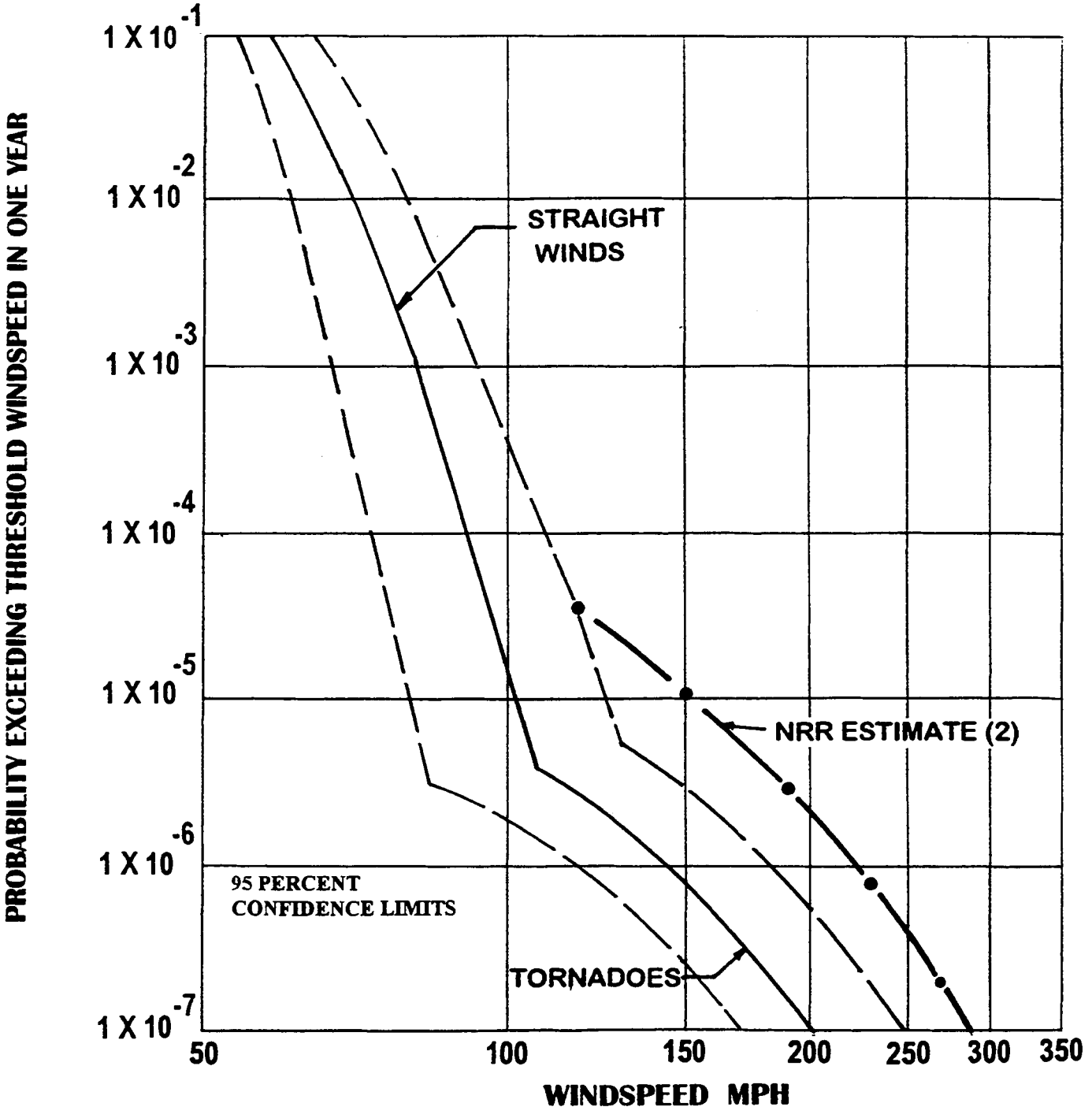
Figures 3.2.1 through 3.2-14

Deleted

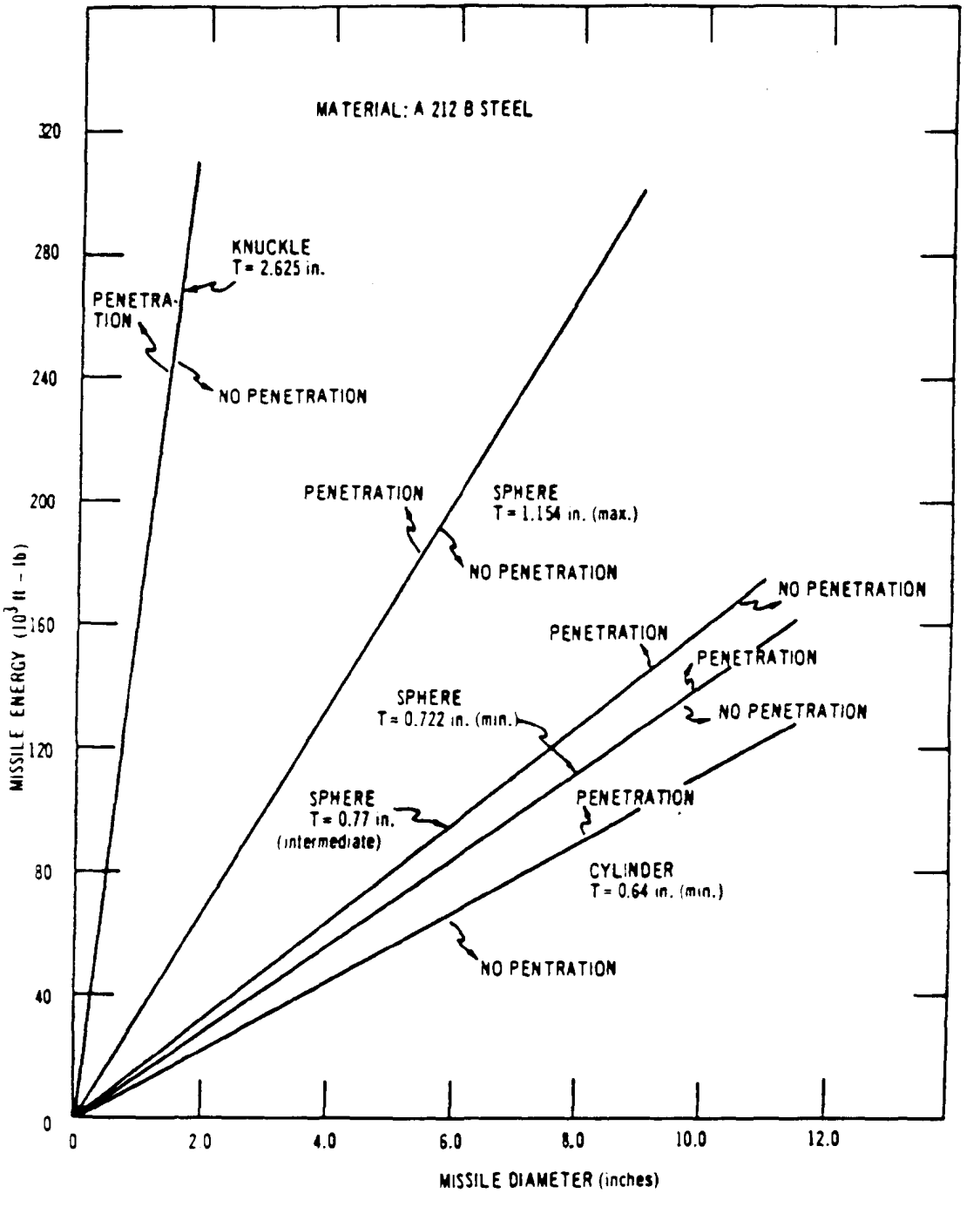
FIGURE 3.3-1



TORNADO AND STRAIGHT WIND HAZARD PROBABILITY MODEL FOR OYSTER CREEK POWER REACTOR SITE, NEW JERSEY (1)

(1) This figure is obtained from the study described in Appendix 2.3a

(2) This curve represents the results of a review of wind speed probabilities conducted by the USNRC.

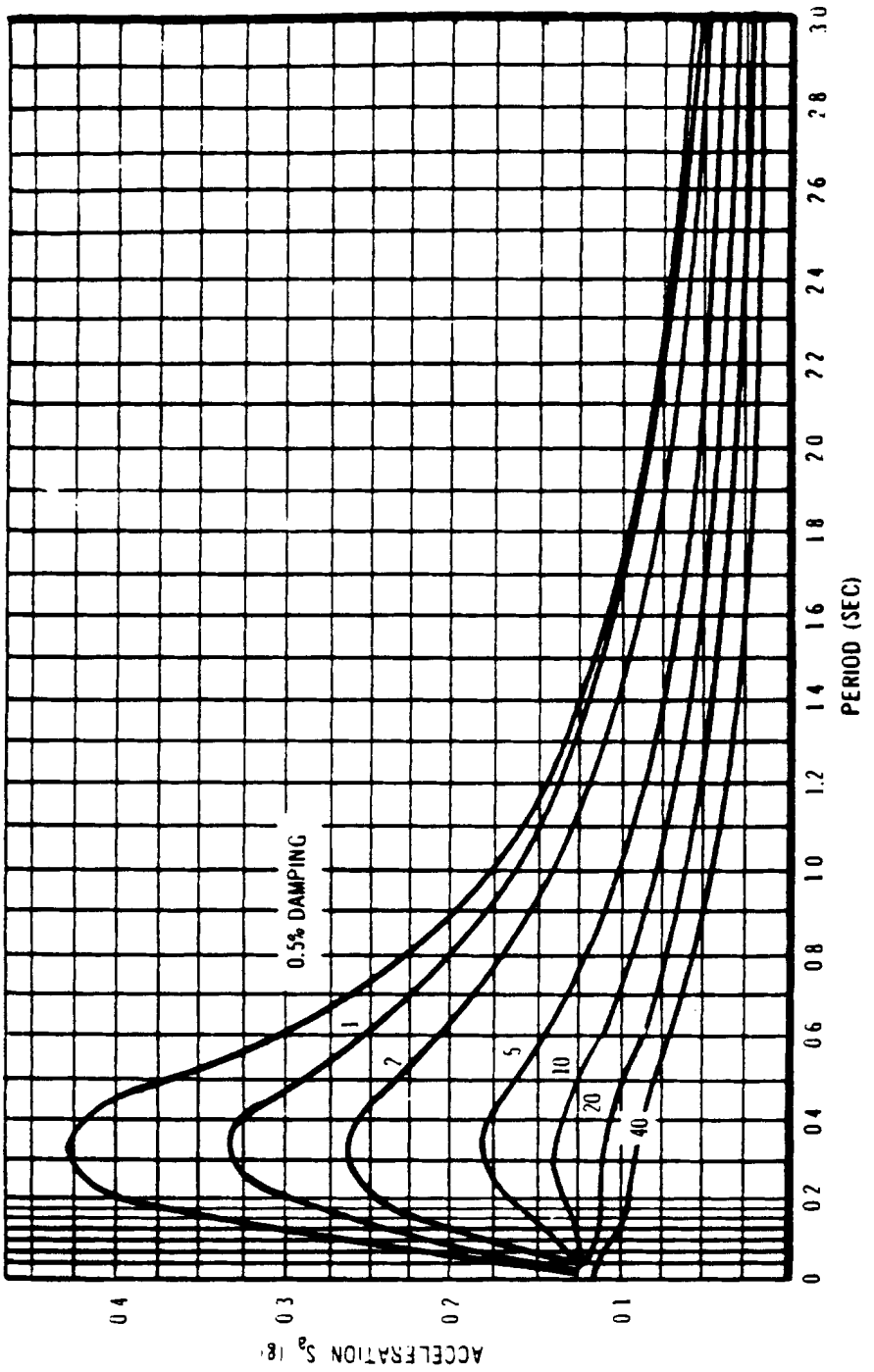


GPU Nuclear | Update - 5

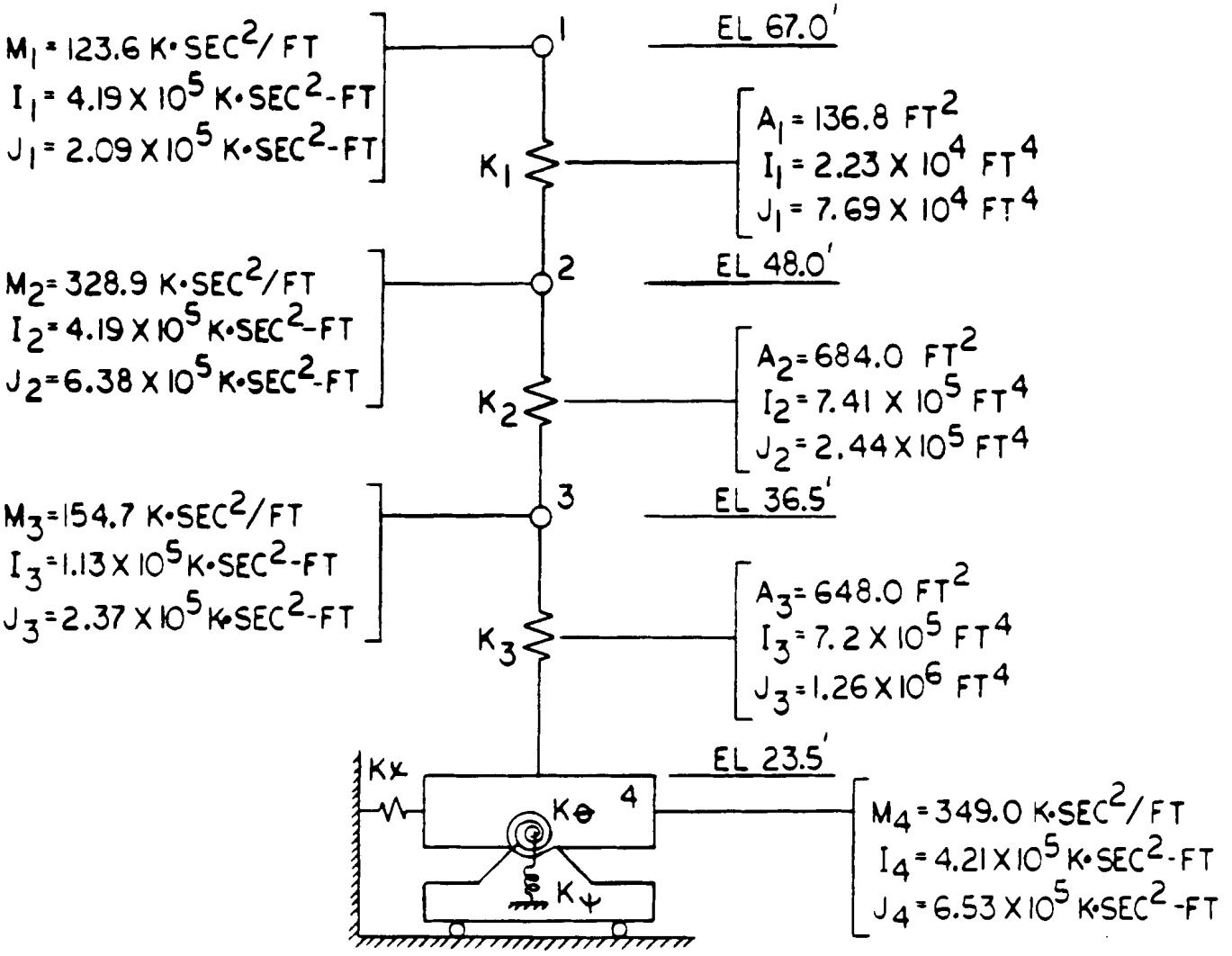
Oyster Creek | 12/90

Energy Necessary to Penetrate Drywell Containment

Fig. 3.5-1



GPU Nuclear	Update - 5
Oyster Creek	12/90
Earthquake Acceleration Response Spectrum	
	Fig. 3.7-1



E	K_x (TRANSLATION)	K_θ (ROTATION)	K_ψ (TORSION)
34 KSI	4.54×10^5 K/FT	1.31×10^9 K·FT/RAD	1.71×10^9 K·FT/RAD
49 KSI	6.48×10^5 K/FT	1.37×10^9 K·FT/RAD	2.44×10^9 K·FT/RAD
64 KSI	8.43×10^5 K/FT	2.43×10^9 K·FT/RAD	3.18×10^9 K·FT/RAD

GPU Nuclear

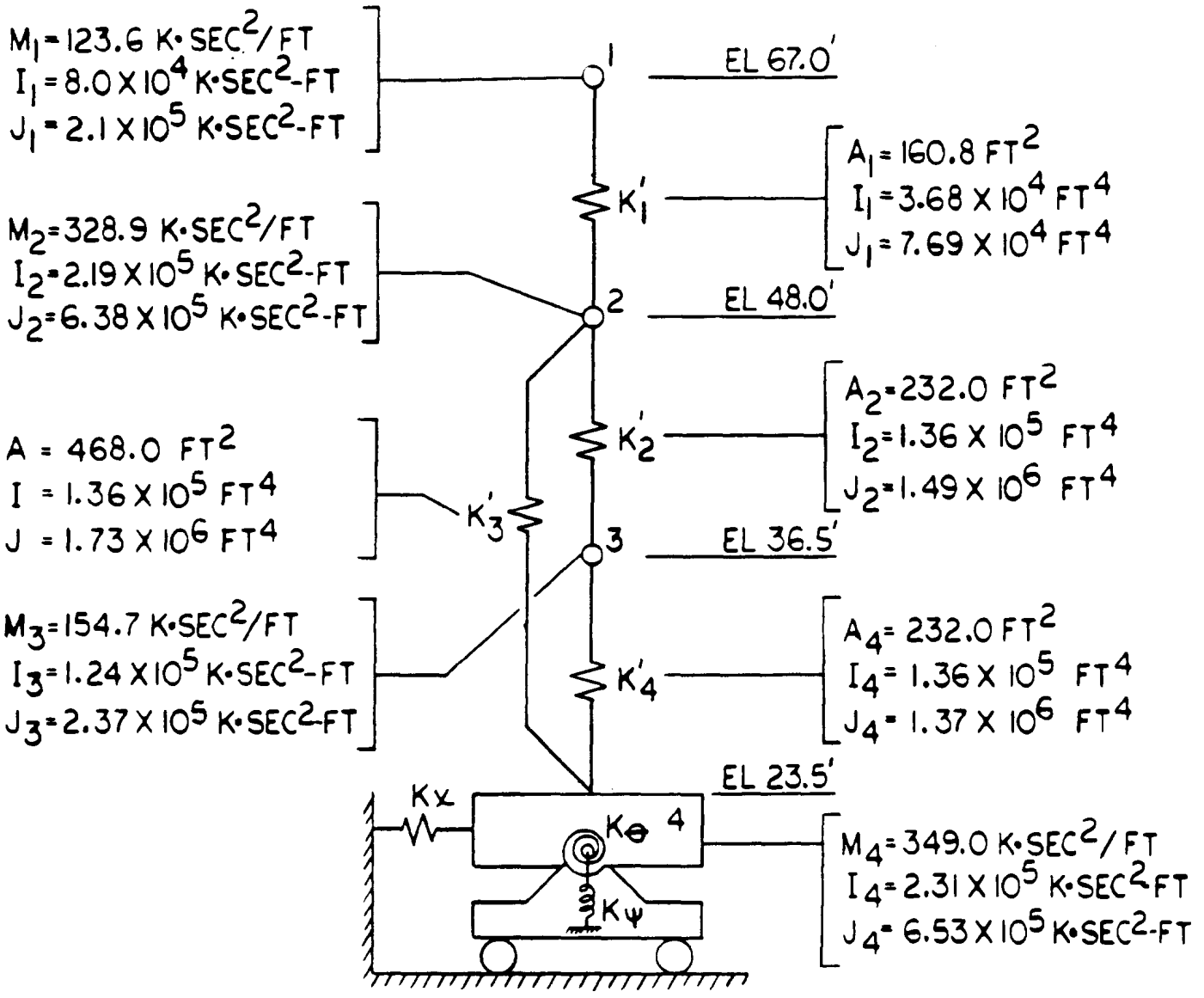
Update - 5

Oyster Creek

12/90

Radwaste Building East — West Horizontal Seismic Model

Fig. 3.7-2



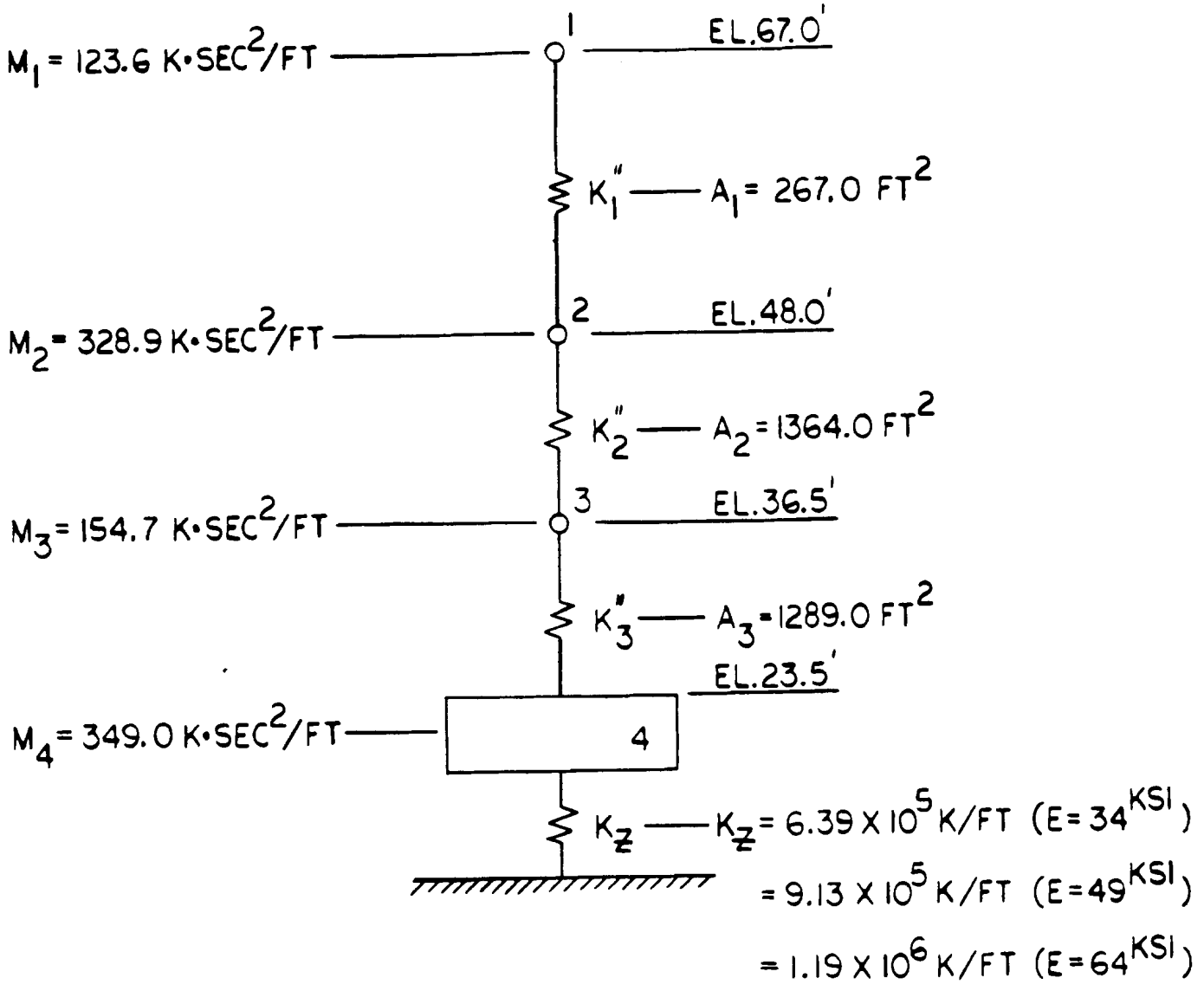
E	Kx (TRANSLATION)	Kθ (ROTATION)	Kψ (TORSION)
34 KSI	4.78 X 10⁵ K/FT	7.65 X 10⁹ K·FT/RAD	1.71 X 10⁹ K·FT/RAD
49 KSI	6.83 X 10⁵ K/FT	1.09 X 10⁹ K·FT/RAD	2.44 X 10⁹ K·FT/RAD
64 KSI	8.88 X 10⁵ K/FT	1.42 X 10⁹ K·FT/RAD	3.18 X 10⁹ K·FT/RAD

