GEORGIA ELECTRIC 729E509

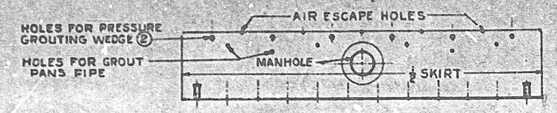
UNLESS OTHERWISE SPECIFIED USE THE FOLLOWING — APPROVED FOR CONSTRUCTION ✓ — SUBMITTED — NUMBER OF DRAWING EXCEPTIONS — NUMBER OF DRAWING CHANGES

TITLE 2-5911-13

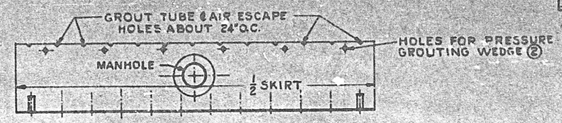
LOWER DRYWELL CONCRETE POURS

FOR PRIMARY CONTAINMENT

F.C.F. GENERAL USE



SECTION A-A



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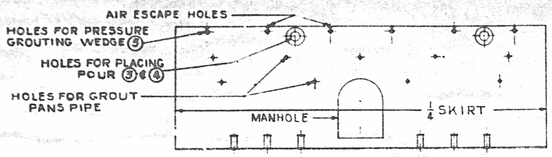

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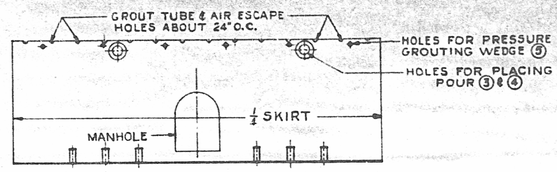

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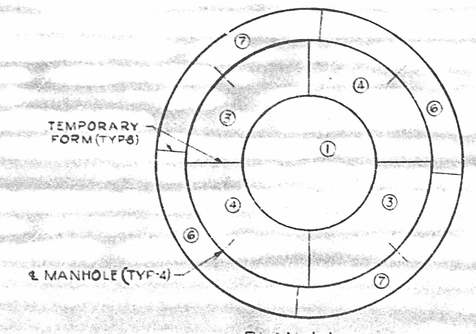
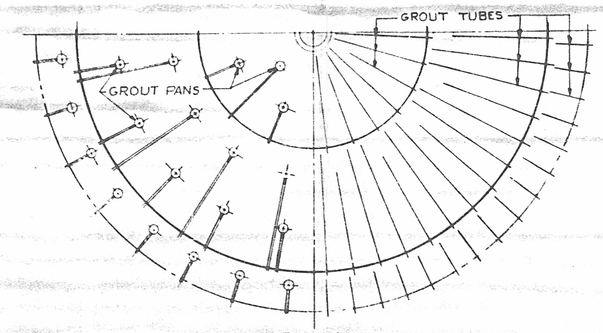
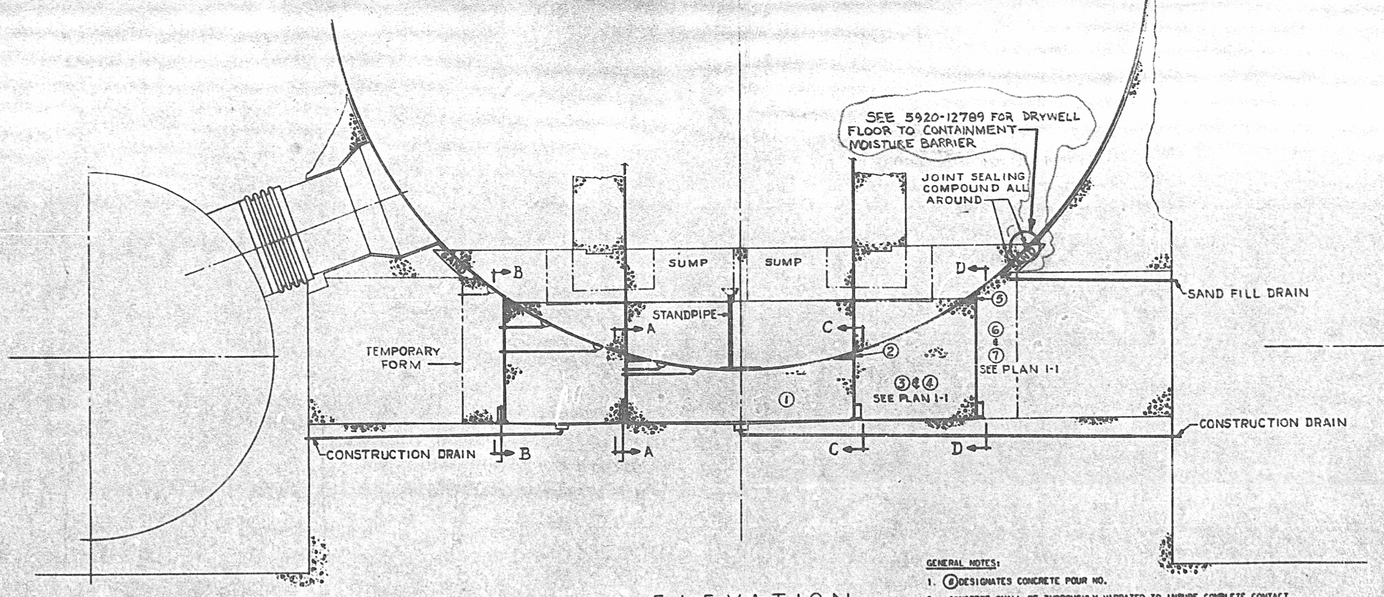


