTRACTOR SHALL MAINTAIN A CLEAN WORK AREA AT ALL TIMES.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL ADJACENT PROPERTIES.

BY: **EDWIN B. BROWN**

DATE: **APRIL 1, 1954**

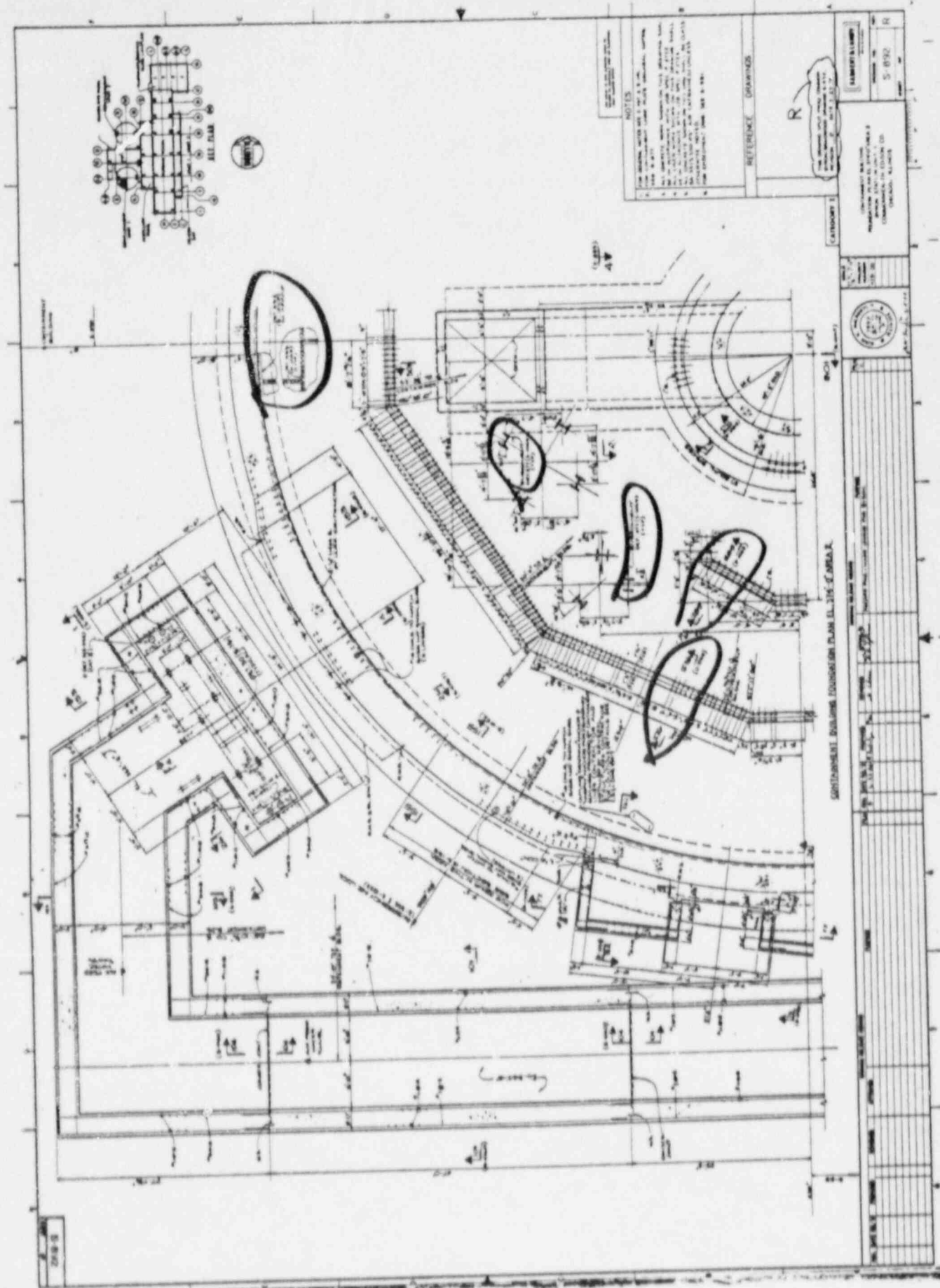
CONTRACTING BLDG. PLAN
PLAN NO. 314-D AREA 1
BYRON STATION UNIT 1
COMMONWEALTH REGION CO.
CHICAGO, ILLINOIS

SCALE: 1/8" = 1'-0"

DATE: 4-1-54

5-881

CONTINUED: BUILDING ELEVATION OF AREA 1



NOTES

1. ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED ARE IN FEET AND INCHES.
2. ALL WALLS UNLESS OTHERWISE SPECIFIED ARE 12" THICK.
3. ALL FLOORS UNLESS OTHERWISE SPECIFIED ARE 4" THICK.
4. ALL CEILING UNLESS OTHERWISE SPECIFIED ARE 8" THICK.
5. ALL ROOF UNLESS OTHERWISE SPECIFIED ARE 4" THICK.
6. ALL STRUCTURAL STEEL UNLESS OTHERWISE SPECIFIED IS A36.

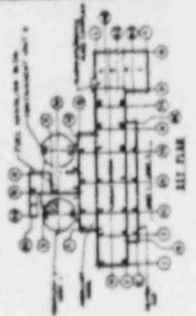
REFERENCE DRAWINGS

R

DESIGNED BY
 DRAWN BY
 CHECKED BY
 APPROVED BY

5-852

GOVERNMENT BUILDING FOUNDATION PLAN 11, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000



NOTES

1. THE FOUNDATION SHALL BE AS SHOWN ON THIS PLAN.
2. THE FOUNDATION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SPECIFICATIONS FOR FOUNDATION WORK, U.S. ARMY CORPS OF ENGINEERS, 1931 EDITION, AND THE LATEST REVISIONS THEREOF.
3. THE FOUNDATION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST REVISIONS OF THE U.S. ARMY CORPS OF ENGINEERS, 1931 EDITION, AND THE LATEST REVISIONS THEREOF.
4. THE FOUNDATION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST REVISIONS OF THE U.S. ARMY CORPS OF ENGINEERS, 1931 EDITION, AND THE LATEST REVISIONS THEREOF.
5. THE FOUNDATION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST REVISIONS OF THE U.S. ARMY CORPS OF ENGINEERS, 1931 EDITION, AND THE LATEST REVISIONS THEREOF.

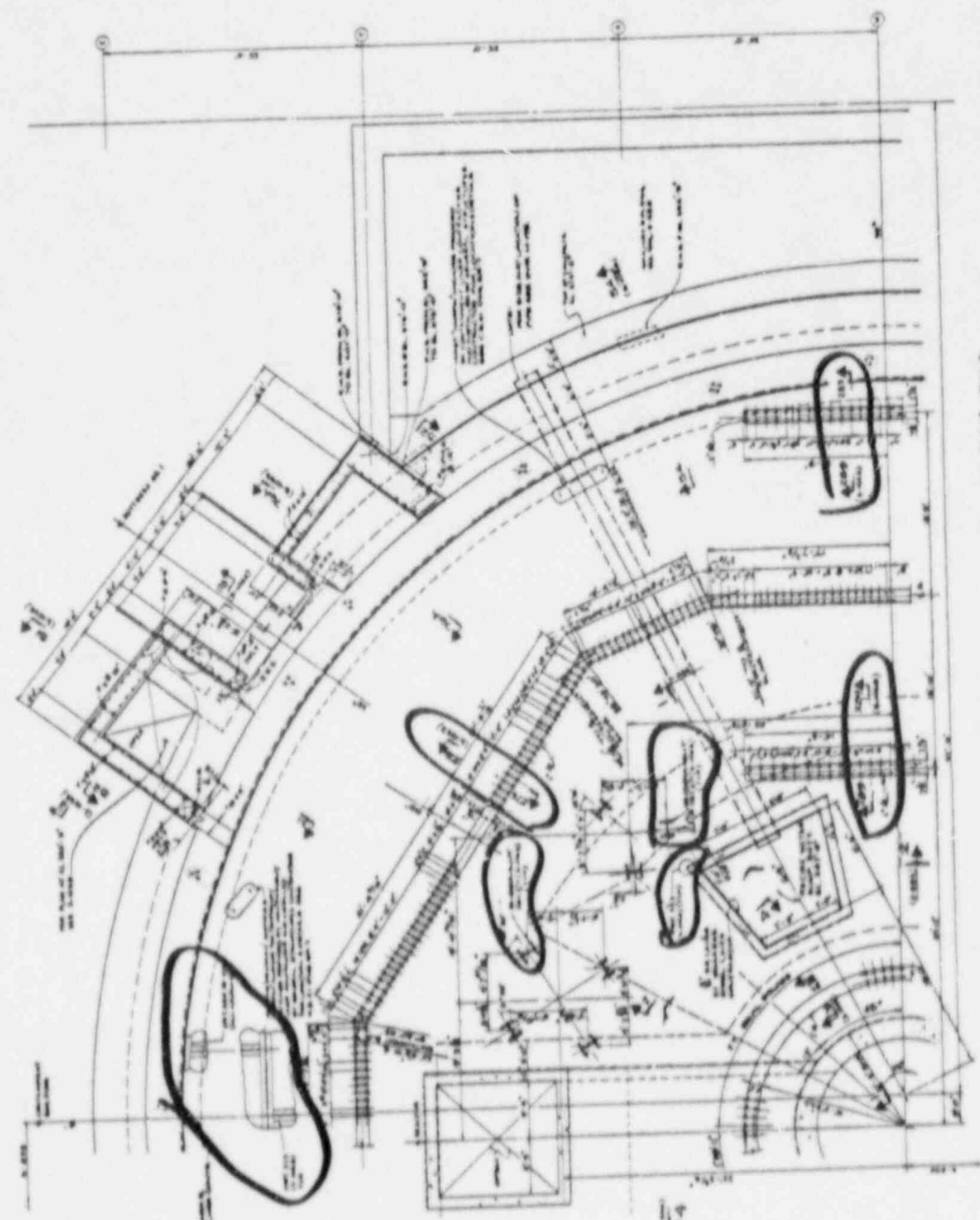
REFERENCE DRAWINGS

DESIGNER'S SIGNATURE

DATE

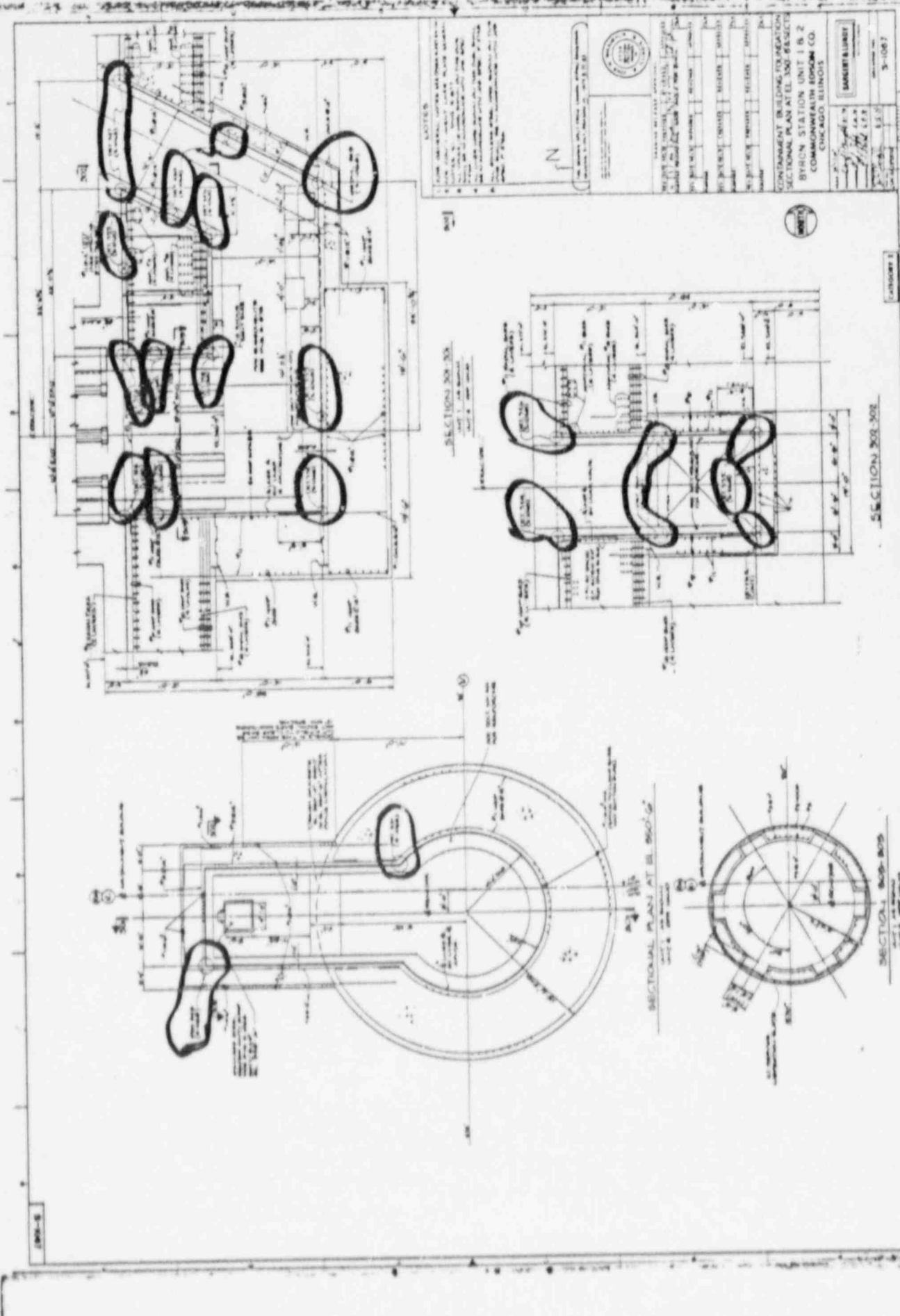
PROJECT NO.

SCALE



CONTAINMENT BUILDING FOUNDATION PLAN, EL. 204.0 OF AREA 2

<p>REVISIONS</p> <table border="1"> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	NO.	DESCRIPTION	DATE													<p>PROJECT NO.</p> <p>DATE</p> <p>SCALE</p> <p>DESIGNER'S SIGNATURE</p> <p>DATE</p>
NO.	DESCRIPTION	DATE														



NOTES:
 1. ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED ARE IN FEET AND INCHES.
 2. FINISHES ARE TO BE AS SHOWN ON THE FINISH SCHEDULE.
 3. ALL WORK SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS FOR THE PROJECT.
 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS.
 5. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES.
 6. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
 7. THE CONTRACTOR SHALL MAINTAIN THE SITE AT ALL TIMES.
 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL DEBRIS.
 9. THE CONTRACTOR SHALL MAINTAIN THE SITE AT ALL TIMES.
 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL DEBRIS.

CONTRACTOR: [Redacted]
 ARCHITECT: [Redacted]
 ENGINEER: [Redacted]

CONTINGENT ON AWARD OF CONTRACT
 SECTIONAL PLAN AT EL. 300.00
 BYRON STATION UNIT 1 & 2
 HOSKINS CO.
 CHICAGO, ILLINOIS

3-1007

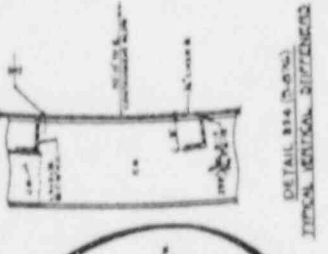
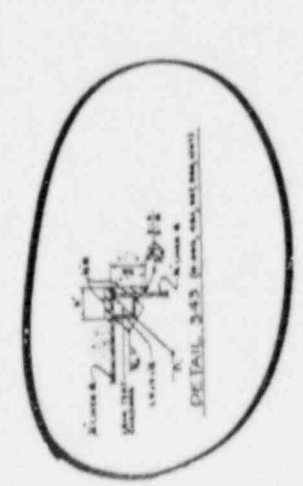
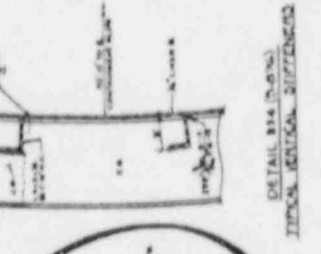
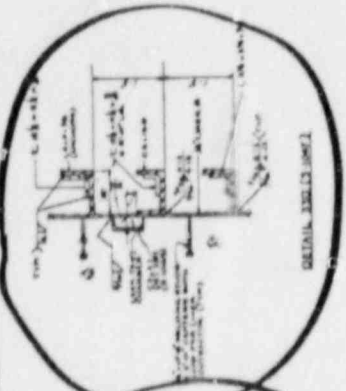
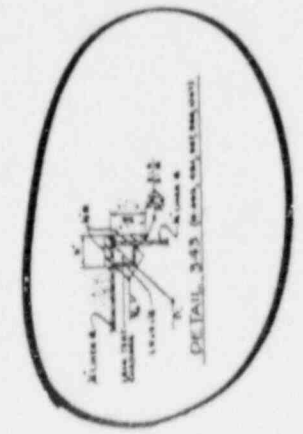
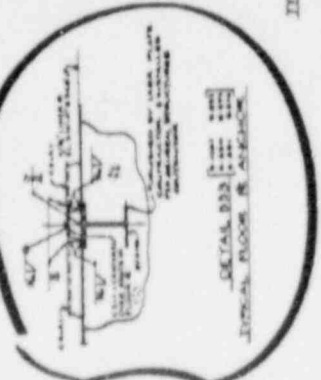
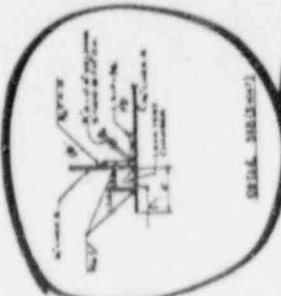
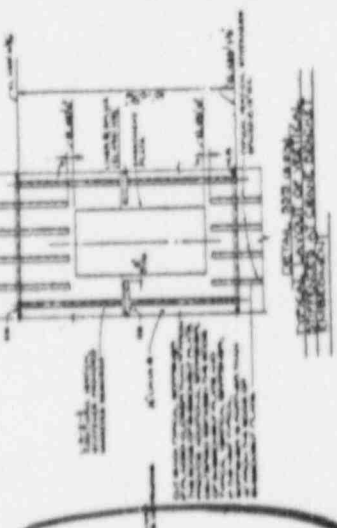
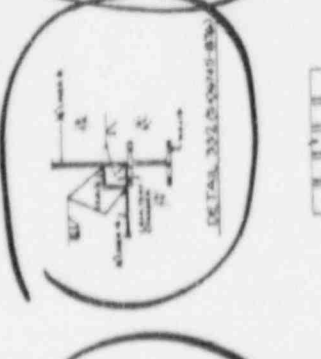
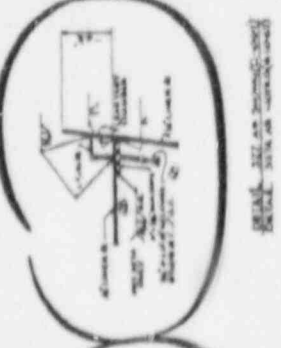
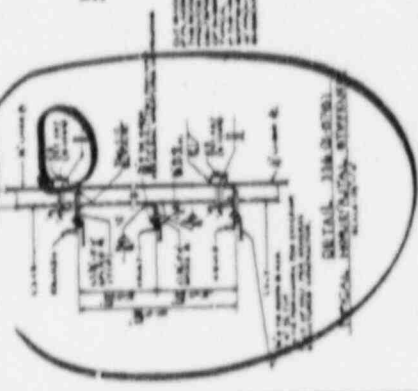
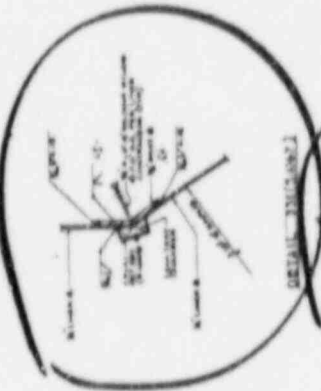
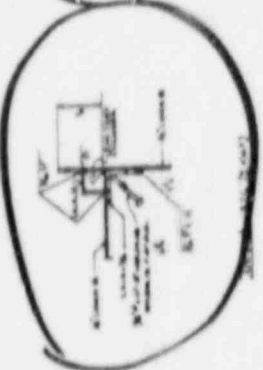
SECTION 300-300

SECTION 300-300

SECTIONAL PLAN AT EL. 300.00

SECTION 300-300

9995-5



NOTES

1. THIS DRAWING SHOWS THE GENERAL CONSTRUCTION OF THE JOINT. THE EXACT DIMENSIONS AND MATERIALS SHALL BE AS SHOWN ON THE DRAWING.