GPU Nuclear — Update - 5

Oyster Creek — 12/90

Radwaste Building North — South Horizontal Seismic Model

Fig. 3.7-3

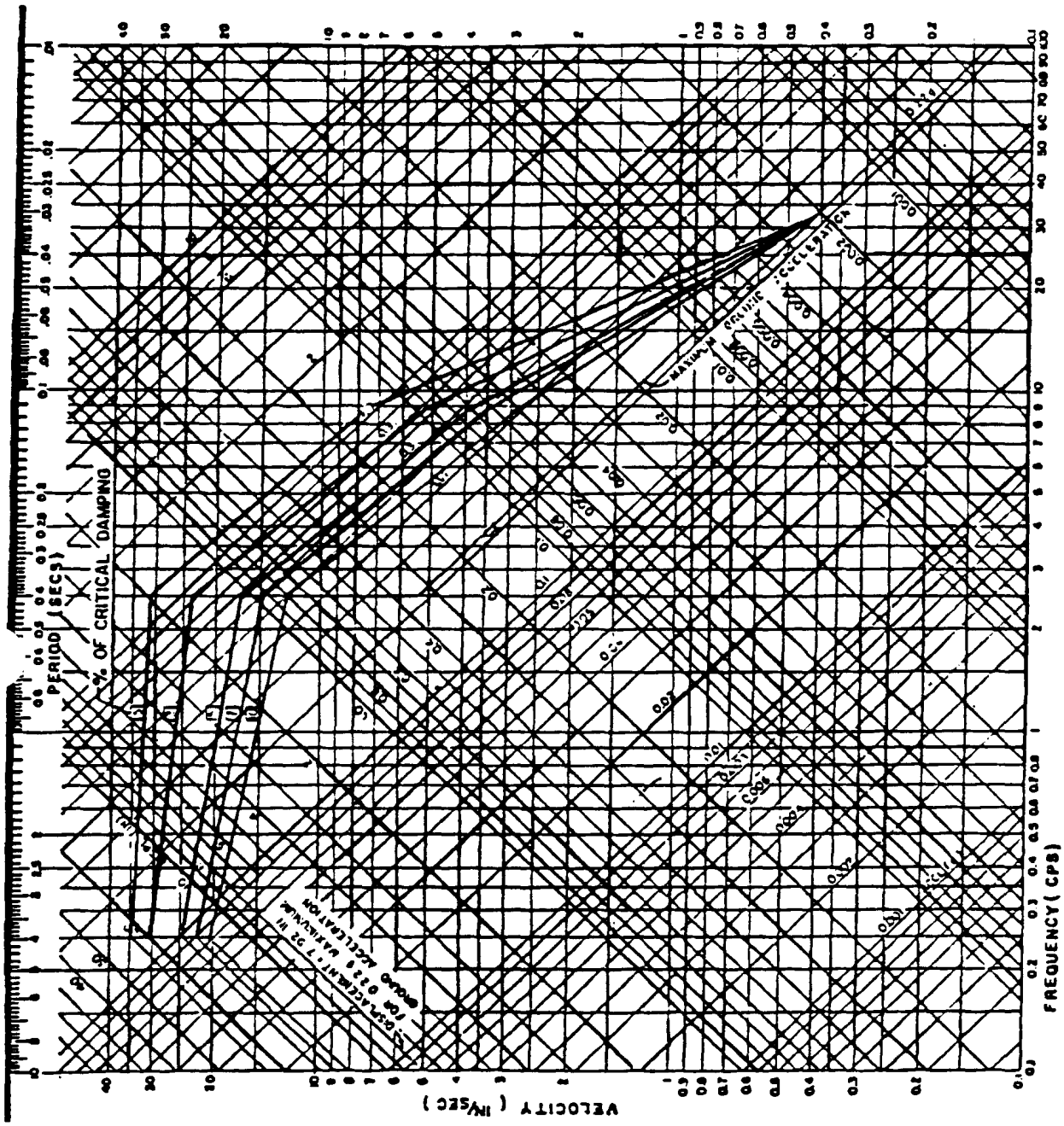


GPU Nuclear — Update - 5

Oyster Creek — 12/90

Radwaste Building Vertical Seismic Model

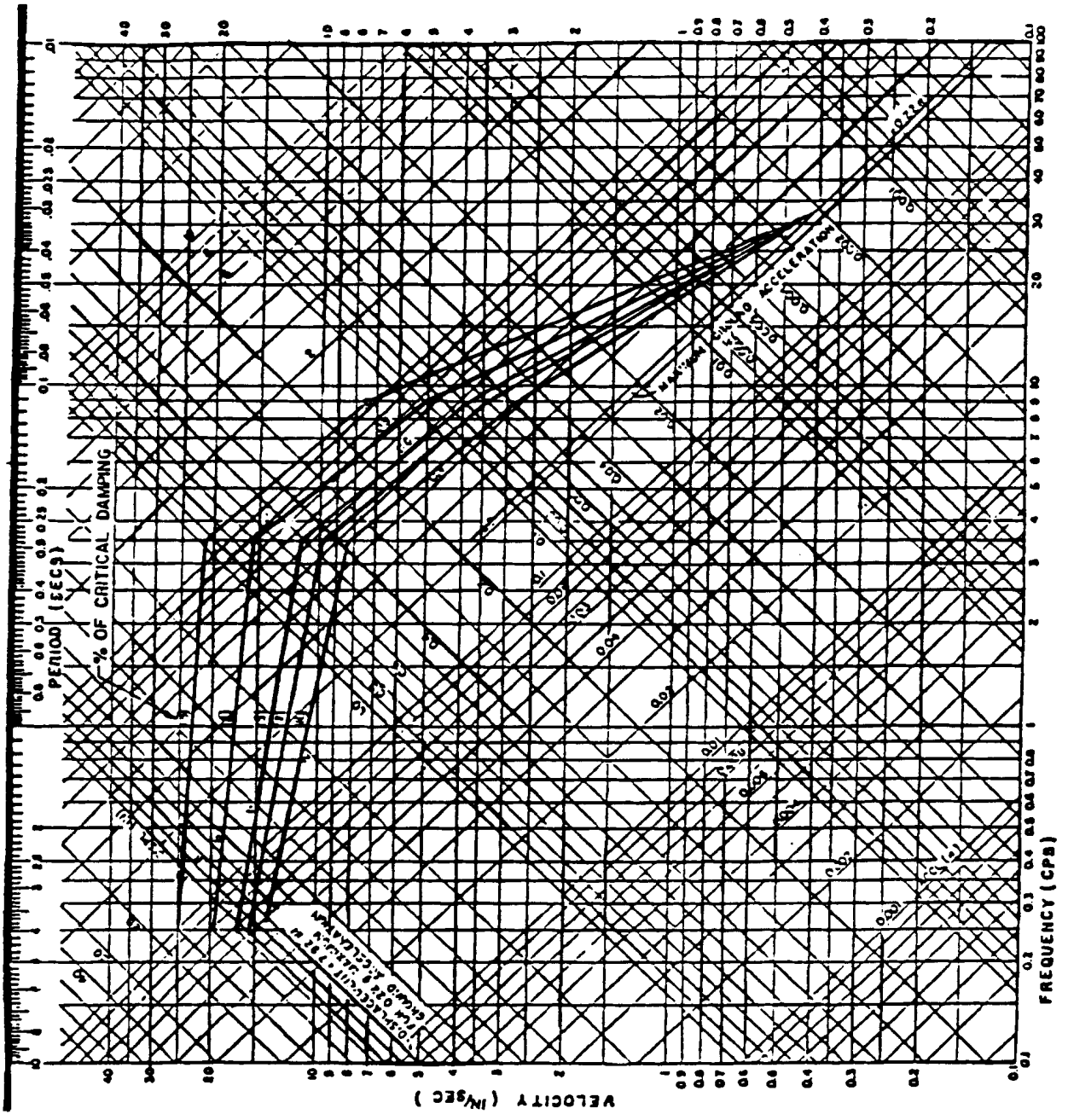
Fig. 3.7-4



GPU Nuclear	Update - 5
Oyster Creek	12/90

Response Spectra — Safe Shutdown Earthquake (Horizontal)

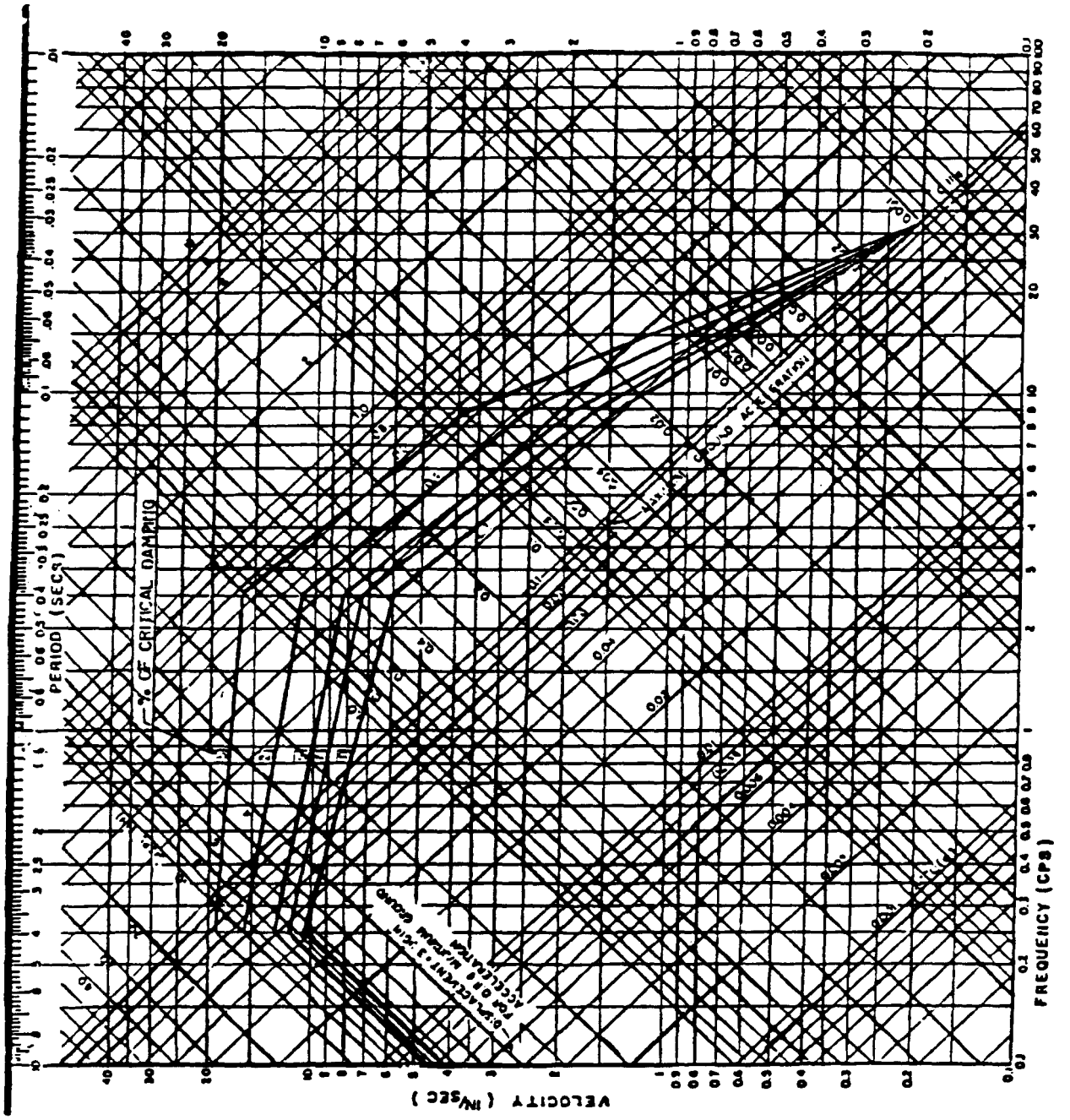
Fig. 3.7-5



GPU Nuclear	Update - 5
Oyster Creek	12/90

Response Spectra — Safe Shutdown Earthquake (Vertical)

Fig. 3.7-6

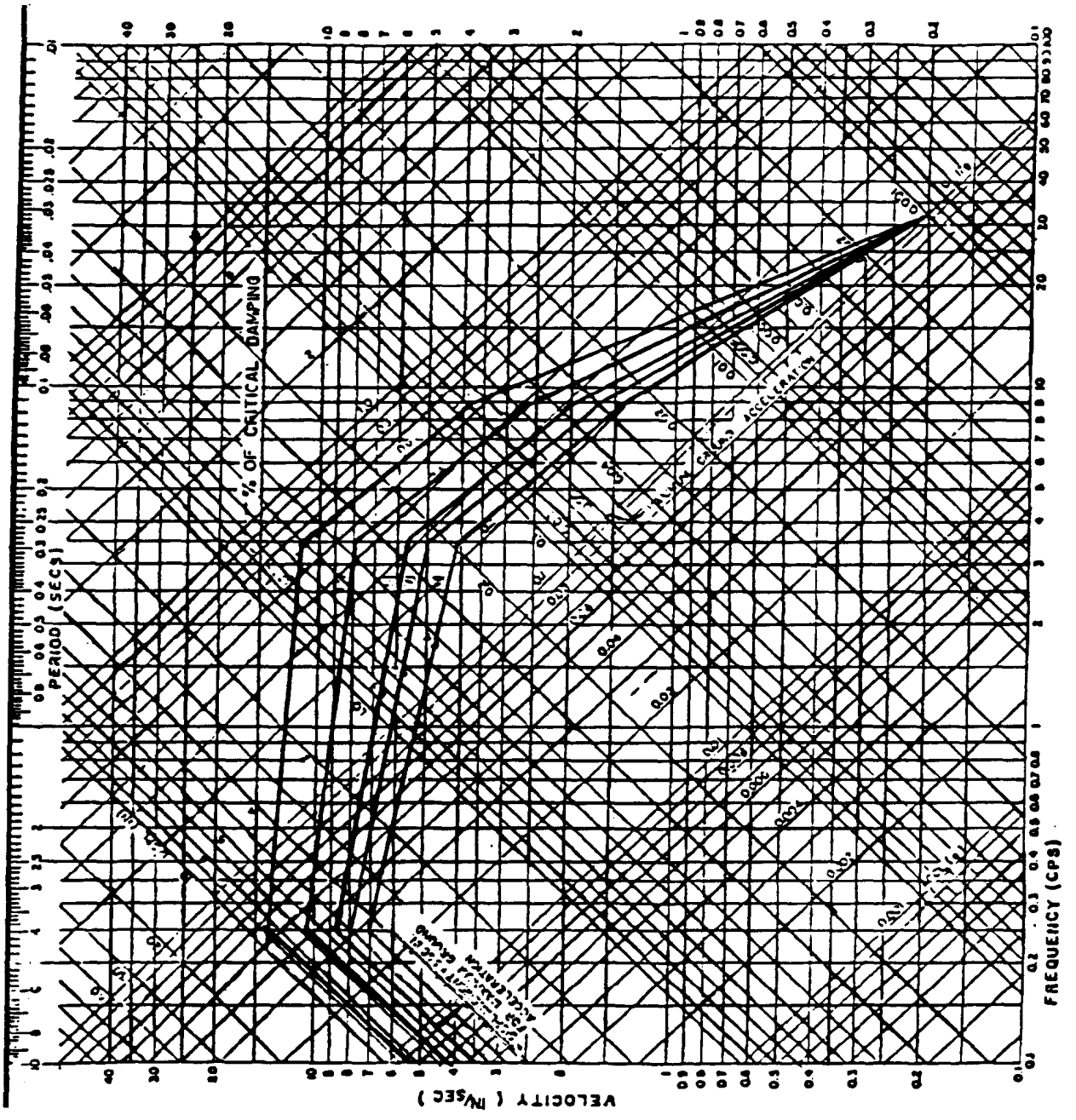


GPU Nuclear | Update - 5

Oyster Creek | 12/90

Response Spectra — Operating Basis Earthquake (Horizontal)

