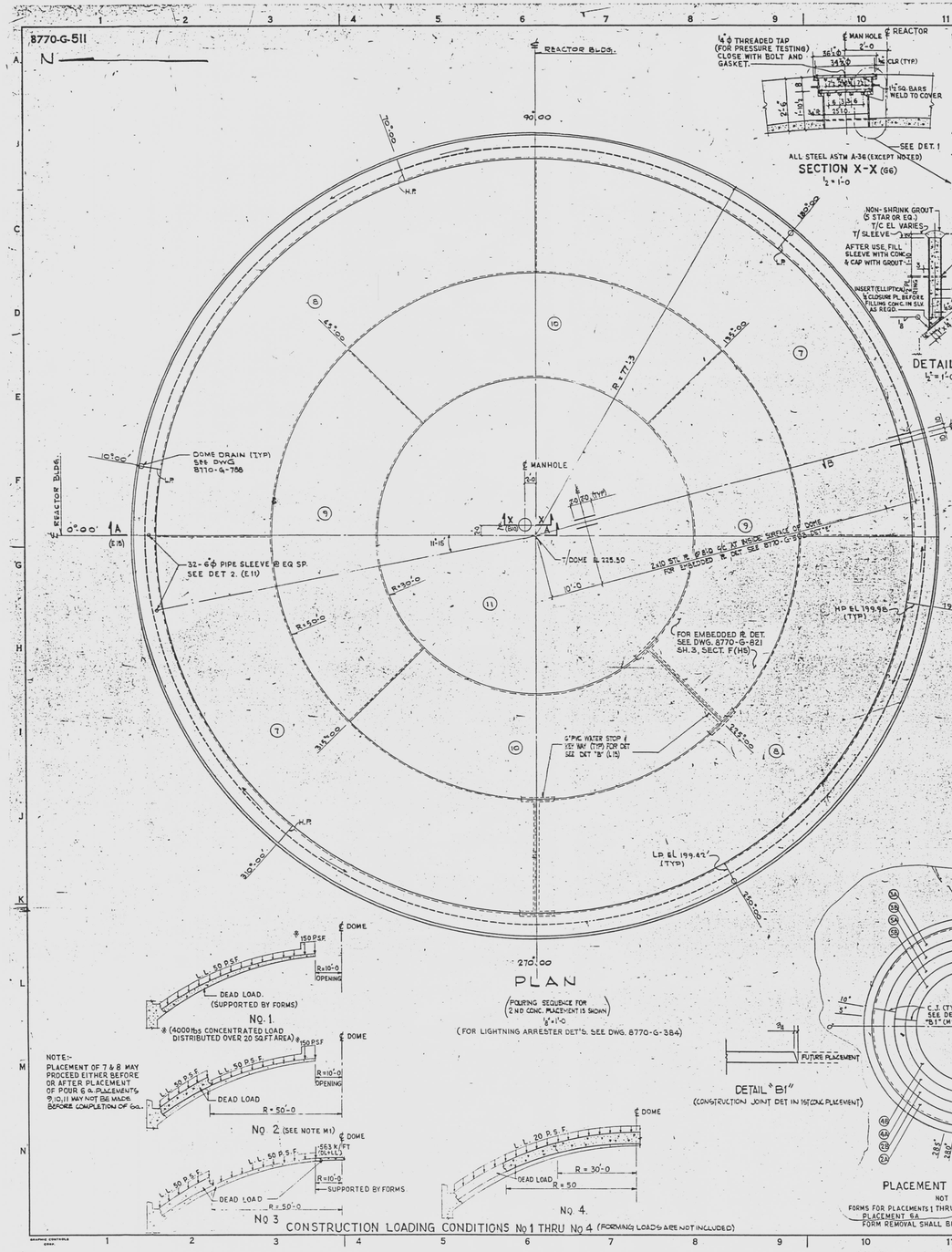
8770-G-511


REACTOR BLDG.
90°00
270°00
180°00
0°00
DOME DRAIN (TYP) SEE DWG. 8770-G-756
32-6ϕ PIPE SLEEVE @ EQ SP. SEE DET. 2. (E11)
MANHOLE
2410 ST. @ 8ϕ10 c/c AT INSIDE SURFACE OF DOME FOR EMBEDDED PL DET SEE 8770-G-598 DET. 'A'
FOR EMBEDDED PL DET. SEE DWG. 8770-G-821 SH. 3, SECT. F(H5)
T/DOME EL. 225.50
HP EL 199.98 (TYP)
LP EL. 199.42' (TYP)
6"PIC WATER STOP (KEY WAY (TYP) FOR DET SEE DET "B" (L16)
R=177.13
R=150'-0
R=135'-0
R=50'-0
R=30'-0
H.P.