REFERENCE DRAWINGS

C.N.

COMPONENTS OF THE JOINT SHALL BE IDENTIFIED BY LETTERS A THROUGH K AS SHOWN ON THIS DRAWING.

DATE: 5-10-68

DESIGNER: [Signature]

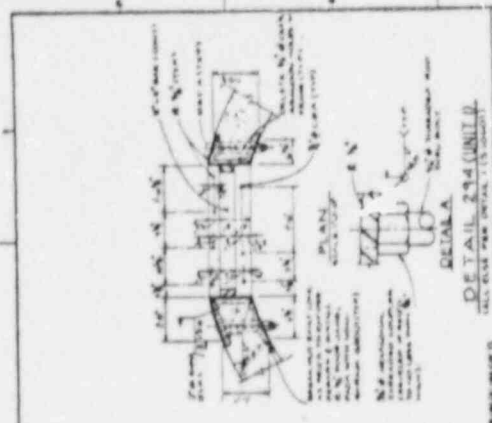
CHECKER: [Signature]

APPROVED: [Signature]

TITLE: [Title]

PROJECT: [Project]

SCALE: [Scale]

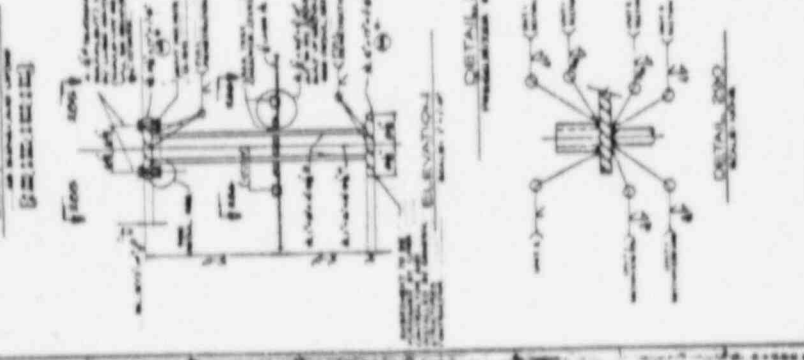
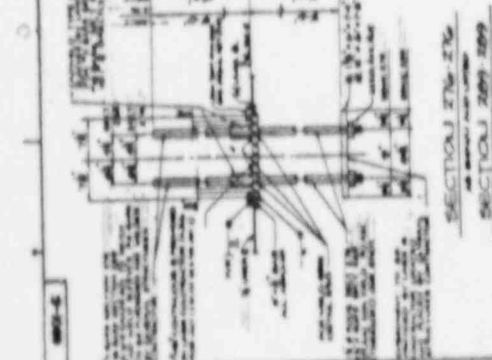
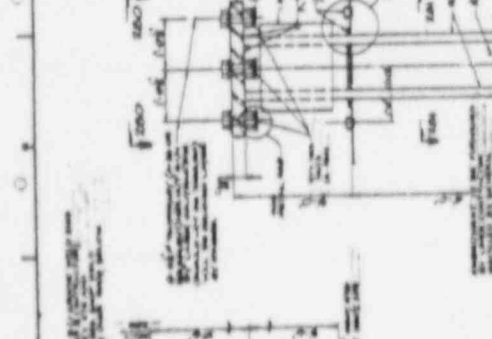
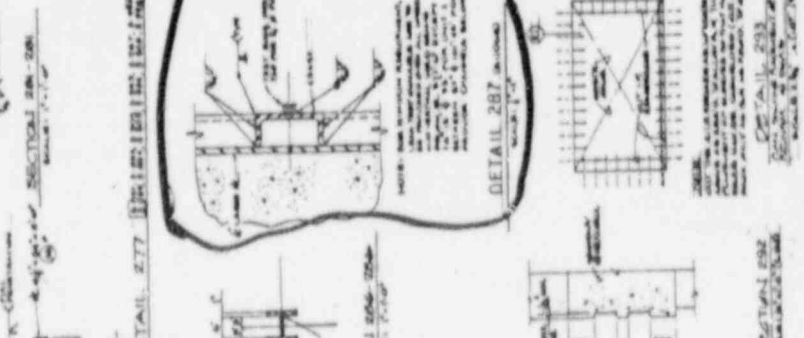
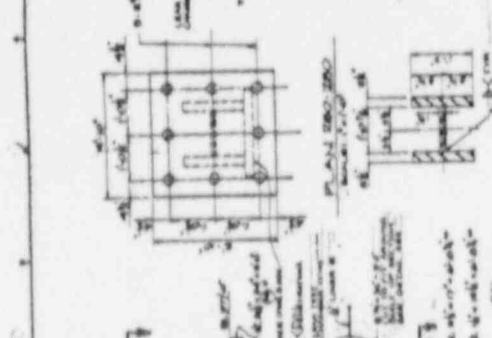
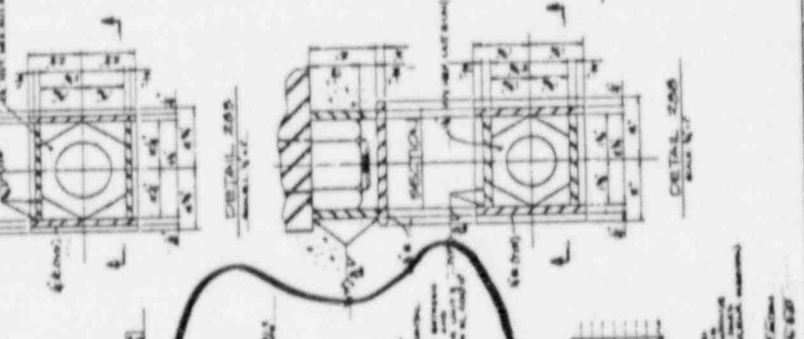
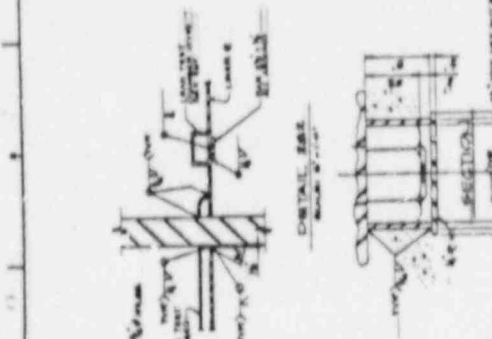


REFERENCE DRAWINGS

CR

CONTAINMENT BUILDING
SECTIONS & DETAILS
BYRON STATION UNIT I & 2
COMMONWEALTH EDISON CO.
CHICAGO, ILLINOIS

DATE: 11/15/50
DRAWN BY: J. W. B. 11/15/50
CHECKED BY: J. W. B. 11/15/50
APPROVED BY: J. W. B. 11/15/50



SECTION 303

SECTION 304

SECTION 305

SECTION 306

SECTION 307

SECTION 308

SECTION 309

SECTION 310

SECTION 311

SECTION 312

SECTION 313

SECTION 314

SECTION 315

SECTION 316

SECTION 317

SECTION 318

SECTION 319

SECTION 320

See AS 021814
 REVIEWED FOR

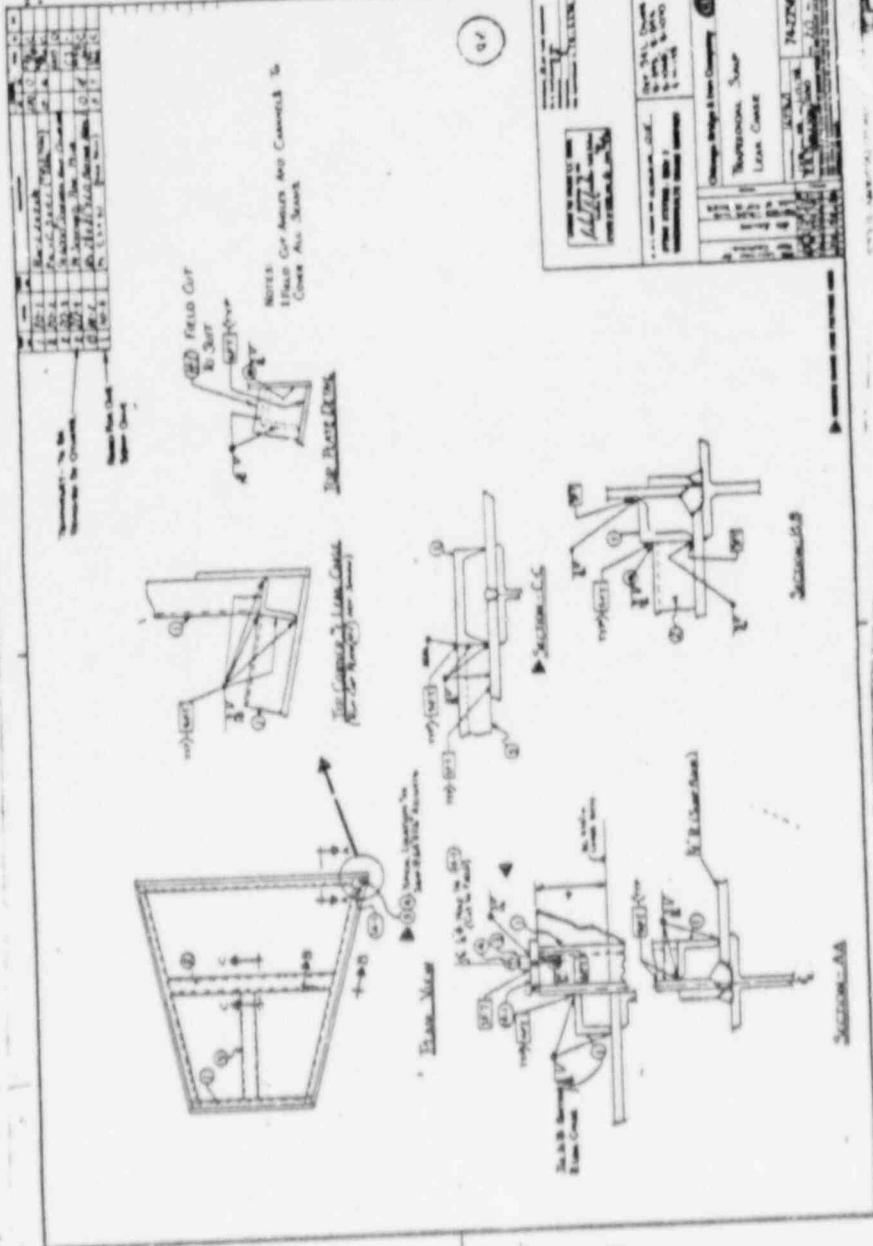
BYRON
 UNIT 1
 SPEC. NO. F. 2725 PROJ. NO. 4191

COMMONWEALTH EDISON CO.
 SARGENT & Lundy
 ENGINEERS

- 1. NO EXCEPTION TAKEN WITH FABRICATION OR CONSTRUCTION PROCESSED BY CONTRACTOR CAN BE SUBJECT TO REVISIONS AND REWORK
- 2. REVISE AS NOTED AND RESUBMIT
- 3. HOLD FABRICATION

ANY ACTION SHOWN ABOVE IS SUBJECT TO THE TERMS OF THE CONTRACT AND DOES NOT BELIEVE CONTRACTOR FROM THE CONTRACT UNDER ANY CIRCUMSTANCES INCLUDING SIGNING DRAWINGS

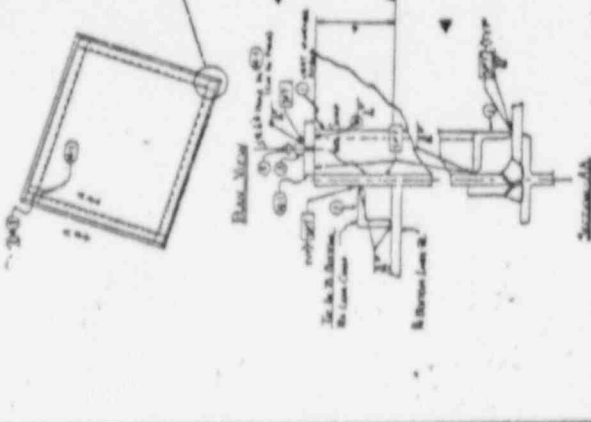
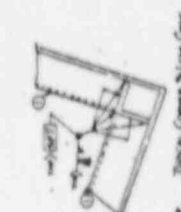
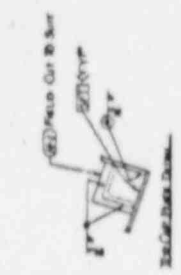
4. CONTAINMENT LINER
 EQUIPMENT NO. [REDACTED]
 B. S. 190 DATE [REDACTED]



16X

No. 22875
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 SPEC. NO. P. 2727 PROJ. NO. 4781
 COMMERCIAL IN EDISON CA
 BARGENT & LUDDE
 ENGINEERS
 CONTRACTOR CAN PROCEED
 WITH FABRICATION OF
 CONSTRUCTION AND/OR
 INSTALLATION OF
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 BEING AS NOTED AND
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 ANY ACTION ABOVE
 SUBJECT TO THE TERMS OF THE
 CONTRACT AND DOES NOT RELIEVE
 CONTRACTOR FROM OBLIGATION
 INCLUDING DESIGN AND DETAILS
 FOR CONTAINMENT LINED
 EQUIPMENT NO.
 BY B. S. 1961 DATE
 1961 8, 24

NO.	DESCRIPTION	QTY.	UNIT	REMARKS
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NOTES:
 1. Refer to Appendix B, Item A.1.
 2. ...

PROJECT NO. 2727 PROJECT NAME DRAWING NO. 16X DATE 8/24/61	DESIGNER CHECKED APPROVED
PROJECT NO. 2727 PROJECT NAME DRAWING NO. 16X DATE 8/24/61	PROJECT NO. 2727 PROJECT NAME DRAWING NO. 16X DATE 8/24/61

16X

16X

REVIEWED FOR

BY

ENGINEER IN CHARGE

COMMONWEALTH EDISON CO.

300 WEST 20TH ST.

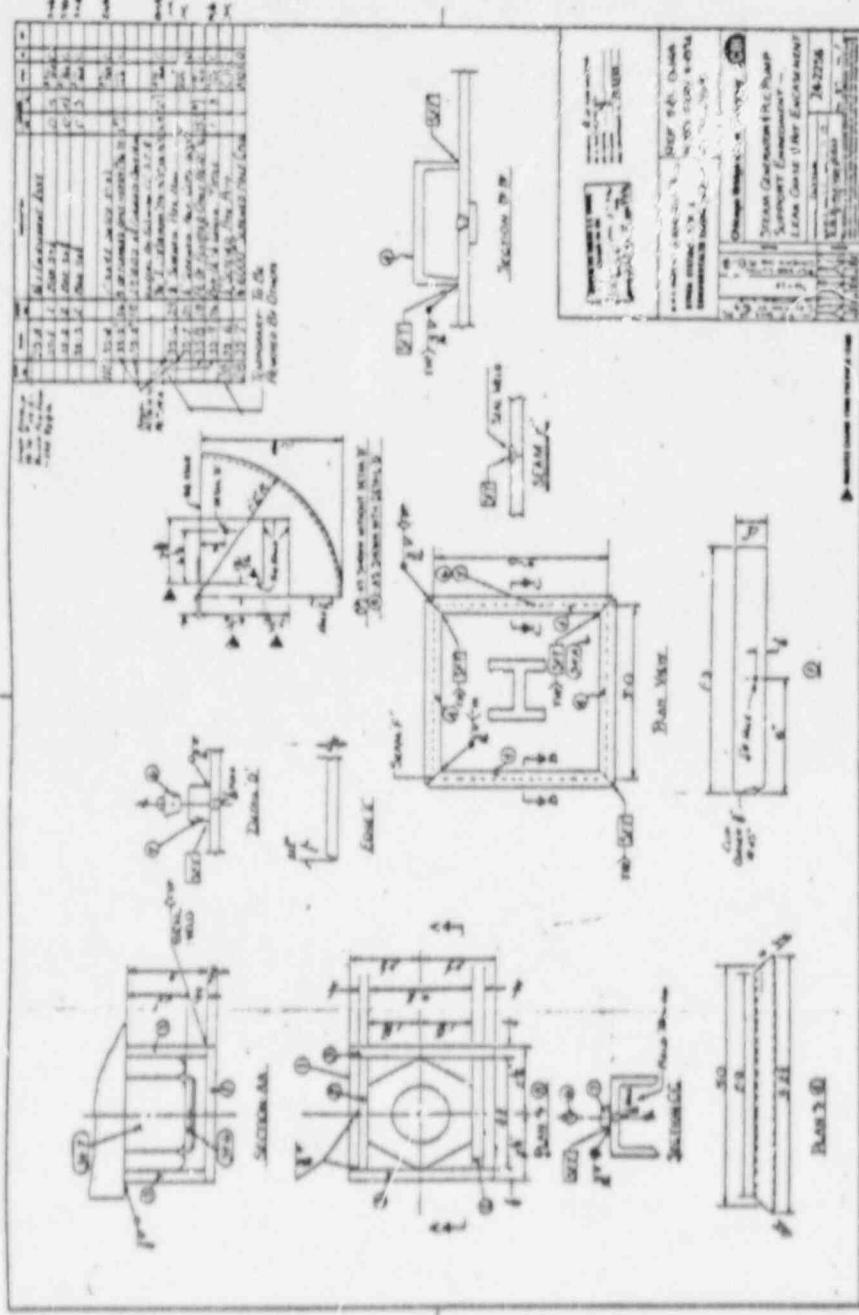
PHILADELPHIA, PA.

- 1 NO EXCEPTION TAKEN
- 2 CONSTRUCTION CANNOT BE MADE WITH FACILITATION OR
- 3 CONSTRUCTION CANNOT BE MADE WITHOUT
- 4 CONSTRUCTION CANNOT BE MADE WITHOUT FACILITATION
- 5 CONSTRUCTION CANNOT BE MADE WITHOUT FACILITATION AND
- 6 CONSTRUCTION CANNOT BE MADE WITHOUT FACILITATION AND

ANY ACTION SHOWN ABOVE IS SUBJECT TO THE TERMS OF THE CONTRACT AND SHOULD BE MADE BY THE CONTRACTOR UNDER THE CONTRACT INCLUDING DURING AND IN FULL.

EQUIPMENT NO. _____ DATE _____

BY _____



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REVIEWED FOR

BYRON UNIT 1

SPIC NO P 2 225 PROJ NO 4391

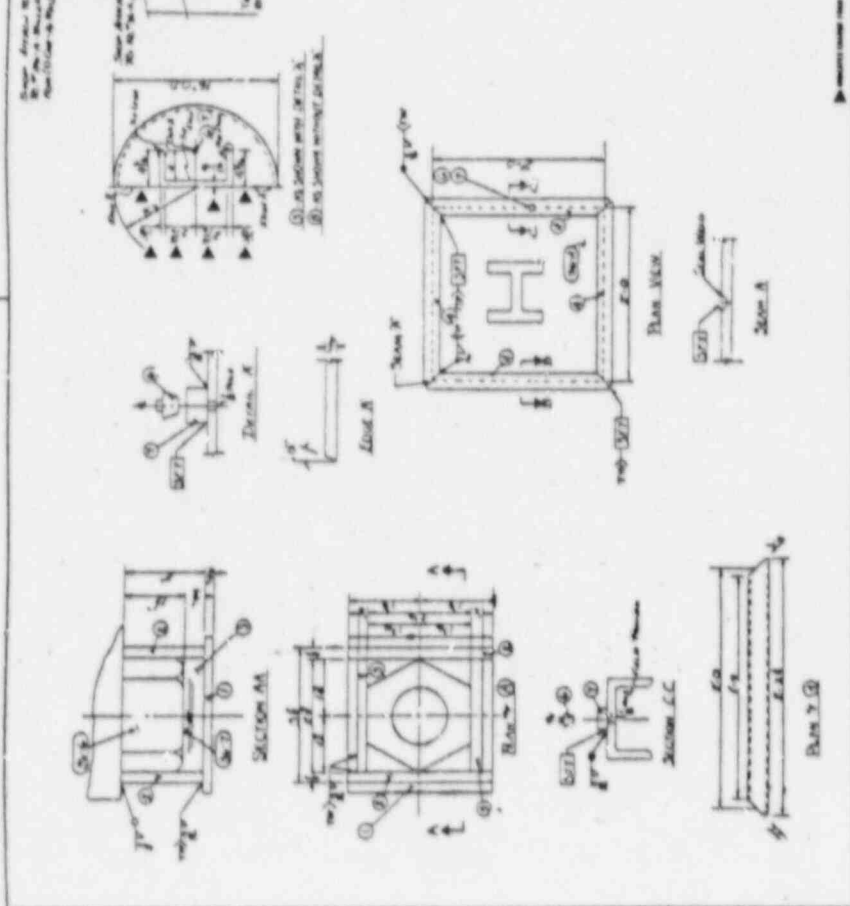
COMMERCIAL EDISON CO. SARGENT & LUNDY ENGINEERS

- 1. NO EXCEPTION TAKEN WITH FACILITATION OR CONS. SOLUTION PROPOSED. DESIGN SUBJECT TO BE REVISOR'S REVIEW AND APPROVAL.
- 2. REVISE AS NOTED AND RESUBMIT
- 3. HOLD FACILITATION

ANY ACTION SHOWN ABOVE IS SUBJECT TO THE TERMS OF THE CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF THE CONTAINMENT LINER.