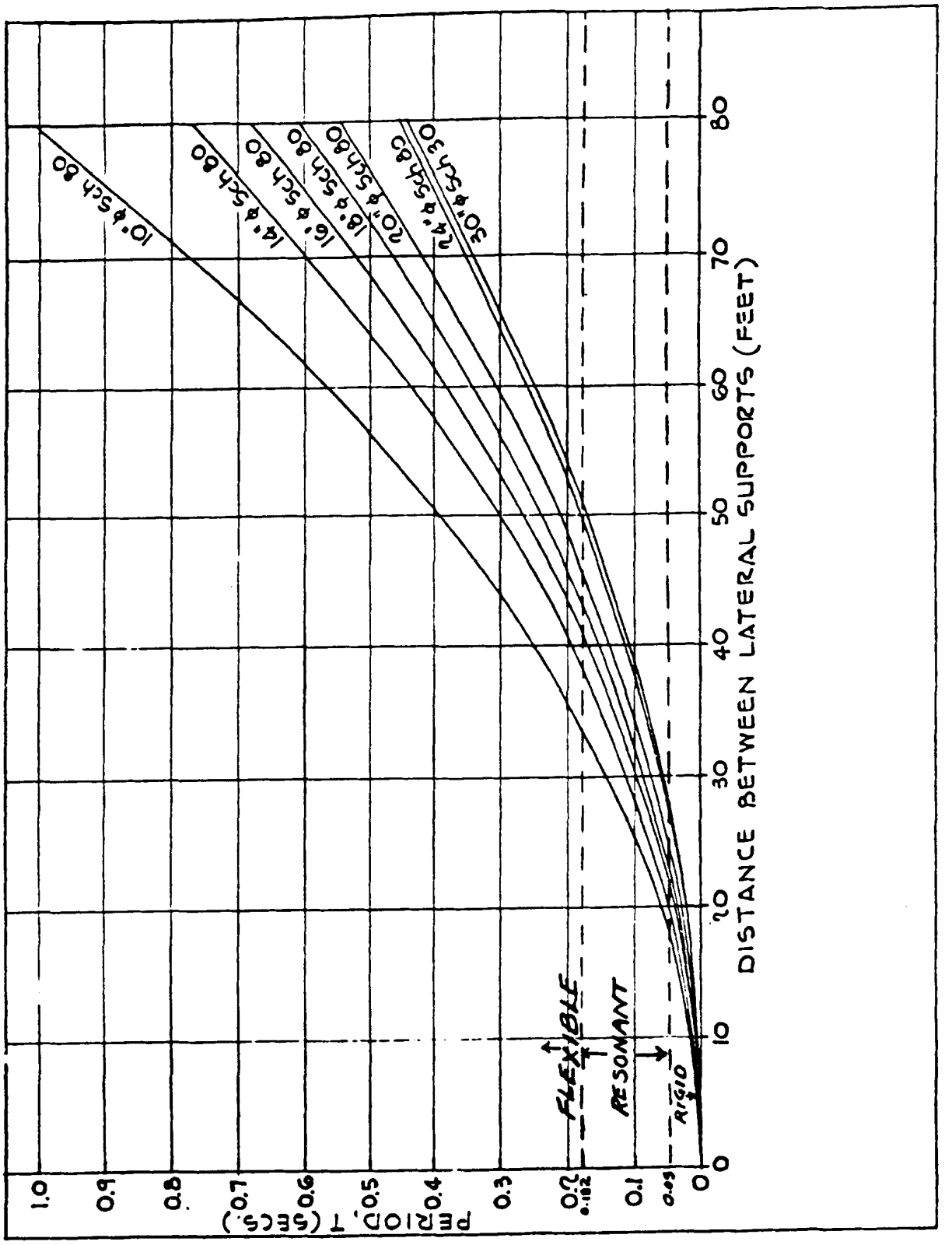
Fig. 3.7-7



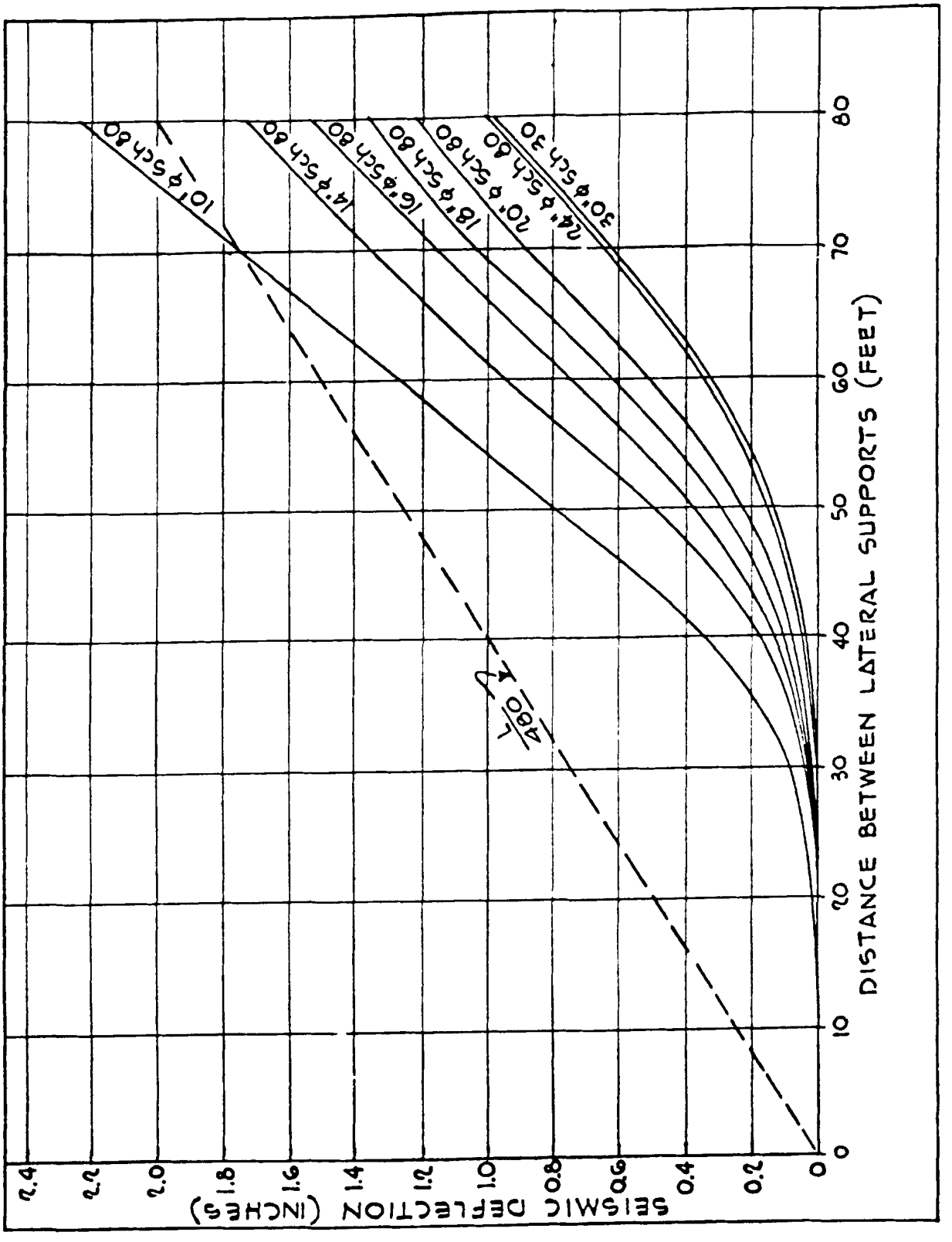
GPU Nuclear	Update - 5
Oyster Creek	12/90
Response Spectra — Operating Basis Earthquake (Vertical)	
	Fig. 3.7-8

Figures 3.7-9 through 3.7-13

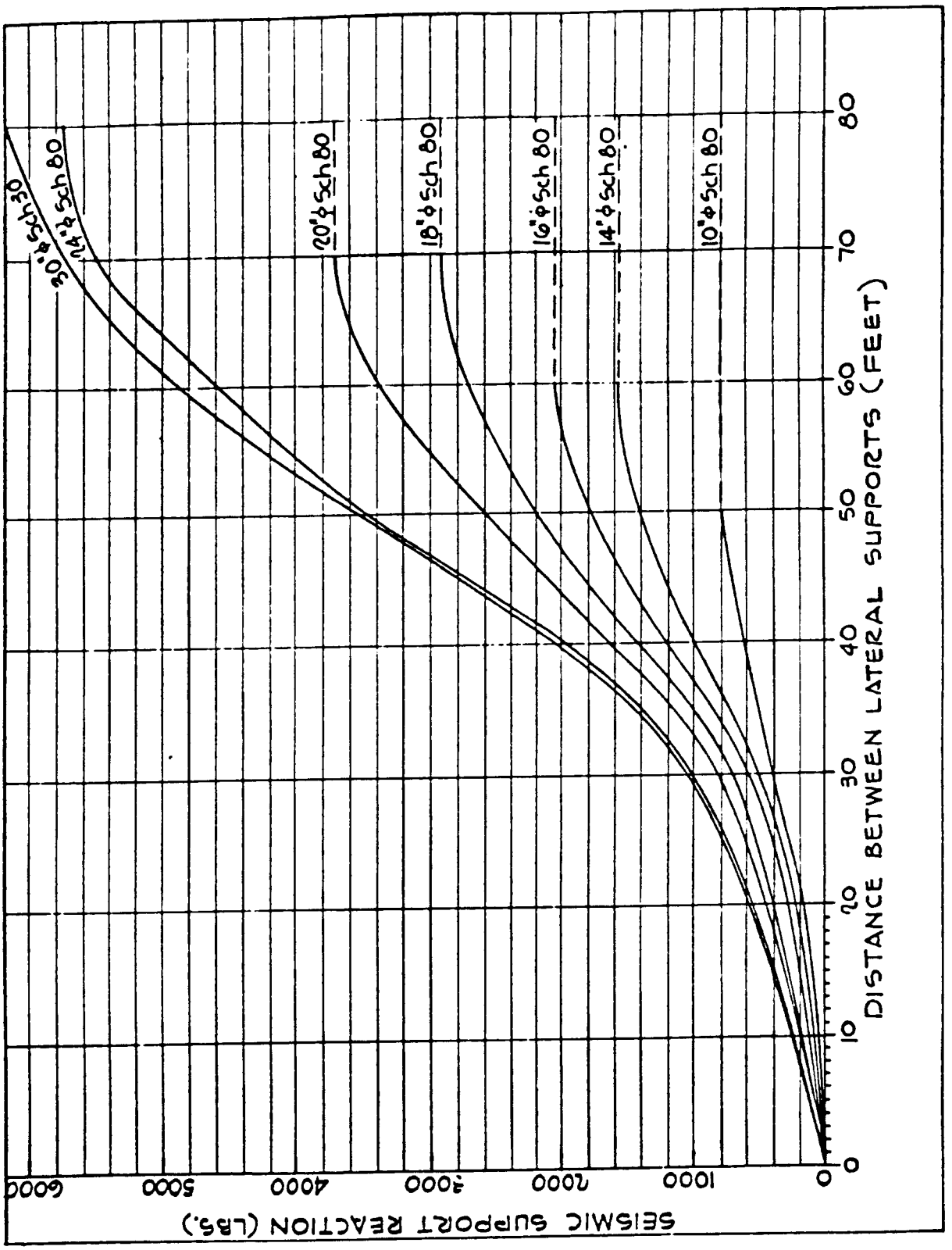
Deleted



GPU Nuclear	Update - 5
Oyster Creek	12/90
Natural Period as a Function of Pipe Size and Span	
	Fig. 3.7-14



GPU Nuclear	Update - 5
Oyster Creek	12/90
Deflection as a Function of Pipe Size and Span	
	Fig. 3.7-15

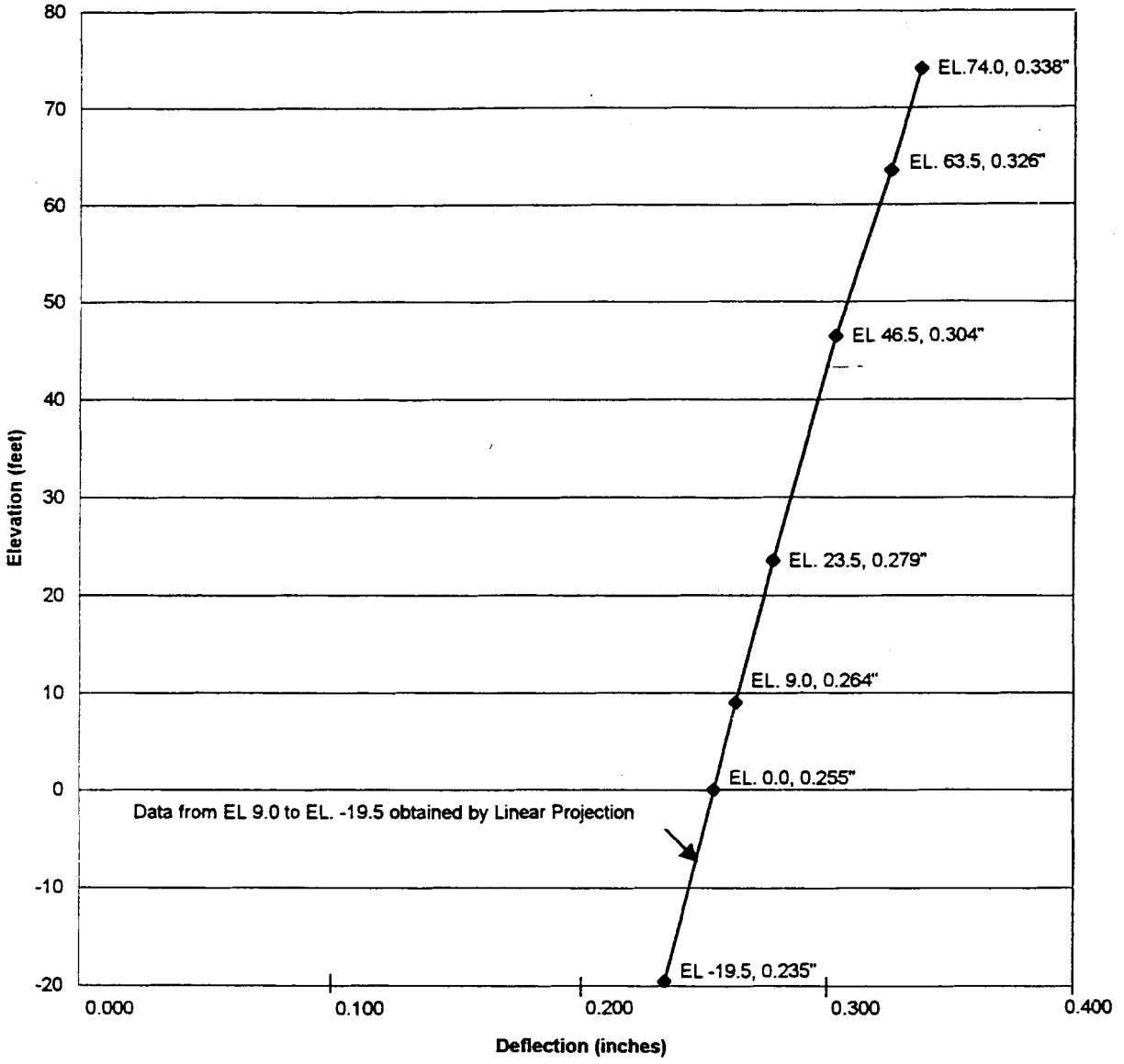


GPU Nuclear — Update - 5

Oyster Creek — 12/90

Support Reaction as a Function of Pipe Size and Span

Fig. 3.7-16



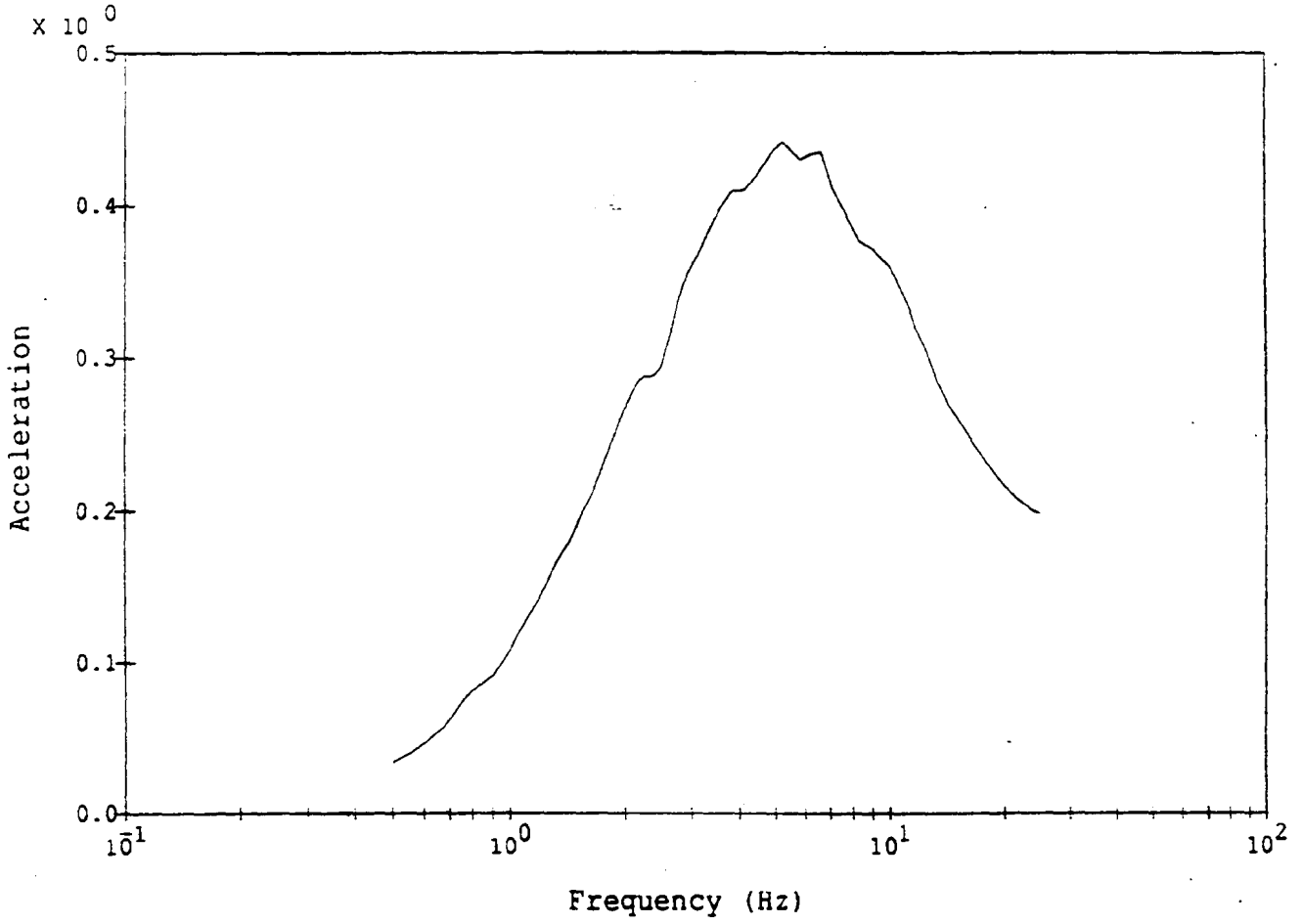
GPU NUCLEAR

Update 11
04/99

Oyster Creek

Maximum Relative Deflection Between
Reactor Building and Turbine Building

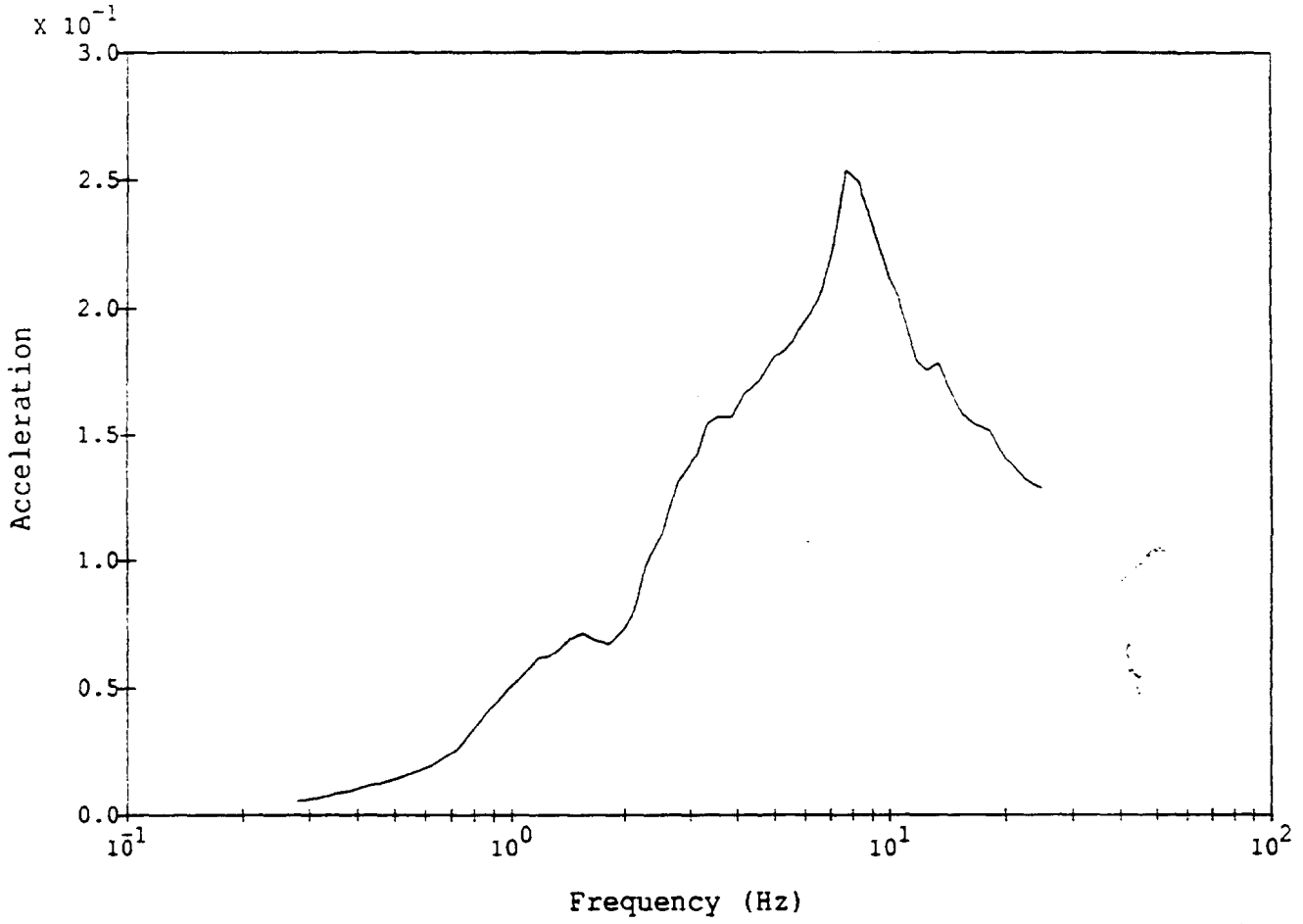
Fig. 3.7-17



Notes:

Accelerations in g's
Spectral Damping 5%
PGA = 0.184g

Figure 3.7-18: **OCNGS Site Specific Response Spectra, Horizontal Component, 5% Damping**



Notes:

Accelerations in g's
Spectral Damping 5%
PGA = 0.0952g

Figure 3.7-19: **OCNGS Site Specific Response Spectra, Vertical Component, 5% Damping**

