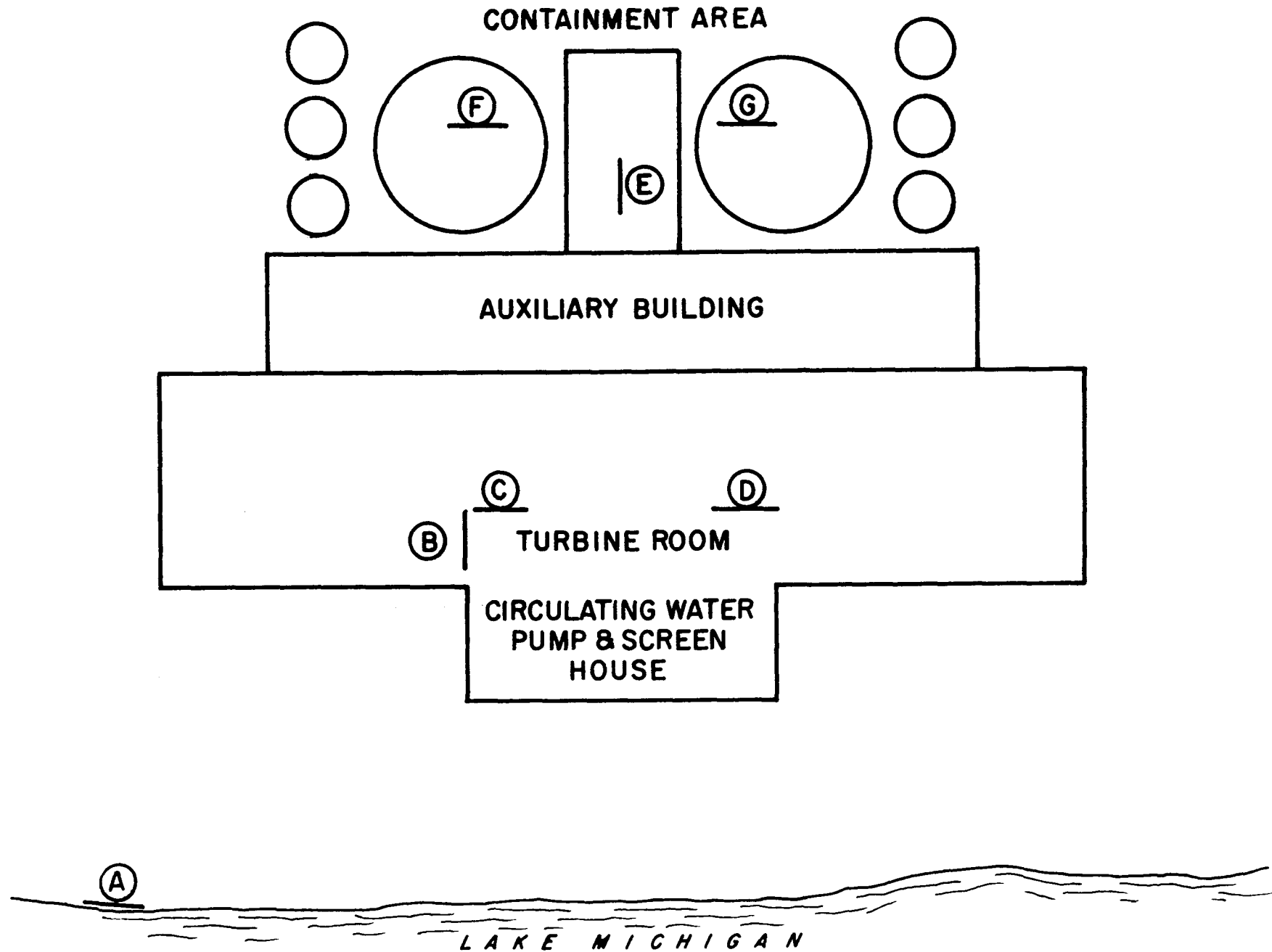


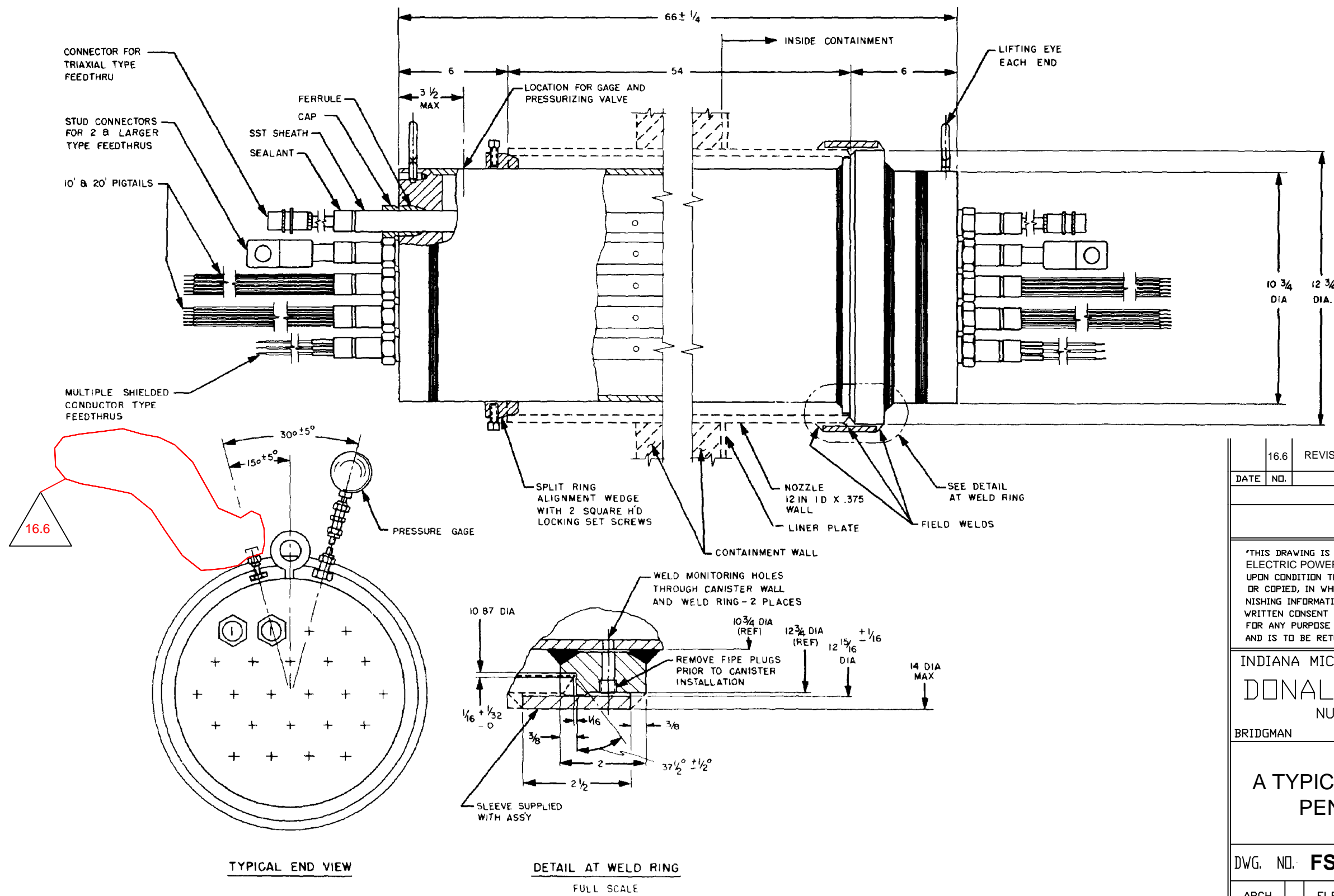
UFSAR REVISION 30.0



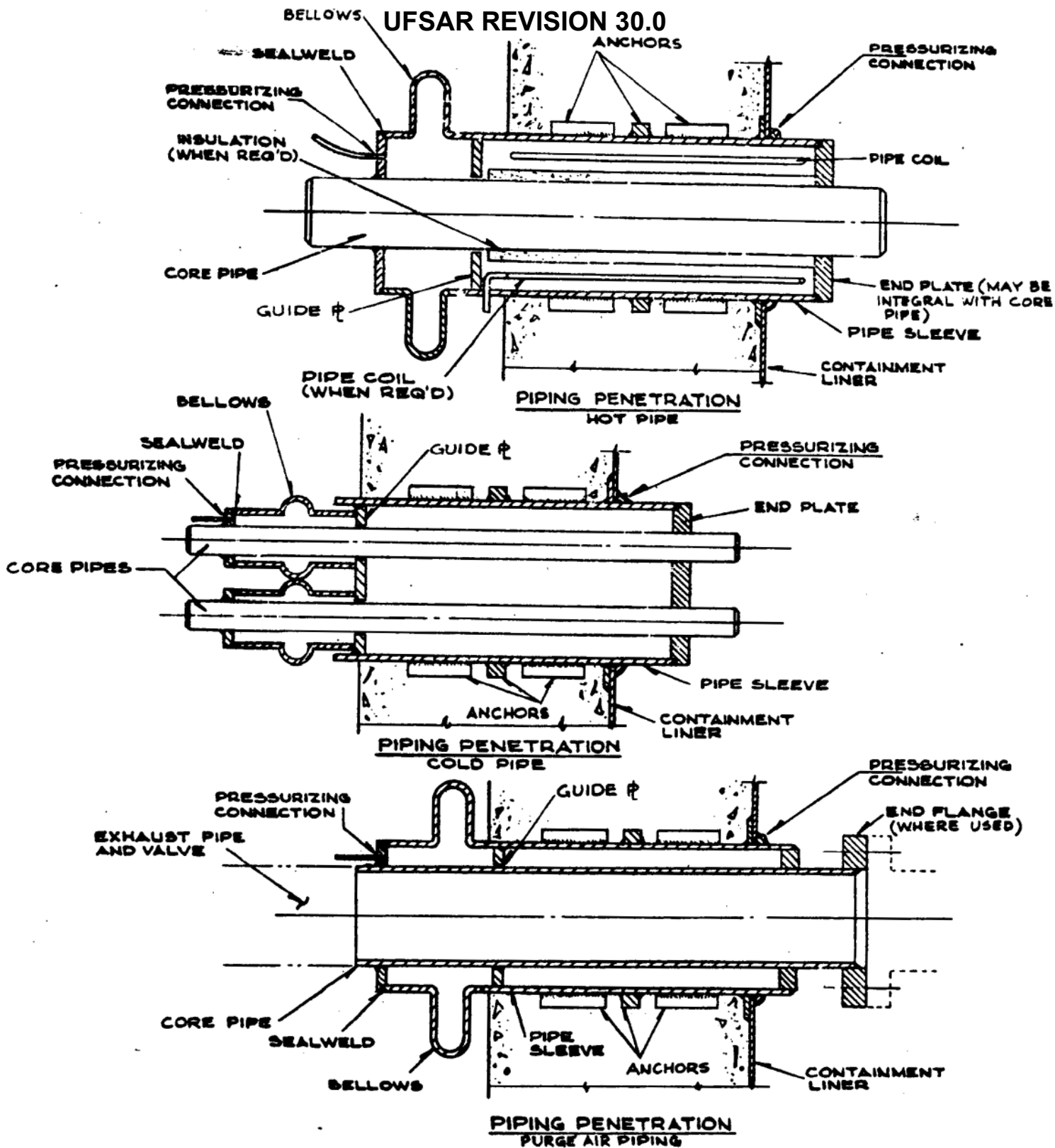
LOCATION OF RESISTIVITY TEST

FIGURE 5.2-1  
JULY 1982

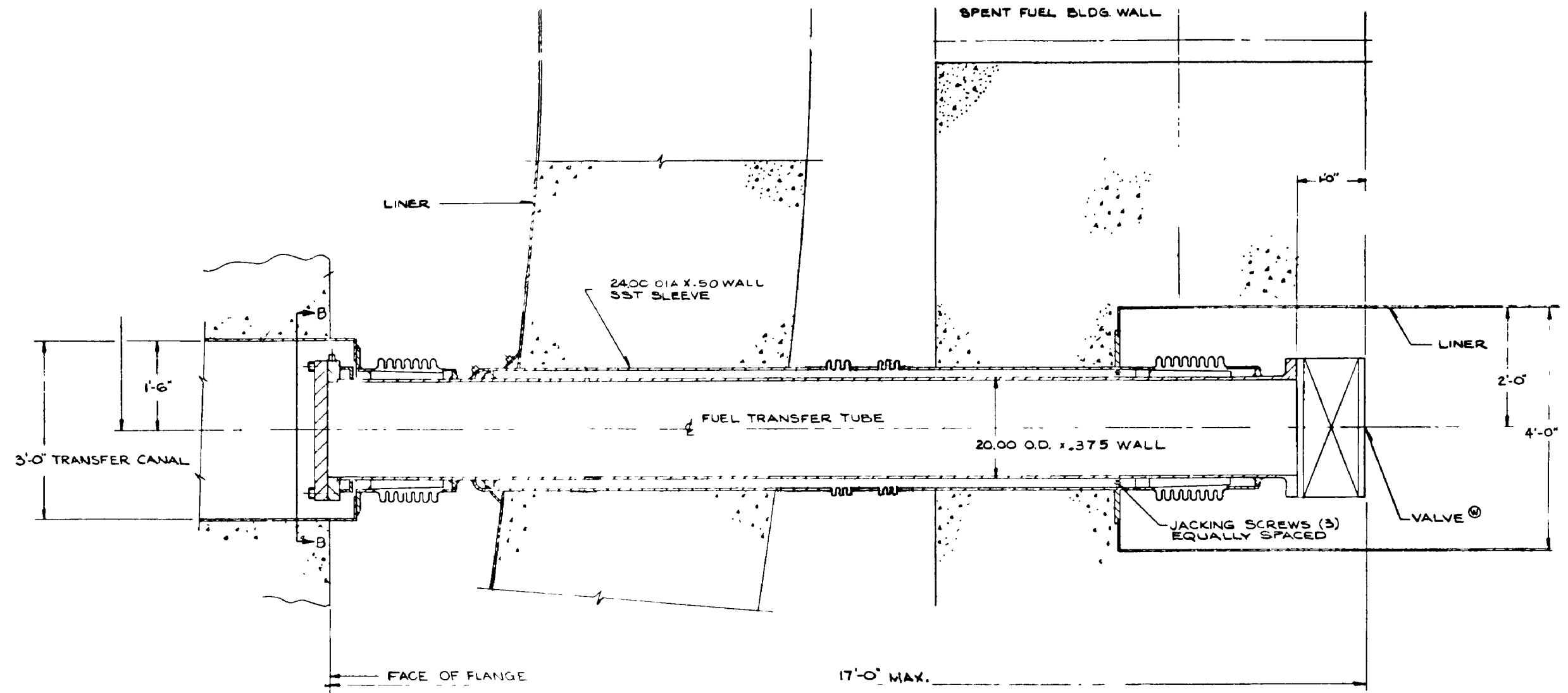
UFSAR REVISION 30.0



|   |     |                               |  |       |     |
|---|-----|-------------------------------|--|-------|-----|
| 16.6  |     | REVISED PER UCR 99-UFSAR-1350 |  |       |     |
| DATE  | NO. | DESCRIPTION                   |  | APPD. |     |
| REVISIONS   |     |                               |  |       |     |
|   |     |                               |  |       |     |
| ‘THIS DRAWING IS THE PROPERTY OF THE AMERICAN ELECTRIC POWER SERVICE CORP. AND IS LOANED UPON CONDITION THAT IT IS NOT TO BE REPRODUCED OR COPIED, IN WHOLE OR IN PART, OR USED FOR FURNISHING INFORMATION TO ANY PERSON WITHOUT THE WRITTEN CONSENT OF THE AEP SERVICE CORP. OR FOR ANY PURPOSE DETRIMENTAL TO THEIR INTEREST, AND IS TO BE RETURNED UPON REQUEST’ |     |                               |  |       |     |
| INDIANA MICHIGAN POWER COMPANY  |     |                               |  |       |     |
| DONALD C. COOK  |     |                               |  |       |     |
| NUCLEAR PLANT   |     |                               |  |       |     |
| BRIDGMAN  |     |                               | MICHIGAN   |       |     |
| A TYPICAL ELECTRICAL PENETRATION  |     |                               |  |       |     |
| DWG. NO. FSAR FIG. 5.2 - 2  |     |                               |  |       |     |
| ARCH  |     | ELEC                          |  | MECH  | STR |
| SCALE:  |     |                               |  | DR:   |     |
| DATE:   |     |                               |  | CHK:  |     |
| DESIGN ENGINEERING DIVISION   |     |                               |  |       |     |
| AEP AMERICAN ELECTRIC POWER   |     |                               | AEP SERVICE CORP.<br>1 RIVERSIDE PLAZA<br>COLUMBUS, OH 43215 |       |     |



TYPICAL PIPING PENETRATIONS



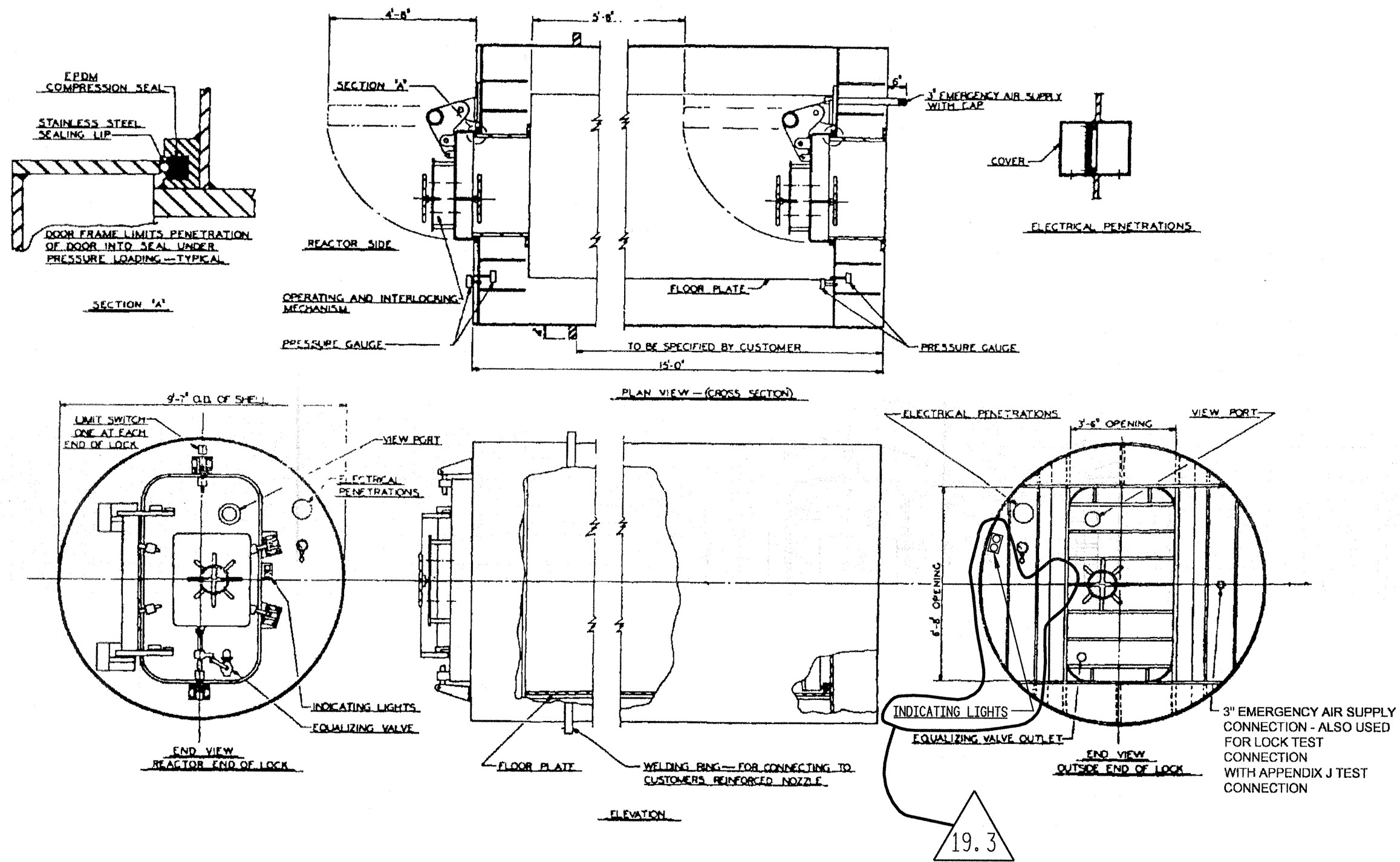
TYPICAL FUEL TRANSFER TUBE

FIGURE 5.2-4

JULY 1982



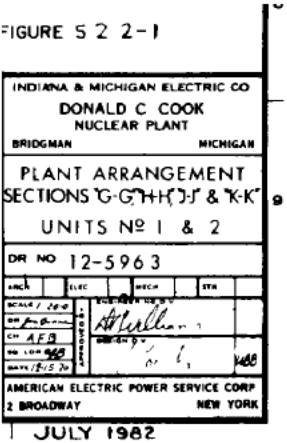
UFSAR REVISION 30.0



FILENAME: fsar-fig-5-2-5 19-3.dgn  
(raster file): fsar-fig-5-2-5 19-3.tif

|   | 19.3 | REVISED PER UCR-1691. |   |       |                  |
|---|------|-----------------------|---|-------|------------------|
| DATE  | NO.  | DESCRIPTION           | DR.   | CHK'D | APP'D            |
| REVISIONS   |      |                       |   |       |                  |
| AMERICAN ELECTRIC POWER<br>COOK NUCLEAR PLANT<br>NUCLEAR GENERATION GROUP<br>BRIDGMAN, MICHIGAN |      | TITLE                 | PERSONNEL LOCKS, TYPICAL<br>ARRANGEMENT & DETAILS |       | REV. NO.<br>19.3 |
|   |      | DWG. NO.              | FSAR FIG. 5.2-5                                   |       | SH 1 OF 1        |

Removed per Regulatory Issue Summary 2015-17



Removed per Regulatory Issue Summary 2015-17

|                                |      |  |     |
|--------------------------------|------|--|-----|
| INDIANA MICHIGAN POWER COMPANY |      |  |     |
| <b>DONALD C. COOK</b>          |      |  |     |
| NUCLEAR PLANT                  |      |  |     |
| BRIDGMAN MICHIGAN              |      |  |     |
| PLANT ARRANGEMENT              |      |  |     |
| SECTIONS "L-L" & "H-H"         |      |  |     |
| UNITS NO. 1 & 2                |      |  |     |
| DWG. NO. FSAR FIG. 5.2.2-1A    |      |  |     |
| ARCH                           | ELEC | MECH   | STR |
| SCALE:                         |      | DATE:  |     |
| DATE:                          |      | DATE:  |     |
| DESIGN ENGINEERING DIVISION    |      |  |     |
| AEP AMERICAN ELECTRIC POWER    |      | AEP SERVICE CORP.<br>1 RIVERSIDE PLAZA<br>COLUMBUS, OH 43215 |     |

Removed per Regulatory Issue Summary 2015-17

INDIANA MICHIGAN POWER COMPANY

DONALD C. COOK

NUCLEAR PLANT

BRIDGMAN

MICHIGAN

PLANT ARRANGEMENT

MEZZANINE FLOOR

EL 609'-0"

UNITS NO. 1 & 2

DWG. NO. FSAR FIG. 5.2.2 - 2

ARCH

ELEC

MECH

STR

SCALE :

DATE :

DESIGN CHECKING DIVISION

AMP

AMERICAN POWER

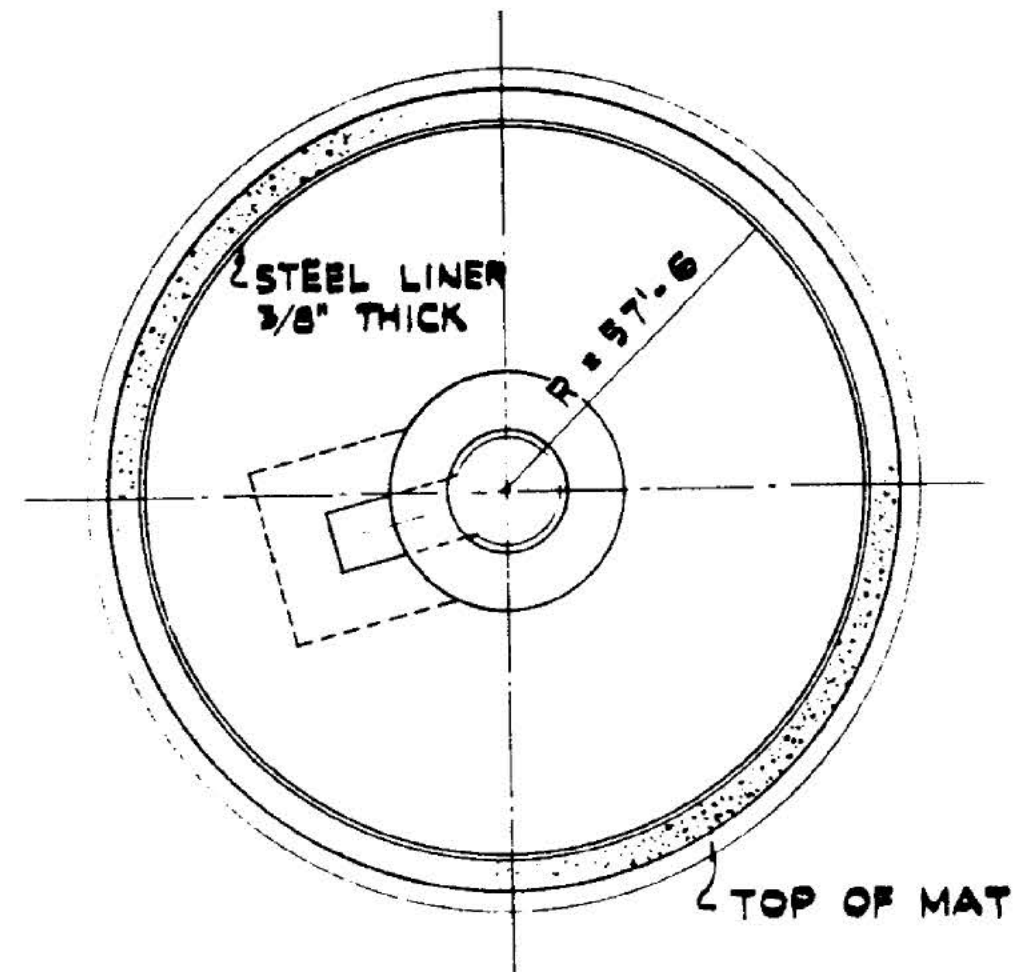
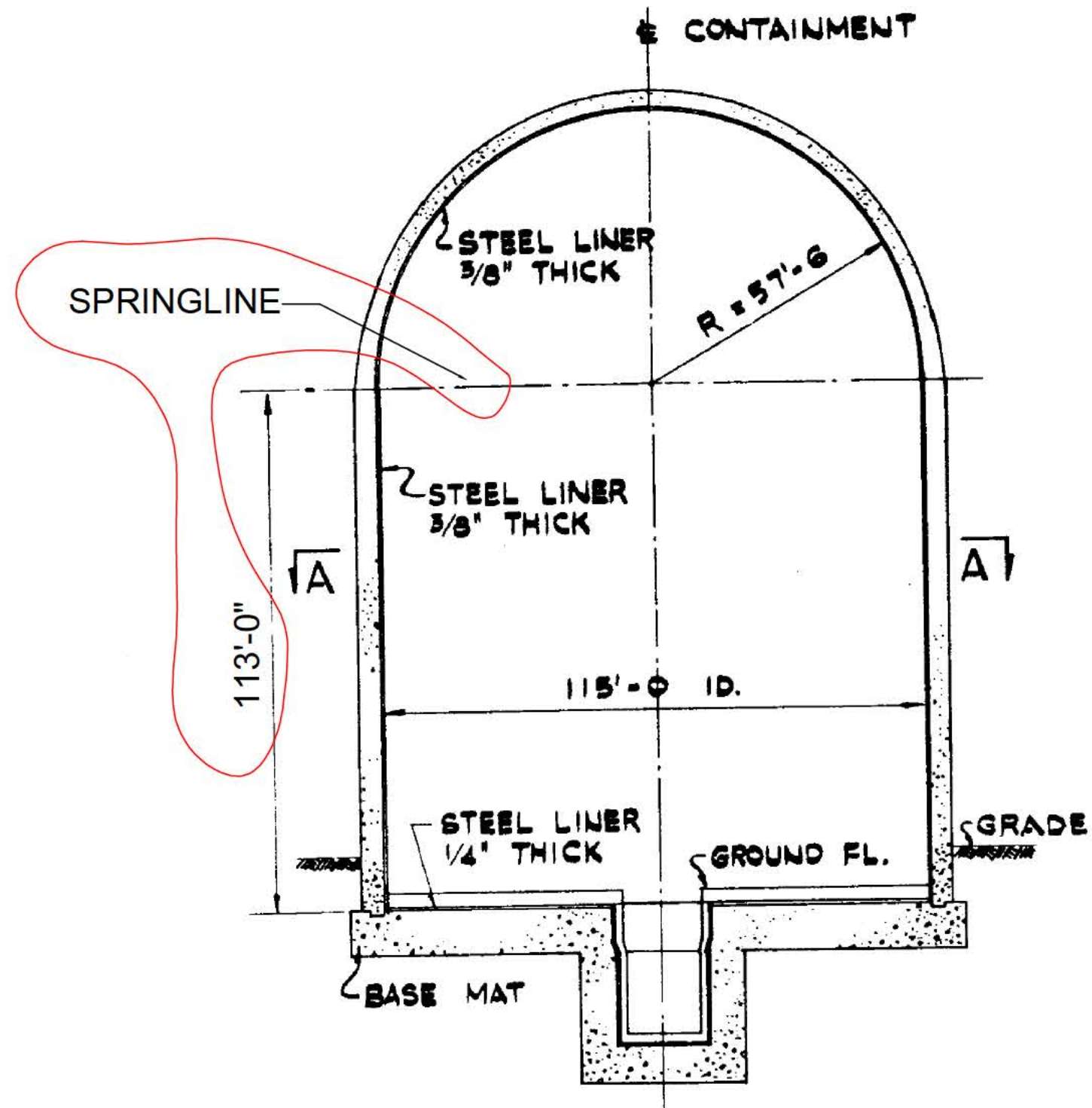
AEP SERVICE CORP.  
1 RIVERSIDE PLAZA  
COLUMBUS, OH 43215

9

# Removed per Regulatory Issue Summary 2015-17

UFSAR Fig. 5.2.2-2A

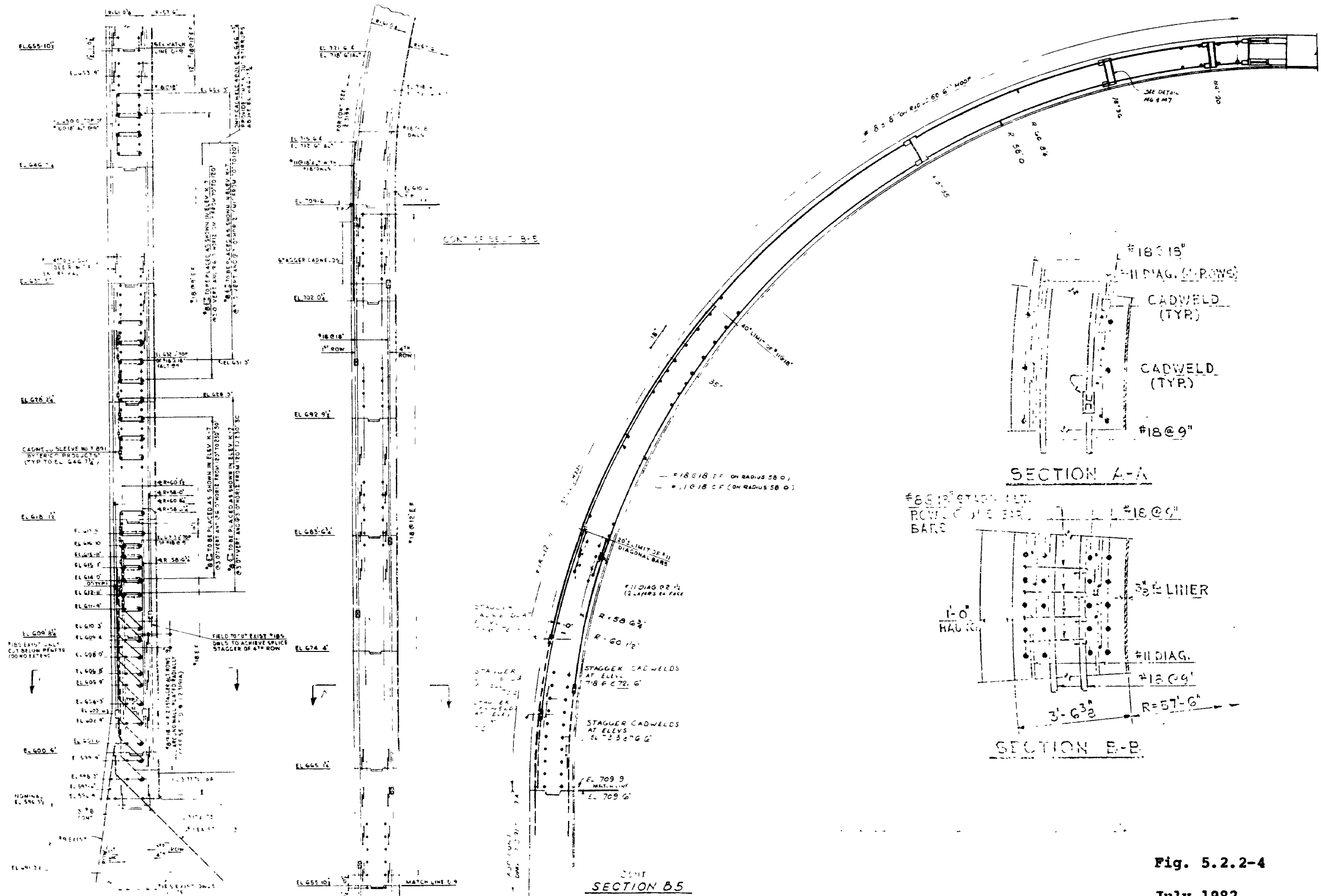
|                                      |                          |                      |                   |
|--------------------------------------|--------------------------|----------------------|-------------------|
| INDIANA & MICHIGAN ELECTRIC CO       |                          |                      |                   |
| DONALD C. COOK                       |                          |                      |                   |
| NUCLEAR PLANT                        |                          |                      |                   |
| BRIDGMAN                             |                          | MICHIGAN             |                   |
| PLANT ARRANGEMENT                    |                          |                      |                   |
| REACTOR BUILDING                     |                          |                      |                   |
| MAIN FLOOR ELEV 650'-0"              |                          |                      |                   |
| DR NO 12-5970                        |                          |                      |                   |
| ARCH                                 | ELEC                     | MECH                 | STR               |
| DESIGNED BY<br>A.E.S.                | ENGINEERING BY<br>A.E.S. | REVIEWED BY<br>S. P. | DATE<br>JULY 1982 |
| AMERICAN ELECTRIC POWER SERVICE CORP |                          |                      |                   |
| 2 BROADWAY                           |                          | NEW YORK             |                   |



SECTION A - A

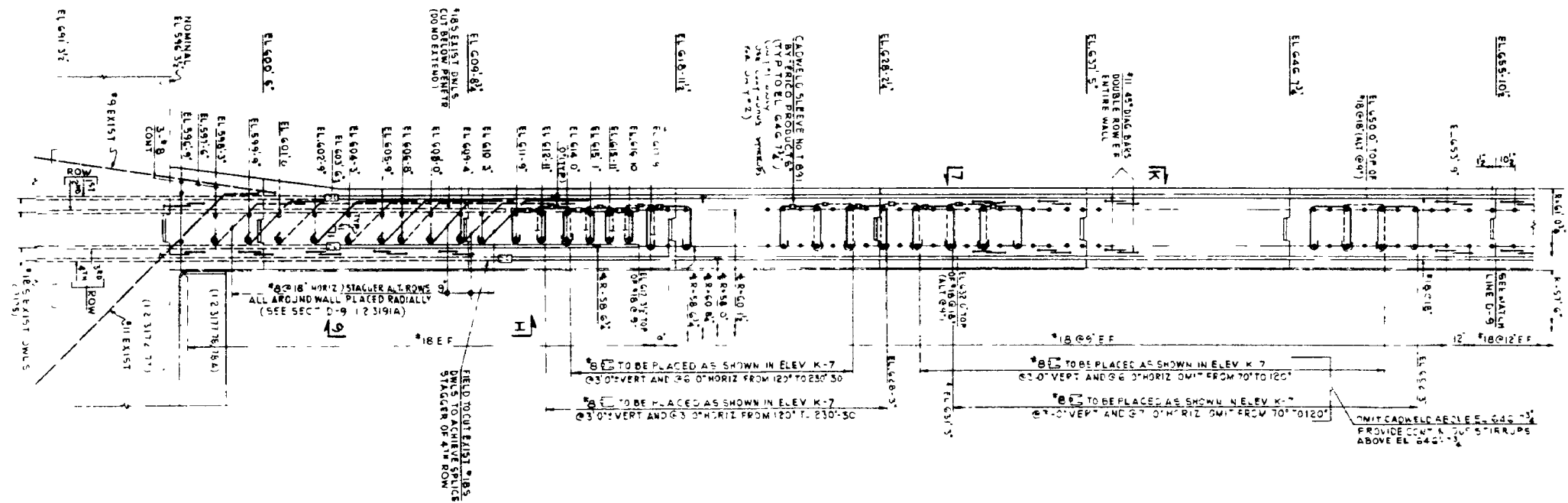
SECTIONAL ELEVATION

|  |                     |             |          |
|--|---------------------|-------------|----------|
| 17   | REVISED PER UCR 537 |             |          |
| DATE   | NO.                 | DESCRIPTION | APPROVED |
| REVISIONS  |                     |             |          |
|  |                     |             |          |
|  |                     |             |          |
| THIS DRAWING IS THE PROPERTY OF THE AMERICAN ELECTRIC POWER SERVICE CORP. AND IS LOANED TO THE USER UNDER THE CONDITION THAT IT IS NOT TO BE REPRODUCED OR COPIED, IN WHOLE OR IN PART, OR USED FOR ANY PURPOSES WITHOUT THE WRITTEN CONSENT OF THE AEP SERVICE CORP. OR FOR ANY PURPOSES CONTRARY TO THE INTERESTS OF THE AEP SERVICE CORP. AND IS TO BE RETURNED UPON REQUEST. |                     |             |          |
| INDIANA MICHIGAN POWER COMPANY   |                     |             |          |
| DONALD C. COOK   |                     |             |          |
| NUCLEAR PLANT  |                     |             |          |
| BRIDGMAN   |                     |             | MICHIGAN |
| UNITS NO. 1 & 2  |                     |             |          |
| CONTAINMENT  |                     |             |          |
| SECTIONAL ELEVATION  |                     |             |          |
| DWG. NO. FSAR FIG. 5.2.2-3   |                     |             |          |
| ARCH   | ELEC                | MECH        | STR      |
| ROLE:  | DR:                 | CHK:        | APP:     |
| DATE:  | DATE:               | DATE:       | DATE:    |
| DESIGN ENGINEER'S OFFICE   |                     |             |          |
| AEP SERVICE CORP.<br>1 RIVERSIDE PLAZA<br>COLUMBUS, OH 43215   |                     |             |          |



**Fig. 5.2.2-4**

**July 1982**

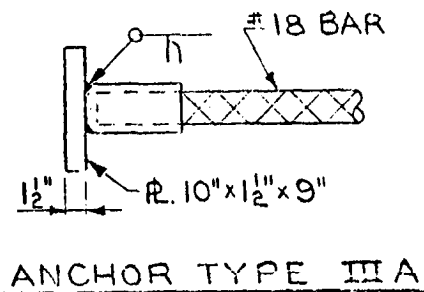
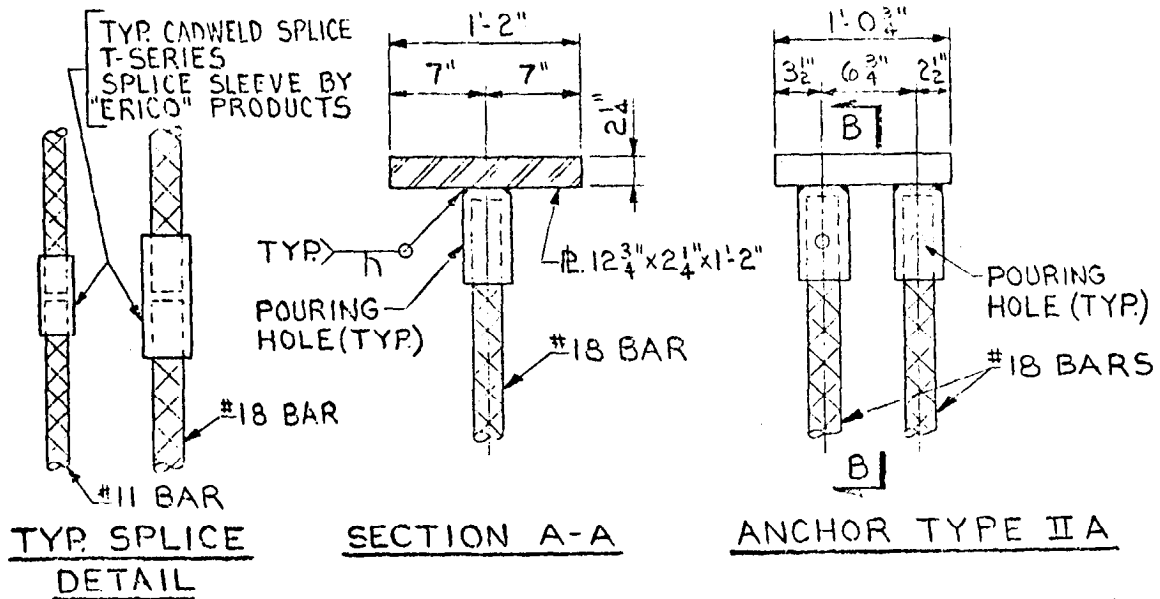
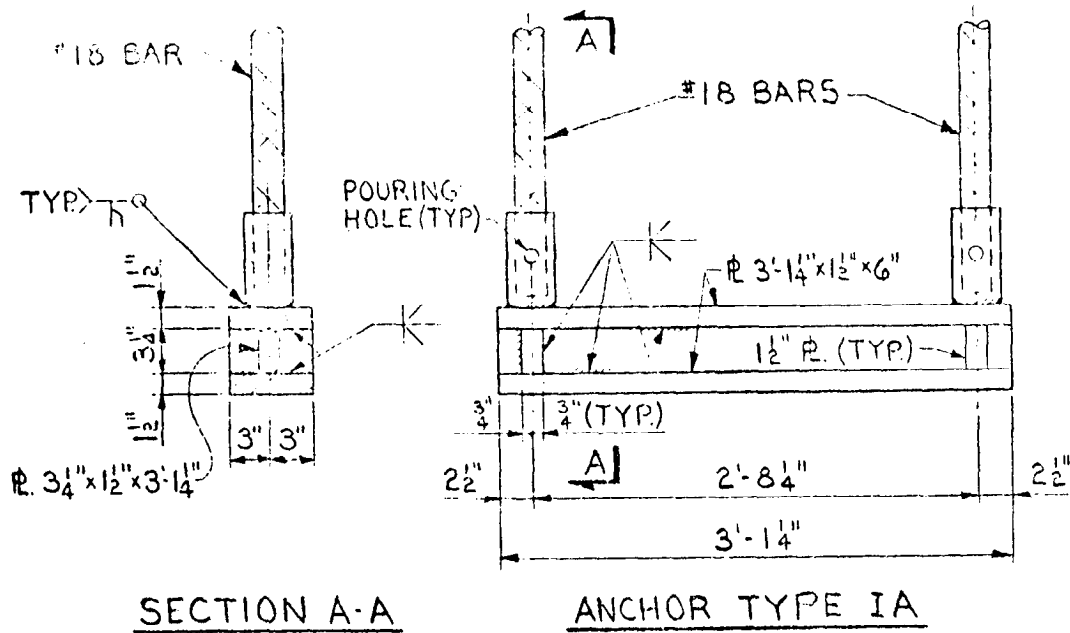


CONTAINMENT BUILDING  
Typical Wall Section

5.2.2-4A  
July 1982



# UFSAR REVISION 30.0



NOTE: ANCHORS TYPE IA & IIA ARE USED FOR #18 VERTICAL RE-BARS ONLY. ANCHORS TYPE III ARE USED FOR #18 VERT. & HORIZ. RE-BARS. ALL #18 & #11 BAR SPLICES ARE CADWELDED. (TYP. SPLICE DETAIL)

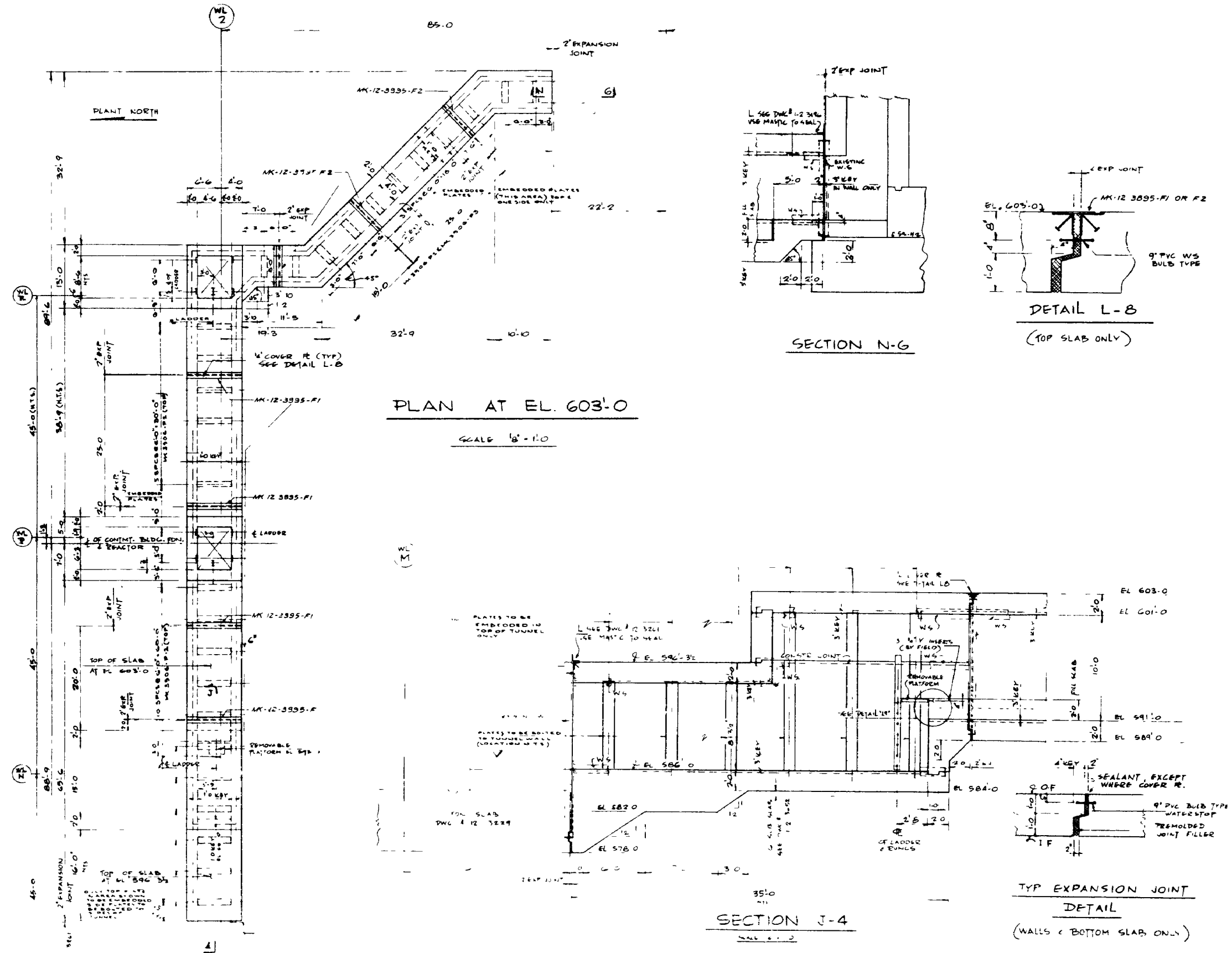
5.2.2.-4B

## CONTAINMENT BUILDING RE-BAR ANCHOR DETAILS

D.C. COOK NUCLEAR POWER PLANT  
BRIDGMAN

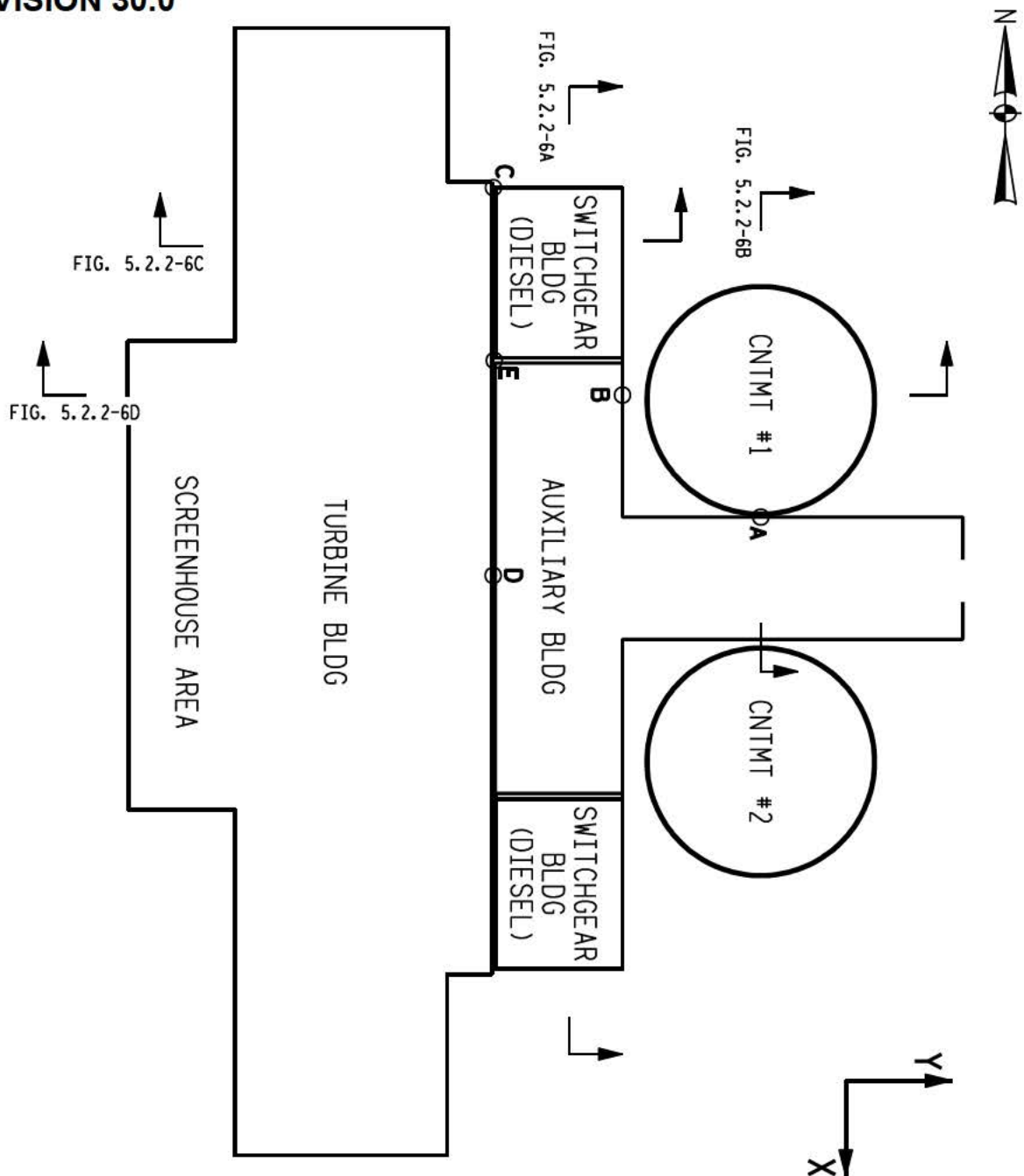
MICHAEL

July 1982



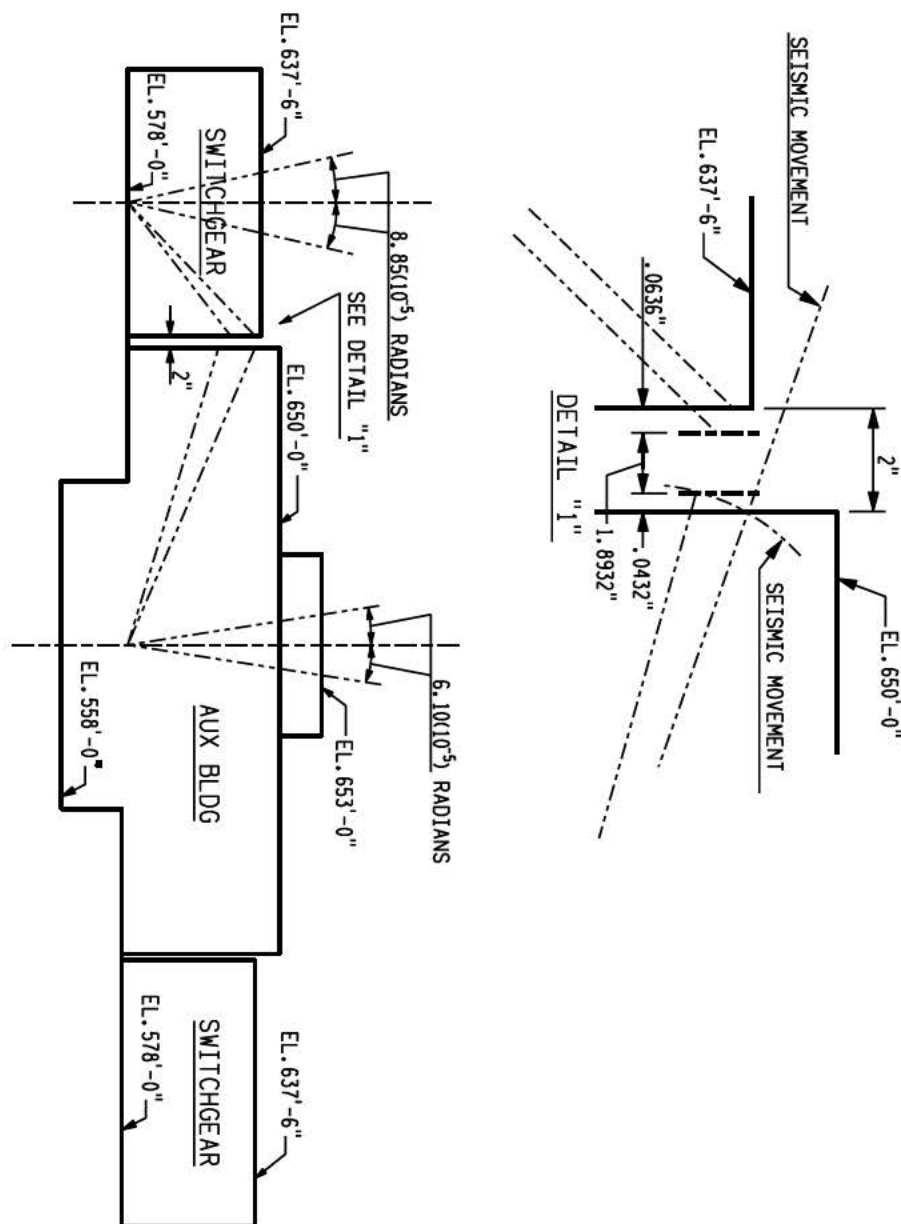


## UFSAR REVISION 30.0



19.1 REVISED PER UCR-1738

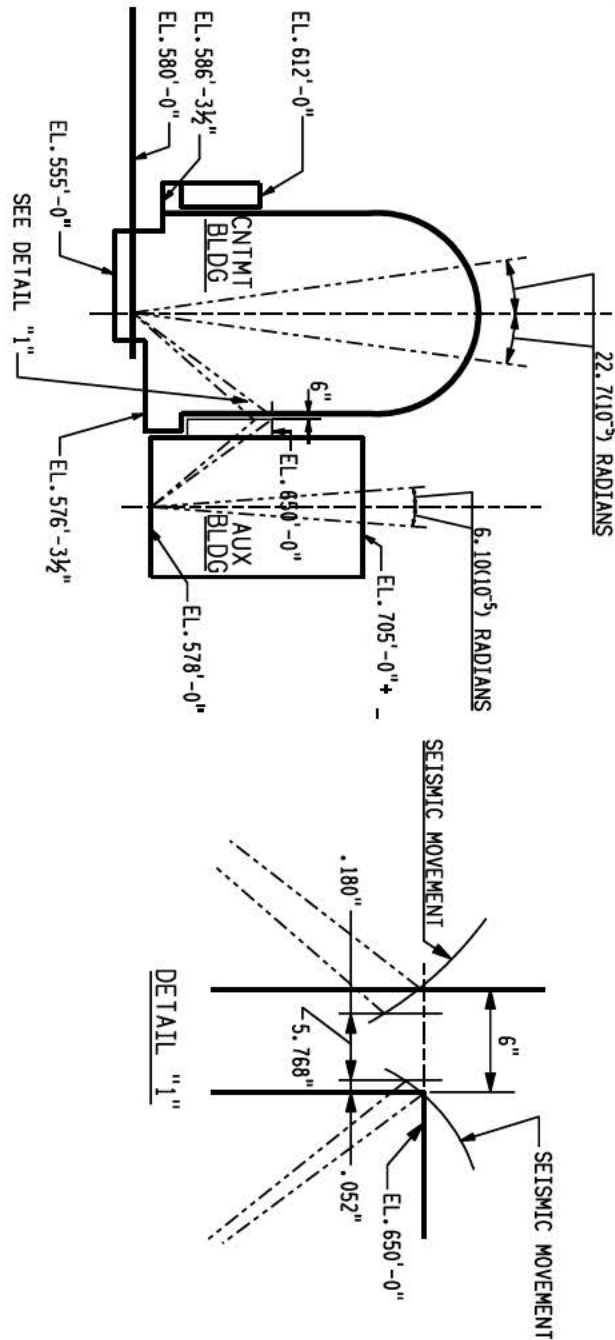
| DATE                                | NO.   | DESCRIPTION | DR.         | CHK'D.                        | APP'D. |
|-------------------------------------|-------|-------------|-------------|-------------------------------|--------|
| FILENAME: fsar-fig-5-2-2-6 19-1.dgn |       |             |             |                               |        |
| REVISIONS                           |       |             |             |                               |        |
| OTHER:                              |       |             | UNIT NO. 12 |                               |        |
| REF. DWGS:                          |       |             | SH. OF      |                               |        |
| DR.                                 | CK'D. | APP'D.      | DATE:       | DRAWING NO. FSAR FIG. 5.2.2-6 |        |
|                                     |       |             |             | REV. NO.                      | 19.1   |



19.1 REVISED PER UCR-1738

| DATE                                 | NO.   | DESCRIPTION                                    |       |           | DR.         | CHK'D. | APP'D. |
|--------------------------------------|-------|--|-------|-----------|-------------|--------|--------|
| FILENAME: fsar-fig-5-2-2-6a 19-1.dgn |       |  |       | REVISIONS |             |        |        |
| OTHER:                               |       | TITLE - BUILDING DYNAMIC<br>ROTATIONAL MOTIONS |       |           | UNIT NO. 12 |        |        |
|                                      |       |  |       |           | SH. OF      |        |        |
| REF. DWGS:                           |       | DRAWING NO. FSAR FIG. 5.2.2-6A                 |       |           |             |        |        |
|                                      |       |  |       |           |             |        |        |
| DR.                                  | CK'D. | APP'D.   | DATE: | REV. NO.  |             | 19.1   |        |