L.P.
CYLINDER WALL SEE 8770-G-501
DOME
150 PSF
L.L. 50 PSF
DEAD LOAD. (SUPPORTED BY FORMS)
NO. 1.
(4000 lbs CONCENTRATED LOAD DISTRIBUTED OVER 20 SQ FT AREA)
NO. 2 (SEE NOTE M1)
563 K/FT (DL+LL)
SUPPORTED BY FORMS
NO 3
NO. 4.
PLAN
(POURING SEQUENCE FOR 2 ND CONC. PLACEMENT IS SHOWN)
(FOR LIGHTNING ARRESTER DET'S. SEE DWG. 8770-G-384)
NOTE:- PLACEMENT OF 7 & 8 MAY PROCEED EITHER BEFORE OR AFTER PLACEMENT OF POUR 6 A PLACEMENTS 9,10,11 MAY NOT BE MADE BEFORE COMPLETION OF 6a.
CONSTRUCTION LOADING CONDITIONS No 1 THRU No 4 (FORMING LOADS ARE NOT INCLUDED)
1/4"ϕ THREADED TAP (FOR PRESSURE TESTING) CLOSE WITH BOLT AND GASKET
MAN HOLE
REACTOR
1½ SQ. BARS WELD TO COVER
SEE DET. 1
ALL STEEL ASTM A-36 (EXCEPT NOTED)
SECTION X-X (G6)
12-⅞ϕ (1⅛) 1ST HEX BOLTS EA. COVER.
34" RING PL.
FLAT RUBBER GASKET BETWEEN MILLED BEARING SURFACES, WITH STAINLESS STEEL BOLTS & LOCKWASHER (TYP 6 BOTH COVERS)
TC-P4-S (TYP)
TC-L4-S
DETAIL 1
LIFTING EYE- 2 REQ'D. FOR EACH COVER - SEE DET. 3 (B17)
CLOSED RING
TYP. MANHOLE COVER
4" ϕ CLOSED RING
DETAIL-3 (A15) (4 REQ'D.)
NTS
NON-SHRINK GROUT (5 STAR OR EQ.)
T/C EL VARIES
T/ SLEEVE-EL
AFTER USE, FILL SLEEVE WITH CONC & CAP WITH GROUT
INSERT (ELLIPTICAL) & CLOSURE PL BEFORE FILLING CONC IN SLV AS REQD
6ϕ PIPE SLEEVE
EL 190.97
ALT CLOSURE PL (CIRCULAR)
EL 191.42
DETAIL-2 (E13)
CYLINDER WALL SEE 8770-G-501
FOR DET SEE SECT. B-B (L14)
GROUND CABLE SUPPORTS FOR LOC SEE 8770-G-356 FOR DET & QTY SEE 8770-G-501 DET 'B'
FOR ROOF SEALANT COMPOUND DETAIL SEE DWG 8770-G-755
6ϕ PIPE SLEEVE SEE DET. 2 (E11)
SECTION A-A (G1)
ALLOWABLE LOADS ON EACH SUPPORT POINT ON THE VESSEL ARE NOTED ON DWG 8770-G-793 FORMWORK SHALL BE DESIGNED SO THAT THE CONSTRUCTION LOADS DO NOT EXCEED THE LOADS NOTED
CYLINDER WALL
DOME DRAIN
7.5% @ ℄ REACTOR BLDG.
HP EL 199.98
W.S
EL. 199.98
EL 199.04
WORKING POINT LINE EL 199.08
EL. 191.42'
6ϕ PIPE SLEEVE (LENGTH BY FIELD)
FOR DOME THICKNESS SEE SECT A-A. (E13)
G.I. 6"x4"x4'-0" R (TYP) FOR DET SEE 8770-G-501 DET 'F'
NO LOADS SHALL BE PLACED ON EMBEDDED PLATES UNTIL AFTER ENTIRE 2'-6 DOME THICKNESS HAS ATTAINED MIN. 28 DAY STRENGTH.
SECT. B-B (F11, D15)
DETAIL "B" (17)
(CONSTRUCTION JOINT DET IN 2ND CONC PLACEMENT)
DETAIL "B1" (M3)
(CONSTRUCTION JOINT DET IN 1ST CONC PLACEMENT)
CIRCUMFERENTIAL C.J (TYP) (SEE DET "B1")
C.J (TYP) SEE DET. "B1" (M3)
FUTURE PLACEMENT
NOTE: TOP SURFACE OF 1ST PLACEMENT AND ALL CONSTRUCTION JOINTS TO BE CLEANED AND CHIPPED BACK TO EXPOSE COARSE AGGREGATE. MINIMUM 4 DAYS REQUIRED BETWEEN ADJACENT PLACEMENTS EXCEPT 7 DAYS BETWEEN PLACEMENT 6 AND 6A.