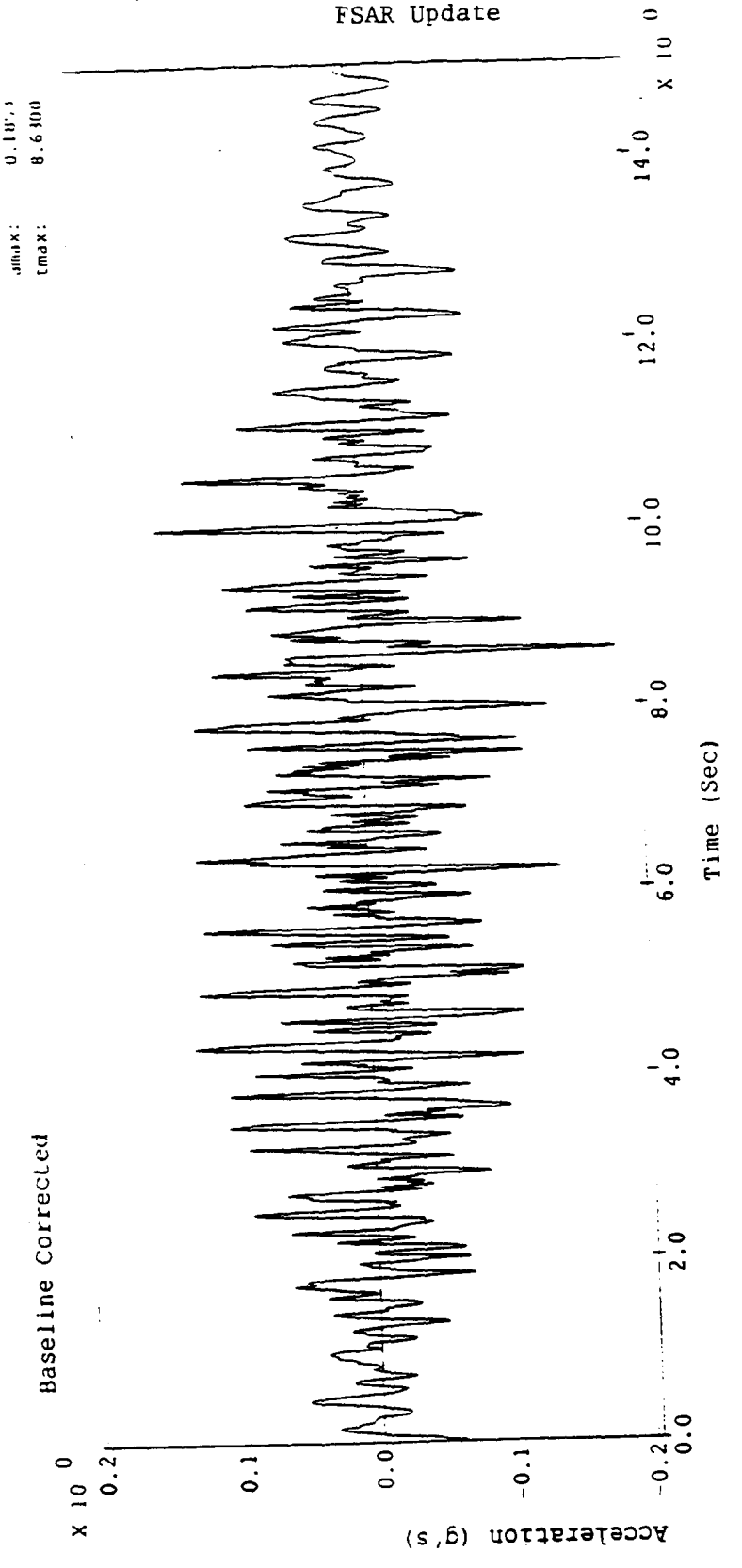


Figure 3.7-20: Artificial Acceleration Time History, Horizontal Component 1

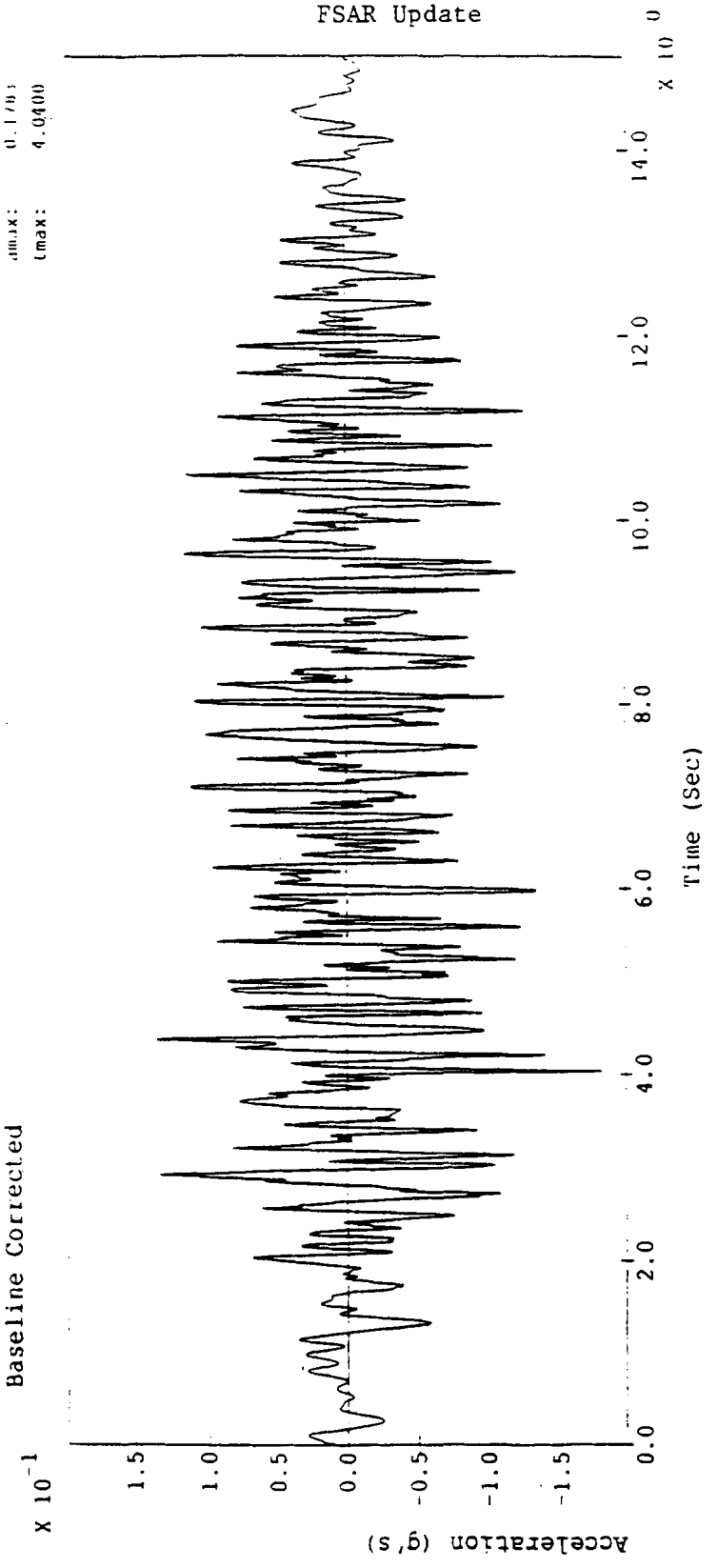


Figure 3.7-21: Artificial Acceleration Time History, Horizontal Component 2

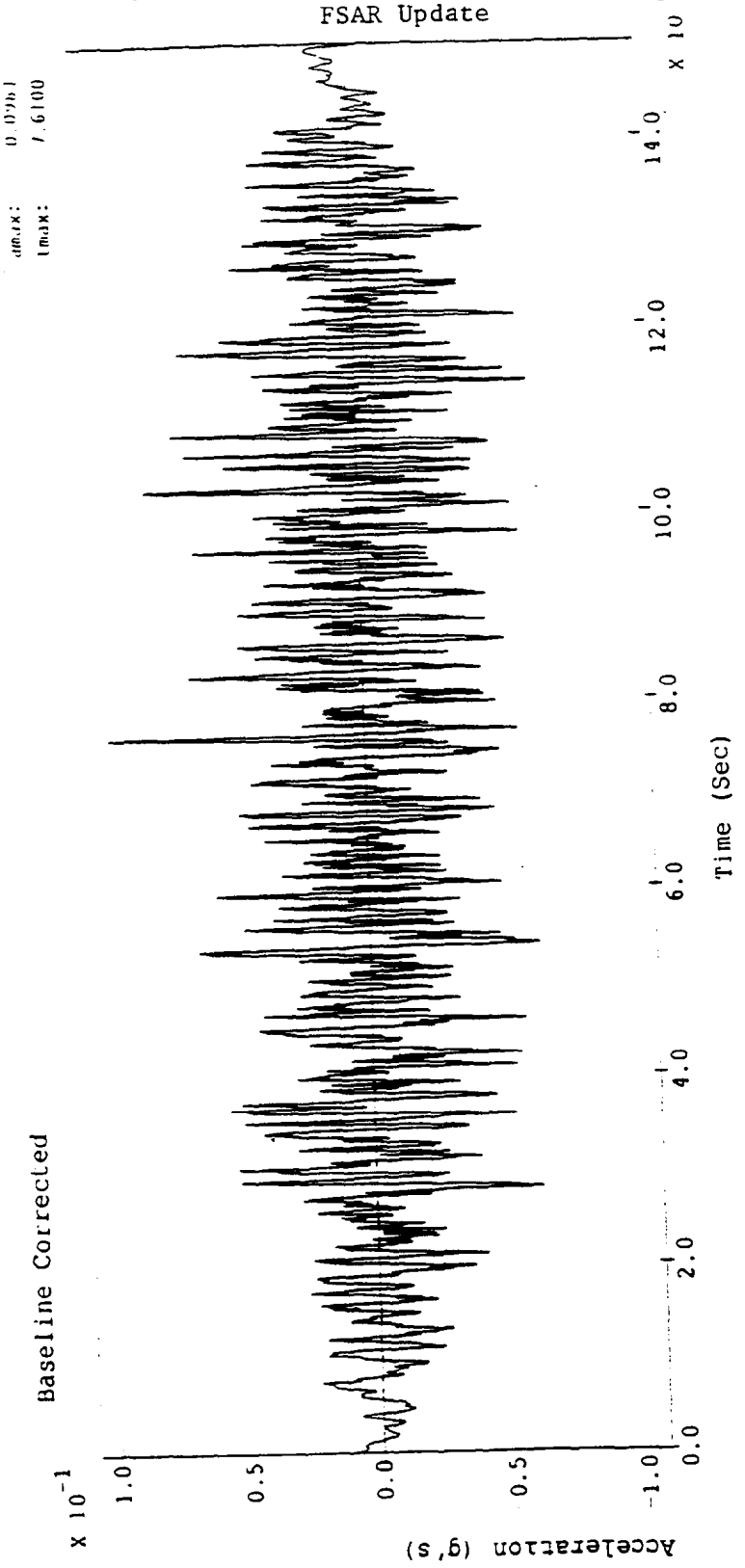
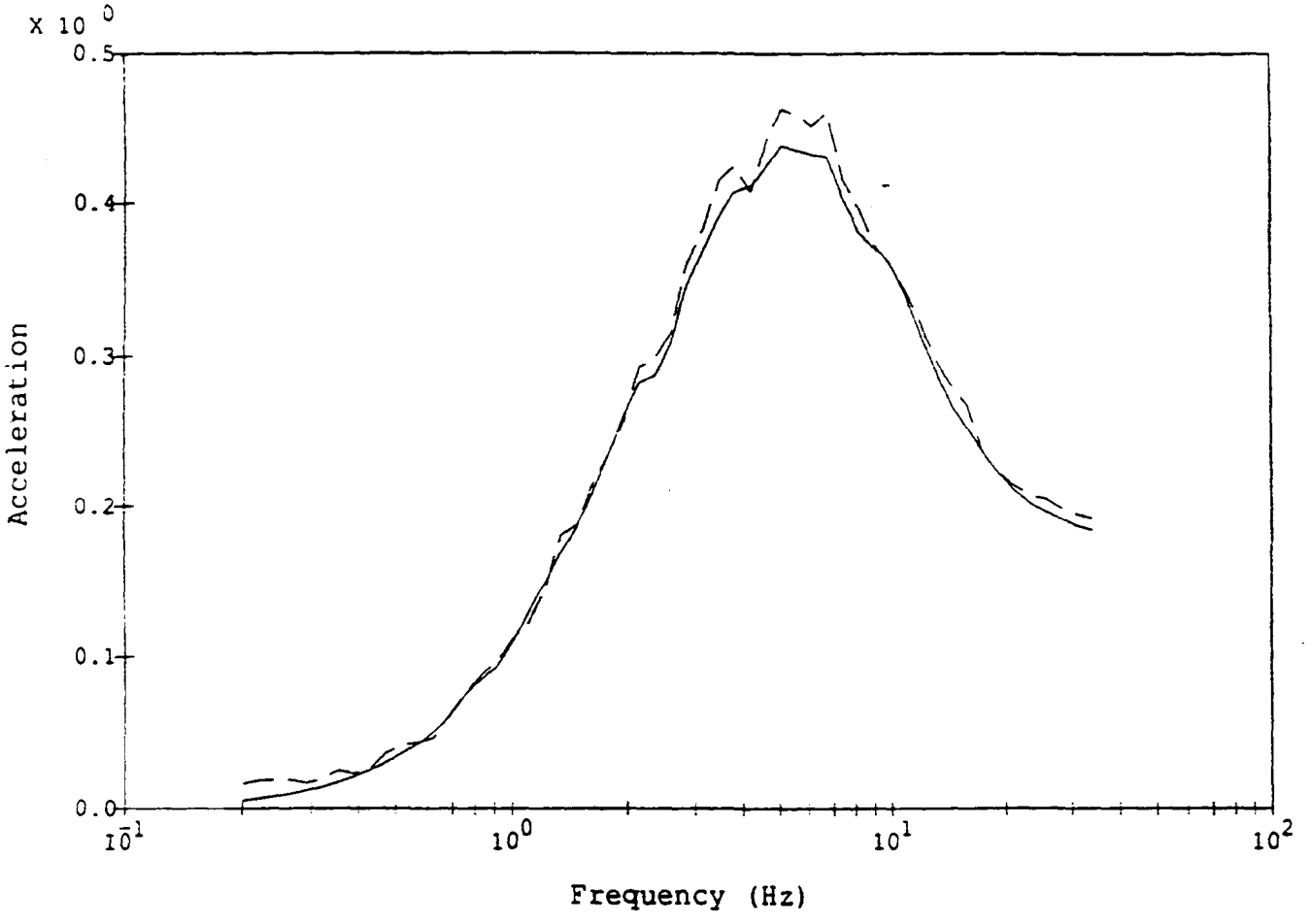


Figure 3.7-22: Artificial Acceleration Time History, Vertical Component



Legend:

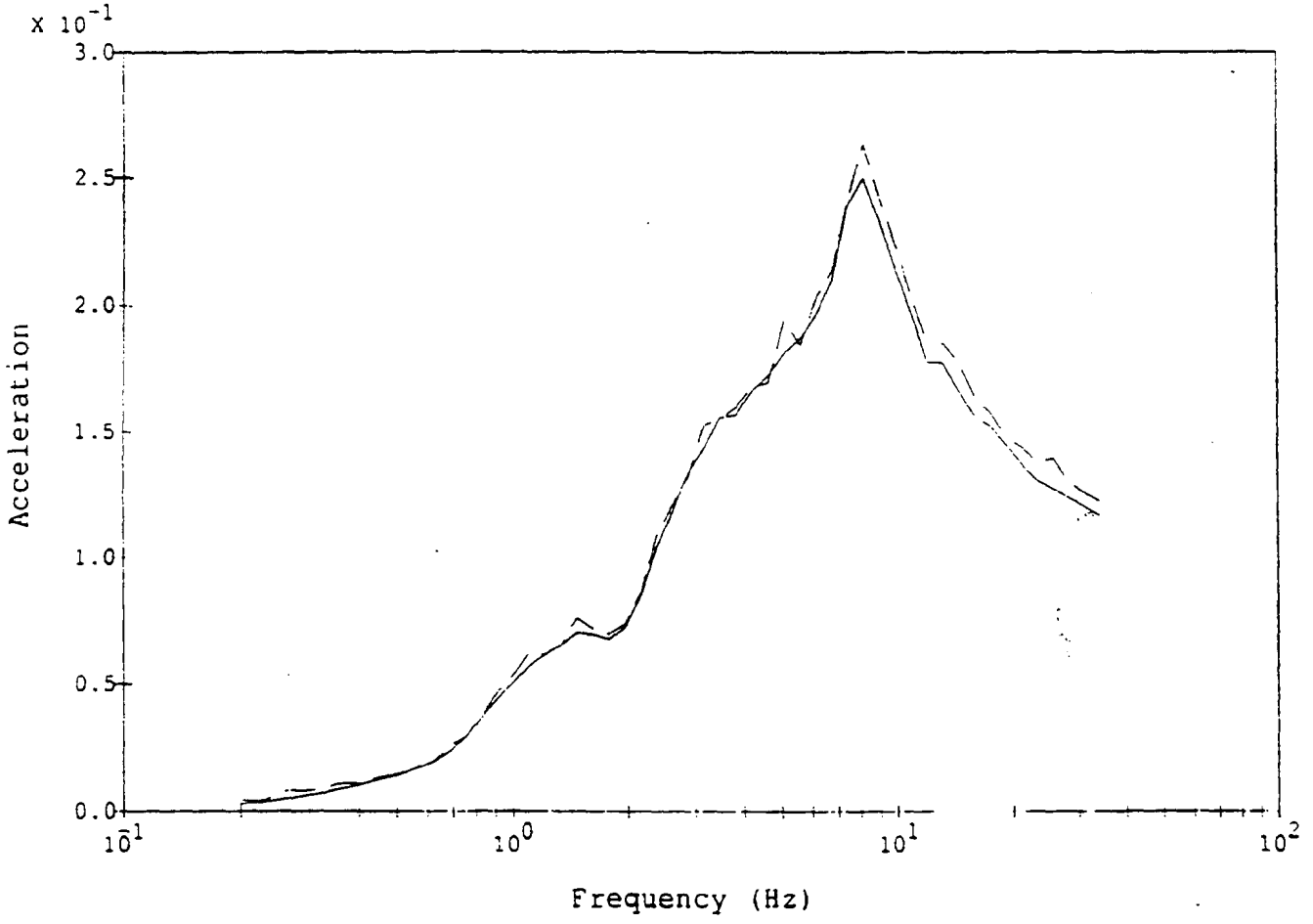
Target	_ _ _ _ _ _ _
Horizontal 1	— — — — —

Notes:

Accelerations in g's
Spectral Damping 5%
Target PGA = 0.184g
SRP Frequencies
Baseline Corrected

Figure 3.7-23: Comparison of Response Spectra, Horizontal 1, 5% Damping Artificial Time History vs. Target

Figure 3.7-25



Legend:

Target
Vertical — — — — —

Notes:

Accelerations in g's
Spectral Damping 5%
Target PGA = 0.0952g
SRP Frequencies
Baseline Corrected

Figure 3.7-25

Comparison of Response Spectra, Vertical, 5% Damping Artificial Time History vs. Target