UFSAR REVISION 30.0

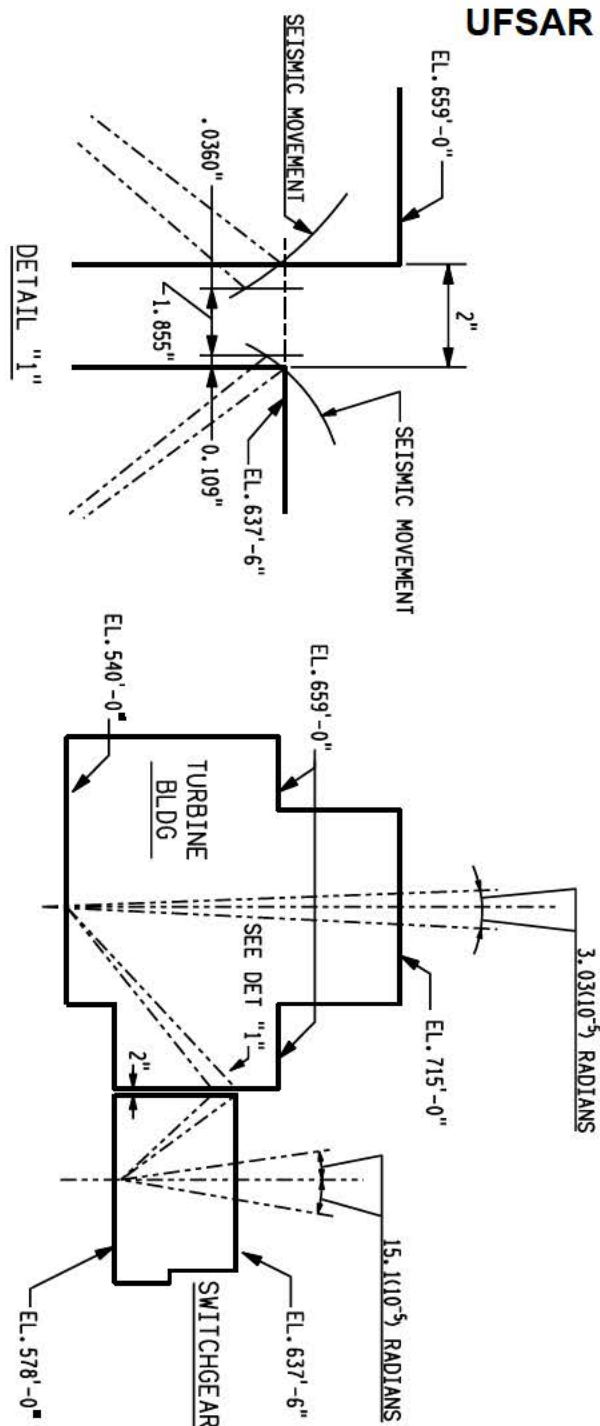


19.1 REVISED PER UCR-1738

| DATE                                 |       | NO. | DESCRIPTION                                    |       |                                |  | DR. | CHK'D.      | APP'D.          |
|--------------------------------------|-------|-----|--|-------|--------------------------------|--|-----|-------------|-----------------|
| FILENAME: fsar-fig-5-2-2-6b 19-1.dgn |       |     |  |       |                                |  |     |             |                 |
|                                      |       |     | REVISIONS                                      |       |                                |  |     |             |                 |
| OTHER:                               |       |     | TITLE - BUILDING DYNAMIC<br>ROTATIONAL MOTIONS |       |                                |  |     | UNIT NO. 12 |                 |
|                                      |       |     |  |       |                                |  |     | SH. OF      |                 |
| REF. DWGS:                           |       |     |  |       |                                |  |     |             |                 |
|                                      |       |     |  |       |                                |  |     |             |                 |
| DR.                                  | CK'D. |     | APP'D.   | DATE: | DRAWING NO. FSAR FIG. 5.2.2-6B |  |     | REV. NO.    | <div>19.1</div> |



UFSAR REVISION 30.0

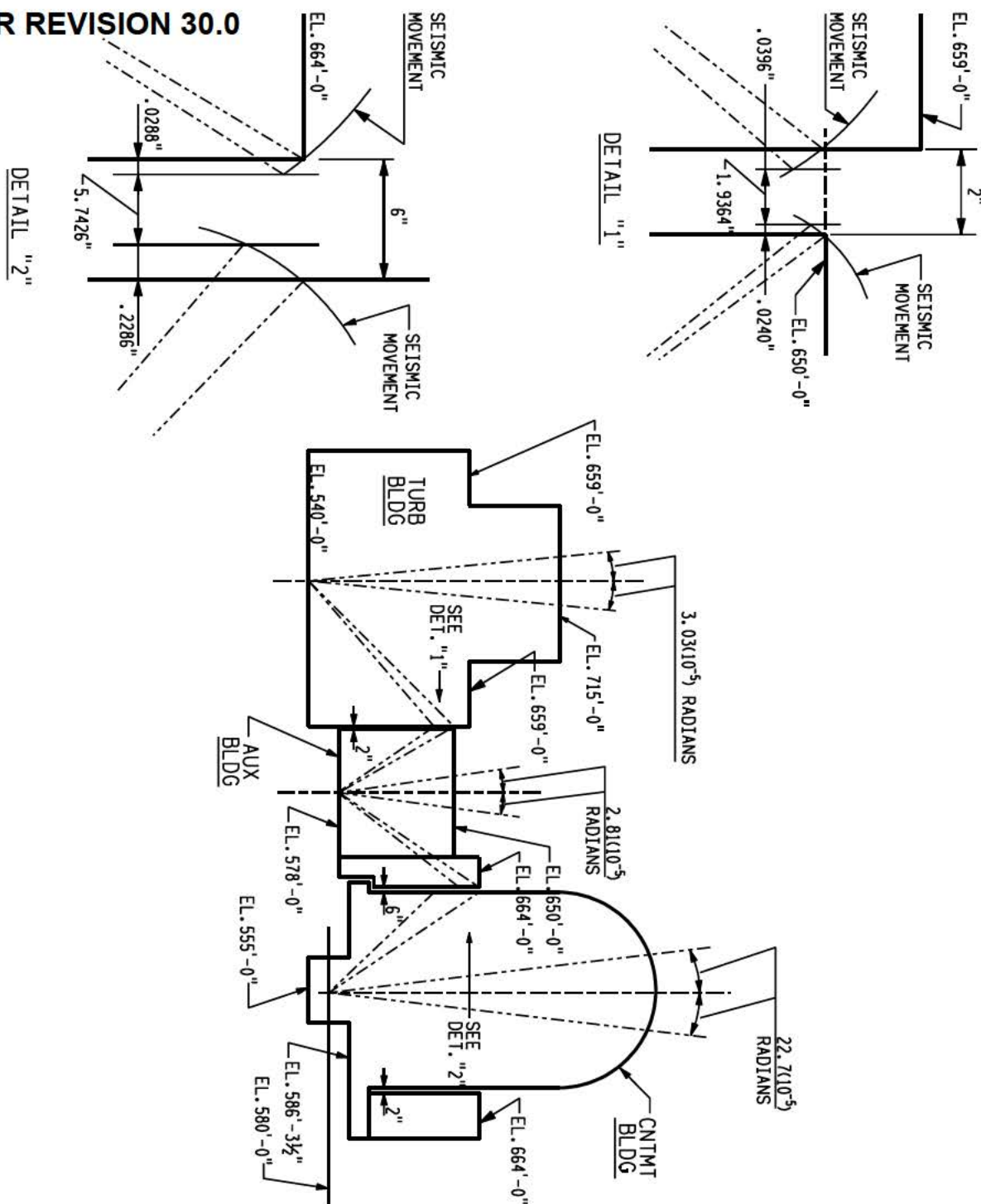


19.1 REVISED PER UCR-1738

| DATE                                 | NO.   | DESCRIPTION                                    |       |          | DR.         | CHK'D. | APP'D. |
|--------------------------------------|-------|--|-------|----------|-------------|--------|--------|
| FILENAME: fsar-fig-5-2-2-6c 19-1.dgn |       |  |       |          | REVISIONS   |        |        |
| OTHER:                               |       | TITLE - BUILDING DYNAMIC<br>ROTATIONAL MOTIONS |       |          | UNIT NO. 12 |        |        |
|                                      |       |  |       |          | SH. OF      |        |        |
| REF. DWGS:                           |       | DRAWING NO. FSAR FIG. 5.2.2-6C                 |       |          |             |        |        |
|                                      |       |  |       |          |             |        |        |
| DR.                                  | CK'D. | APP'D.   | DATE: | REV. NO. |             | 19.1   |        |



UFSAR REVISION 30.0



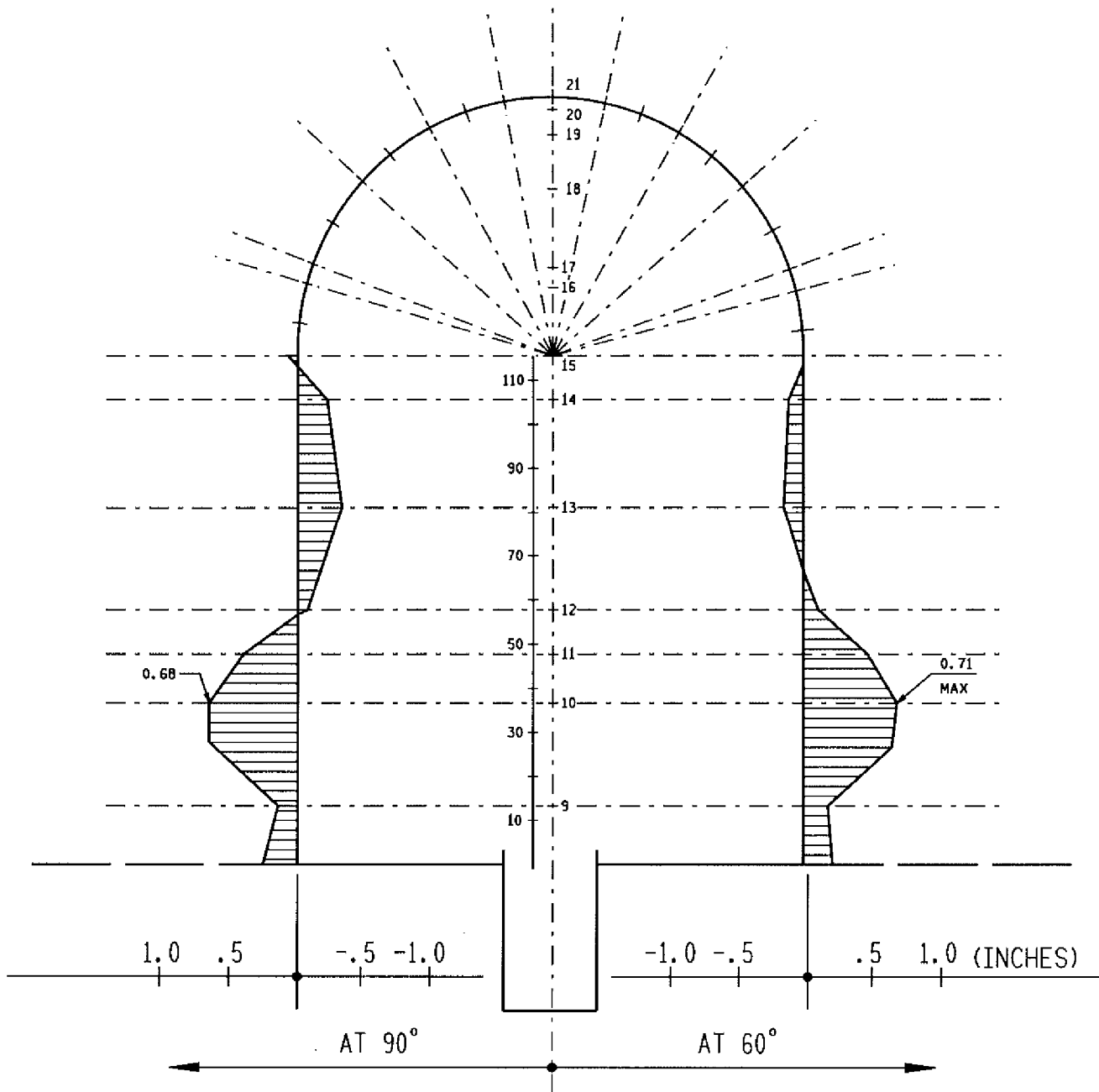
19.1 REVISED PER UCR-1738

| DATE  | NO.   | DESCRIPTION | DR.   | CHK'D.        | APP'D. |
|---|-------|-------------|-------|---------------|--------|
| FILENAME: fsar-fig-5-2-2-6d 19-1.dgn        |       |             |       |               |        |
| OTHER:                                      |       |             |       |               |        |
| REF. DWGS:                                  |       |             |       |               |        |
| REVISIONS                                   |       |             |       |               |        |
| TITLE - BUILDING DYNAMIC ROTATIONAL MOTIONS |       |             |       | UNIT NO. 12   |        |
|   |       |             |       | SH. OF        |        |
| DRAWING NO. FSAR FIG. 5.2.2-6D              |       |             |       | REV. NO. 19.1 |        |
| DR.   | CK'D. | APP'D.      | DATE: |               |        |

COOK NUCLEAR PLANT  
W DEFLECTION (INCHES)

UFSAR REVISION 30.0

LOAD COMBINATION (I) = DL + 1.5P1 + (TL+T) (AS LISTED IN ANSWER 5.1)



NOTE: ORIENTATION IS FOR COMPUTER USE.

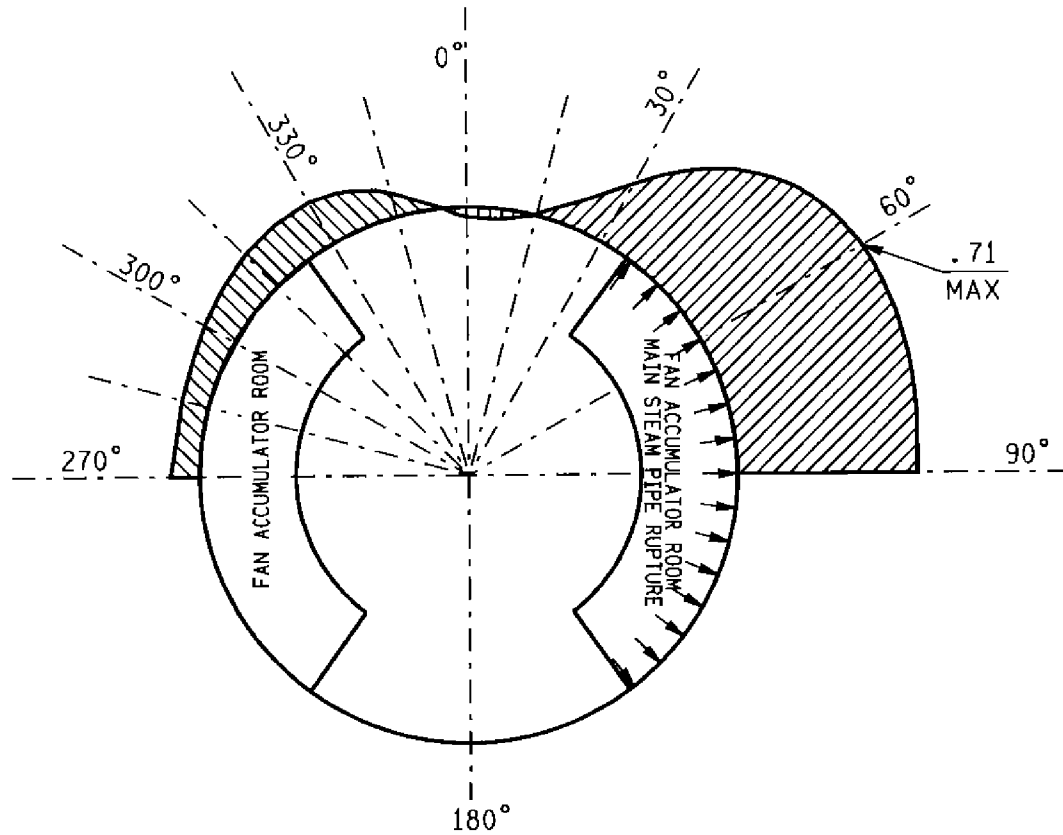
FILENAME: FSAR-FIG-5-2-2-7.163

|   | 16.3 | INCORPORATED UCR * 98-UFSAR-0711 | PMZ       |       |       |
|---|------|----------------------------------|-----------|-------|-------|
| DATE  | NO.  | DESCRIPTION                      | DR.       | CHK'D | APP'D |
| REVISIONS   |      |                                  |           |       |       |
| AMERICAN ELECTRIC POWER<br>COOK NUCLEAR PLANT<br>NUCLEAR GENERATION GROUP<br>BRIDGMAN, MICHIGAN |      | TITLE                            | REV. NO.  |       |       |
|   |      | DWG. NO. FSAR FIG. 5.2.2-7       | SH 1 OF 1 |       |       |



## COOK NUCLEAR PLANT

W (DEFLECTION) INCHES  
 LOAD COMBINATION (I) = DL + NORMAL THERMAL + (24+.9T)=[EDL + 1.5P1 + (TL+ T)]  
 (AS IN ANSWER 5.1)



W (DEFLECTION) DIAGRAM AT BODY 10. STATION II (EL.632'-0")

SCALE 0 .5 1.0 INCHES

NOTE: ORIENTATION IS FOR COMPUTER USE.

FILENAME: FSAR-FIG-5.2-2-8.163

|   |      |                            |           |       |       |
|---|------|----------------------------|-----------|-------|-------|
|   | 16.3 | INCORPORATED UCR #98-0711  | PMZ       |       |       |
| DATE  | NO.  | DESCRIPTION                | DR.       | CHK'D | APP'D |
| REVISIONS   |      |                            |           |       |       |
| AMERICAN ELECTRIC POWER<br>COOK NUCLEAR PLANT<br>NUCLEAR GENERATION GROUP<br>BRIDGMAN, MICHIGAN |      | TITLE                      | REV. NO.  |       |       |
|   |      | DWG. NO. FSAR FIG. 5.2.2-8 | SH 1 OF 1 |       |       |



# UFSAR REVISION 30.0

|                       | TORNADO           |     |       |       |       |       |       |       |       |       |       |      |
|-----------------------|-------------------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
|                       | LOAD FACTOR $C_e$ |     |       |       |       |       |       |       |       |       |       |      |
|                       | 0°                | 30° | 60°   | 90°   | 120°  | 150°  | 180°  | 210°  | 240°  | 270°  | 300°  | 330° |
| $e/d = 1.0$           | 1.0               | .35 | -1.05 | -1.2  | -0.4  | -0.27 | -0.27 | -0.27 | -0.4  | -1.2  | -1.05 | .35  |
| ASCE                  | 1.0               | .30 | -1.2  | -1.7  | -0.9  | -0.4  | -0.4  | -0.4  | -0.9  | -1.7  | -1.2  | .3   |
| $e/d = 0.1$           | .87               | .6  | .8    | -1.35 | -0.3  | -0.18 | -0.18 | -0.18 | -0.23 | -1.55 | -1.55 | 0    |
| $e/d = 0.1$<br>(Corr) | .87               | .5  | .9    | -1.91 | -0.68 | -0.27 | -.27  | -.27  | -.51  | -2.2  | -1.77 | 0    |

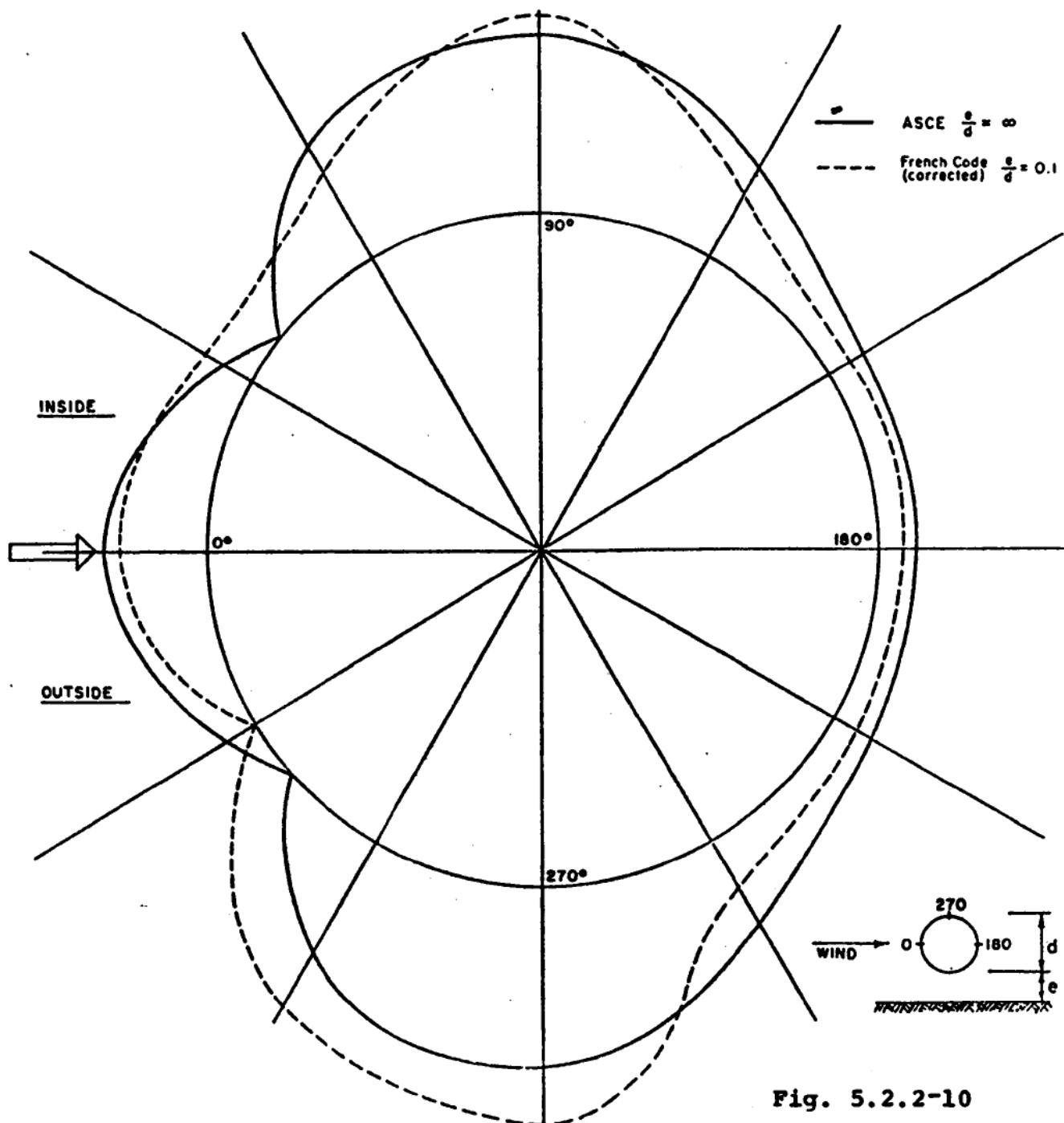


Fig. 5.2.2-10  
July 1982

# UFSAR REVISION 30.0

|                       | TORNADO |      | LOAD FACTOR $C_e$ |       |       |       |       |       |       |       |       |      |
|-----------------------|---------|------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|
|                       | 0°      | 30°  | 60°               | 90°   | 120°  | 150°  | 180°  | 210°  | 240°  | 270°  | 300°  | 330° |
| $e/d = 1.0$           | 1.0     | 0.35 | -1.05             | -1.2  | -0.4  | -0.27 | -0.27 | -0.27 | -0.40 | -1.2  | -1.05 | 0.35 |
| ASCE                  | 1.0     | 0.30 | -1.2              | -1.7  | -0.9  | -0.4  | -0.4  | -0.4  | -0.90 | -1.7  | -1.2  | 0.30 |
| $e/d = 0.2$           | 0.95    | 0.70 | 0.6               | -1.67 | -0.4  | -0.23 | -0.23 | -0.23 | -0.30 | -1.35 | -1.27 | 0.15 |
| $e/d = 0.2$<br>(Corr) | 0.95    | 0.60 | -0.7              | -2.36 | -0.90 | -0.34 | -0.34 | -0.34 | -0.70 | -1.90 | -1.45 | 0.13 |

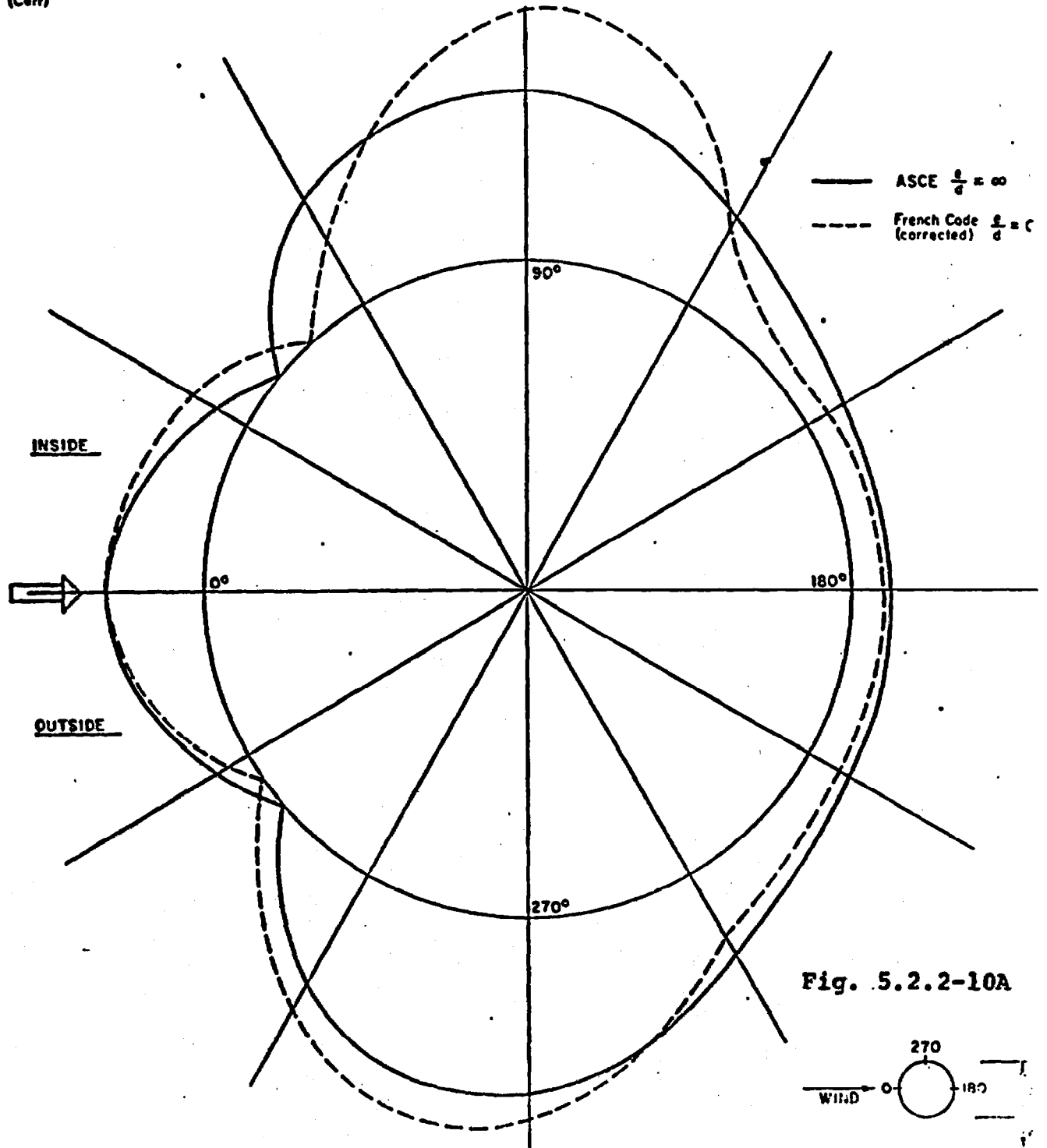
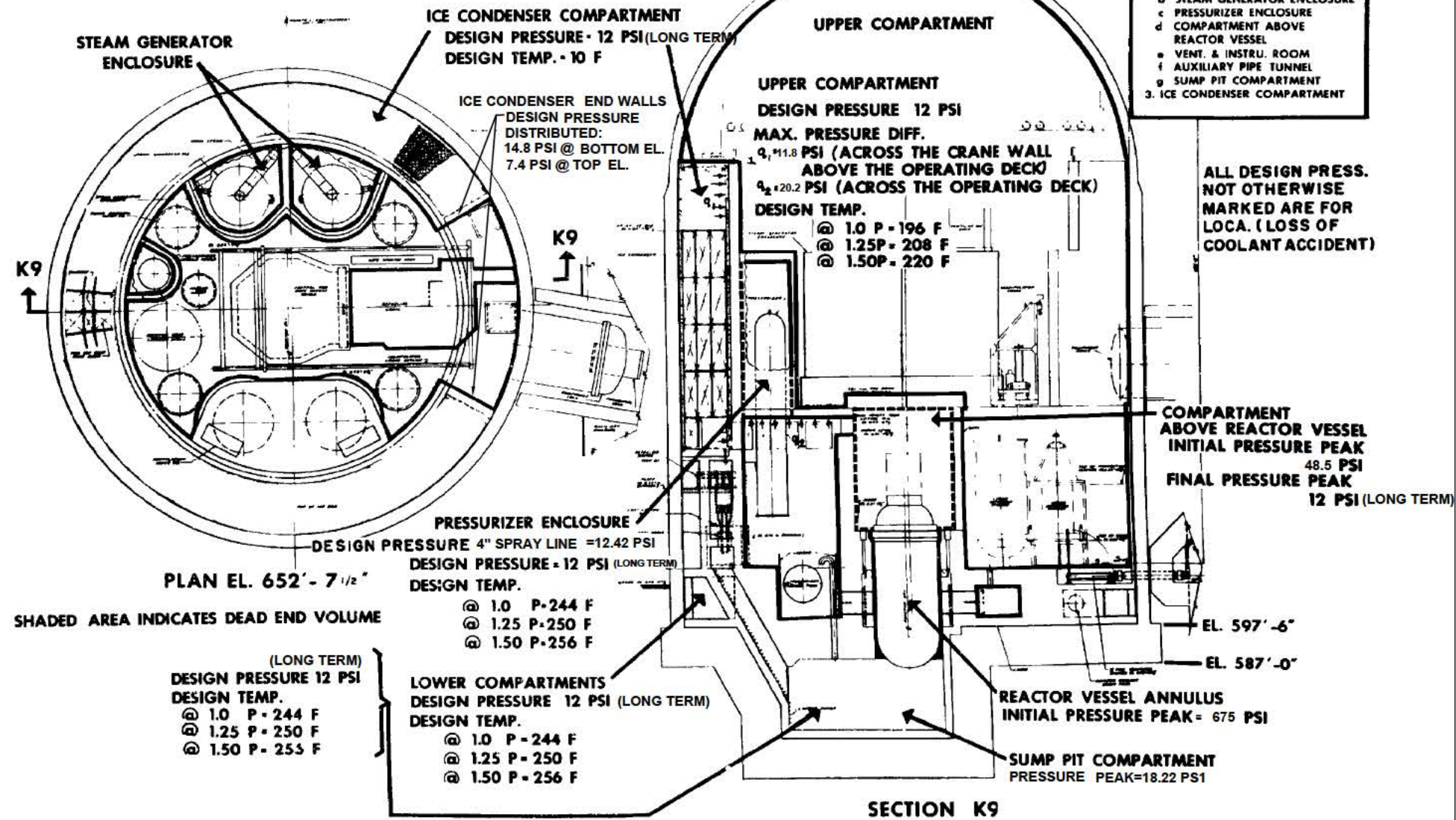


Fig. 5.2.2-10A

# UFSAR Revision 30.0

## CONTAINMENT DESIGN PRESSURES AND TEMPERATURES

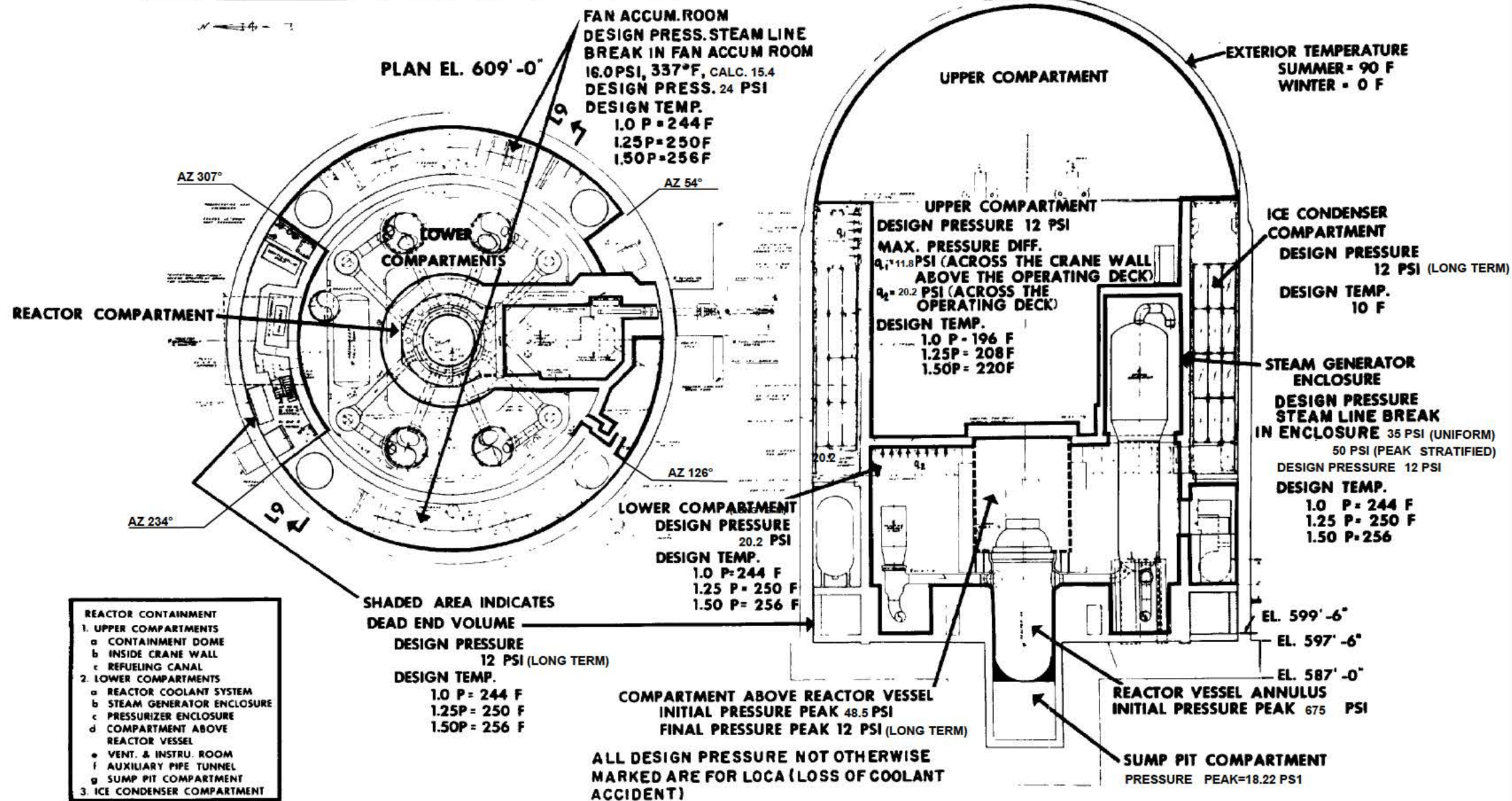


| 17.1  | REVISED PER UCR 0850 |          |
|---|----------------------|----------|
| DATE  | DESCRIPTION          | APPROVED |
|   | REVISIONS            |          |
| THIS DRAWING IS THE PROPERTY OF THE AMERICAN ELECTRIC POWER SERVICE CORP. AND IS LOANED TO YOU ON THE CONDITION THAT IT IS NOT TO BE REPRODUCED OR COPIED IN WHOLE OR IN PART, OR USED FOR FURNISHING INFORMATION TO ANY PERSON WITHOUT THE WRITTEN CONSENT OF THE AEP SERVICE CORP. FOR ANY PURPOSES INCIDENTAL TO THEIR INTEREST, AND IS TO BE RETURNED UPON REQUEST. |                      |          |
| INDIANA MICHIGAN POWER COMPANY<br>DONALD C. COOK<br>NUCLEAR PLANT<br>BRIDGMAN MICHIGAN  |                      |          |
| CONTAINMENT<br>DESIGN<br>TEMPERATURES<br>AND PRESSURES  |                      |          |
| DWG. NO. FSAR FIG. 5.2.2-11   |                      |          |
| ARCH  | ELEC                 | MECH     |
| STR   |                      |          |
| DESIGN ENGINEERING DIVISION   |                      |          |
| AEP SERVICE CORP.<br>1 RIVERSIDE PLAZA<br>COLUMBUS, OH 43215  |                      |          |



# UFSAR REVISION 30.0

## CONTAINMENT DESIGN PRESSURES AND TEMPERATURES



- REACTOR CONTAINMENT**
- UPPER COMPARTMENTS
    - a. CONTAINMENT DOME
    - b. INSIDE CRANE WALL
    - c. REFUELING CANAL
  - LOWER COMPARTMENTS
    - a. REACTOR COOLANT SYSTEM
    - b. STEAM GENERATOR ENCLOSURE
    - c. PRESSURIZER ENCLOSURE
    - d. COMPARTMENT ABOVE REACTOR VESSEL
    - e. VENT. & INSTRU. ROOM
    - f. AUXILIARY PIPE TUNNEL
    - g. SUMP PIT COMPARTMENT
  - ICE CONDENSER COMPARTMENT

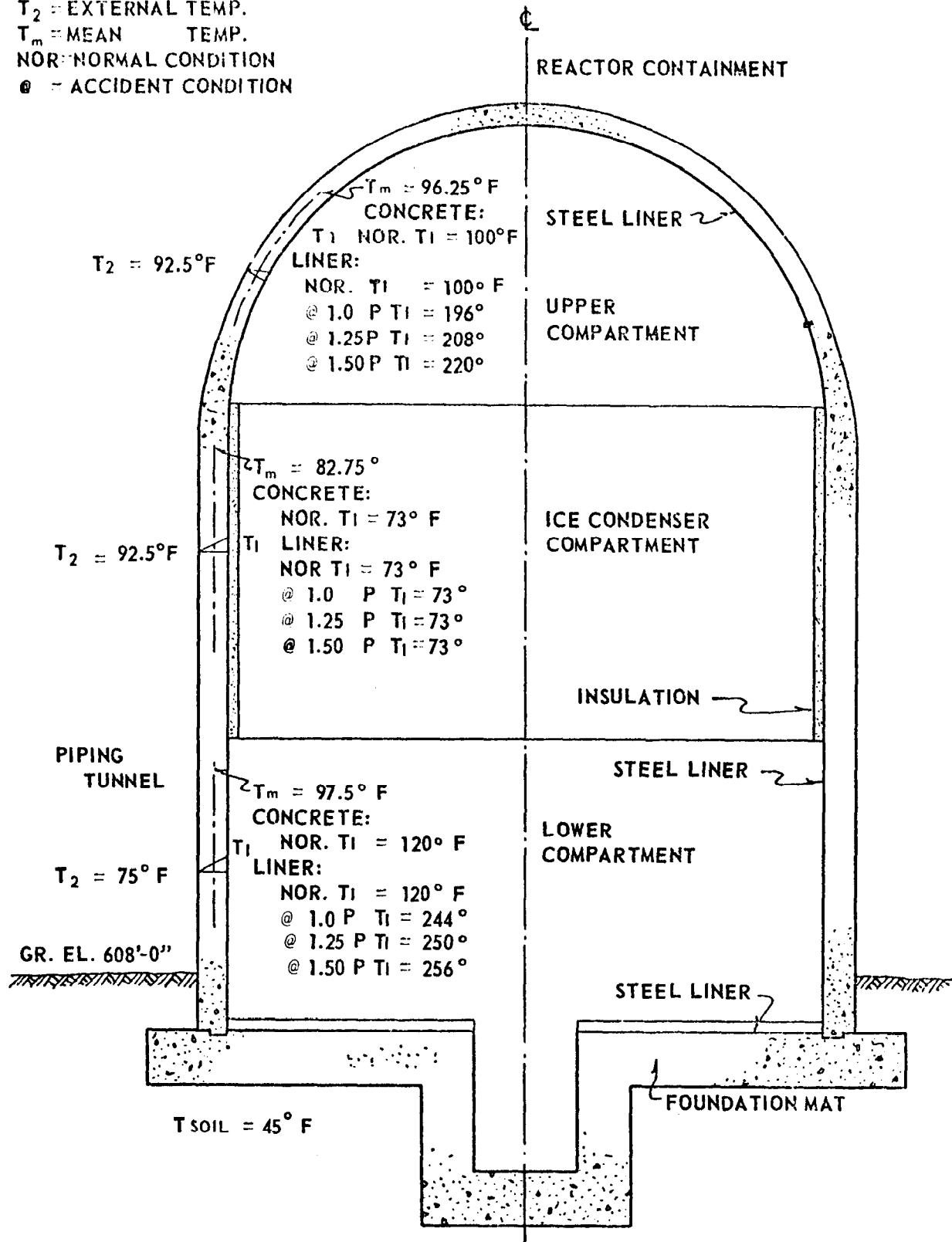
### SECTION L9

|  |      |             |        |
|--|------|-------------|--------|
| DATE   | NO.  | DESCRIPTION | APPRO. |
| REVISIONS  |      |             |        |
| THIS DRAWING IS THE PROPERTY OF THE AMERICAN ELECTRIC POWER SERVICE CORP. AND IS LOANED TO YOU ON THE CONDITION THAT IT IS NOT TO BE REPRODUCED OR COPIED, IN WHOLE OR IN PART, OR USED FOR ANY PURPOSES WITHOUT THE WRITTEN CONSENT OF THE AEP SERVICE CORP. FOR ANY PUBLIC OR PRIVATE USE, AND IS TO BE RETURNED UPON REQUEST. |      |             |        |
| INDIANA MICHIGAN POWER COMPANY<br>DONALD C. COOK<br>NUCLEAR PLANT<br>BRIDGMAN MICHIGAN   |      |             |        |
| CONTAINMENT<br>DESIGN<br>TEMPERATURES<br>AND PRESSURES   |      |             |        |
| DWG NO. FSAR FIG. 5.2.2-11A  |      |             |        |
| ARCH   | ELEC | MED         | STR    |
| DESIGNED   | BY   | CHECKED     | BY     |
| DESIGN ENGINEERING DIVISION  |      |             |        |
| AEP SERVICE CORP.<br>1 RIVERSIDE PLAZA<br>COLUMBUS, OH 43215   |      |             |        |

# UFSAR REVISION 30.0

## NOTATION:

$T_1$  = INTERNAL TEMP.  
 $T_2$  = EXTERNAL TEMP.  
 $T_m$  = MEAN TEMP.  
 NOR = NORMAL CONDITION  
 @ = ACCIDENT CONDITION



SECT. ELEVATION UNIT No. 1 & 2  
 SHOWING REACTOR CONTAINMENT  
 THERMAL GRADIENTS USED FOR THE  
 DESIGN IN SUMMER OPERATION

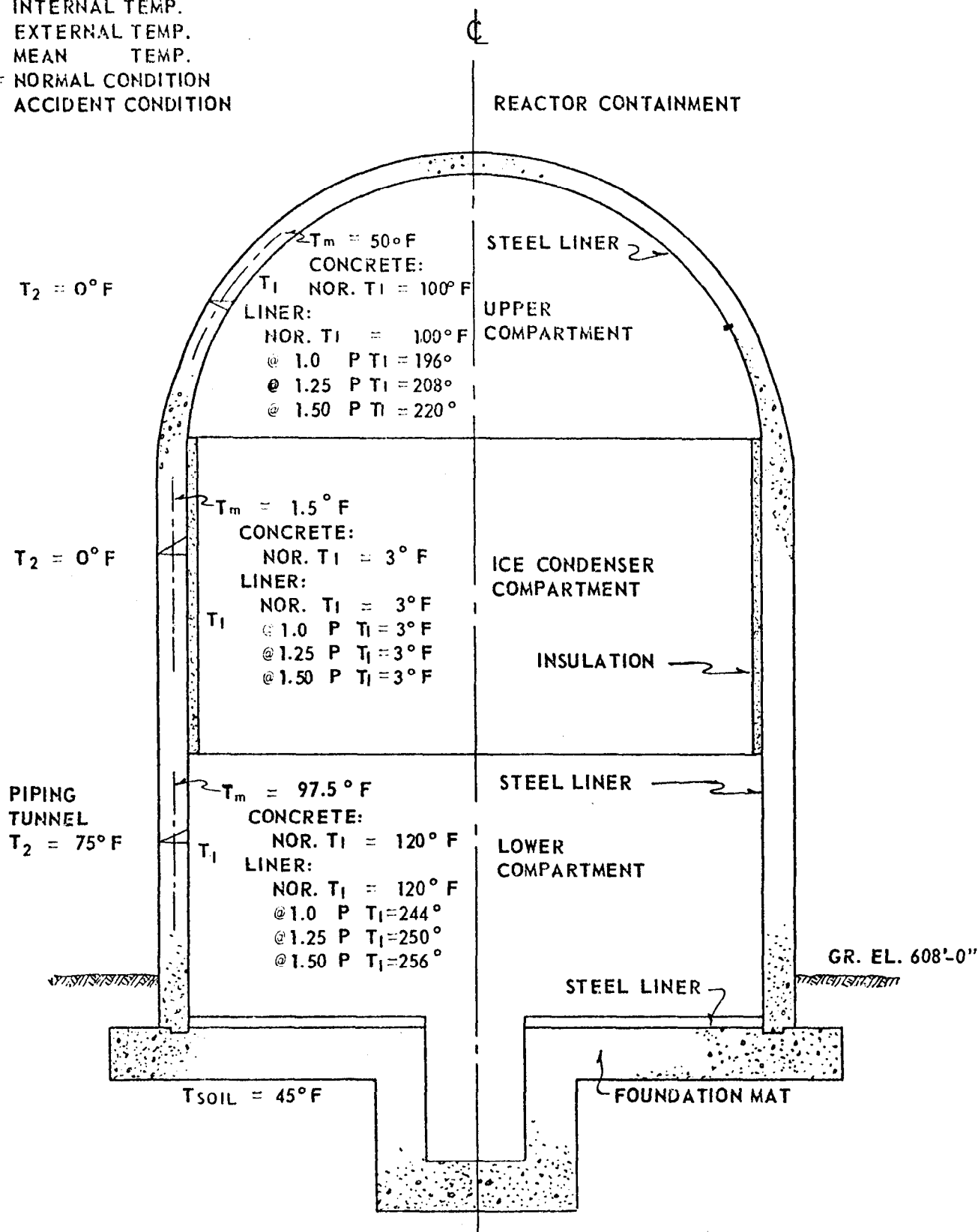
Fig. 5.2.2-12

July 1982

# UFSAR REVISION 30.0

## NOTATION:

$T_i$  = INTERNAL TEMP.  
 $T_2$  = EXTERNAL TEMP.  
 $T_m$  = MEAN TEMP.  
 NOR. = NORMAL CONDITION  
 @ = ACCIDENT CONDITION



SECT. ELEVATION UNIT NO. 1 & 2  
 SHOWING REACTOR CONTAINMENT  
 THERMAL GRADIENTS USED FOR THE  
 DESIGN IN WINTER OPERATION

Fig. 5.2.2-12A

July 1982

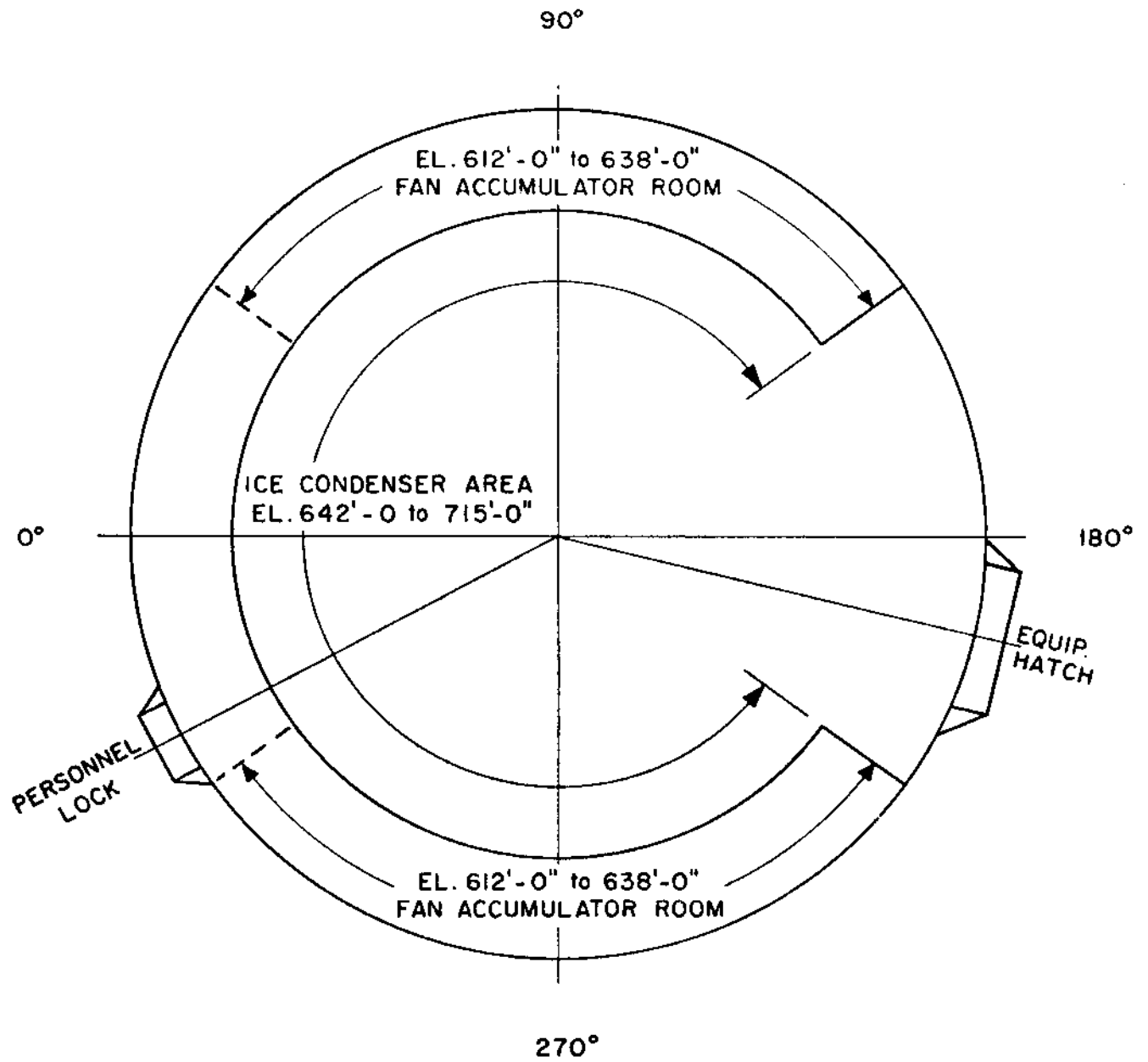


## UFSAR REVISION 30.0

"11" Meridional Direction - (Vertical)  
"22" Hoop Direction - (Horizontal & Radial)  
M Moment (Kips-in/in.)  
N Axial Force (Kips/in.)  
W Radial Deformation (Inches)  
S Rebar Stresses - (Pound/Square In.)  
Q13 Radial Shear (Kips/Inch)  
Q12 Tangential Horizontal Shear (Kips/Inch)

Legend for Figures 5.2.2-14 to 5.2.2-50

# UFSAR REVISION 30.0



ORIENTATION FOR COMPUTER RESULTS

Fig. 5.2.2-14

July 1982

# UFSAR REVISION 30.0

## COOK NUCLEAR PLANT

FINISH 4M - (5/11/71) DEAD WEIGHT(M11&M22)(0° & 180°)

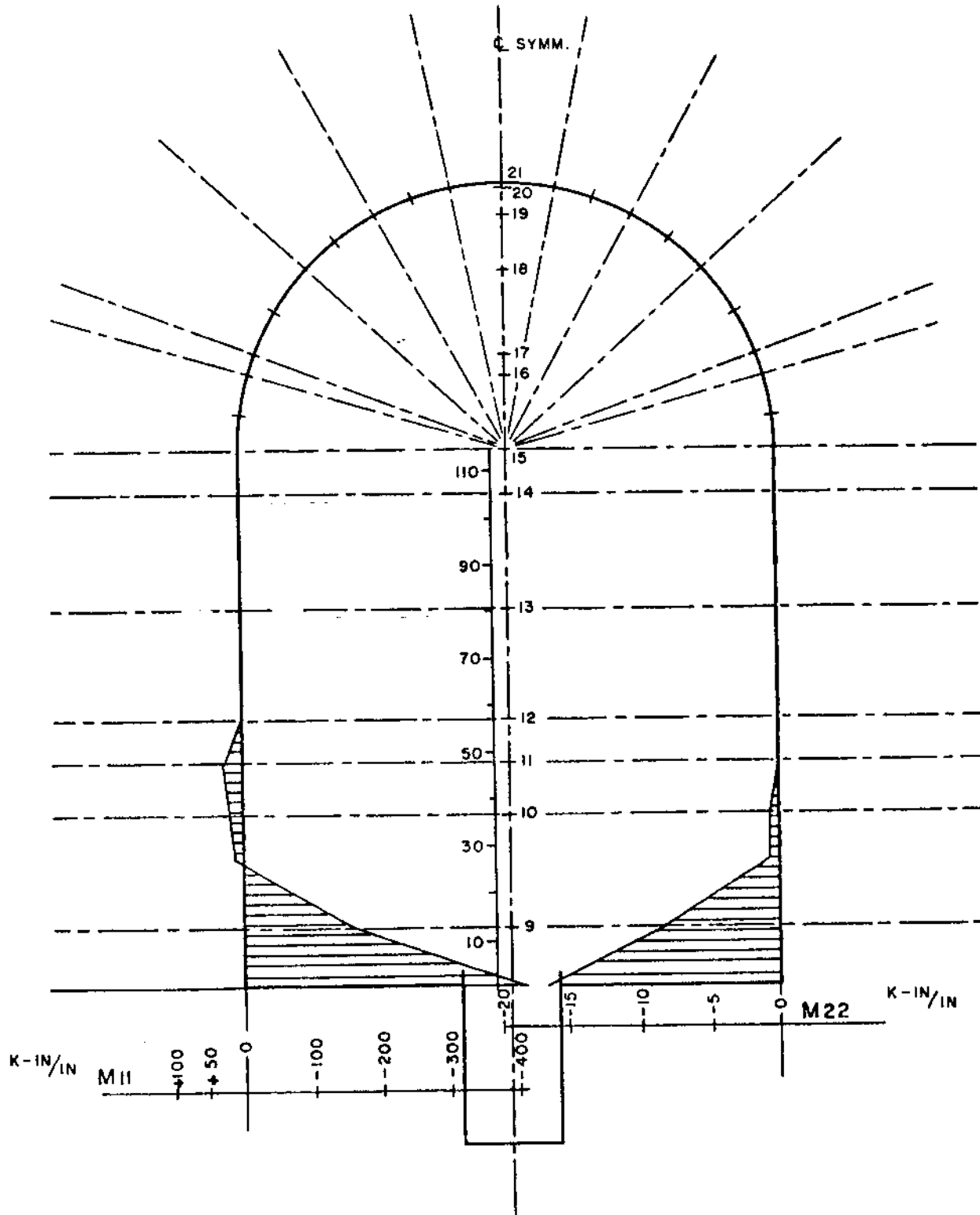


Fig. 5.2.2-15  
July 1982

# UFSAR REVISION 30.0

## COOK NUCLEAR PLANT

FINISH 4M (5/11/71) DEAD WEIGHT(N11&N22) (0° & 180°)

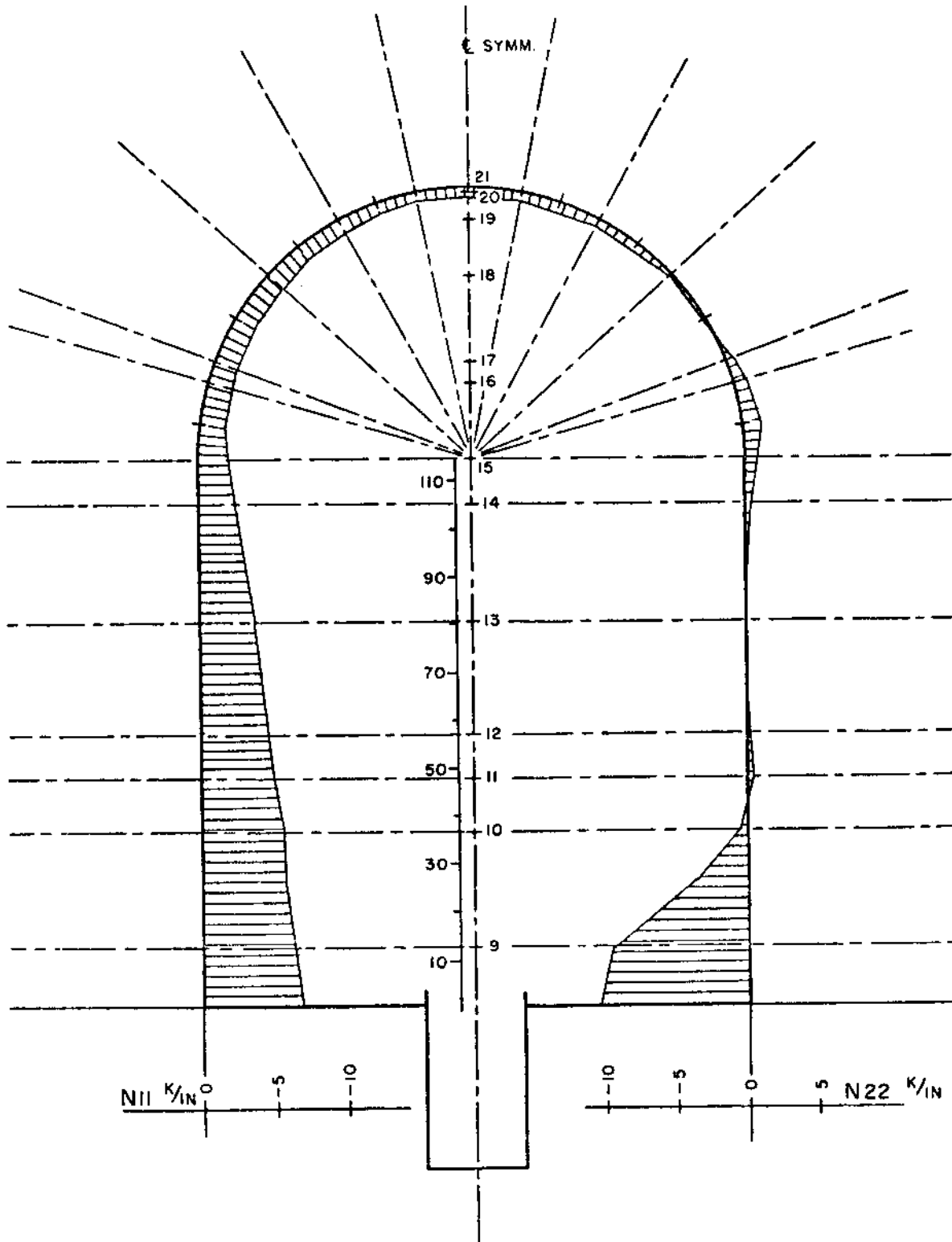


Fig. 5.2.2-16  
July 1982

# UFSAR REVISION 30.0

## COOK NUCLEAR PLANT

FINISH 4M (5/11/71) DEAD WEIGHT(W DEFL.& Q.13)(0° & 180°)