EQUIPMENT NO. _____ DATE: _____

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DESIGNED BY: _____

CHECKED BY: _____

DATE: _____

PROJECT: _____

DESCRIPTION: _____

SCALE: _____

REVISIONS:

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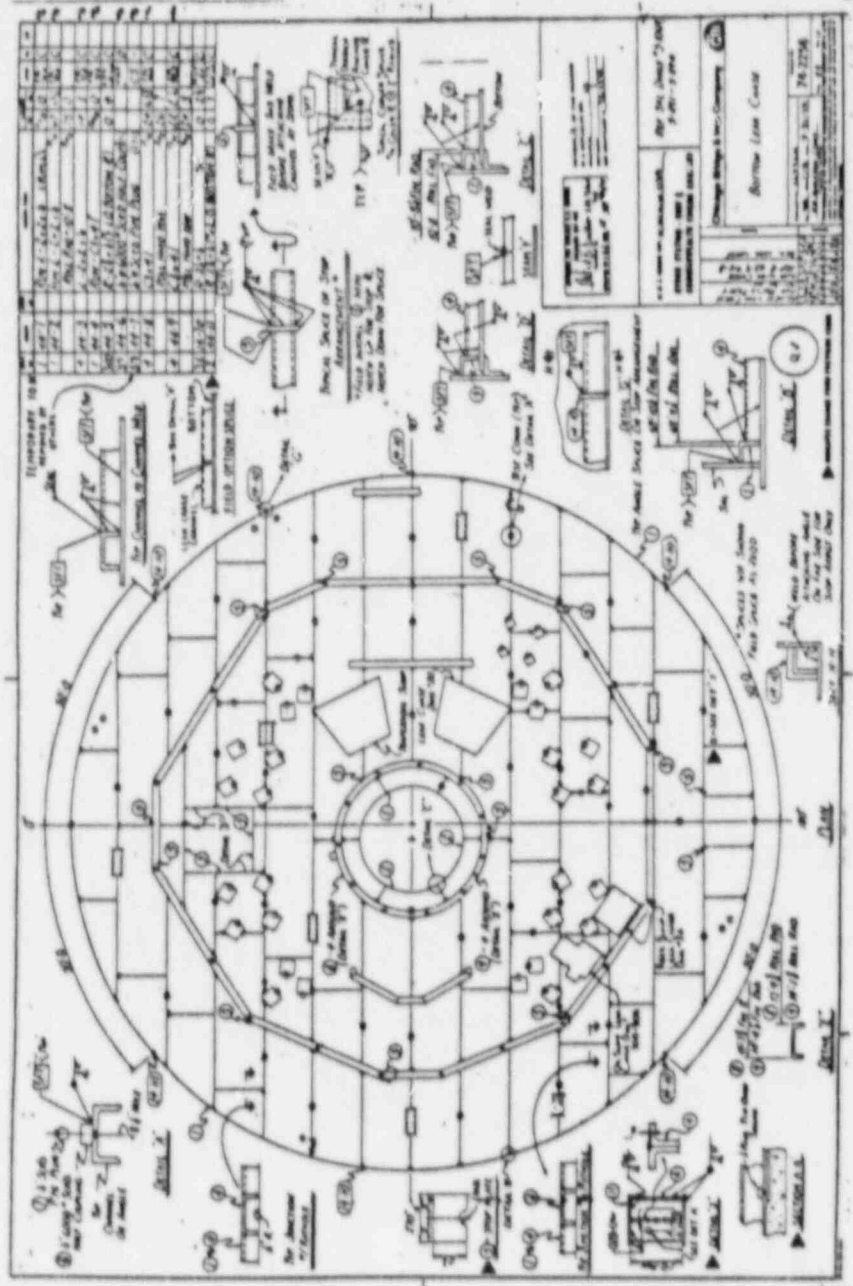
RECEIVED
 JUN - 11 1977
 SARGENT & LUNDY
 MOBILE

REVIEWED FOR

BYRON
 SARGENT & LUNDY
 ENGINEERS
 SPEC NO. 4.313 PROJ NO. 4391
 COMMONWEALTH EDISON CO

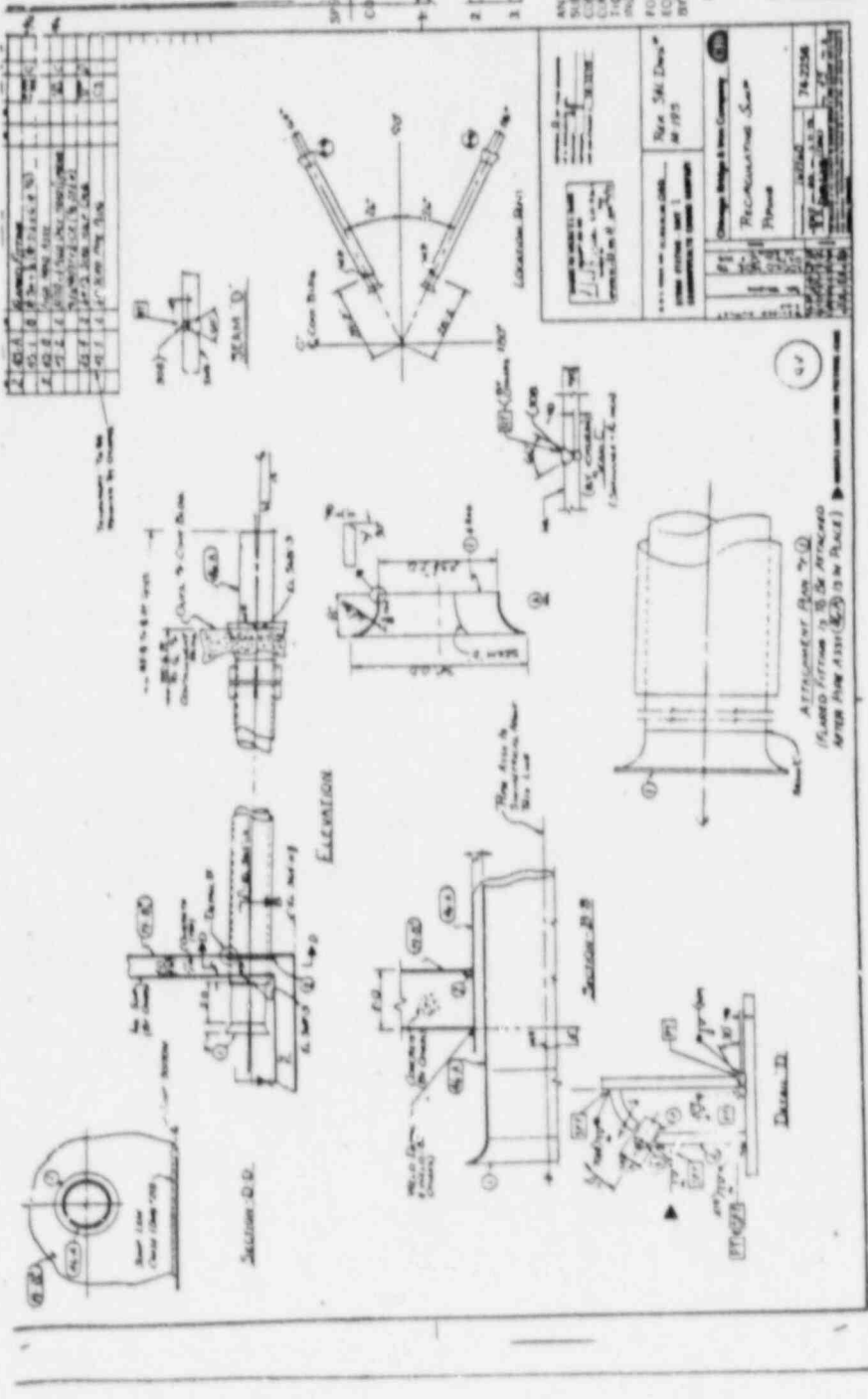
1. NO EXCEPTION TAKEN FOR WORK NOT SHOWN ON THIS DRAWING UNLESS SPECIFICALLY NOTED AND APPROVED BY THE CONTRACTOR.
2. CONTRACTOR CAN PROCEED WITH WORK ONLY AFTER THE CONTRACTOR HAS OBTAINED ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY AND COUNTY ENGINEERS.
3. REVISIONS NOTED AND APPROVED BY THE CONTRACTOR.

ANY ACTION SHOWN ABOVE IS SUBJECT TO THE TERMS OF THE CONTRACT AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY AND COUNTY ENGINEERS.



15X

SARGENT & LUNDY
 ENGINEERS
 MOBILE, ALABAMA



RECEIVED
FEB-23 1957
ARGENT
LUNDT

REVIEW ALSO FOR
BYRON
UNIT 3
SPEC. NO. F-41224700 NO. 8723
COMMONWEALTH EDISON CO
SARGENT & Lundy
ENGINEERS
 NO EXCEPT IN WRITING
CONSTRUCTION PERMITTED
OR
CONSTRUCTION CAN PROCEED
ONLY ON WRITING APPROVAL
FIELD AND NO DIRECT AND
REVISED
FIELD INSPECTION
ANY ACTION SHOULD BE TAKEN
SUBJECT TO THE PROVISIONS OF THE
CONTRACT FROM THE DRAWINGS
ISSUED UNDER THE CONTRACT
INCLUDING ALL CORRECTIONS
EQUIPMENT NO. 10
DATE: 1-10-57

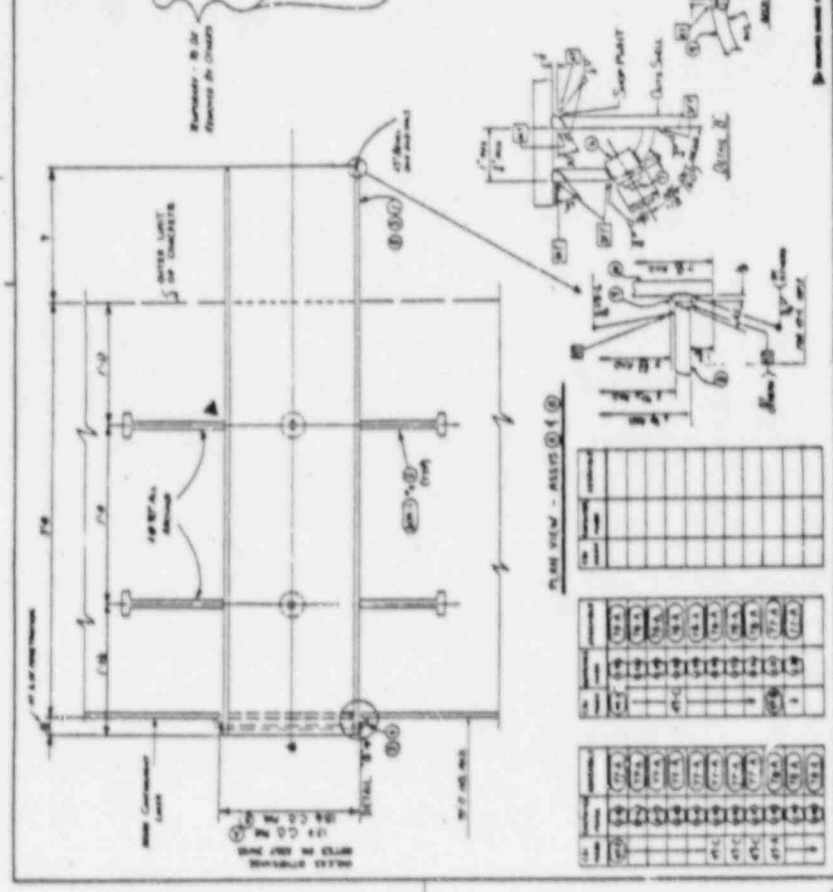
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EC'D
 APR 22 1954
 REVIEWED FOR
 BYRON
 UNIT 1
 SPEC NO. F-22990U NO 4393

COMMONWEALTH EDISON CO.
 SARGENT & LURNEY
 ENGINEERS

1. NO EXCEPTION TAKEN WITH FABRICATION OR CONSTRUCTION UNLESS NOTED AND IN SUBMIT.
2. NO EXCEPTION TAKEN WITH FABRICATION OR CONSTRUCTION UNLESS NOTED AND IN SUBMIT.
3. NO EXCEPTION TAKEN WITH FABRICATION OR CONSTRUCTION UNLESS NOTED AND IN SUBMIT.

NO.	DESCRIPTION	DATE	BY	CHKD.
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NO.	DESCRIPTION	DATE	BY	CHKD.
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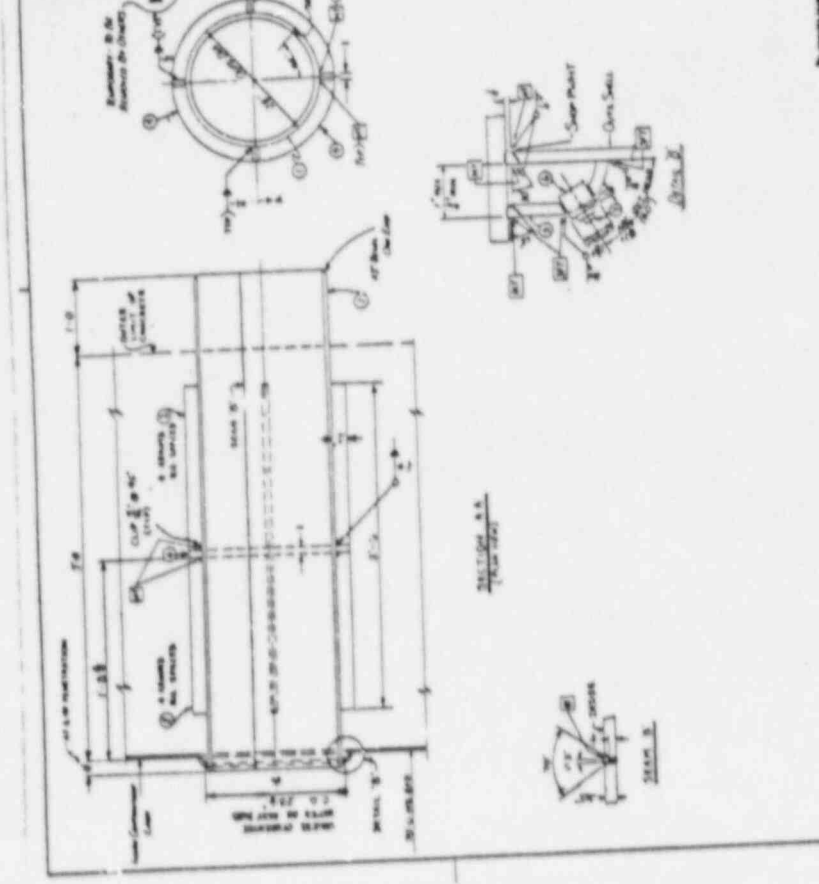
(Faint handwritten notes and signatures at the bottom of the page, including a signature that appears to be 'W. H. 1954' and some illegible text.)

700' 1/2
 400 2281A
REVIEWED FOR
 KYLEON
 PROJECT # 2725 RD NO 4291
 COMMONWEALTH EDISON CO
 BARGENT & LUNDY
 ENGINEERS

- 1. NO EXCEPTION TAKEN
CONTRACTOR CAN PROCEED
WITH FABRICATION OR
CONSTRUCTION UNLESS
CONTRACTOR HAS PROVIDED
SUFFICIENT PROVISIONS
FOR HOLDING MATERIAL
AND WORK.
- 2. REVISE AS NOTED AND
RESUBMIT
- 3. HOLD FABRICATION
SUBJECT TO THE TERMS OF THE
CONTRACT AND DO NOT
CONTRACTOR FOR THE
FACTS AND FIGURES CONTAINED
HEREIN UNLESS INDICATED
FOR "CONTAINMENT LINER"

EQUIPMENT NO. DATE SEP 03 1978
 BY

ITEM	DESCRIPTION	QTY	UNIT
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ITEM	DESCRIPTION	QTY	UNIT
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REF: 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

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Attachment
"B"

FOR REFERENCE



NUCLEAR RECORD INDEX

SARGENT & LUNDY
 1. REVIEWED
ATTORNEY GENERAL DOES NOT RELIEVE CONTRACTOR FROM HIS OBLIGATIONS UNDER THE CONTRACT.
 LORETTA A. MESSEX 1-75-82
 BY DATE
 SPEC. NO. F2225 PROJ. NO. 4391-05

Document Number	Number of Pages	DESCRIPTION	DATE
		Welder Qualifications Name, Process & Filler Metal (F. No.)	
1	2	Verlon L. Trickle SMA F4	VLТ
2	1	Hulon J. Dykes SMA F4	HJD (Transferred)
3	1	Maurice D. Jones SMA F4	MDJ (Transferred)
4	2	Thomas E. Bowen SMA F4	TEB (Transferred)
5	3	Joseph M. Graham SMA F4	JMG (Transferred)
6	1	Charles R. Kindred SMA F4	CRK (Transferred)
7	1	Thomas J. Poston SMA F4	TJP (Transferred)
8	1	Juan A. Orellana SMA F4	JAO (Transferred)

COPIES of documents covered by this index are certified to be true copies

Date 12-15-76

Signature Verlon Trickle

CCC

Office Code

8.10

Classification

74-2256

Contract Number

Page 1 of 16

Folder 1 of 4

FOR REFERENCE



NUCLEAR RECORD INDEX

Document Number	Number of Pages	DESCRIPTION	
		Welder Qualifications Name, Process & Filler Metal (F. No.)	
9	2	Richard E. Saffeels	RES (Transferred)
		SMA	
		F4	
10	1	Hipolito G. Silva	HGS (Transferred)
		SMA	
		F4	
11	2	Daniel J. McCarty	DJM <i>Transferred</i>
		SMA	
		F4	
		F5	
12	1	Steven R. Bauer	SRB
		SMA	
		F4	
13	2	Michael L. Enoch	MLE
		SMA	
		F4	
		F5	
14	2	Jack N. Curley	JNC <i>Quit</i>
		SMA	
		F4	
15	1	Maurice D. Jones	MDJ (Transferred)
		SMA	
		F4	
16	1	Gary L. Mitchell	GLM (Transferred)
		SMA	
		F4	

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Date 12-15-76

Signature *Walter T. ...*

ccc
Office Code

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Classification

74-2256
Contract Number

Page 2 of 10

Folder 1 of 4

FOR REFERENCE



NUCLEAR RECORD INDEX

Document Number	Number of Pages	DESCRIPTION	
		Welder Qualifications Name, Process & Filler Metal (F. No.)	
17	2	Fred A. Lusch	FAL (Transferred)
		SMA	
		F4	
		F5	
18	1	Charles F. Shonkwiler	CFS
		SMA	
		F4	
19	2	Frank H. Neukirchner	FHN
		SMA	
		F4	
20	2	Donald L. Peterson	DLP
		SMA	
		F4	
		F5	
21	1	Larry C. Poppel	LGP <i>Quit</i>
		SMA	
		F4	
22	1	Gary J. Becker	GJB <i>Quit</i>
		SMA	
		F4	
23	3	Heino Witt	HW <i>Transferred</i>
		SMA	
		F4	
24	1	Charles E. Pigg	CEP <i>Transferred</i>
		SMA	
		F4	