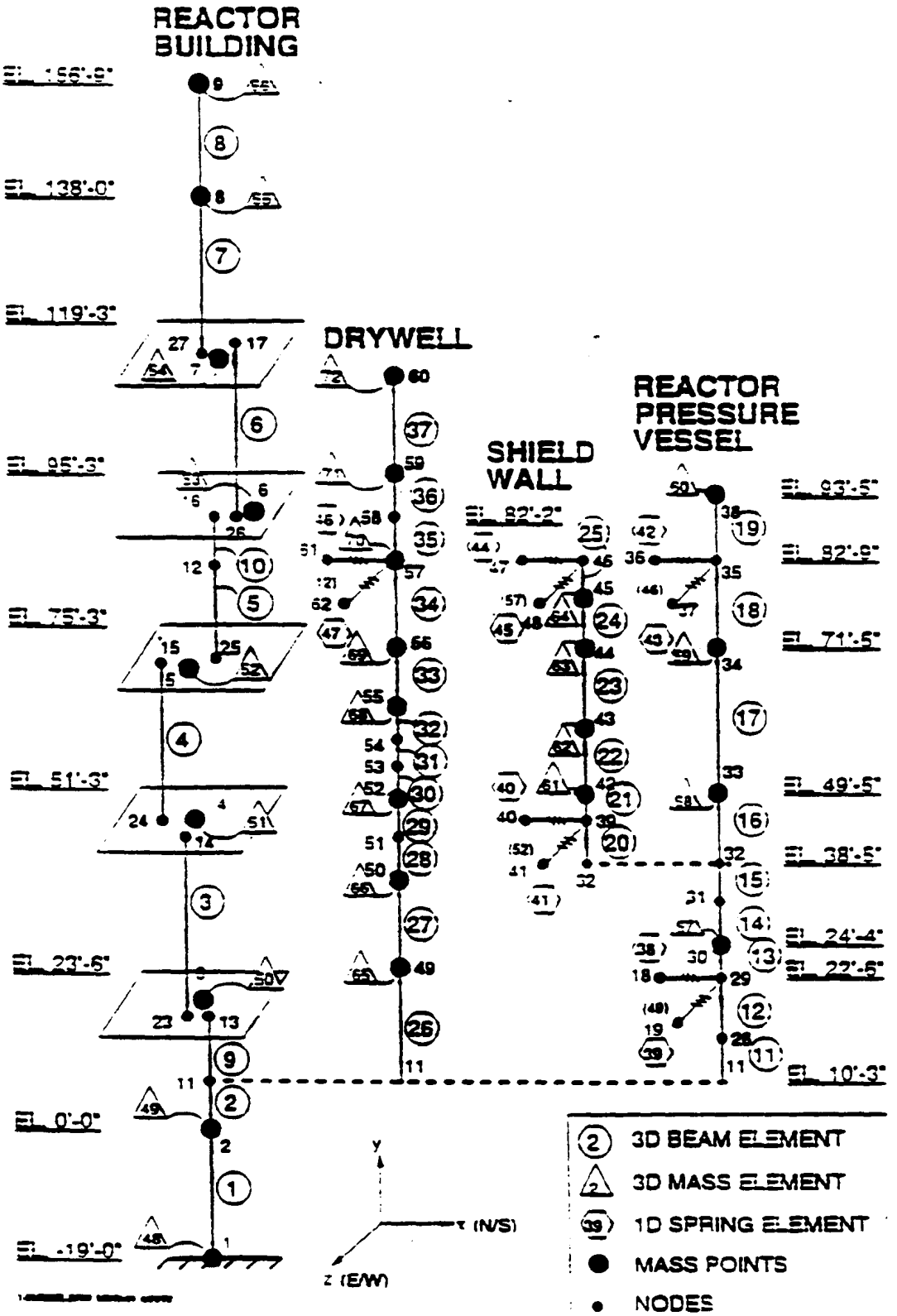
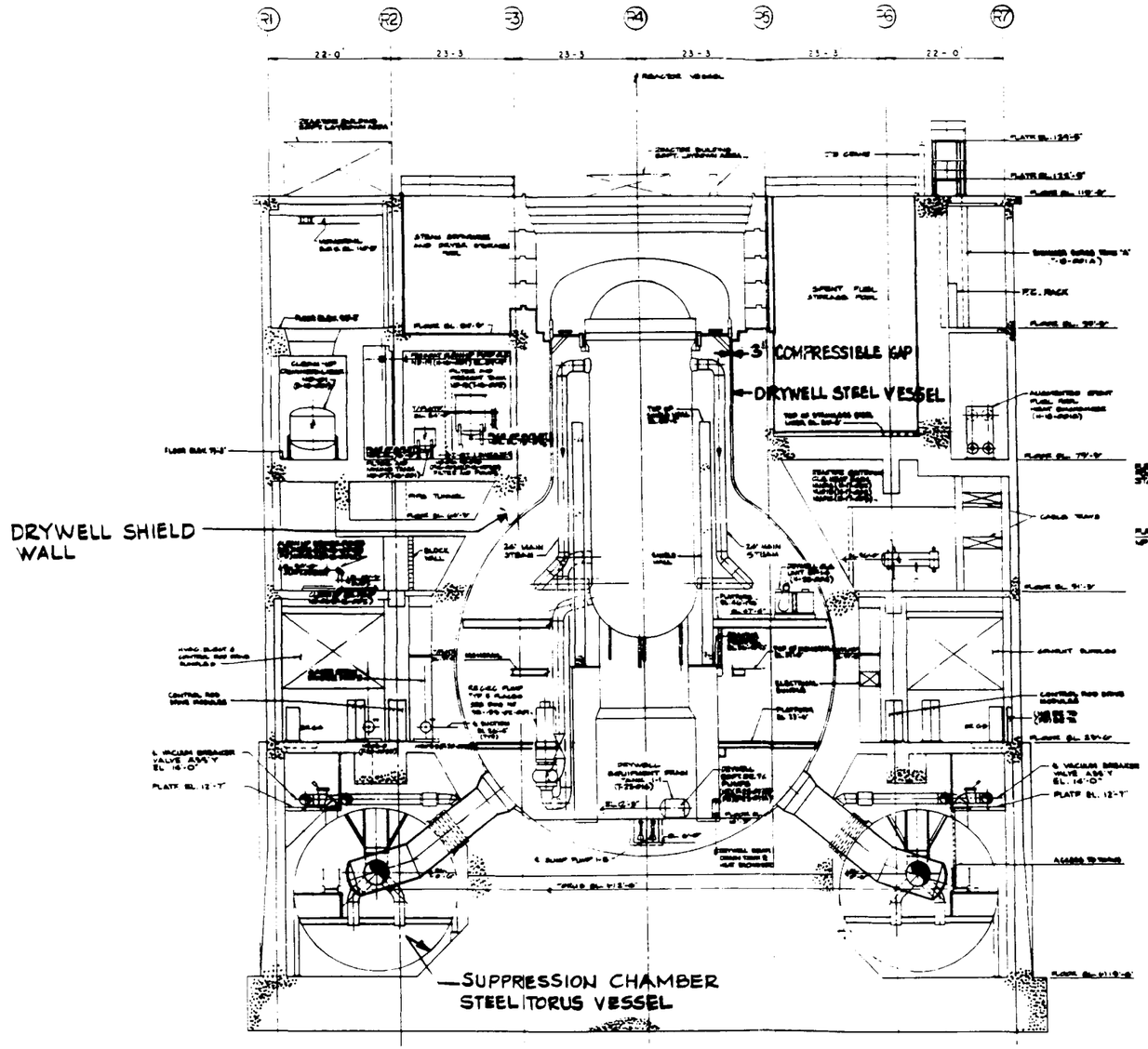
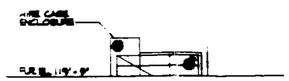


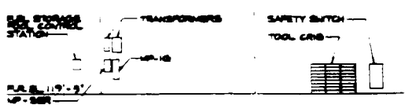
Figure 3.7-26 : 3-D coupled model. Oyster Creek Reactor Building.



SECTION C-C



SECTION D-D



SECTION E-E

NOTES

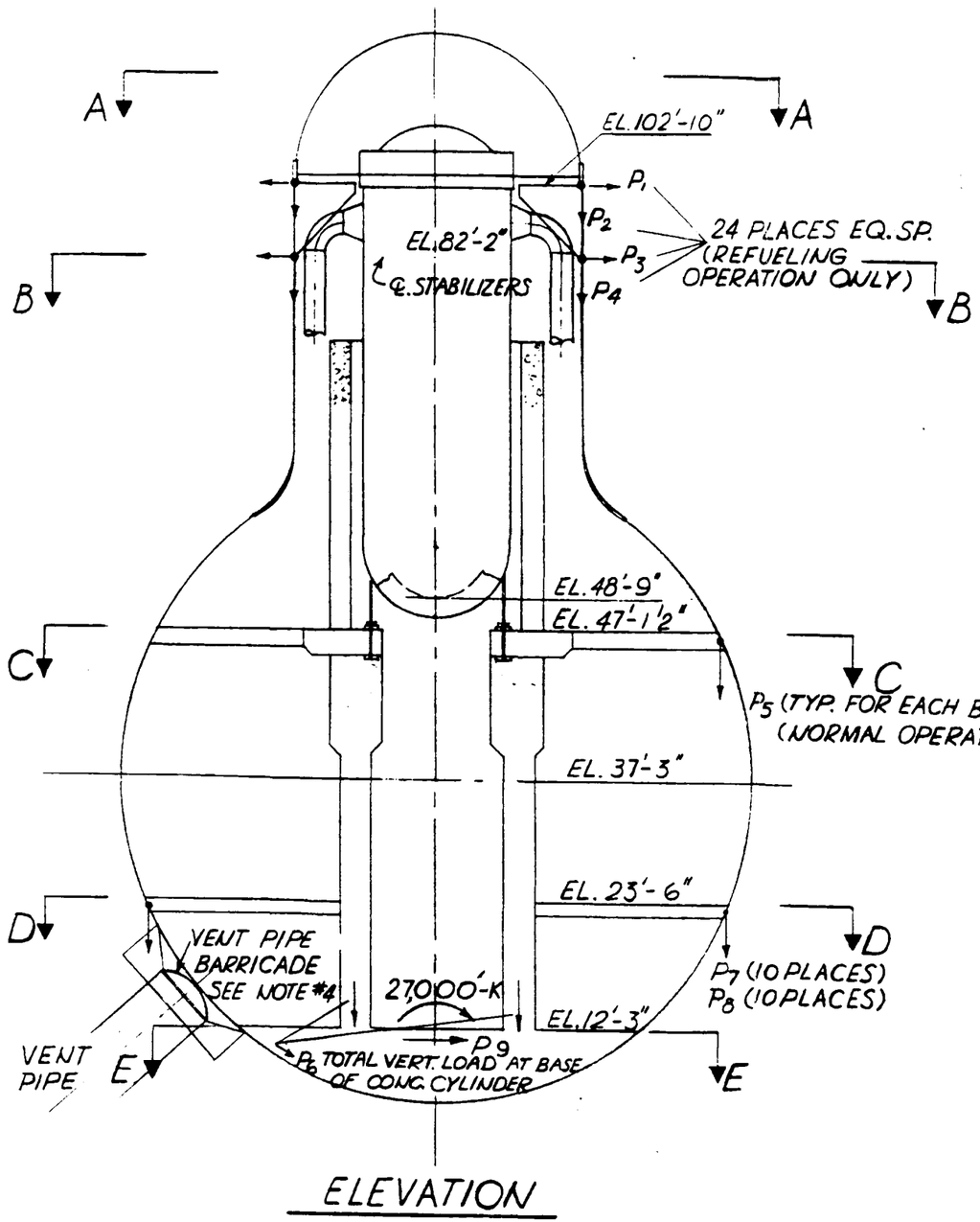
GPU Nuclear
Oyster Creek
Containment System

Update - 5
12/90

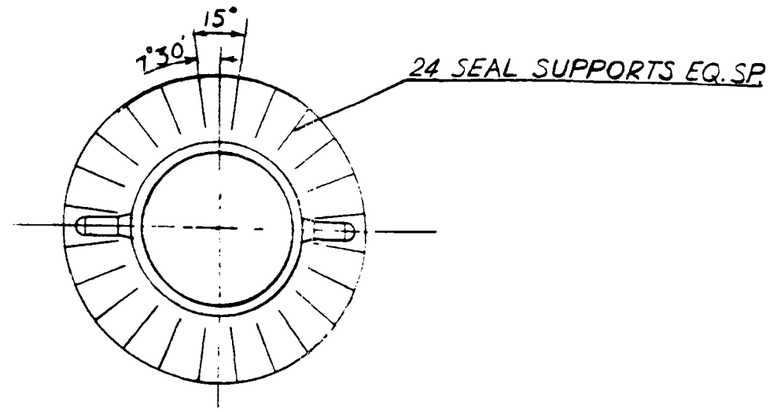
Fig. 3.8-1

Figures 3.8-2A through 3.8-3C

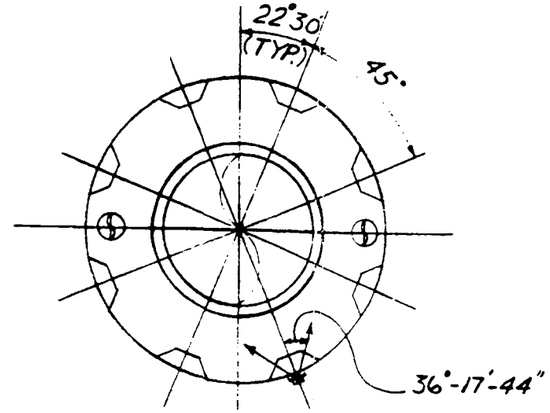
Deleted



ELEVATION



PLAN A-A



PLAN B-B

GPU Nuclear

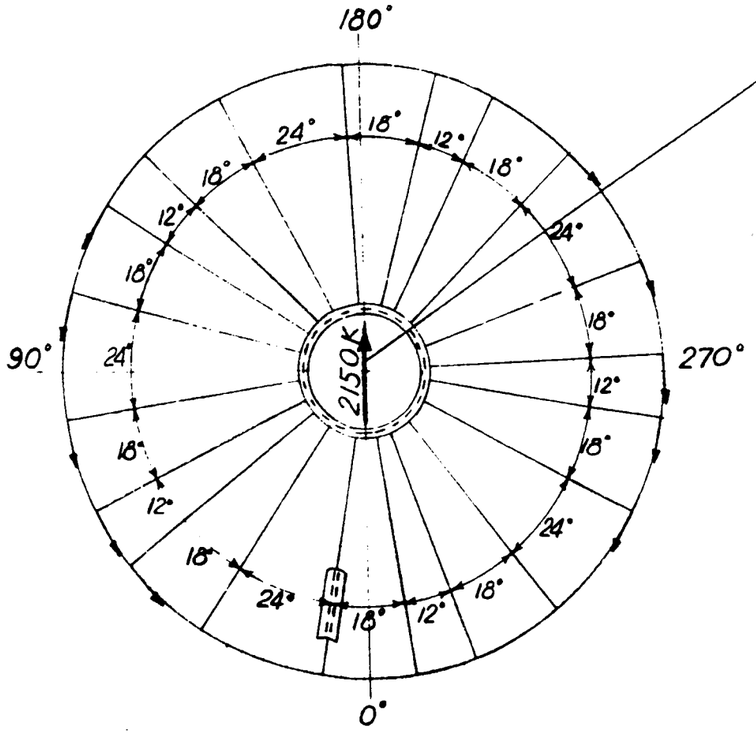
Oyster Creek

Update - 5

12/90

Static and Seismic Loading on Drywell
(Elevation, Plan A-A and B-B)

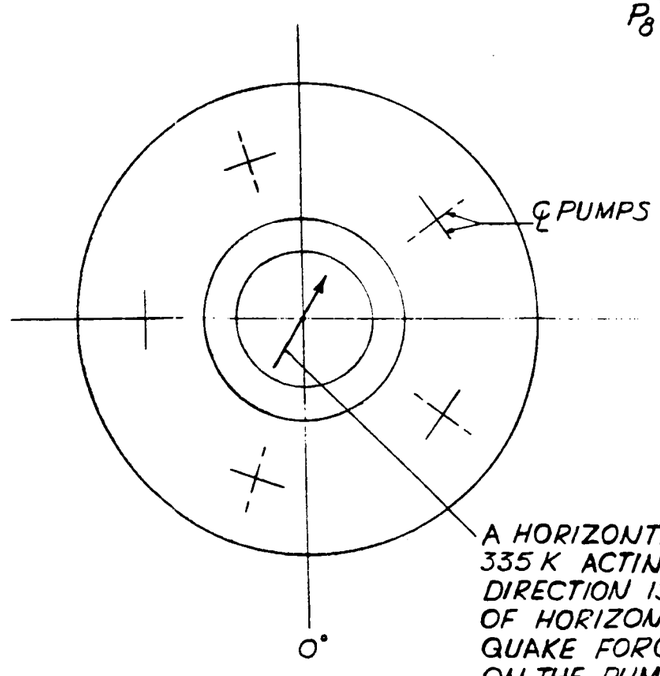
Fig. 3.8-4



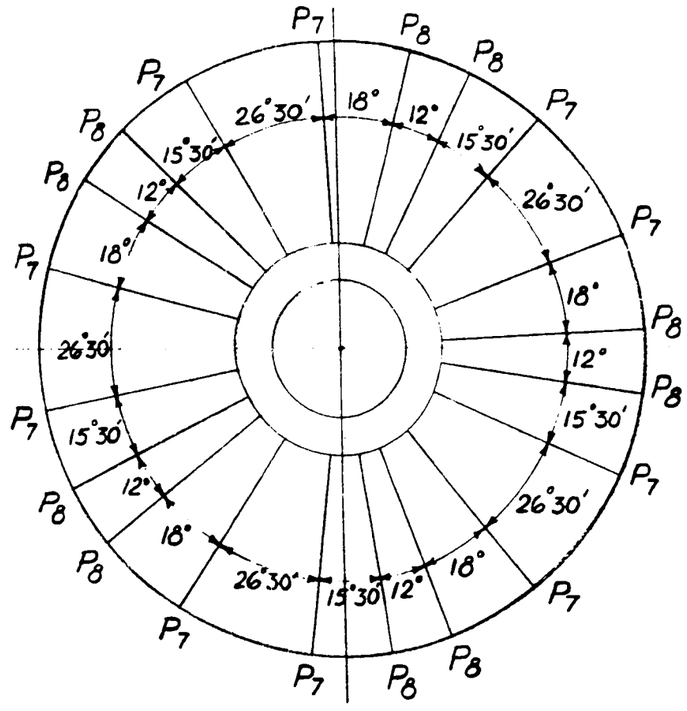
PLAN C-C

THE HORIZONTAL EARTHQUAKE FORCE IS TRANSMITTED TO THE DRYWELL SHELL TANGENTIALLY BY 5 BEAMS ON EACH SIDE OF THE VERTICAL AXIS OF THE DRY WELL. THESE ARE THE BEAMS MOST NEARLY PERPENDICULAR TO THE DIRECTION OF THE EARTHQUAKE. (TOTAL OF 10 BEAMS)(THIS LOAD IS THE LOAD AT NORMAL OPERATING CONDITIONS)

LOAD	STATIC	EARTH-QUAKE	TOTAL	REMARKS
P_1	15.0K	3.8K	18.8K	REFUELING OPEPATION ONLY
P_2	14.0K	3.5K	17.5K	
P_3	15.0K	3.8K	18.8K	
P_4	15.0K	3.8K	18.8K	REFUELING OPERATION ONLY
P_5	43.2K	10.8K	54.0K	NORMAL OPERATION
P_6	6600K	1650K	8250K	REFUELING CONDITION
P_6	6040K	1510K	7550K	NORMAL OPERATION
P_7	13.7K	14.1K	27.8K	ALL OPERATING CONDITIONS
P_8	6.1K	1.5K	7.6K	
P_9	0	343K	343K	



PLAN E-E



PLAN D-D

GPU Nuclear

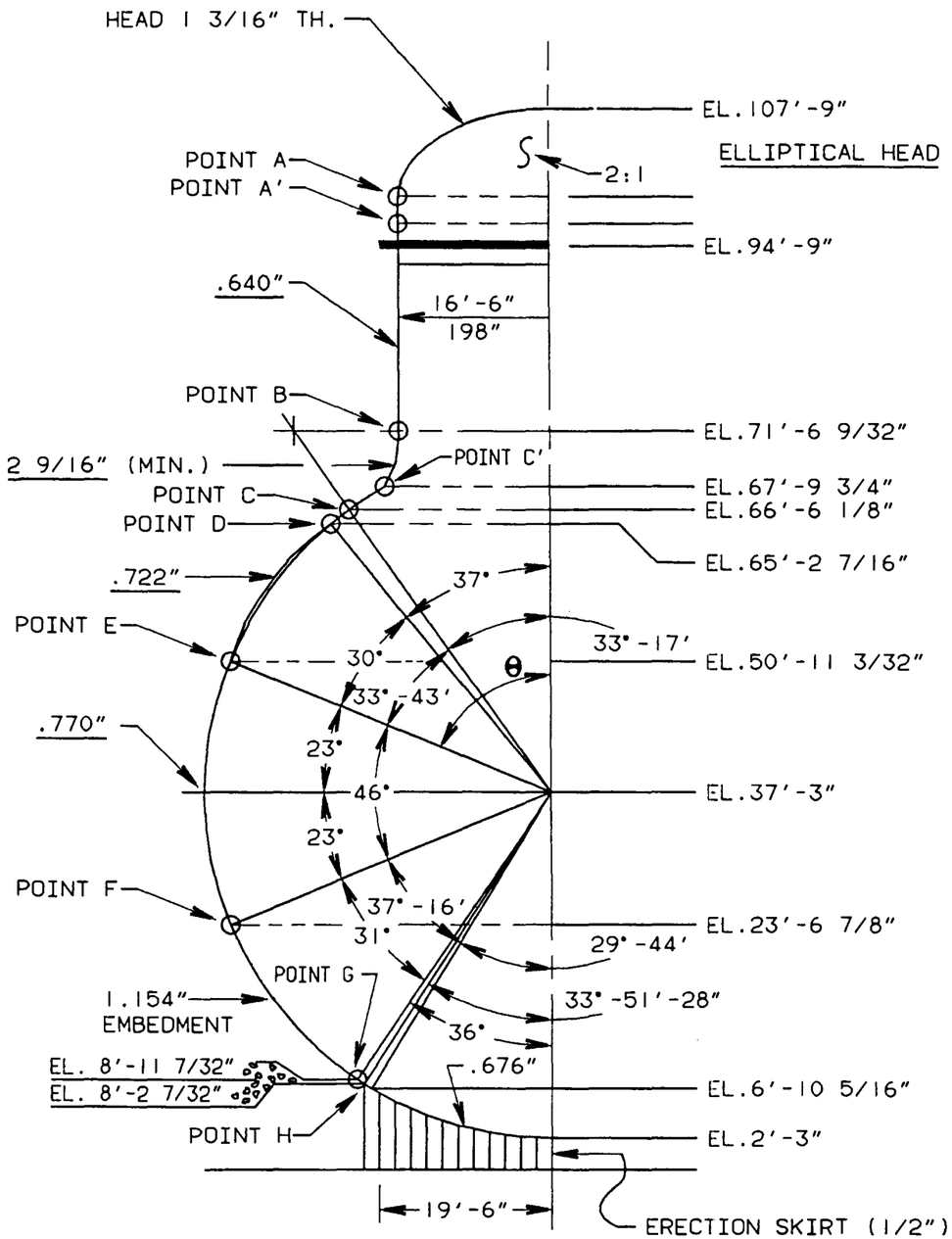
Oyster Creek

Update - 5

12/90

Static and Seismic Loading on Drywell (Plan C-C, D-D, and E-E)