PLAN 1-1



PLAN

GROUT PAN METHOD — TUBE GROUTING METHOD



ELEVATION

GENERAL NOTES:

1. (#) DESIGNATES CONCRETE POUR NO.
2. CONCRETE SHALL BE THOROUGHLY VIBRATED TO INSURE COMPLETE CONTACT WITH DRYWELL.
3. GROUTING AND CONCRETE PRESSURE AGAINST THE OUTSIDE OF DRYWELL TO BE DETERMINED BY A.E.
4. A MIN. 6 - 8 HOURS SHOULD BE MAINTAINED BETWEEN SUCCESSIVE CONCRETE POURS.
5. CONCRETE MAY BE PLACED INSIDE THE DRYWELL AFTER POUR (2). HEIGHT OF CONCRETE ABOVE POUR (2) SHALL BE LIMITED TO 21' - 0" EFFECTIVE DEPTH AGAINST THE DRYWELL SHELL.
6. TYPE II CEMENT SHALL BE USED FOR THE CONCRETE WITH PLASTIMENT COLOR-DUR BY SIKA CHEMICAL CORPORATION OR APPROVED EQUAL TO INDUCE A UNIFORM VOID BY SHRINKAGE.
7. CONCRETE STRENGTH SHALL BE f'_c = 3000 PSI.
8. EACH POUR SHALL BE CONTINUOUS. EXCESS MATERIAL SHALL NOT BE USED FOR SUCCEEDING POUR.
9. DRYWELL MANHOLE TO BE SEAL WELDED AFTER PRESSURE GROUTING POUR 1 AREA.

1.0 PURPOSE

THE PURPOSE OF THE PRESSURE GROUTING OPERATION IS TO FILL ANY POSSIBLE VOIDS BETWEEN THE DRYWELL VESSEL AND FOUNDATION. THE OBJECTIVE OF PRESSURE GROUTING IS TO OBTAIN COMPLETE BEARING OF VERTICAL LOADS FROM THE STRUCTURE AND EQUIPMENT IN THE DRYWELL, TRANSMITTED DIRECTLY TO THE FOUNDATION. THIS WILL MINIMIZE THE EFFECT OF THESE LOADS ON THE DRYWELL ITSELF.

2.0 SUGGESTED METHODS

THE METHODS FOR PRESSURE GROUTING OUTLINED BELOW ARE PRESENTED FOR INFORMATION AND ARE CONCEPTUAL IN NATURE. FINAL DETAILED PROCEDURES BASED ON THE FOLLOWING METHODS, OR OTHER METHODS, SHOULD BE PREPARED WELL IN ADVANCE OF THE ACTUAL WORK.

2.1 TUBE GROUTING METHOD

2.1.1 PLACING GROUT TUBES

A) INSTALLATION

B) GROUT TUBES SHOULD BE POLYETHYLENE TUBING 1/2" MIN. O.D. FASTEN TO THE UNDERSIDE OF THE VESSEL WITH SUITABLE ADHESIVE TAPE. THE SEGMENT OF THE TAPE IN CONTACT WITH THE TUBING SHOULD BE TREATED IN A MANNER TO PREVENT ADHESION TO THE TUBE ITSELF.

C) SPACING SHOULD BE APPROXIMATELY 24" O.C. ON THE OUTSIDE PERIMETER OF THE SUCCESSIVE CONCRETE POURS. IN THE SECTION DESIGNATED POUR 1 THE TUBING SHOULD BE STOPPED APPROXIMATELY 6" SHORT OF THE MANHOLE OPENING.

D) EXTRACTION. AFTER THE CONCRETE HAS BEEN IN PLACE APPROXIMATELY FOUR (4) HOURS, THE TUBES WILL BE EXTRACTED TO PRODUCE A RECEIVING SPACE FOR THE GROUT.