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Signature *Walter Trubel*

CCC
Office Code

8.10
Classification

74-2256
Contract Number

Page 3 of 10

Folder 1 of 4

FOR REFERENCE



NUCLEAR RECORD INDEX

Document Number	Number of Pages	DESCRIPTION	
		Welder Qualifications Name, Process & Filler Metal (F. No.)	
25	1	Michael L. Thomas	MLT (Transferred)
		SMA	
		P4	
26	2	Danny G. Reed	DGR <i>Quit</i>
		SMA	
		F4	
27	1	Thomas A. Puruis	TAP (Transferred)
		SMA	
		P4	
28	2	Robert S. Boyd	RSB <i>Quit</i>
		SMA	
		F4	
29	1	G. William Pierce	CWP <i>Quit</i>
		SMA	
		F4	
30	1	Donald E. Nelson	DEN <i>Quit</i>
		SMA	
		F4	
31	2	Rodney J. Holliday	RJH
		SMA	
		P4	
32	1	Stanley L. Stewart	SLS <i>Transferred</i>
		SMA	
		P4	

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Date 12-15-76

Signature Verlon Tickle

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Office Code

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Classification

74-2256
Contract Number

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FOR REFERENCE



NUCLEAR RECORD INDEX

Document Number	Number of Pages	DESCRIPTION	
		Name, Process & Filler Metal (F. No.)	
33	1	Carl R. White	CRW <i>Transferred</i>
		SMA	
		F4	
34	3	Gerold Gene Jouett	GGJ (Transferred)
		SMA	
		F4	
		F5	
35	1	Robert Roy Stewart	RRS <i>Transferred</i>
		SMA	
		F4	
36	1	Dennis W. Jacobson	DWJ <i>Quit</i>
		SMA	
		F4	
37	1	Peter J. Hackett	PJH
		SMA	
		F4	
38	1	William B. Squires Jr.	WBS
		SMA	
		F4	
39	1	Clifford Leroy Schulze	CLS
		SMA	
		F4	
40	1	Dennis N. Robertson	DNR (Transferred)
		SMA	
		F4	

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CBI NUCLEAR RECORD INDEX

Document Number	Number of Pages	DESCRIPTION	
		Name, Process & Filler Metal (F. No.)	
41	1	Gary W. Dixon	GWD
		SMA	
		F4	
42	2	Wesley T. Enloe	WTE
		SMA	
		F4	
		F5	
43	1	Edd G. Chilsom	EGC <i>Quit</i>
		SMA	
		F4	
44	1	Curtis D. Richards	CDR
		SMA	
		F4	
45	2	Vancel R. Absher	VRA <i>Quit</i>
		SMA	
		F4	
		F5	
46	1	Rolland G. Jensen	RGJ <i>Transferred</i>
		SMA	
		F4	
47	2	Ernest L. Bankston	ELB
		SMA	
		F4	
48	1	Larry R. Hostetler	LRH <i>Transferred</i>
		SMA	
		F4	

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NUCLEAR RECORD INDEX

Document Number	Number of Pages	DESCRIPTION	
		Welder Qualifications Name, Process & Filler Metal (F. No.)	
49	1	Perry J. Need	PJN <i>Transferred</i>
		SMA	
		F4	
50	1	Steve E. Hopkins	SEH <i>Quit</i>
		SMA	
		F4	
51	1	Eugene J. Wapniarski	EJW <i>Quit</i>
		SMA	
		F4	
52	2	Tommy W. Cochran	TWC <i>Transferred</i>
		SMA	
		P4	
53	1	James H. Haney	JHH <i>Quit</i>
		SMA	
		F4	
54	1	James M Buchanan	JMB
		SMA	
		P4	
55	1	James D. Armoto	JDA <i>Transferred</i>
		SMA	
		Tacker Only	
56	1	Frank L. Marsh	FIM
		SMA	
		F4	

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NUCLEAR RECORD INDEX

Document Number	Number of Pages	DESCRIPTION	
		Welder Qualifications Name, Process & Filler Metal (F. No.)	
57	1	Gregory B. Glidden	GBG <i>Quit</i>
		SMA	
		F4	
58	1	Dennis Rhodes	DR <i>Quit</i>
		SMA	
		F4	
59	1	Charles A. Uhing	CAU
		SMA	
		F4	
60	1	Emmett O. White	EOW
		SMA	
		F4	
61	1	Robert B. Reed	RBR
		SMA	
		F4	
62	1	Roy L. Byrant	RLB
		SMA	
		F4	
63	1	Earl J. Davis	EJD <i>Quit</i>
		SMA	
		F4	
64	1	Tim M. Carlin	TMC <i>Quit</i>
		SMA	
		F4	

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CBI NUCLEAR RECORD INDEX

Document Number	Number of Pages	DESCRIPTION	
		Welder Qualifications Name, Process & Filler Metal (F. No.)	
65	1	Jasper J. Mitchell	JJM
		SMA	
		F4	
66	1	Keith W. McCarty	KWM
		SMA	
		F4	
67	1	Robert S. Smith	RSS <i>Transferred</i>
		SMA	
		F4	
68	1	Robert G. Henson	RGH <i>Transferred</i>
		SMA	
		F4	
69	1	Alvin T. Hooks	ATH <i>Quit</i>
		SMA	
		F4	
70	1	Robert L. Hunker	RLH <i>Quit</i>
		SMA	
		F4	
71	1	Ervin J. Borgheinoek	EJB <i>Quit</i>
		SMA	
		F4	
72	1	Robert C. Schmick	RCS <i>Transferred</i>
		SMA	
		F4	

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Document Number	Number of Pages	DESCRIPTION	
		Name, Process & Filler Metal (F. No.)	
73	1	Wayne E. Morgan	WEM
		SMA	
		F4	
74	1	John L. Serigne	JLS <i>Quit</i>
		SMA	
		F4	
75	1	Charles E. McDuffie	CEM
		SMA	
		F4	
76	1	Clarence A. Freeman	CAF
		SMA	
		F4	
77	1	Richard D. Hines	RDH <i>Transferred</i>
		SMA	
		F4	
78	1	James R. Gossett	JRG <i>Transferred</i>
		SMA	
		F4	
79	2	Larry C. Wagner	LCW <i>Transferred</i>
		SMA	
		F4	
80	1	Jack K. Cawood	JKC <i>Transferred</i>
		SMA	
		F4	

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WELDERS QUALIFICATION TEST

CHICAGO BRIDGE & IRON COMPANY

In Accordance With Section IX of the ASME Code - Latest Edition
FOR LOW HYDROGEN ELECTRODES ONLY

THIS WELDER HAS MAINTAINED HIS QUALIFICATION IN THE LISTED PROCESS.

9/28/76 1/23/76

Material (PL or Pipe) PLATE Filler Metal (F #) H
 Process SMA WPS E 7018 74-2256/7 R-U.1
 Material SA 516 Filler Metal SFD. 51
 Specification A 530 C to A 530 C (SA) Specification SA. 5 F D. 51
 Of P No. 1 to 1
 Material Thickness 13/32" Filler Metal (A #) A. 1

RECORD OF UTILIZATION		
Month Year	Type Insp.	Initials
		REGUALIFICATION
11/75	X	<i>QSC</i>
4/75	V	<i>QSC</i>
7/75	X	<i>QSC</i>
10/75	V	<i>QSC</i>
12/75	X	<i>QSC</i>
3/76	V	<i>QSC</i>
5/76	V	<i>QSC</i>
8/76	V	<i>QSC</i>
11/76	V	<i>QSC</i>
2/76	V	<i>DLT</i>
1/77	V	<i>DLP</i>
2/77	V	<i>DLP</i>
3/77	V	<i>DLT</i>
4/77	V	<i>DLT</i>

Back gouge to clean metal and weld overhead

Use 1/8" ϕ electrode, first pass both sides. Remainder 5/32" ϕ electrode.
 Last layer may be a single weave pass or made with several stringer beads.
 This test qualifies range 3/16" to max. to be welded.

OVERHEAD - BOTH SIDES

TEST METHOD	
Two side bends per Fig Q-7.1	Radiography of 6".
Result 1	Result
<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NA
Result 2	
<input checked="" type="checkbox"/> OK	

Back gouge to clean metal and weld horizontal

Use 5/32" ϕ electrode, first and last pass, both sides. Remainder 3/16" ϕ electrode.
 This test qualifies range 3/16" to max. to be welded.

HORIZONTAL - BOTH SIDES

TEST METHOD	
Two side bends per Fig Q-7.1	Radiography of 6".
Result 1	Result
<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NA
Result 2	
<input checked="" type="checkbox"/> OK	

Back gouge to clean metal and weld vertical

Use all 5/32" ϕ electrode
 All passes uphill except first and wash passes which may be run downhill.
 This test qualifies range 3/16" to max. to be welded.

VERTICAL - BOTH SIDES

TEST METHOD	
Two side bends per Fig Q-7.1	Radiography of 6".
Result 1	Result
<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NA
Result 2	
<input checked="" type="checkbox"/> OK	

Back gouge to clean metal and weld vertical

Use all 1/8" electrode. All passes are to be run downhill.
 This test qualifies range 1/16" to 3/4".

13/32" SINGLE BEVEL BUTT VERTICAL

TEST METHOD	
Two side bends per Fig Q-7.1	Radiography of 6".
Result 1	Result
<input checked="" type="checkbox"/> OK	<input type="checkbox"/> NA
Result 2	
<input checked="" type="checkbox"/> OK	

1. Qualification on butt welds also qualifies operator for fillet welds.
 2. Qualification on F-4 electrodes qualifies welder to use F-3, F-2 and F-1 electrodes.
 3. Tests on 7/8" steel were made in accordance with welding procedure specification #50 and the 13/32" test is per welding procedure specification 1169 or 888-360.

191
 Line No. 66
 Folder No. 1

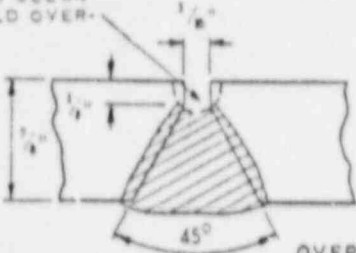
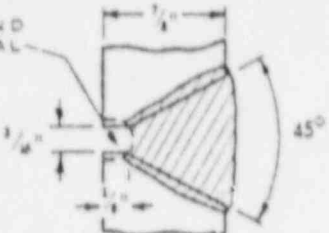
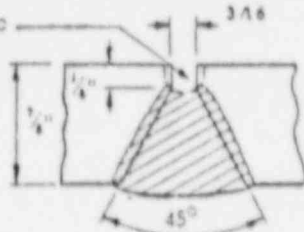
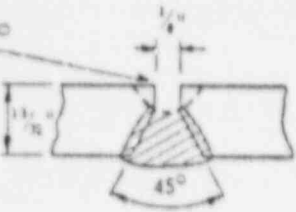
Plates Tested	Date	Location	Social Security	Birth Date	Started CB&I	Specimen Mark
4	1-22-73	INDIAN CARS	342-46-0804	9-14-51	Year	KRM/M

WE CERTIFY THAT THE STATEMENTS MADE IN THIS RECORD ARE CORRECT AND THAT THE TEST WELDS WERE PREPARED, WELDED AND TESTED IN ACCORDANCE WITH SECTION IX OF THE ASME CODE - LATEST EDITION.

CHICAGO BRIDGE & IRON COMPANY
 BY [Signature]
 CB&I Representative

Home Address 810 MAURICE ST
 City ELTON State ILL
 Full Name
KEITH W. McCARTY
 First Middle Last

X = X-Ray
 P = Plus
 V = Visual

MATERIAL (PL or PIPE) <u>PLATE</u>		FILLER METAL (F ₂) F. <u>4</u>		RECORD OF UTILIZATION		
MATERIAL SPECIFICATION <u>A-283-C TO A-283-C</u>		FILLER METAL <u>WPS E7018 74-2254/7</u>		MONTH YEAR	TYPE INSP.	INITIALS
OF P. NO. <u>1</u> TO <u>1</u>		(SA) SPECIFICATION SA. <u>233 SFA15.1</u>				
MATERIAL THICKNESS <u>7/8</u> <u>13/32"</u>		FILLER METAL (A ₂) A. <u>1</u>				
<p>BACK GOUGE TO CLEAN METAL AND WELD OVERHEAD</p>  <p>USE 1/8" ϕ ELECTRODE, FIRST PASS BOTH SIDES, REMAINDER 5/32" ϕ ELECTRODE.</p> <p>LAST LAYER MAY BE A SINGLE WEAVE PASS OR MADE WITH SEVERAL STRINGER BEADS</p> <p>THIS TEST QUALIFIES RANGE 3/16" TO MAX. TO BE WELDED.</p> <p>OVERHEAD - BOTH SIDES</p>	TWO SIDE BENDS Fig Q-7.1		11-72	X	LEE	
	RESULT 1 <input checked="" type="checkbox"/>	2/73	X	gmb		
	5/73	X	gmb			
	8/73	X	gmb			
<p>BACK GOUGE TO CLEAN METAL AND WELD HORIZONTAL</p>  <p>USE 5/32" ϕ ELECTRODE, FIRST AND LAST PASS, BOTH SIDES, REMAINDER 3/16" ϕ ELECTRODE.</p> <p>THIS TEST QUALIFIES RANGE 3/16" TO MAX. TO BE WELDED.</p> <p>HORIZONTAL - BOTH SIDES</p>	TWO SIDE BENDS Fig Q-7.1		11/73	✓	gmc	
	RESULT 1 <input checked="" type="checkbox"/>	2/74	✓	gmc		
	5/74	✓	gmc			
	8/74	✓	gmc			
<p>BACK GOUGE TO CLEAN METAL AND WELD VERTICAL</p>  <p>USE ALL 5/32" ϕ ELECTRODES</p> <p>ALL PASSES UPHILL EXCEPT FIRST AND WASH PASSES WHICH MAY BE RUN DOWNHILL.</p> <p>THIS TEST QUALIFIES RANGE 3/16" TO MAX. TO BE WELDED.</p> <p>VERTICAL - BOTH SIDES</p>	TWO SIDE BENDS Fig Q-7.1		11/74	✓	gmc	
	RESULT 1 <input checked="" type="checkbox"/>	2/75	✓	gmc		
	4/75	✓	gmc			
	7/75	✓	gmc			
<p>BACK GOUGE TO CLEAN METAL AND WELD VERTICAL</p>  <p>USE ALL 1/8" ELECTRODE, ALL PASSES ARE TO BE RUN DOWNHILL.</p> <p>THIS TEST QUALIFIES RANGE 1/16" TO 3/4"</p> <p>1/2" SINGLE BEVEL BUTT VERTICAL</p>	TWO SIDE BENDS Fig Q-7.1		10/75	X	gmc	
	RESULT 1 <input checked="" type="checkbox"/>	1/76	X	gmc		
	4/76	X	gmc			
	7/76	X	gmc			

1. QUALIFICATION ON BUTT WELDS ALSO QUALIFIES OPERATOR FOR FILLET WELDS.
2. QUALIFICATION ON F-4 ELECTRODES QUALIFIES WELDER TO USE F-3, F-2 AND F-1 ELECTRODES.

PLATES TESTED	DATE	LOCATION	SOCIAL SECURITY	BIRTH DATE	STARTED COSI	SPECIMEN MARK			
4	5-5-71	ONE HARBOR Ohio	453-28-0809	4-21-24	Year 1966	J. J. M	10/76	✓	ULT
							1/77	✓	DLP

WE CERTIFY THAT THE STATEMENTS MADE IN THIS RECORD ARE CORRECT AND THAT THE TEST WELDS WERE PREPARED, WELDED AND TESTED IN ACCORDANCE WITH SECTION IX OF THE ASME CODE - LATEST EDITION.

Test dated 11-4-72
CHICAGO BRIDGE & IRON COMPANY
By WEF.

HOME ADDRESS RT #2, Box 47
CITY STELLA STATE MO.

FULL NAME IAI
Line No. 65
Folder No. 1

By William F. Hines JASPER JOSEPH MITCHELL
CSR REPRESENTATIVE FIRST MIDDLE LAST

10/76	✓	ULT
1/77	✓	DLP
2/77	X	DLP
3/77	X	ULT
4/77	X	ULT

X - X-RAY
P - PLUGS
V - VISUAL

FOR REFERENCE

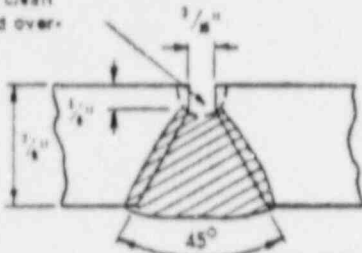
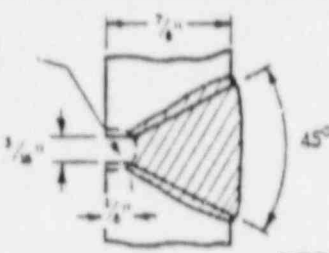
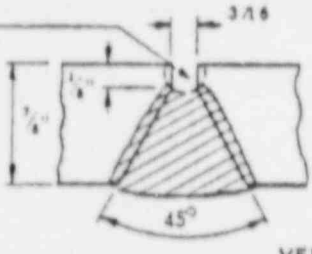
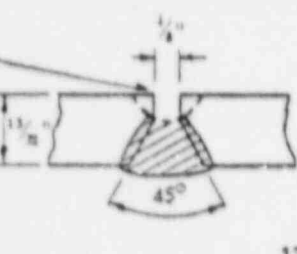
WL 111 A REV 9-71

WELDERS QUALIFICATION TEST CHICAGO BRIDGE & IRON COMPANY

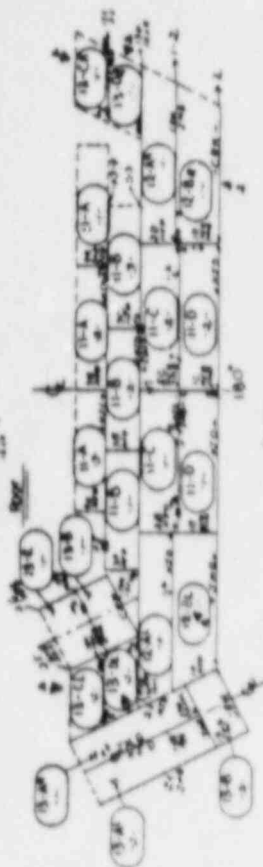
In Accordance With Section IX of the ASME Code - Latest Edition
FOR LOW HYDROGEN ELECTRODES ONLY

This welder has MAINTAINED
HIS QUALIFICATION IN THE
LISTED PROCESS.