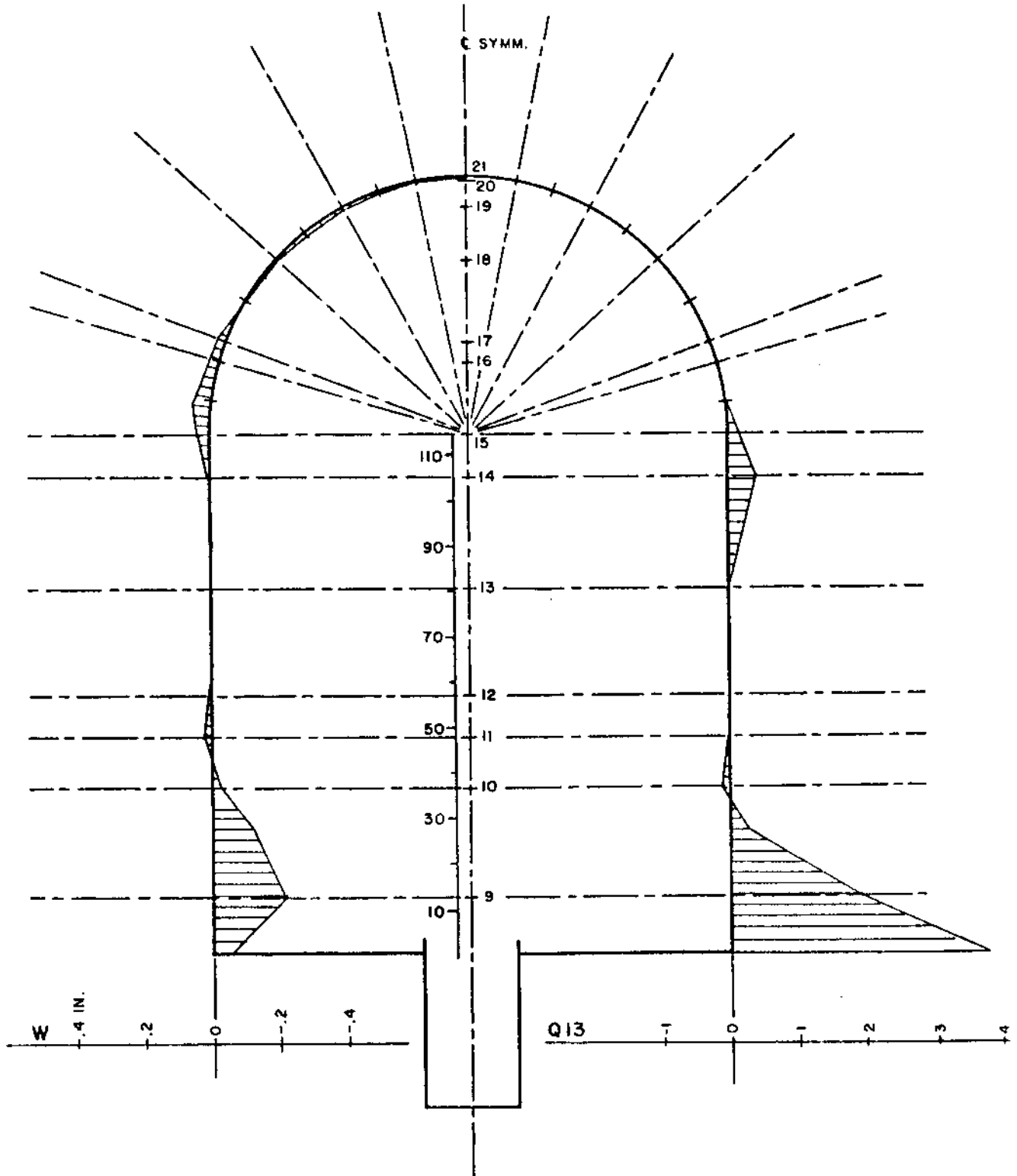


Fig. 5.2.2-17  
July 1982

**UFSAR REVISION 30.0**  
**COOK NUCLEAR PLANT**

FINISH 4M (5/11/71) DEAD WEIGHT(S11 & S22)(0° & 180°)

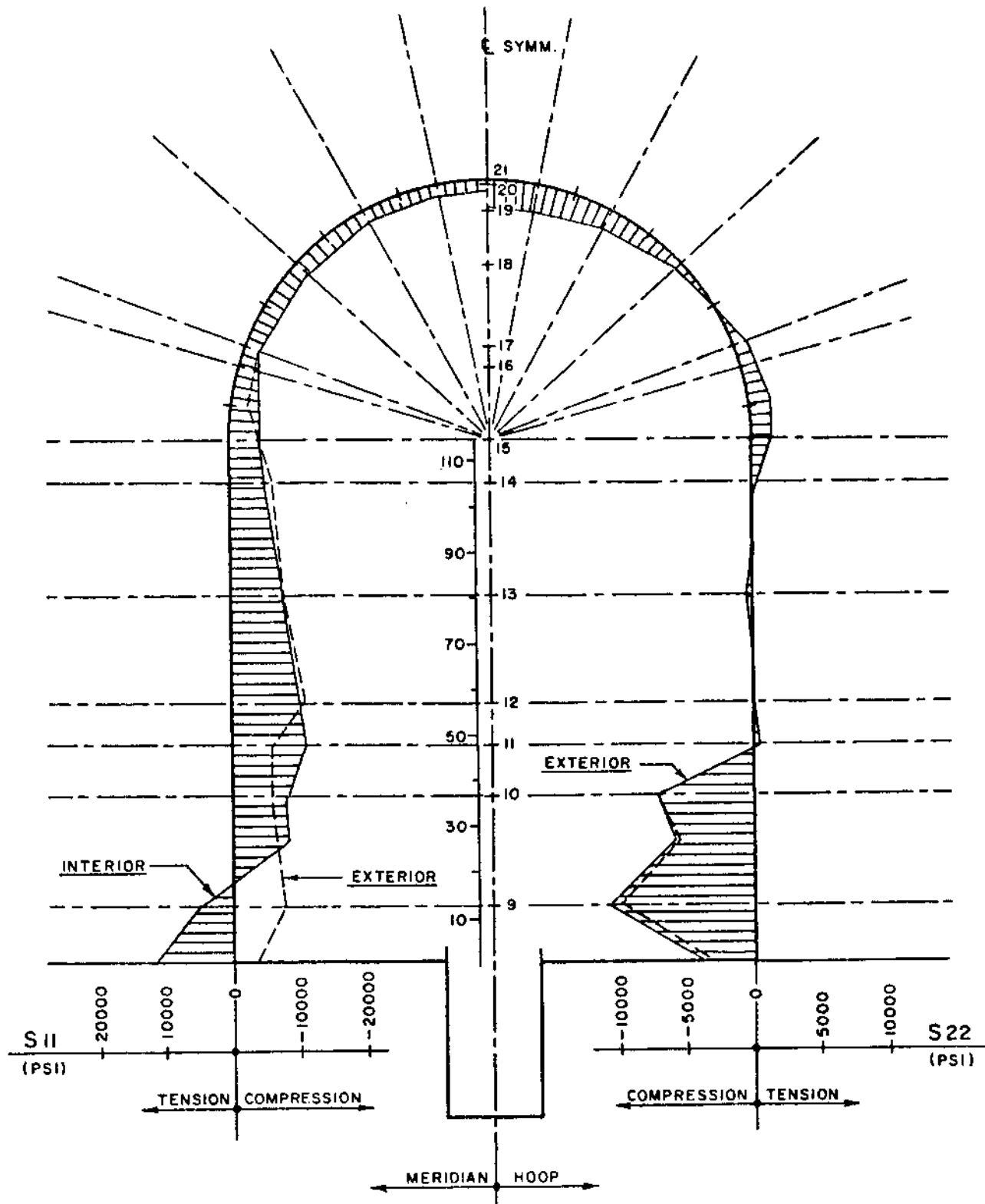


Fig. 5.2.2-18

July 1982

# UFSAR REVISION 30.0

## COOK NUCLEAR PLANT

FINISH 4T (5/11/71) INTERNAL PRESSURE (0° & 180°)

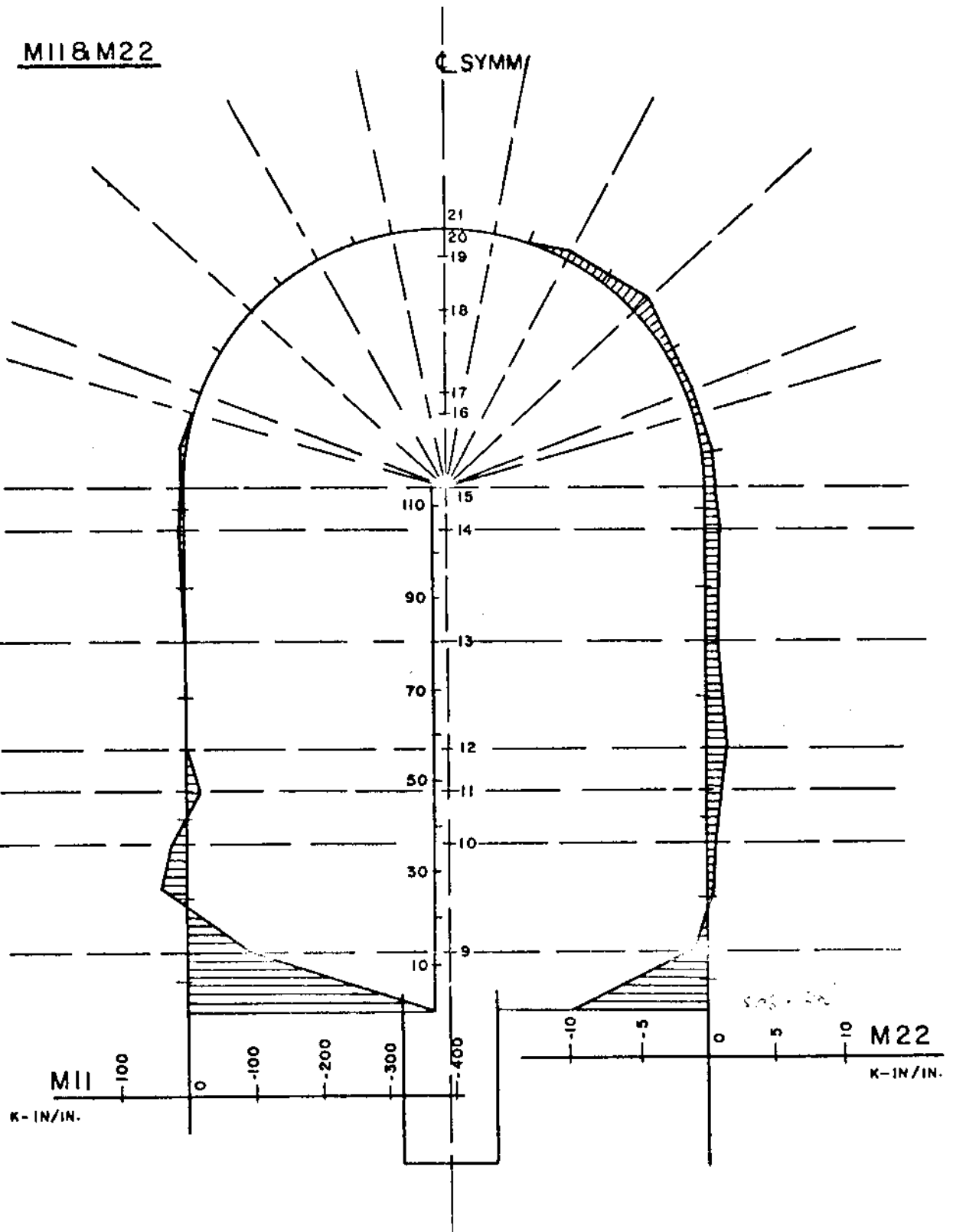


Fig. 5.2.2-19

July 1982

**UFSAR REVISION 30.0**  
**COOK NUCLEAR PLANT**

FINISH 4M (5/11/71) INTERNAL PRESSURE(N11&N22) (0°)

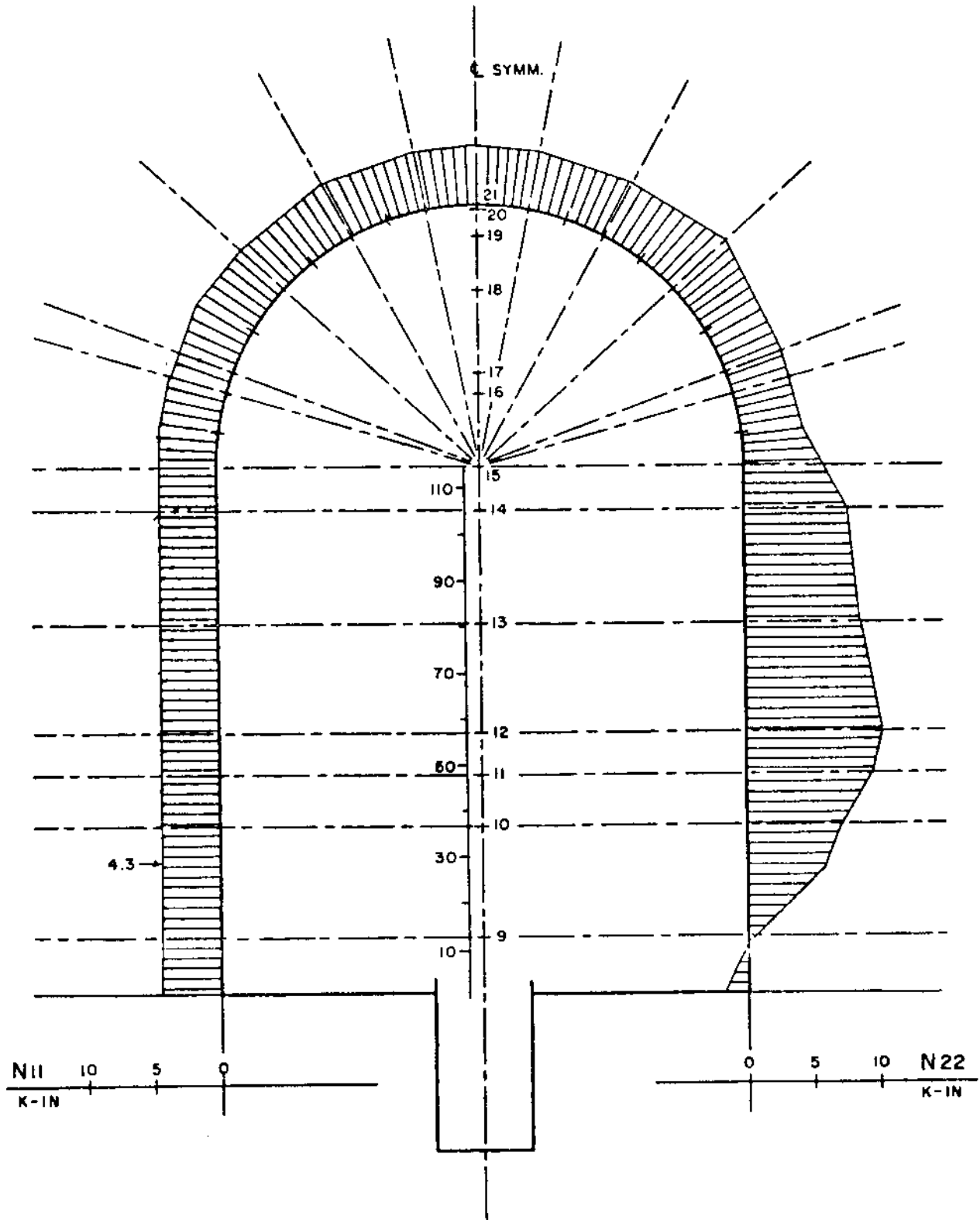


Fig. 5.2.2-20

July 1982



# UFSAR REVISION 30.0

## COOK NUCLEAR PLANT

FINISH 4M (5/11/71) INTERNAL PRESSURE(W & Q.13) (0°)

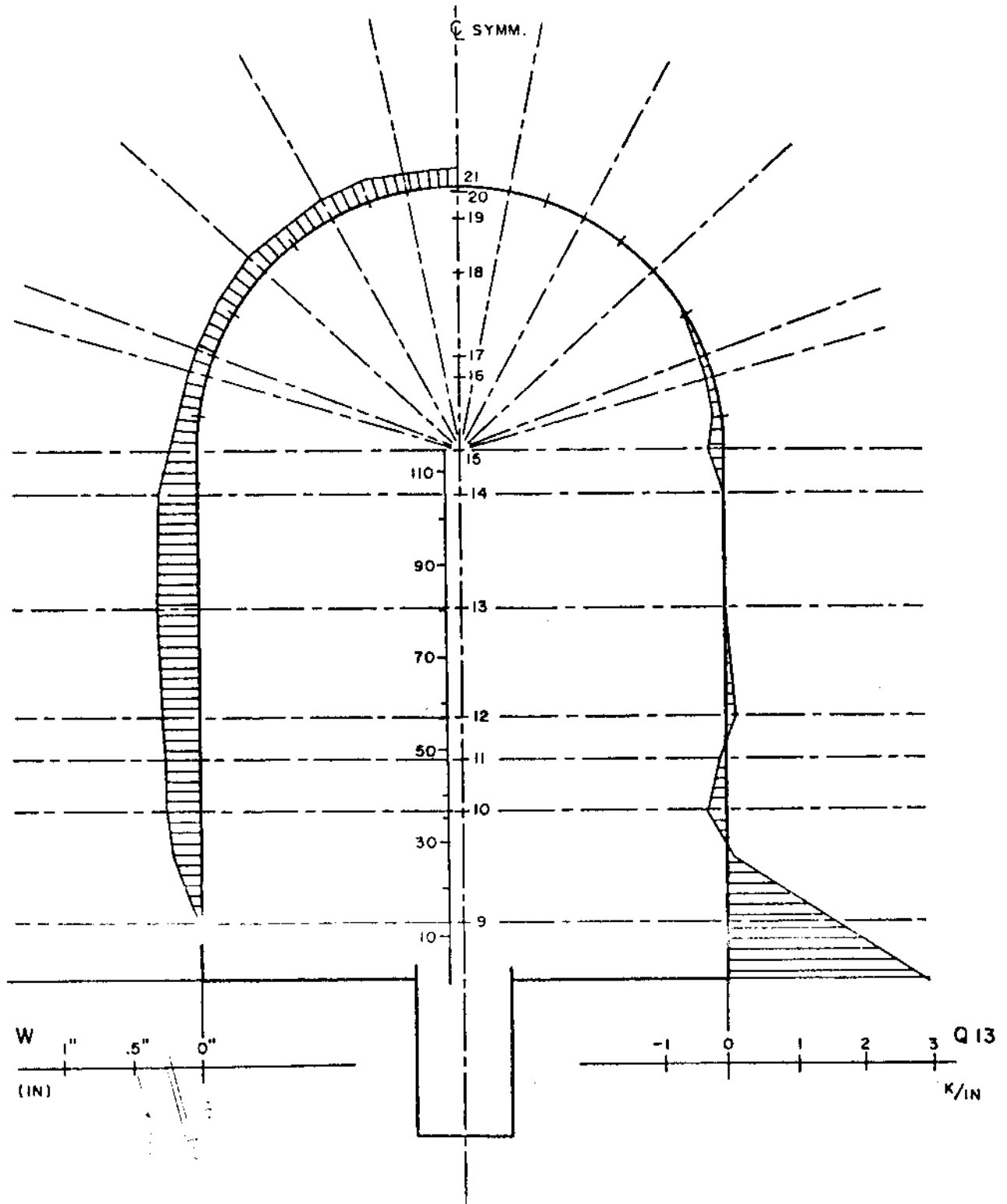


Fig. 5.2.2-21

July 1982

# UFSAR REVISION 30.0

## COOK NUCLEAR PLANT

FINISH 4M (5/11/71) INTERNAL PRESSURE(S11 & S22) (0°)

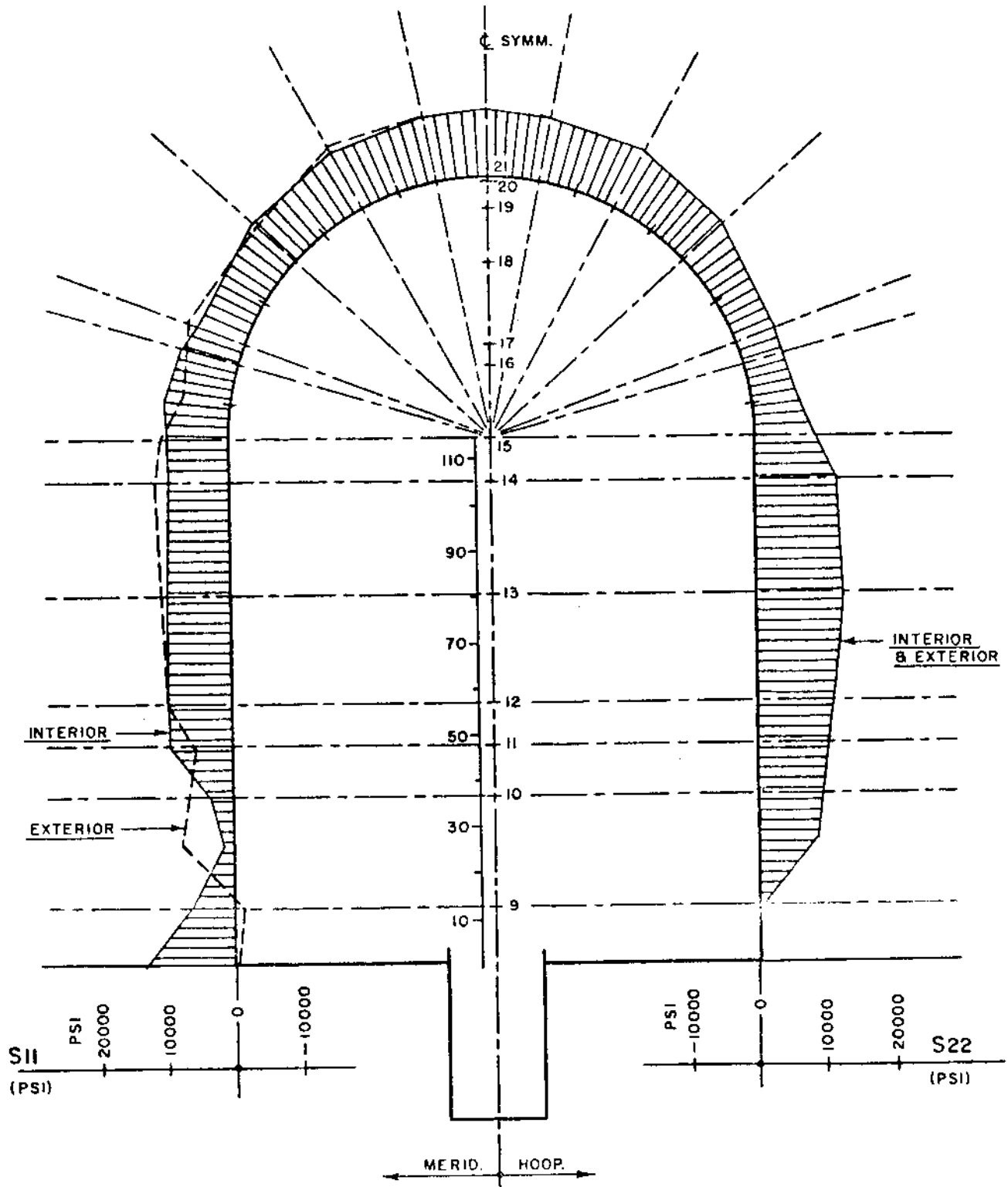


Fig. 5.2.2-22

July 1982

# UFSAR REVISION 30.0

## COOK NUCLEAR PLANT

SUPE 2A| GNSLOONO & GNSLOOTO - OPERATING BASIS EARTHQUAKE  
(8/3/71) FOR (0°): OPP. SIGN FOR (180°)

M11 & M22

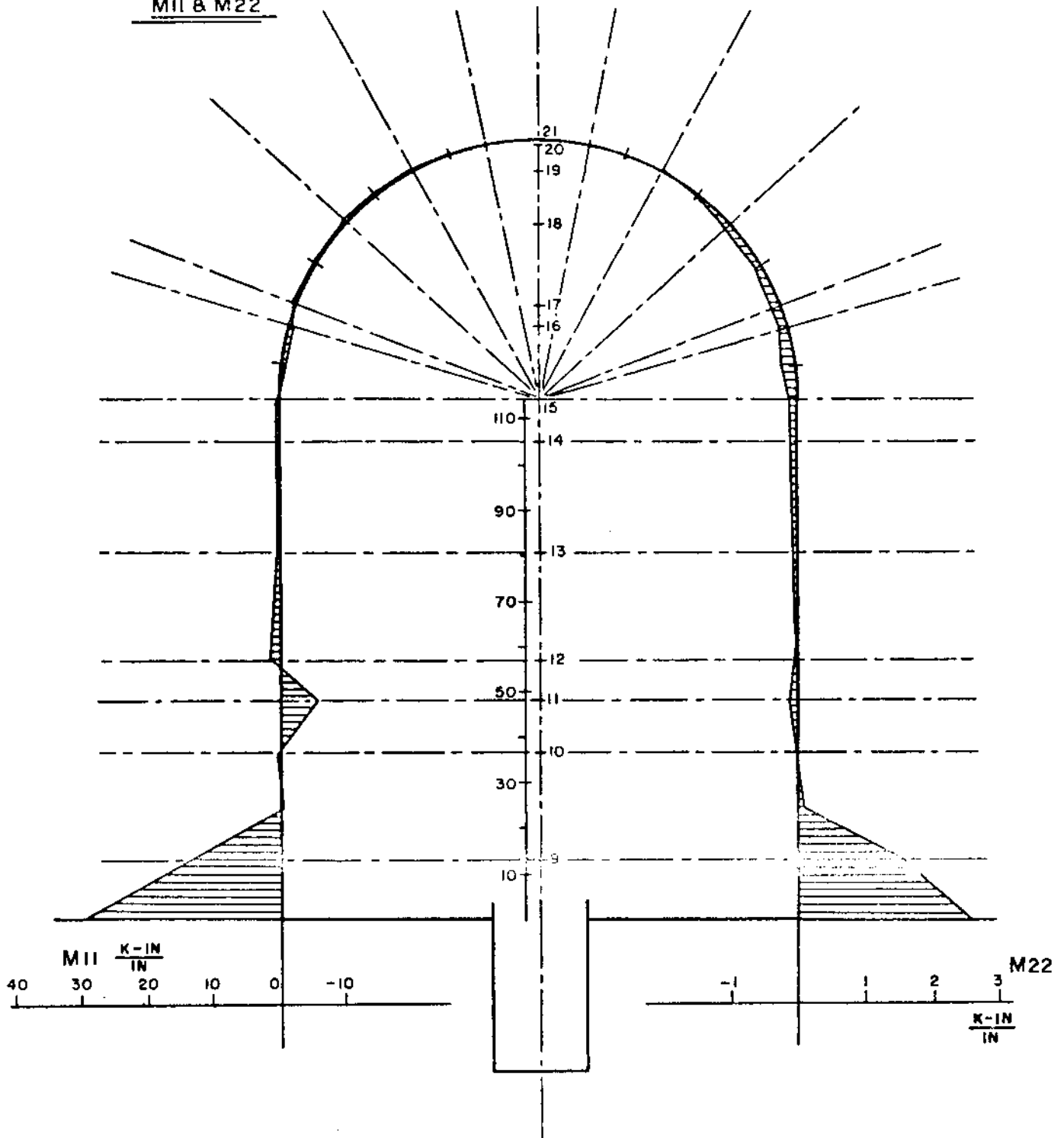
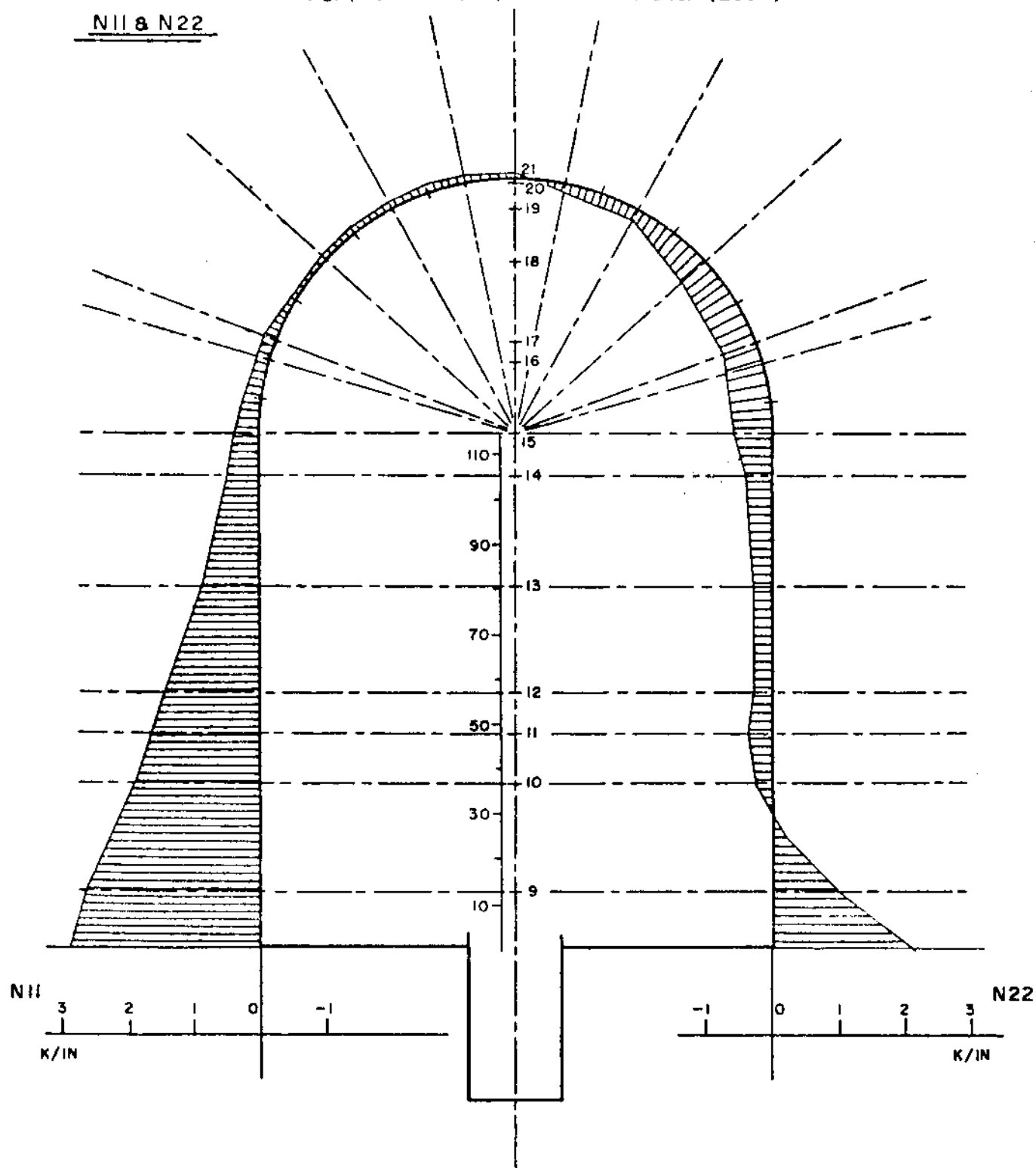


Fig. 5.2.2-23  
July 1982

**UFSAR REVISION 30.0**  
**COOK NUCLEAR PLANT**

SUPE 2A| GNSLCOO & GNSLOOT - OPERATING BASIS EARTHQUAKE  
(8/3/71) FOR (0°): OPP. SIGN FOR (180°)

N11 & N22



**Fig. 5.2.2- 24**  
**July 1982**

# UFSAR REVISION 30.0

## COOK NUCLEAR PLANT

SUPE 17A - OPERATING BASIS EARTHQUAKE  
W (DEFLECTION) INCHES

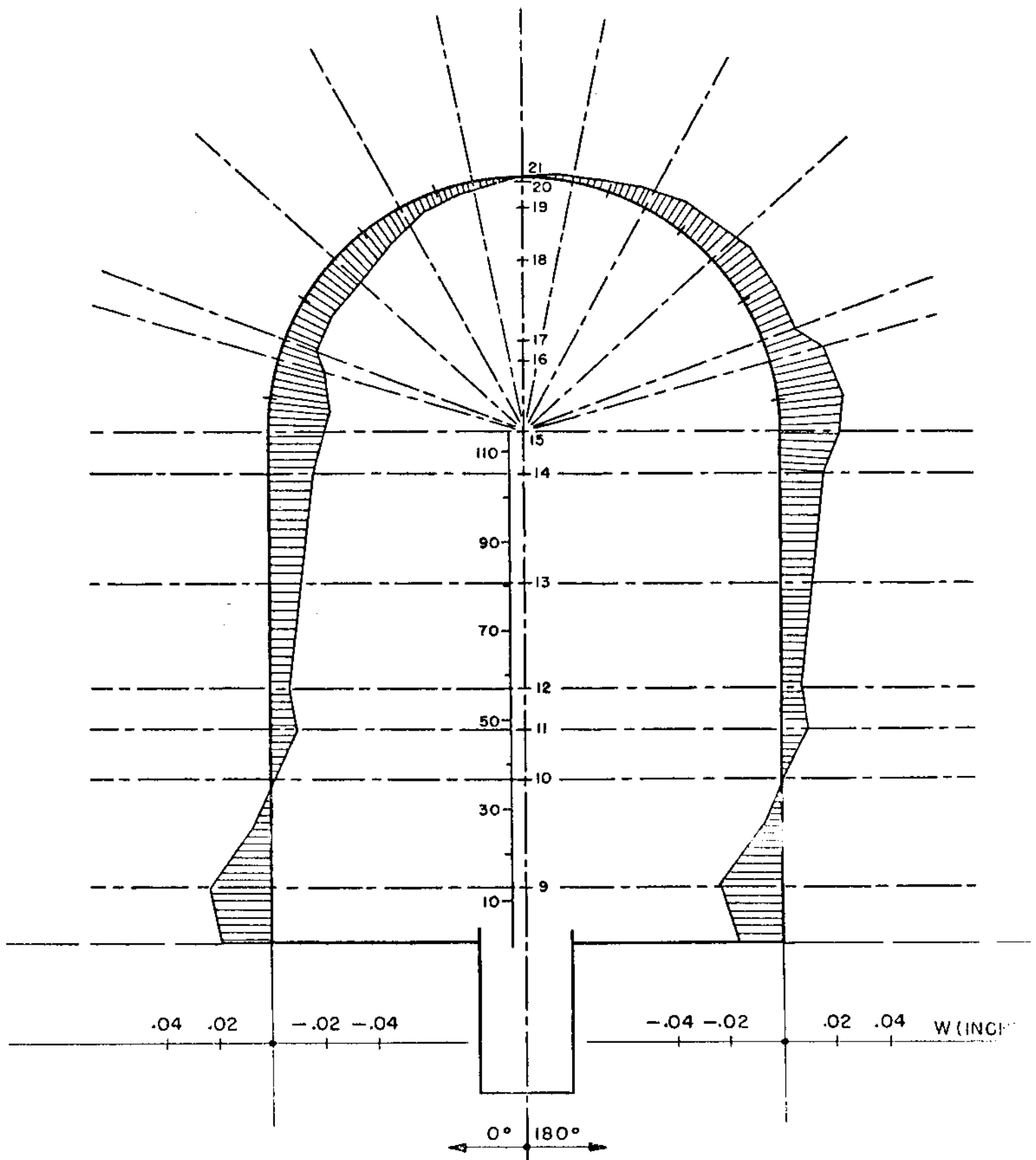


Fig. 5.2.2-25  
July 1982

# UFSAR REVISION 30.0

## COOK NUCLEAR PLANT

SUPE 17A - OPERATING BASIS EARTHQUAKE  
Q12 & Q13 (KIPS/INCHES)

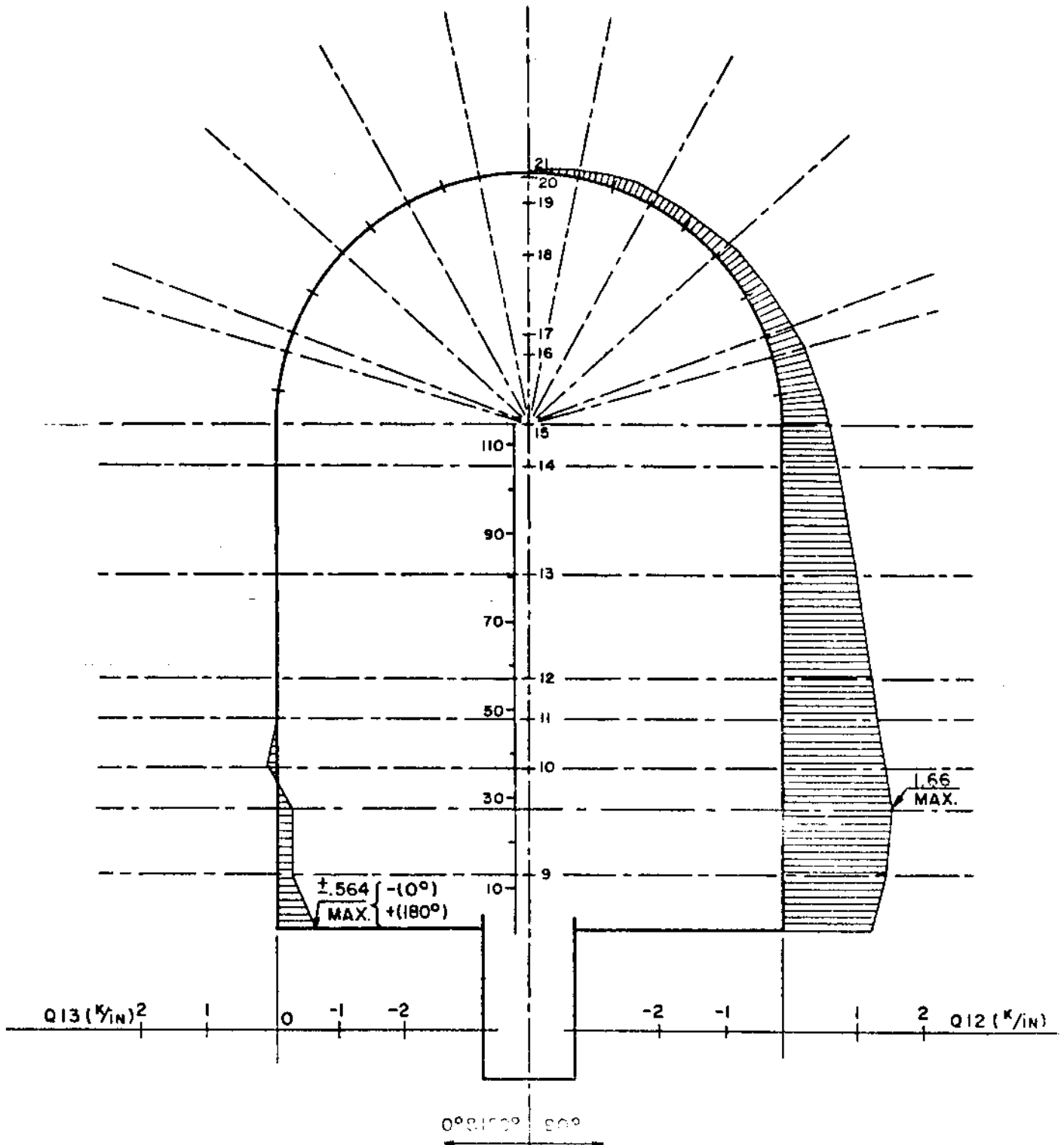


Fig. 5.2.2-26  
July 1982

# UFSAR REVISION 30.0

## COOK NUCLEAR PLANT

SUPE 2A|GNSLOOM0 & GNSLOOT0 - OPERATING BASIS EARTHQUAKE  
(8/3/71) FOR 0°: OPP. SIGN FOR 180°

S11 & S22

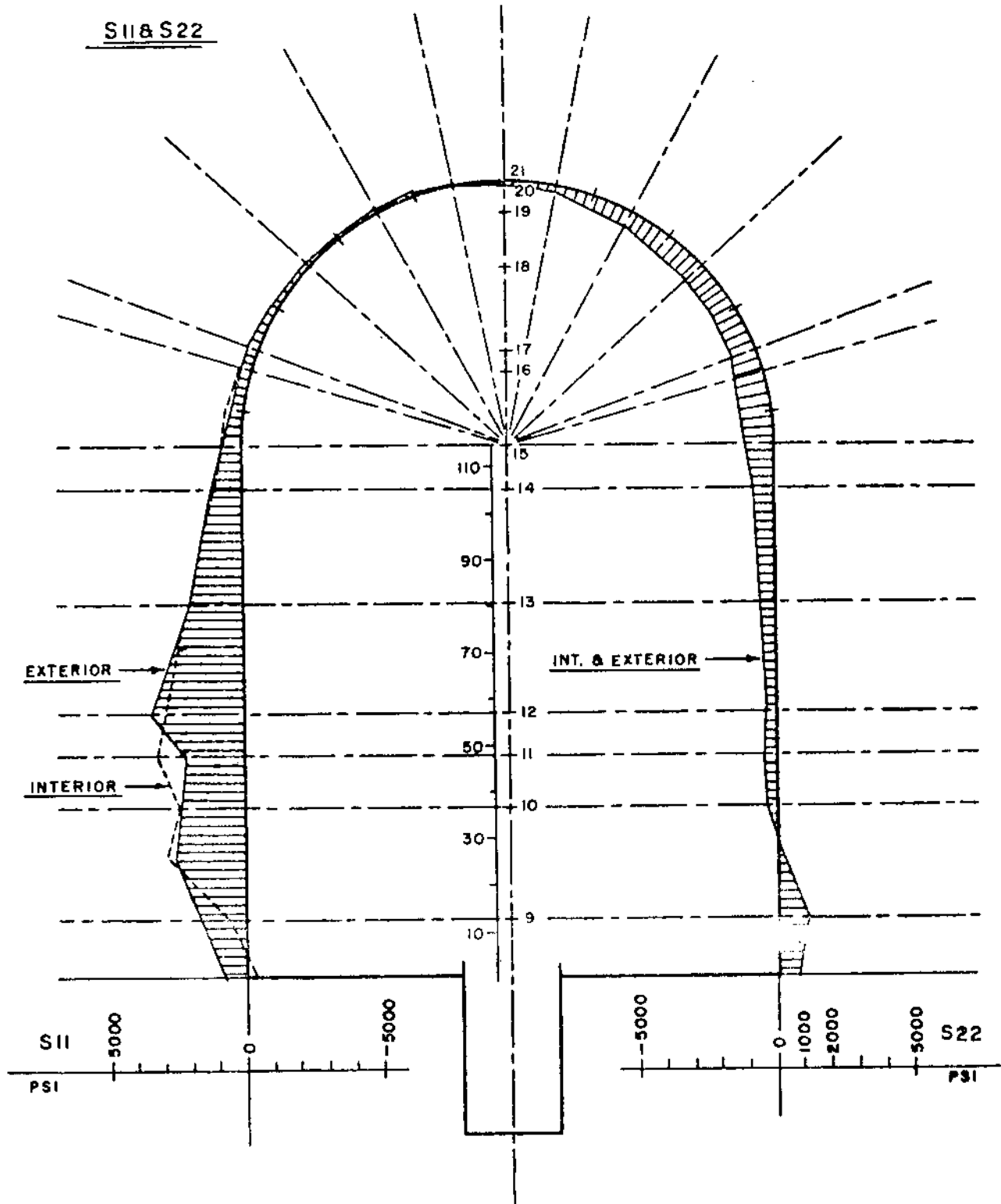


Fig. 5.2.2-27  
July 1982

# UFSAR REVISION 30.0

## COOK NUCLEAR PLANT

SUPE 17A/GNSLOOT1 & GNSLOOM3 WIND CONDITION  
M11 & M22 MERID. & HOOP MOMENTS

M11 & M22

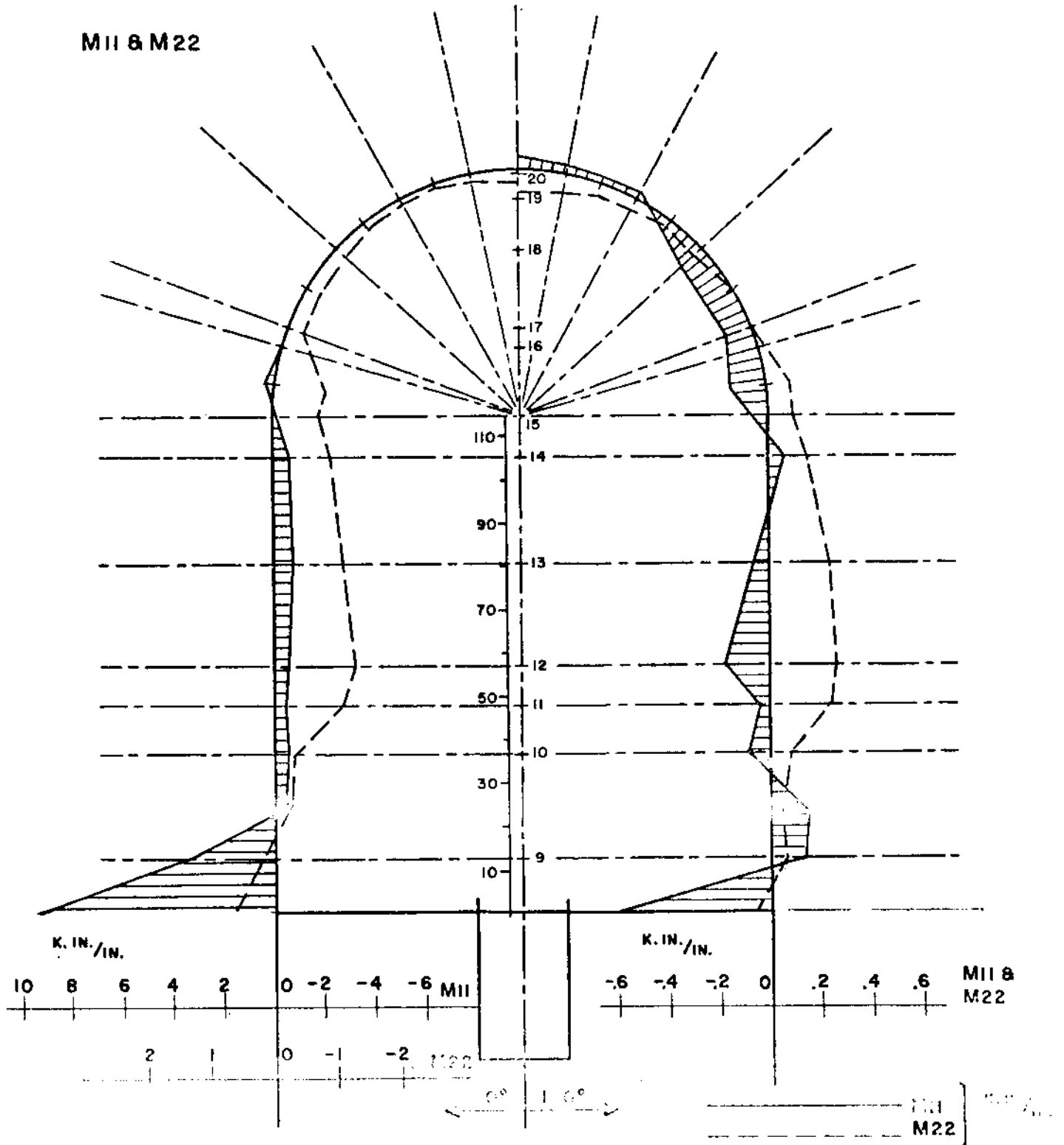


Fig. 5.2.2-28  
July 1982



# UFSAR REVISION 30.0

## COOK NUCLEAR PLANT

CUPE 17A/GNSLOOT1 & GNSLOOM3 WIND CONDITION - N11 & N22

N11 & N22

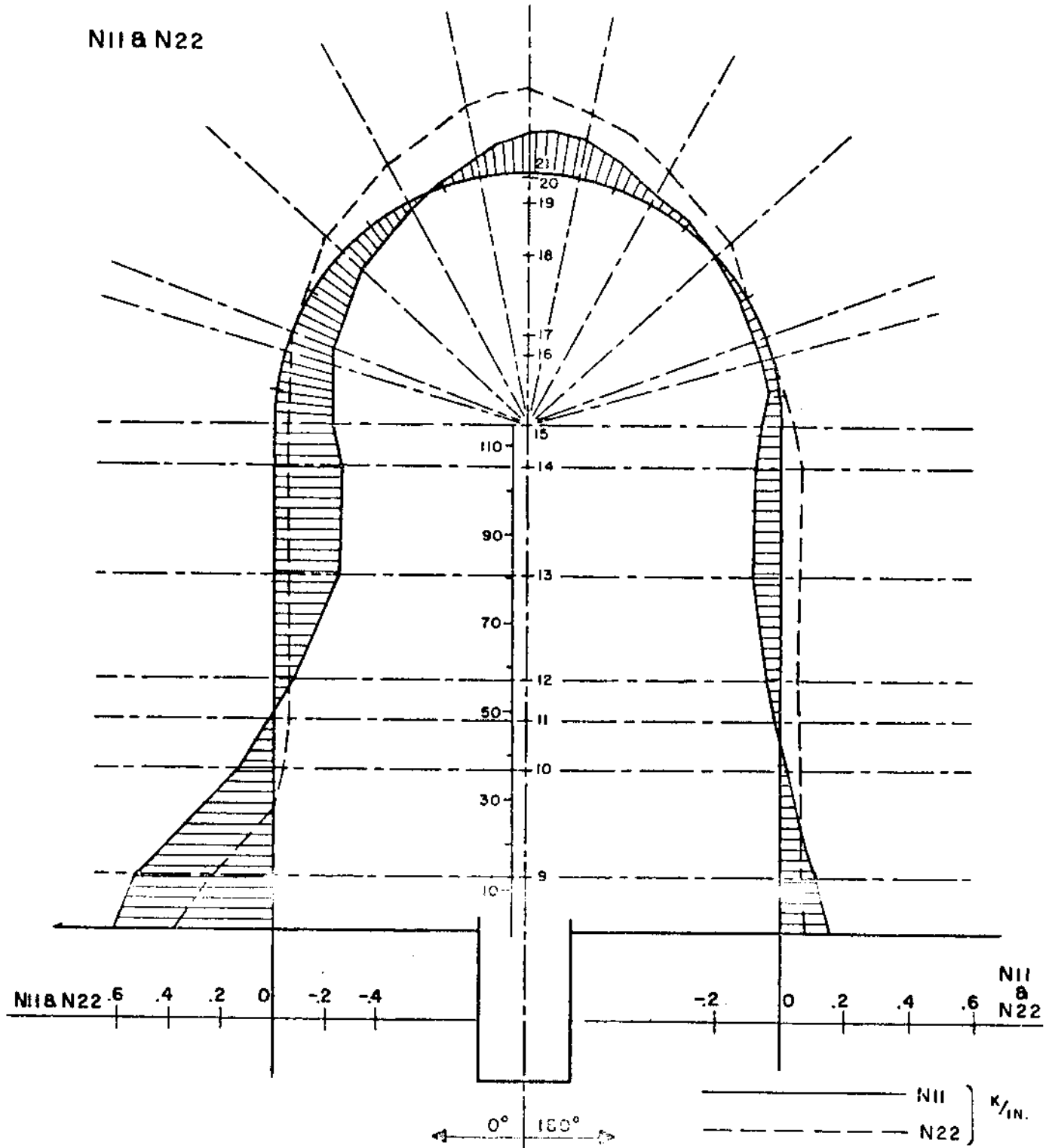
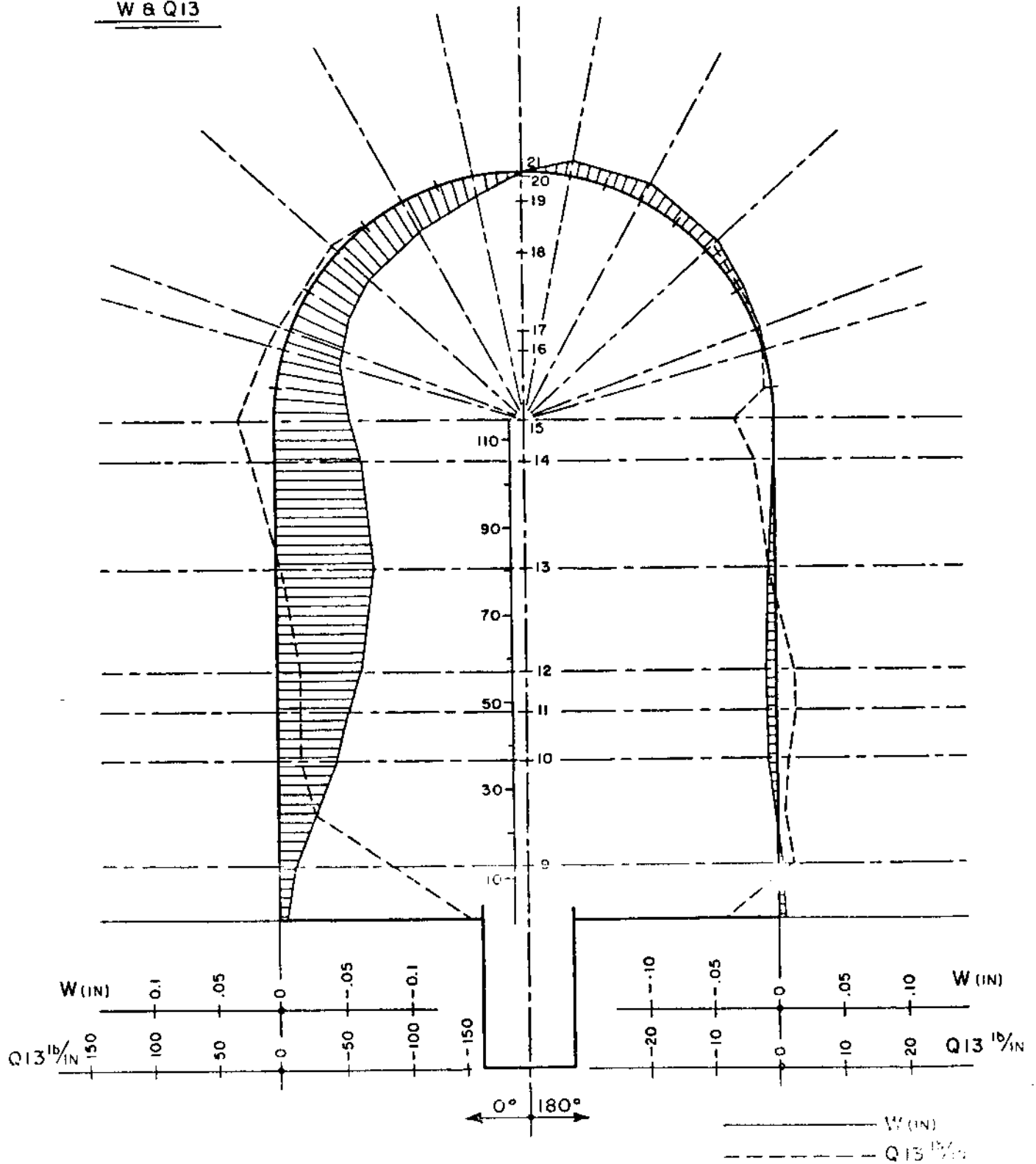