PLACEMENT SEQUENCE - 1ST CONC. PLACEMENT
NOT TO SCALE (AS BUILT)
FORMS FOR PLACEMENTS 1 THRU 6 MAY BE REMOVED BEFORE PLACEMENT 6A. FORM REMOVAL SHALL BE IN ACCORDANCE WITH NOTES.
2ND CONC PLACEMENT
1ST CONC PLACEMENT
KEY
DETAIL "B" (17)
(CONSTRUCTION JOINT DET IN 2ND CONC PLACEMENT)
℄ REACTOR BLDG.
EXT. FACE &, UNLESS NOTED
T/DOME EL. 225.50
8" THK.
(20'-0 DIA. CLOSURE CONC. POUR 6a.)
1ST CONC. PLACEMENT
2ND "
R=10'-0
R=112'-0
R=56'-0
R=73'-1
R=74'-0
1'-0
14'-6 THICKNESS VARIES
5'-0
3'-0
QUANTITIES (NET, BY FIELD UNLESS NOTED)
CONCRETE CLASS A-A (4,000 PSI)
1ST PLACEMENT
POUR NOS 1 TO POUR NOS 5 & 6A
2ND PLACEMENT
9.27 CU YD
3.97 CU YD
1.34 CU YD
6" PVC WATER STOP (TYP) 1,199 LF.
G.I. 6"x4"x4'-0" R AS PER DET "E" 8770-G-503 20 REQ'D.
MANHOLE ASSEMBLY AS PER SECT. X-X. 1 REQD.
PIPE-SLEEVE ASSEMBLY AS PER DET. 2 (E11) (ASTM A-36 STEEL) 32 REQD.
NOTES:
CONCRETE CONSTRUCTION SPECIFICATIONS FOR ALL NON-CYLINDER CONSTRUCTION UNLESS OTHERWISE NOTED:
CONCRETE SHALL BE 3,615 A-A (4000 PSI) SEE SPECIFICATION FCD-8770-478
ALL ANCHOR BOLTS, DRAIN PIPES, PIPE SLEEVES, ELECTRICAL CONDUITS AND EMBEDDED PARTS SHALL BE IN POSITION BEFORE CONCRETE IS PLACED.
VERTICAL JOINTS IN POUR NO 1 BY FIELD - STAGGER WITH ADJACENT POURS
DOUBLE FORMING FOR THE OUTER CIRCUMFERENTIAL SECTIONS OF THE DOME MEMBRANE SHOULD BE USED UNLESS SCREEDS ARE PRACTICAL WITH THE REINFORCEMENT AND CONSTRUCTION JOINT LAYOUT SHOWN.
ALL EXPOSED SURFACES SHALL BE BLAST CLEANED IN ACCORDANCE WITH STEEL STRUCTURES PAINTING COUNCIL SURFACE PREPARATION SP-6 COMMERCIAL BLAST CLEANING. BLAST CLEANED STEEL SHALL BE SHOP PRIMED WITHIN 24 HOURS OF CLEANING. SHOP PRIMER SHALL BE ONE COAT 3 MIL DRY FILM THICKNESS OF CARBOZINC "A" AS MANUFACTURED BY THE CARBOLINE COMPANY APPLIED IN STRICT ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS. FINAL PAINTING SHALL BE IN ACCORDANCE WITH FCD-8770-761 ADDENDUM.
ALL CONSTRUCTION JOINTS SHALL BE CLEANED AND WIRE BRUSHED TO EXPOSE COARSE AGGREGATE. ALL FORMWORK SHALL BE DESIGNED TO PROVIDE UNIFORM SUPPORT OF THE DOME IN SUCH A MANNER THAT THE MAXIMUM DEFLECTION AT ANY POINT DUE TO WEIGHT OF FRESH CONCRETE AND/OR CONSTRUCTION LOADS SHALL NOT EXCEED ½ INCH.
CONCRETE TO BE POURED ACCORDING TO POURING SEQUENCE SHOWN. PLACING OPERATIONS MUST PROCEED CONTINUOUSLY IN OPPOSITE SIDES OF DOME TO PREVENT UNEQUAL LOADINGS.
NO SPECIAL FINISH ON UNDERSIDE OF DOME.