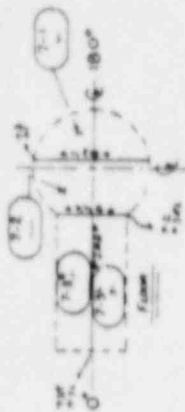
JDM 1/6/77

Material (PL or Pipe) <u>PLATE</u> Process <u>SMA</u> Material - Specification <u>A 233C to A 233C</u> Of P No. <u>1</u> to <u>1</u> Material Thickness <u>7/8"</u>		Filler Metal (F #) <u>4</u> Filler Metal <u>WPS E9018</u> (SA) Specification SA. <u>233 (SFA 5.1)</u> Filler Metal (A #) A. <u>1</u>		RECORD OF UTILIZATION					
Back gouge to clean metal and weld overhead 		Use 1/8" ϕ electrode, first pass both sides. Remainder 5/32" ϕ electrode. Last layer may be a single weave pass or made with several stringer beads This test qualifies range 3/16" to max. to be welded.		TEST METHOD Two side bends per Fig Q-7.1 Result 1 <input checked="" type="checkbox"/> Result 2 <input checked="" type="checkbox"/>		Radiography of 6". Result 4/3/72 <input checked="" type="checkbox"/> JDM 9/72 <input checked="" type="checkbox"/> JDM 12/72 <input checked="" type="checkbox"/> JDM 4/73 <input checked="" type="checkbox"/> JDM			
Back gouge to clean metal and weld horizontal 		Use 5/32" ϕ electrode, first and last pass, both sides. Remainder 3/16" ϕ electrode This test qualifies range 3/16" to max. to be welded.		TEST METHOD Two side bends per Fig Q-7.1 Result 1 <input checked="" type="checkbox"/> Result 2 <input checked="" type="checkbox"/>		Radiography of 6". Result 7/73 <input checked="" type="checkbox"/> JDM 1/73 <input checked="" type="checkbox"/> JDM 1/74 <input checked="" type="checkbox"/> JDM 4/74 <input checked="" type="checkbox"/> JDM			
Back gouge to clean metal and weld vertical 		Use all 5/32" ϕ electrode All passes uphill except first and wash passes which may be run downhill. This test qualifies range 3/16" to max. to be welded.		TEST METHOD Two side bends per Fig Q-7.1 Result 1 <input checked="" type="checkbox"/> Result 2 <input checked="" type="checkbox"/>		Radiography of 6". Result 7/74 <input checked="" type="checkbox"/> JDM 10/74 <input checked="" type="checkbox"/> JDM 1/75 <input checked="" type="checkbox"/> JDM 4/75 <input checked="" type="checkbox"/> JDM			
Back gouge to clean metal and weld vertical 		Use all 1/8" electrode. All passes are to be run downhill. This test qualifies range 1/16" to 3/4".		TEST METHOD Two side bends per Fig Q-7.1 Result 1 <input checked="" type="checkbox"/> Result 2 <input checked="" type="checkbox"/>		Radiography of 6". Result 7/75 <input checked="" type="checkbox"/> JDM 10/75 <input checked="" type="checkbox"/> JDM 1/76 <input checked="" type="checkbox"/> JDM 4/76 <input checked="" type="checkbox"/> JDM			
1. Qualification on butt welds also qualifies operator for fillet welds. 2. Qualification on F-4 electrodes qualifies welder to use F-3, F-2 and F-1 electrodes. 3. Tests on 7/8" steel were made in accordance with welding procedure specification #50 and the 13/32" test is per welding procedure specification 1169 or 888-360.		Line No. <u>77</u> Folder No. <u>1</u>		5/76 <input checked="" type="checkbox"/> JDM 9/76 <input checked="" type="checkbox"/> JDM		11/76 <input checked="" type="checkbox"/> JDM			
Plates Tested <u>3</u>	Date <u>7/22/68</u>	Location <u>LEBANON, INO.</u>	Social Security <u>306-36-6080</u>	Birth Date <u>2/27/36</u>	Started CB&I Year <u>1958</u>	Specimen Mark <u>R.D.H.</u>			
WE CERTIFY THAT THE STATEMENTS MADE IN THIS RECORD ARE CORRECT THAT THE TEST WELDS WERE PREPARED, WELDED AND TESTED IN ACCORDANCE WITH SECTION IX OF THE ASME CODE - LATEST EDITION UPDATED - 4/14/77 CHICAGO BRIDGE & IRON COMPANY W. W. KISSAL CB&I Representative			Home Address <u>FRANKFORT 1606 Lebanon</u> <u>FRANKFORT</u> State <u>IND</u> RICHARD D HINES First Middle Last					X = X Ray P = Pits V = Visual	

FOR RELEASE



STAIRWELL



NOTES

REVISIONS TO DRAWING

ALLEN STATION 2071 COMMERCIAL IN ENGINE COMPANY

Chicago Bridge & Iron Company RECORD DRAWING FOR READER CUBITY

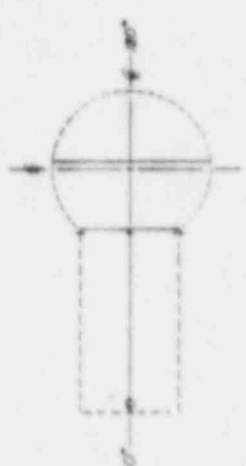
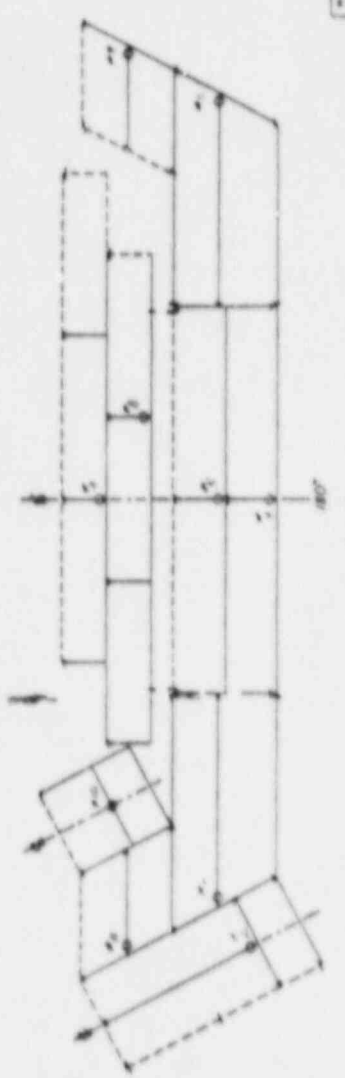
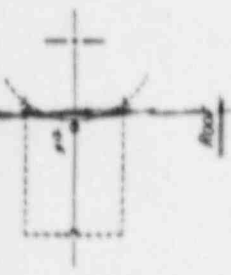
74-2756

INSTRUCTIONS FOR FILING OUT THIS DRAWING ARE ON THE REVERSE SIDE OF THIS DRAWING

REPRODUCED FROM ORIGINAL DRAWING

NO.	DESCRIPTION	QTY	UNIT	PRICE	TOTAL	REMARKS
1	CONCRETE	100	CU YD	1.50	150.00	
2	STEEL	50	TON	2.00	100.00	
3	BRICK	200	1000	0.10	20.00	
4	CEMENT	50	TON	0.50	25.00	
5	WOOD	100	CU YD	0.20	20.00	
6	PAINT	10	TON	1.00	10.00	
7	LABOR	1000	HOUR	0.10	100.00	
8	TRUCK	10	TRIP	1.00	10.00	
9	WATER	100	CU YD	0.05	5.00	
10	GRAVEL	100	CU YD	0.10	10.00	
11	ROOFING	100	CU YD	0.15	15.00	
12	INSULATION	100	CU YD	0.20	20.00	
13	GLASS	100	CU YD	0.30	30.00	
14	MECHANICAL	100	CU YD	0.40	40.00	
15	ELECTRICAL	100	CU YD	0.50	50.00	
16	PLUMBING	100	CU YD	0.60	60.00	
17	HEATING	100	CU YD	0.70	70.00	
18	Cooling	100	CU YD	0.80	80.00	
19	Interior	100	CU YD	0.90	90.00	
20	Exterior	100	CU YD	1.00	100.00	
21	Foundation	100	CU YD	1.10	110.00	
22	Structural	100	CU YD	1.20	120.00	
23	Roofing	100	CU YD	1.30	130.00	
24	Insulation	100	CU YD	1.40	140.00	
25	Glazing	100	CU YD	1.50	150.00	
26	Mechanical	100	CU YD	1.60	160.00	
27	Electrical	100	CU YD	1.70	170.00	
28	Plumbing	100	CU YD	1.80	180.00	
29	Heating	100	CU YD	1.90	190.00	
30	Cooling	100	CU YD	2.00	200.00	
31	Interior	100	CU YD	2.10	210.00	
32	Exterior	100	CU YD	2.20	220.00	
33	Foundation	100	CU YD	2.30	230.00	
34	Structural	100	CU YD	2.40	240.00	
35	Roofing	100	CU YD	2.50	250.00	
36	Insulation	100	CU YD	2.60	260.00	
37	Glazing	100	CU YD	2.70	270.00	
38	Mechanical	100	CU YD	2.80	280.00	
39	Electrical	100	CU YD	2.90	290.00	
40	Plumbing	100	CU YD	3.00	300.00	
41	Heating	100	CU YD	3.10	310.00	
42	Cooling	100	CU YD	3.20	320.00	
43	Interior	100	CU YD	3.30	330.00	
44	Exterior	100	CU YD	3.40	340.00	
45	Foundation	100	CU YD	3.50	350.00	
46	Structural	100	CU YD	3.60	360.00	
47	Roofing	100	CU YD	3.70	370.00	
48	Insulation	100	CU YD	3.80	380.00	
49	Glazing	100	CU YD	3.90	390.00	
50	Mechanical	100	CU YD	4.00	400.00	
51	Electrical	100	CU YD	4.10	410.00	
52	Plumbing	100	CU YD	4.20	420.00	
53	Heating	100	CU YD	4.30	430.00	
54	Cooling	100	CU YD	4.40	440.00	
55	Interior	100	CU YD	4.50	450.00	
56	Exterior	100	CU YD	4.60	460.00	
57	Foundation	100	CU YD	4.70	470.00	
58	Structural	100	CU YD	4.80	480.00	
59	Roofing	100	CU YD	4.90	490.00	
60	Insulation	100	CU YD	5.00	500.00	
61	Glazing	100	CU YD	5.10	510.00	
62	Mechanical	100	CU YD	5.20	520.00	
63	Electrical	100	CU YD	5.30	530.00	
64	Plumbing	100	CU YD	5.40	540.00	
65	Heating	100	CU YD	5.50	550.00	
66	Cooling	100	CU YD	5.60	560.00	
67	Interior	100	CU YD	5.70	570.00	
68	Exterior	100	CU YD	5.80	580.00	
69	Foundation	100	CU YD	5.90	590.00	
70	Structural	100	CU YD	6.00	600.00	
71	Roofing	100	CU YD	6.10	610.00	
72	Insulation	100	CU YD	6.20	620.00	
73	Glazing	100	CU YD	6.30	630.00	
74	Mechanical	100	CU YD	6.40	640.00	
75	Electrical	100	CU YD	6.50	650.00	
76	Plumbing	100	CU YD	6.60	660.00	
77	Heating	100	CU YD	6.70	670.00	
78	Cooling	100	CU YD	6.80	680.00	
79	Interior	100	CU YD	6.90	690.00	
80	Exterior	100	CU YD	7.00	700.00	
81	Foundation	100	CU YD	7.10	710.00	
82	Structural	100	CU YD	7.20	720.00	
83	Roofing	100	CU YD	7.30	730.00	
84	Insulation	100	CU YD	7.40	740.00	
85	Glazing	100	CU YD	7.50	750.00	
86	Mechanical	100	CU YD	7.60	760.00	
87	Electrical	100	CU YD	7.70	770.00	
88	Plumbing	100	CU YD	7.80	780.00	
89	Heating	100	CU YD	7.90	790.00	
90	Cooling	100	CU YD	8.00	800.00	
91	Interior	100	CU YD	8.10	810.00	
92	Exterior	100	CU YD	8.20	820.00	
93	Foundation	100	CU YD	8.30	830.00	
94	Structural	100	CU YD	8.40	840.00	
95	Roofing	100	CU YD	8.50	850.00	
96	Insulation	100	CU YD	8.60	860.00	
97	Glazing	100	CU YD	8.70	870.00	
98	Mechanical	100	CU YD	8.80	880.00	
99	Electrical	100	CU YD	8.90	890.00	
100	Plumbing	100	CU YD	9.00	900.00	

FOR REFERENCE



Elevation

NOTED ON SHEET 11
 See Notes on p. 11, for location
 of utility vault and distribution system

NOTED ON SHEET 11
 See Notes on p. 11, for location
 of utility vault and distribution system

STANDARD SYSTEM - SHEET 11
 COMMERCIAL/INDUSTRIAL/RESIDENTIAL

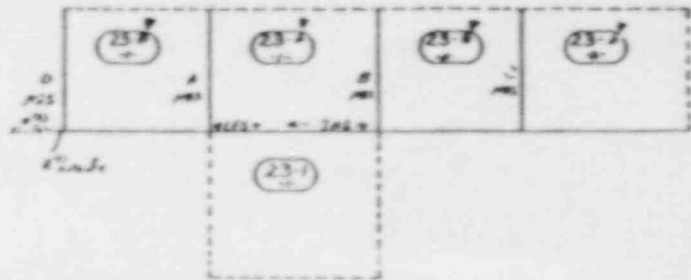
Chicago Bridge & Iron Company

RECORD DRAWING
 IN REACTION CAVITY
 LEAK CHASE

74-2256
 1-1

- INSTRUCTIONS
1. SURVEY GA TO NUMBER 1000
 2. SURVEY GA TO ENTER 10' & 10' ZONE
 3. SURVEY GA TO ENTER 10' & 10' ZONE

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FOR REFERENCE

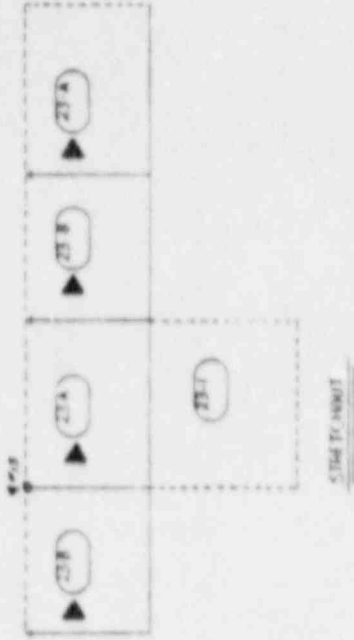
Handwritten notes:
 1. See Chicago Bridge & Iron Co. drawing
 2. See Chicago Bridge & Iron Co. drawing
 3. See Chicago Bridge & Iron Co. drawing

INSTRUCTIONS FOR FILING OUT
 THIS DRAWING ARE ON THE
 WORK THIS DRAWING WITH DIMS.
 422 & 23.

INDICATE CHANGES FROM PREVIOUS ISSUES

DRAWING NO. 74-2256 PROJECT NO. 115-100-1 SHEET NO. 1 OF 1	
STATION - UNIT 1 COMMUNITY EDGE COMPANY	
Chicago Bridge & Iron Company	
RECORD DRAWING FOR RECTANGULAR SUMP	
47740 11/15/74 R.S. 210-100-100	74-2256 -R1-1

FOR REFERENCE



STATION 23
 23A, 23B, 23C, 23D, 23E, 23F, 23G

STATION 23
 23A, 23B, 23C, 23D, 23E, 23F, 23G

STATION 23
 23A, 23B, 23C, 23D, 23E, 23F, 23G

- INSTRUCTIONS:
1. Insert G.A. in Machine Fac. Top Zone
 2. Press G.A. TO ENTER ID# REV OR PROCEED TO BE USED
 3. Allow 30 Sec. With DMS # 24

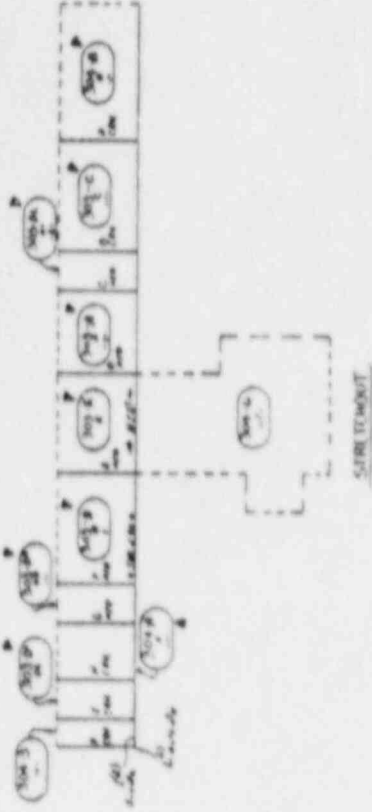
▶ INDICATES CHANGE FROM PREVIOUS ISSUE

Chicago Bridge & Iron Company
 RECORD DRAWING
 RECTANGULAR SHIP
 LEAK CHASE

24-2756

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FOR REFERENCE



Chicago Bridge & Iron Company
 200 West Adams Street, Chicago, Ill.
 AUGUST 27, 1914, 2:44 P.M. 4788

SEE THE CHAS. DING, & CO. REPORT
 ON THIS JOB FOR FURTHER INFORMATION

REVISIONS TO BE MADE BY THE
 DRAWING ENGINEER
 (SEE LIST OF REVISIONS ON PAGE 2)

STILES SYSTEM - SHEET 1
 DIMENSIONS TO CENTER OF GRAVITY

Chicago Bridge & Iron Company
 RECORD DRAWING
 CHAS. DING, & CO. SUIP

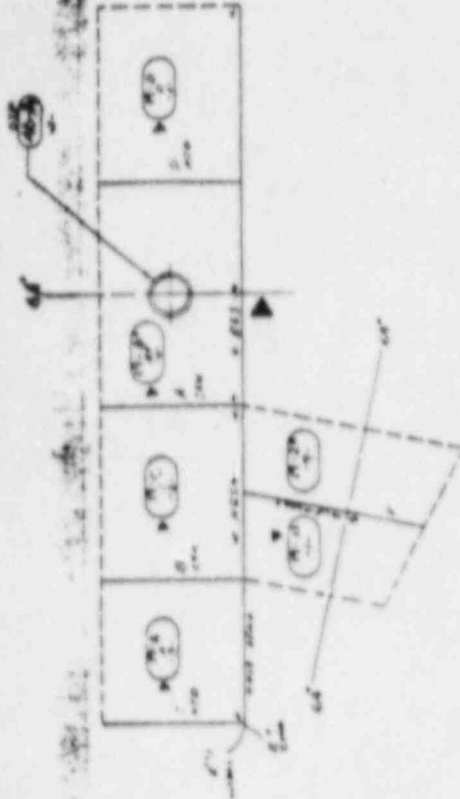
74-225a
 10/11/14

INSTRUCTIONS FOR FALLING OUT
 THIS DRAWING ARE ON
 PAGE TWO ONE, WITH DIMENSIONS
 THEREON

REVISIONS TO BE MADE BY THE
 DRAWING ENGINEER

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STEEL JOIST

FOR REFERENCE

Chicago Bridge & Iron Company
 RECORD LAGGING
 IN TEMPORARY BRIDGE

INSTRUCTIONS FOR FILING OUT
 THIS DRAWING ARE ON THE
 REVERSE THIS DRAWING WITH LAGGING

RECORD LAGGING

SEE DRAWING FOR ALL DIMENSIONS

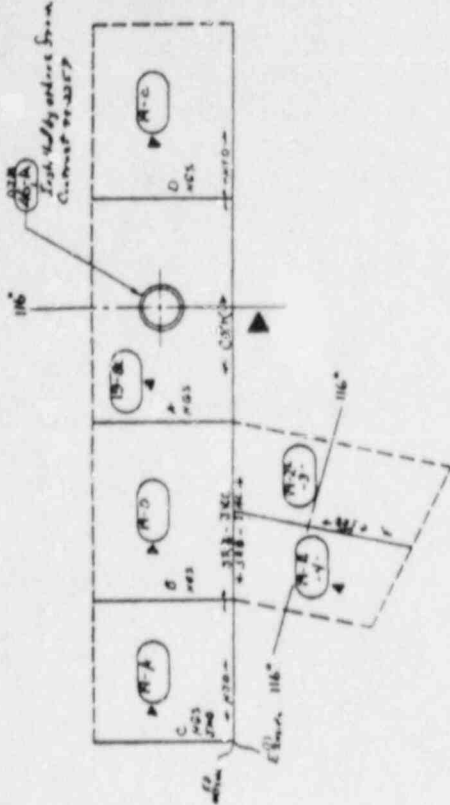
Chicago Bridge & Iron Company
 RECORD LAGGING
 IN TEMPORARY BRIDGE

Chicago Bridge & Iron Company
 RECORD LAGGING
 IN TEMPORARY BRIDGE

Chicago Bridge & Iron Company
 RECORD LAGGING
 IN TEMPORARY BRIDGE

74-2756

NO.	DESCRIPTION	QTY	UNIT	PRICE	TOTAL
1	CONCRETE	100	CU YD	10.00	1000.00
2	STEEL	50	LB	0.50	25.00
3	BRICK	1000	BRICK	0.10	100.00
4	CEMENT	50	BAG	0.20	10.00
5	GRAVEL	100	CU YD	8.00	800.00
6	SAND	100	CU YD	6.00	600.00
7	WATER	100	CU YD	4.00	400.00
8	LABOR	100	HOUR	15.00	1500.00
9	PERMITS	1	PERMIT	50.00	50.00
10	INSURANCE	1	MONTH	100.00	100.00
11	TRAVEL	1	MILE	0.50	0.50
12	PHONE	1	MINUTE	0.10	0.10
13	MEALS	1	MEAL	5.00	5.00
14	TOOL	1	TOOL	10.00	10.00
15	SALES TAX	1	TAX	10.00	10.00
16	TOTAL				4400.00



FOR REFERENCE

STRUCTURE

includes 10 ft. x 10 ft. concrete slab
 including all materials
 and labor
 per Chicago Bridge & Iron Co. Inc.
 per 1938 specs

NOTE
 See Record Book No. 1, for details
 of all work and specifications.