Fig. 5.2.2-29  
July 1982

COOK NUCLEAR PLANT

W & Q13



July 1982

# UFSAR REVISION 30.0

## COOK NUCLEAR PLANT

SUPE 17A/GNSLOOT1 & GNSLOOM3 WIND CONDITION -  
S11 REINF. STRESSES MERIDIAN

S11

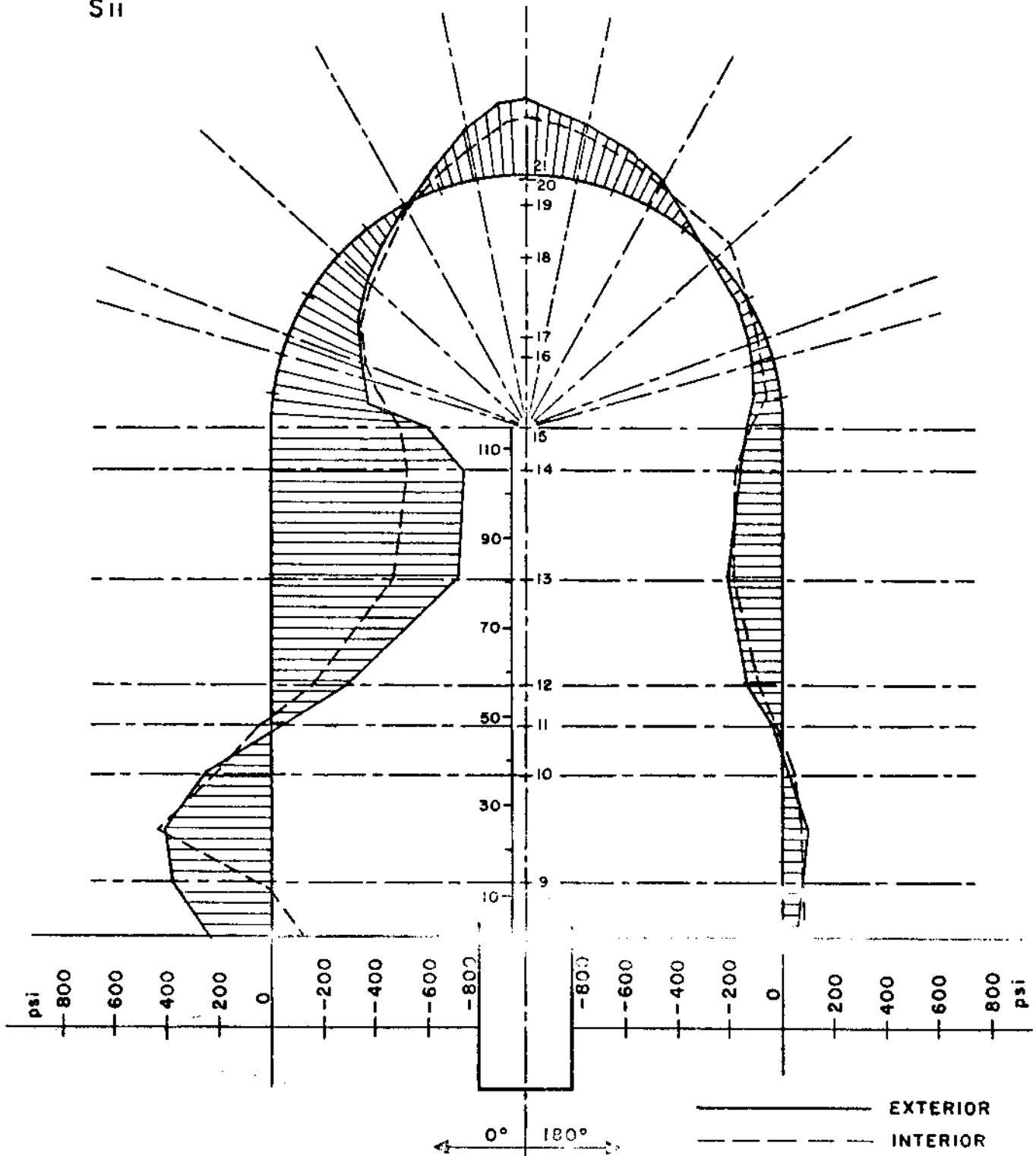


Fig. 5.2.2-31

July 1982

# UFSAR REVISION 30.0

## COOK NUCLEAR PLANT

SUPE 17A/GNSLOOT1 & GNSLOOM3 WIND CONDITION-

S22 REINF. STRESSES HOOP

S22

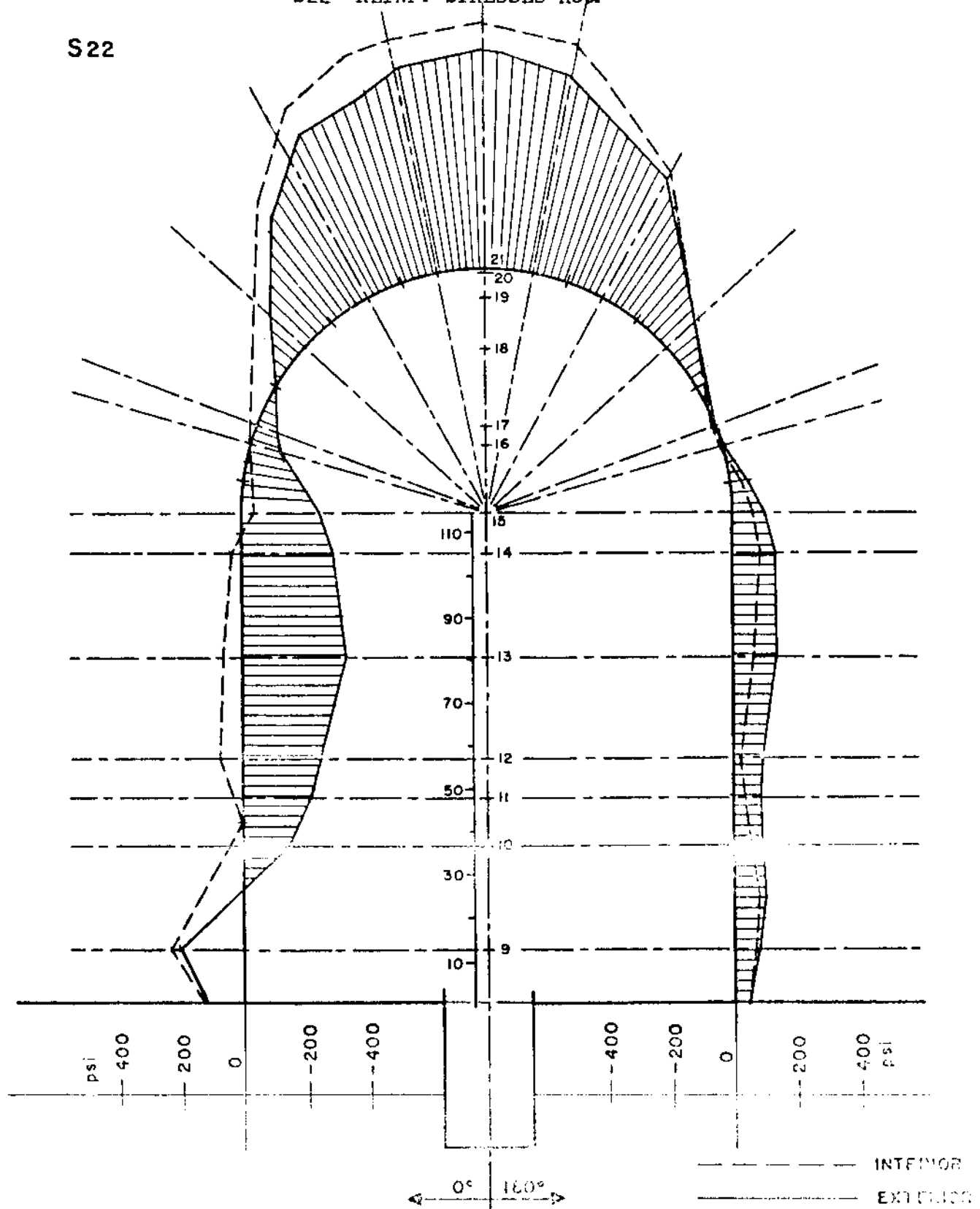


Fig. 5.2.2-32  
July 1982

# UFSAR REVISION 30.0

## COOK NUCLEAR PLANT

SUPE 2A|GNSLOOTO & GNSLOOM LINER THERMAL - ACCIDENT

M11 & M22

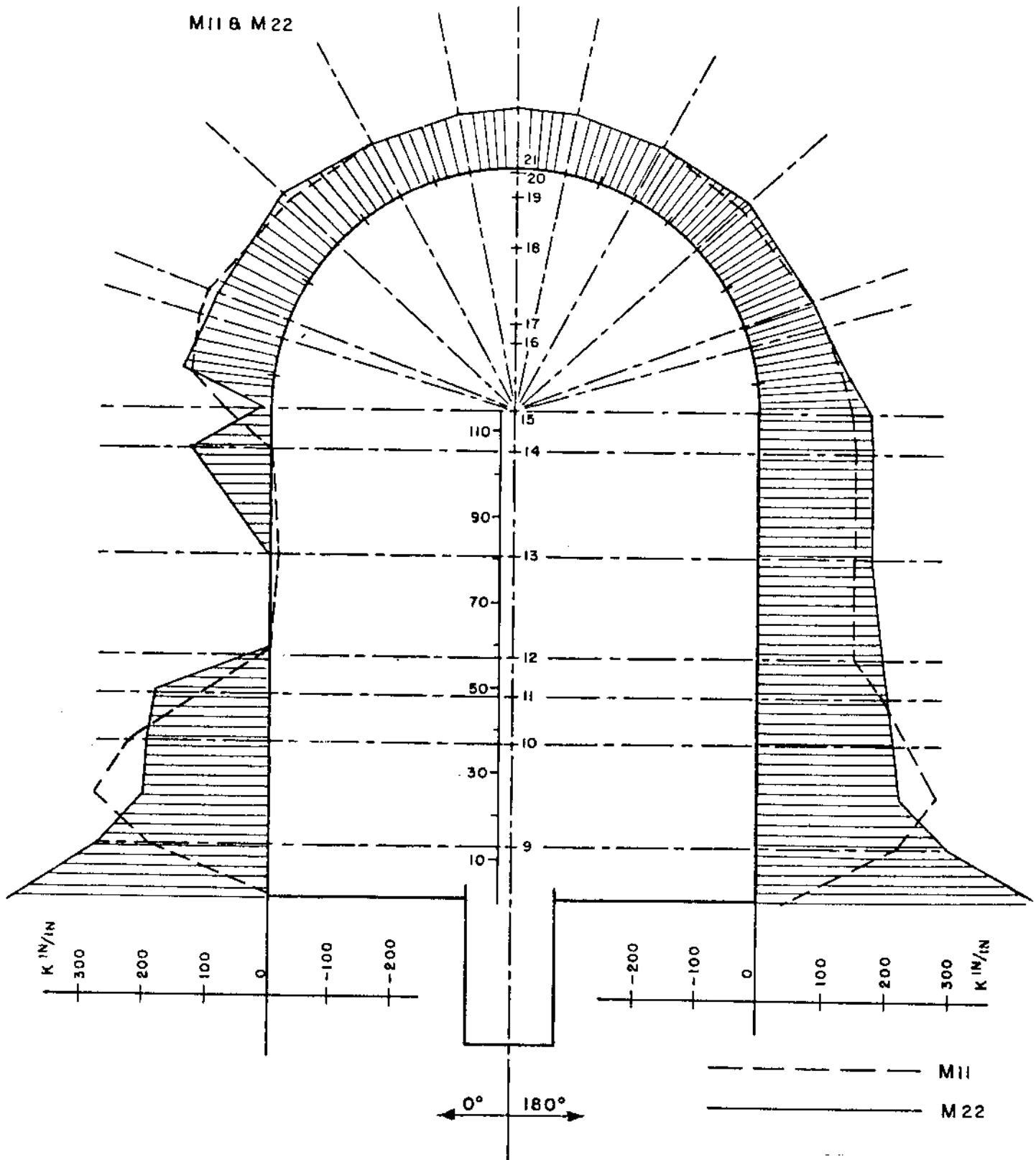
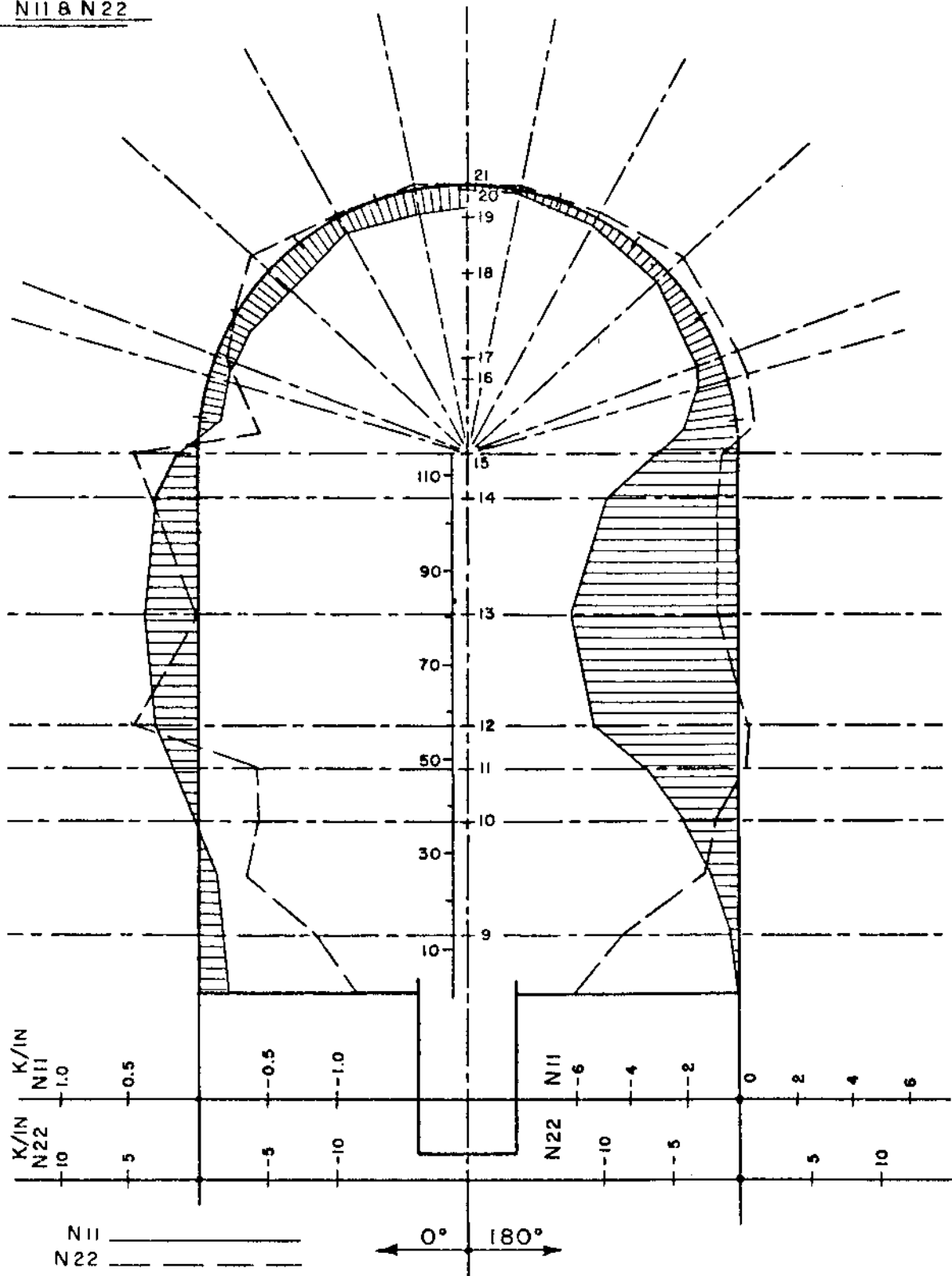


Fig. 5.2.2-33

July 1982

COOK NUCLEAR PLANT

## N11 & N22



July 1982

# UFSAR REVISION 30.0

COOK NUCLEAR PLANT

SUPE 17A - LINER THERMAL ACCIDENT  
W (DEFLECTION) INCHES

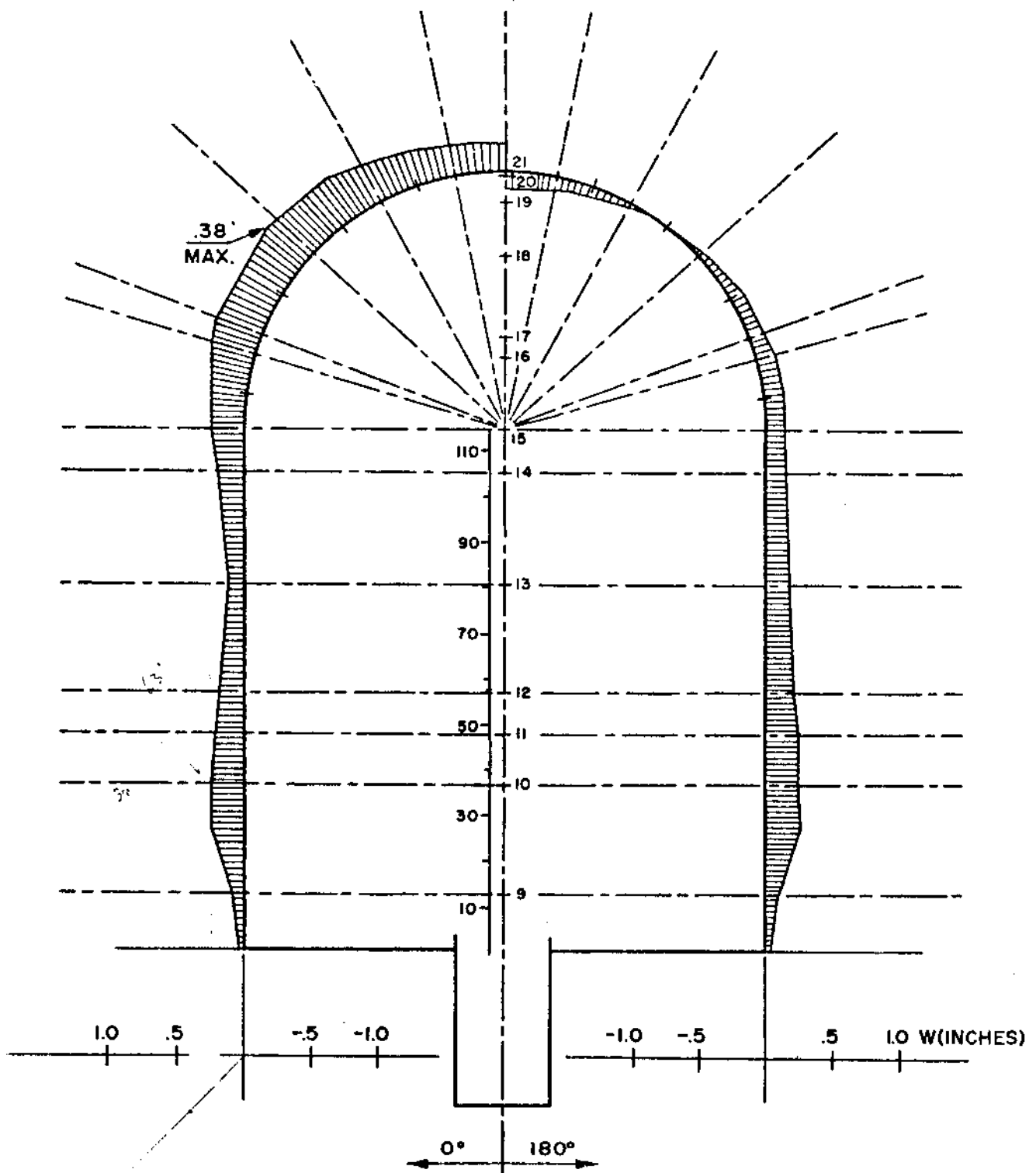


FIG. 5.2.2-35

July 1982

COOK NUCLEAR PLANT

July 1982



UFSAR REVISION 30.0  
COOK NUCLEAR PLANT

SUPE 2A|GNSLOOM1 & GNSLOOTO LINER THERMAL ACCIDENT

S11

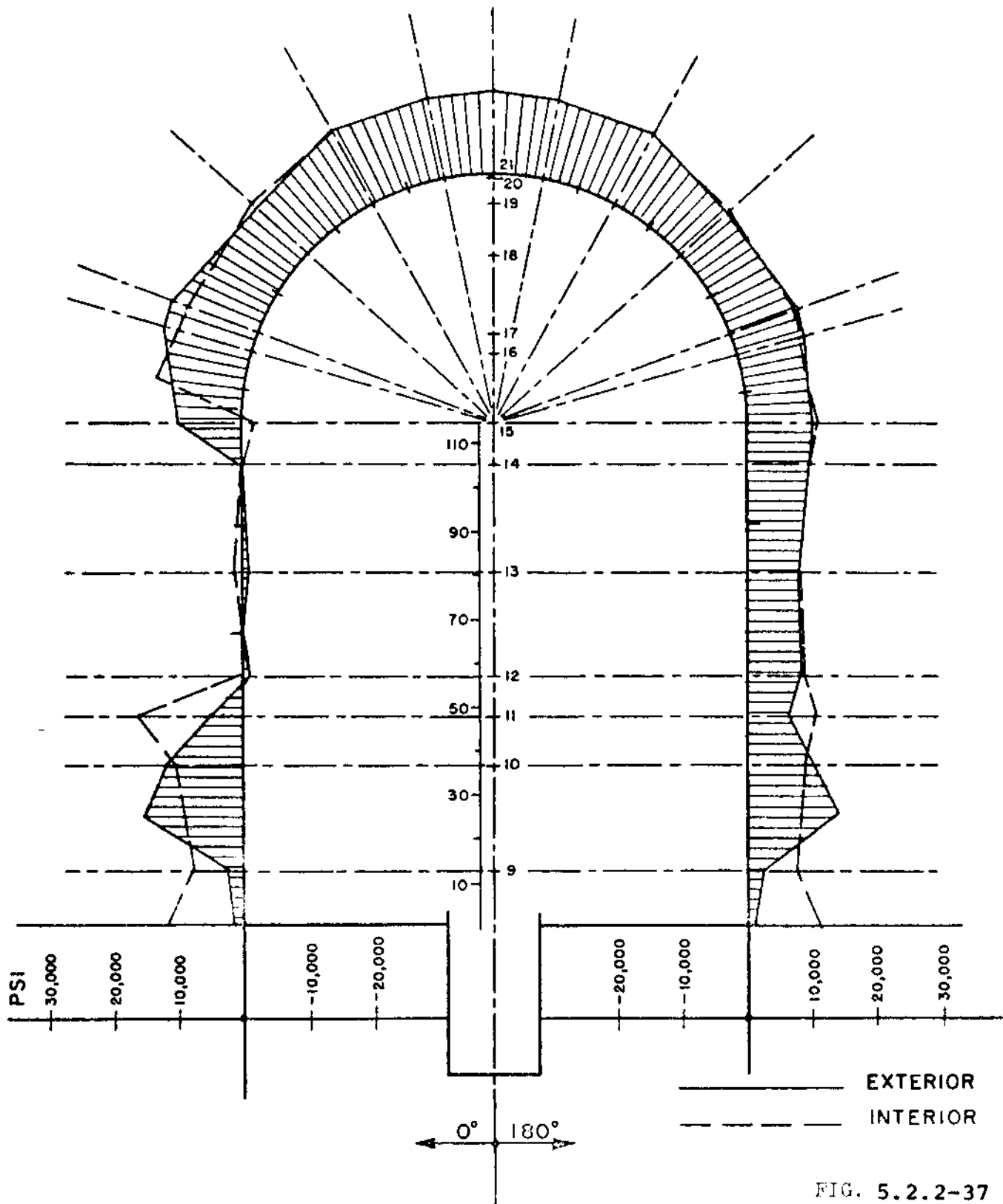


FIG. 5.2.2-37

July 1982

# UFSAR REVISION 30.0

## COOK NUCLEAR PLANT

SUPE 2A|GNSLOOM1 & GNSLOOTO LINER THERMAL ACCIDENT

S22

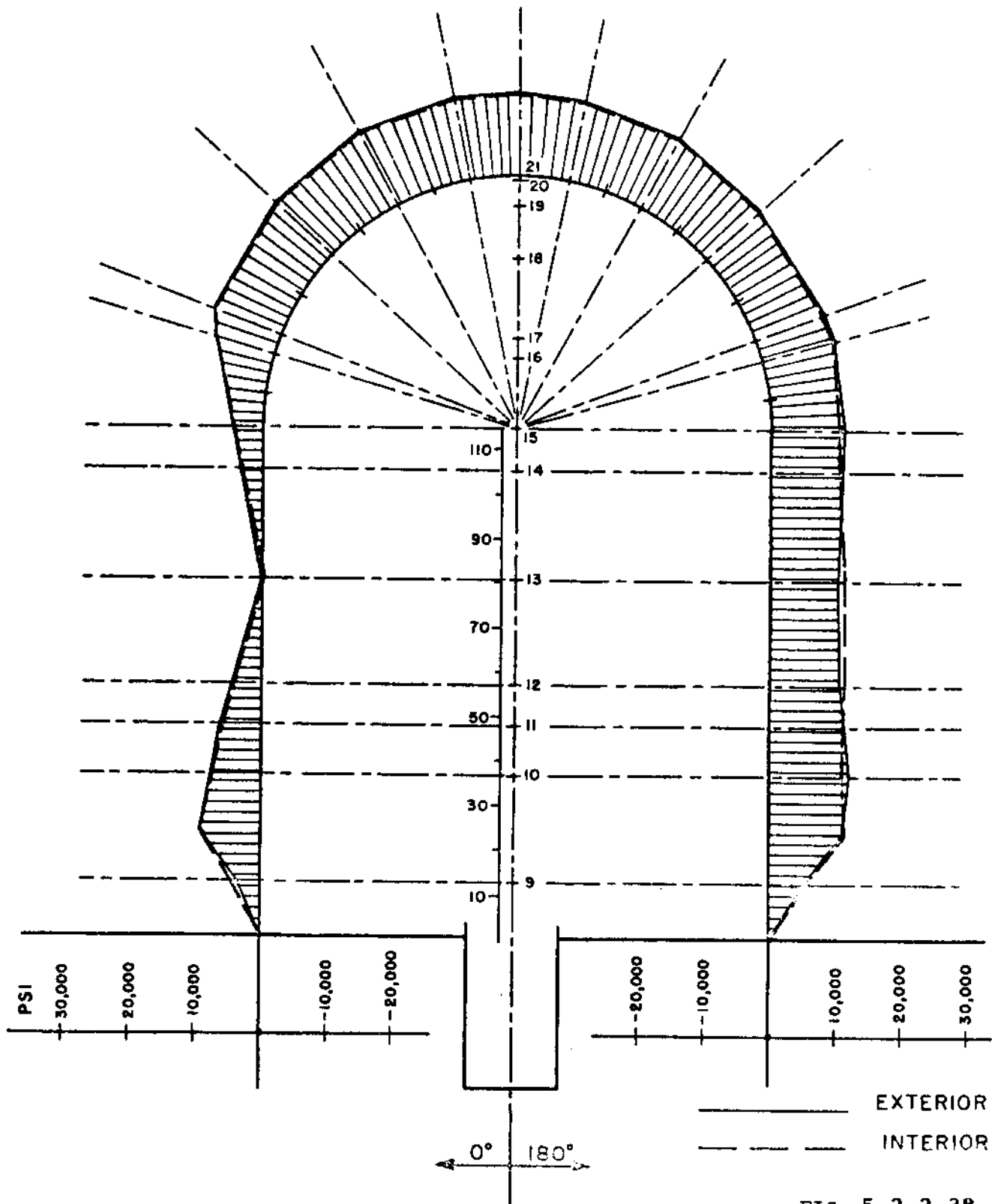


FIG. 5.2.2-38

July 1982

# UFSAR REVISION 30.0

## COOK NUCLEAR PLANT

SUPE 2A|GNSLOOM & GNSLOOTO CONCRETE THERMAL  
(NORMAL & ACCIDENT)

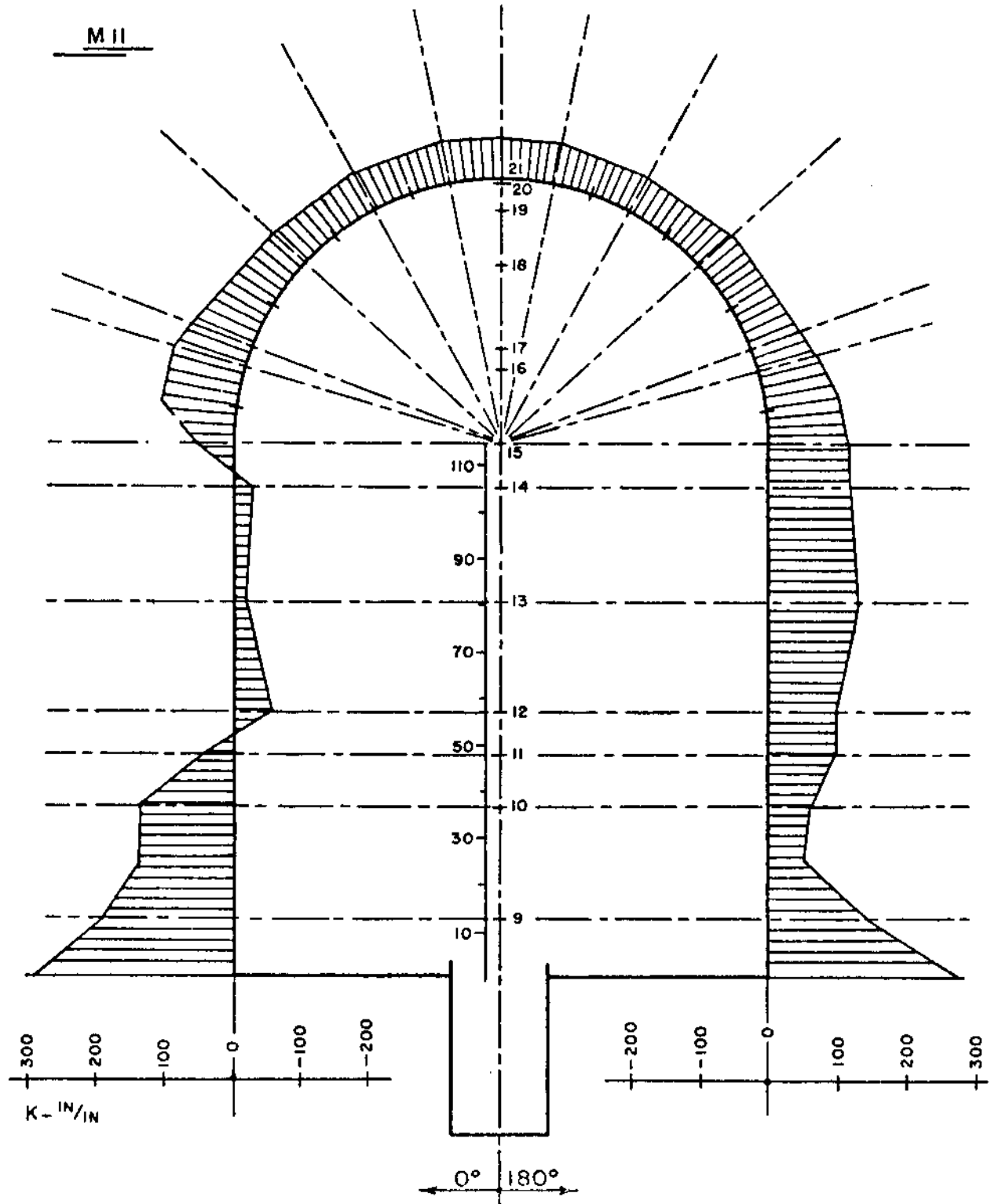


FIG. 5.2.2-39

July 1982

# UFSAR REVISION 30.0

## COOK NUCLEAR PLANT

SUPE 2A|GNSLOOM0 & GNSLOOTO CONCRETE THERMAL  
(NORMAL & ACCIDENT)

M 22

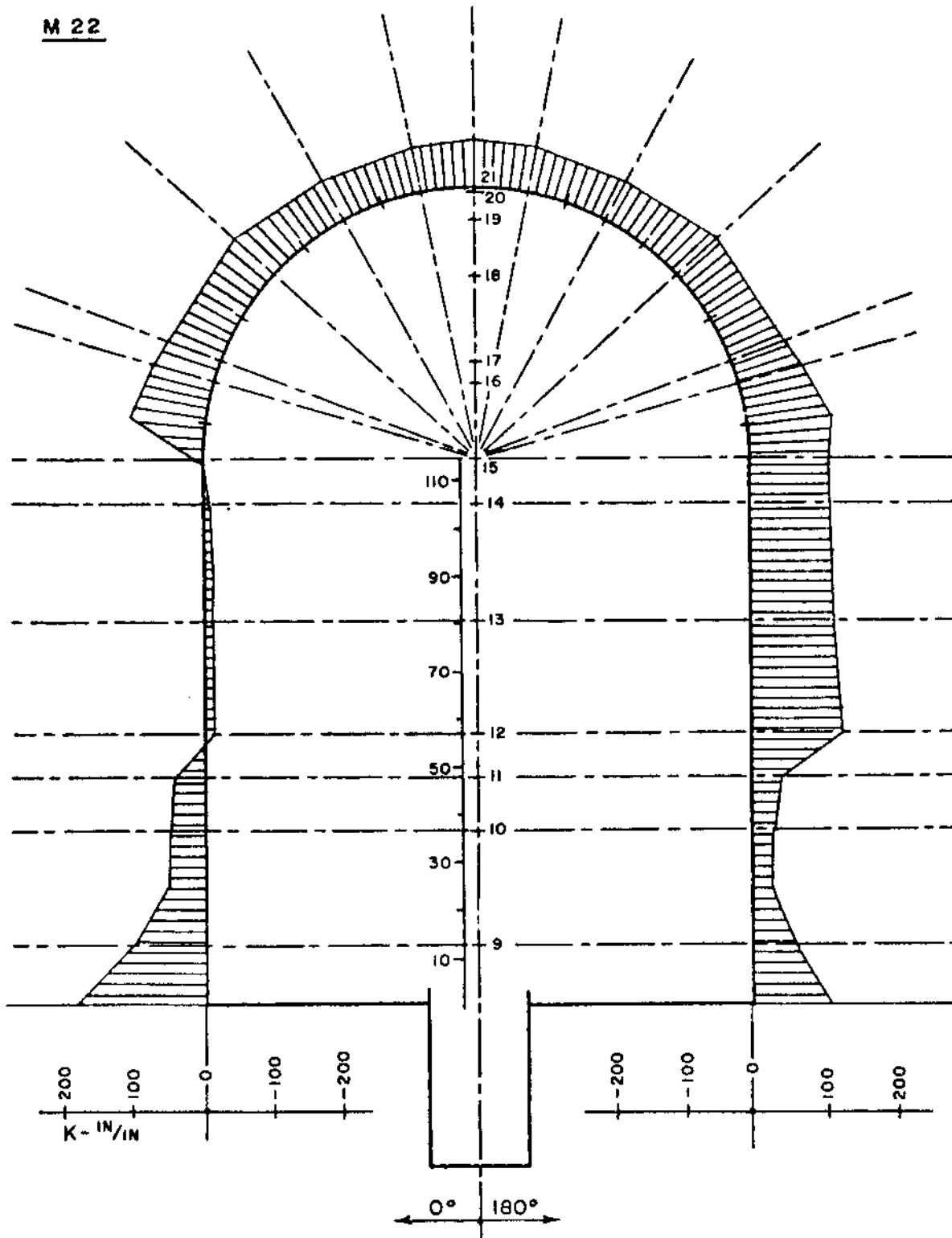


FIG. 5.2.2-40

July 1982

# UFSAR REVISION 30.0

## COOK NUCLEAR PLANT

SUPE 2A|GNSLOOM0 & GNSLOOTO CONCRETE THERMAL  
(NORMAL & ACCIDENT)

N11 & N22

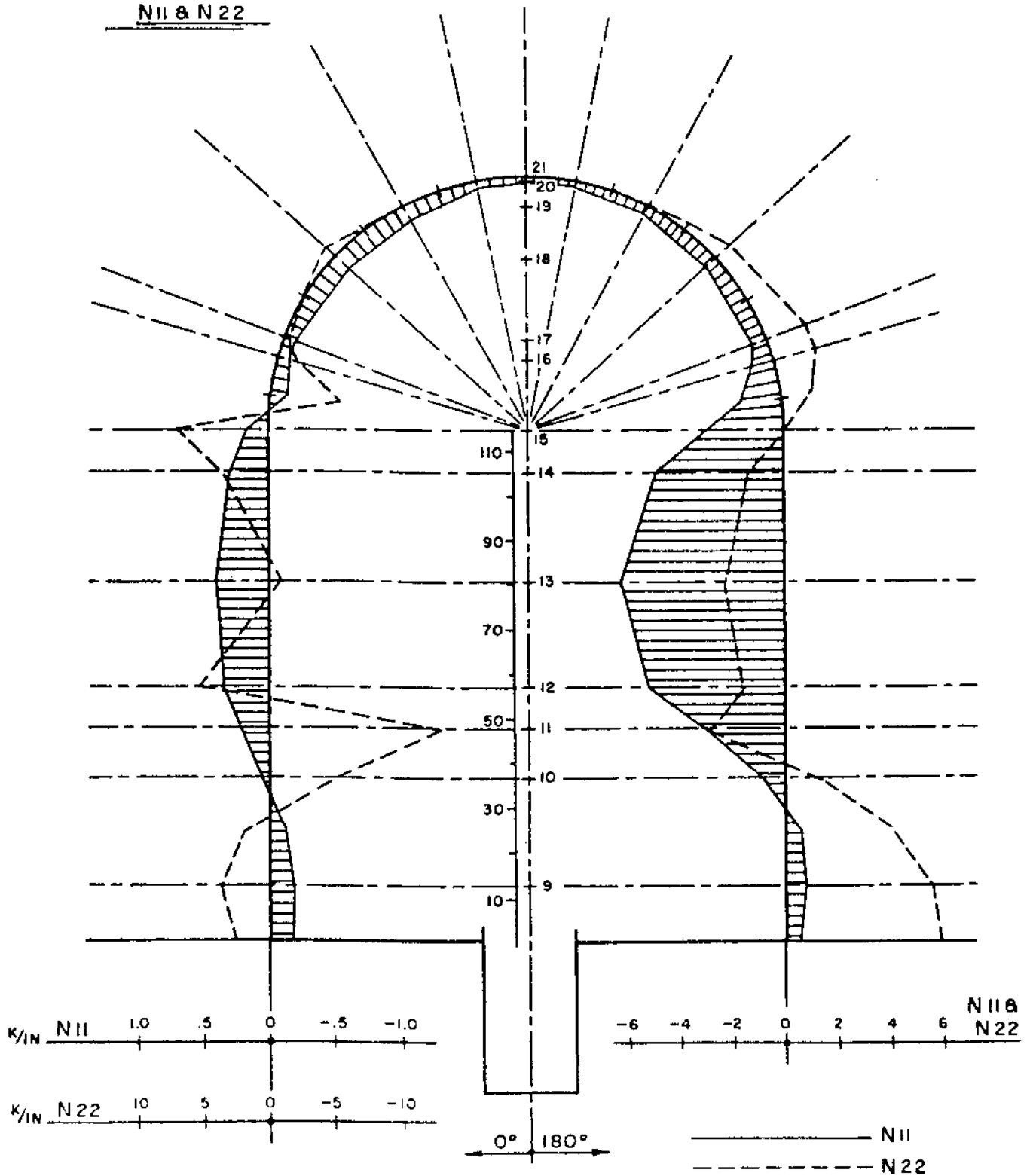


FIG. 5.2.2-41  
July 1982

# UFSAR REVISION 30.0

COOK NUCLEAR PLANT

SUPE 17A - CONCRETE THERMAL (NORMAL & ACCIDENT)  
W (DEFLECTION. INCHES)

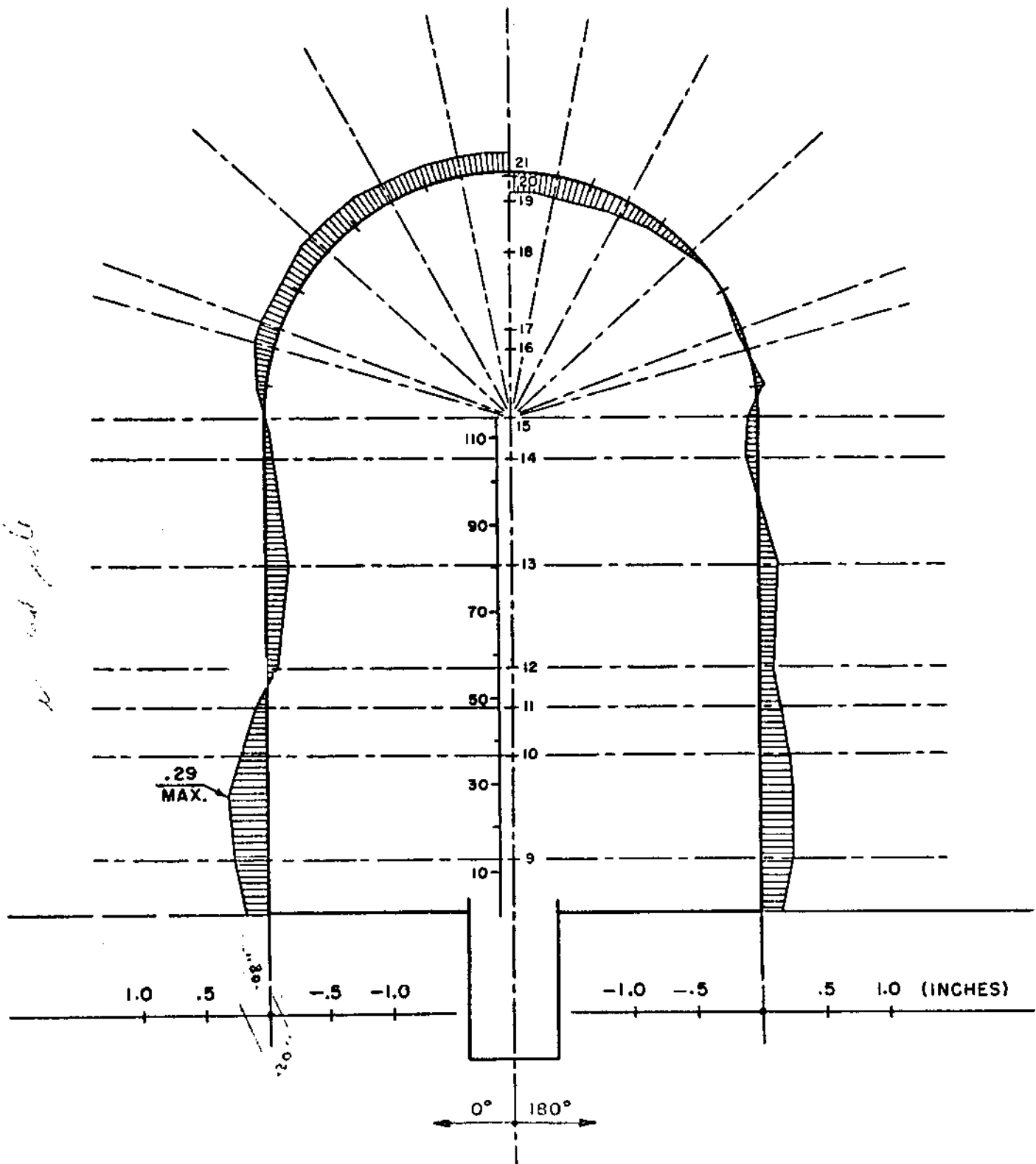


FIG. 5.2.2-42

July 1982

# UFSAR REVISION 30.0

COOL NUCLEAR PLANT

SUPE 17A - CONCRETE THERMAL (NORMAL & ACCIDENT)  
Q12 & Q13 (K/IN)

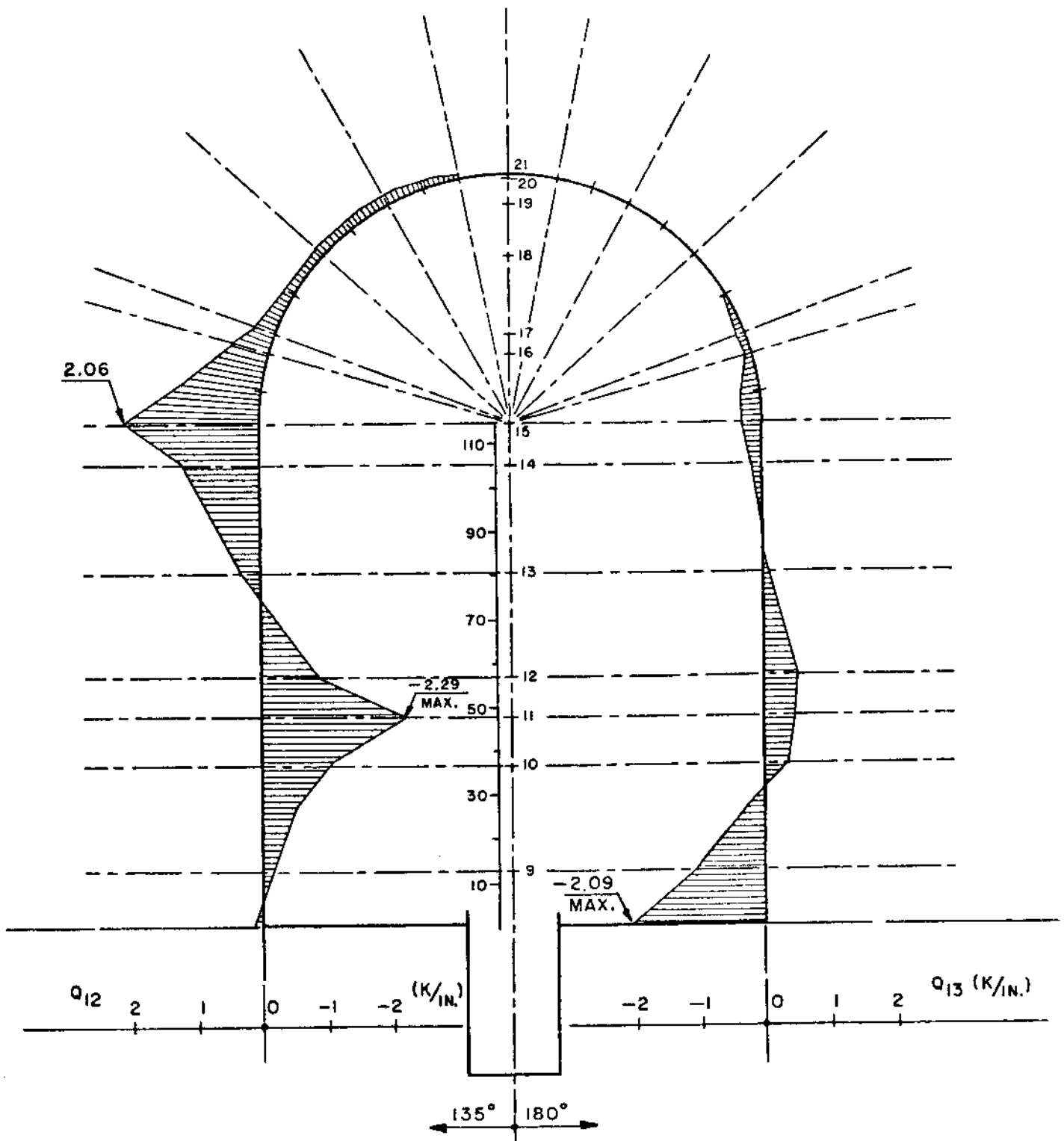


Fig. 5.2.2-43

July 1982

# UFSAR REVISION 30.0

## COOK NUCLEAR PLANT

SUPE 2A|GNSLCOM0 & GNSLOOTO CONCRETE THERMAL  
(NORMAL & ACCIDENT) MERIDIAN

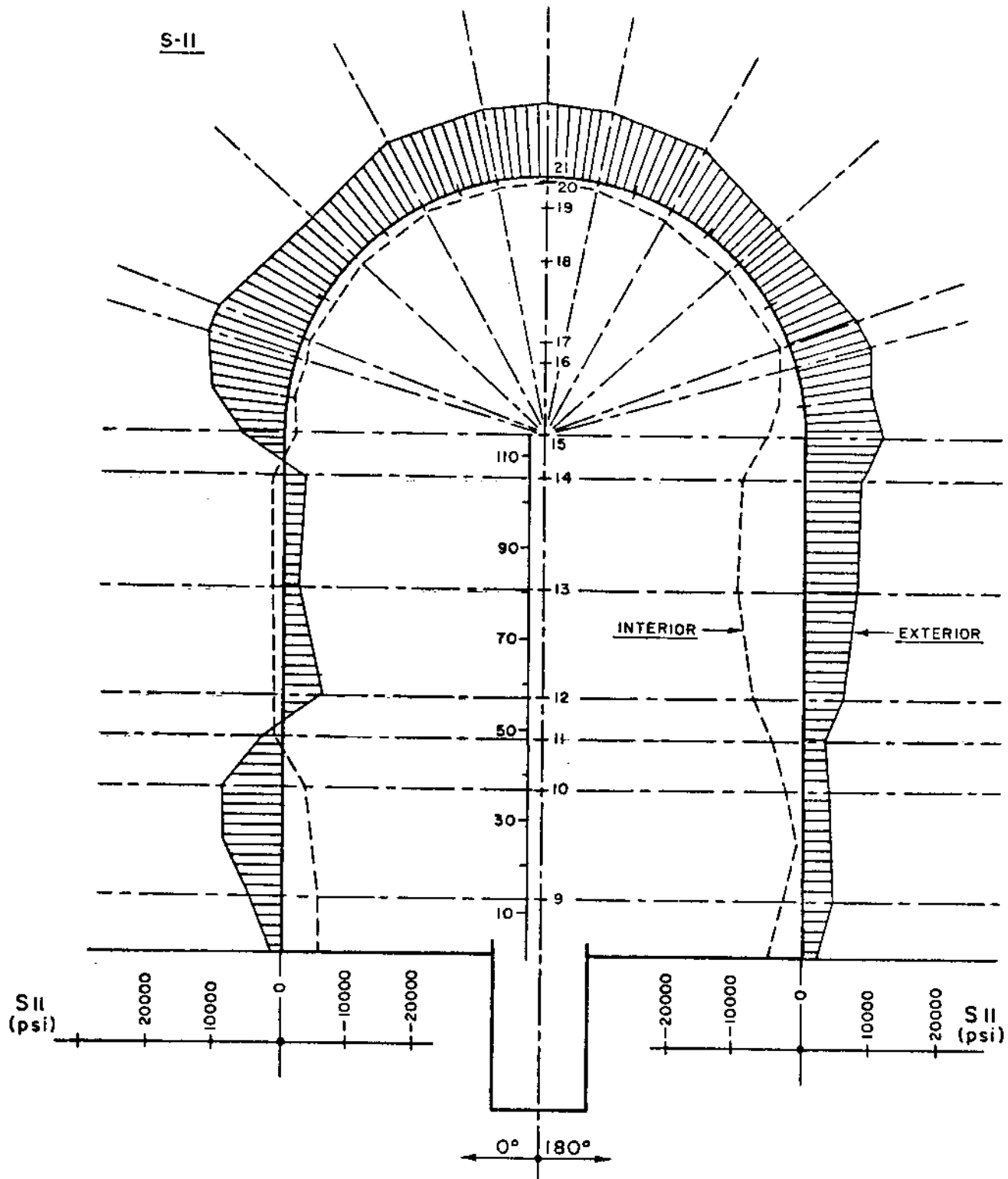


FIG. 5.2.2-44

July 1982



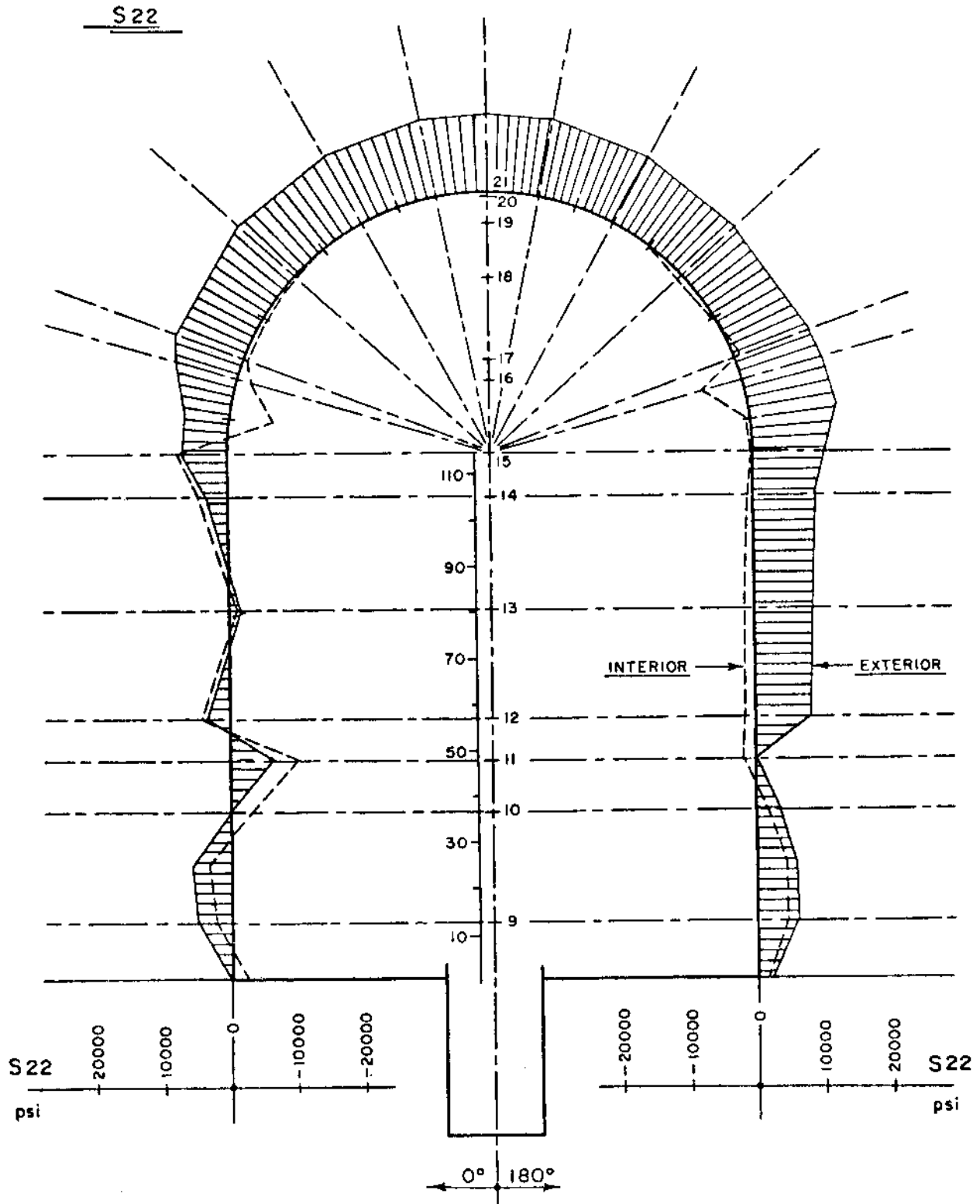
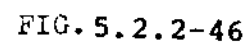
SUPE 2A|GNSLOOM & GNSLOOTO CONCRETE THERMAL  
(NORMAL & ACCIDENT) HOOP

FIG. 5.2.2-45

July 1982

COOK NUCLEAR PLANT

### M11 & M22



July 1982

# UFSAR REVISION 30.0

## COOK NUCLEAR PLANT

SUPE 2A|GNSLOOTO & GNSLOOMO DESIGN BASIS EARTHQUAKE  
FOR (0°): OPP. SIGN FOR (180°)

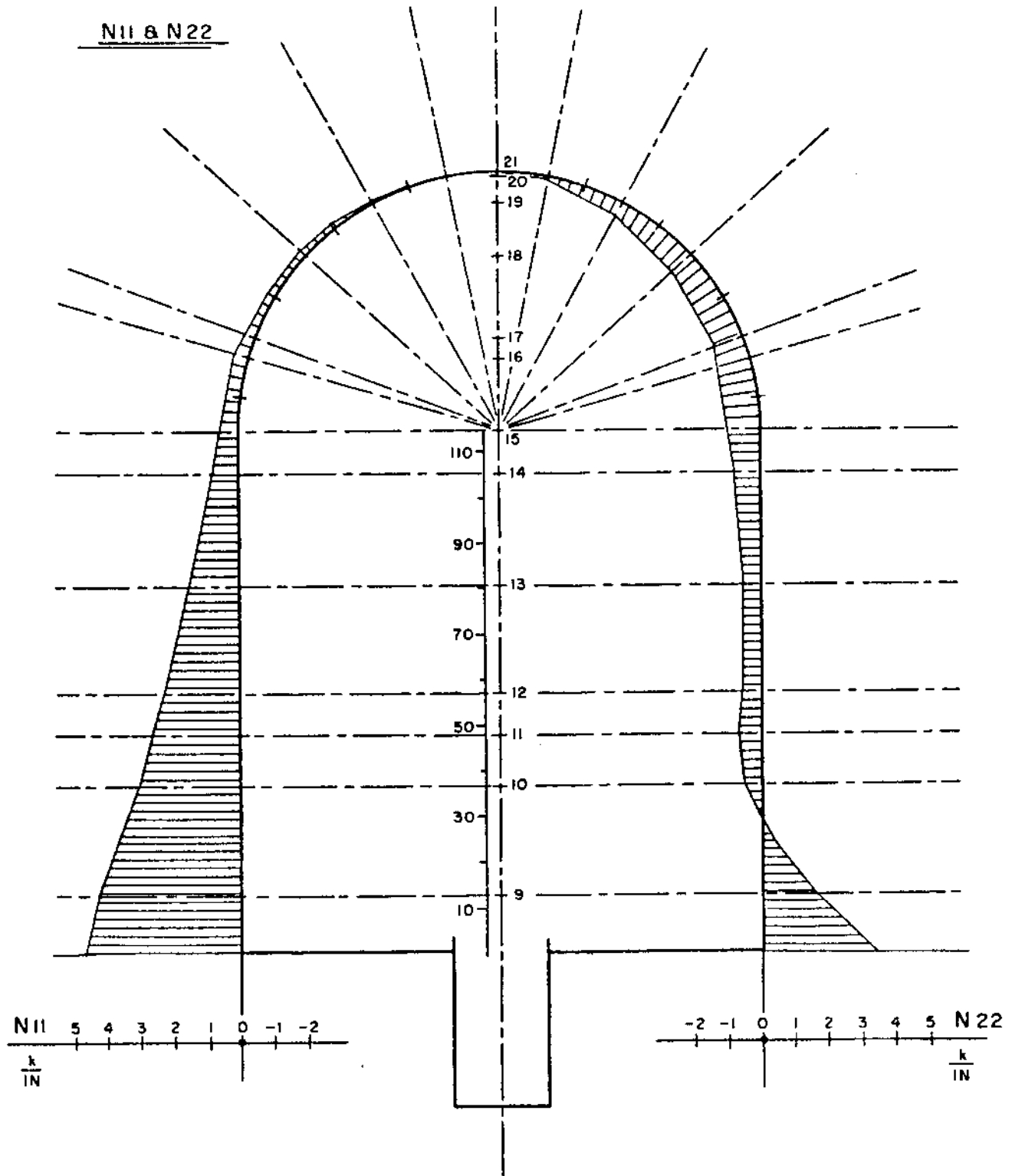


FIG. 5.2.2-47

July 1982

COOK NUCLEAR PLANT

July 1982

# UFSAR REVISION 30.0

## COOK NUCLEAR PLANT

SUPE 171 - DESIGN BASIC EARTHQUAKE  
Q12 & Q13 (KIPS/INCHES)

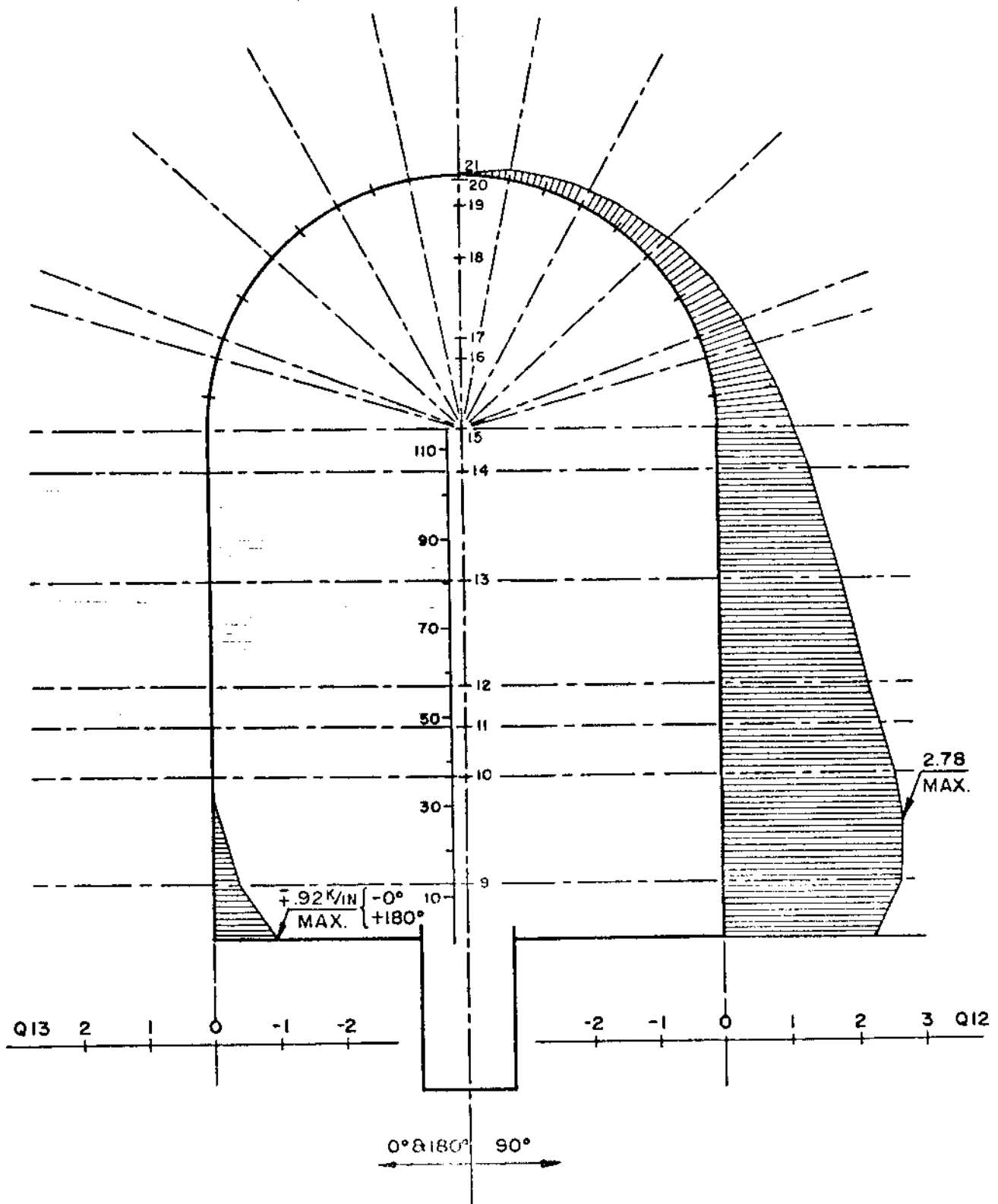


FIG. 5.2.2-49

July 1982

# UFSAR REVISION 30.0

## COOK NUCLEAR PLANT

SUPE 2A|GNSLOOTO & GNSLOOMO DESIGN BASIS EARTHQUAKE  
FOR (0°): OPP. SIGN FOR 180°

S11 & S22

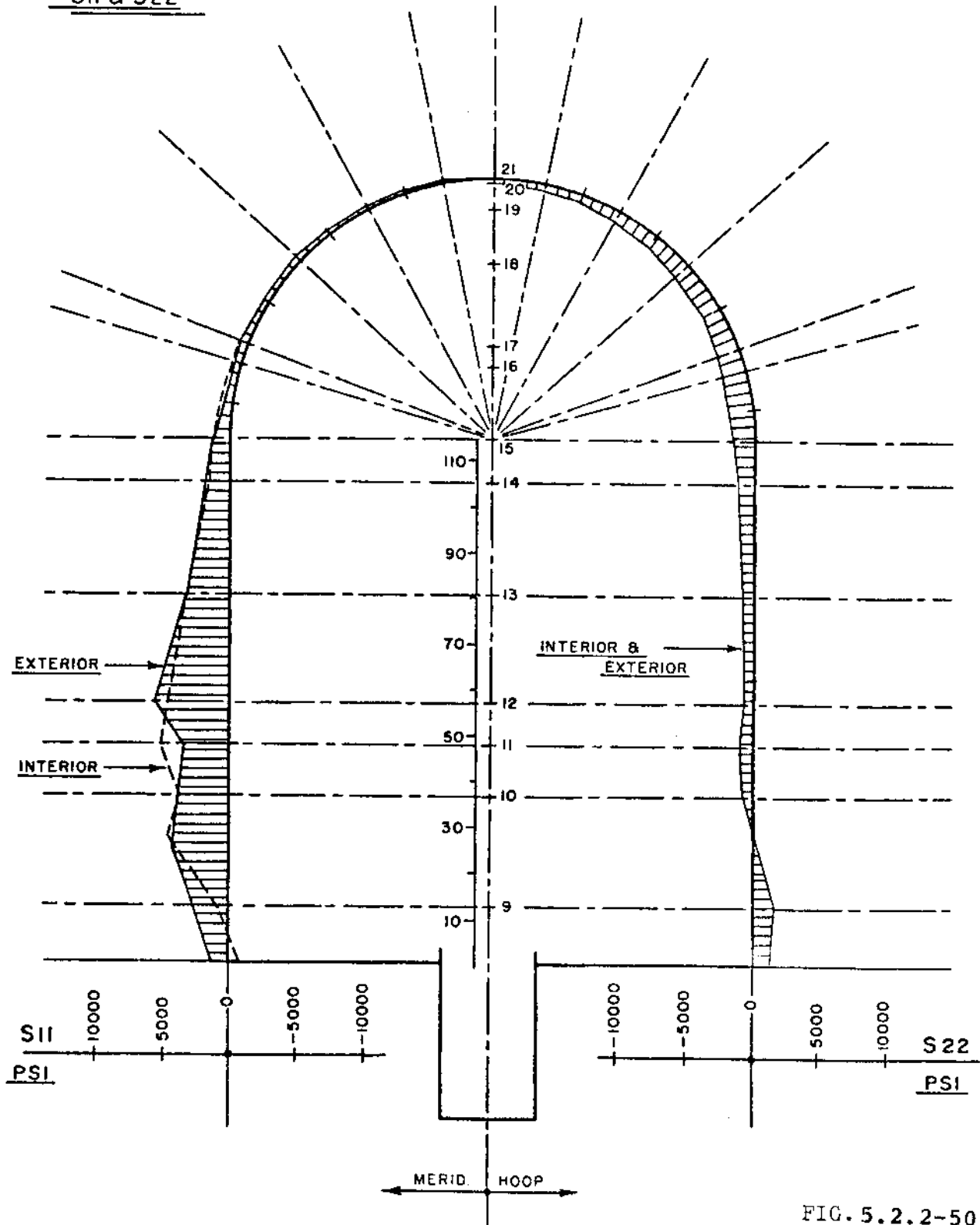
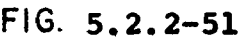