2.1.2 GROUTING PROCEDURE

THIS METHOD IS BASED ON INJECTING LOW VISCOSITY EPOXY SUCH AS COLMA GROUTING COMPOUND LV BY SIKA CHEMICAL CORPORATION OR APPROVED EQUAL. IT IS SUGGESTED THAT THE DETAILED PROCEDURE FOR GROUTING WITH THIS METHOD BE WORKED OUT WITH GROUT MANUFACTURER, INCLUDING THE REQUIREMENTS FOR MATERIALS, EQUIPMENT, FITTINGS, GROUTING PRESSURES, ETC.

2.1.3 POUR AND GROUTING SEQUENCE

A) PLACE GROUT TUBES FOR POUR (1) PER 2.1.1. ABOVE.

B) PLACE CONCRETE IN POUR (1) THROUGH THE MANHOLE IN BOTTOM OF DRYWELL.

C) REMOVE GROUT TUBES PER 2.1.1., ABOVE

D) PRESSURE GROUT PER 2.1.2., ABOVE.

E) PRESSURE GROUT WEDGE (2).

F) PLACE GROUT TUBES FOR POURS (3) AND (4) AND PLACE TEMPORARY FORMS. (SEE PLAN 1-1).

G) PLACE CONCRETE IN POUR (3).

H) REMOVE TUBES AND TEMPORARY FORMS.

J) PLACE CONCRETE IN POUR (4).

K) REMOVE TUBES AND PRESSURE GROUT (3) AND (4).

L) PRESSURE GROUT WEDGE POUR (5).

M) PLACE GROUT TUBES FOR POURS (6) AND (7) AND PLACE TEMPORARY FORMS. (SEE PLAN 1-1).

N) PLACE CONCRETE IN POUR (6).

P) REMOVE TUBES AND TEMPORARY FORMS.

R) PLACE CONCRETE IN POUR (7).

S) REMOVE TUBES AND TEMPORARY FORMS.

T) PRESSURE GROUT POUR (6) AND (7).

2.2 GROUT PANS METHOD

A) SECURE GROUT PANS FOR POUR (1).

B) PLACE CONCRETE IN POUR (1) THROUGH THE MANHOLE IN BOTTOM OF DRYWELL.

C) PRESSURE GROUT POUR (1), AS RECOMMENDED BY GROUT MANF, BY USING STANDPIPE IN MANHOLE AND GROUT PANS. START WITH PANS NEAREST THE CENTERLINE OF THE DRYWELL AND GROUT EACH RING IN SUCCESSION.

D) PRESSURE GROUT WEDGE (2).

E) SECURE OUTER GROUT PANS AND PLACE TEMPORARY FORMS FOR POURS (3). (SEE PLAN 1-1).

F) PLACE CONCRETE IN POURS (3).

G) REMOVE FORMS AND SECURE GROUT PANS FOR POURS (4).

H) PLACE CONCRETE IN POURS (4).

J) PRESSURE GROUT REMAINDER OF AREA STARTING WITH PANS NEAREST THE CENTERLINE OF THE DRYWELL AND GROUT EACH RING IN SUCCESSION.

K) PRESSURE GROUT WEDGE (5).

L) SECURE OUTER GROUT PANS AND PLACE TEMPORARY FORMS FOR POURS (6) AND (7). (SEE PLAN 1-1).

M) PLACE CONCRETE IN POUR (6).

N) REMOVE FORMS.

P) PLACE CONCRETE IN POURS (7).

R) PRESSURE GROUT REMAINDER OF AREA.

3.0 OBVIOUSLY, OTHER METHODS CAN BE DEVELOPED TO ACCOMPLISH THE OBJECTIVES LISTED IN 1.0, ABOVE. THE PARTIES RESPONSIBLE FOR FOUNDATION DESIGN ARE ENCOURAGED TO DEVELOP METHODS WHICH ARE BEST SUITED TO THEIR USUAL PRACTICES AND WHICH ARE BASED ON AVAILABLE MATERIALS, SITE CONDITIONS, EXPERIENCE, ETC.

4.0 NOTE ALSO THAT ANY DETAILED PROCEDURE MUST CONSIDER THE EFFECT THE METHOD WILL HAVE ON THE VESSEL SUPPORT SKIRT. DETAILS MUST BE DEVELOPED EARLY IN THE OVER-ALL PROJECT SCHEDULE SO THAT THE REQUIREMENTS FOR OPENINGS IN THE SUPPORT SKIRT CAN BE MADE KNOWN TO THE DRYWELL FABRICATOR IN A TIMELY MANNER.

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REV.	DESCRIPTION	BY	CHKD	APPR'D
1	REVISED PER MM 2000-010	MPA 10-4-01	AGT 10-10-01	DPG 10-10-01

APPD SAN JOSE 729E509