CHICAGO BRIDGE & IRON COMPANY
 116" x 116"
 116" x 116"
 116" x 116"
 116" x 116"

Chicago Bridge & Iron Company
 RECORD DRAWING
 1/4" TRAPEZOIDAL SCAMP @ 1/4"

INSTRUCTIONS FOR FILLING OUT
 THIS "X" DRAWING ARE ON THE
 MORE THIS ENG. WITH ENGS. 116 x 116

74-2756
 R-10 - 3

REVISIONS CHANGED FROM PREVIOUS ISSUE

Attachment
"C"

FOR REFERENCE



NUCLEAR RECORD INDEX

SARGENT & LUNDY

1. REVIEWED & ACCEPTED

ACTION SHOWN DOES NOT RELIEVE CONTRACTOR FROM HIS OBLIGATIONS UNDER THE CONTRACT.

LORETTA A. MESSER

DATE 1-15-82
CY
SPEC NO. E2725
PROJ NO. 4391-05

Document Number	Number of Pages	DESCRIPTION
		Test Channel Reports - Seam I.D. Traceable to Record Drawings
1	1	Test Zones 9, 5, 10, 7, 6, 4, 1
2	1	Test Zones 8, 12, 11, 2, 3,
3	1	Test Zone 1 - Trapezoidal Sump @ 116 Dg.
4	1	Test Zone 1 - Trapezoidal Sump @ 64 Dg.
5	1	Reactor Cavity Bottom Test Zone 1 - Retest after relocation of Test Coupling
6	1	Reactor Cavity Bottom Test Zone 8 - Retest after relocation of Test Coupling
7	1	Test Zones 74, 91, 83, 38, 44, 80, 75, 27, 28, 31, 35, 53
8	1	Test Zones 68, 37, 24, 26, 30, 46, 16, 45, 50, 52, 62, 67
9	1	Test Zones 84, 58, 41, 25, 36, 49, 65, 84, 98, 102, 134,
10	1	Test Zones 56, 3, 79, 22, 39, 40, 56, 48, 57, 59, 2-Sump @ 64 Dg.
11	1	Test Zones 2, 4, 85, 87
12	1	Test Zones 81, 17, 18, 20, 47, 51, 90, 14-011 Sump, 77A, 92A, 37C
13	1	Test Zones 33, 23, 21, 34, 42, 43, 66, 71, 86, 88, 89, 92, 116, 119, 120, 136
14	1	Test Zones 15, 19, 82A, 103, 126, 129,
15	1	Test Zones 59, 60, 63, 13-Rectangular Sump, 60A, 55, 105, 106, 108, 111
16	1	Test Zones 61, 69, 72, 74, 75, 82, 60B, 60C, 77, 32, 94, 96, 104,
17	1	Test Zones 68, 70, 73, 76, 78, 2-Sump @ 116 Dg.,
18	1	92B, 37D, 95, 121, 109, 113, 122, 124 133
19	1	Test Zones 54, 97, 100, 125, 99, 101, 110, 112, 114, 117, 128, 132
20	1	Test Zones 107, 118, 127, 131
21	1	Test Zones 115, 123
22	1	Test Zones 37B, 110, 109B, 93, 120, 135
23	1	Test Zones 37A, 62 Retest,
24	1	Test Zones 109A, 109, 119

COPIES of documents covered by this index are certified to be true copies

Date 6-22-77

Signature Verlon Frick

ccc
Office Code

7.9
Classification

74-2256
Contract Number

Page 1 of 2

Folder 1 of 1

FOR REFERENCE



NUCLEAR RECORD INDEX

Document Number	Number of Pages	DESCRIPTION
25	1	Test Channel Reports - Seam I.D. Traceable to Record Drawings
26	1	Double Gasket Interspace Test for Equipment Hatch
		Test Zones 36,19, N-C #44

COPIES of documents covered by this index are certified to be true copies

Date 6-22-77
Signature Robert Friedl

CCC
Office Code
7.9
Classification
74-2256
Contract Number
Page 2 of 2
Folder 1 of 1



FOR REFERENCE

TEST CHANNEL TEST REPORT

Contract No. 74-2256 Customer Compton Report or Sequence # 1

Job Location Byron Proc. No. 74-2256-5B Rev. 2

Pressure Gauge Manufacturer Hamilton Model 10572

Pressure Gauge 4" Ø Range 0-100 PSI S/N or ID 4000

Last Calibration Date 12-15-75 Recalibration Due 12-15-76

Leak Detector Solution Sol.

Test Zone No.	Acceptable Performance								
	Pressure Strength			Solution Film			Pressure Decay		
	Date	Evaluator	Level	Date	Evaluator	Level	Date	Evaluator	Level
# 9			III	1/5/76		II	1/5/76		III
# 5	1/15/76		II	1/15/76		II	1/15/76		II
# 10	1/16/76		II	1/16/76		II	1/16/76		II
# 11			II			II			II
# 12	1/16/76		II	1/16/76		II	1/16/76		TL
# 13			II			II			II
# 14			II			II			II
# 15			II			II			II
# 16			II			II			II
# 17			II			II			II
# 18			II			II			II
# 19			II			II			II
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# 21			II			II			II
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# 23			II			II			II
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# 25			II			II			II
# 26			II			II			II
# 27			II			II			II
# 28			II			II			II
# 29			II			II			II
# 30			II			II			II

REVIEWED AND ENTERED ON APPLICABLE DRAWING OR CHECKLIST

NO UNACCEPTABLE INDICATIONS VLT

Examination and evaluations have been performed to my satisfaction

Witnessed and Accepted By Timothy Duvell Customer

Witnessed By N/A Authorized Inspector

Michael K. Adams Foreman



FOR REFERENCE

TEST CHANNEL TEST REPORT

Contract No. 74-2256 Customer COMMUNITY EDISON CO Report or Sequence # 2
 Job Location BYRON STATION Proc. No. TEP(74-2254/57)5B Rev. 2
 Pressure Gauge Manufacturer ASHCO Model 1083A
 Pressure Gauge 4" Ø Range 0-100 PSIG S/N or ID 4-0-10000
 Last Calibration Date 12-15-75 Recalibration Due 1-15-76
 Leak Detector Solution SEAM-TEST

Test Zone No.	Acceptable Performance								
	Pressure Strength			Solution Film			Pressure Decay		
	Date	Evaluator	Level	Date	Evaluator	Level	Date	Evaluator	Level
#8	1/15/76	KZF	II	1/15/76	KZF	II	1/15/76	KZF	II
#12	1/14/76	KZF	II	1/14/76	KZF	II	1/14/76	KZF	II
#11	1/14/76	KZF	II	1/14/76	KZF	II	1/14/76	KZF	II
#10	1/14/76	KZF	II	1/14/76	KZF	II	1/14/76	KZF	II
#9	1/14/76	KZF	II	1/14/76	KZF	II	1/14/76	KZF	II

REVIEWED AND ENTERED ON APPLICABLE DRAWING OR CHECKLIST
 NO UNACCEPTABLE INDICATIONS

Examination and evaluations have been performed to my satisfaction
 Witnessed and Accepted By
 Witnessed By
 N/A
 Authorized Inspector

Michael R. Adams Foreman
Timothy J. Green CE Co. Customer
1/15/76



FOR REFERENCE

TEST CHANNEL TEST REPORT

Contract No. 74-2256 Customer CECO Report or Sequence # 3
 Job Location Byron AL. Proc. No. TCR(74-2256/2)5B Rev. 3
 Pressure Gauge Manufacturer Ashcroft Model 4-0-100-10
 Pressure Gauge 4" \varnothing Range 0-100 S/N or ID 4-0-100-10
 Last Calibration Date 5-13-76 Recalibration Due 11-13-76
 Leak Detector Solution Sensit

Test Zone No.	Acceptable Performance								
	Pressure Strength			Solution Film			Pressure Decay		
	Date	Evaluator	Level	Date	Evaluator	Level	Date	Evaluator	Level
<u>1160</u> <u>2-1</u>	<u>6-5-76</u>	<u>DeL</u>	<u>II</u>	<u>6-5-76</u>	<u>DeL</u>	<u>II</u>	<u>6-5-76</u>	<u>DeL</u>	<u>II</u>

REVIEWED AND ENTERED ON APPLICABLE, DRAWING OR CHECKLIST

NO UNACCEPTABLE INDICATIONS

Line No. 3
Folder No. 1

Examination and evaluations have been performed to my satisfaction
 Foreman N/A

Witnessed and Accepted by
 Customer N/A

Witnessed By
 Authorized Inspector N/A

FOR REFERENCE



TEST CHANNEL TEST REPORT

Contract No. 74-2256 Customer CECO Report or Sequence # 4
 Job Location Byron IH Proc. No. TCP(74-2256/7) 5B Rev. 3
 Pressure Gauge Manufacturer Ashcroft Model 4-0-110-9
 Pressure Gauge 4" Range 0-100 S/N or ID 4-0-100 9
 Last Calibration Date 5-13-76 Recalibration Due 11-13-76
 Leak Detector Solution Sequint

Test Zone No.	Acceptable Performance								
	Pressure Strength			Solution Film			Pressure Decay		
	Date	Evaluator	Level	Date	Evaluator	Level	Date	Evaluator	Level
640 Z-1	6-5-76	NCL	II	6-5-76	NCL	II	6-5-76	NCL	II

REVIEWED AND ENTERED ON APPLICABLE, R
DRAWING OR CHECKLIST

NO UNACCEPTABLE INDICATIONS

Line No. 4
Folder No. I

Examination and evaluations have been performed to my satisfaction
 Witnessed and Accepted By
 Witnessed By

N/A Foreman N/A Customer N/A Authorized Inspector

CBI
TEST CHANNEL TEST REPORT

FOR REFERENCE

Contract No. 74-2256 Customer CECO Report or Sequence # 5
 Job Location Byron ILL. Proc. No. TEA(74-2256) 5B Rev. 3
 Pressure Gauge Manufacturer Ashcroft Model 4-0-100-2
 Pressure Gauge 4" Ø Range 0-100 S/N or ID 4-0-100-2
 Last Calibration Date 5-13-76 Recalibration Due 11-13-76
 Leak Detector Solution Seantest

Test Zone No.	Acceptable Performance								
	Pressure Strength			Solution Film			Pressure Decay		
	Date	Evaluator	Level	Date	Evaluator	Level	Date	Evaluator	Level
1	6-15-76	WHL	II	6-15-76	WHL	II	6-15-76	WHL	II

REVIEWED AND ENTERED ON APPLICABLE DRAWING OR CHECKLIST

FAL

NO UNACCEPTABLE INDICATIONS

Line No. <u>5</u>
Folder No. <u>L</u>

Examination and evaluations have been performed to my satisfaction

N/A

Foreman

Witnessed and Accepted By

N/A

Customer

Witnessed By

N/A

Authorized Inspector



TEST CHANNEL TEST REPORT

FOR REFERENCE

Contract No. 74-2256 Customer CECO Report or Sequence # 6
 Job Location Byron IL Proc. No. TC(742256/1)58 Rev. 3
 Pressure Gauge Manufacturer Ashcroft Model 4-0-100-9
 Pressure Gauge 4" Ø Range 0-100 S/N or ID 4-0-100-9
 Last Calibration Date 5-13-76 Recalibration Due 11-13-76
 Leak Detector Solution Seamtest

Test Zone No.	Acceptable Performance								
	Pressure Strength			Solution Film			Pressure Decay		
	Date	Evaluator	Level	Date	Evaluator	Level	Date	Evaluator	Level
8	6-24-76	DCL	II	6-24-76	DCL	II	6-24-76	DCL	II

REVIEWED AND ENTERED ON DRAWING OR CHECKLIST

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APPLICABLE, R

NO UNACCEPTABLE INDICATIONS

Use No. 6
 Folder No. 1

Examination and evaluations have been performed to my satisfaction N/A
 Witnessed and Accepted by N/A Customer
 Witnessed N/A by Authorized Inspector



FOR REFERENCE

TEST CHANNEL TEST REPORT

Contract No. 74-2256 Customer CECO Report or Sequence # 7
 Job Location Byron, Ill. Proc. No. TCP74-2256/7 5B Rev. 3
 Pressure Gauge Manufacturer Ashcroft Model 4-0-100-9
 Pressure Gauge 4" ϕ Range 0-100 S/N or ID 4-0-100-9
 Last Calibration Date 5-13-76 Recalibration Due 11-13-76
 Leak Detector Solution Seamtest Low Temp

REVIEWED AND ENTERED ON APPLICABLE DRAWING OR CHECKLIST
 NO UNACCEPTABLE INDICATIONS

Test Zone No.	Acceptable Performance								
	Pressure Strength			Solution Film			Pressure Decay		
	Date	Evaluator	Level	Date	Evaluator	Level	Date	Evaluator	Level
74	8/5/76	JLA	II	8/5/76	JLA	II	8/5/76	JLA	II
71	8/11/76	JLA	II	8/11/76	JLA	II	8/11/76	JLA	II
83	8/17/76	DEB	II	8/17/76	DEB	II	8/17/76	DEB	II
38	8/24/76	JLA	II	8/24/76	JLA	II	8/24/76	JLA	II
44	8/31/76	JLA	II	8/31/76	JLA	II	8/31/76	JLA	II
80	9/7/76	JLA	II	9/7/76	JLA	II	9/7/76	JLA	II
15	9/14/76	JLA	II	9/14/76	JLA	II	9/14/76	JLA	II
27	9/21/76	JLA	II	9/21/76	JLA	II	9/21/76	JLA	II
25	9/28/76	JLA	II	9/28/76	JLA	II	9/28/76	JLA	II
31	8/24/76	JLA	II	8/24/76	JLA	II	8/24/76	JLA	II
35	8/31/76	JLA	II	8/31/76	JLA	II	8/31/76	JLA	II
53	8/31/76	JLA	II	8/31/76	JLA	II	8/31/76	JLA	II

Line No. 7
 Folder No. 1

Examination and evaluations have been performed to my satisfaction
 Witnessed and Accepted By
 Witnessed By

N/A N/A N/A
 Foreman Customer Authorized Inspector



FOR REFERENCE

TEST CHANNEL TEST REPORT

Contract No. 74-2256 Customer CECO Report or Sequence # 8
 Job Location Byron, Ill. Proc. No. TCP74-2256/7 5B Rev. 3
 Pressure Gauge Manufacturer Ashcroft Model 4-0-100-10
 Pressure Gauge 4" Ø Range 0-100 S/N or ID 4-0-100-10
 Last Calibration Date 5-13-76 Recalibration Due 11-13-76
 Leak Detector Solution Seamtest Low Temp

Test Zone No.	Acceptable Performance								
	Pressure Strength			Solution Film			Pressure Decay		
	Date	Evaluator	Level	Date	Evaluator	Level	Date	Evaluator	Level
23	8/11/76	JLA	II	8/11/76	JLA	II	8/11/76	JLA	II
37	8/5/76	JLA	II	8/5/76	JLA	II	8/5/76	JLA	II
24	8/14/76	JLA	II	8/14/76	JLA	II	8/14/76	JLA	II
26	8/18/76	CEL	II	8/18/76	CEL	II	8/18/76	CEL	II
30	8/17/76	JLA	II	8/17/76	JLA	II	8/17/76	JLA	II
46	8/13/76	JLA	II	8/13/76	JLA	II	8/13/76	JLA	II
16	8/31/76	JLA	II	8/31/76	JLA	II	8/31/76	JLA	II
45	8/18/76	JLA	II	8/18/76	JLA	II	8/18/76	JLA	II
50	8/23/76	JLA	II	8/23/76	JLA	II	8/23/76	JLA	II
52	8/10/76	JLA	II	8/10/76	JLA	II	8/10/76	JLA	II
62	8/29/76	JLA	II	8/29/76	JLA	II	8/29/76	JLA	II
67	8/18/76	JLA	II	8/18/76	JLA	II	8/18/76	JLA	II
REVIEWED AND ENTERED ON APPLICABLE DRAWING OR CHECKLIST						R		Line No. <u>8</u> Folder No. <u>1</u>	
NO UNACCEPTABLE INDICATIONS									
Examination and evaluations have been performed to my satisfaction						Witnessed and Accepted By		Witnessed By	
N/A						N/A		N/A	
Foreman						Customer		Authorized Inspector	



FOR REFERENCE

TEST CHANNEL TEST REPORT

Contract No. 74-2256 Customer CECO Report or Sequence # 9
 Job Location Byron, Ill. Proc. No. TCP74-2256/7 5B Rev. 3
 Pressure Gauge Manufacturer Ashcroft Model 4-0-100-11
 Pressure Gauge 4" \varnothing Range 0-100 S/N or ID 4-0-100-11
 Last Calibration Date 5-13-76 Recalibration Due 11-13-76
 Leak Detector Solution Seamtest Low Temp

Test Zone No.	Acceptable Performance								
	Pressure Strength			Solution Film			Pressure Decay		
	Date	Evaluator	Level	Date	Evaluator	Level	Date	Evaluator	Level
84	8/1/76	DEL	II	8/1/76	DEL	II	8/1/76	DEL	II
58	8/2/76	JLA	II	8/2/76	JLA	II	8/2/76	JLA	II
41	8/3/76	JLA	II	8/3/76	JLA	II	8/3/76	JLA	II
25	8/11/76	JLA	II	8/11/76	JLA	II	8/11/76	JLA	II
36	8/16/76	DEL	II	8/16/76	DEL	II	8/16/76	DEL	II
49	8/19/76	JLA	II	8/19/76	JLA	II	8/19/76	JLA	II
65	8/19/76	JLA	II	8/19/76	JLA	II	8/19/76	JLA	II
84	8/11/76	DEL	II	8/11/76	DEL	II	8/11/76	DEL	II
98	9/3/76	JLA	II	9/3/76	JLA	II	9/3/76	JLA	II
102	9/17/76	JLA	II	9/17/76	JLA	II	9/17/76	JLA	II
134	10/1/76	JLA	II	10/1/76	JLA	II	10/1/76	JLA	II
REVIEWED AND ENTERED ON APPLICABLE DRAWING OR CHECKLIST									Line No. <u>9</u> Folder No. <u>1</u>
NO UNACCEPTABLE INDICATIONS									
Examination and evaluations have been performed to my satisfaction						Witnessed and Accepted by		Witnessed	
N/A						N/A		N/A	
Foreman						Customer		Authorized Inspector	



FOR REFERENCE

TEST CHANNEL TEST REPORT

Contract No. 74-2256 Customer CECO Report or Sequence # 10
 Job Location Byron, Ill. Proc. No. TCP74-2256/7 5B Rev. 3
 Pressure Gauge Manufacturer Ashcroft Model 4-0-100-12
 Pressure Gauge 4" Range 0-100 S/N or ID 4-0-100-12
 Last Calibration Date 5-13-76 Recalibration Due 11-13-76
 Leak Detector Solution Seamtest Low Temp

Test Zone No.	Acceptable Performance								
	Pressure Strength			Solution Film			Pressure Decay		
	Date	Evaluator	Level	Date	Evaluator	Level	Date	Evaluator	Level
56	8/5/76	JLA	II	8/5/76	JLA	II	8/5/76	JLA	II
63	8/11/76	JLA	II	8/11/76	JLA	II	8/11/76	JLA	II
79	8/10/76	JLA	II	8/17/76	JLA	II	8/20/76	JLA	I
22	8/14/76	JLA	II	8/16/76	JLA	II	8/16/76	JLA	II
39	8/18/76	DEL	II	8/18/76	DEL	II	8/18/76	DEL	II
40	8/13/76	JLA	II	8/13/76	JLA	II	8/13/76	JLA	II
2	8/24/76	JLA	II	8/24/76	JLA	II	8/24/76	JLA	II
48	8/10/76	JLA	II	8/10/76	JLA	II	8/10/76	JLA	II
56	8/5/76	JLA	II	8/5/76	JLA	II	8/5/76	JLA	II
57	8/24/76	DEL	II	8/24/76	DEL	II	8/23/76	DEL	II
59	8/30/76	JLA	II	8/30/76	JLA	II	8/30/76	JLA	II