FIG. 5.2.2-50

July 1982



**July 1982**

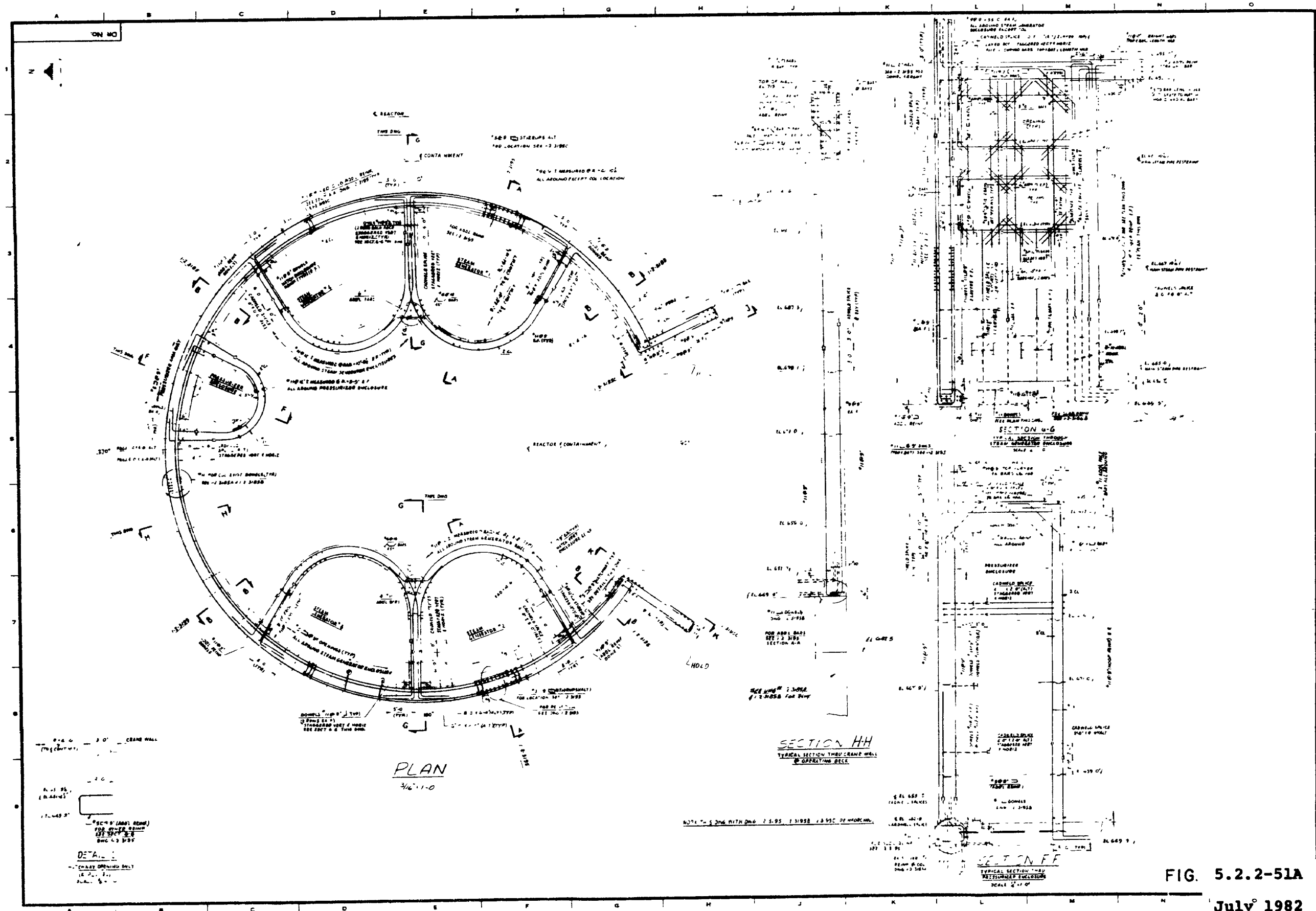


FIG. 5.2.2-51A

July 1982



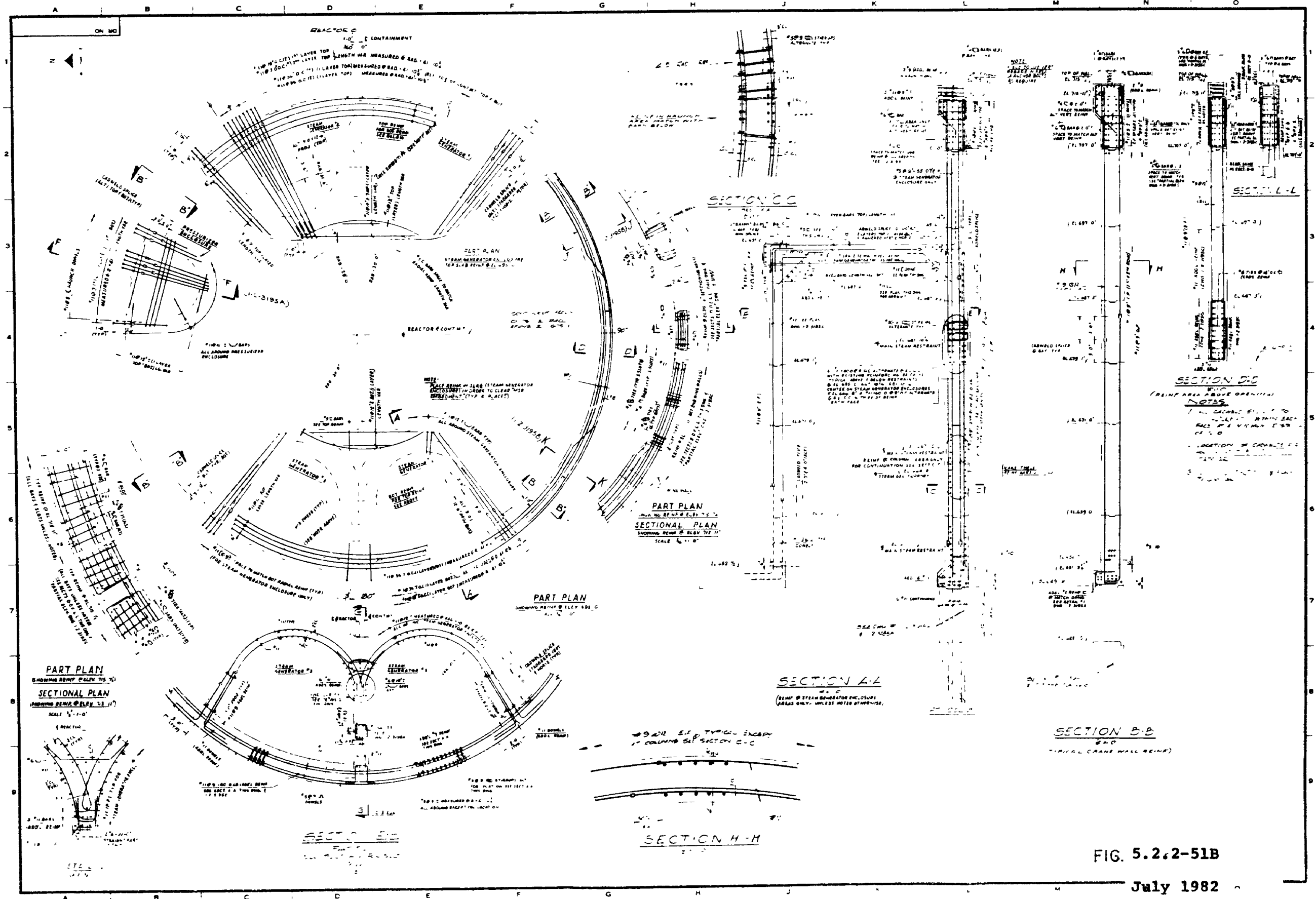
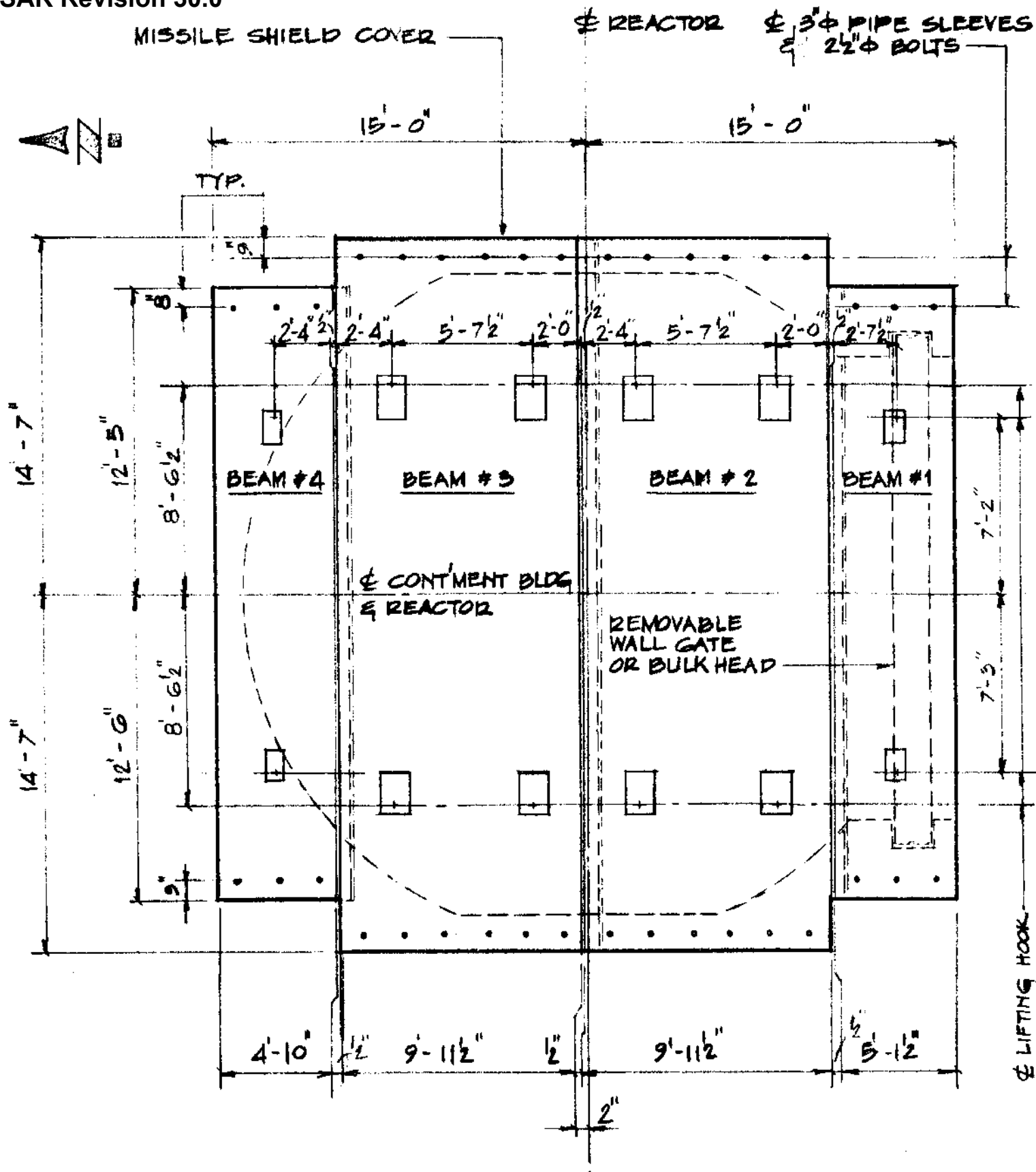


FIG. 5.2.2-51B

July 1982



## PLAN - MISSILE SHIELD COVER

ON TOP OF REACTOR CAVITY

REMOVABLE WALL

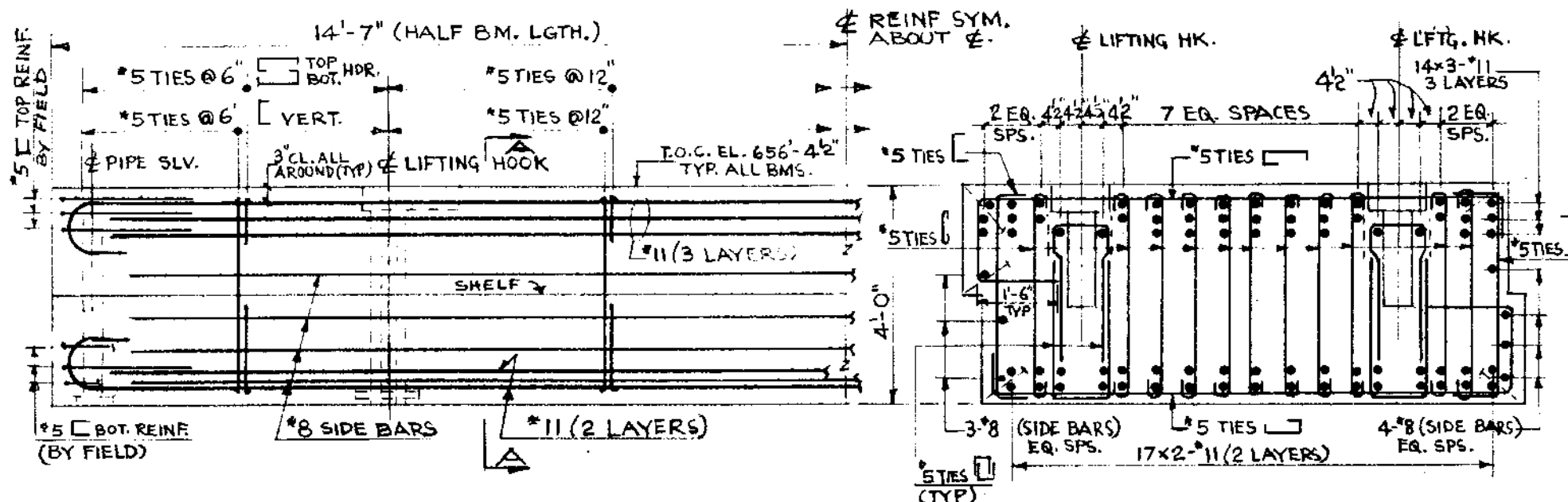
SCALE: 3/16" = 1'-0"

BY: PR

JULY 1982

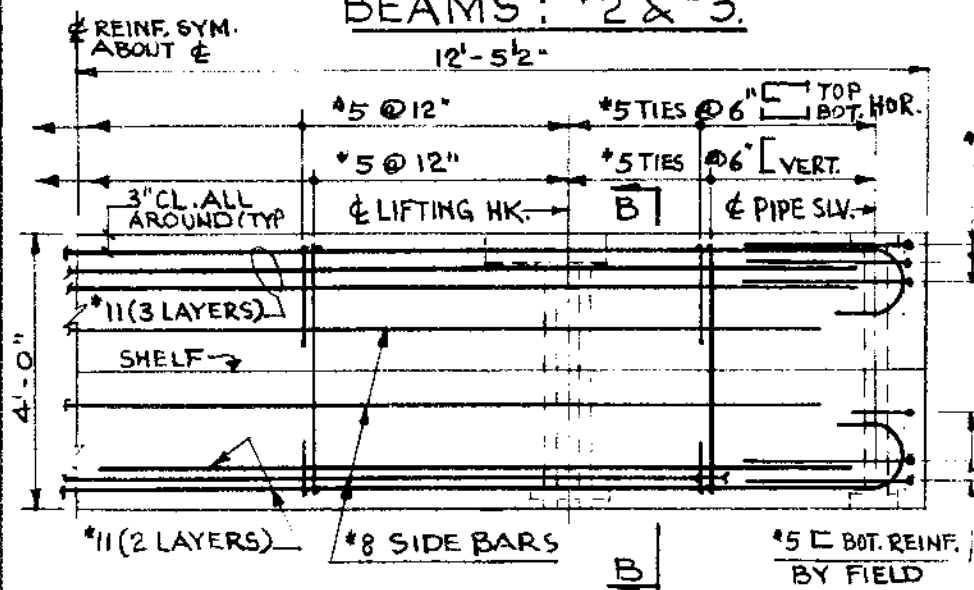
FIG. 5.2.2-51C  
July 1982

# UFSAR REVISION 30.0

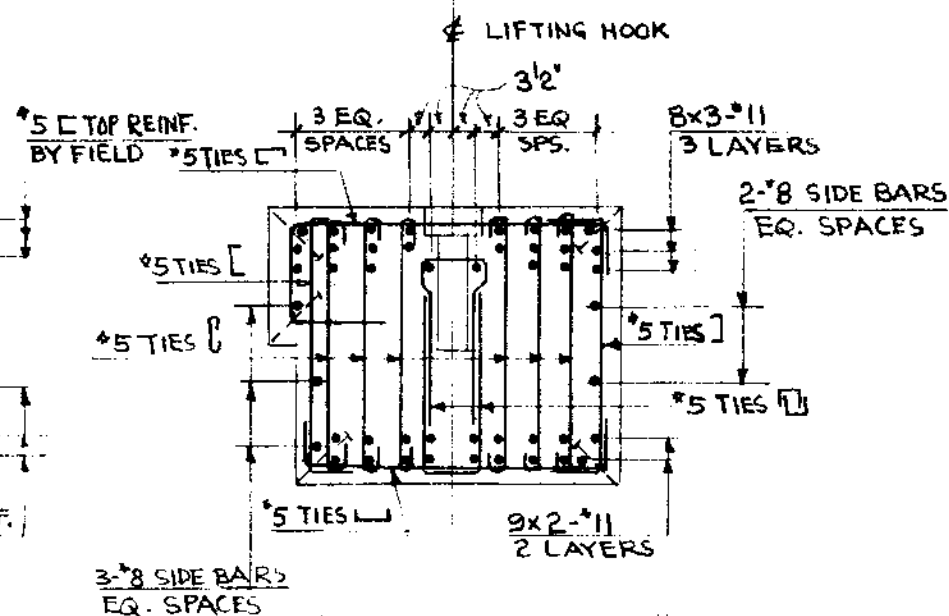


MISSILE SHIELD COVER - REINF.  
BEAMS: \*2 & \*3.

SECTION "A-A"



MISSILE SHIELD COVER - REINF.  
BEAM: \*1  
BEAM \*4 SIMILAR.

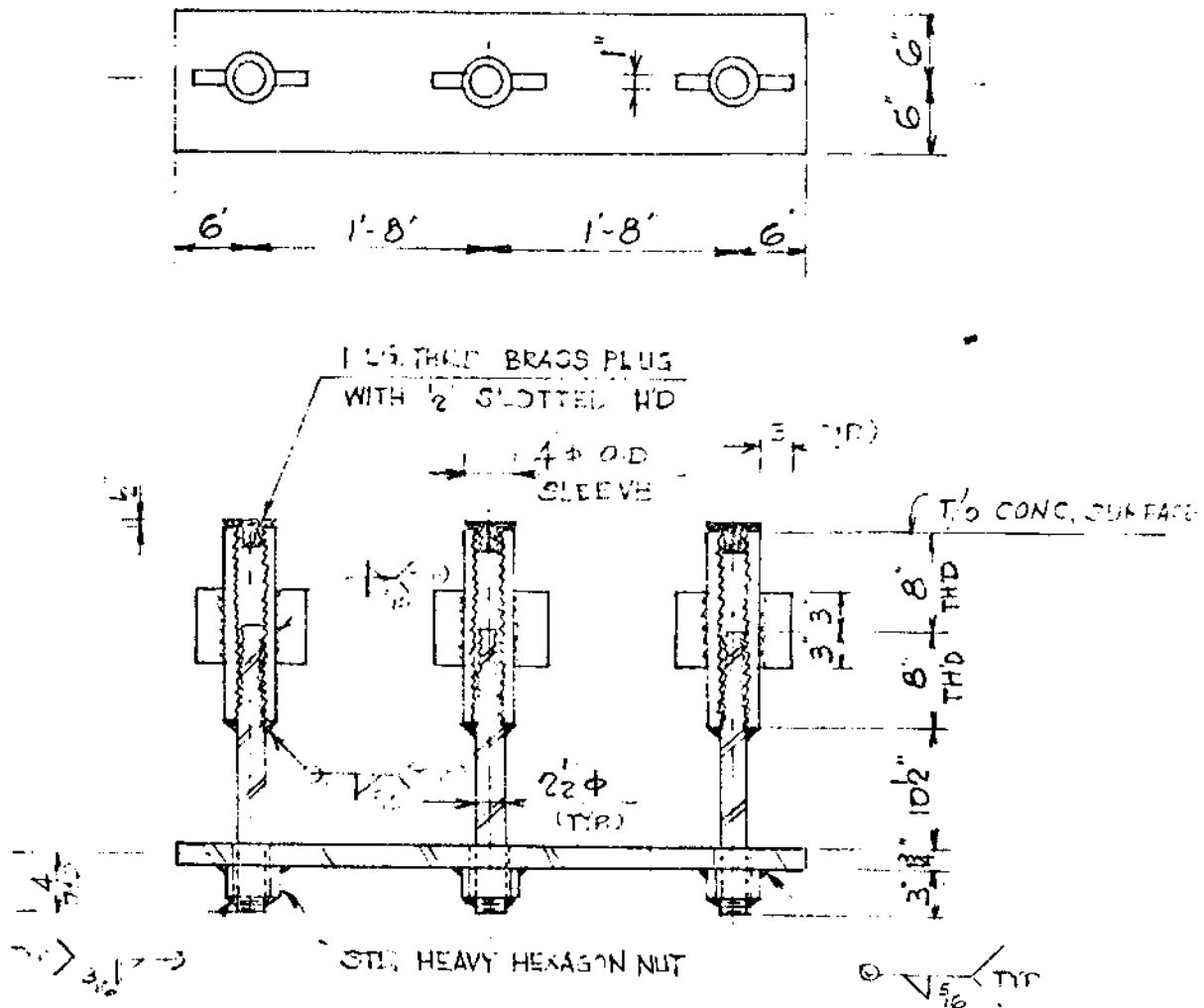


SECTION "B-B"

Fig. 5.2.2-51D

July 1982

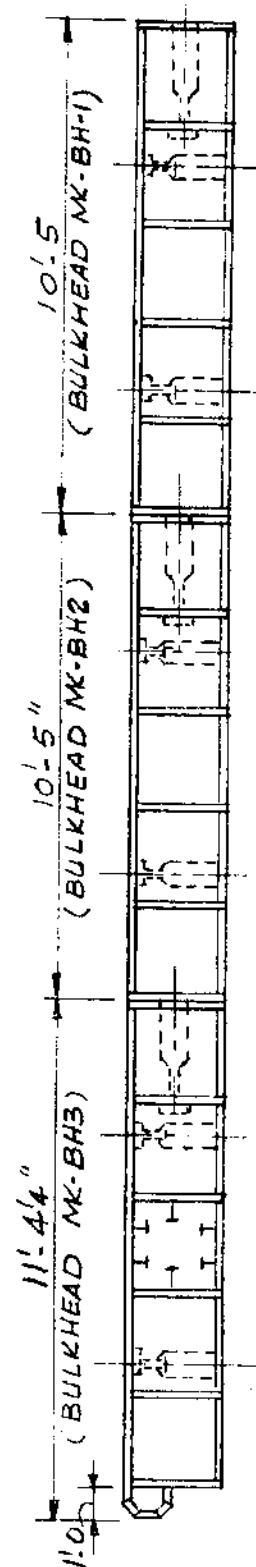
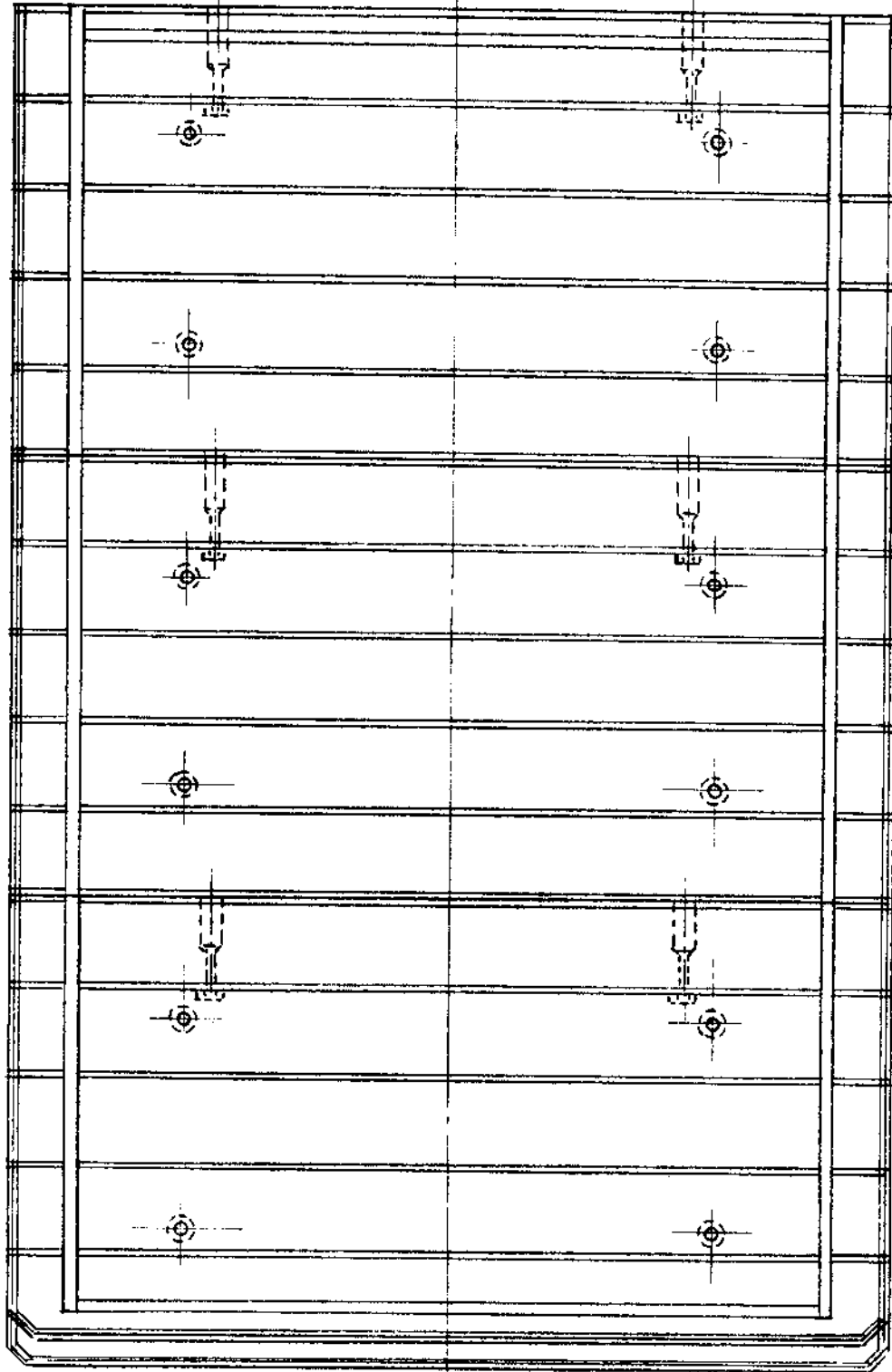
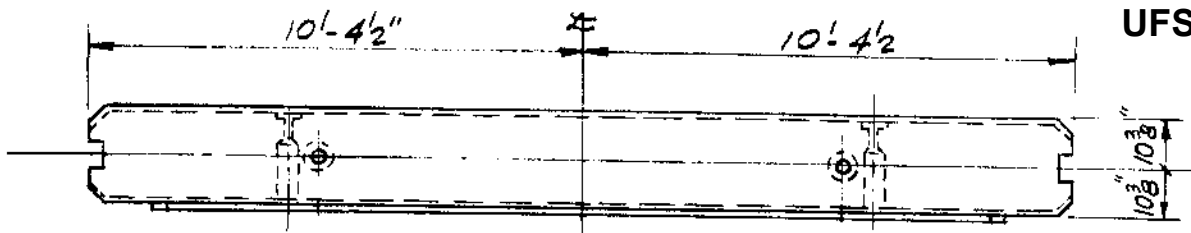
BY F. CLARKE



ANCHORAGE ASSEMBLY  
OF MISSILE SHIELD COVER  
MATERIAL: ASTM A-588-69

FIG. 5.2.2-51E  
July 1982

BY JTL

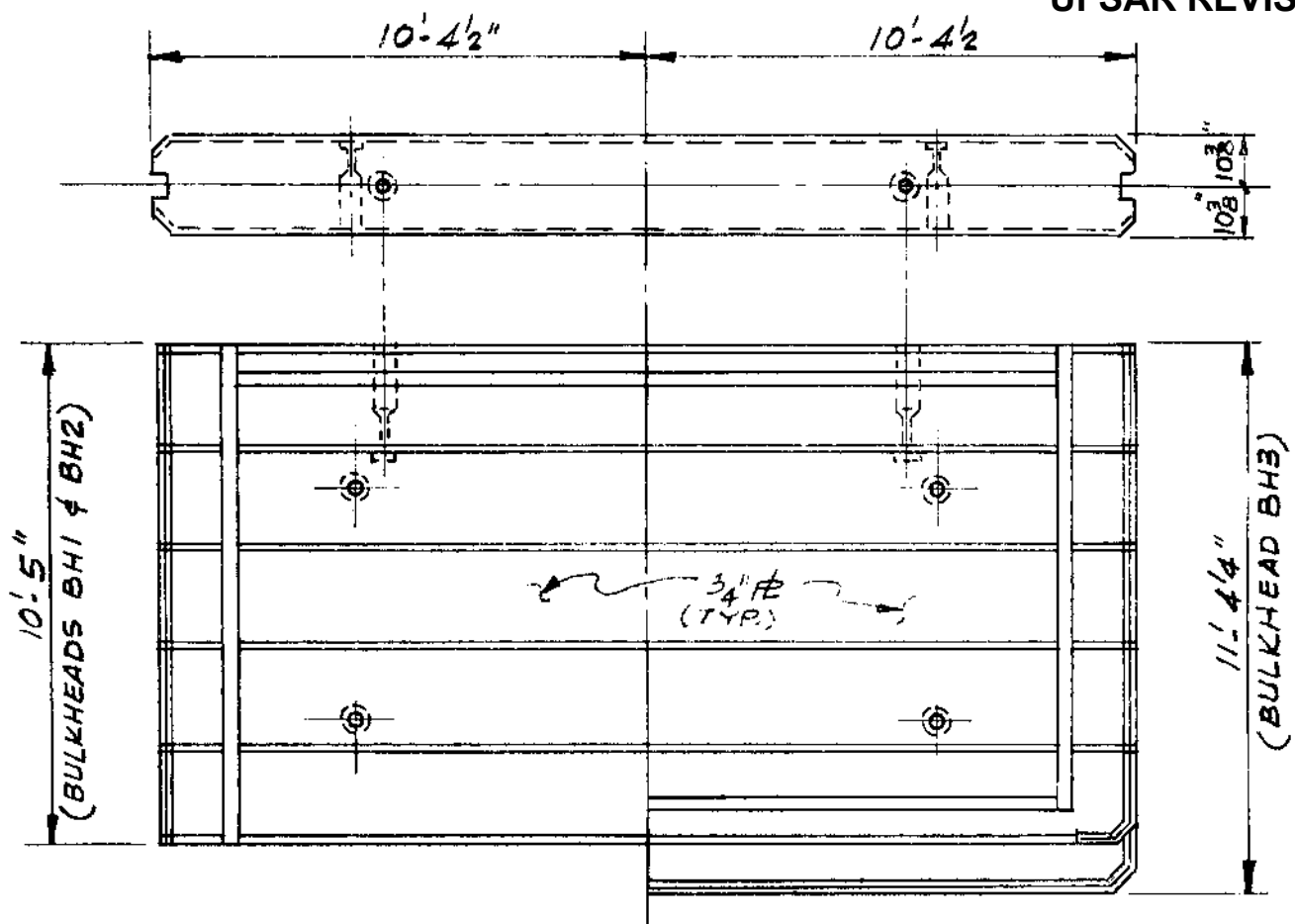


REMOVABLE BULKHEADS  
SEPARATING THE REACTOR CAVITY  
FROM THE REFUELING CANAL

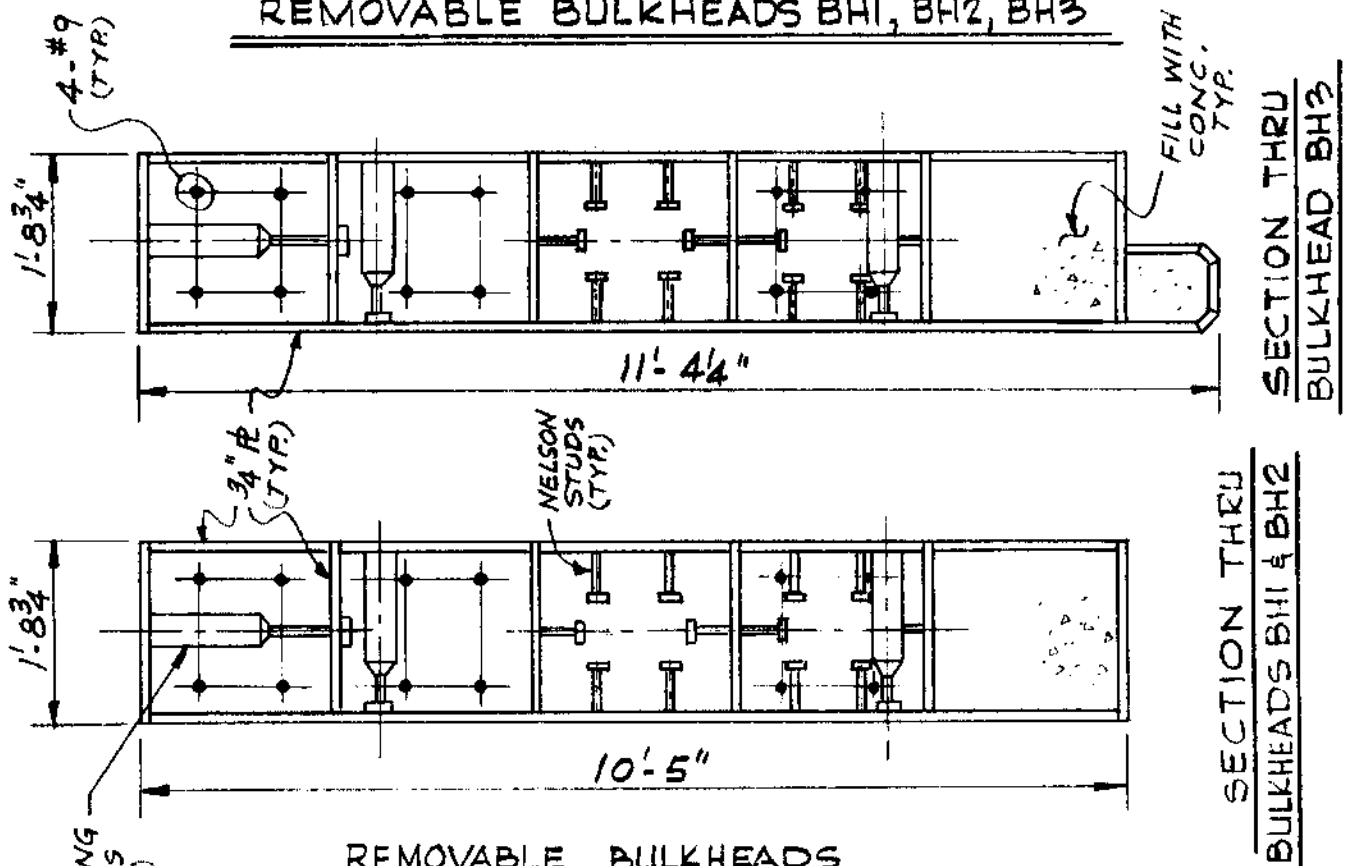
BY: B.W.

July 1982

Fig. 5.2.2-52



REMOVABLE BULKHEADS BHI, BH2, BH3



REMOVABLE BULKHEADS  
SEPARATING THE REACTOR CAVITY  
FROM THE REFUELING CANAL

BY: B.W.

July 1982

Fig. 5.2.2-52A

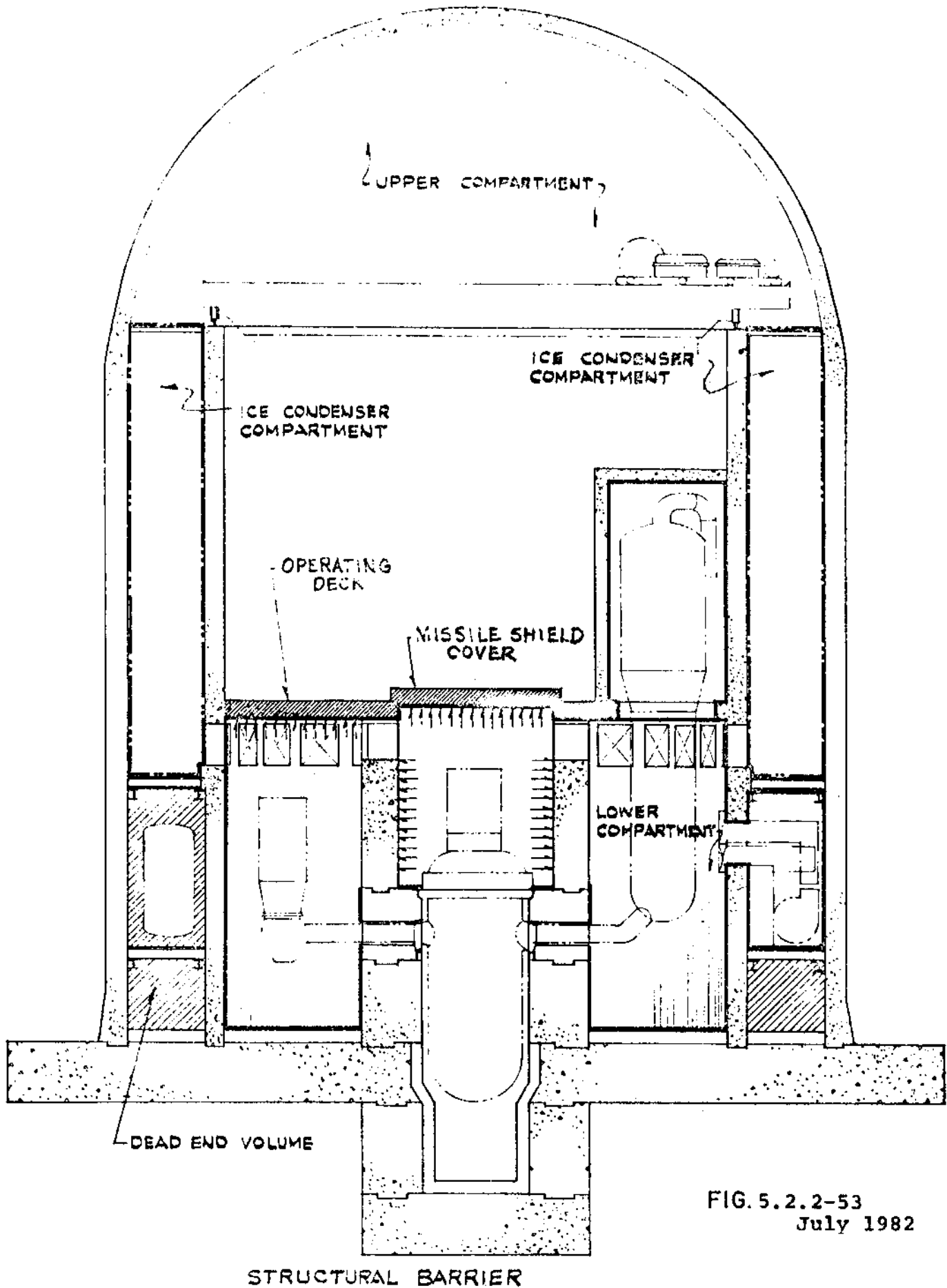
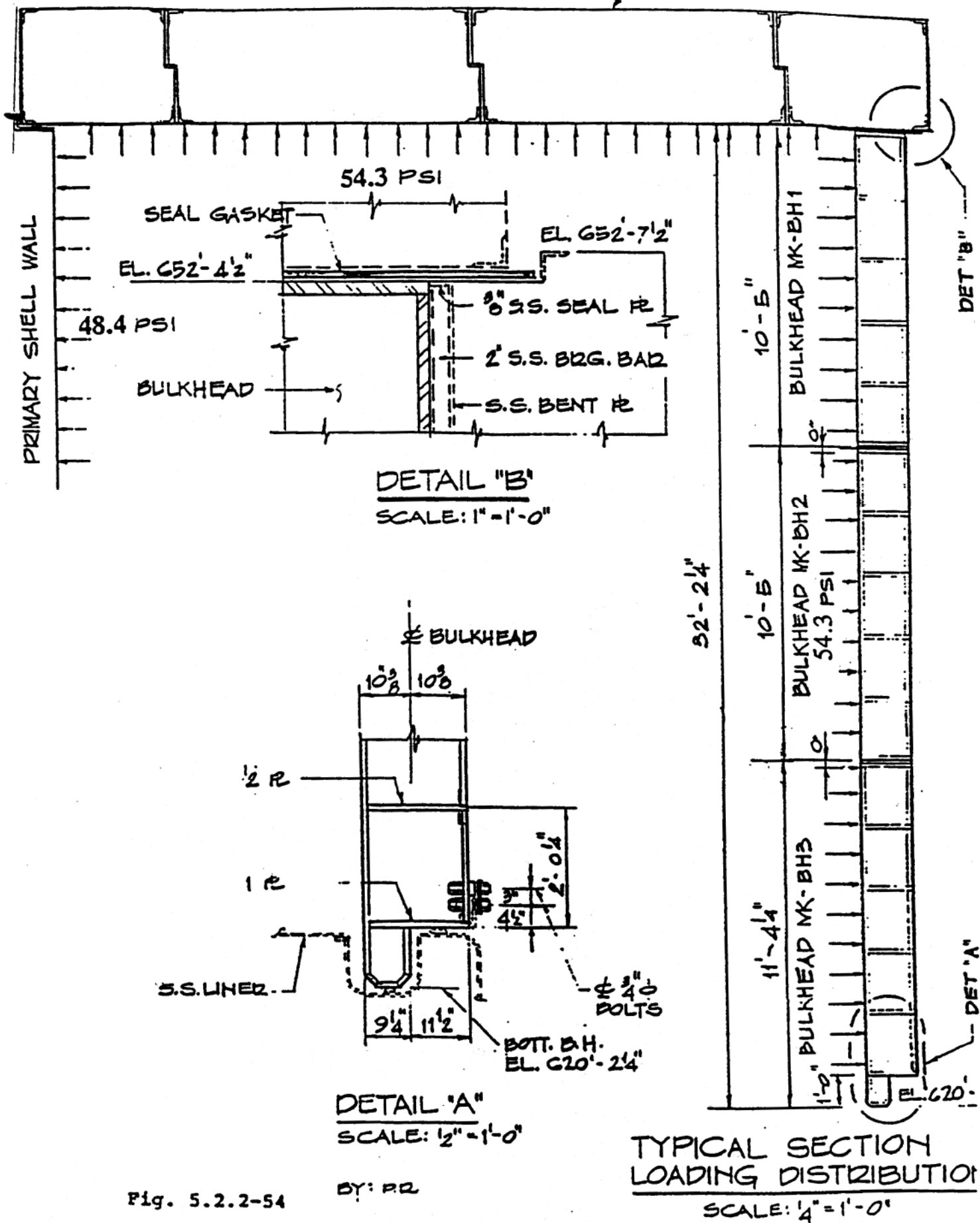


FIG. 5.2.2-53  
July 1982





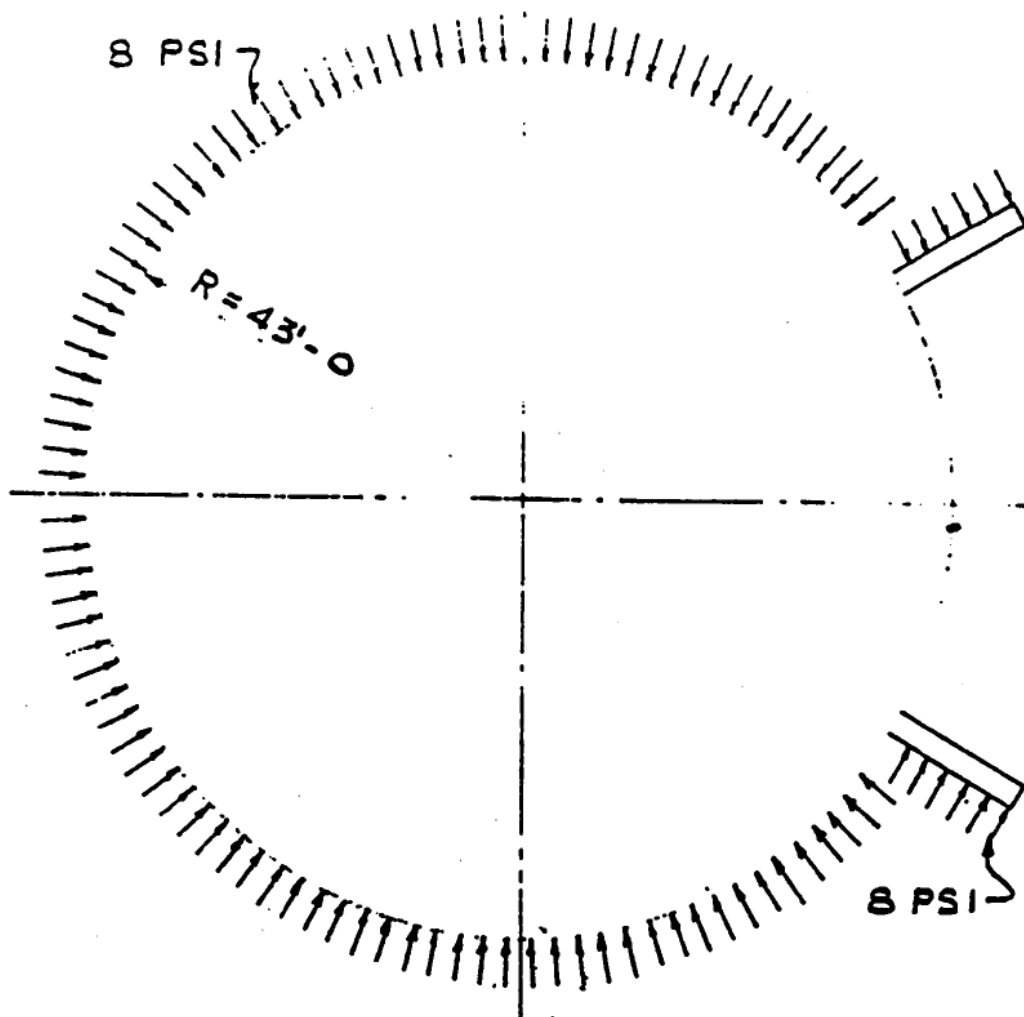


FIG 5. 26. 2-1 LOADING DIAGAM OF  
UPPER CRANE WALL

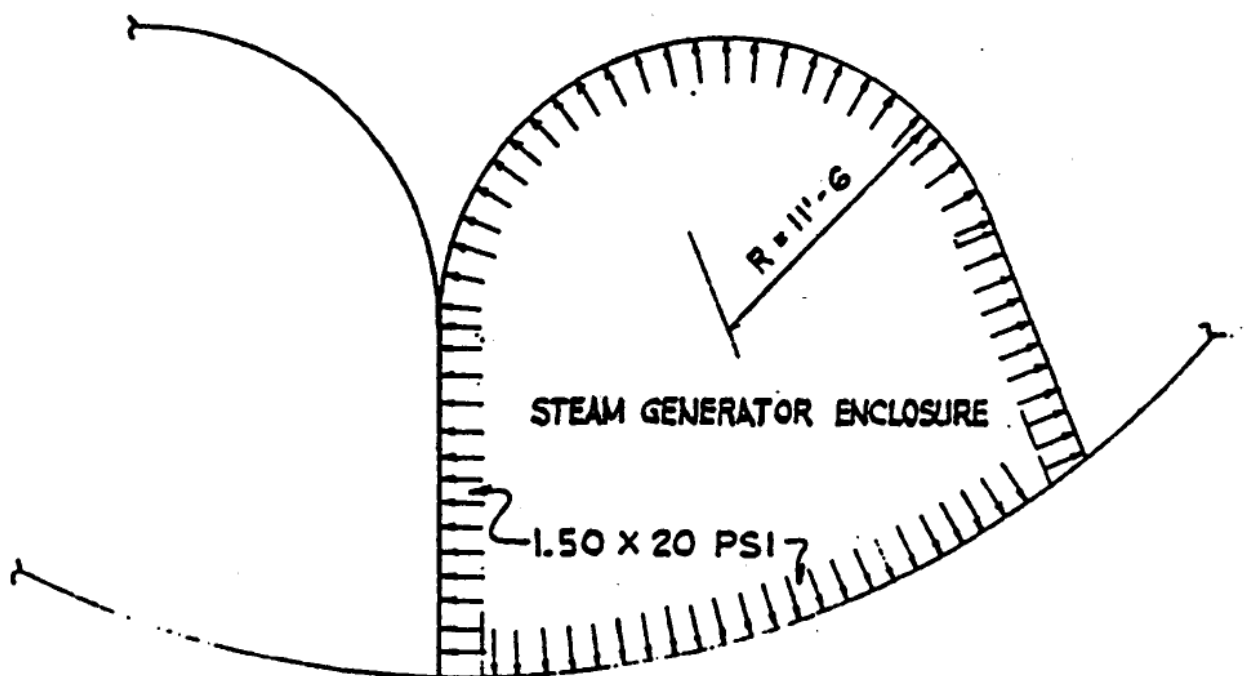


FIG. 5.2.2-54A, UNSYMMETRICAL INTERNAL PRESSURE LOADING DIAGRAM  
July 1982 OF 30 PSI OF STEAM GENERATOR ENCLOSURE

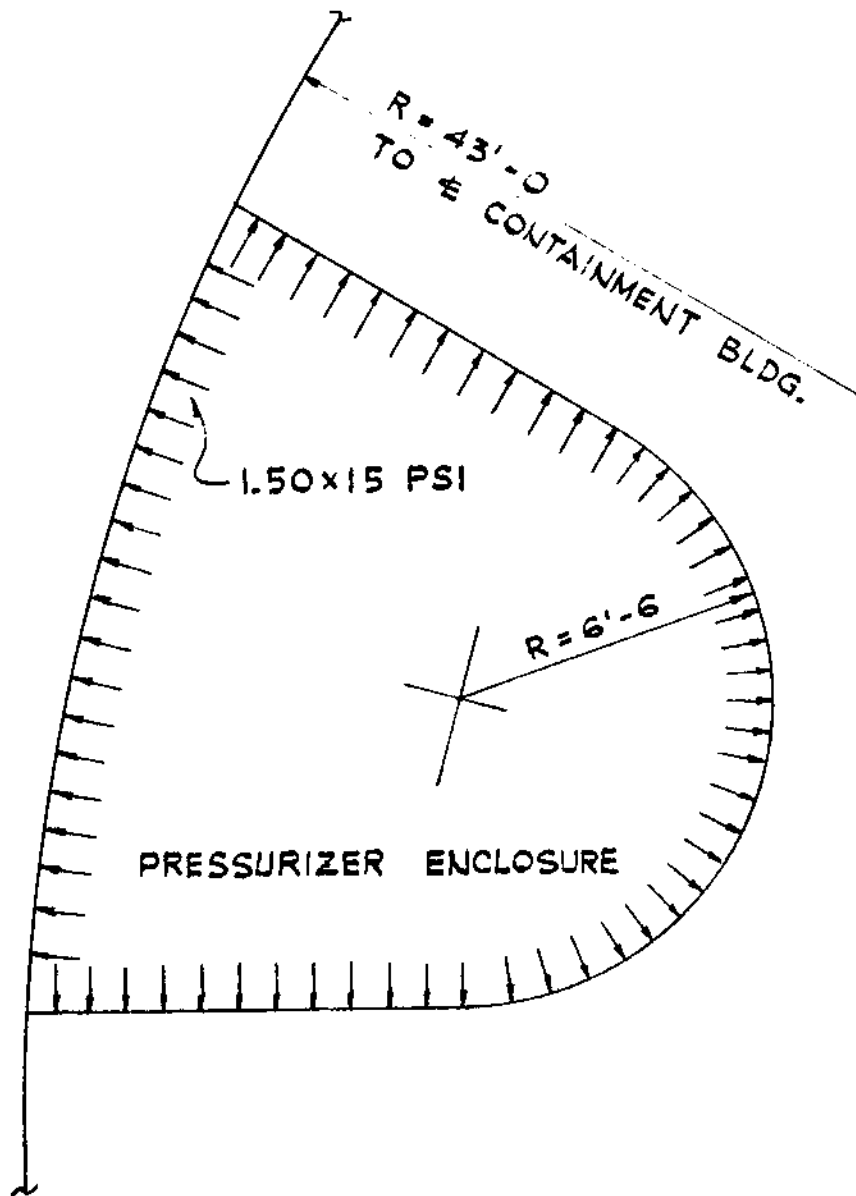
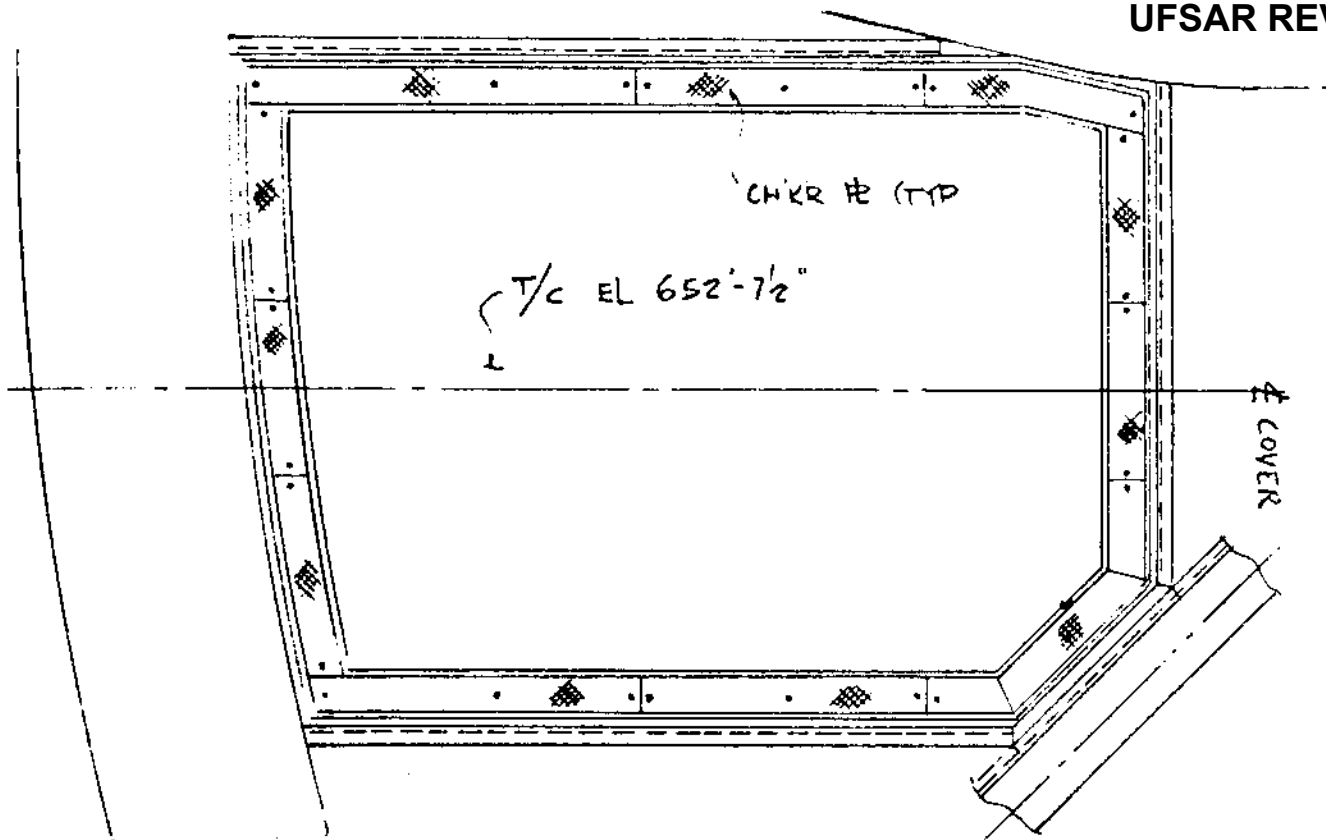


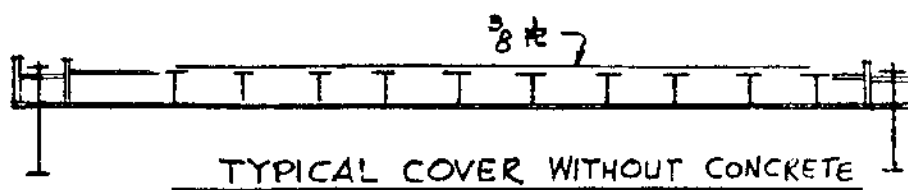
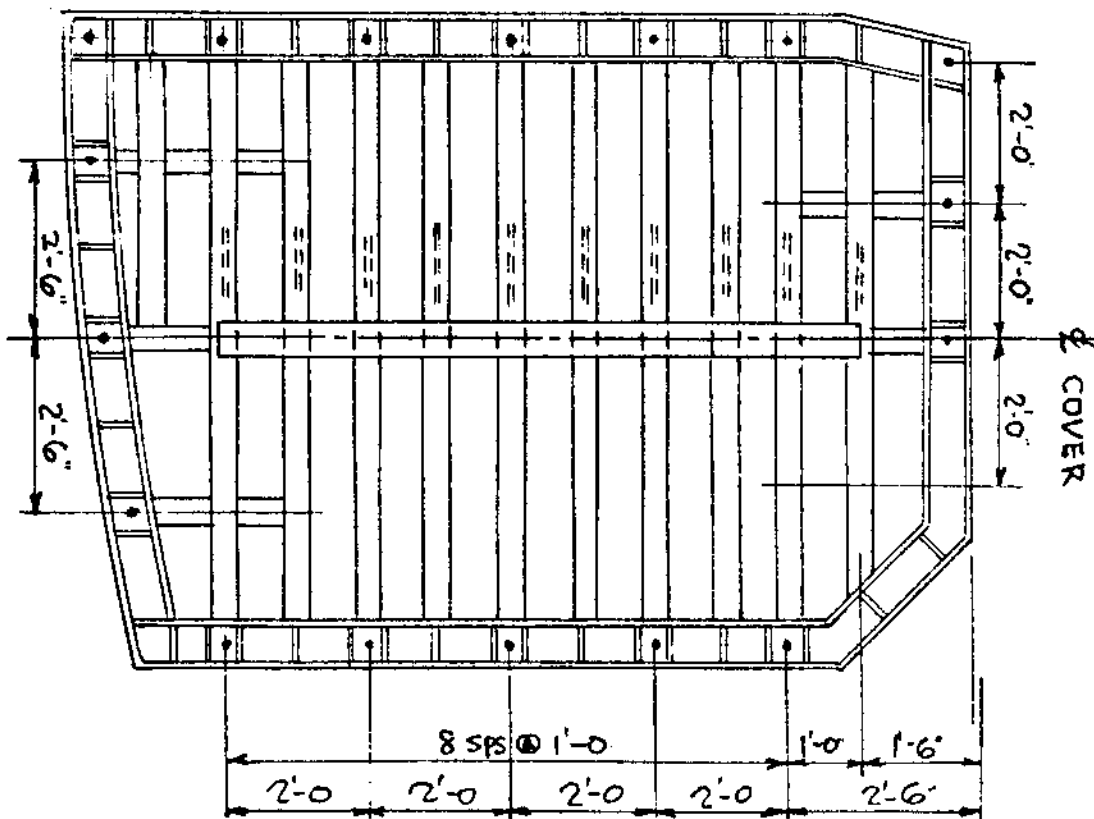
FIG 5.2.2-54B