Fig. 3.8-5



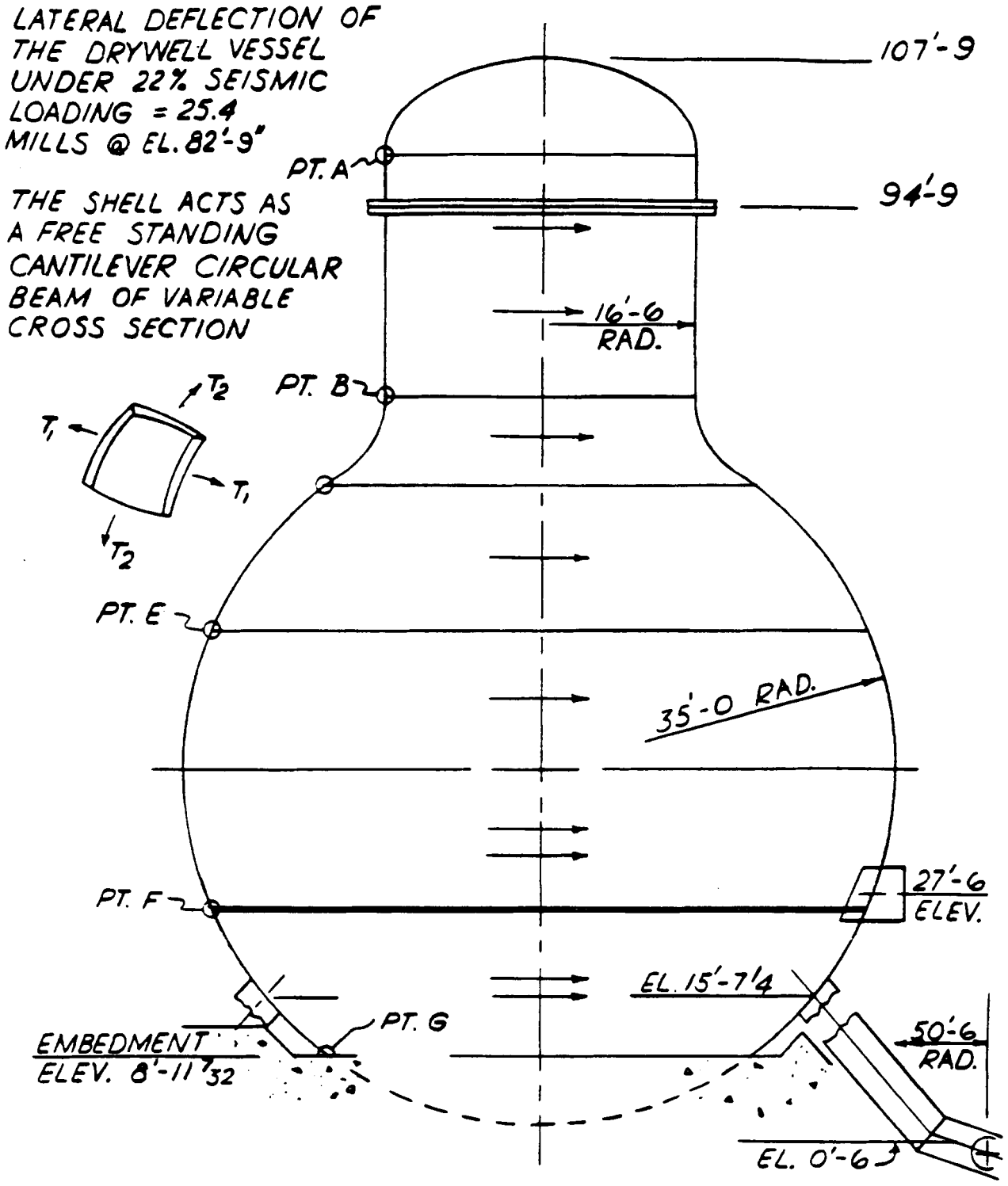
THICKNESSES SHOWN ARE DESIGN THICKNESS.
SEE SECTION 3.8.2.8

GPU Nuclear
Oyster Creek
Drywell Schematic

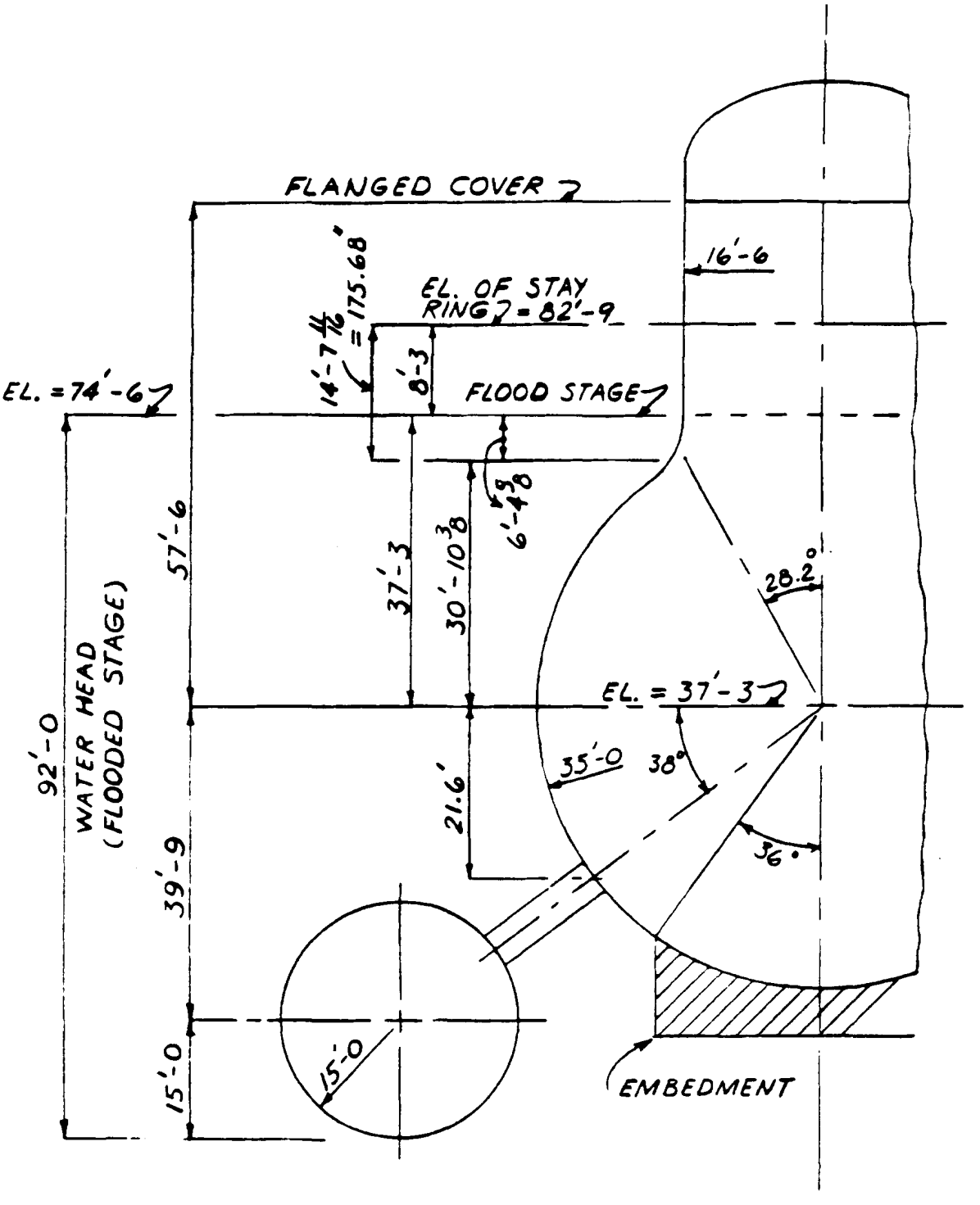
Update-8
8/93

S38,SKM,00,0572,001-,0001

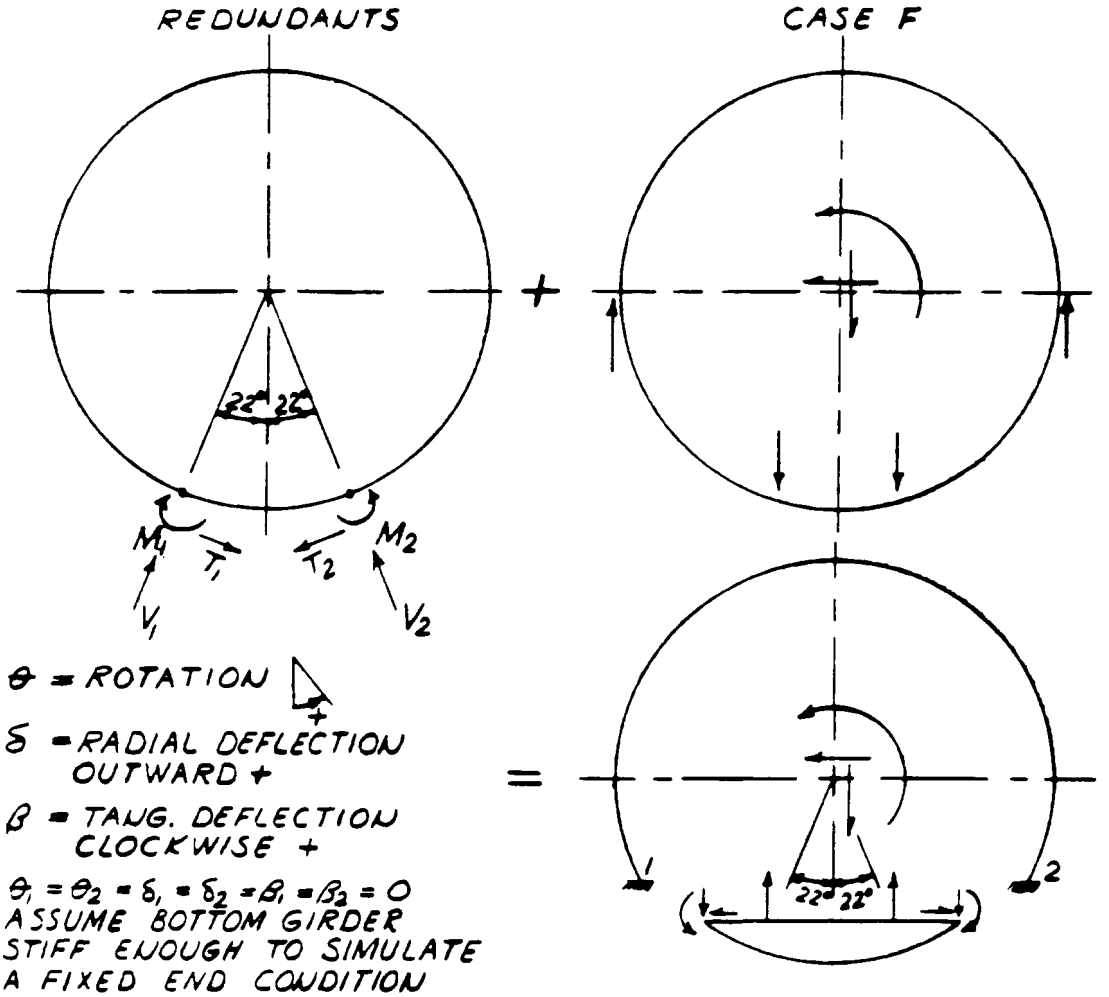
Fig.3.8-6



GPU Nuclear	Update - 5
Oyster Creek	12/90
Drywell Loading	
	Fig. 3.8-7



GPU Nuclear	Update - 5
Oyster Creek	12/90
Design Check — Absorption Chamber	
	Fig. 3.8-8



θ = ROTATION

δ = RADIAL DEFLECTION OUTWARD +

β = TANG. DEFLECTION CLOCKWISE +

$\theta_1 = \theta_2 = \delta_1 = \delta_2 = \beta_1 = \beta_2 = 0$
ASSUME BOTTOM GIRDER STIFF ENOUGH TO SIMULATE A FIXED END CONDITION

1. $\theta_1^F + M_1\theta_{11}^m + T_1\theta_{11}^T + V_1\theta_{11}^V + M_2\theta_{12}^m + T_2\theta_{12}^T + V_2\theta_{12}^V = 0$

2. $\delta_1^F + M_1\delta_{11}^m + T_1\delta_{11}^T + V_1\delta_{11}^V + M_2\delta_{12}^m + T_2\delta_{12}^T + V_2\delta_{12}^V = 0$

3. $\beta_1^F + M_1\beta_{11}^m + T_1\beta_{11}^T + V_1\beta_{11}^V + M_2\beta_{12}^m + T_2\beta_{12}^T + V_2\beta_{12}^V = 0$

4. $\theta_2^F + M_1\theta_{21}^m + T_1\theta_{21}^T + V_1\theta_{21}^V + M_2\theta_{22}^m + T_2\theta_{22}^T + V_2\theta_{22}^V = 0$

5. $\delta_2^F + M_1\delta_{21}^m + T_1\delta_{21}^T + V_1\delta_{21}^V + M_2\delta_{22}^m + T_2\delta_{22}^T + V_2\delta_{22}^V = 0$

6. $\beta_2^F + M_1\beta_{21}^m + T_1\beta_{21}^T + V_1\beta_{21}^V + M_2\beta_{22}^m + T_2\beta_{22}^T + V_2\beta_{22}^V = 0$

GPU Nuclear | Update - 5
Oyster Creek | 12/90
Absorption Chamber — Torus Analysis
Fig. 3.8-9

REFER TO COMPUTER PRINTOUT SHEETS OR INFLUENCE COEFFICIENTS, PAGE 6 → 10

1./ $+3.3398 - .2052\,M_1 - .0334\,T_1 - .0424\,M_2 - .0036\,T_2 + .0598\,V_2 = 0$

2./ $-3.4976 - .0429\,V_1 + .0598\,M_2 + .0188\,T_2 + .00377\,V_2 = 0$

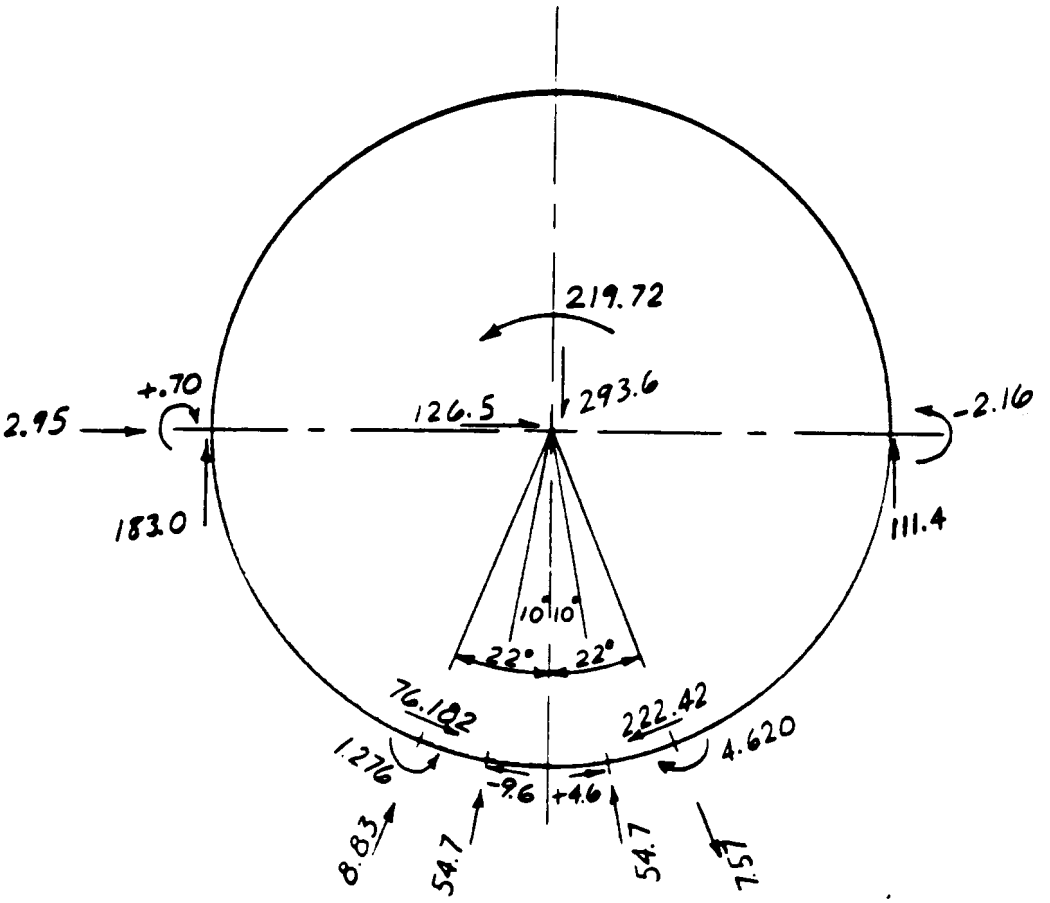
3./ $+.8439 - .0334\,M_1 - .00951\,T_1 - .00361\,M_2 - .000164\,T_2 + .0188\,V_2 = 0$

4./ $-6.1725 + .0424\,M_1 + .0036\,T_1 - .0598\,V_1 + .2052\,M_2 + .0334\,T_2 = 0$

5./ $-1.7138 + .0598\,M_1 + .0188\,T_1 + .00377\,V_1 - .0429\,V_2 = 0$

6./ $-1.8049 + .0036\,M_1 + .000164\,T_1 - .0188\,V_1 + .0334\,M_2 + .00952\,T_2 = 0$

GPU Nuclear	Update - 5
Oyster Creek	12/90
Absorption Chamber — Torus Ring Analysis	
	Fig. 3.8-10



EQUILIBRIUM LOADS

Σ VERTICALS:

$$183.0 + 111.4 + \cos 22^\circ (8.83 - 7.57) - \sin 22^\circ (76.182 + 222.42) + 55.5 + 55.5 = 293.6$$

Σ LONG.

$$2.95 + \sin 22^\circ (8.83 + 7.57) + \cos 22^\circ (76.182 - 222.42) = -126.5$$

RESULTING MOMENT

$$+174 (183.0 - 111.4 + 222.42 - 76.18)$$
$$+174 (+.70 - 2.16 + 4.62 - 1.276) = 174 (219.72)$$

$$\frac{M}{R} = 219.72$$

GPU Nuclear	Update - 5
Oyster Creek	12/90
Absorption Chamber — Torus Ring Analysis	
	Fig. 3.8-11

DEAD LOAD + TORUS FULL OF WATER

$\frac{PL^3}{3EI} = .406$

$P = \frac{3 \times 30 \times 10^6 (.406)(324.3)}{(144)^3}$

$= 4000$ LB.

$\frac{14'-4.6''}{\cos 9^\circ} = 14'-6\,3/4$

$(55-10\,7/32) - (51'-1'' + 14'-6\,3/4)$

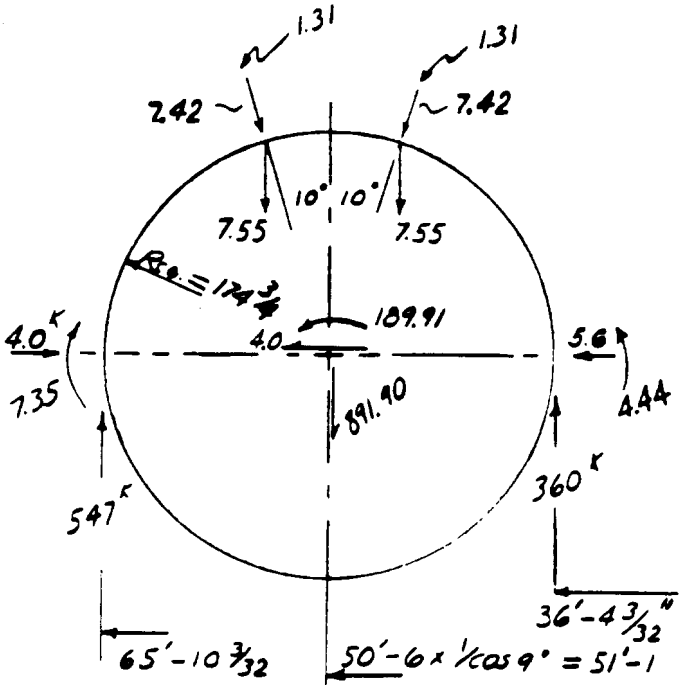
$= 2\,11/32$

$M_L = 2.344\,(547) = 1285$ IN. K

$\frac{M}{R} = 7.35$

INS. COL. ECC. :

$(51'-1) - (14'-6\,3/4) - (36'-4\,3/32) = 2\,5/32$



$M_R = 360\,(2.156) = 776$ IN. K. , $\frac{M}{R} = 4.44$

$\Sigma M = R[547 - 360 + 7.35 - 4.44] = 189.91\,R$

$\frac{M}{R} = 189.91$

GPU Nuclear	Update - 5
Oyster Creek	12/90
Absorption Chamber — Loads on Torus Support Ring	
	Fig. 3.8-12

MAX. MOM. @ 90° (OUTSIDE COL. ATTACHMENT)

$M = -16,978\ (172,6) = 2,930,000$ IN.-LB.