UPPER SURFACE OF 1ST PLACEMENT SHALL BE LEFT IN A ROUGH CONDITION. UPPER SURFACE OF 2ND PLACEMENT SHALL RECEIVE A TROWELED SMOOTH FINISH.
FORMWORK AND SHORES SHALL REMAIN IN PLACE UNTIL TESTS INDICATE THAT THE CONCRETE HAS ATTAINED THE MINIMUM 28 DAY STRENGTH SPECIFIED. FORMWORK SHALL NOT BE REMOVED UNTIL APPROVED BY ENGINEER. SHORES SHALL BE LOWERED GRADUALLY IN 4 INCH INCREMENTS IN A SYMMETRICAL PATTERN, BEGINNING AT THE CROWN AND WORKING TOWARDS THE SPRINGLINE.
CLASS 'I' WELDING SHALL BE IN ACCORDANCE WITH "ADDENDUM TO SPECIFICATION FCD-8770-761".
LEGEND:
⓪ INDICATES SEQUENCE OF CONCRETE POURS.
[20] INDICATES 20 NO CONCRETE PLACEMENT
TSO - THIS SIDE ONLY.
MANHOLE ASSEMBLY REQUIREMENTS:
MANHOLE COVERS & FRAMES SHALL BE IN ACCORDANCE WITH ASTM A-36 SPECIFICATION WELDING SHALL BE DONE IN ACCORDANCE WITH SPECIFICATION FCD-8770-761 - ADDENDUM.
THE VOLUME BETWEEN COVERS SHALL BE TESTED FOR LEAKAGE AT 5 PSIG PRESSURE WITH NO LOSS AFTER ONE HOUR. METHOD OF TESTING SHALL BE APPROVED BY ENGINEER.
THIS DOCUMENT HAS BEEN FOLLOWING CHANGED
FCN 6370-3790
FCN 6370-3809
REFERENCE DRAWINGS:
LIST OF DRAWINGS 8770-A14G
REACTOR BUILDING
CYLINDER WALL PLAN (SECT-MAS) 8770-G-501
DOME REINF. SH. 1 8770-G-512
ROOF PLAN ARCH (PCD) 8770-G-788
STEEL CONTAINMENT VESSEL SH. (A-C) 8770-G-793
MISC. STRUCTURAL STEEL - SH. 3 (A-C) 8770-G-821
REACTOR BLDG. - AVIATION LIGHTING (ELEC) 8770-G-384
REACTOR BLDG. - CYLINDER DEV-MAS 8770-G-503
RECEIVED APR 28 1977 EBASCO SERVICES "ST. LUCIE PLANT"
AS BUILT DRAWING TRANSFERRED TO FPL 4-29-77
THIS DOCUMENT IS THE PROPERTY OF EBASCO SERVICES INCORPORATED. ITS USE IS EXPRESSLY RESTRICTED BY THE TERMS OF THE CONTRACT, DATED AS OF AUGUST 10, 1968, BETWEEN EBASCO SERVICES INCORPORATED AND FLORIDA POWER & LIGHT COMPANY.
FLORIDA POWER & LIGHT COMPANY
HUTCHINSON ISLAND PLANT
1973 - 890,000 KW INSTALLATION - UNIT NO. 1
REACTOR BUILDING
DOME - PLAN & SECTS. - MAS
EBASCO SERVICES INCORPORATED NEW YORK
SCALE AS NOTED
APPROVED
DATE 6-11-77
DIV. C-M
DR. J.D.
CH. C.L.
8770-G-511
NO. DATE REVISION BY CH. APPROVED
5 4-27-77 REV (N11) PLACING SEQUENCE (1 PT) NOTE (AS-BUILT) BSR JX TMC JDM
4 6-5-76 REV: (L16) NOTE: BSR JP TMC JDM
3 4-2-76 REV (B10, B11, B14) MANHOLE DETs (ONE) ADDED (G6) PIPE SLEEVE DET & QTY BSR JP TMC
2 2-17-76 ADDED (B10) MANHOLE DETs, 3 QTY (ORIG DELETED), C/S NOTES, W.S. DWG ADDED REV (M11, C/S) POURING SEQ (M12 DET) MINOR REVISIONS & NEW NOTES (M9) (E13) DWG ADDED (G6) PIPE SLEEVE DET & QTY ADDED (B10) MANHOLE DETs & QTY (ORIG DELETED), C/S NOTES, W.S. DWG ADDED REV (M11, C/S) POURING SEQ (M12 DET) BSR JP TMC
1 10-19-75 CORR QTY (SEE CHANGE NO. A-53) NOTE KPR CE-RC TMC