LOADING DIAGRAM OF 22.5 PSI OF  
PRESSURIZER ENCLOSURE

July 1982



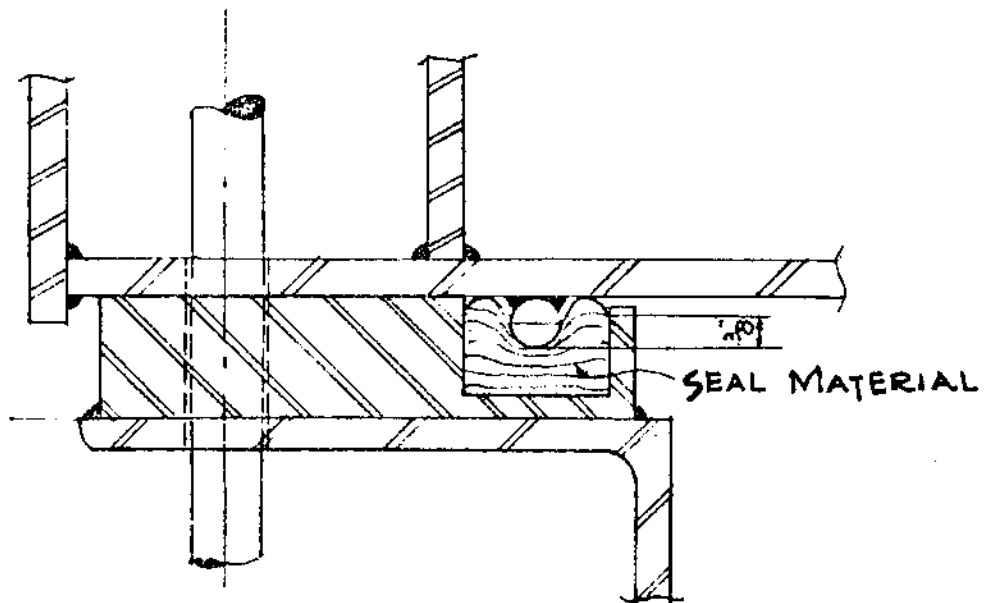
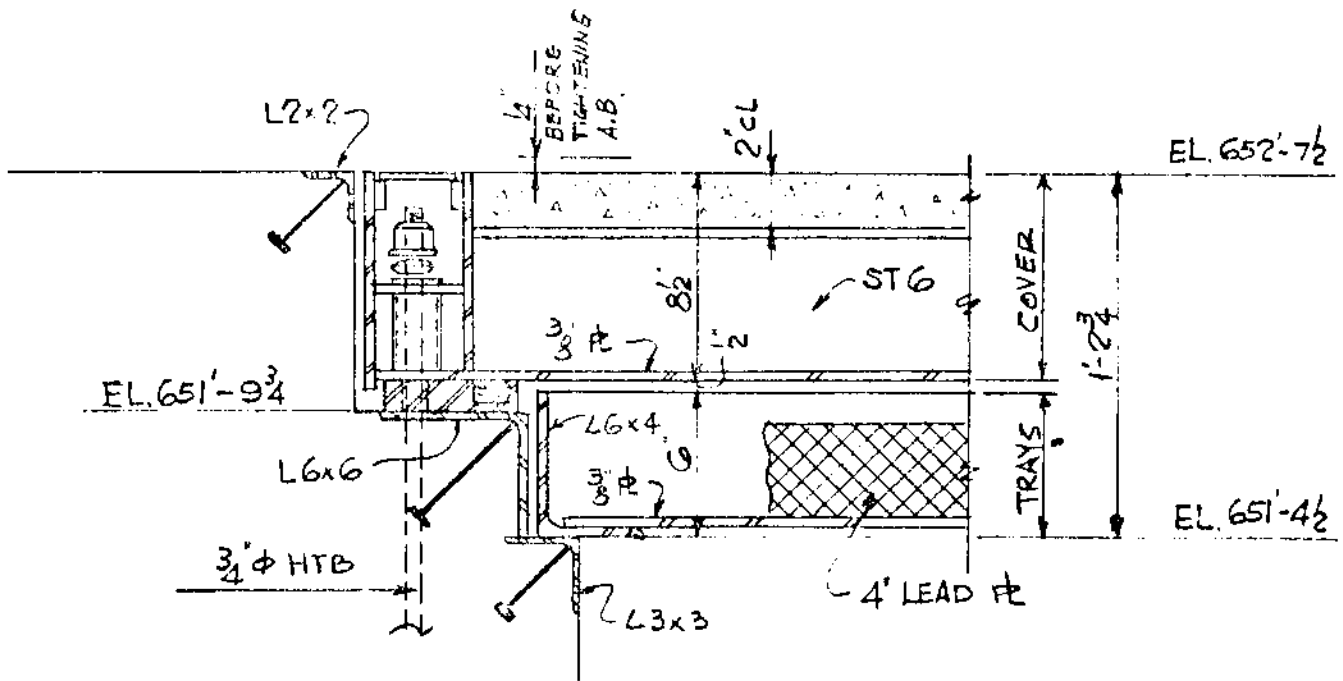
TYPICAL COVER WITH CONCRETE



TYPICAL COVER WITHOUT CONCRETE

FIG. 5.2.2-55

July 1982

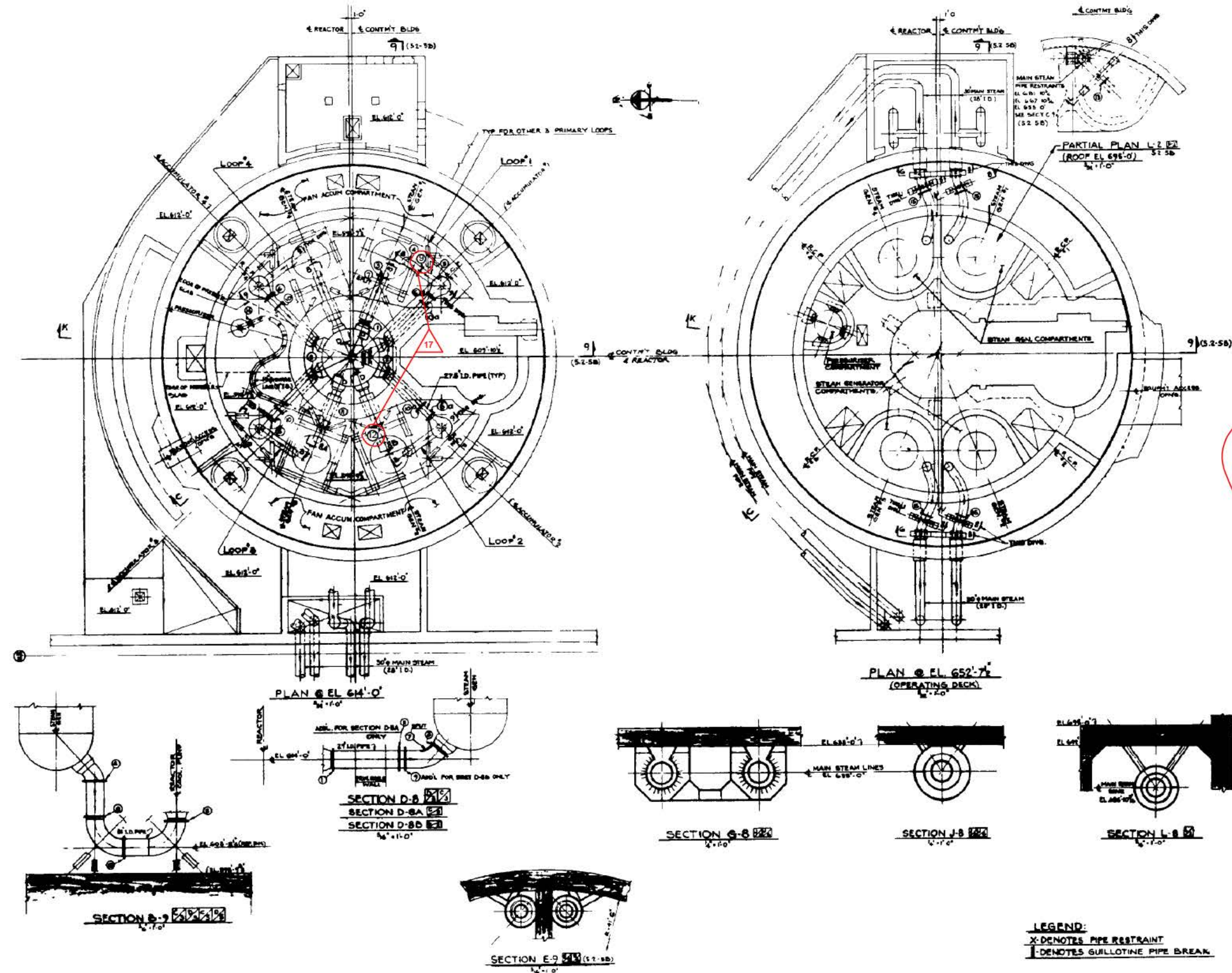


TYPICAL SECTION OF COVER

FIG. 5.2.2-55A

July 1982

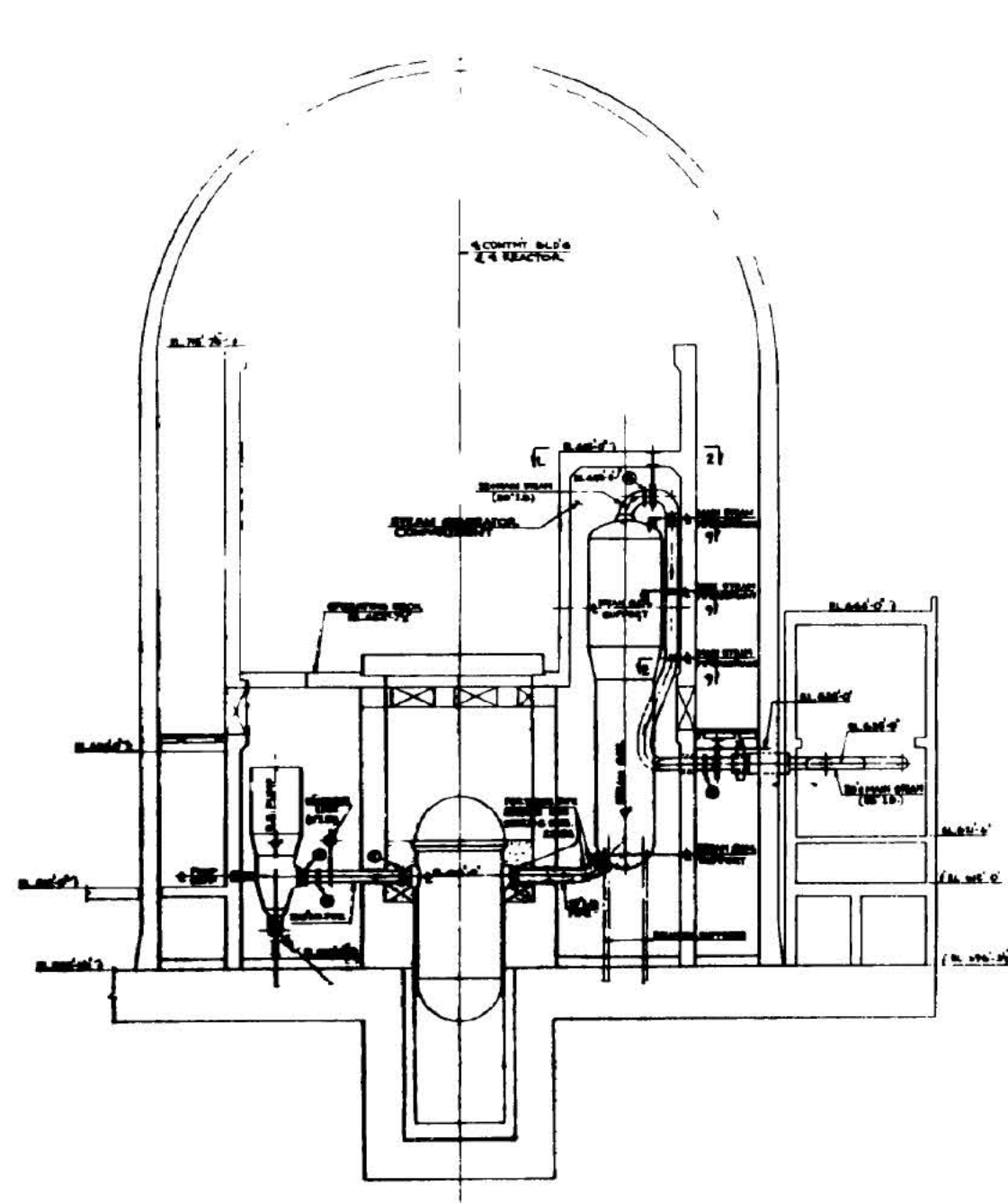
## UFSAR REVISION 30.0



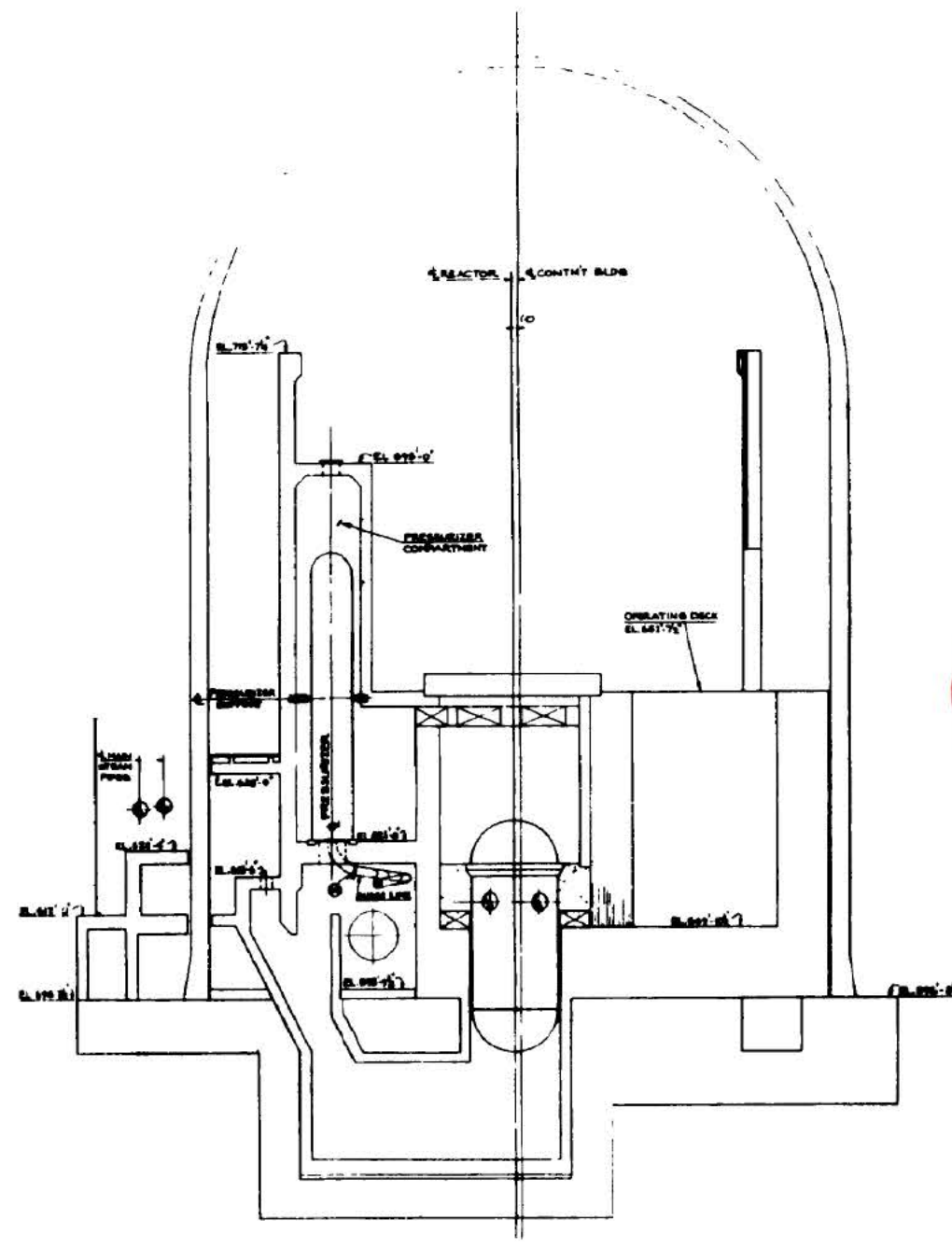
NOTE:  
BREAK LOCATIONS ARE BEING MAINTAINED FOR HISTORICAL  
PURPOSES. MAIN COOLANT LOOP AND UNITS PRESSURIZER  
SURGE LINE BREAKS HAVE BEEN ELIMINATED BY  
LEAK-BEFORE-BREAK METHODOLOGY.

[illegible]







SECTION C-9



SECTION K-9

NOTE:  
BREAK LOCATIONS ARE BEING MAINTAINED FOR HISTORICAL  
PURPOSES. MAIN COOLANT LOOP AND UNITS PRESSURIZER  
SURGE LINE BREAKS HAVE BEEN ELIMINATED BY  
LEAK-BEFORE-BREAK METHODOLOGY.

|  |                      |  |        |
|--|----------------------|--|--------|
| 17   | REVISED PER UCR 1565 |  |        |
| DATE   | REV                  | DESCRIPTION  | APPROV |
| REVISIONS  |                      |  |        |
| <p>THIS DRAWING IS THE PROPERTY OF THE AMERICAN ELECTRIC POWER SERVICE CORP. AND IS LOANED TO YOU UNDER THE CONDITION THAT IT IS NOT TO BE REPRODUCED OR COPIED, BY ANY MEANS, OR USED FOR ANY PURPOSES WITHOUT THE WRITTEN CONSENT OF THE AEP SERVICE CORP. OR ITS ANY SUCCESSORS OR AFFILIATES. IT IS TO BE RETURNED UPON REQUEST.</p> |                      |  |        |
| INDIANA MICHIGAN POWER COMPANY<br>DONALD C. COOK<br>NUCLEAR PLANT  |                      |  |        |
| BRIDGMAN   |                      | MICHIGAN   |        |
| UNITS NO. 1 & 2<br>JET LOAD LOCATIONS<br>SECTIONS  |                      |  |        |
| DWG. NO. · FSAR FIG. 5.2.2-56A   |                      |  |        |
| ARCH   | ELEC                 | MECH   | STR    |
| SCALE -  | BY -                 |  |        |
| DATE -   | ON -                 |  |        |
| DESIGN ENGINEERING DIVISION  |                      |  |        |
|    |                      | AEP SERVICE CORP.<br>1 RIVERSIDE PLAZA<br>COLUMBUS, OH 43215 |        |

# DISTRIBUTION OF SOIL REACTION BENEATH CONTAINMENT UNITS

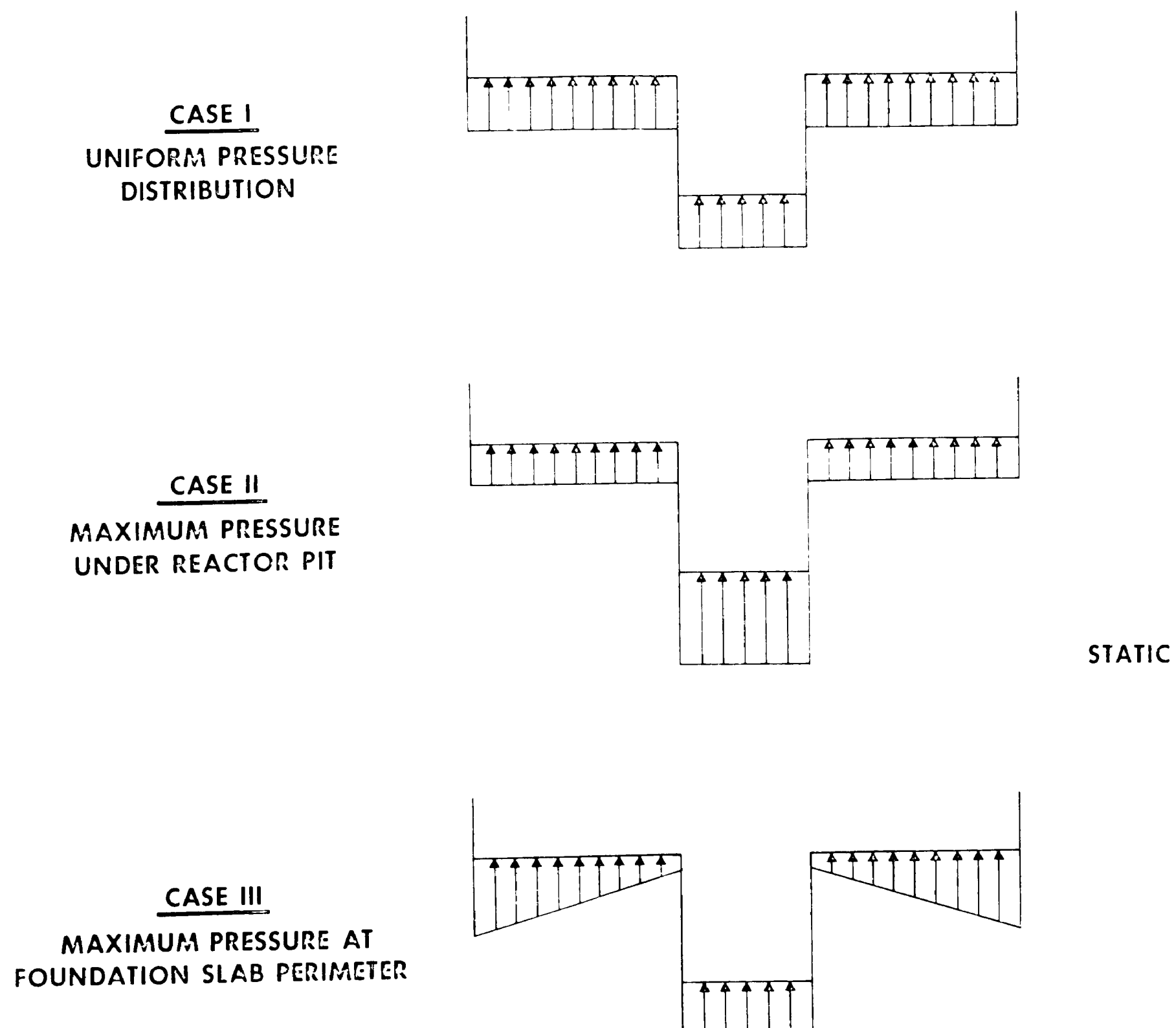
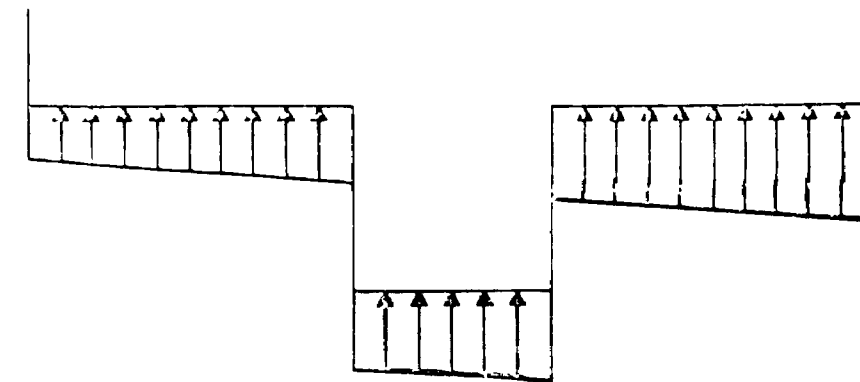


FIGURE 5.2.2-57

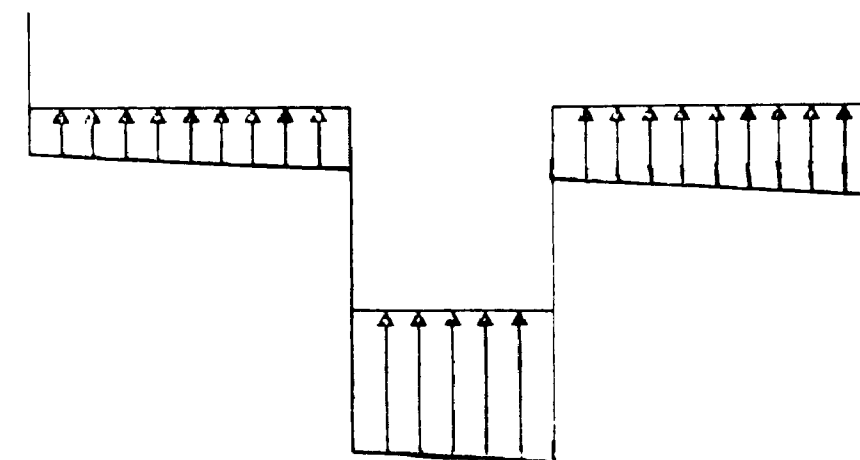
July 1982

# DISTRIBUTION OF SOIL REACTION BENEATH CONTAINMENT UNITS

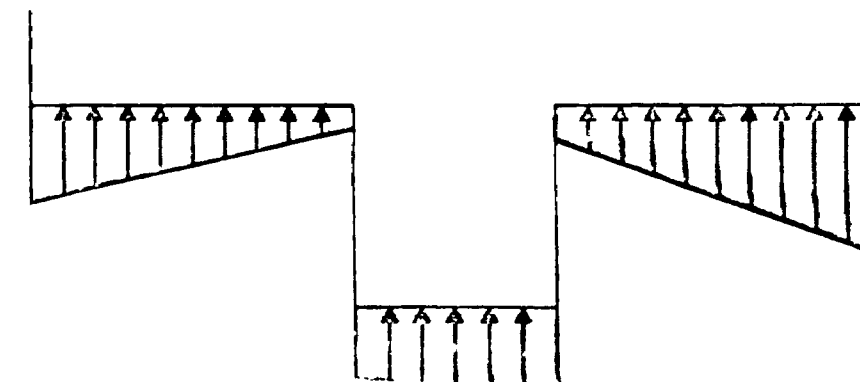
CASE I A  
UNIFORM PRESSURE  
DISTRIBUTION



CASE II A  
MAXIMUM PRESSURE  
UNDER REACTOR PIT



CASE III A  
MAXIMUM PRESSURE AT  
FOUNDATION SLAB PERIMETER



STATIC PLUS DYNAMIC

FIGURE 5.2.2-57A

July 1982



GNSL00M2/DEAD LOAD/HYPOT. EARTHQUAKE W x K = SOIL PRESSURE  
UNIFORM SOIL PRESSURE (DEAD LOAD + DESIGN BASIS EARTHQUAKE)

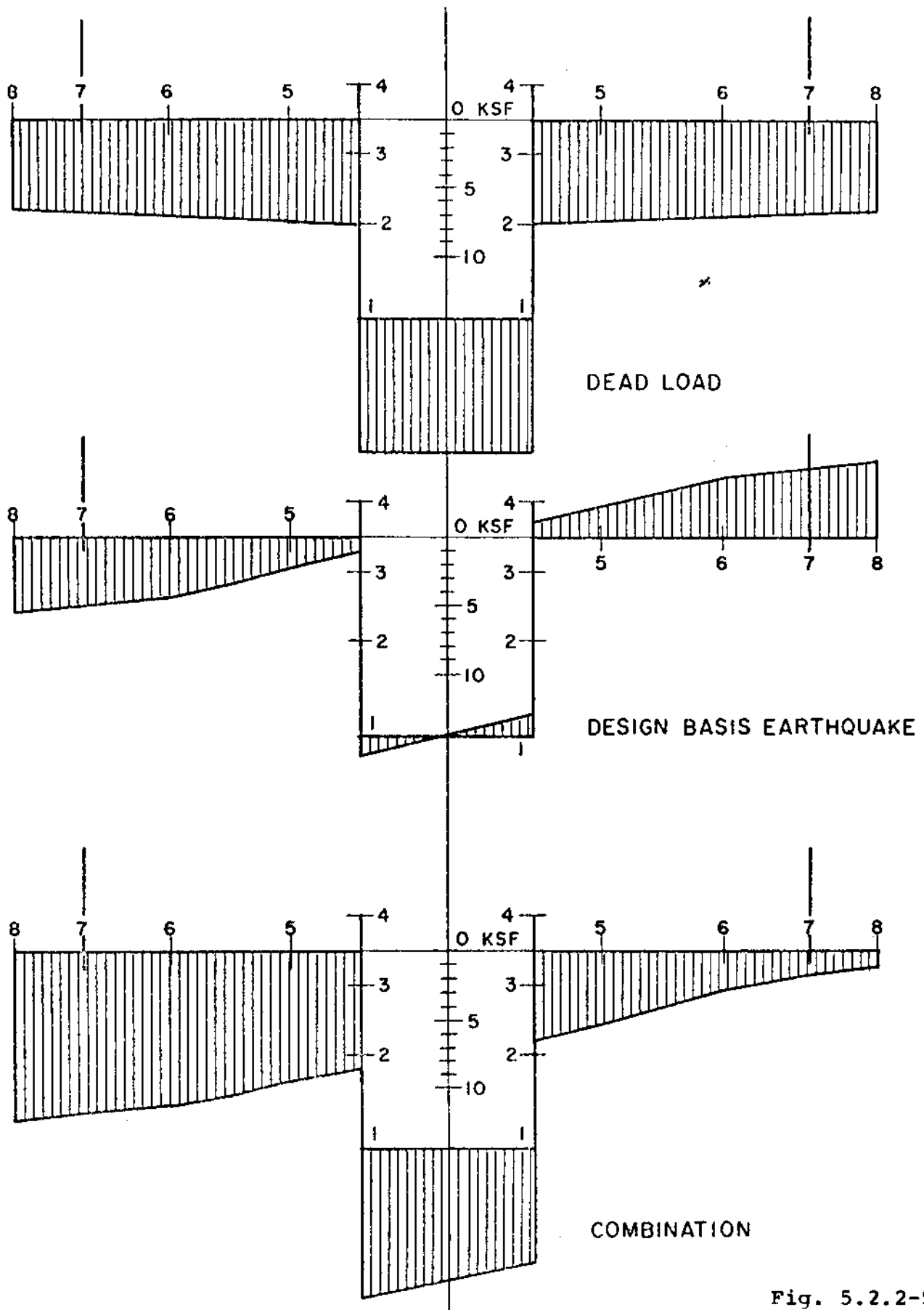


Fig. 5.2.2-58  
July 1982

# UFSAR REVISION 30.0

## COOK NUCLEAR PLANT

GNSLOONO/DEAD LOAD/HYPOT. EARTHQUAKE  $W \times K =$  SOIL PRESSURE  
NON UNIFORM SOIL PRESSURE ( DEAD LOAD + DESIGN BASIS EARTHQUAKE)

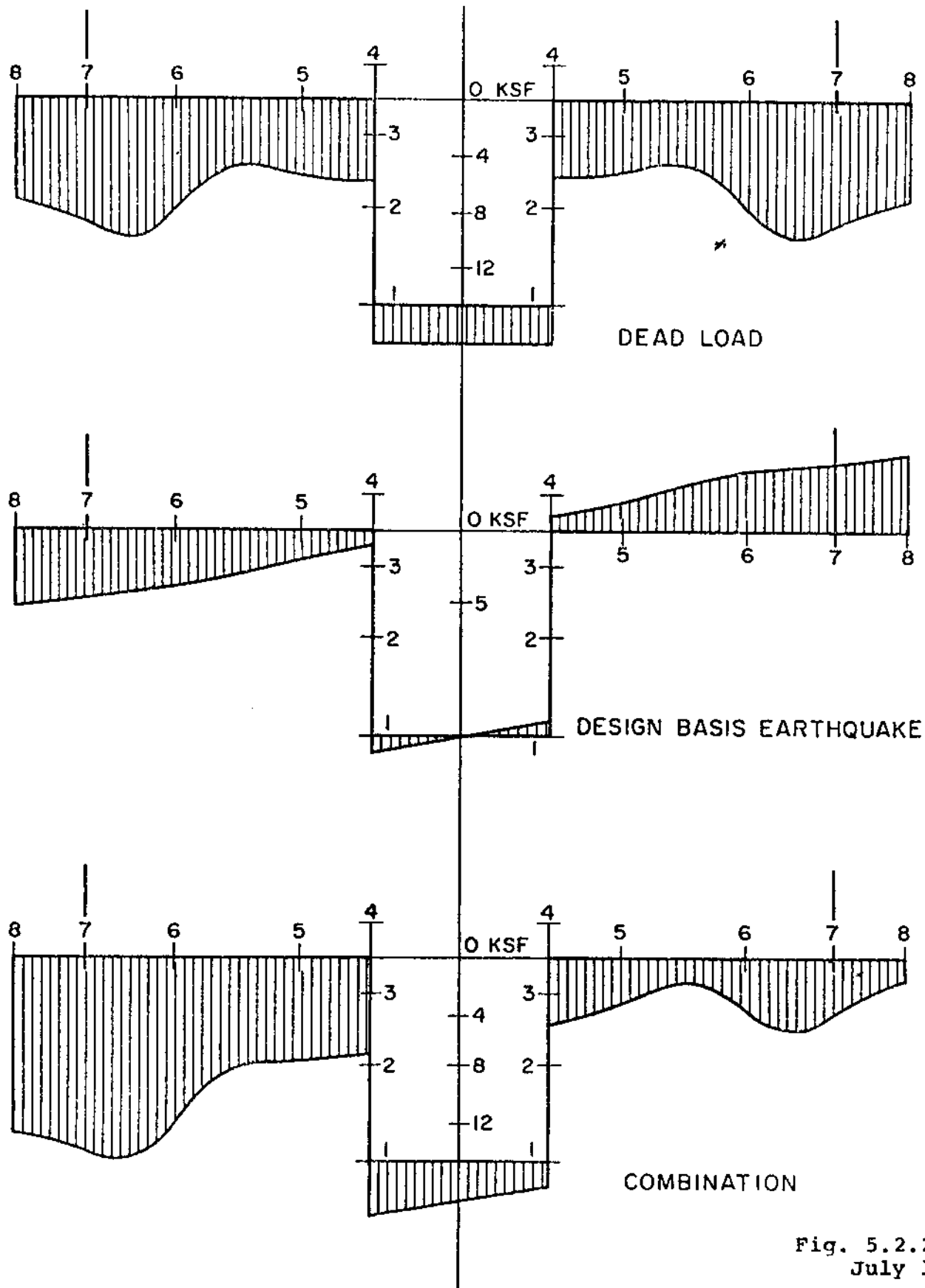


Fig. 5.2.2-58A  
July 1982

UFSAR REVISION 30.0

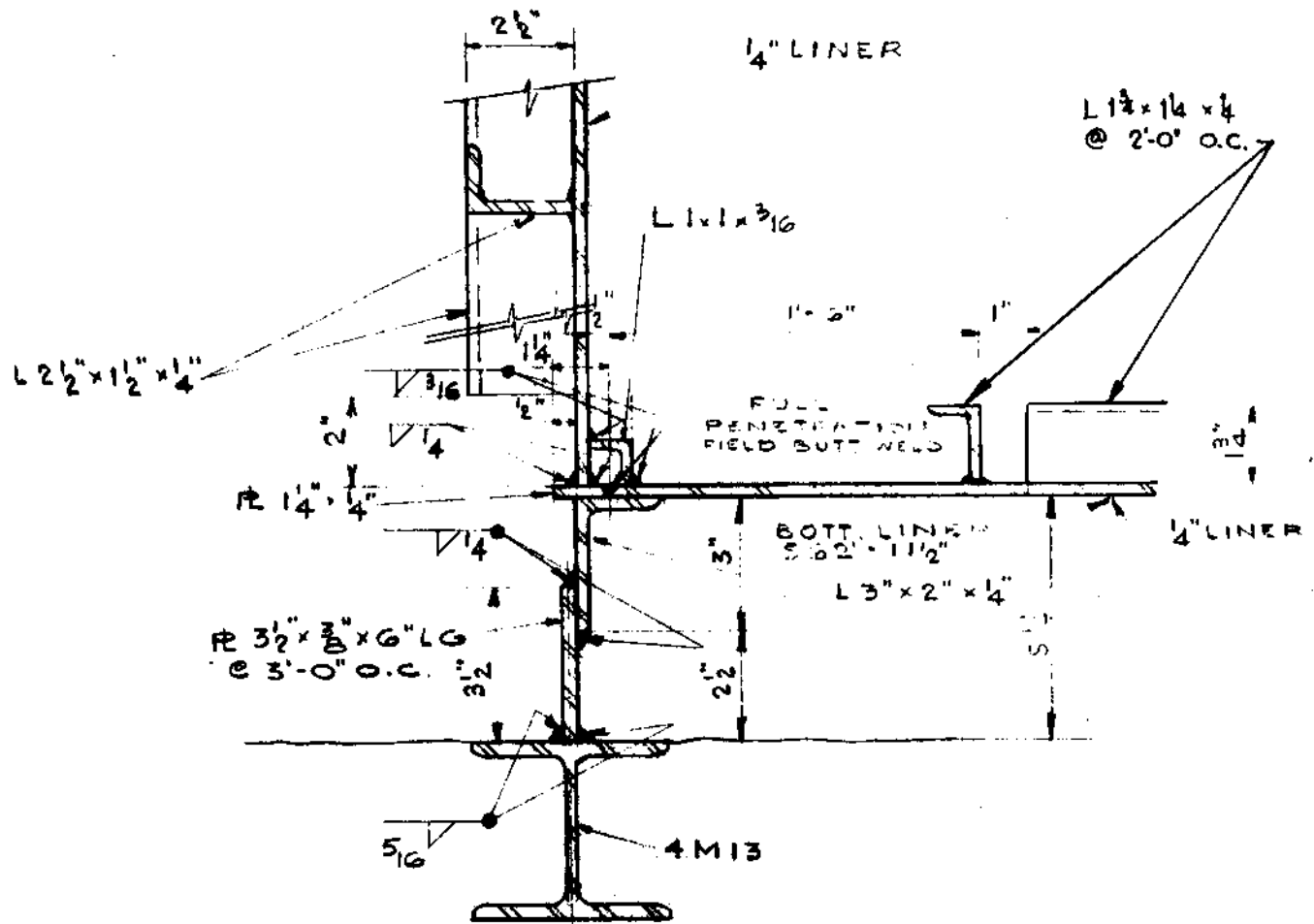


Fig. 5.2.2-59  
LINER AT REACTOR POOL

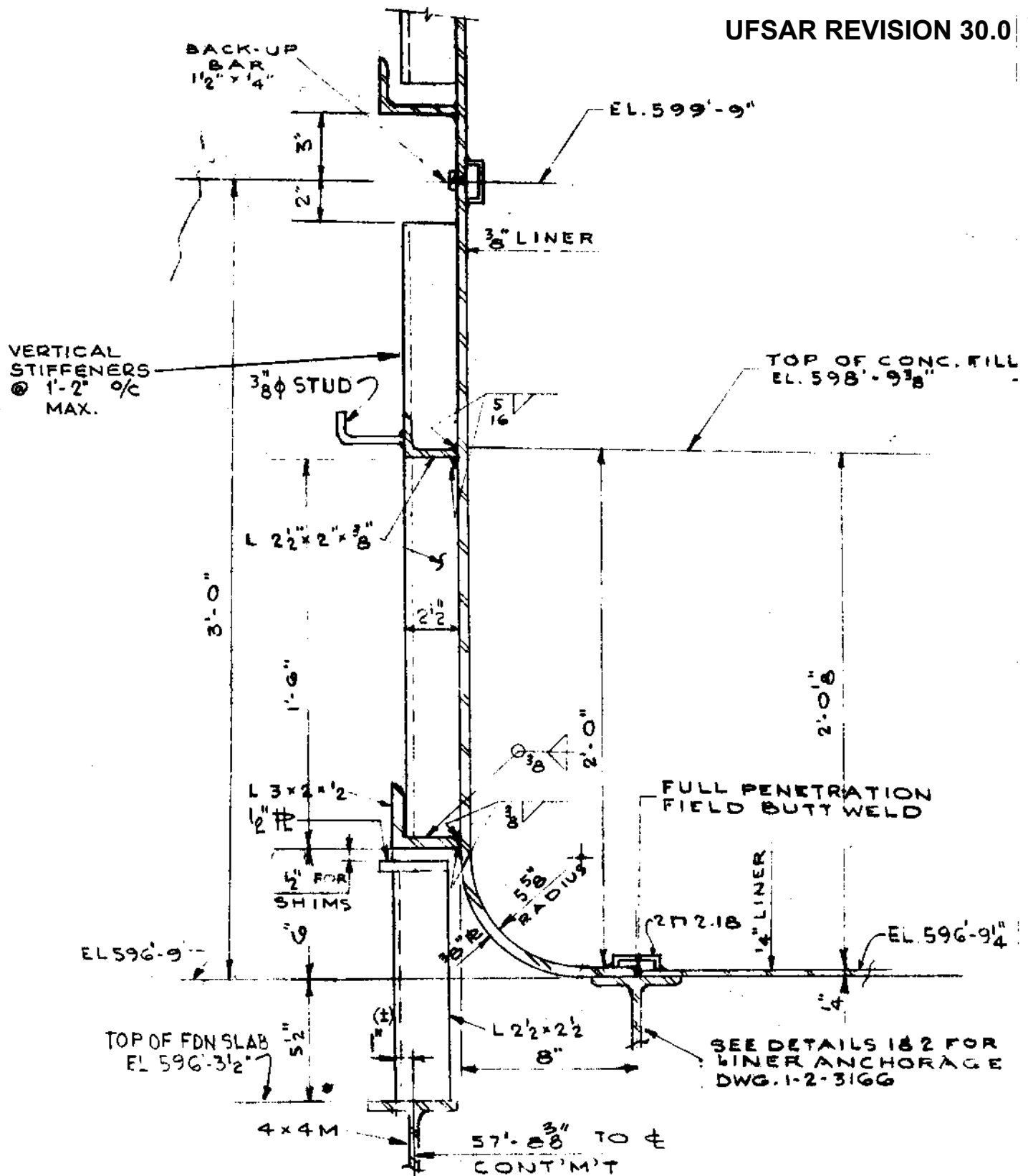
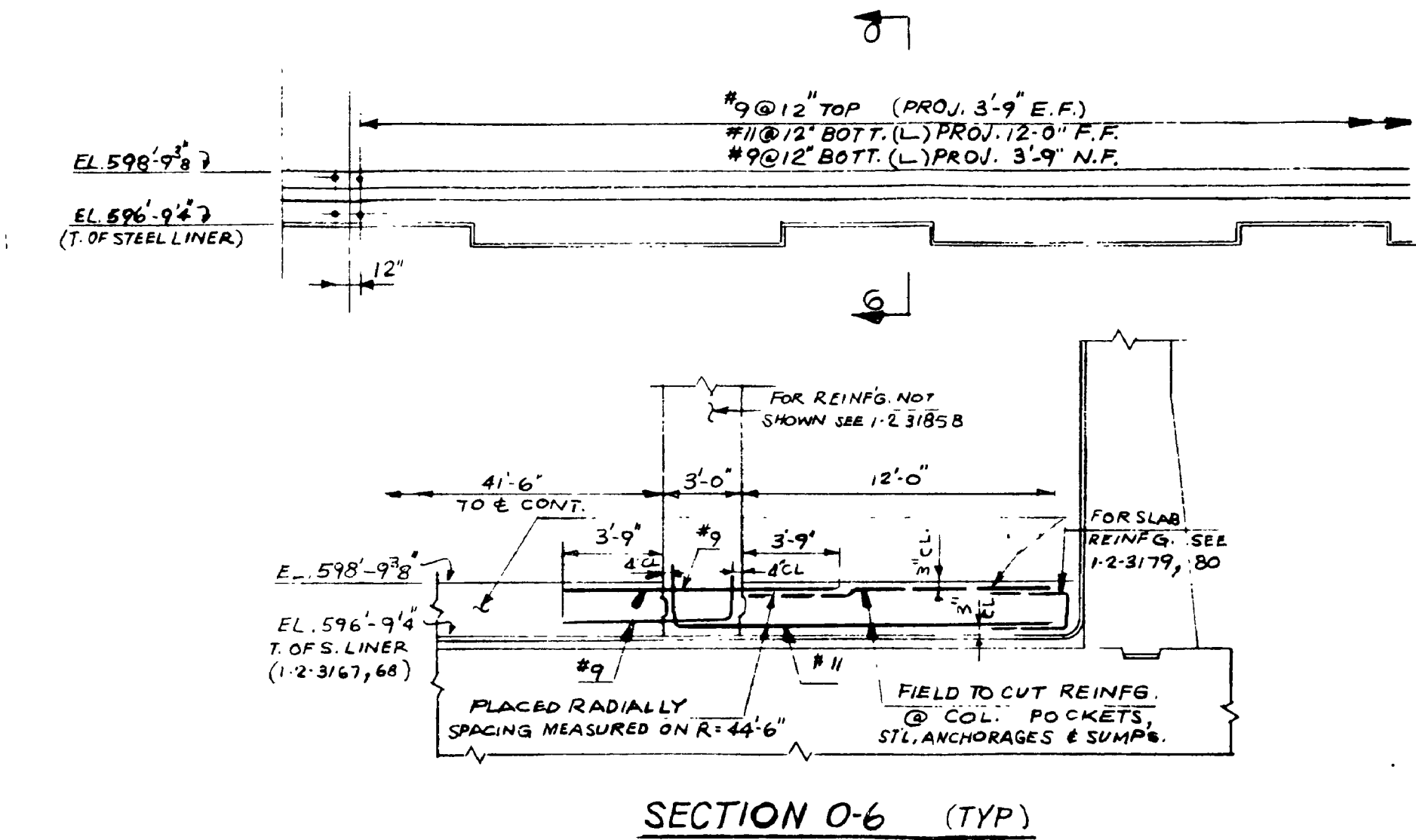


Fig. 5.2.2 - 59A

LINER JUNCTION - WALL AND FDN. SLAB

JULY 1982



DEVELOPMENT OF CRANE WALL (INSIDE FACE)

FIG. 5.2.2- 59 B  
JULY 1982

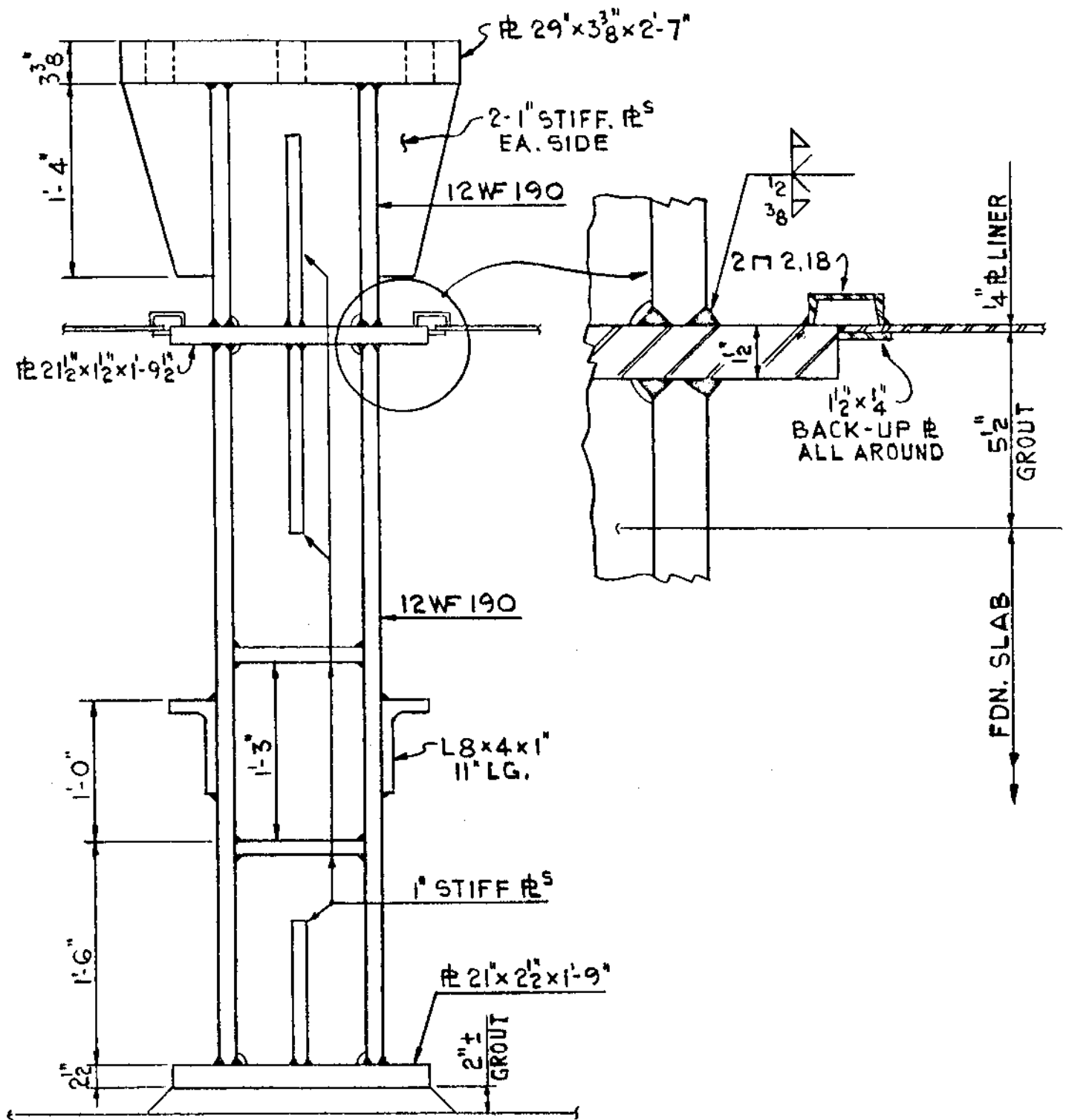
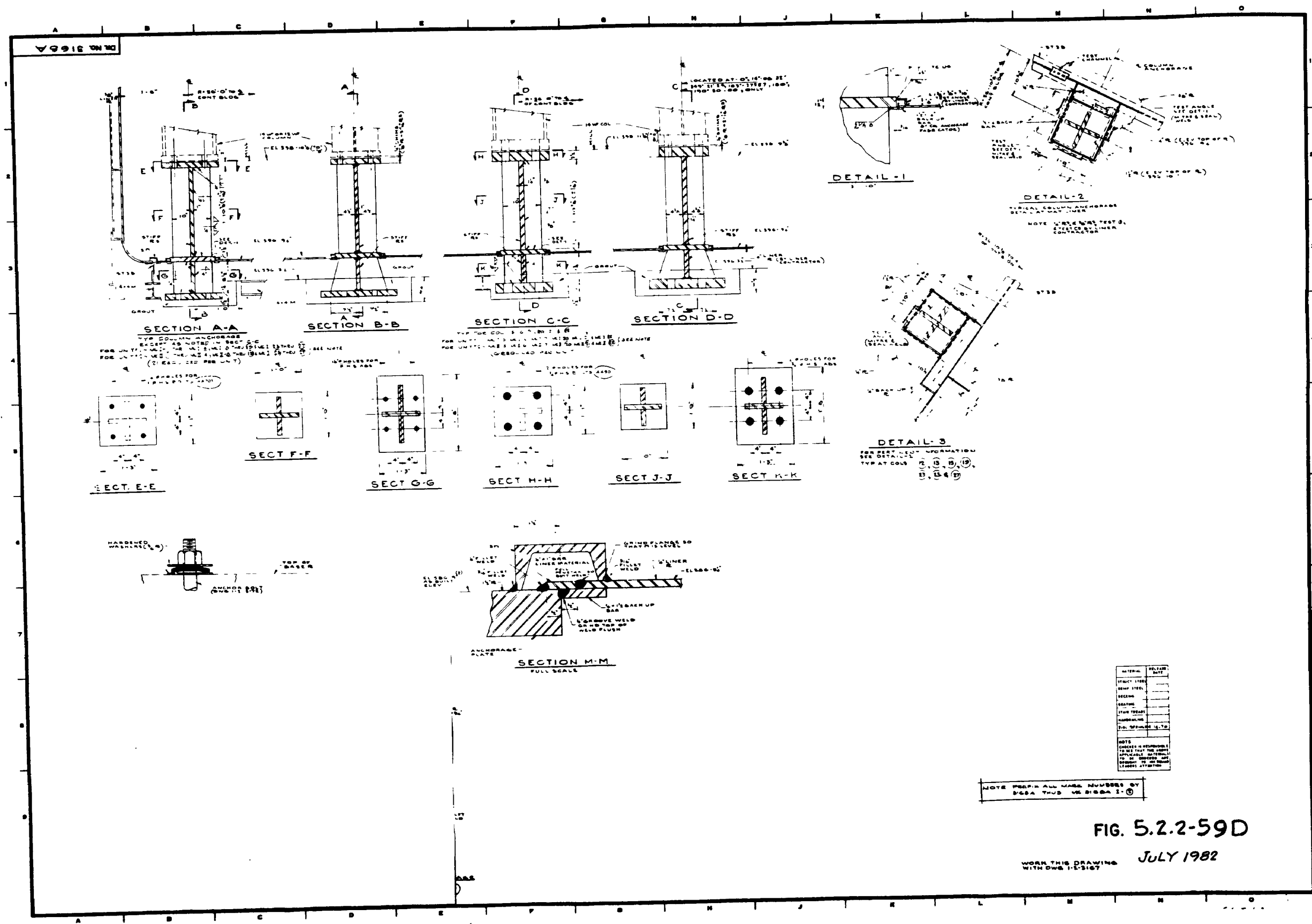
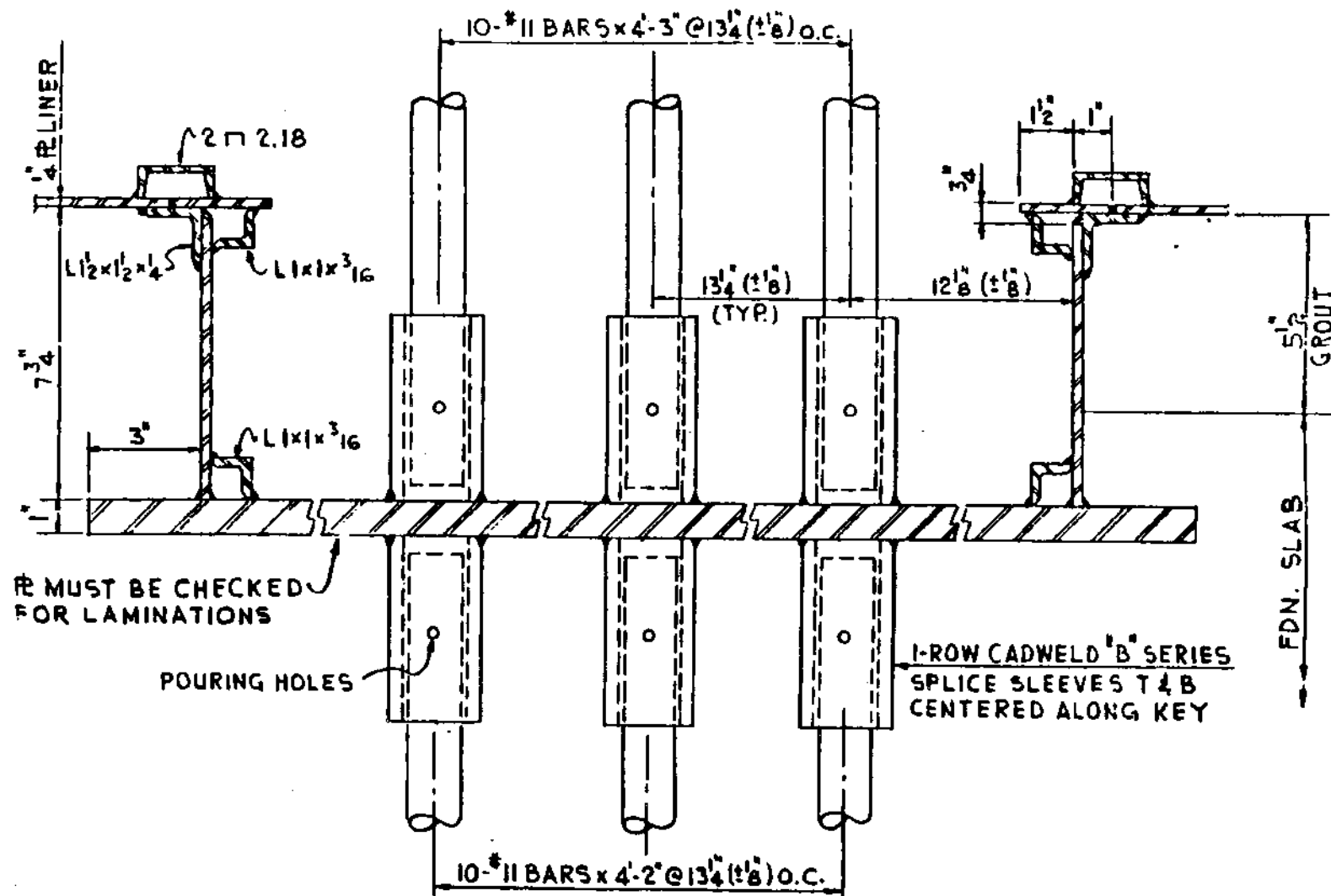


Fig. 5.2.2-59C  
CONTAINMENT BUILDING  
EMBEDDED ANCHOR FOR STEAM  
GENERATORS AND COOLANT PUMPS



# UFSAR REVISION 30.0





This is a technical drawing of a dome structure, likely a nuclear reactor containment dome. The drawing is circular and shows a cross-section of the dome. The central part of the dome is labeled 'DOME' and 'DOME STRUCTURE'. The outer shell is labeled 'DOME EXTERIOR' and 'DOME INTERIOR'. The drawing includes a central vertical axis, radial lines, and concentric circles. Various parts are labeled with letters and numbers, and there are annotations around the perimeter.