ASSUME (AS PREVIOUSLY), THAT RING FIXED AT 22° & 338°

REFER TO CALCULATIONS ON PAGES ATTACHED TO FIGURES DATED 12/8/64 FOR FIXING RING UNDER JET FORCES.

1./ $-6.0695 - .2052\,M_1 - .0334\,T_1 - .0424\,M_2 - .0036\,T_2 + .0598\,V_2 = 0$

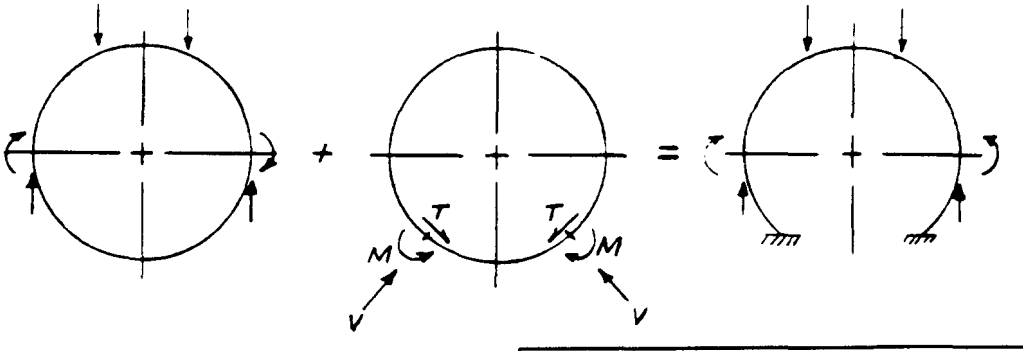
2./ $-1.7997 - .0429\,V_1 + .0598\,M_2 + .0188\,T_2 + .00377\,V_2 = 0$

3./ $-1.4158 - .0334\,M_1 - .00951\,T_1 - .00361\,M_2 - .000164\,T_2 + .0188\,V_2 = 0$

4./ $-.6492 + .0424\,M_1 + .0036\,T_1 - .0598\,V_1 + .2052\,M_2 + .0334\,T_2 = 0$

5./ $+2.4517 + .0598\,M_1 + .0188\,T_1 + .00377\,V_1 - .0429\,V_2 = 0$

6./ $-.8447 + .0036\,M_1 + .000164\,T_1 - .0188\,V_1 + .0334\,M_2 + .00962\,T_2 = 0$

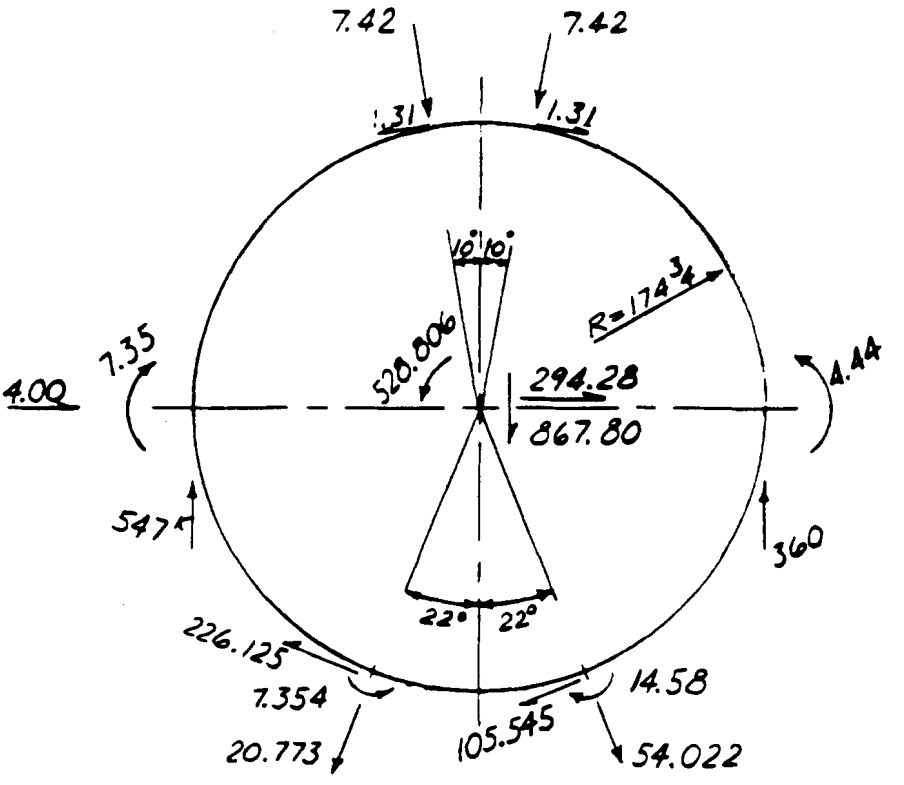


GPU Nuclear | Update - 5

Oyster Creek | 12/90

Absorption Chamber — Torus Ring

Fig. 3.8-13



VERT. LOADS:

$547.0 + 360.0 - 7.55 - 7.55 + (226.125 - 105.545) \sin 22^\circ - (20.773 + 54.022) \cos 22^\circ = 867.80$

HORZ. LOADS:

$4.0 - (226.125 + 105.545) \cos 22^\circ + (54.022 - 20.773) \sin 22^\circ = -294.28$

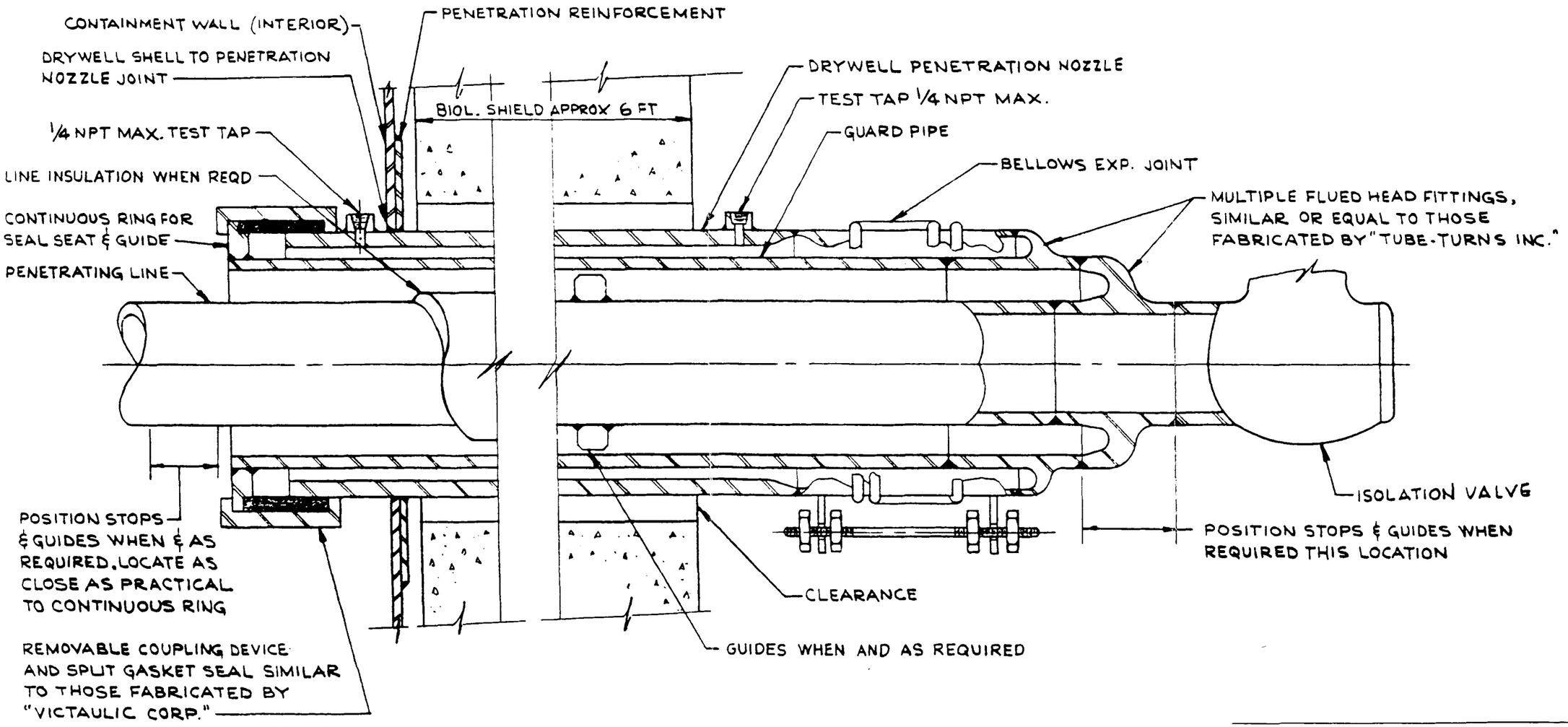
MOMENTS:

$M = (547 + 226.125 + 105.545 - 360.0 - 4.44 - 7.354 + 14.58 + 7.35) R$

$M = 528.806 R$

$\frac{M}{R} = 528.806$

GPU Nuclear	Update - 5
Oyster Creek	12/90
Absorption Chamber — Final Input Data for Torus Ring	
	Fig. 3.8-14