REVIEWED AND ENTERED ON APPLICABLE DRAWING OR CHECKLIST

Line No. 12
Folder No. 1

NO UNACCEPTABLE INDICATIONS

Examination and evaluations have been performed to my satisfaction
 Foreman N/A

Witnessed and Accepted by
 Customer N/A

Witnessed By
 Authorized Inspector N/A



FOR REFERENCE

TEST CHANNEL TEST REPORT

Contract No. 74-2256 Customer CECO Report or Sequence # 11

Job Location Byron, Ill. Proc. No. TCP74-2256/7 5B Rev. 3

Pressure Gauge Manufacturer Ashcroft Model 4-0-100-13

Pressure Gauge 4" \varnothing Range 0-100 S/N or ID 4-0-100-13

Last Calibration Date 8-4-76 Recalibration Due 2-4-77

Leak Detector Solution Seamtest Low Temp

Test Zone No.	Acceptable Performance									
	Pressure Strength			Solution Film			Pressure Decay			
	Date	Evaluator	Level	Date	Evaluator	Level	Date	Evaluator	Level	
29	8/16/76	JLA	II	8/16/76	JLA	II	8/16/76	JLA	II	
64	8/24/76	JLA	II	8/24/76	JLA	II	8/24/76	JLA	II	
85	8/24/76	JLA	II	8/24/76	JLA	II	8/24/76	JLA	II	
87	8/24/76	JLA	II	8/24/76	JLA	II	8/24/76	JLA	II	
116	8/24/76	JLA	II	8/24/76	JLA	II	8/24/76	JLA	II	
119	8/24/76	JLA	II	8/24/76	JLA	II	8/24/76	JLA	II	
120	8/24/76	JLA	II	8/24/76	JLA	II	8/24/76	JLA	II	
136	8/24/76	JLA	II	8/24/76	JLA	II	8/24/76	JLA	II	
REVIEWED AND ENTERED ON DRAWING OR CHECKLIST				APPLICABLE						
NO UNACCEPTABLE INDICATIONS										
									<div style="border: 1px solid black; padding: 5px; display: inline-block;"> Line No. <u>11</u> Folder No. <u>1</u> </div>	
Examination and evaluations have been performed to my satisfaction				Witnessed and Accepted By			Witnessed By			
N/A				N/A			N/A			
Foreman				Customer			Authorized Inspector			



FOR REFERENCE

TEST CHANNEL TEST REPORT

Contract No. 74-2256 Customer CECO Report or Sequence # 12
 Job Location Byron, Ill. Proc. No. TCP74-2256/7 5B Rev. 3
 Pressure Gauge Manufacturer Ashcroft Model 4-0-100-15
 Pressure Gauge 4" Range 0-100 S/N or ID 4-0-100-15
 Last Calibration Date 8-4-76 Recalibration Due 2-4-77
 Leak Detector Solution Seamtest Low Temp

Test Zone No.	Acceptable Performance								
	Pressure Strength			Solution Film			Pressure Decay		
	Date	Evaluator	Level	Date	Evaluator	Level	Date	Evaluator	Level
81	8/13/76	JLA	II	8/13/76	JLA	II	8/13/76	JLA	II
17	8/17/76	JLA	II	8/17/76	JLA	II	8/17/76	JLA	II
18	8/24/76	JLA	II	8/24/76	JLA	II	8/24/76	JLA	II
20	8/24/76	JLA	II	8/24/76	JLA	II	8/24/76	JLA	II
47	9/14/76	JLA	II	9/14/76	JLA	II	9/14/76	JLA	II
51	9/23/76	JLA	II	9/23/76	JLA	II	9/23/76	JLA	II
14 Oil Sump	9/14/76	JLA	II	9/14/76	JLA	II	9/14/76	JLA	II
90	9/31/76	JLA	II	9/31/76	JLA	II	9/31/76	JLA	II
77A	9/14/76	JLA	II	9/14/76	JLA	II	9/14/76	JLA	II
92A	9/14/76	JLA	II	9/14/76	JLA	II	9/14/76	JLA	II
37C	9/14/76	JLA	II	9/14/76	JLA	II	9/14/76	JLA	II
REVIEWED AND ENTERED ON APPLICABLE DRAWING OR CHECKLIST									
NO UNACCEPTABLE INDICATIONS									
Examination and evaluations have been performed to my satisfaction						Witnessed and Accepted By		Witnessed By	
N/A						N/A		N/A	
Foreman						Customer		Authorized Inspector	

Line No. 12
Folder No. 1



FOR REFERENCE

TEST CHANNEL TEST REPORT

Contract No. 74-2256 Customer CECO Report or Sequence # 13
 Job Location Byron, Ill. Proc. No. TCP74-2256/7 5B Rev. 3
 Pressure Gauge Manufacturer Ashcroft Model 4-0-100-16
 Pressure Gauge 4" \emptyset Range 0-100 S/N or ID 4-0-100-16
 Last Calibration Date 8-4-76 Recalibration Due 2-4-77
 Leak Detector Solution Seamtest Low Temp

Test Zone No.	Acceptable Performance								
	Pressure Strength			Solution Film			Pressure Decay		
	Date	Evaluator	Level	Date	Evaluator	Level	Date	Evaluator	Level
33	8/17/76	JLA	II	8/17/76	JLA	II	8/17/76	JLA	II
23	8/10/76	JLA	II	8/11/76	JLA	I	8/11/76	JLA	I
21	8/6/76	JLA	II	8/10/76	JLA	II	8/10/76	JLA	II
34	8/23/76	JLA	II	8/23/76	JLA	II	8/23/76	JLA	II
42	8/13/76	JLA	II	8/13/76	JLA	II	8/13/76	JLA	II
43	8/10/76	JLA	II	8/10/76	JLA	II	8/10/76	JLA	II
66	8/14/76	JLA	II	8/14/76	JLA	II	8/14/76	JLA	II
71	8/14/76	JLA	II	8/10/76	JLA	II	8/14/76	JLA	II
86	8/23/76	JLA	II	8/23/76	JLA	II	8/23/76	JLA	II
88	8/23/76	JLA	II	8/23/76	JLA	II	8/23/76	JLA	II
REVIEWED AND ENTERED ON APPLICABLE DRAWING OR CHECKLIST									<div style="border: 1px solid black; padding: 5px; width: fit-content;"> Line No. <u>13</u> Folder No. <u>1</u> </div>
NO UNACCEPTABLE INDICATIONS									
89	8/24/76	JLA	II	8/24/76	JLA	II	8/24/76	JLA	II
92	8/20/76	JLA	II	8/20/76	JLA	II	8/20/76	JLA	II
Examination and evaluations have been performed to my satisfaction			Witnessed and Accepted By			Witnessed By			
N/A			N/A			N/A			
Foreman			Customer			Authorized Inspector			



FOR REFERENCE

TEST CHANNEL TEST REPORT

Contract No. 74-2256 Customer CECO Report or Sequence # 14
 Job Location Byron, Ill. Proc. No TCP 74-2256/7 5B Rev. 3
 Pressure Gauge Manufacturer Ashcroft Model 4-0-100-14
 Pressure Gauge 4" \emptyset Range 0-100 S/N or ID 4-0-100-14
 Last Calibration Date 8-4-76 Recalibration Due 2-4-77
 Leak Detector Solution Seamtest Low Temp

Test Zone No.	Acceptable Performance								
	Pressure Strength			Solution Film			Pressure Decay		
	Date	Evaluator	Level	Date	Evaluator	Level	Date	Evaluator	Level
15	8/31/76	JLA	II	8/31/76	JLA	II	8/31/76	JLA	II
19	8/31/76	JLA	II	8/31/76	JLA	II	8/31/76	JLA	II
82A	8/31/76	JLA	II	8/31/76	JLA	II	8/31/76	JLA	II
103	9/2/76	JLA	II	9/2/76	JLA	II	9/2/76	JLA	II
126	10/1/76	JLA	II	10/1/76	JLA	II	10/1/76	JLA	II
129	10/1/76	JLA	II	10/1/76	JLA	II	10/1/76	JLA	II
REVIEWED AND ENTERED ON APPLICABLE DRAWING OR CHECKLIST									
NO UNACCEPTABLE INDICATIONS									
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> Line No. <u>14</u> Folder No. <u>1</u> </div>									
Examination and evaluations have been performed to my satisfaction				Witnessed and Accepted By			Witnessed By		
N/A				N/A			N/A		
Foreman				Customer			Authorized Inspector		



FOR REFERENCE

TEST CHANNEL TEST REPORT

Contract No. 74-2256 Customer CECO Report or Sequence # 15
 Job Location Byron, Ill. Proc. No. TCP 74-2256/7 5B Rev. 3
 Pressure Gauge Manufacturer Ashcroft Model 4-0-100-12
 Pressure Gauge 4" Range 0-100 S/N or ID 4-0-100-12
 Last Calibration Date 5-13-76 Recalibration Due 11-13-76
 Leak Detector Solution Seamtest Low Temp

Test Zone No.	Acceptable Performance								
	Pressure Strength			Solution-Film			Pressure Decay		
	Date	Evaluator	Level	Date	Evaluator	Level	Date	Evaluator	Level
59	8/30/76	JLA	II	8/30/76	JLA	II	8/30/76	JLA	II
60	8/21/76	JLA	II	8/21/76	JLA	II	8/31/76	JLA	II
63	8/11/76	JLA	II	8/11/76	JLA	II	8/11/76	JLA	II
13 Bact. Sump	8/30/76	JLA	II	8/30/76	JLA	II	8/20/76	JLA	II
60A	8/31/76	JLA	II	8/31/76	JLA	II	8/31/76	JLA	II
55	8/21/76	JLA	II	8/21/76	JLA	II	8/21/76	JLA	II
105	8/21/76	DEL	II	8/21/76	DEL	II	8/21/76	DEL	II
106	8/11/76	JLA	II	8/11/76	JLA	II	8/11/76	JLA	II
108	8/28/76	JLA	II	8/28/76	JLA	II	8/28/76	JLA	II
111	8/31/76	DEL	II	8/31/76	DEL	II	8/31/76	DEL	II
REVIEWED AND ENTERED ON APPLICABLE DRAWING OR CHECKLIST R									
NO UNACCEPTABLE INDICATIONS									
Examination and evaluations have been performed to my satisfaction						Witnessed and Accepted by		Witnessed By	
N/A						N/A		N/A	
Foreman						Customer		Authorized Inspector	

Line No. 15
Folder No. 1



FOR REFERENCE

TEST CHANNEL TEST REPORT

Contract No. 74-2256 Customer CECO Report or Sequence # 16
 Job Location Byron, Ill. Proc. No. TCP 74-2256/7 5 Rev. 3
 Pressure Gauge Manufacturer Ashcroft Model 4-0-100-9
 Pressure Gauge 4" Range 0-100 S/N or ID 4-0-100-9
 Last Calibration Date 5-13-76 Recalibration Due 11-13-76
 Leak Detector Solution Seamtest Low Temp

Test Zone No.	Acceptable Performance								
	Pressure Strength			Solution Film			Pressure Decay		
	Date	Evaluator	Level	Date	Evaluator	Level	Date	Evaluator	Level
6	8/19/76	JLA	II	8/19/76	JLA	II	8/19/76	JLA	II
69	8/24/76	DEL	II	8/24/76	DEL	II	8/24/76	FAILED	
69 RETEST	9/28/76	DEL	II	9/28/76	DEL	II	9/28/76	DEL	II
72	8/19/76	JLA	II	8/19/76	JLA	II	8/19/76	JLA	II
74	8/15/76	JLA	II	8/15/76	JLA	II	8/15/76	JLA	II
75	8/12/76	JLA	II	8/12/76	JLA	II	8/12/76	JLA	II
82	8/31/76	JLA	II	8/31/76	JLA	II	8/31/76	JLA	II
60B	9/14/76	JLA	II	9/14/76	JLA	II	9/14/76	JLA	II
60C	9/14/76	JLA	II	9/14/76	JLA	II	9/14/76	JLA	II
77	9/10/76	JLA	II	9/10/76	JLA	II	9/10/76	JLA	II
32	9/15/76	JLA	II	9/15/76	JLA	II	9/15/76	JLA	II
94	9/27/76	JLA	II	9/27/76	JLA	II	9/27/76	JLA	II
96	9/27/76	DEL	II	9/27/76	DEL	II	9/27/76	DEL	II
104	9/29/76	JLA	II	9/29/76	JLA	II	9/29/76	JLA	II

Examination and evaluations have been performed to my satisfaction

N/A

Foreman

Witnessed and Accepted by

N/A

Customer

Witnessed By

N/A

Authorized Inspector

NO UNACCEPTABLE INDICATIONS

REVIEWED AND ENTERED ON APPLICABLE DRAWING OR CHECKLIST

Line No. 10



FOR REFERENCE

TEST CHANNEL TEST REPORT

Contract No. 74-2256/7 Customer CECO Report or Sequence # 17
 Job Location Byron, Ill. Proc. No TCP 74-2256/7 5B Rev. 3
 Pressure Gauge Manufacturer Ashcroft Model 4-0-100-10
 Pressure Gauge 4" Ø Range 0-100 S/N or ID 4-0-100-10
 Last Calibration Date 5-13-76 Recalibration Due 11-13-76
 Leak Detector Solution seamtest Low Temp

Test Zone No.	Acceptable Performance								
	Pressure Strength			Solution Film			Pressure Decay		
	Date	Evaluator	Level	Date	Evaluator	Level	Date	Evaluator	Level
68	8/11/76	JLA	II	8/11/76	JLA	II	8/11/76	JLA	II
70	8/27/76	JLA	II	8/27/76	JLA	II	8/27/76	JLA	II
73	8/27/76	JLA	II	8/27/76	JLA	II	8/27/76	JLA	II
76	8/31/76	JLA	II	8/31/76	JLA	II	8/31/76	JLA	II
78	8/27/76	JLA	II	8/27/76	JLA	II	8/27/76	JLA	I
2 @ 116°	8/27/76	JLA	II	8/27/76	JLA	II	8/27/76	JLA	II
REVIEWED AND ENTERED ON APPLICABLE DRAWING OR CHECKLIST 2									
NO UNACCEPTABLE INDICATIONS									
Examination and evaluations have been performed to my satisfaction						Witnessed and Accepted By		Witnessed By	
N/A						N/A		N/A	
Foreman						Customer		Authorized Inspector	

Line No. 17
 Folder No. 1



FOR REFERENCE

TEST CHANNEL TEST REPORT

Contract No. 74-2256 Customer CECO Report or Sequence # 18
 Job Location Byron, Ill. Proc. No. TCP 74-2256/7 5B Rev. 3
 Pressure Gauge Manufacturer Ashcroft Model 4-0-100-16
 Pressure Gauge 4" Range 0-100 S/N or ID 4-0-100-16
 Last Calibration Date 8-4-76 Recalibration Due 2-4-77
 Leak Detector Solution Seamtest Low Temp

Test Zone No.	Acceptable Performance								
	Pressure Strength			Solution Film			Pressure Decay		
	Date	Evaluator	Level	Date	Evaluator	Level	Date	Evaluator	Level
92B	9/14/76	JLA	II	9/14/76	JLA	II	9/16/76	JLA	II
37D	9/16/76	JLA	II	9/16/76	JLA	II	9/16/76	JLA	II
95	9/22/76	JLA	II	9/22/76	JLA	II	9/22/76	JLA	II
121	9/27/76	JLA	II	9/27/76	JLA	II	9/27/76	JLA	II
109	10/29/76	JLA	II	10/29/76	JLA	II	10/29/76	JLA	II
113	9/30/76	JLA	II	9/30/76	JLA	II	9/30/76	JLA	II
122	10/1/76	JLA	II	10/1/76	JLA	II	10/1/76	JLA	II
124	11/2/76	JLA	II	11/2/76	JLA	II	11/2/76	JLA	II
133	10/25/76	JLA	II	10/25/76	JLA	II	10/25/76	JLA	II
REVIEWED AND ENTERED ON APPLICABLE DRAWING OR CHECKLIST									
NO UNACCEPTABLE INDICATIONS									
Examination and evaluations have been performed to my satisfaction						Witnessed and Accepted by		Witnessed By	
N/A						N/A		N/A	
Foreman						Customer		Authorized Inspector	

Line No. 18
 Folder No. 1



FOR REFERENCE

TEST CHANNEL TEST REPORT

Contract No. 74-2256 Customer CECO Report or Sequence # 19
 Job Location Byron, Ill. Proc. No. TCP 74-2256/7 5B Rev. 3
 Pressure Gauge Manufacturer Ashcroft Model 4-0-100-15
 Pressure Gauge 4" Ø Range 0-100 S/N or ID 4-0-100-15
 Last Calibration Date 8-4-76 Recalibration Due 2-4-77
 Leak Detector Solution Seamtest Low Temp

Test Zone No.	Acceptable Performance								
	Pressure Strength			Solution Film			Pressure Decay		
	Date	Evaluator	Level	Date	Evaluator	Level	Date	Evaluator	Level
54	9/23/76	JLA	II	9/23/76	JLA	II	9/23/76	JLA	II
97	9/17/76	JLA	II	9/17/76	JLA	II	9/17/76	JLA	II
130	9/23/76	JLA	II	9/23/76	JLA	II	9/23/76	JLA	II
125	8/31/76	DEL	II	8/31/76	OEL	II	8/31/76	DEL	II
99	9/30/76	JLA	II	9/30/76	JLA	II	9/30/76	JLA	II
101	10/2/76	JLA	II	10/2/76	JLA	II	10/2/76	JLA	II
110	11/1/76	JLA	II	11/1/76	JLA	II	11/1/76	JLA	II
112	9/30/76	JLA	II	11/30/76	JLA	II	11/30/76	JLA	II
114	9/23/76	JLA	II	9/23/76	JLA	II	9/23/76	JLA	II
117	10/2/76	JLA	II	9/23/76	JLA	II	10/2/76	JLA	II
128	10/19/76	JLA	II	10/19/76	JLA	II	10/19/76	JLA	II
132	10/25/76	JLA	II	10/25/76	JLA	II	10/25/76	JLA	II
REVIEWED AND ENTERED ON APPLICABLE DRAWING OR CHECKLIST NO UNACCEPTABLE INDICATIONS									
Examination and evaluations have been performed to my satisfaction						Witnessed and Accepted by		Witnessed By	
N/A						N/A		N/A	
Foreman						Customer		Authorized Inspector	

Line No. 17
 Folder No. 1



FOR REFERENCE

TEST CHANNEL TEST REPORT

Contract No. 74-2256 Customer CECO Report or Sequence # 20
 Job Location Byron, Ill. Proc. No. TCP 74-2256/7 5 Rev. 3
 Pressure Gauge Manufacturer Ashcroft Model 4-0-100-9
 Pressure Gauge 4" Ø Range 0-100 S/N or ID 4-0-100-9
 Last Calibration Date 5-13-76 Recalibration Due 11-13-76
 Leak Detector Solution Seamtest Low Temp

Test Zone No.	Acceptable Performance								
	Pressure Strength			Solution Film			Pressure Decay		
	Date	Evaluator	Level	Date	Evaluator	Level	Date	Evaluator	Level
107	9/30/76	JLA	II	10/2/76	JLA	II	10/2/76	JLA	II
118	10/1/76	JLA	II	10/1/76	JLA	II	10/1/76	JLA	II
127	10/8/76	JLA	II	10/8/76	JLA	II	10/8/76	JLA	II
131	10/23/76	JLA	II	10/23/76	JLA	II	10/23/76	JLA	II
REVIEWED AND ENTERED ON APPLICABLE DRAWING OR CHECKLIST B									
NO UNACCEPTABLE INDICATIONS									
Examination and evaluations have been performed to my satisfaction						Witnessed and Accepted By		Witnessed By	
N/A						N/A		N/A	
Foreman						Customer		Authorized Inspector	

Line No. 20
 Folder No. I



FOR REFERENCE

TEST CHANNEL TEST REPORT

Contract No. 74-2256 Customer CECO Report or Sequence # 21
 Job Location Byron, Ill. Proc. No. TCP 74-2256/7 5B Rev. 3
 Pressure Gauge Manufacturer Ashcroft Model 4-0-100-12
 Pressure Gauge 4" Ø Range 0-100 S/N or ID 4-0-100-12
 Last Calibration Date 5-13-76 Recalibration Due 11-13-76
 Leak Detector Solution Seamtest Low Temp

Test Zone No.	Acceptable Performance								
	Pressure Strength			Solution Film			Pressure Decay		
	Date	Evaluator	Level	Date	Evaluator	Level	Date	Evaluator	Level
115	8/30/76	JLA	II	9/2/76	JLA	II	9/2/76	JLA	II
123	10/1/76	JLA	II	10/1/76	JLA	II	10/1/76	JLA	II
REVIEWED AND ENTERED ON APPLICABLE R DRAWING OR CHECKLIST									
NO UNACCEPTABLE INDICATIONS									
Examination and evaluations have been performed to my satisfaction						Witnessed and Accepted by		Witnessed By	
N/A						N/A		N/A	
Foreman						Customer		Authorized Inspector	