UNIT 1: ASSESSMENT

UNIT 2 - OFF HAND ART &amp; W &amp; OF CONTEMP BLOG

**JULY 1982**

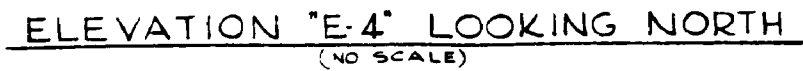
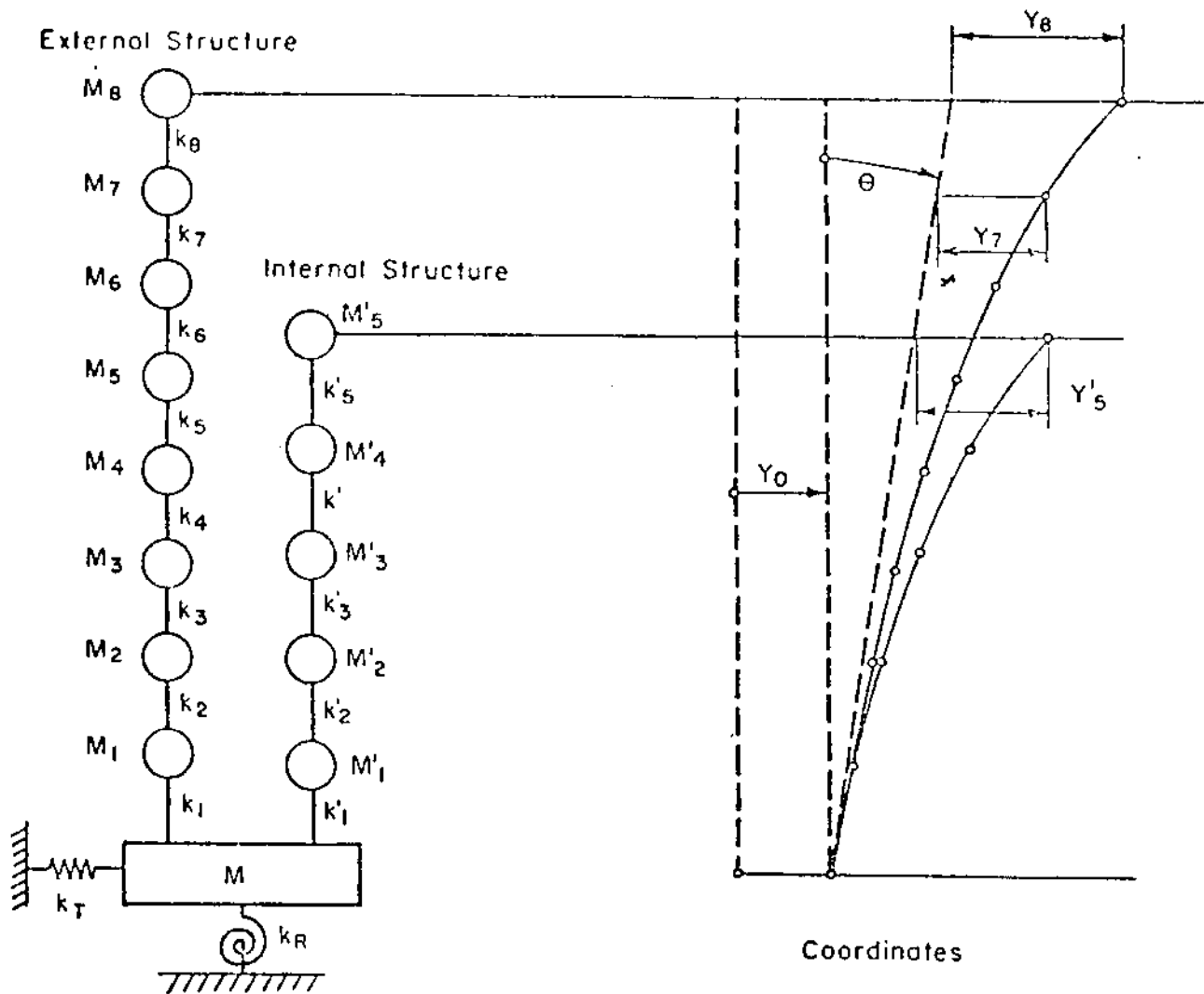


FIG. 5.2.2-60C  
JULY 1982

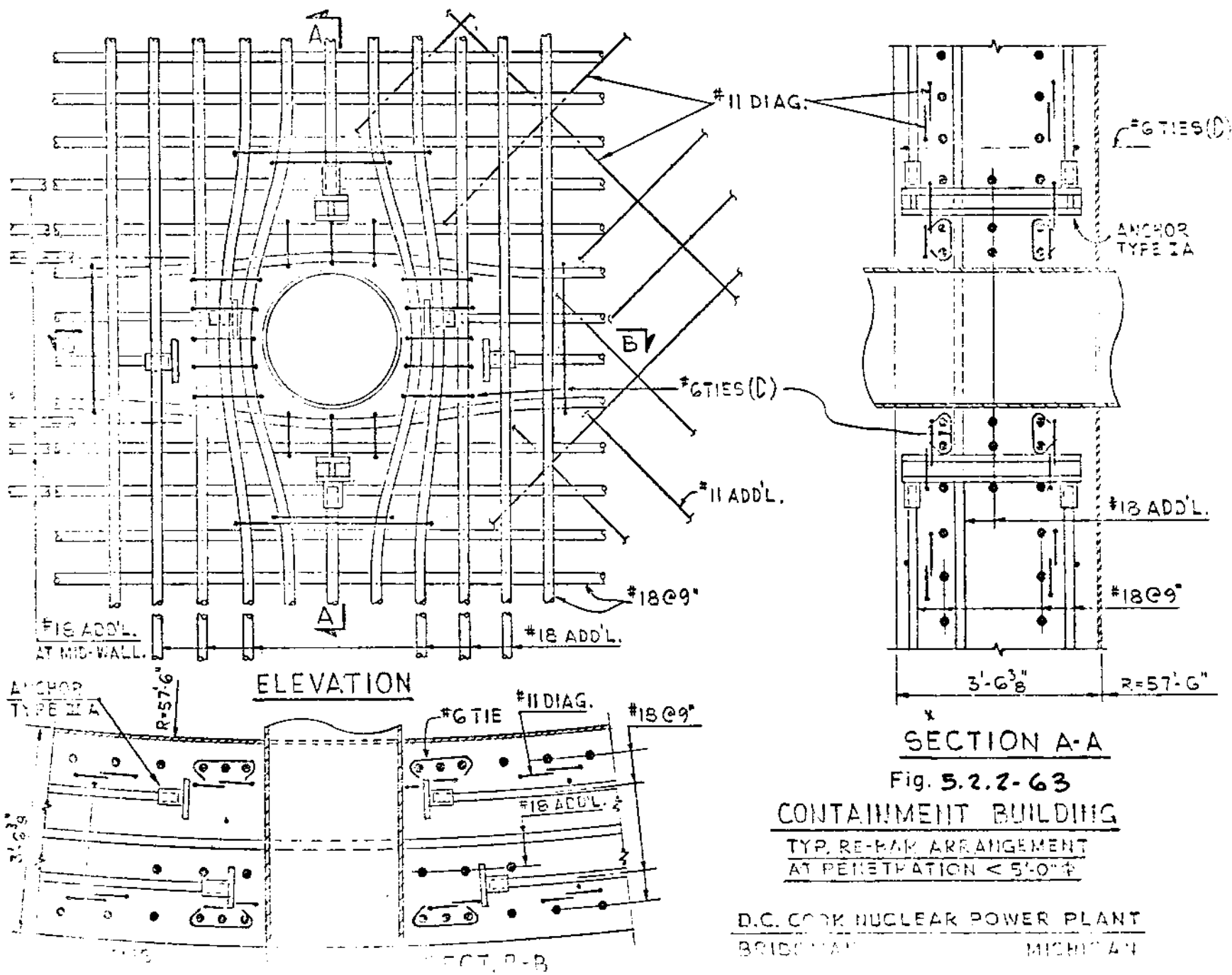


Dynamic Model

LEGENDS:

- M = MASS
- K = SPRING CONSTANT
- $\theta$  = ROTATION
- Y = HORIZONTAL TRANSLATION
- $K_R, K_T$  = SOIL MODULUS SPRING CONSTANT (ROTATIONAL & TRANSLATIONAL)

Fig. 5.2.2-61



SECTION A-A

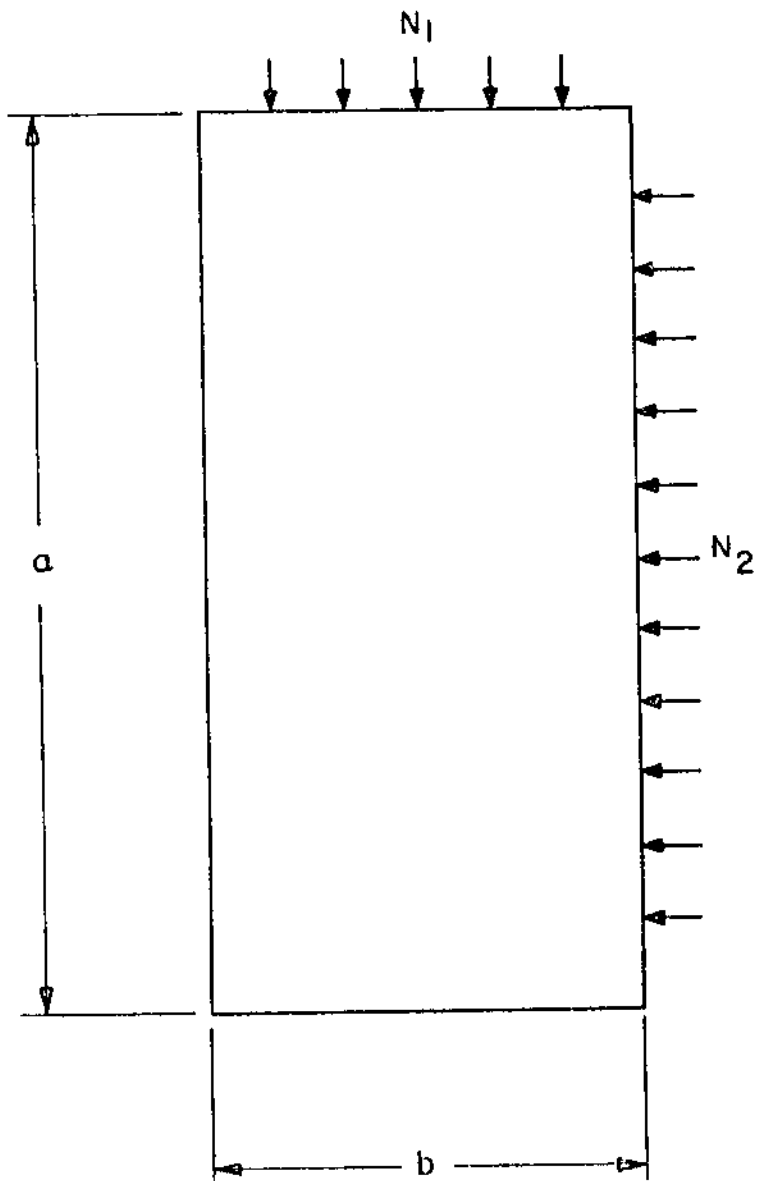
Fig. 5.2.2-63

CONTAINMENT BUILDING

TYP. RE-BAK ARRANGEMENT  
AT PENETRATION < 5'-0" P

D.C. COOK NUCLEAR POWER PLANT  
BRIDGMAN MICHIGAN

JULY 1982



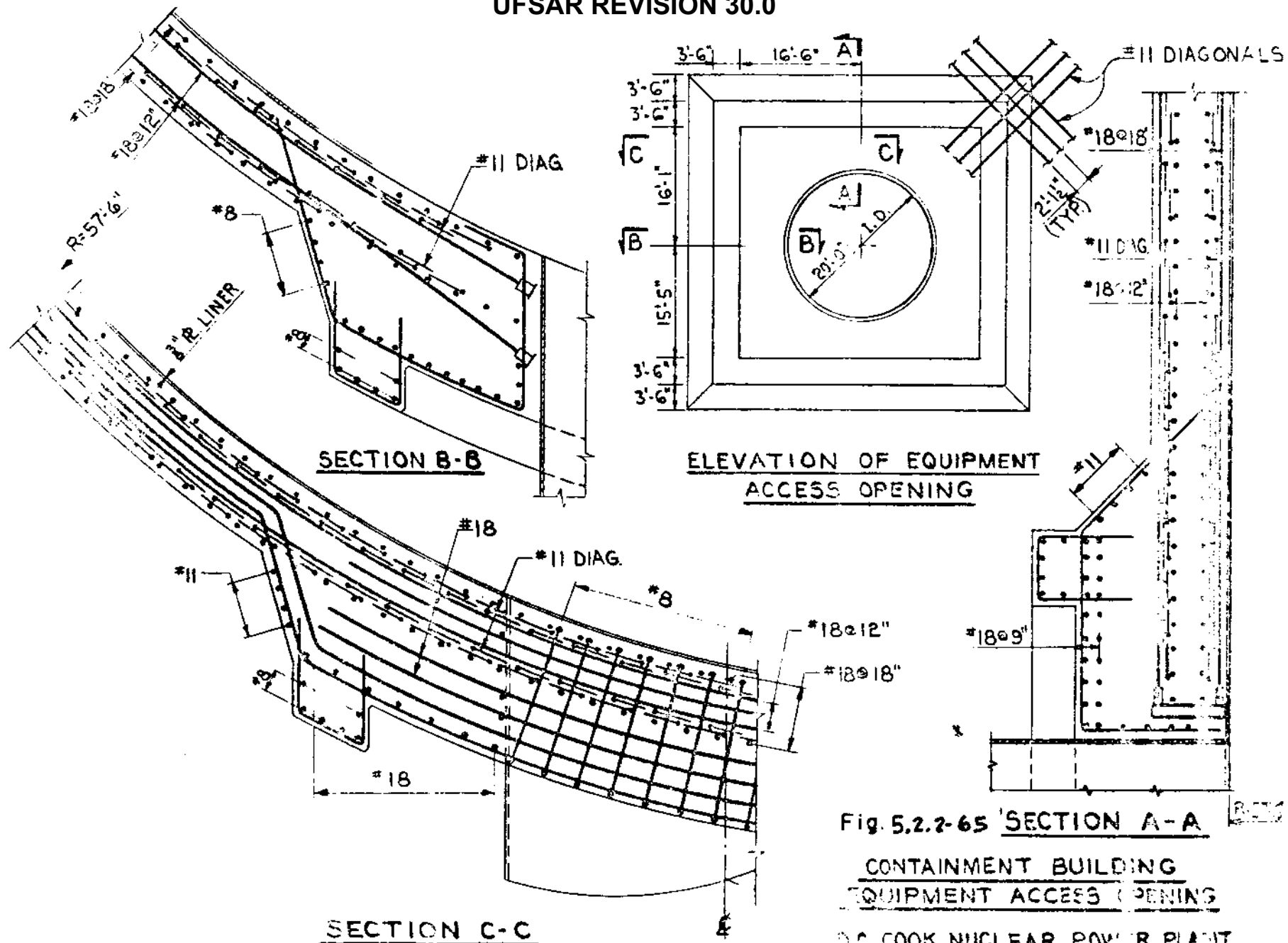


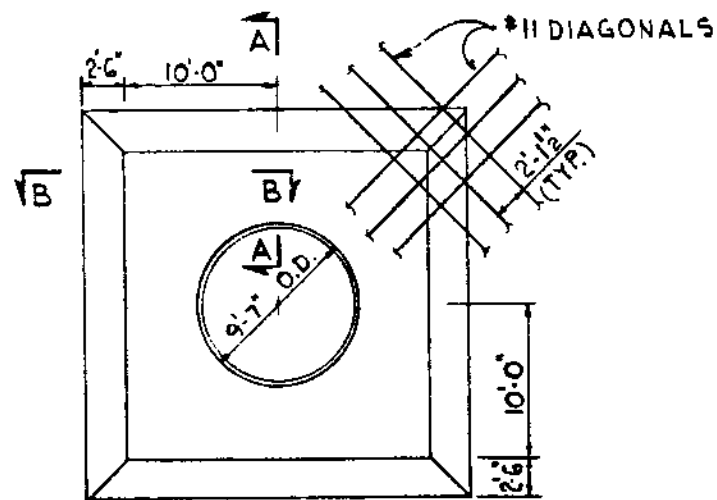
Fig. 5.2.2-65 SECTION A-A

CONTAINMENT BUILDING  
EQUIPMENT ACCESS OPENING

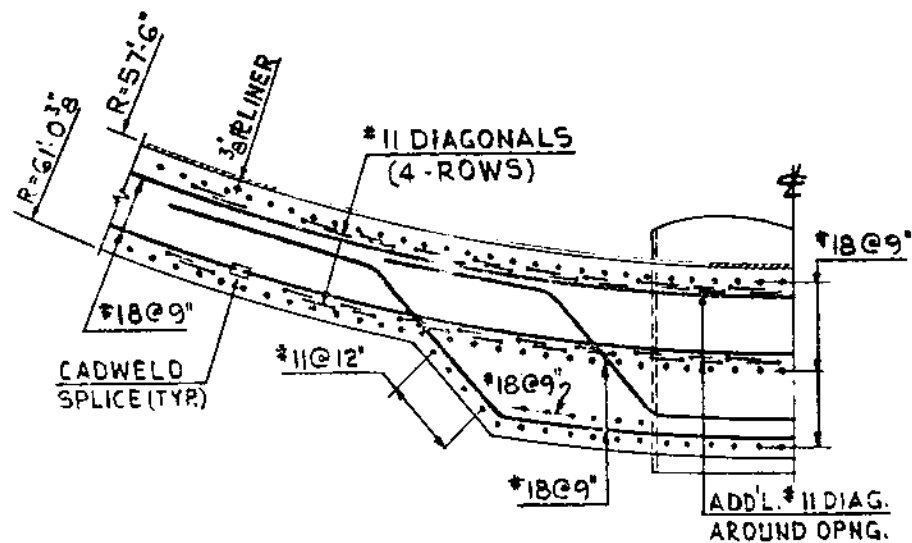
D.C. COOK NUCLEAR POWER PLANT  
UNIT 1

JULY 1982

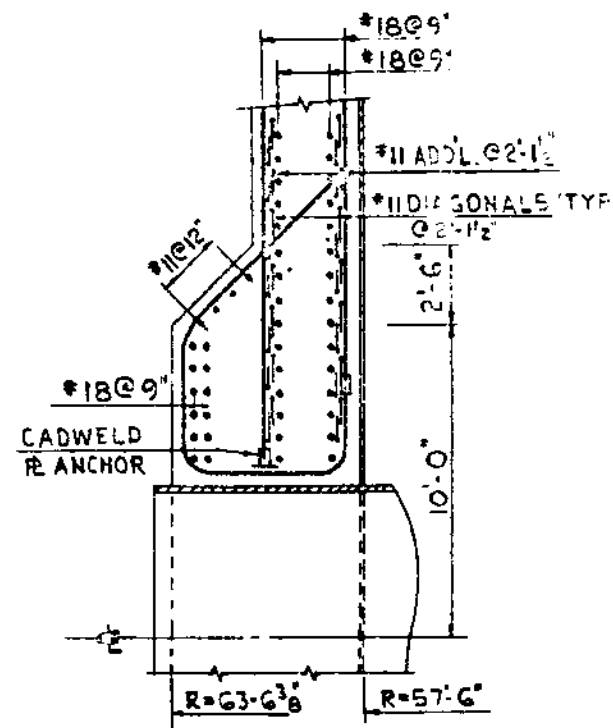
# UFSAR REVISION 30.0



ELEVATION OF PERSONNEL  
ACCESS OPENING



SECTION B-B



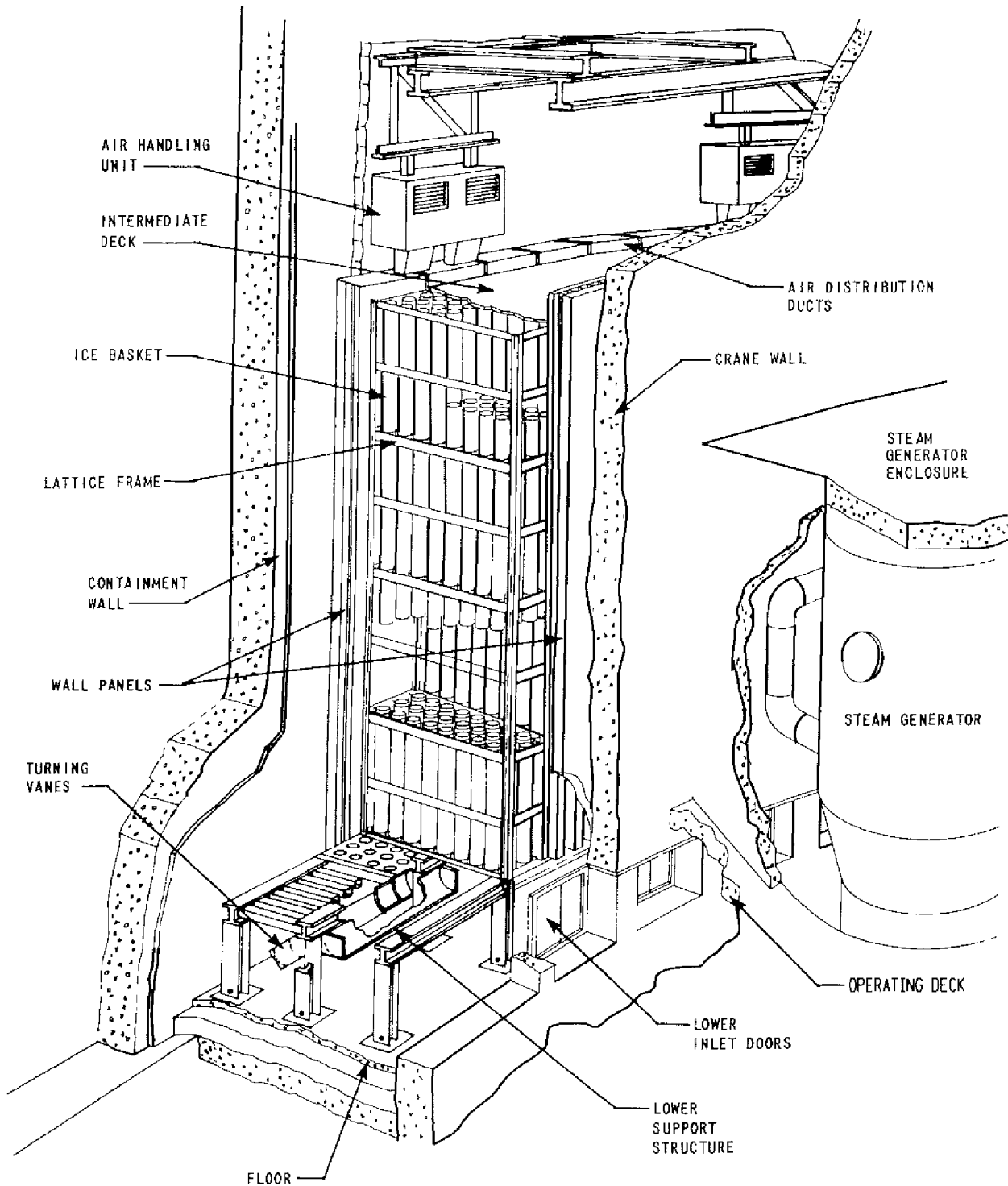
SECTION A-A

Fig. 5.2.2-65A  
CONTAINMENT BUILDING  
PERSONNEL ACCESS OPENING

D.C. COOK NUCLEAR POWER PLANT  
BRIDGMAN MICHIGAN

JULY 1982

# UFSAR REVISION 30.0



16.3

REVISED PER 98-UFSAR-115

REV. NO.

DESCRIPTION

REVISIONS

AMERICAN ELECTRIC POWER  
COOK NUCLEAR PLANT  
NUCLEAR GENERATION GROUP  
BRIDGMAN, MICHIGAN

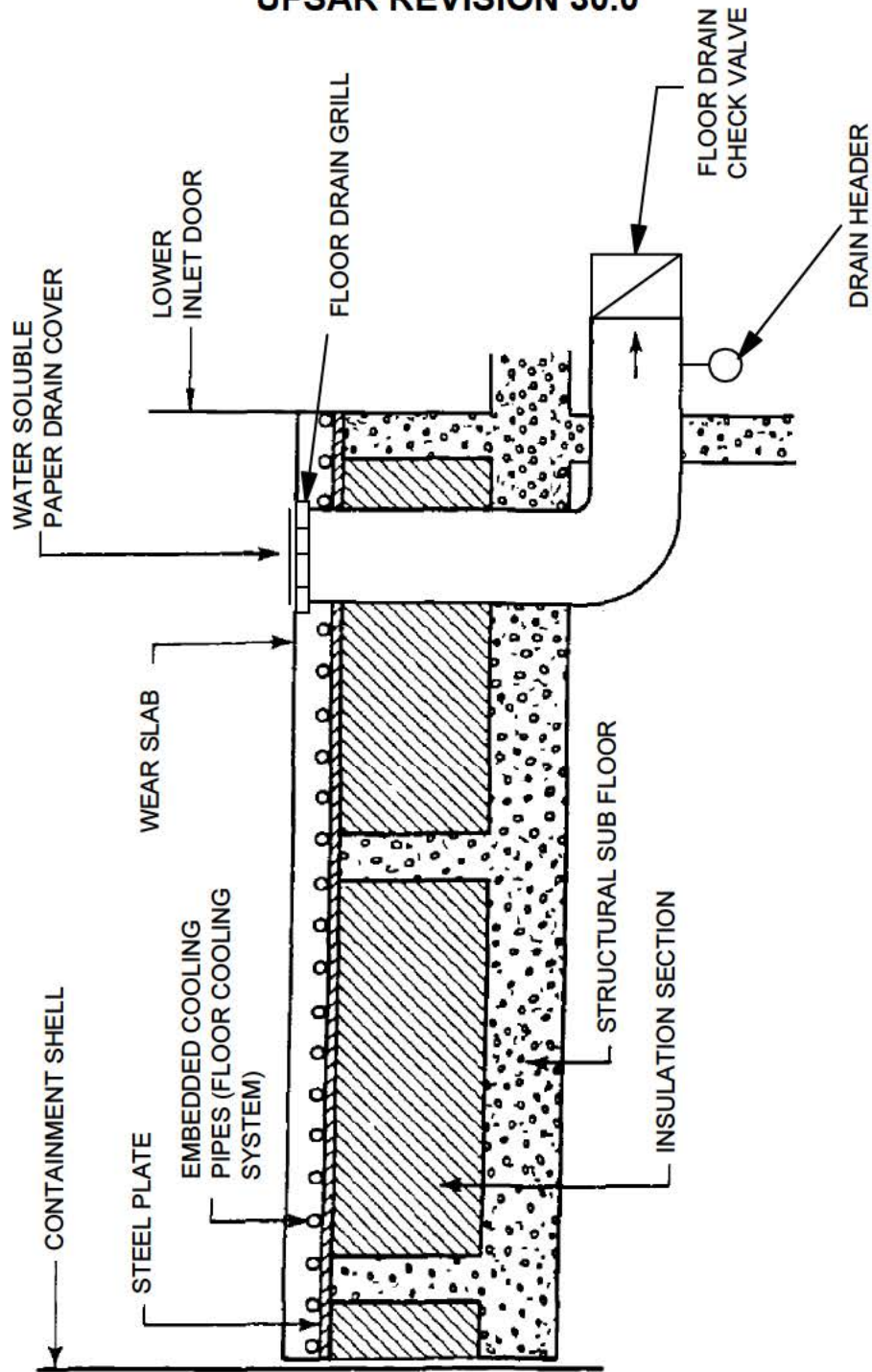
TITLE **ISOMETRIC OF ICE CONDENSER**

DWG. NO. **FSAR FIG. 5.3.2-1**

SH 1 of 1

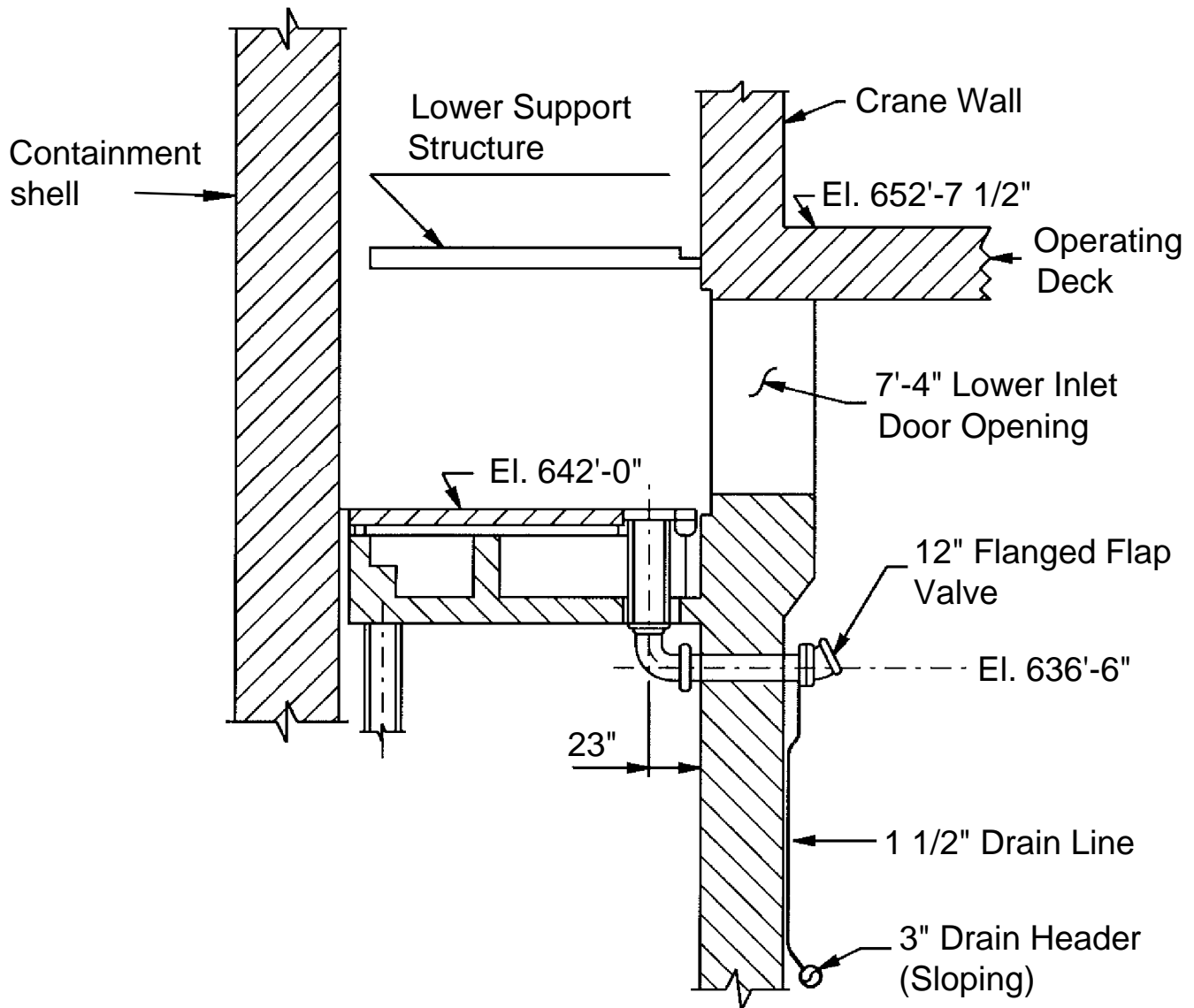


# UFSAR REVISION 30.0



|   |                              |  |           |
|---|------------------------------|--|-----------|
| 16.3  | REVISED PER 98-UFSAR-115     |  |           |
| REV. NO.  | DESCRIPTION                  |  |           |
| REVISIONS   |                              |  |           |
| AMERICAN ELECTRIC POWER<br>COOK NUCLEAR PLANT<br>NUCLEAR GENERATION GROUP<br>BRIDGMAN, MICHIGAN | TITLE FLOOR STRUCTURE        |  |           |
|   | DWG. NO. FSAR FIG. 5.3.5.1-1 |  | SH 1 of 1 |

# UFSAR REVISION 30.0



16.3

REVISED PER 98-UFSAR-452

REV. NO.

DESCRIPTION

## REVISIONS

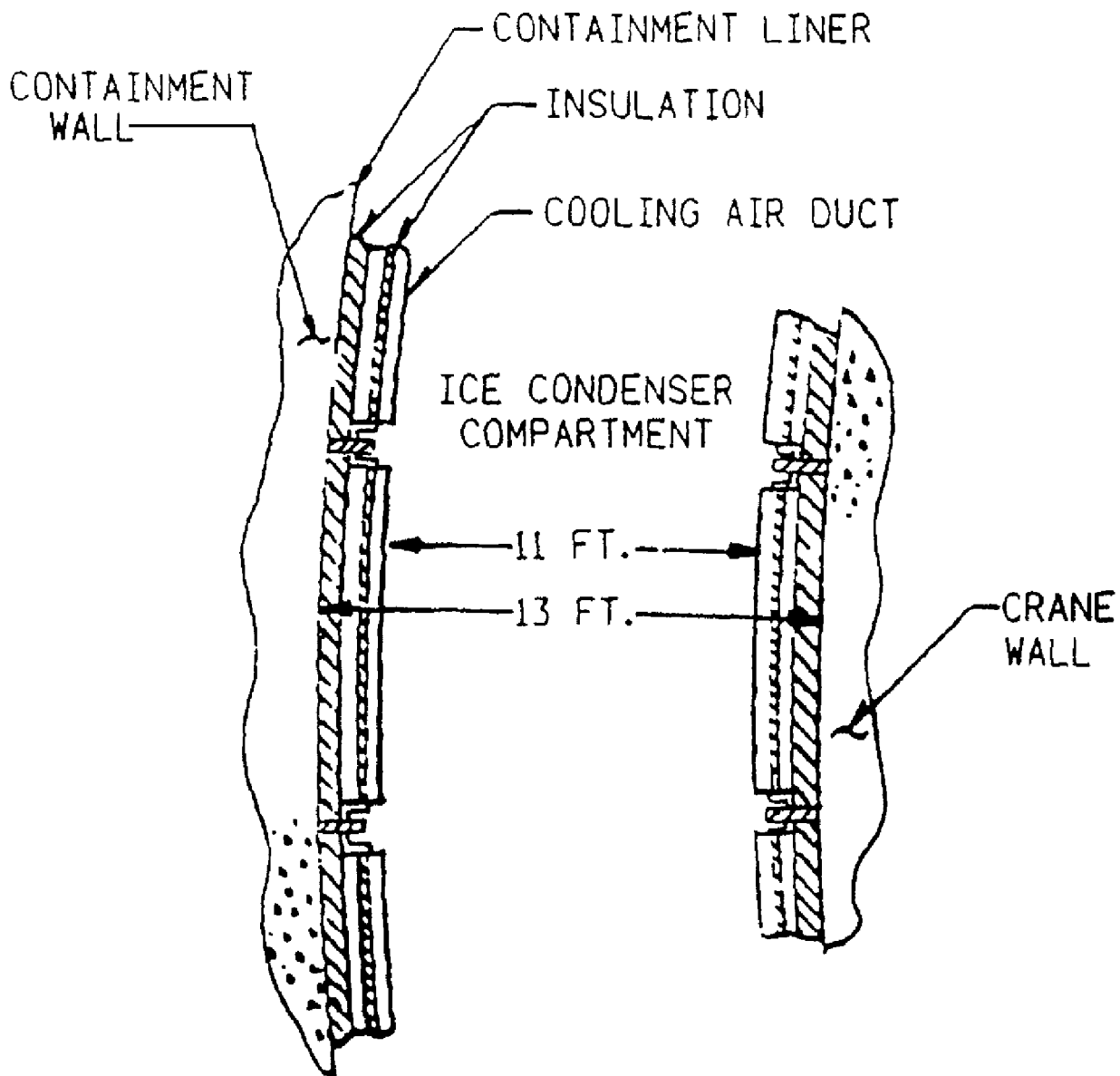
AMERICAN ELECTRIC POWER  
COOK NUCLEAR PLANT  
NUCLEAR GENERATION GROUP  
BRIDGMAN, MICHIGAN

TITLE **ICE CONDENSER INLET REGION DRAIN  
ARRANGEMENT**

DWG. NO. **FSAR FIG. 5.3.5.1-2**

SH 1 of 1

# UFSAR REVISION 30.0



16.3

REVISED PER 98-UFSAR-115

REV. NO.

DESCRIPTION

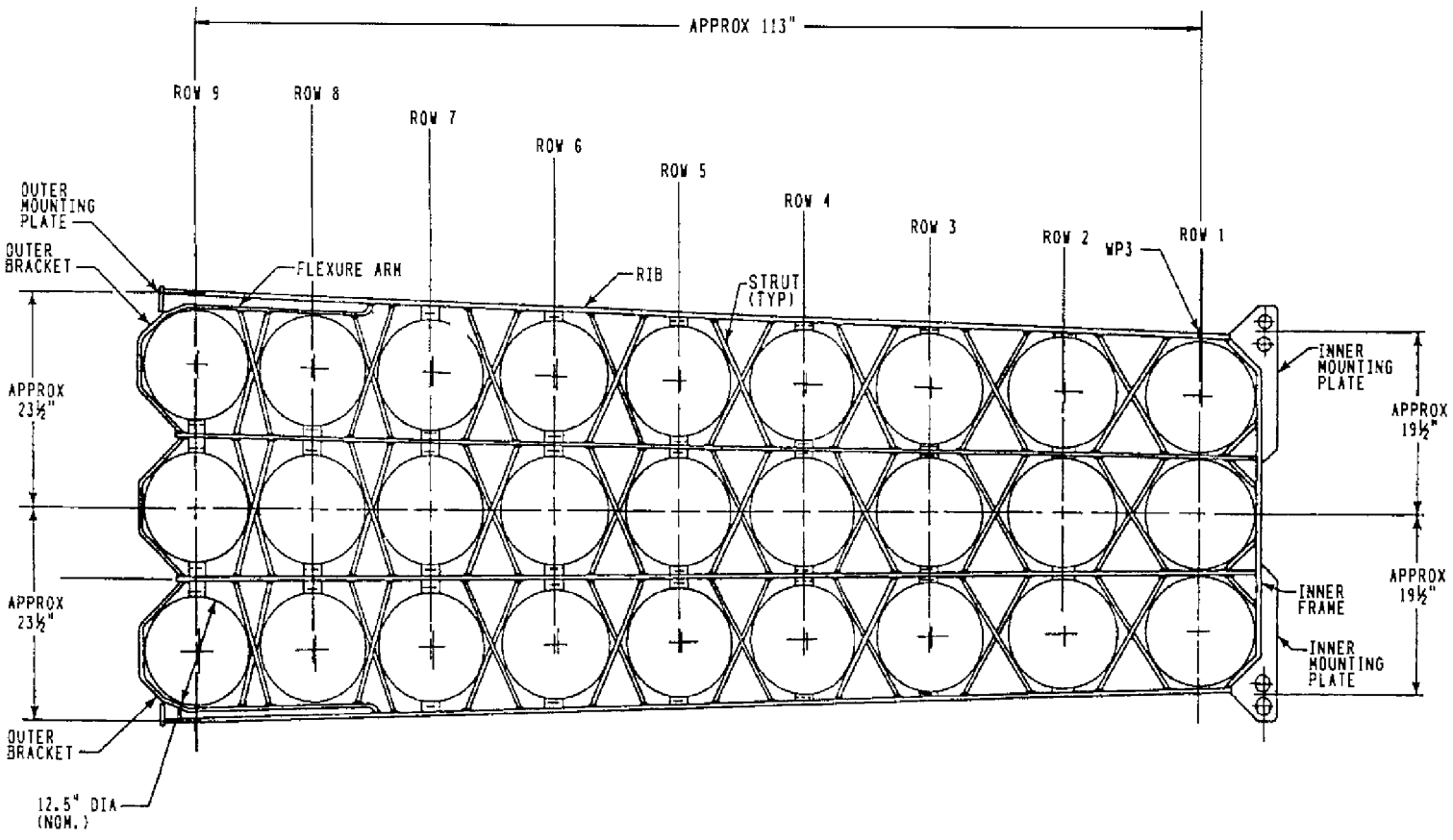
REVISIONS

AMERICAN ELECTRIC POWER  
COOK NUCLEAR PLANT  
NUCLEAR GENERATION GROUP  
BRIDGMAN, MICHIGAN

TITLE **ICE CONDENSER WALL PANELS**

DWG. NO. **FSAR FIG. 5.3.5.2-1**

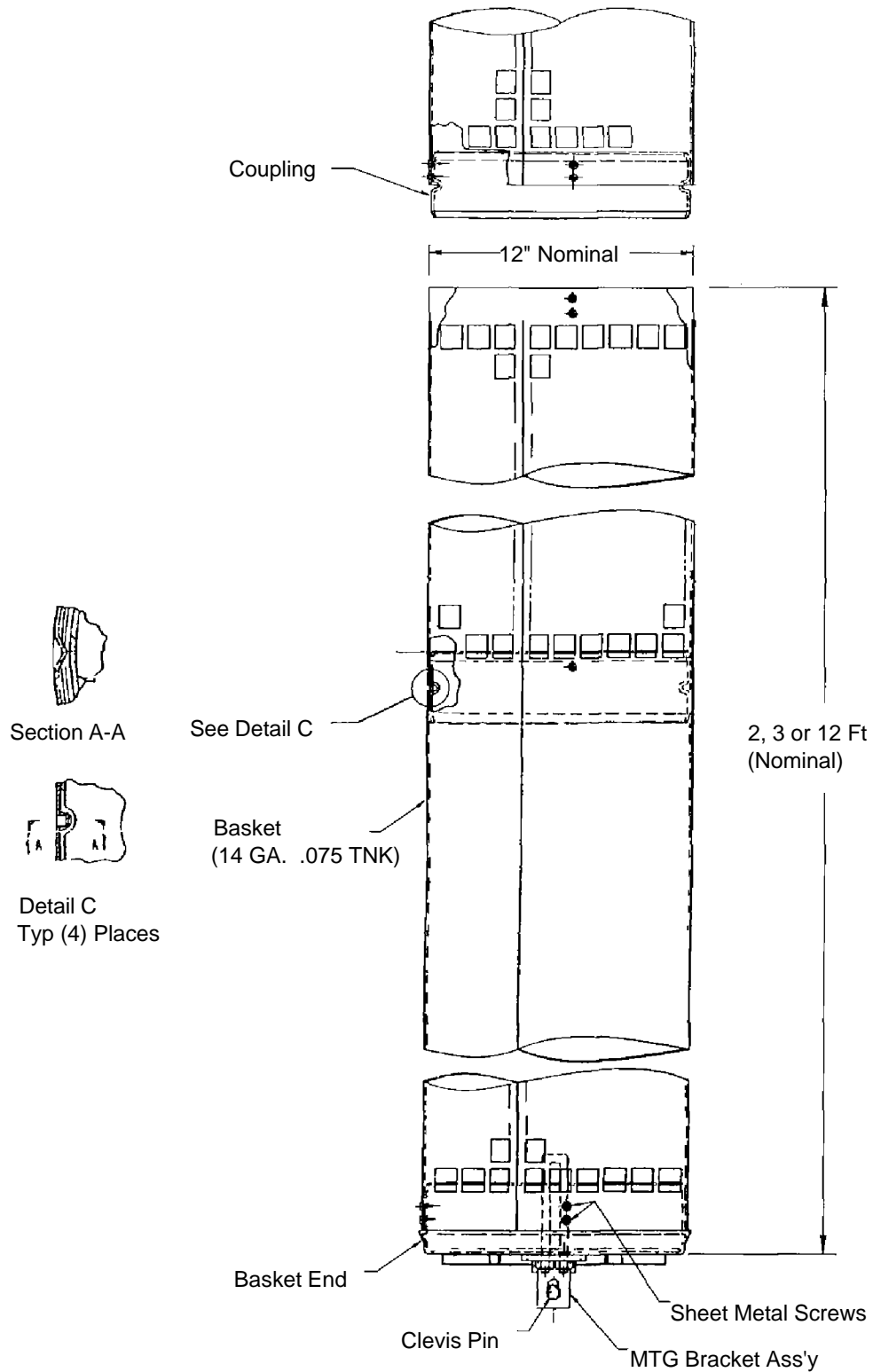
SH 1 of 1



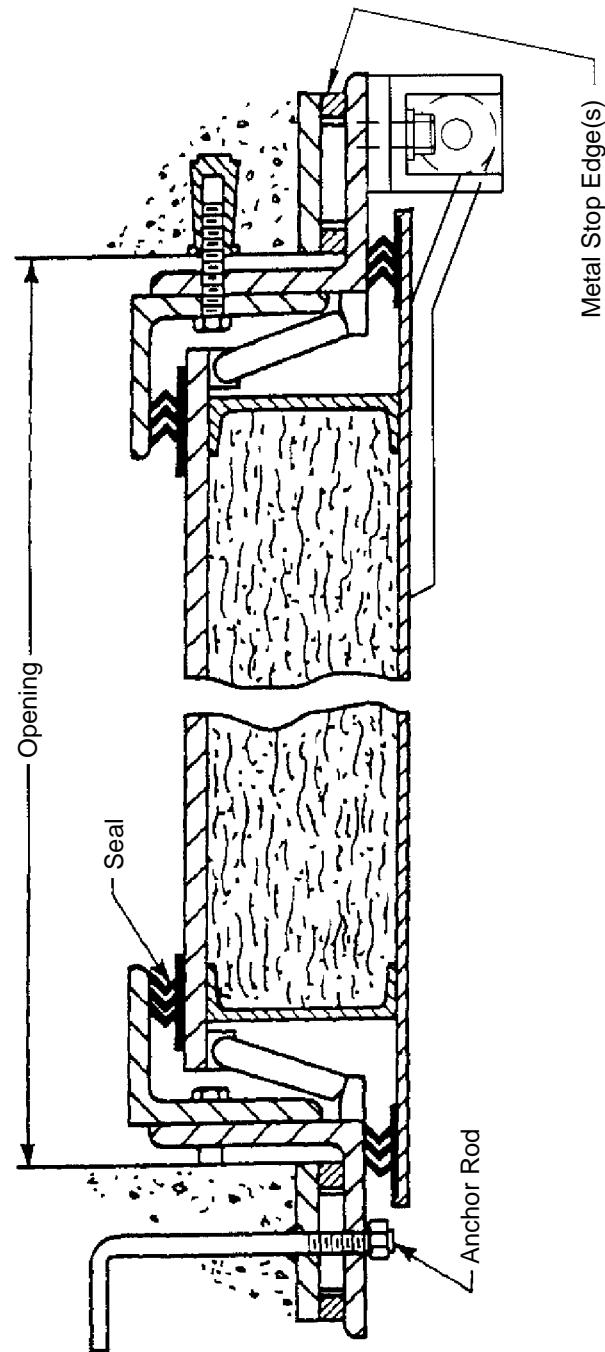
NOTE:  
ROW NUMBERING REFLECTS WESTINGHOUSE  
NUMBERING SCHEME AND DIFFERS FROM  
AEP DESIGNATIONS

|   |                          |
|---|--------------------------|
| 16.3  | REVISED PER 98-UFSAR-115 |
| REV. NO.  | DESCRIPTION              |
| REVISIONS   |                          |
| TITLE<br>TYPICAL LATTICE FRAME  |                          |
| AMERICAN ELECTRIC POWER<br>COOK NUCLEAR PLANT<br>NUCLEAR GENERATION GROUP<br>BRIDGMAN, MICHIGAN |                          |
| DWG. NO. FSAR FIG. 5.3.5.3-1  |                          |
| SH 1 of 1   |                          |

# UFSAR REVISION 30.0

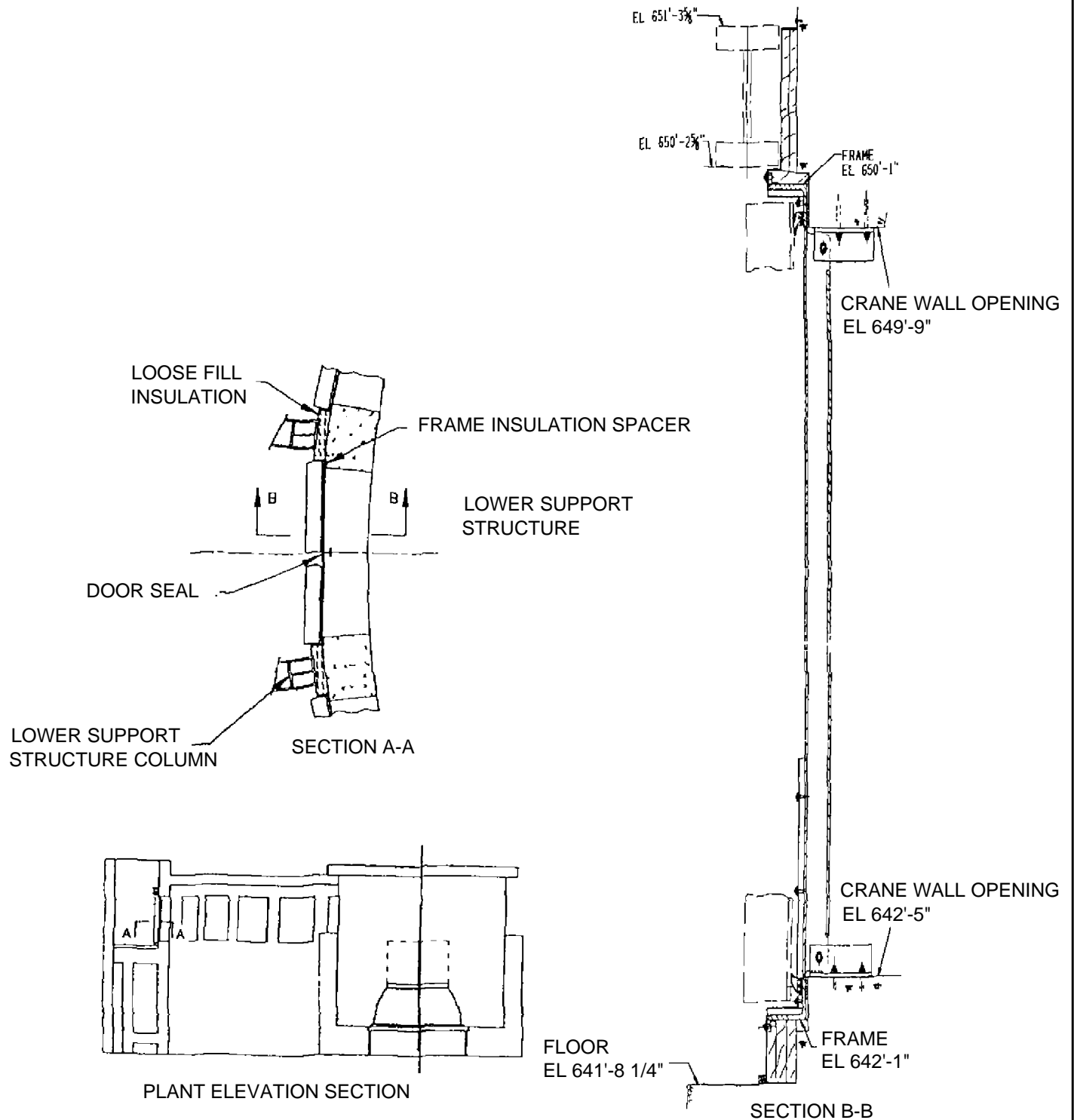


|   |                                   |  |           |
|---|-----------------------------------|--|-----------|
| 16.3  | REVISED PER 98-UFSAR-115          |  |           |
| REV. NO.  | DESCRIPTION                       |  |           |
| REVISIONS   |                                   |  |           |
| AMERICAN ELECTRIC POWER<br>COOK NUCLEAR PLANT<br>NUCLEAR GENERATION GROUP<br>BRIDGMAN, MICHIGAN | TITLE TYPICAL ICE BASKET ASSEMBLY |  |           |
|   | DWG. NO. FSAR FIG. 5.3.5.4-1      |  | SH 1 of 1 |



|   |  |  |           |
|---|--|--|-----------|
| 16.3  | Revised Per 98-UFSAR-115   |  |           |
| REV. NO.  | DESCRIPTION  |  |           |
| REVISIONS   |  |  |           |
| AMERICAN ELECTRIC POWER<br>COOK NUCLEAR PLANT<br>NUCLEAR GENERATION GROUP<br>BRIDGMAN, MICHIGAN | TITLE HORIZONTAL THROUGH SECTION OF<br>LOWER PERSONNEL ACCESS DOOR |  |           |
|   | DWG. NO. FSAR FIG. 5.3.5.8-1                                       |  | SH 1 of 1 |

# UFSAR REVISION 30.0



16.3

REVISED PER 98-UFSAR-115

REV. NO.

DESCRIPTION

REVISIONS

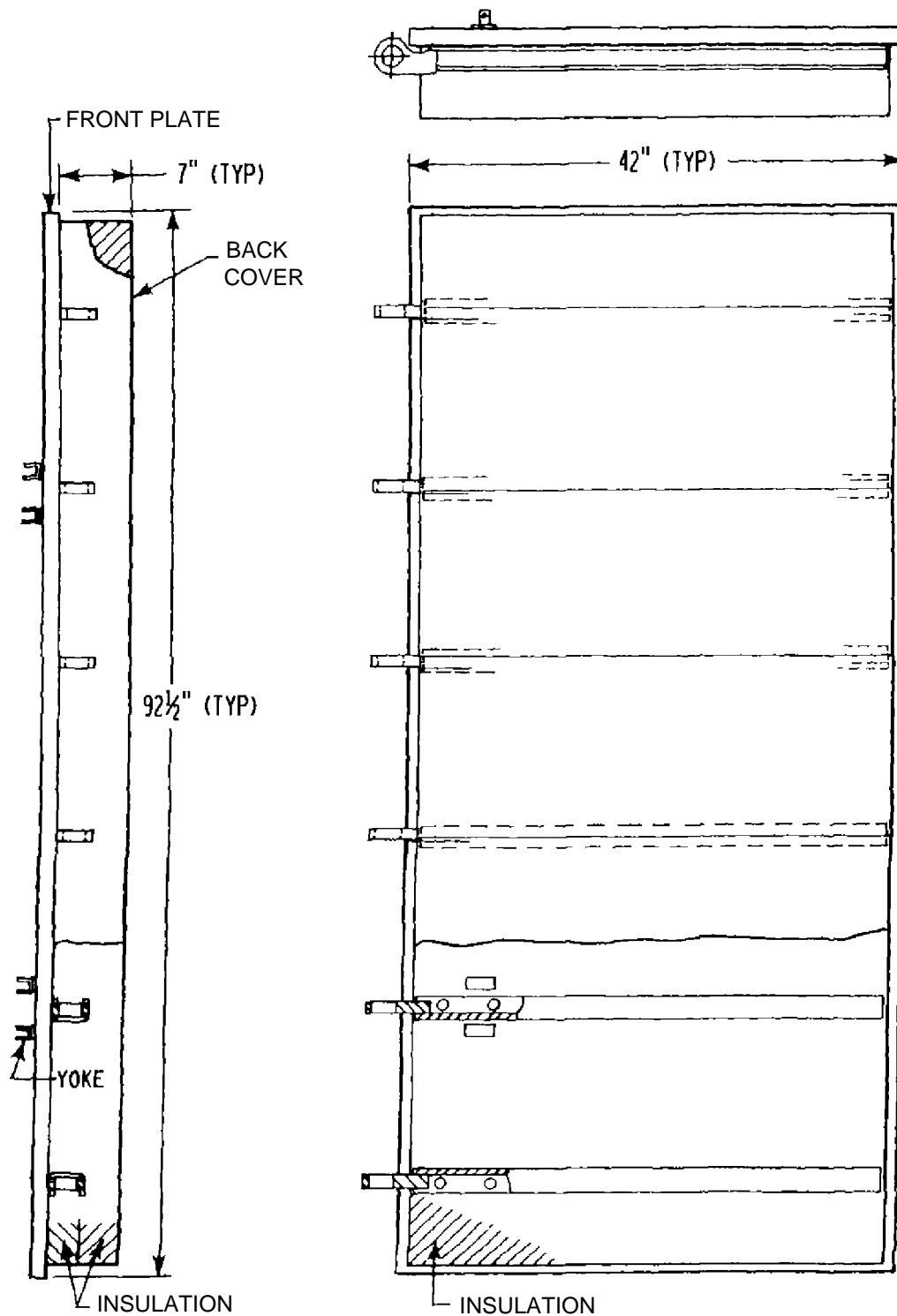
AMERICAN ELECTRIC POWER  
COOK NUCLEAR PLANT  
NUCLEAR GENERATION GROUP  
BRIDGMAN, MICHIGAN

TITLE **Typical Ice Condenser Door Frame Section**

DWG. NO. **FSAR FIG. 5.3.5.9-1**

SH 1 of 1

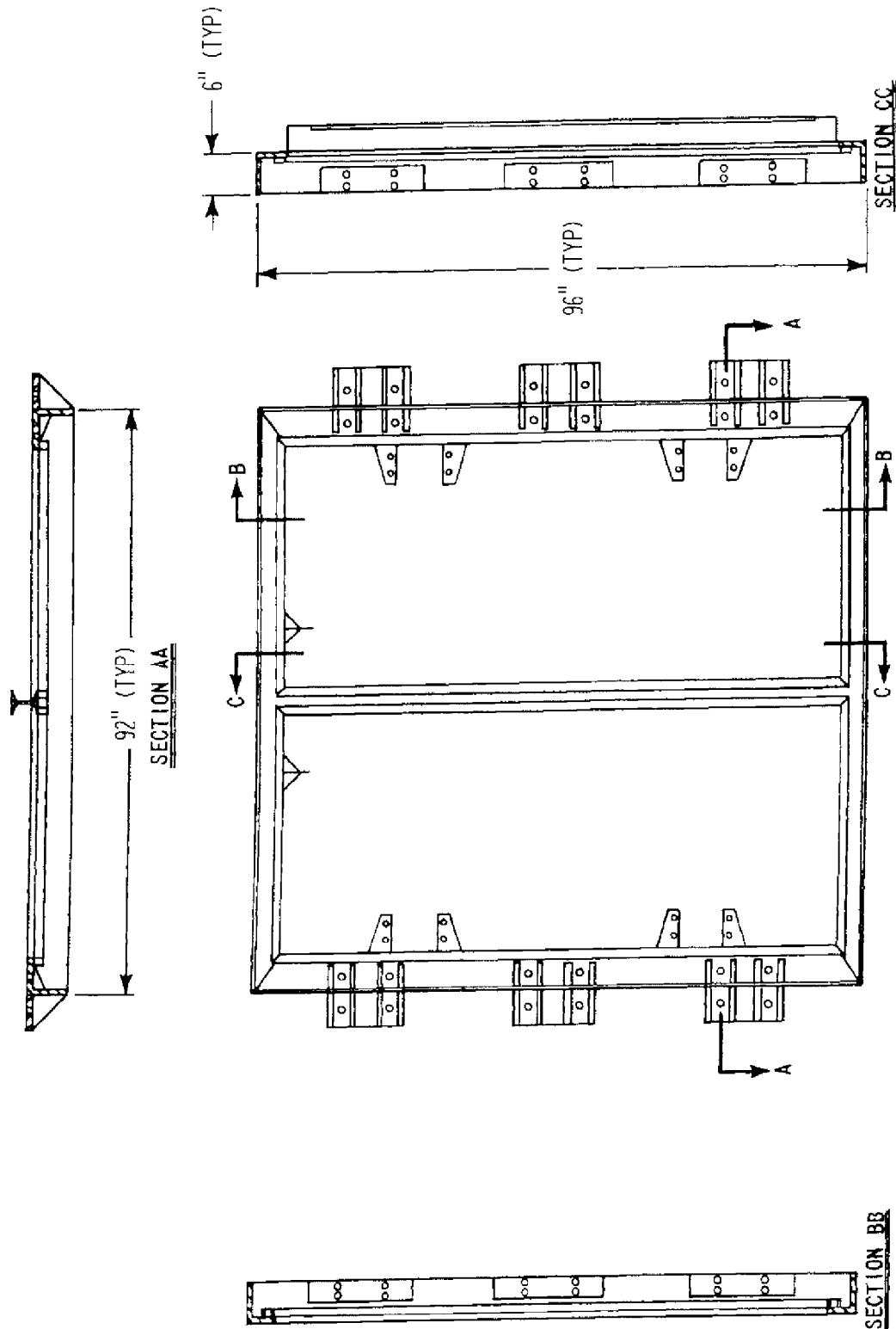
# UFSAR REVISION 30.0



|   |                                 |  |           |
|---|---------------------------------|--|-----------|
| 16.3  | REVISED PER 98-UFSAR-115        |  |           |
| REV. NO.  | DESCRIPTION                     |  |           |
| REVISIONS   |                                 |  |           |
| AMERICAN ELECTRIC POWER<br>COOK NUCLEAR PLANT<br>NUCLEAR GENERATION GROUP<br>BRIDGMAN, MICHIGAN | TITLE INLET DOOR PANEL ASSEMBLY |  |           |
|   | DWG. NO. FSAR FIG. 5.3.5.9-2    |  | SH 1 of 1 |

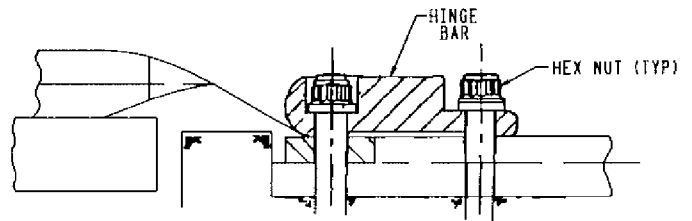
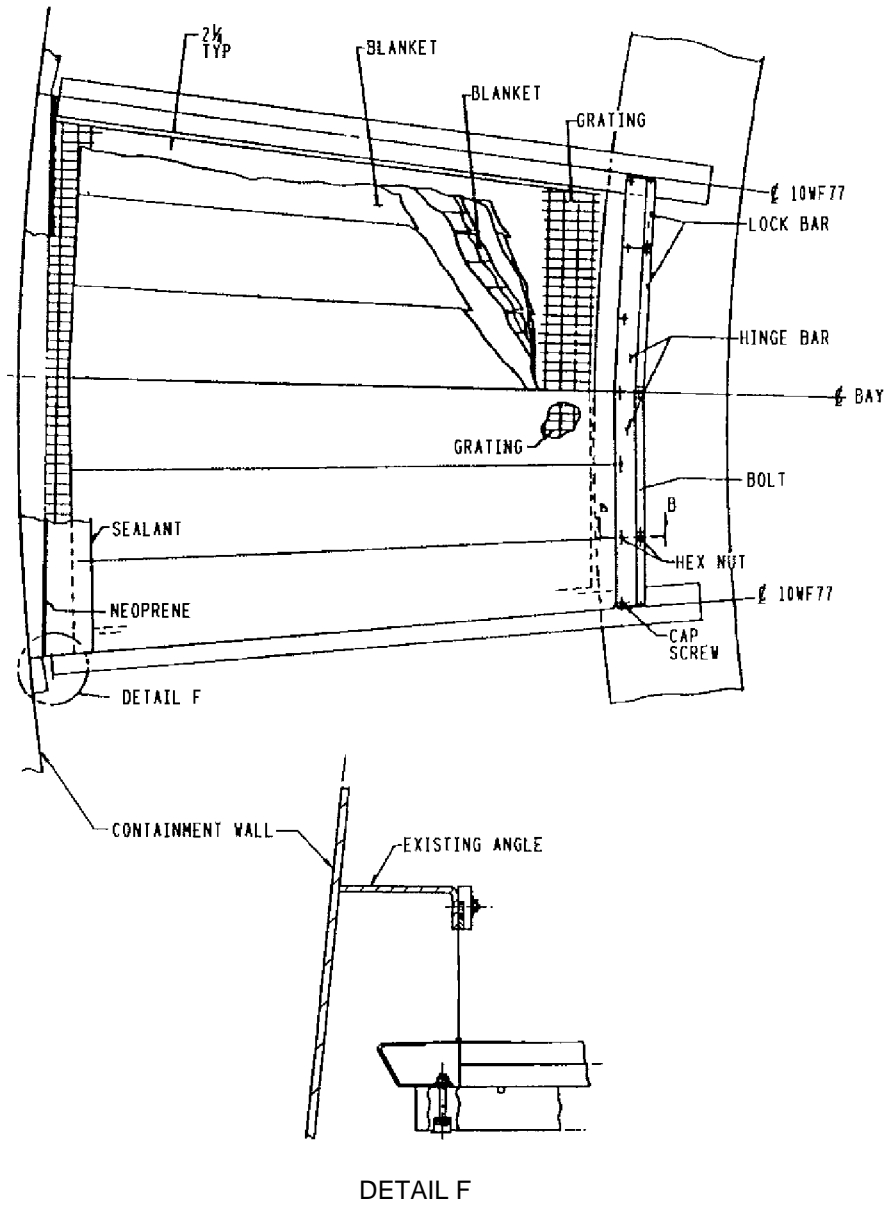


# UFSAR REVISION 30.0



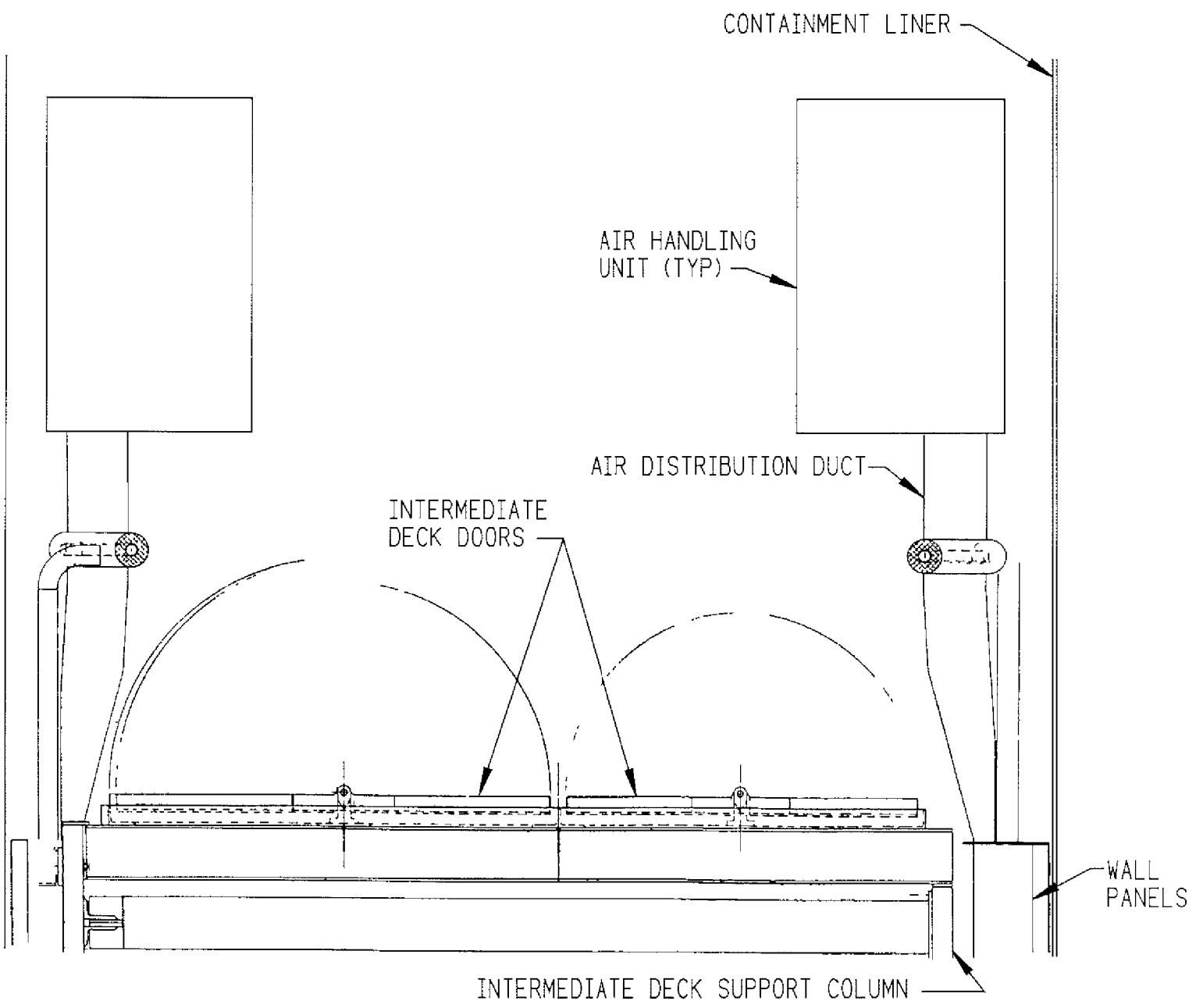
|   |                                 |  |           |
|---|---------------------------------|--|-----------|
| 16.3  | REVISED PER 98-UFSAR-115        |  |           |
| REV. NO.  | DESCRIPTION                     |  |           |
| REVISIONS   |                                 |  |           |
| AMERICAN ELECTRIC POWER<br>COOK NUCLEAR PLANT<br>NUCLEAR GENERATION GROUP<br>BRIDGMAN, MICHIGAN | TITLE INLET DOOR FRAME ASSEMBLY |  |           |
|   | DWG. NO. FSAR FIG. 5.3.5.9-3    |  | SH 1 of 1 |

# UFSAR REVISION 30.0



SECTION B-B

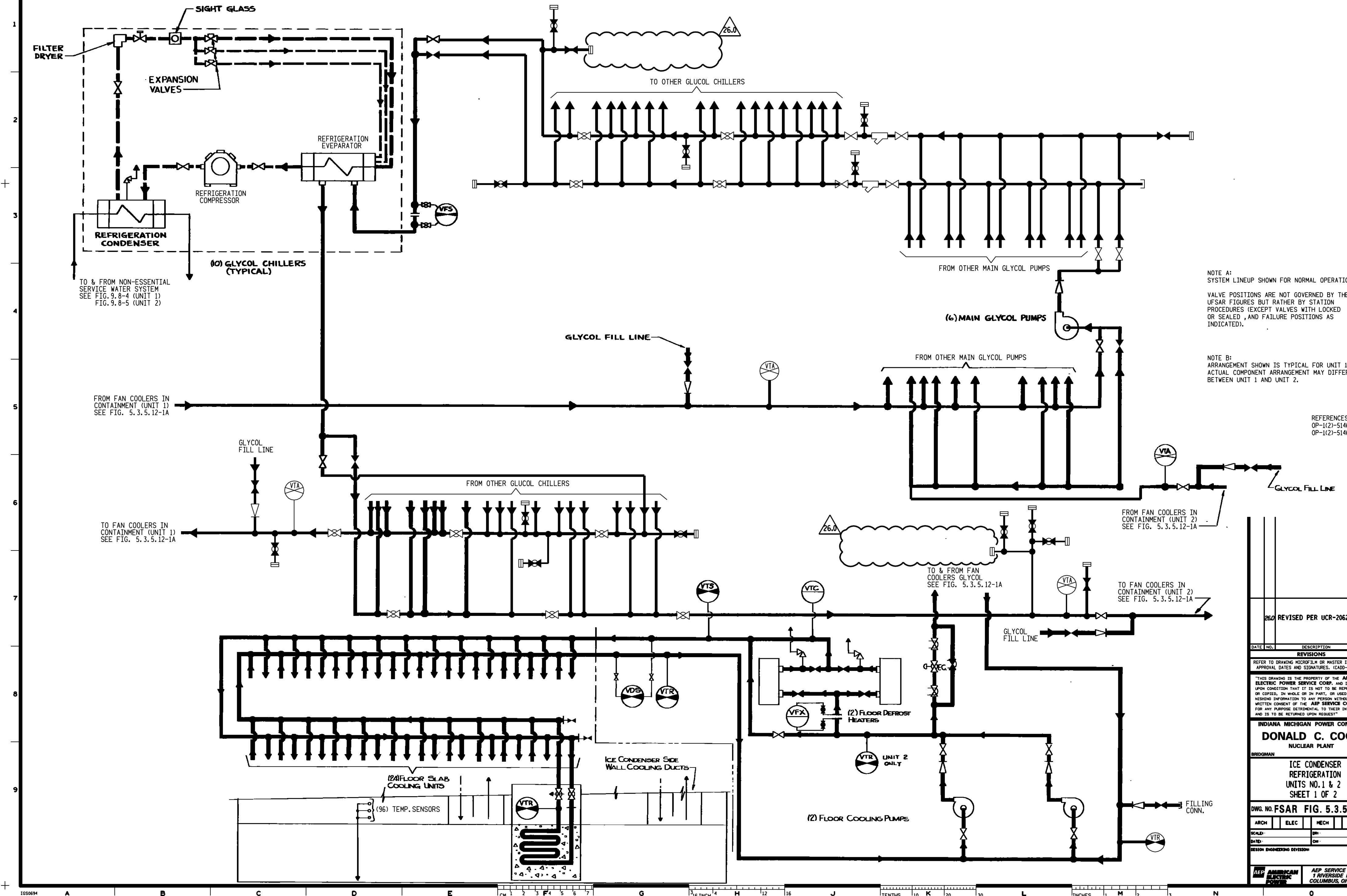
|   |                               |  |           |
|---|-------------------------------|--|-----------|
| 16.3  | REVISED PER 98-UFSAR-115      |  |           |
| REV. NO.  | DESCRIPTION                   |  |           |
| REVISIONS   |                               |  |           |
| AMERICAN ELECTRIC POWER<br>COOK NUCLEAR PLANT<br>NUCLEAR GENERATION GROUP<br>BRIDGMAN, MICHIGAN | TITLE TOP DECK DOOR ASSEMBLY  |  |           |
|   | DWG. NO. FSAR FIG. 5.3.5.10-1 |  | SH 1 of 1 |



|   |                          |
|---|--------------------------|
| 16.3  | REVISED PER 98-UFSAR-115 |
| REV. NO.  | DESCRIPTION              |
| REVISIONS   |                          |
| TITLE<br>INTERMEDIATE DECK DOOR ASSEMBLY  |                          |
| AMERICAN ELECTRIC POWER<br>COOK NUCLEAR PLANT<br>NUCLEAR GENERATION GROUP<br>BRIDGMAN, MICHIGAN |                          |
| DWG. NO. FSAR FIG. 5.3.5.10 - 2   |                          |
| SH 1 of 1   |                          |



DWG NO. FSAR FIG. 5.3.5.12-1



NOTE A:  
SYSTEM LINEUP SHOWN FOR NORMAL OPERATION.  
VALVE POSITIONS ARE NOT GOVERNED BY THE  
UFSAR FIGURES BUT RATHER BY STATION  
PROCEDURES (EXCEPT VALVES WITH LOCKED  
OR SEALED, AND FAILURE POSITIONS AS  
INDICATED).

NOTE B:  
ARRANGEMENT SHOWN IS TYPICAL FOR UNIT 1  
ACTUAL COMPONENT ARRANGEMENT MAY DIFFER  
BETWEEN UNIT 1 AND UNIT 2.

REFERENCES:  
OP-1(2)-5146A  
OP-1(2)-5146B

|  |          |
|--|----------|
| 26.0 REVISED PER UCR-2062  |          |
| DATE   | NO.      |
| REVISIONS  |          |
| REFER TO DRAWING MICROFILM OR MASTER INDEX FOR APPROVAL DATES AND SIGNATURES. (ICADD-MASTER)   |          |
| THIS DRAWING IS THE PROPERTY OF THE AMERICAN ELECTRIC POWER SERVICE CORP. AND IS LOANED UPON CONDITION THAT IT IS NOT TO BE REPRODUCED OR COPIED, IN WHOLE OR IN PART, OR USED FOR FURNISHING INFORMATION TO ANY PERSON WITHOUT THE WRITTEN CONSENT OF THE AEP SERVICE CORP. OR FOR ANY PURPOSE DETRIMENTAL TO THEIR INTEREST, AND IS TO BE RETURNED UPON REQUEST. |          |
| INDIANA MICHIGAN POWER COMPANY   |          |
| DONALD C. COOK   |          |
| NUCLEAR PLANT  |          |
| BRIDGMAN   | MICHIGAN |
| ICE CONDENSER REFRIGERATION UNITS NO. 1 & 2  |          |
| SHEET 1 OF 2   |          |
| DWG. NO. FSAR FIG. 5.3.5.12-1  |          |
| ARCH   | ELEC     |
| SCALE  | CM       |
| DATE   | CM       |
| DESIGN ENGINEERING DEVISION  |          |
| AEP SERVICE CORP. RIVERSIDE PLAZA COLUMBUS, OH 43216   |          |



DWG. NO. FSAR FIG. 5.3.5.12-1A

GENERAL NOTES  
LEGEND

REFERENCES:  
OP-1(2)-5146A  
OP-1(2)-5146B  
OP-12-5146E  
OP-12-5146F

NESW SUPPLY  
NESW RETURN

ICE MACHINE  
SYSTEM

ICE TO UNIT 1  
CONDENSER

ICE TO UNIT 2  
CONDENSER

26.0 REVISED PER UCR-2062

DATE NO. DESCRIPTION APPRO.

REVISIONS

REFER TO DRAWING MICROFILM OR MASTER INDEX FOR APPROVAL DATES AND SIGNATURES. (CADD-MASTER)

"THIS DRAWING IS THE PROPERTY OF THE AMERICAN ELECTRIC POWER SERVICE CORP. AND IS LOANED UPON CONDITION THAT IT IS NOT TO BE REPRODUCED OR COPIED, IN WHOLE OR IN PART, OR USED FOR FURNISHING INFORMATION TO ANY PERSON WITHOUT THE WRITTEN CONSENT OF THE AEP SERVICE CORP., OR FOR ANY PURPOSE DETRIMENTAL TO THEIR INTEREST, AND IS TO BE RETURNED UPON REQUEST."

INDIANA MICHIGAN POWER COMPANY  
DONALD C. COOK  
NUCLEAR PLANT

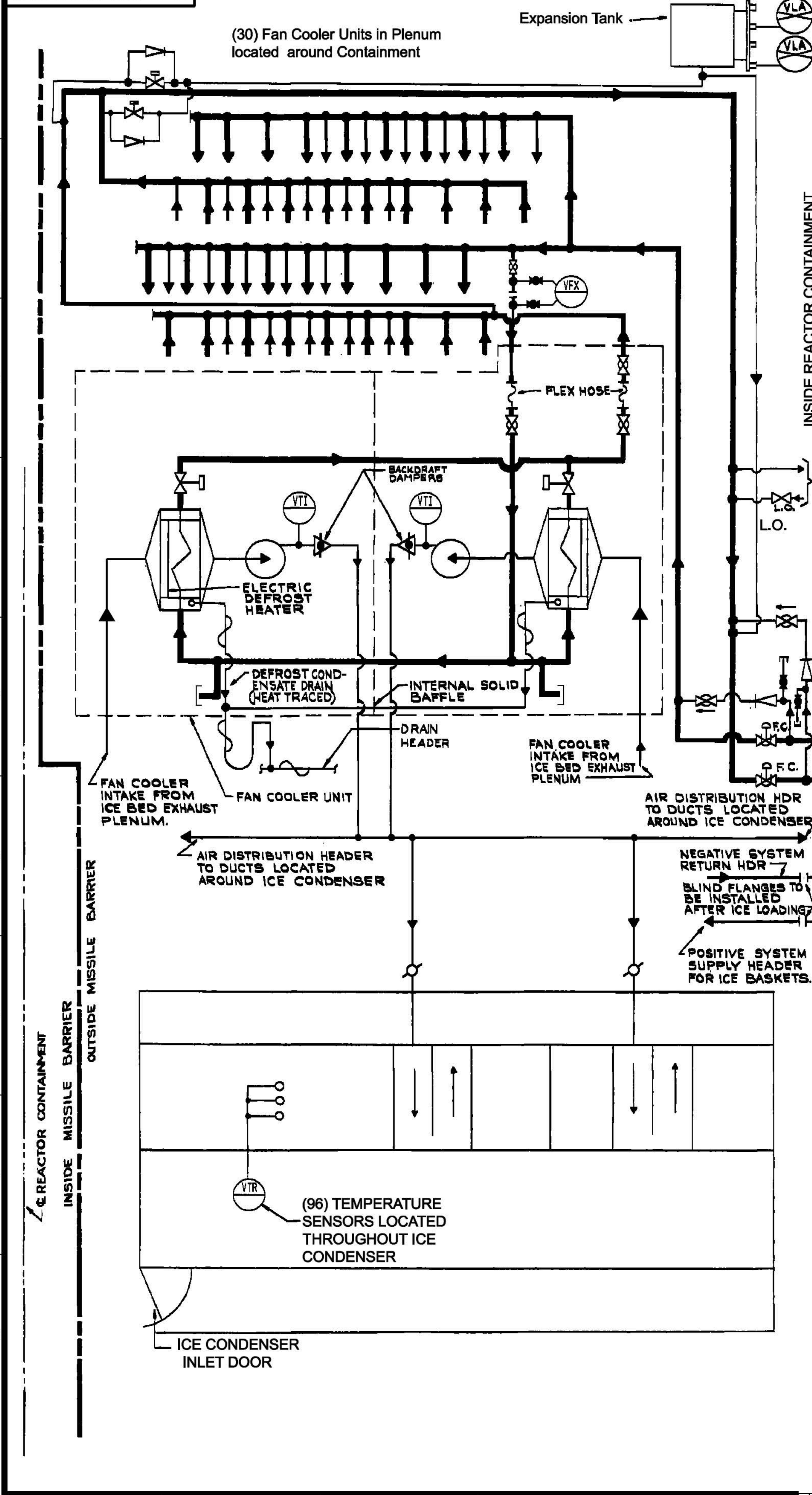
ICE CONDENSER  
REFRIGERATION  
UNITS NO. 1 OR 2  
SHEET 2 OF 2

DWG. NO. FSAR FIG. 5.3.5.12-1A

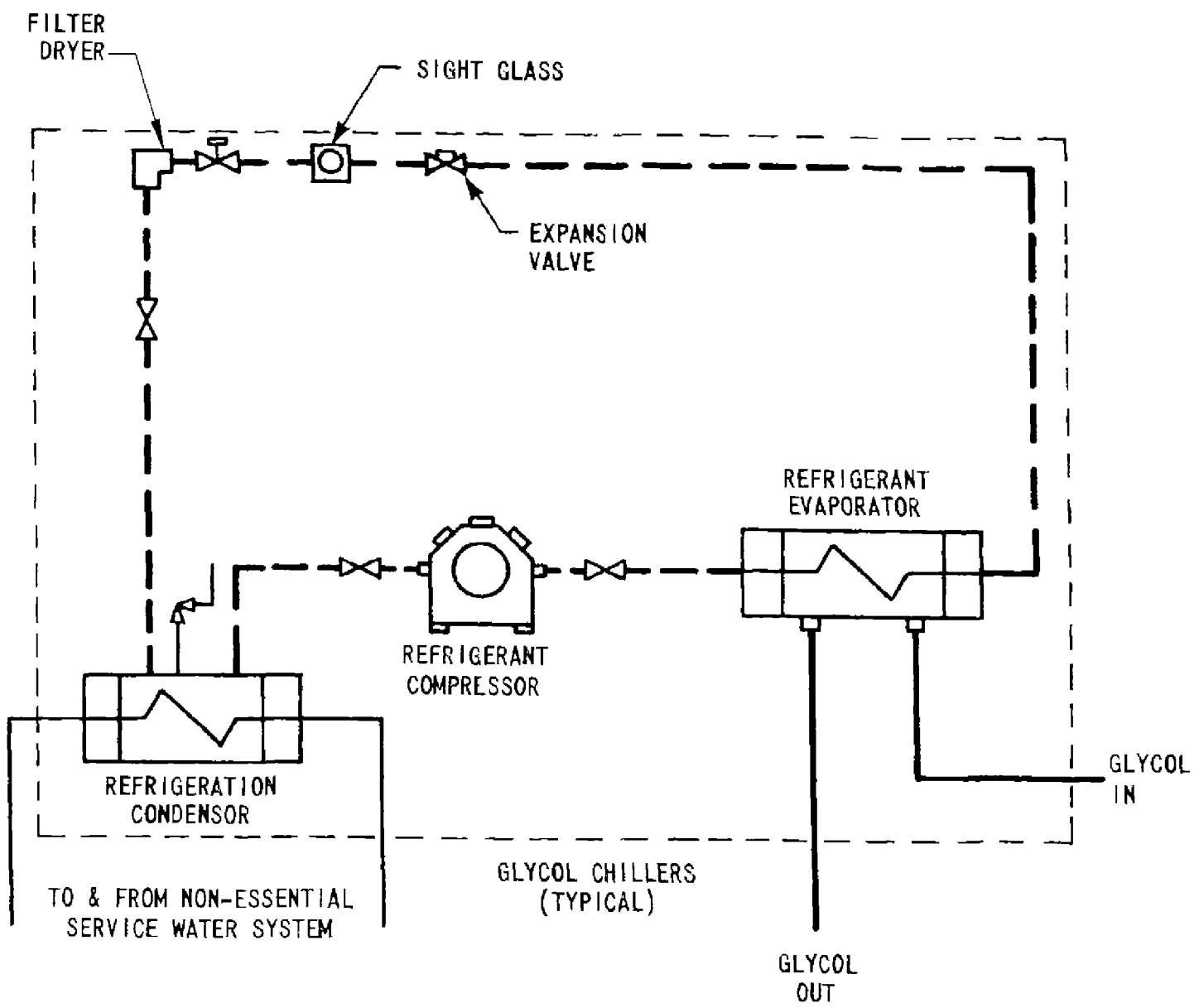
ARCH ELEC MECH STR  
SCALE: DR:  
DATE: CR:

DESIGN ENGINEERING DEVISION

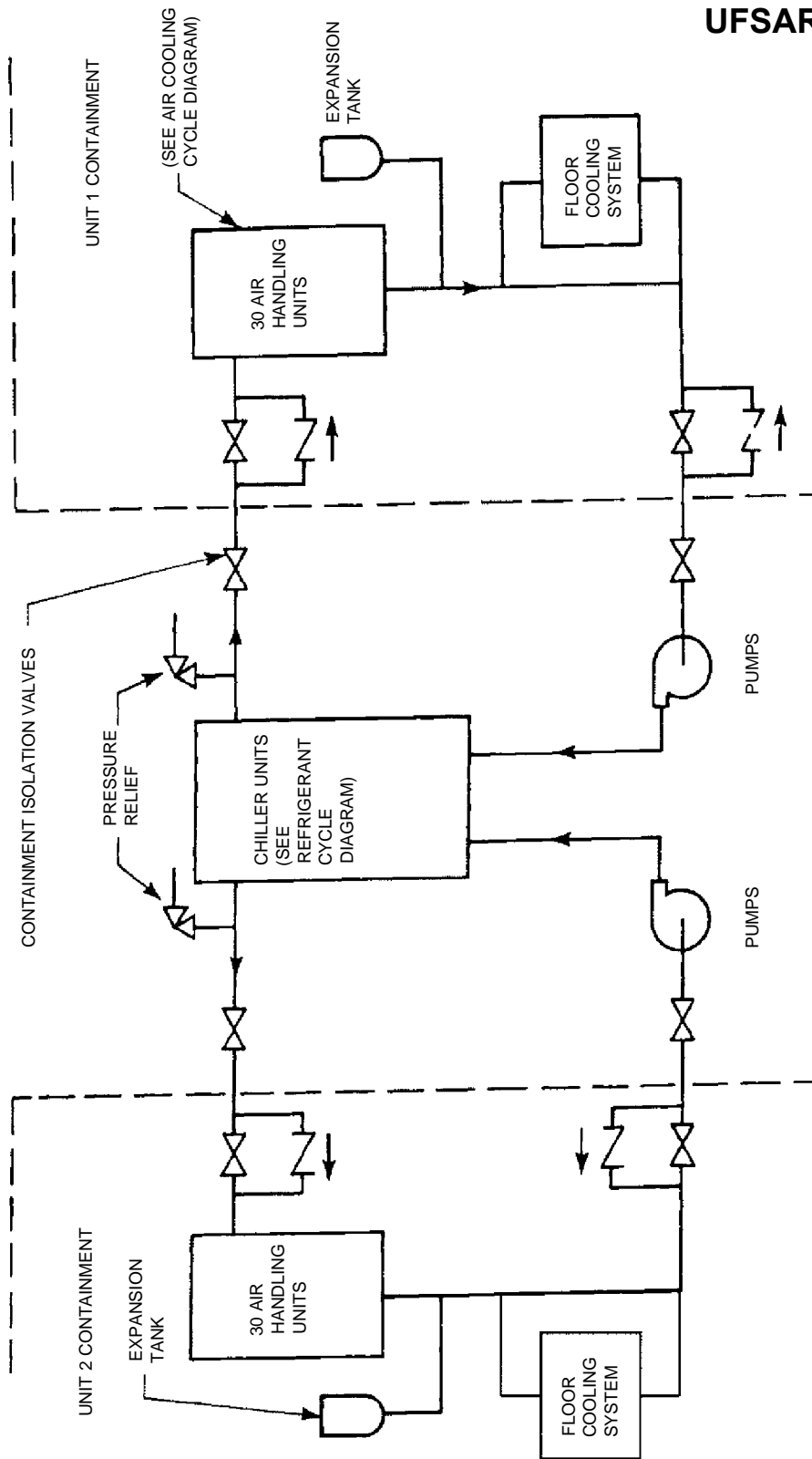
AEP AMERICAN ELECTRIC POWER  
AEP SERVICE CORP.  
RIVERSIDE PLAZA  
COLUMBUS, OH 43215







| 16.3  | REVISED PER 98-UFSAR-115 |
|---|--------------------------|
| REV. NO.  | DESCRIPTION              |
| AMERICAN ELECTRIC POWER<br>COOK NUCLEAR PLANT<br>NUCLEAR GENERATION GROUP<br>BRIDGMAN, MICHIGAN |                          |
| TITLE REFRIGERANT CYCLE DIAGRAM   |                          |
| DWG. NO. FSAR FIG. 5.3.5.12 - 2   |                          |
| SH 1 of 1   |                          |



16.3

REVISED PER 98-UFSAR-115

REV. NO.

DESCRIPTION

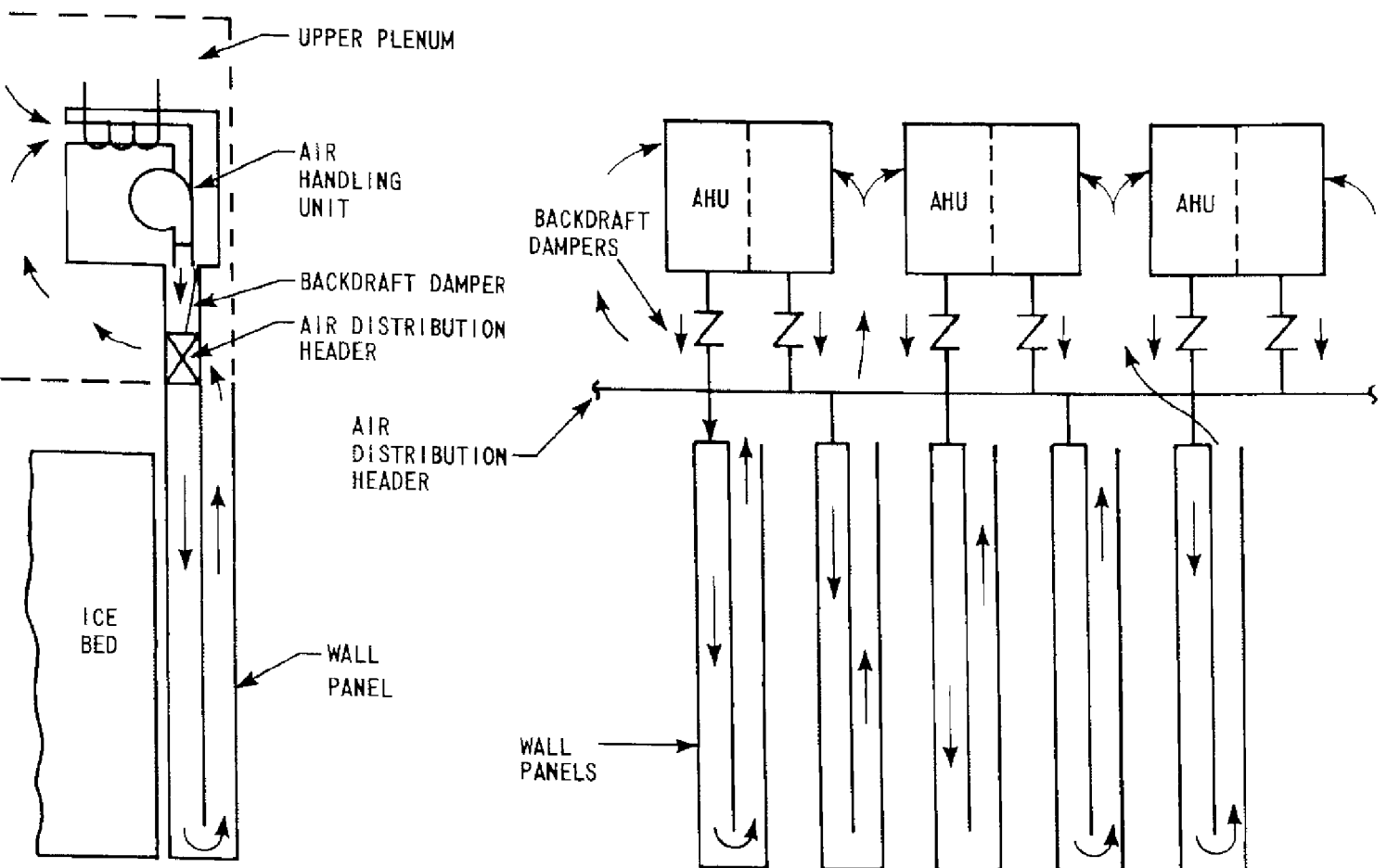
REVISIONS

AMERICAN ELECTRIC POWER  
COOK NUCLEAR PLANT  
NUCLEAR GENERATION GROUP  
BRIDGMAN, MICHIGAN

TITLE **GLYCOL CYCLE TO EACH CONTAINMENT**

DWG. NO. **FSAR FIG. 5.3.5.12-3**

SH 1 of 1



|   |                          |
|---|--------------------------|
| 16.3  | REVISED PER 98-UFSAR-115 |
| REV. NO.  | DESCRIPTION              |
| REVISIONS   |                          |
| AMERICAN ELECTRIC POWER<br>COOK NUCLEAR PLANT<br>NUCLEAR GENERATION GROUP<br>BRIDGMAN, MICHIGAN |                          |
| TITLE<br>SCHEMATIC FLOW DIAGRAM OF AIR<br>COOLING CYCLE   |                          |
| DWG. NO. FSAR FIG. 5.3.5.12 - 4   | SH 1 of 1                |

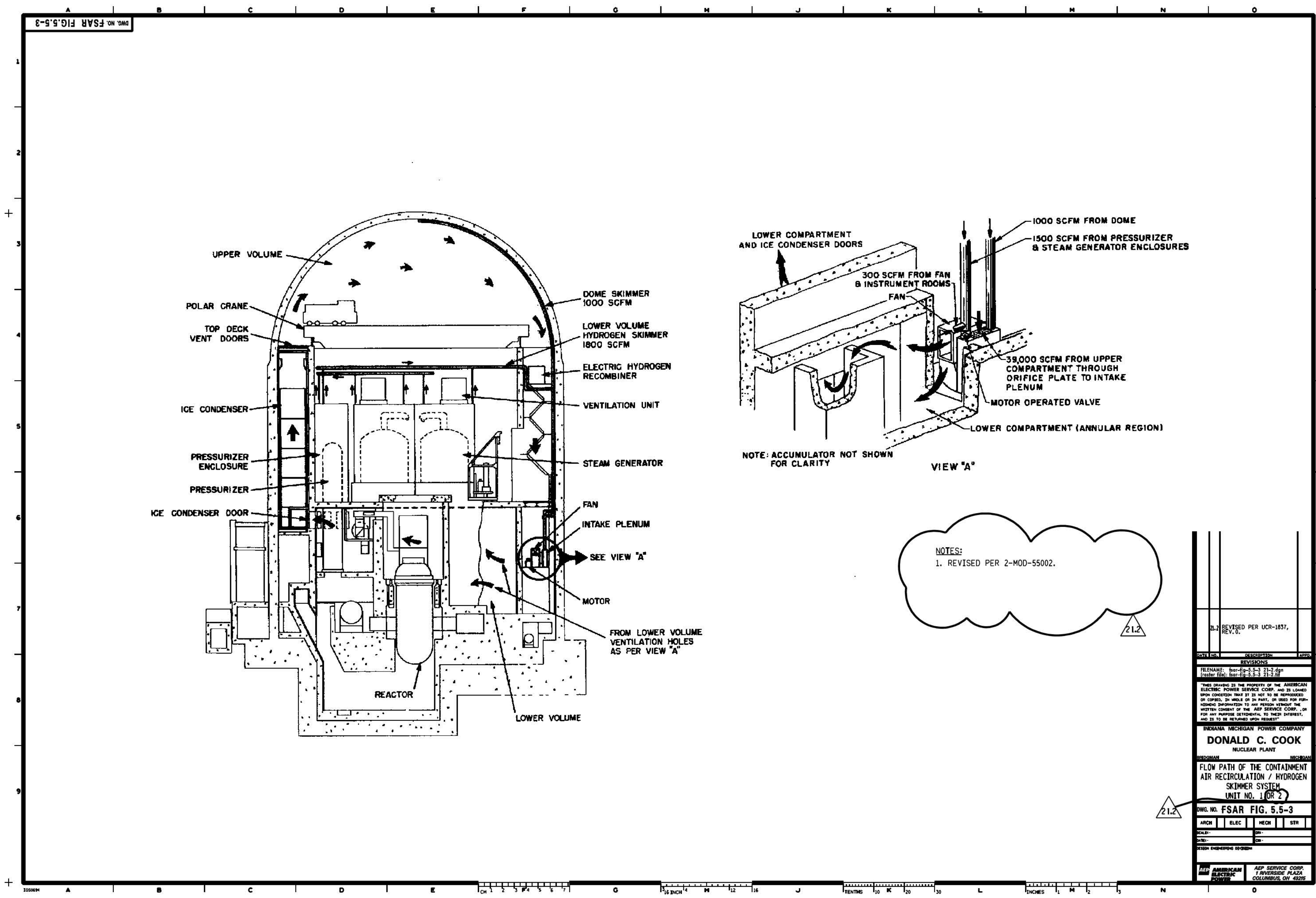












|  |       |  |         |
|--|-------|--|---------|
| DATE   | NO.   | DESCRIPTION  | APPROV. |
| 21.2   |       | REVISED PER UCR-1837, REV. 0.                                |         |
| REVISIONS  |       |  |         |
| FILENAME: fsar-fig-5.5-3 21-2.dgn<br>(raster file: fsar-fig-5.5-3 21-2.tif)  |       |  |         |
| THIS DRAWING IS THE PROPERTY OF THE AMERICAN ELECTRIC POWER SERVICE CORP. AND IS LOANED TO YOU ON CONDITION THAT IT IS NOT TO BE REPRODUCED OR COPIED, IN WHOLE OR IN PART, OR USED FOR FURNISHING INFORMATION TO ANY PERSON WITHOUT THE WRITTEN CONSENT OF THE AEP SERVICE CORP., OR FOR ANY PURPOSE DETRIMENTAL TO THEIR INTEREST, AND IS TO BE RETURNED UPON REQUEST. |       |  |         |
| INDIANA MICHIGAN POWER COMPANY<br>NUCLEAR PLANT  |       |  |         |
| DONALD C. COOK<br>DESIGNER   |       |  |         |
| FLOW PATH OF THE CONTAINMENT AIR RECIRCULATION / HYDROGEN SKIMMER SYSTEM<br>UNIT NO. 1 OR 2  |       |  |         |
| DWG. NO. FSAR FIG. 5.5-3   |       |  |         |
| ARCH   | ELEC  | MECH   | STR     |
| SCALE:   | DATE: | DATE:  | DATE:   |
| DESIGN ENGINEERING DIVISION  |       |  |         |
| AEP AMERICAN ELECTRIC POWER  |       | AEP SERVICE CORP.<br>1 RIVERSIDE PLAZA<br>COLUMBUS, OH 43215 |         |







# UFSAR REVISION 30.0

990X NUCLEAR PLANT

COMPUTED STRAINS

TESRUN 21 - COMB. 10E11, E22 (STRAIN)

STRAIN DIAGRAM DUE TO TESTING PRESSURE

1.34P (16.1PSI) MERIDIAN DIRECTION-SEE HOOP DIRECTION

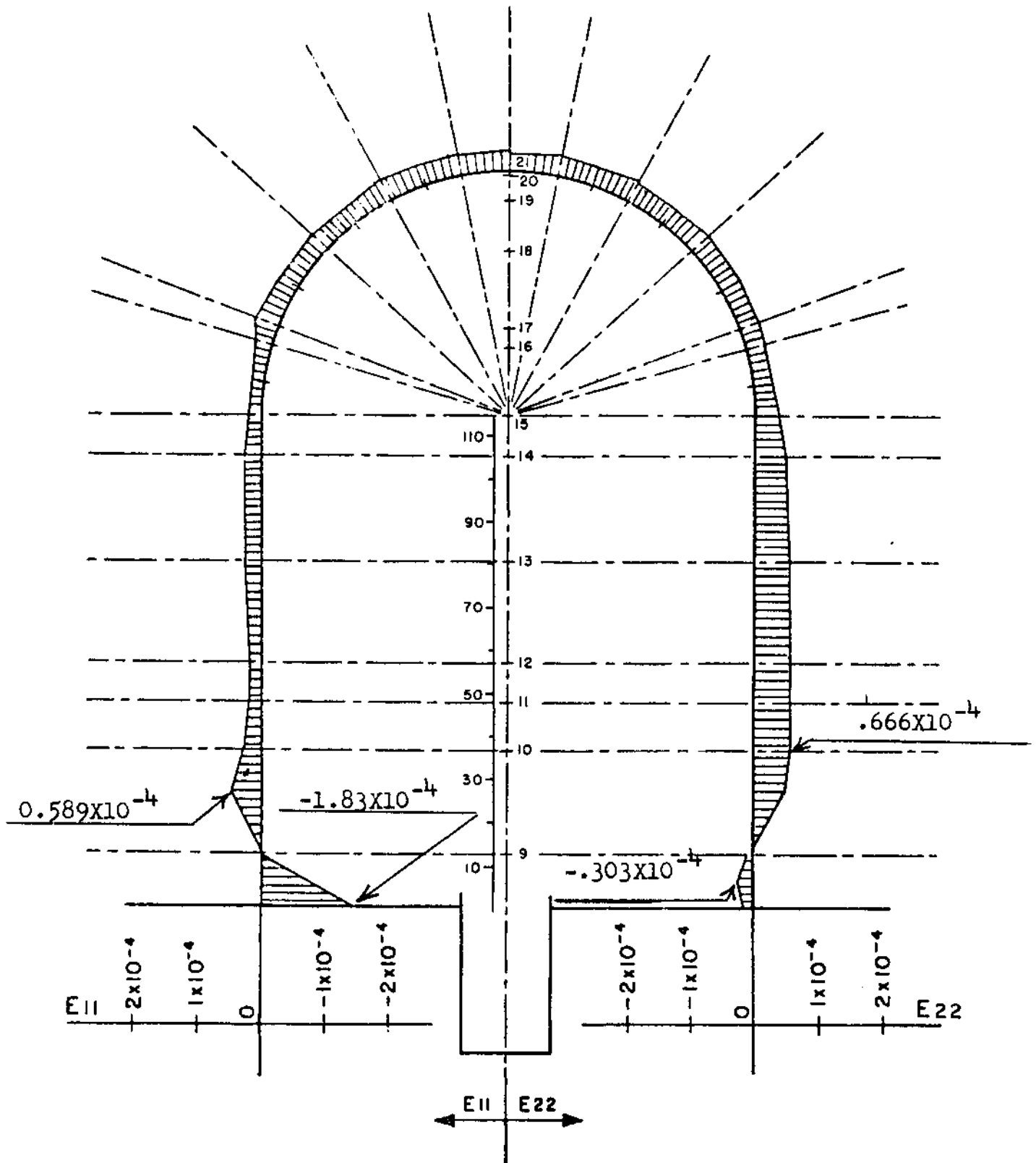


FIG. 5.7-1

July, 1982

# UFSAR REVISION 30.0

## COOK NUCLEAR PLANT COMPUTED DISPLACEMENT

TESRUN 21 \_COMB.10 -(W & U)  
DEFORMATION DIAGRAMS DUE TO TESTING PRESSURE  
1.34P (16.1 PSI)  
W HORIZONTAL DEFORMATION-U VERTICAL DEFORMATION  
.065/in.

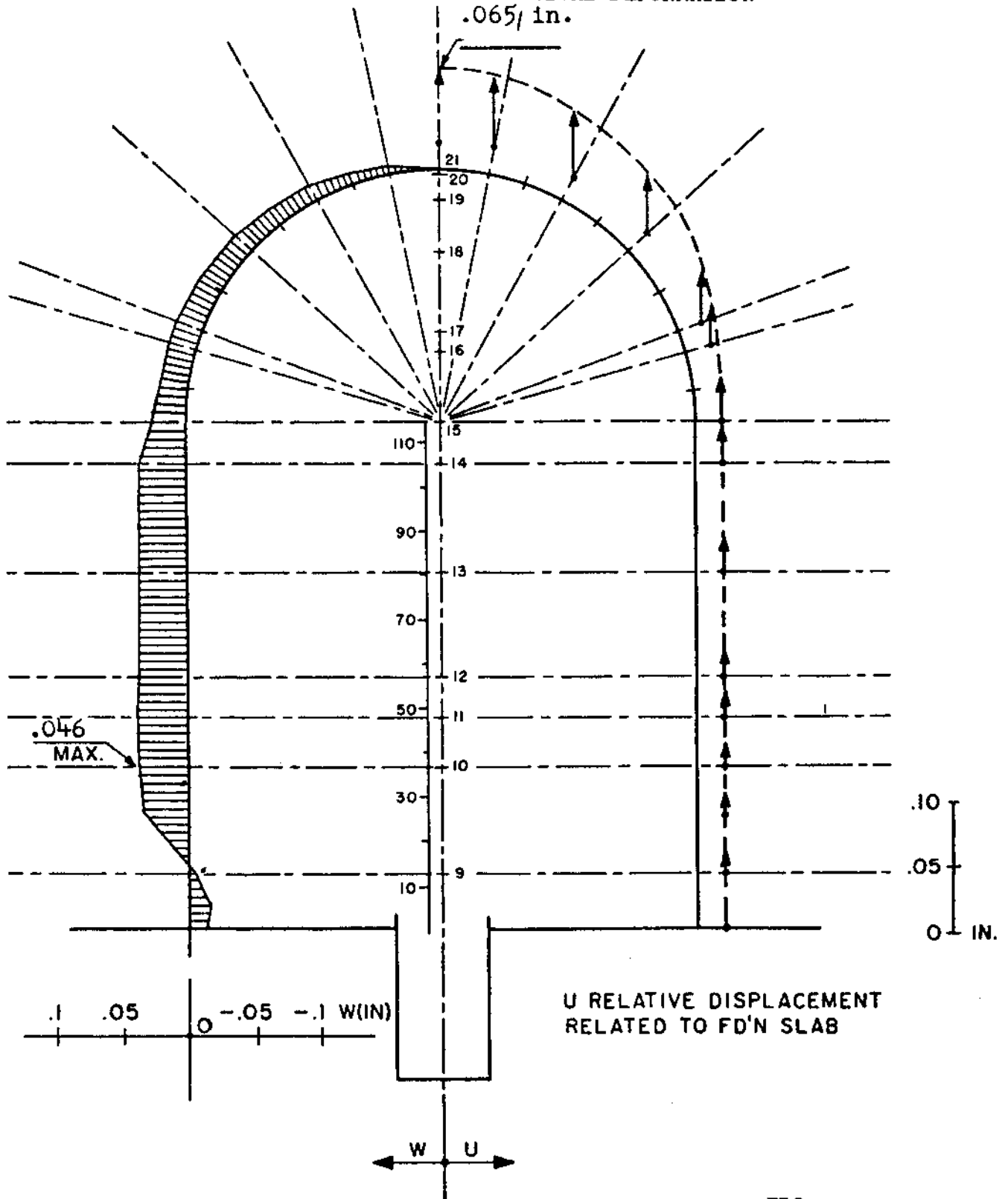
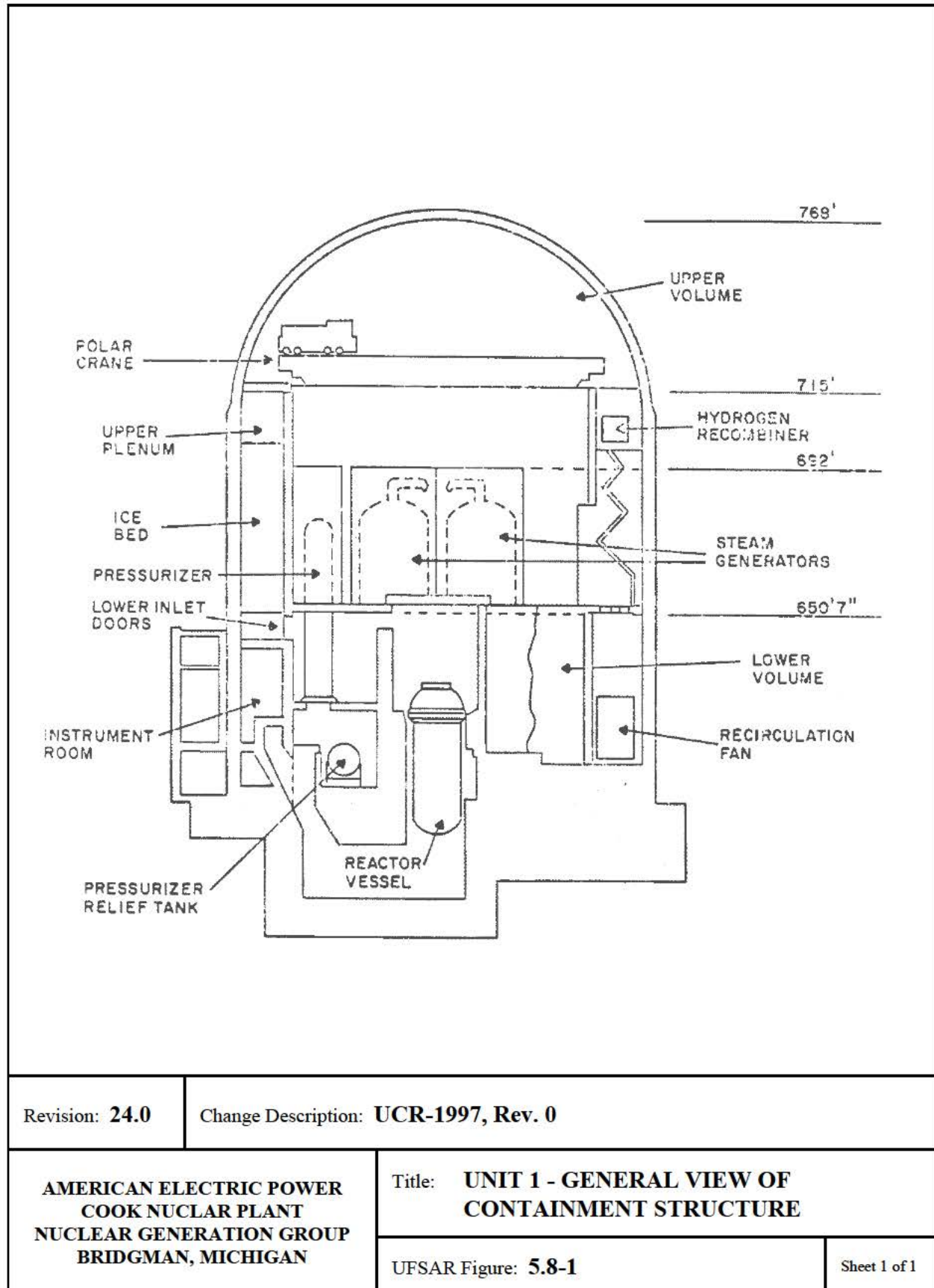


FIG. 5.7-2

July, 1982

# UFSAR REVISION 30.0



Revision: **24.0**

Change Description: **UCR-1997, Rev. 0**

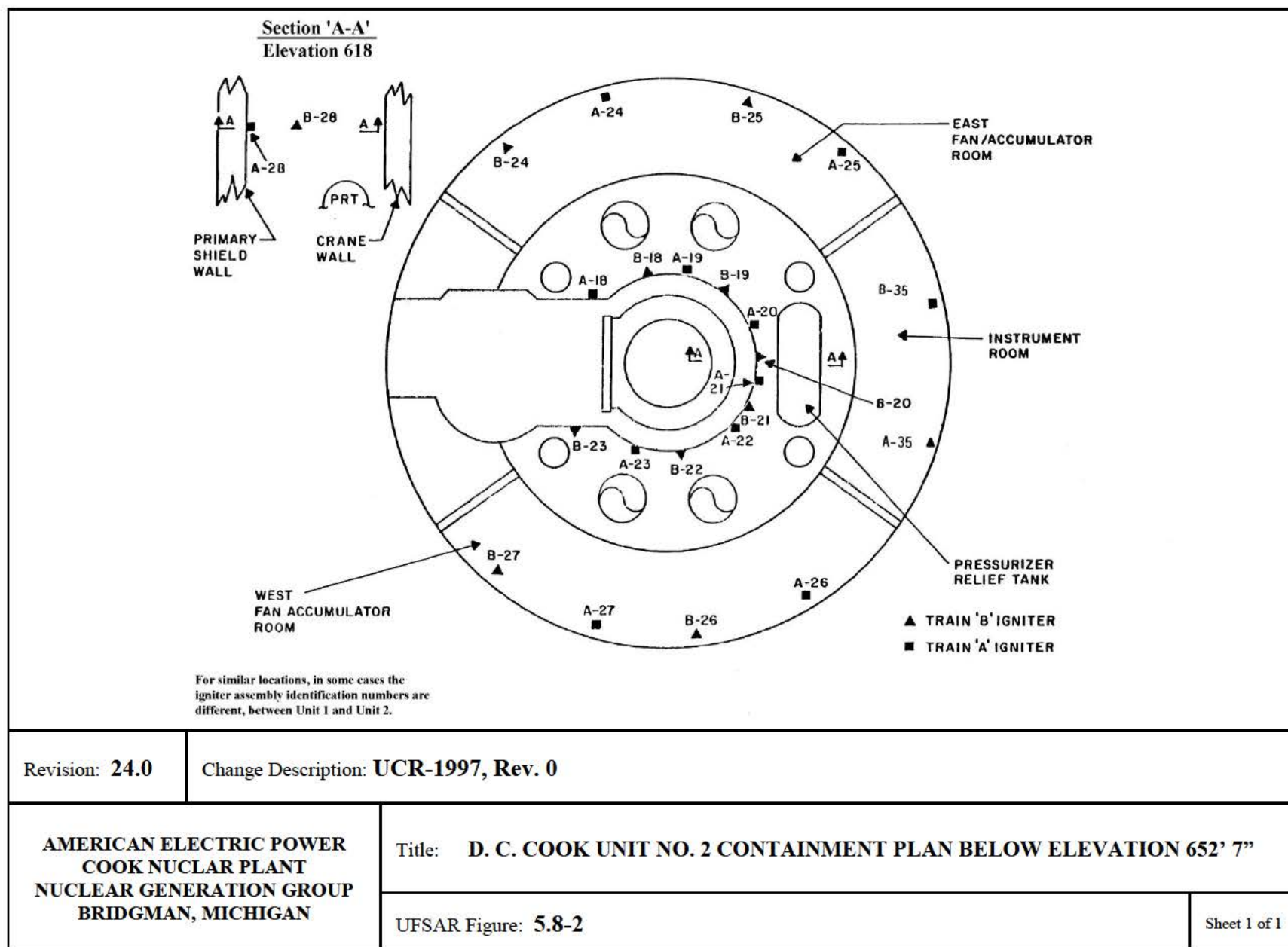
**AMERICAN ELECTRIC POWER  
COOK NUCLEAR PLANT  
NUCLEAR GENERATION GROUP  
BRIDGMAN, MICHIGAN**

Title: **UNIT 1 - GENERAL VIEW OF  
CONTAINMENT STRUCTURE**

UFSAR Figure: **5.8-1**

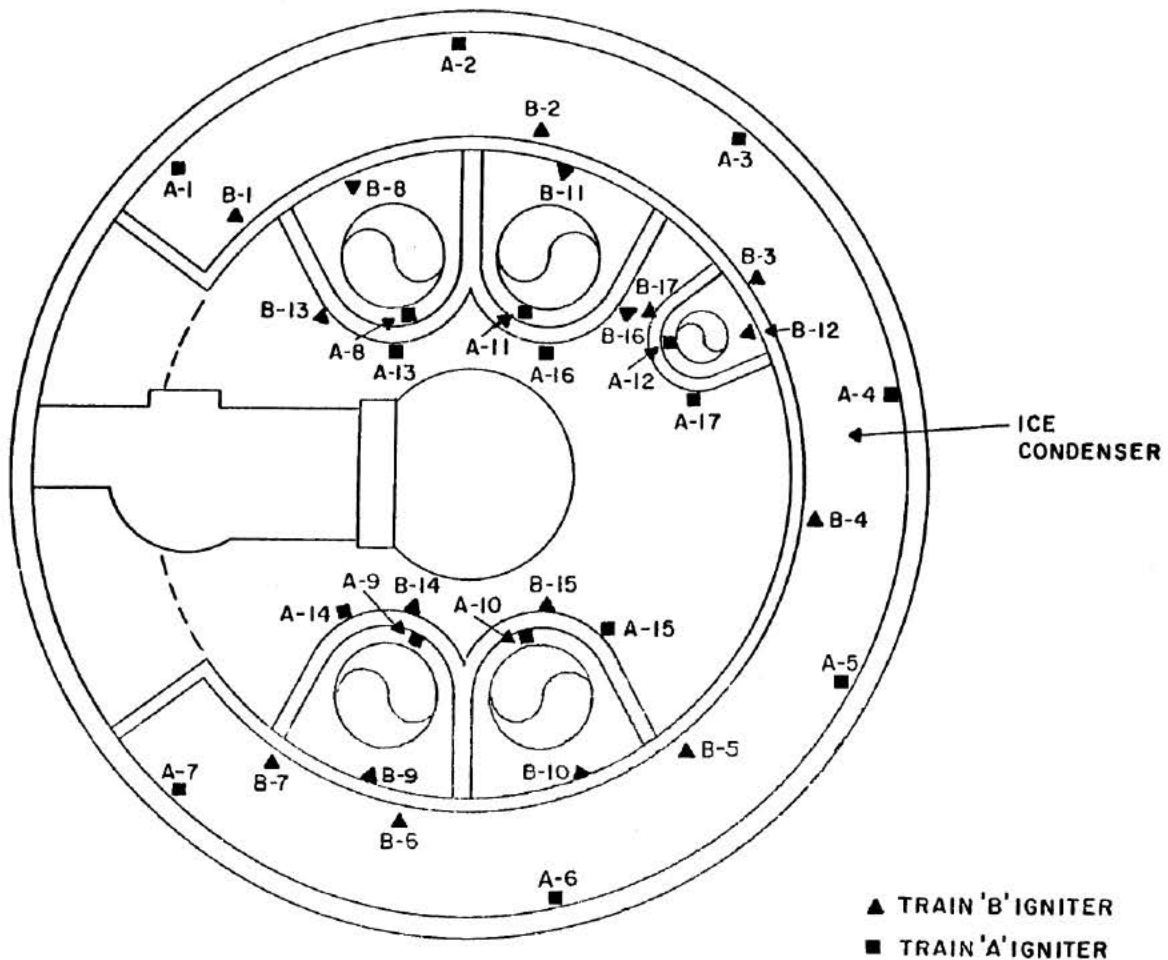
Sheet 1 of 1

# UFSAR REVISION 30.0





# UFSAR REVISION 30.0



For similar locations, in some cases the igniter assembly identification numbers are different, between Unit 1 and Unit 2.

Revision: **24.0**

Change Description: **UCR-1997, Rev. 0**

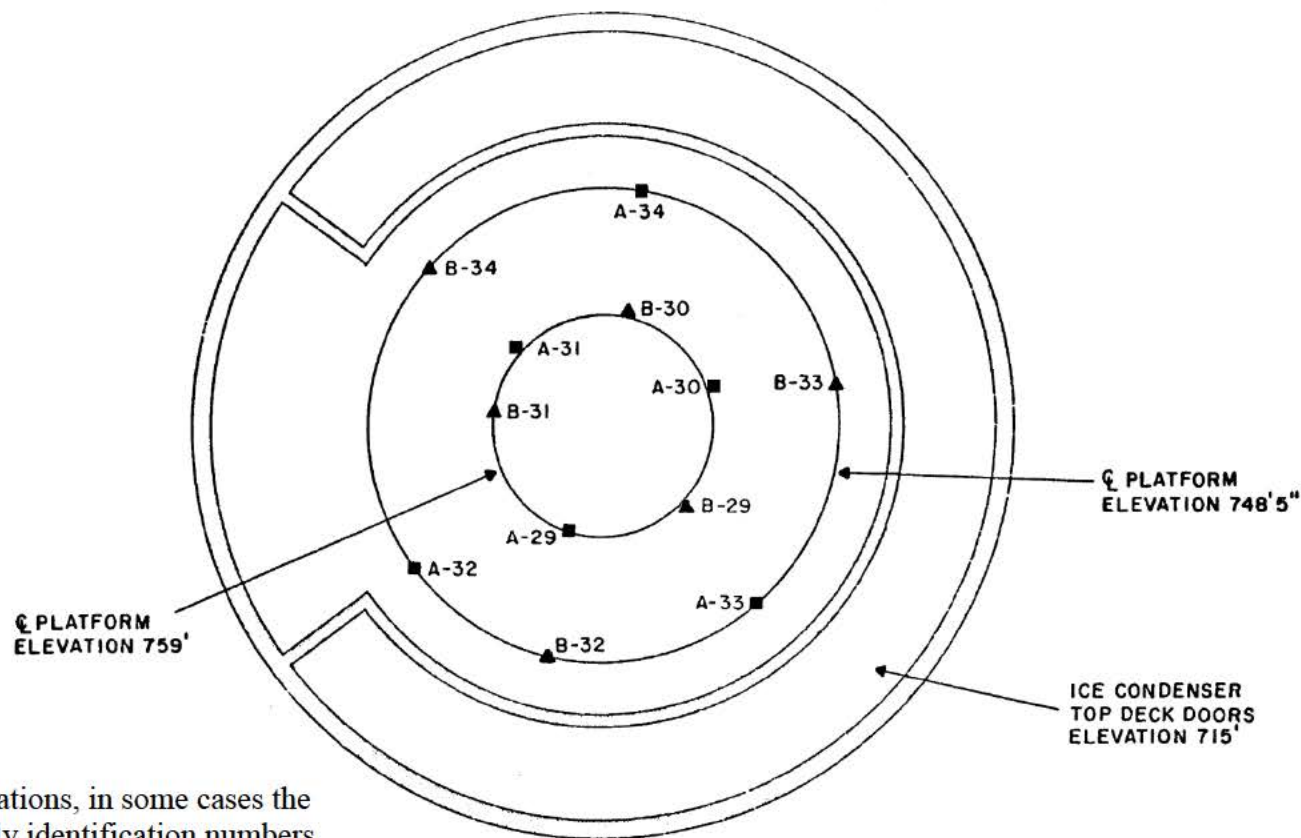
**AMERICAN ELECTRIC POWER  
COOK NUCLEAR PLANT  
NUCLEAR GENERATION GROUP  
BRIDGMAN, MICHIGAN**

Title: **D. C. COOK UNIT NO.2  
CONTAINMENT PLAN ABOVE  
ELEVATION 652' 7"**

UFSAR Figure: **5.8-3**

Sheet 1 of 1

# UFSAR REVISION 30.0



For similar locations, in some cases the igniter assembly identification numbers are different, between Unit 1 and Unit 2.

Revision: 24.0

Change Description: UCR-1997, Rev. 0

AMERICAN ELECTRIC POWER  
COOK NUCLEAR PLANT  
NUCLEAR GENERATION GROUP  
BRIDGMAN, MICHIGAN

Title: D. C. COOK UNIT NO. 2 CONTAINMENT PLAN ABOVE ELEVATION 715'

UFSAR Figure: 5.8-4

Sheet 1 of 1