Line No. 21
Folder No. 1



FOR REFERENCE

TEST CHANNEL TEST REPORT

Contract No. 74-2256 Customer CECO Report or Sequence # 22
 Job Location Byron, Ill. Proc. No. TCP 74-2256/7 5B Rev. 3
 Pressure Gauge Manufacturer Ashcroft Model 4-0-100-11
 Pressure Gauge 4" Range 0-100 S/N or ID 4-0-100-11
 Last Calibration Date 10-28-76 Recalibration Due 4-28-77
 Leak Detector Solution Seamtest Low Temp

Test Zone No.	Acceptable Performance								
	Pressure Strength			Solution Film			Pressure Decay		
	Date	Evaluator	Level	Date	Evaluator	Level	Date	Evaluator	Level
378	2/27	DEL	II	2/27	DEL	II	2/27	DEL	II
1012	2/27	JLA	II	2/27	JLA	II	2/27	JLA	II
110	2/27	JLA	II	2/27	JLA	II	2/27	JLA	II
93	2/27	JLA	II	2/27	JLA	II	2/27	JLA	II
120	2/27	JLA	II	2/27	JLA	II	2/27	JLA	II
135	2/27	JLA	II	2/27	JLA	II	2/27	JLA	II
REVIEWED AND ENTERED ON APPLICABLE DRAWING OR CHECKLIST									
NO UNACCEPTABLE INDICATIONS									
Examination and evaluations have been performed to my satisfaction						Witnessed and Accepted by		Witnessed by	
N/A						N/A		N/A	
Foreman						Customer		Authorized Inspector	

REJECT

Line No. 1
 Order No. 1

FOR REFERENCE



TEST CHANNEL TEST REPORT

Contract No. 74-2256 Customer CECO Report or Sequence # 23
 Job Location Byron, Ill. Proc. No. TCP 74-2256/7 5B Rev. 3
 Pressure Gauge Manufacturer Ashcroft Model 4-0-100-12
 Pressure Gauge 4" \varnothing Range 0-100 S/N or ID 4-0-100-12
 Last Calibration Date 10-28-76 Recalibration Due 4-28-77
 Leak Detector Solution Seamtest Low Temp

Test Zone No.	Acceptable Performance								
	Pressure Strength			Solution Film			Pressure Decay		
	Date	Evaluator	Level	Date	Evaluator	Level	Date	Evaluator	Level
37A	2/3/77	DEL	II	2/3/77	DEL	II	2/3/77	DEL	II
62	3/10/77	DEL	II	3/10/77	DEL	II	3/10/77	DEL	II
REVIEWED AND ENTERED ON APPLICABLE DRAWING OR CHECKLIST R									
NO UNACCEPTABLE INDICATIONS									
Examination and evaluations have been performed to my satisfaction						Witnessed and Accepted by		Witnessed By	
NA						NA		NA	
Foreman						Customer		Authorized Inspector	

RETEST

Line No. 23
 Folder No. 1



FOR REFERENCE

TEST CHANNEL TEST REPORT

Contract No. 74-2256 Customer CECO Report or Sequence # 24
 Job Location Byron, Ill. Proc. No. TCP 74-2256/7 5B Rev. 3
 Pressure Gauge Manufacturer Ashcroft Model 4-0-100-9
 Pressure Gauge 4" Range 0-100 S/N or ID 4-0-100-9
 Last Calibration Date 10-28-76 Recalibration Due 4-28-77
 Leak Detector Solution _____

Test Zone No.	Acceptable Performance								
	Pressure Strength			Solution Film			Pressure Decay		
	Date	Evaluator	Level	Date	Evaluator	Level	Date	Evaluator	Level
109A	^{2/24/77} 2/24/77	JLA	II	^{2/24/77} 2/24/77	JLA	II	^{2/24/77} 2/24/77	JLA	II
109	^{2/24/77} 2/24/77	JLA	II	^{2/24/77} 2/24/77	JLA	II	^{2/24/77} 2/24/77	JLA	II
119	^{2/25/77} 2/25/77	JLA	II	^{2/25/77} 2/25/77	JLA	II	^{2/25/77} 2/25/77	JLA	II

Revis

REVIEWED AND ENTERED ON APPLICABLE DRAWING OR CHECKLIST

NO UNACCEPTABLE INDICATIONS

Examination and evaluations have been performed to my satisfaction
 Witnessed and Accepted by
 Witnessed By

NA Foreman NA Customer NA Authorized Inspector

FOR REFERENCE

CONTRACT NO. 74-2256 CUSTOMER CECO
 JOB LOCATION Byron II PROC. NO. APP-74-2256/7 REV. 0
 PRESSURE GAUGE MANUFACTURER Ashcroft MODEL CE-205857
 PRESSURE GAUGE 6" RANGE 0-100 S/N OR I.D. CE-205857
 LAST CALIBRATION DATE 2-18-77 RECALIBRATION DUE 8-18-77
 ASSEMBLY IDENTIFICATION Equipment Hatch

1. Strength Test
 By: DEL
 Date: 3-18-77
 A. Pressure 57.5 PSIG
 B. Held 10 Min.
 C. Results OK

2. Pressure Decay Test
 By: DEL
 Date: 3-18-77
 A. Time
 Start Hold 1:00
 End Hold 2:05
 B. Pressure
 Start Hold 50 PSIG
 End Hold 48.5 PSIG

R
 C. Pressure Difference
-1.5
 D. Results OK

REVIEWED AND ENTERED ON APPLICABLE DRAWING OR CHECKLIST

NO UNACCEPTABLE INDICATIONS

Remarks:

witness:
J.J. Juba
 CECO QA

Line No. 25
 Folder No. 1

Report # _____
 Page _____ of _____



FOR REFERENCE

TEST CHANNEL TEST REPORT

Contract No. 74-2256 Customer CECO Report or Sequence # 26
 Job Location Byron, Ill. Proc. No. TCP 74-2256/7 5B Rev. 3
 Pressure Gauge Manufacturer Ashcroft Model 4-0-100-12
 Pressure Gauge 4" Range 0-100 S/N or ID 4-0-100-12
 Last Calibration Date 10-28-76 Recalibration Due 4-28-77
 Leak Detector Solution Seamtest Low Temp

Test Zone No.	Acceptable Performance								
	Pressure Strength			Solution Film			Pressure Decay		
	Date	Evaluator	Level	Date	Evaluator	Level	Date	Evaluator	Level
36	4/2/77	JLA	I	4/2/77	JLA	I	4/2/77	JLA	I
19	4/2/77	JLA	I	4/2/77	JLA	I	4/2/77	JLA	I
HC 244	4/2/77	DEL	I	4/2/77	DEL	I	4/2/77	DEL	I
REVIEWED AND ENTERED ON APPLICABLE DRAWING OR CHECKLIST									
NO UNACCEPTABLE INDICATIONS									

Examination and evaluations have been performed to my satisfaction

Witnessed and Accepted by

Witnessed By

NA
Foreman

NA
Customer

NA
Authorized Inspector

Attachment "D"



Calcs. For Containment Liner Leak	
chase channel	
<input checked="" type="checkbox"/> Safety-Related	<input type="checkbox"/> Non-Safety-Related

Calc. No. S. 2.6.1	
Rev. 6	Date
Page 111	of

Client CECO
Project BYRON / Braidwood
Proj. No. 4391, 4392, 4683, 4684 Equip. No.

Prepared by K.V. Patel	Date 2/10/87
Reviewed by S. Miller	Date 2/11/87
Approved by [Signature]	Date 2/18/87

Objective: To prepare the technical basis for plugging Leak chase channel

- References:**
- (1) C.B. & I Drawing 339
 - (2) S & L Drawing S-1069, Detail 287

Leak chase channels are fillet welded over a number of liner seam welds for leak testing the seam welds during construction. The channel creates a volume which is pressurized to the design pressure during construction to demonstrate leak tightness of the liner seam welds. After the tests, plugs may be installed in the test tap to seal this volume.

Plugging the leak chase channels is acceptable during the ILRT test and during operation of the plant based on the following:

1. The channels and the 3/16" continuous fillet welds between the channel and the liner are designed to withstand accident pressure and accident temperature. Stresses due to SSE on the channel and its weld are negligible compared to the magnitude of the accident pressure and temperature stresses. The channel and the weld have a safety margin of 3.2 against allowables under the most severe loads. Refer to accompanying calculations.

2. As required by Sargent and Lundy Drawing S-1069, the leak chase channel assembly is a Category I structure.

Calcs. For <i>Containment Liner Leak</i>		Calc. No. <i>5.2.6.1</i>	
<i>chase channel</i>		Rev. <i>6</i>	Date
<input checked="" type="checkbox"/> Safety-Related	<input type="checkbox"/> Non-Safety-Related	Page <i>112</i> of	

Client <i>CECO</i>	Prepared by <i>E.V. Patel</i>	Date <i>2/10/87</i>
Project <i>Byron / Braidwood</i>	Reviewed by <i>S. Delle</i>	Date <i>2/11/87</i>
Proj. No. <i>4391, 4392, 4682, 4684</i> Equip. No.	Approved by <i>S.P. Brown</i>	Date <i>2-10-87</i>

- The liner seam weld was tested by partial radiography and 100% liquid penetrant or magnetic particle test. Furthermore, the leak test channels and the liner weld underneath have been tested at 50 psig (containment design pressure) during construction and the leak tightness was established at that time.
- The welded steel plate liner, attached to the entire inside surface of the containment, serves as leaktight membrane but not as a structural load carrying element. The liner seam weld is always in compression due to prestress in the containment wall even though the ILRT pressure will relieve this compression force to some extent. Therefore, the liner seam weld can be considered non-structural.
- Venting the leak test channels during the ILRT will not provide information on the leak tightness of the liner weld, since the liner is backed by prestressed concrete and is an integral part of the containment wall which will act as a leak tight membrane. The most effective procedure for performing the test on the liner weld is to test when it is not backed by concrete, and this has been done during liner construction. In fact, most of the leakage during containment Integrated Leak Rate Tests is due to penetrations and valves and not due to the containment structure itself.

Based on above discussion, it is concluded that installing leak chase channel plugs during ILRT or plant operation is not significant to the test or operation of the plant.

Form GQ-3.08.1 Rev. 2 5L-F647 10-85 KPS

Client CECO
Project BYZON/BRIDWOOD
Proj. No. 4391, 4392 Equip. No.
2623, 2624

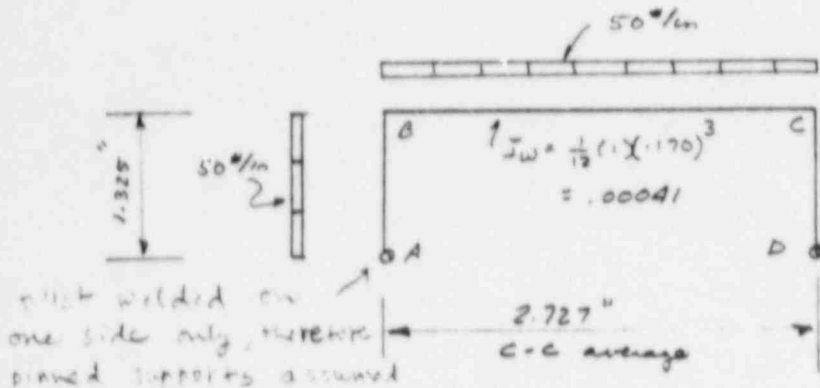
Prepared by L. Patal Date 10-22-86
Reviewed by K.V. Patel Date 2/10/87
Approved by B. Sturman Date 2-11-87

Load combination 1 - Accident Pressure

50 psf

Prepared by Jeder Link 9-21-88
Reviewed by U. M. Ho 9/21/88
Approved by S.D. Schacht
9/21/88

R8



flange welded on one side only, therefore pinned supports assumed

$I_x = \frac{1}{12} (1 \times 1.170)^3 = .00041$

$I_y = \frac{1}{12} (1 \times 2.727)^3 = .0017 \text{ in}^4$

no sideways Symmetric loading.

for flange $\frac{I}{L} = \frac{.00017}{1.325} = .0001283 \text{ in}^3$

D.F. = $\frac{(.001283) \cdot 75}{(.001283) \cdot 75 + .000150} = .86$

for web $\frac{I}{L} = \frac{.00041}{2.727} = .000150 \text{ in}^2$

D.F. = $\frac{.000150}{(.001283) \cdot 75 + .000150} = .14$

FIXED END MOMENTS

$M_{BC}, M_{CB} = \frac{1}{12} (50)(2.727)^2 = 31 \text{ in-lb}$

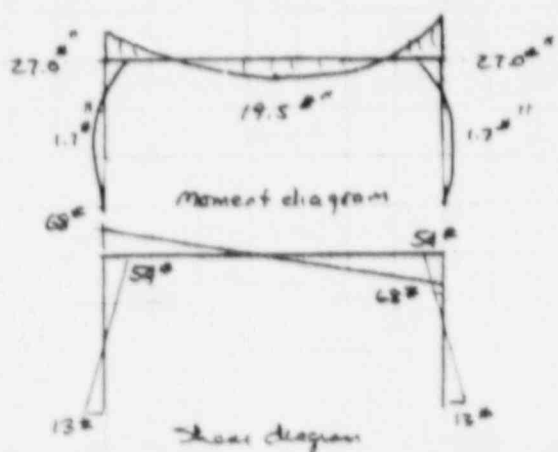
$M_{AB} = M_{CD} = \frac{50(1.325)^2}{8} = 11 \text{ in-lb}$

Moment Distribution

	BA	BC
DF	.86	.14
FEM	11	-31
D1	17.2	2.8
C01		1.4
D2	-1.2	-2
	27.0	-27.0

This number should have a minus sign. But the effect of this error is negligible since large margin exists as shown on page 115 therefore no change is necessary

R8

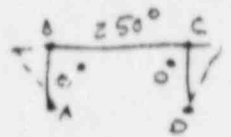


Client	CECO
Project	BYRON/BRIDWOOD
Proj. No.	4391/4392 4683/4684
Equip. No.	

Prepared by	R. Parry	Date	10-22-86
Reviewed by	E. V. Patel	Date	6/10/87
Approved by	S. J. Moran	Date	2/1/87

Load Combination - 2 Accident temperature from 70° to 320° (Ref Kambayal pg 138)

$$K = \frac{I_2}{I_1} \frac{h}{L} = \left(\frac{.0017}{.0001} \right) \left(\frac{1.325}{2.727} \right) = 2.0$$



$$N = 2.0(2) + 3 = 7$$

$$M_B = M_C = - \frac{3EI\epsilon t}{hN} = - \frac{3(29 \times 10^6)(.0017)(4.9 \times 10^{-6})(320-70)}{1.325(7)} = -39.5 \text{ #-IN}$$

$$H_A = H_C = \frac{39.5}{1.325} = 29 \text{ #}$$

for flange

$$M_{max} = 39.5 + 27.0 = 66.5 \text{ #-IN}$$

$$V_{max} = 54 \text{ #} + 29 \text{ #} = 83 \text{ #}$$

allowable moments

$$M_{allow} = S f_b = \frac{1}{6} (1)(.273)^2 \cdot .6(36,000) = 268 \text{ #-IN} >> 66.5$$

$$V_{allow} = t d \cdot .4 f_y = .273(1)(.4)(36000) = 3931 \text{ #} >> 83$$

for web

$$M_{max} = 66.5 \text{ #-IN}$$

$$V_{max} = 83 \text{ #}$$

$$M_{allow} = S f_b = \frac{1}{6} (1)(.170)^2 \cdot .6(36000) = 104 \text{ #-IN} >> 66.5$$

$$V_{allow} = t d \cdot .4 f_y = .170(1)(.4)(36000) = 2448 \text{ #} >> 83$$

∴ leak chase channels have margin factor of

$$\frac{66.5}{104} = .64 \text{ against bending}$$

$$\frac{83}{2448} = .03 \text{ against shear}$$



Calcs. For Containment- Liner Leak	
chase channel	
<input checked="" type="checkbox"/> Safety-Related	<input type="checkbox"/> Non-Safety-Related

Calc. No. S.V.6.1	
Rev. 6	Date
Page 115 of	

Client CECO	Equip. No.
Project Braidwood	
Proj. No. 4683/84 4691/92	

Prepared by K V Patel	Date 2/10/87
Reviewed by S. Mehta	Date 2/11/87
Approved by <i>[Signature]</i>	Date 2/11/87

For weld: $\frac{3}{16}$ " size ϕ fillet weld

$$\text{Weld capacity} = (0.707) \left(\frac{3}{16}\right) (0.5 * 70000) \quad \text{.. base strength}$$

$$= 2784 \text{ \#/in} \quad \frac{3}{16} \text{ inch}$$

$$\text{Weld shear} = 13 + 10.22$$

$$= 23.22 \text{ \#/in} < 2784 \text{ \#/in} \quad \text{O.K.}$$

Weld Margin factor

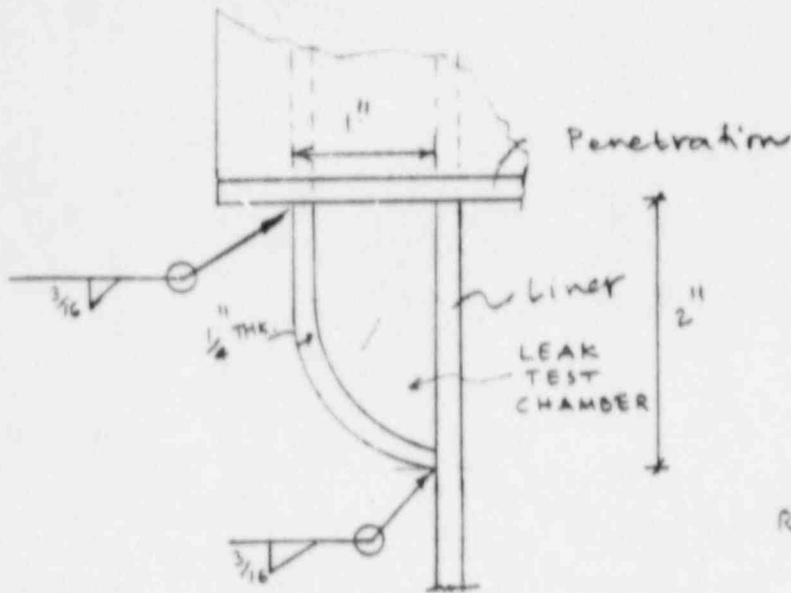
$$= \frac{23.22}{2784}$$

$$= 0.008 \text{ against shear in weld}$$

Based on the maximum margin factor against failure either in Leak chase channel or in its weld, the Leak chase assembly has a minimum safety margin of 3.2.

Client	CECO
Project	BYRON/Bywood
Proj. No.	43A1, 43A2, 46B3, 46B4
Equip. No.	

Prepared by	K. V. Patel	Date	1/12/87
Reviewed by	S. Malle	Date	2/12/87
Approved by	<i>[Signature]</i>	Date	2-12-87



Ref. CBI Drawg 55 & 56

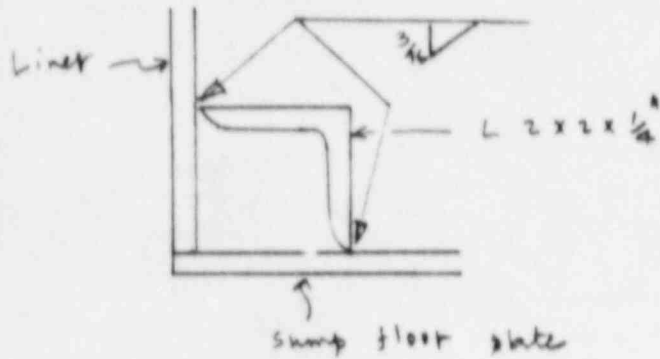
The typical leak test chamber around the penetration is shown in above. The chamber is made of 1/4" thick A-36 material.

By engineering judgement this assembly is judged stronger than the leak chase channel assembly based on the following arguments.

1. Above shown leak test chamber will act as shell and the forces will be carried primarily as a membrane action
2. The 3/16" fillet welds will not govern the design.

Client	CECO
Project	B4R-V / Braided
Proj. No.	4301 / 4392 4683 / 4684
Equip. No.	

Prepared by	K.V. Patel	Date	2/12/87
Reviewed by	S. Mello	Date	2/12/87
Approved by	<i>[Signature]</i>	Date	2-17-87



Ref: CB & I 3rwg. 24

The typical leak test chamber at junction of sump floor plate and containment liner is shown above.

By engineering judgement this assembly is stronger than the leak chase channel assembly

Therefore safety margin determined for the leak chase channel will be the controlling one.