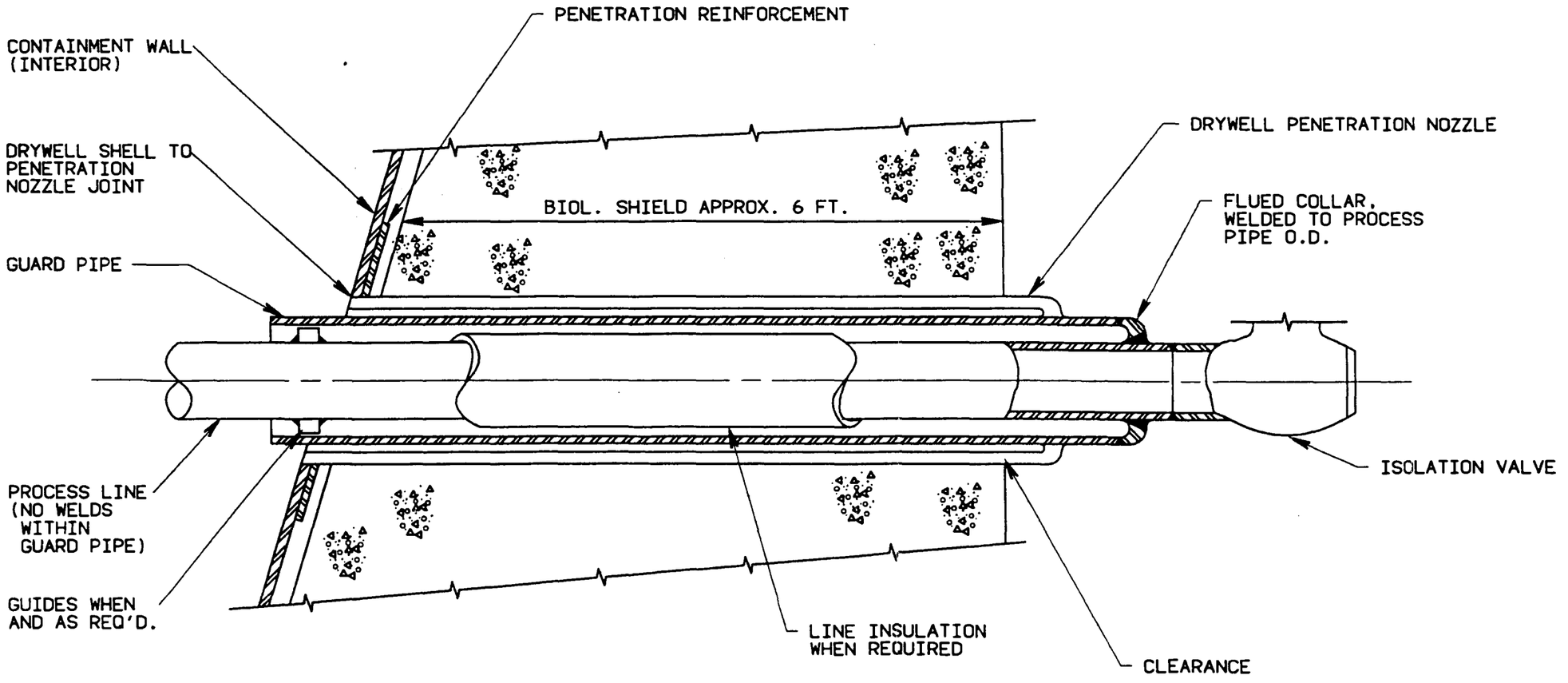


GPU Nuclear — Update - 5

Oyster Creek — 12/90

Drywell Penetration — Type 1

Fig. 3.8-15



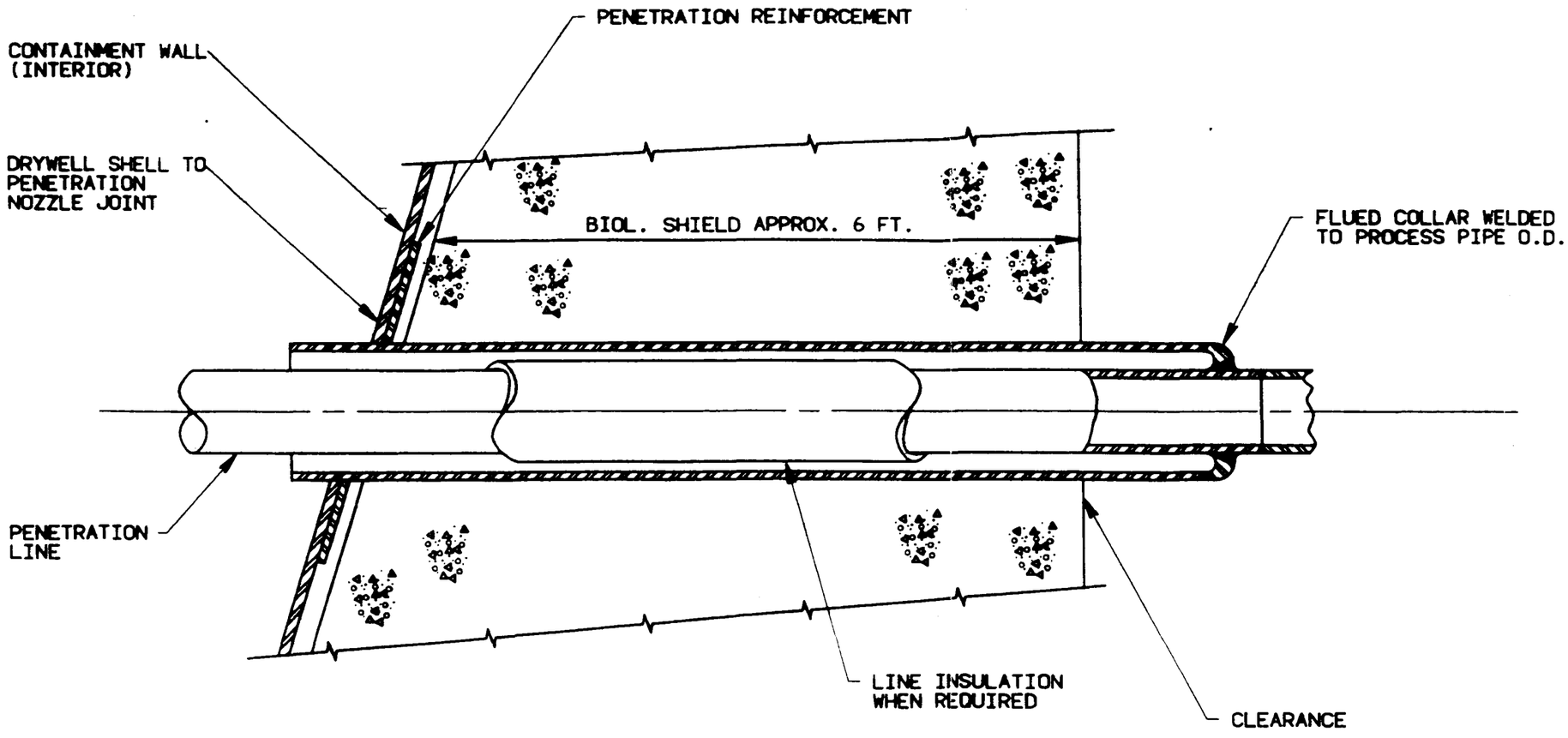
GPU Nuclear
Oyster Creek

Update-6
12/91

Drywell Penetration-Type 2A
Isolation Condenser System

CADD #53B,SKM,00,0449,001-,1001

Fig.3.8-16A



GPU Nuclear

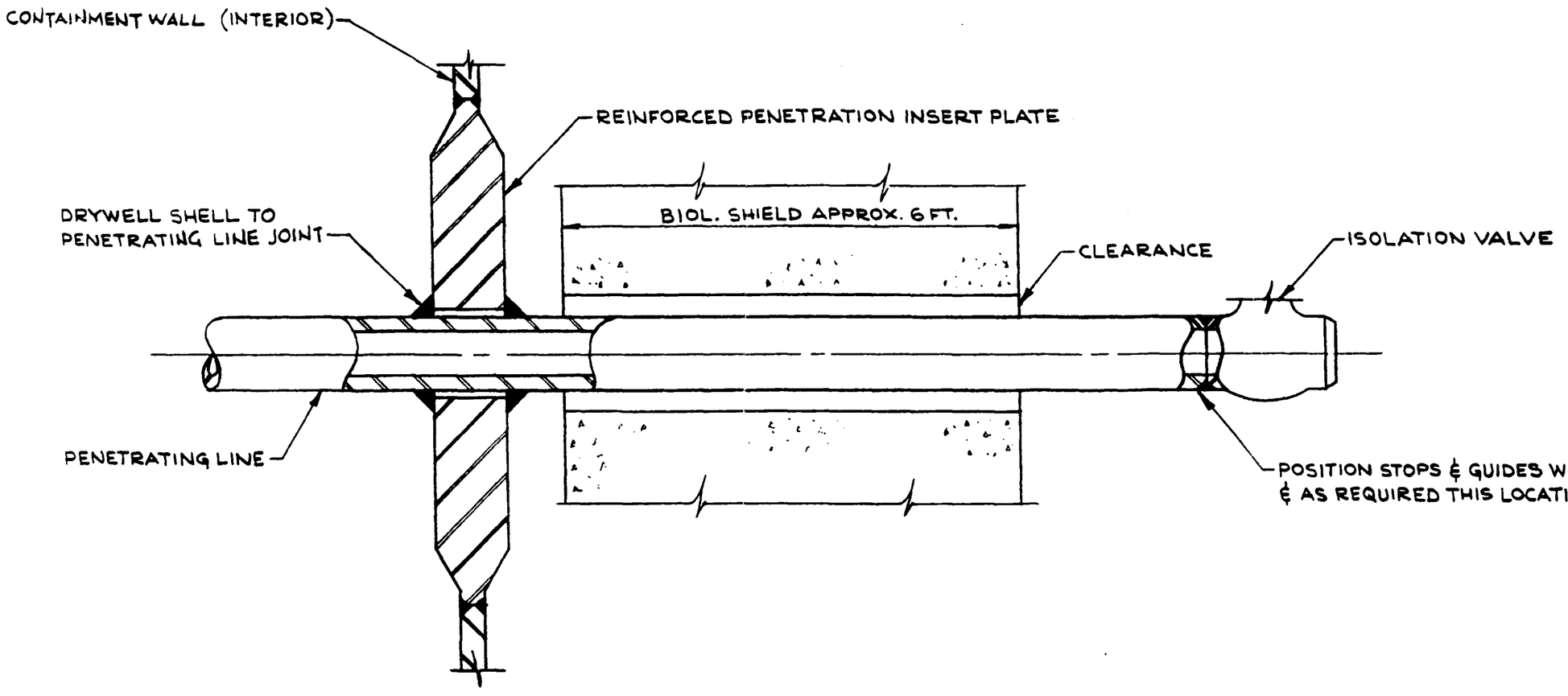
Oyster Creek

Update-6
12/91

Drywell Penetration-Type 2B
Reactor Water Clean-Up System

CADD #53B,301,00,0456,001-,1001

Fig.3.8-16B

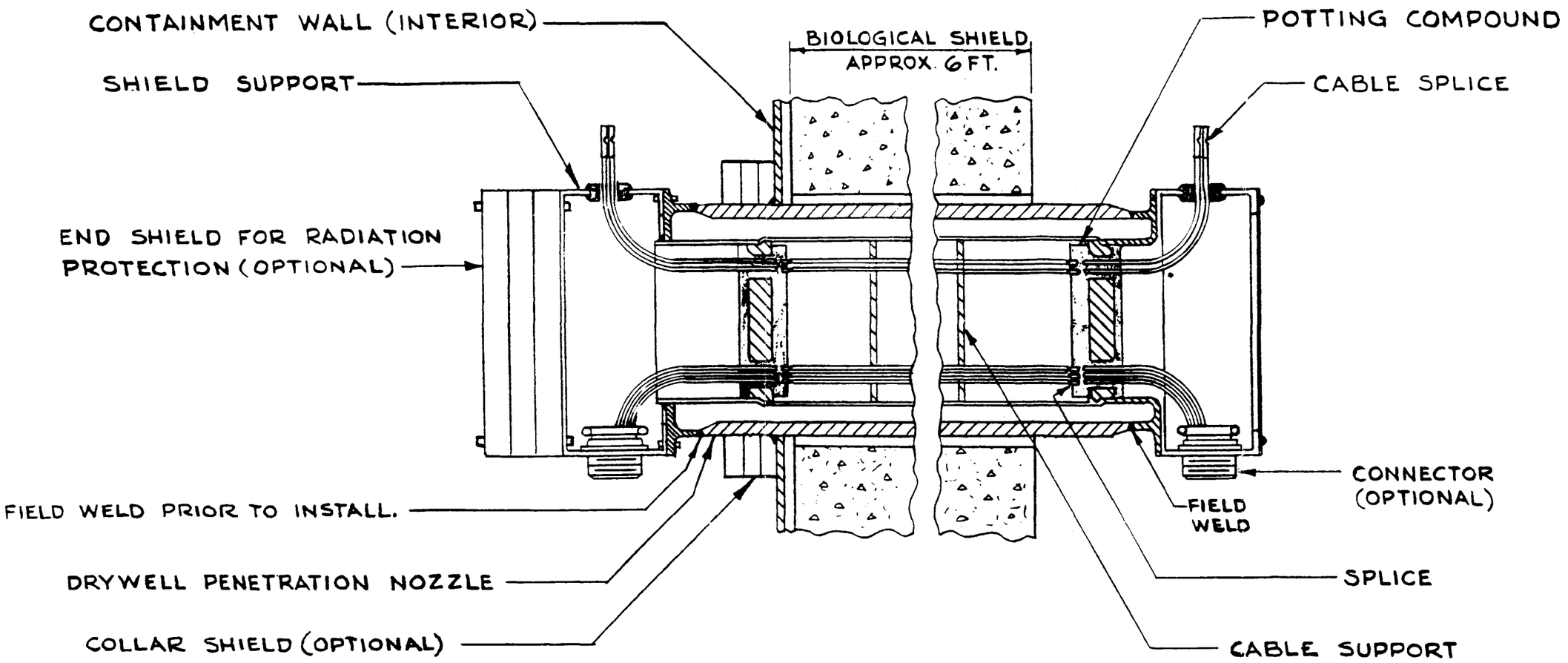


GPU Nuclear
Oyster Creek

Update - 5
12/90

Drywell Penetration — Type 3

Fig. 3.8-17



GPU Nuclear

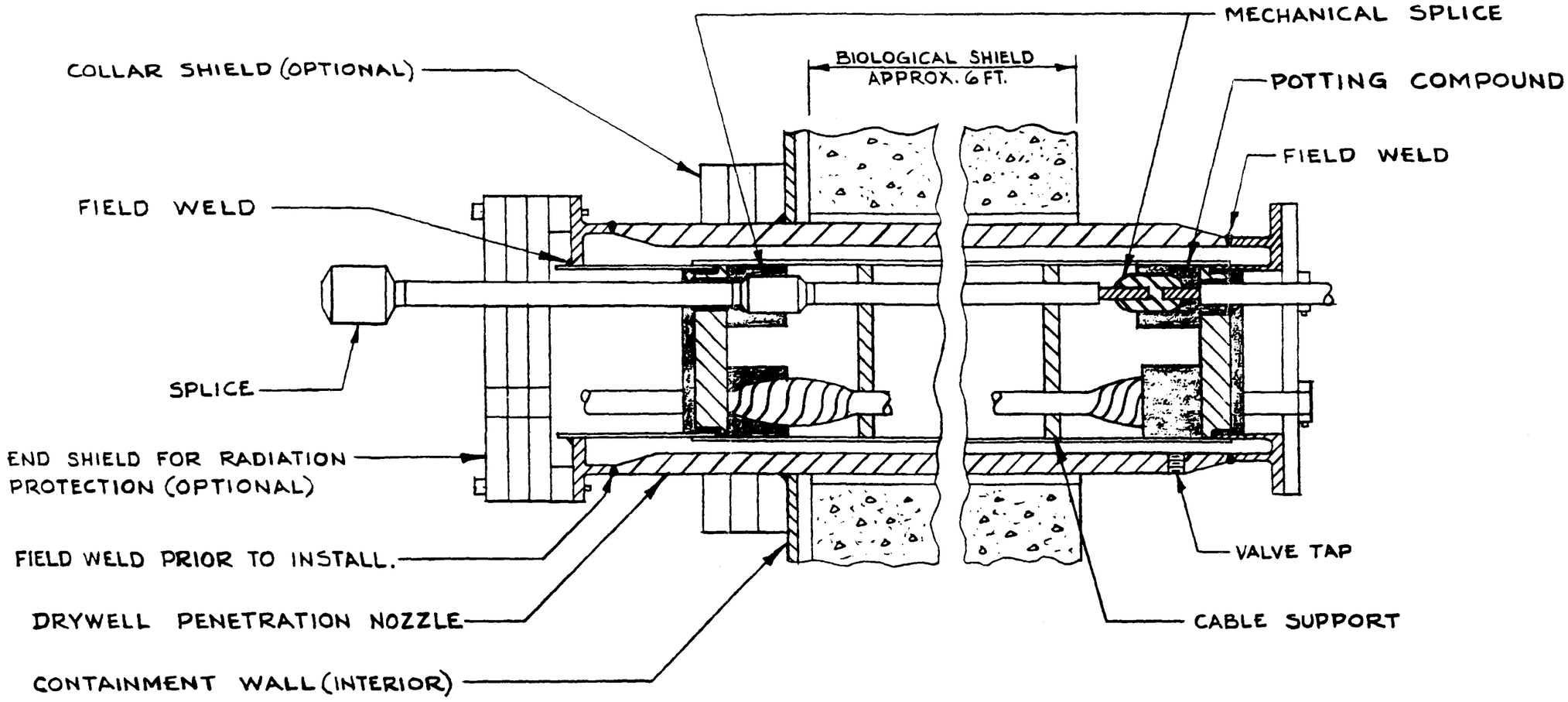
Oyster Creek

Update - 5

12/90

Electrical Penetration Assembly — Low Voltage Power and Control

Fig. 3.8-18

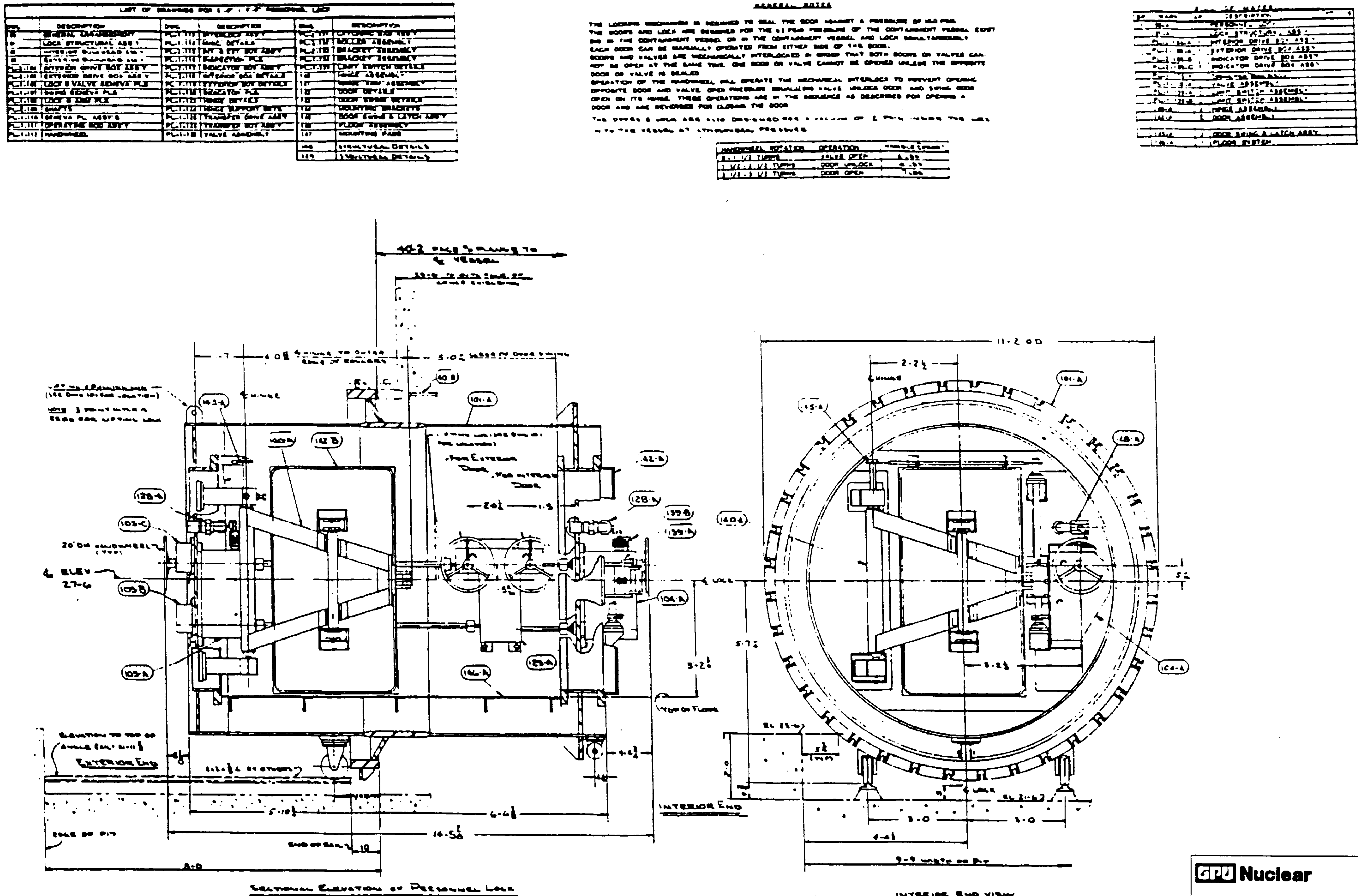


GPU Nuclear
Oyster Creek

Update - 5
12/90

Electrical Penetration Assembly —
High Voltage Power

Fig. 3.8-19

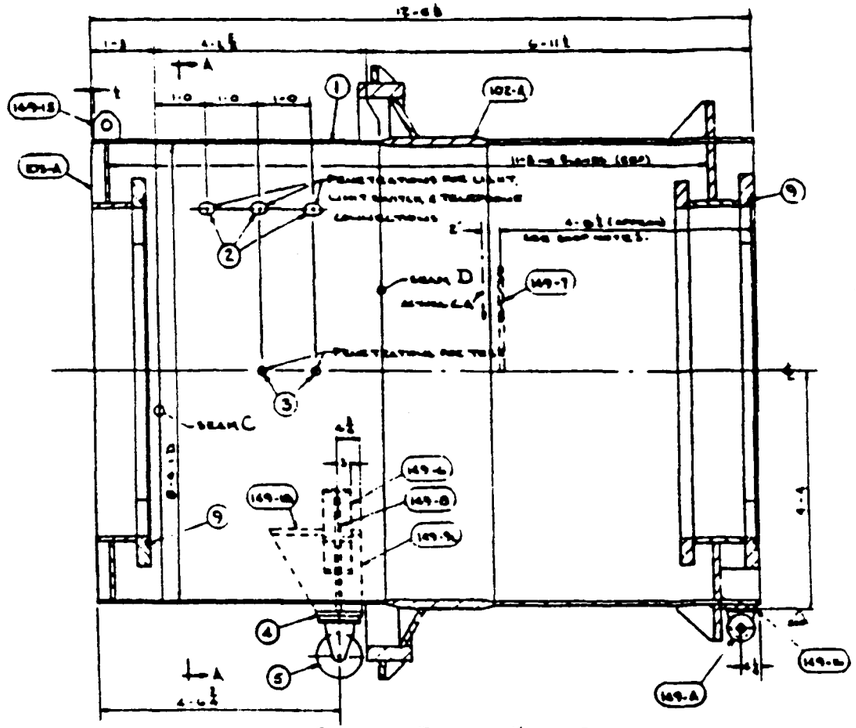


GPU Nuclear Update - 5

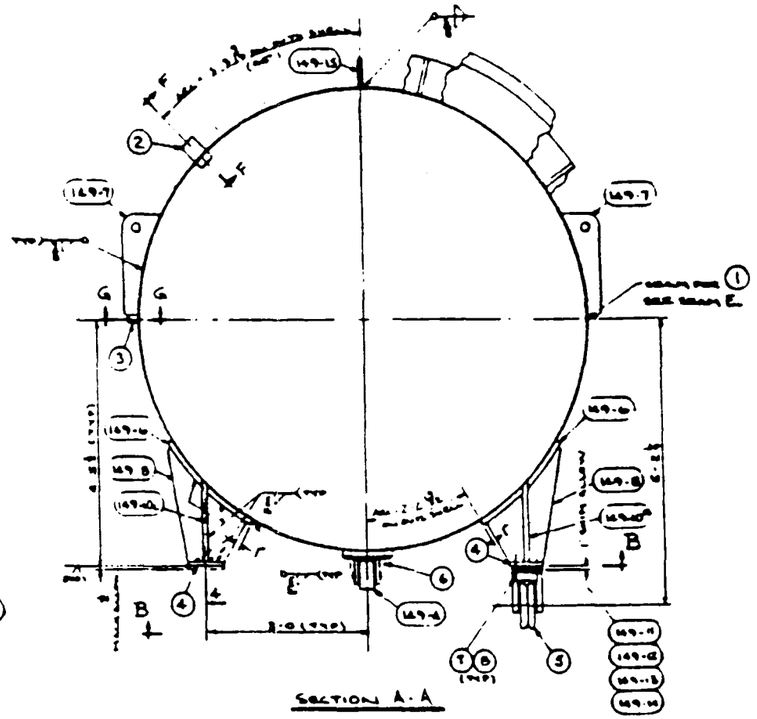
Oyster Creek 12/90

2-6 and 6-0 Personnel Lock — General Arrangement

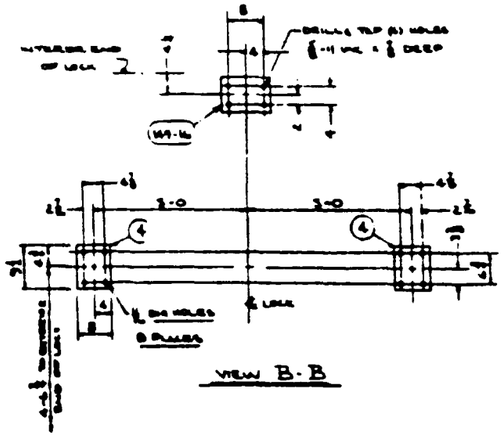
Fig. 3.8-20



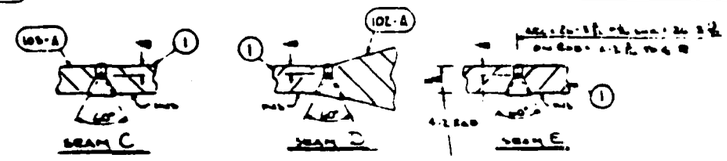
SECTIONAL ELEVATION VIEW OF LOCK STRUCTURAL ASSY (101-A)



SECTION A-A



VIEW B-B



SECTION F-F

SECTION G-G

SQ	MARK	AD	DESCRIPTION			MATL
	101-A					
	101-A	1				
	101-A	1				
	101-1	1				
	101-2	3				
	101-3	2				
	101-4	2				
	101-6	2				
	101-4	4				
	102-1	8				
	101-5	8				
	101-9	2				
	149-6	2				
	149-7	2				
	149-8	2				
	149-9	2				
	149-10	2				
	149-11	2				
	149-12	2				
	149-13	2				
	149-14	4				
	149-15	1				
	149-A	1				
	149-17	2				
	149-3	1				
	149-3	2				
	149-20	1				
	149-21	1				
2	149-11					
2	149-12					
2	149-13					

SHOP NOTE

1. DO NOT ATTACH LIFTING LUGS 149-7 UNTIL ALL COMPONENTS ARE ASSEMBLED TO 100-A, PERSONNEL LOCK ASSY. SHOP DETERMINE LOCATION OF ACTUAL CENTER OF GRAVITY OF ASSY 100-A, THEN LOCATE LUGS 149-7 2" TOWARD THE INTERIOR END OF THE LOCK FROM THE ACTUAL C.G. NOTIFY ENGINEERING OF ACTUAL LOCATION OF LUGS 149-7.

GENERAL NOTES

1. PREHEAT AT 300°F MIN. ALL SEAMS WHERE THICKNESS EXCEEDS 1½" PREHEAT TO 300°F FOR ALL SEAM THICKNESS. SEAM TO BE LOCK TEMP. 70°F MIN. AMBIENT TEMPERATURE IS LOWER THAN 60°F.
2. ALL BUTT WELDS ARE TO BE 100% X-RAYED
3. UNLESS ALL WELDS WELD ARE NOT X-RAYED
4. USE E7018 ELECTRODE. SEE NOTE ON GENERAL PLAN.

GPU Nuclear

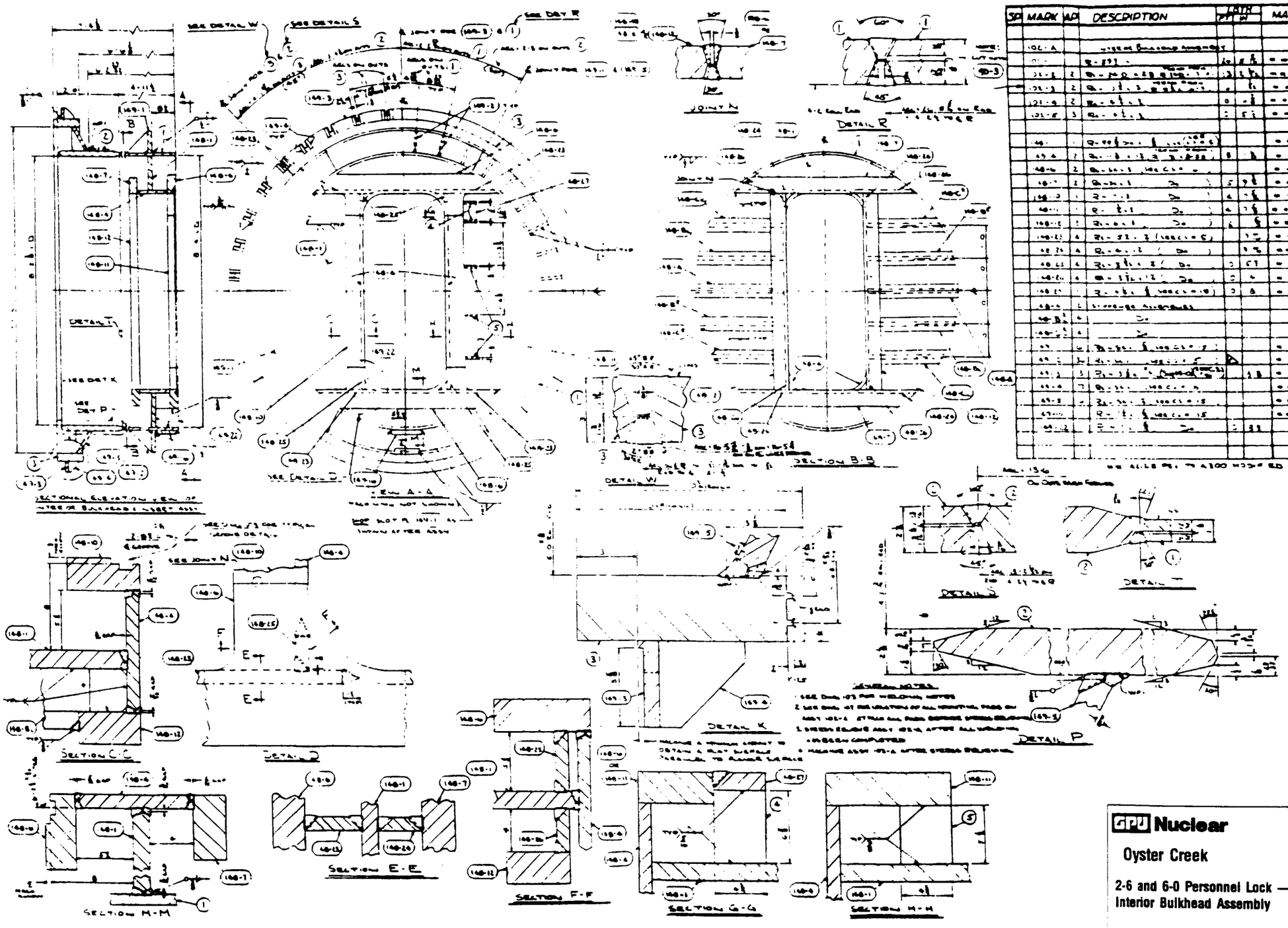
Oyster Creek

2-6 and 6-0 Personnel Lock — Lock Structural Assembly

Update - 5

12/90

Fig. 3.8-21



SQ	MARK	NO	DESCRIPTION	LENGTH FT	LENGTH IN	MATL
	100-A					
	100-1	2				
	100-2	2				
	100-3	2				
	100-4	2				
	100-5	2				
	100-					
	100-6	2				
	100-7	2				
	100-8	1				
	100-9	1				
	100-10	1				
	100-11	4				
	100-12	4				
	100-13	4				
	100-14	4				
	100-15	1				
	100-16	1				
	100-17	1				
	100-18	1				
	100-19	1				
	100-20	1				
	100-21	1				
	100-22	1				
	100-23	1				
	100-24	1				
	100-25	1				
	100-26	1				
	100-27	1				

SEE NOTES ON SHEET 100-1 FOR GENERAL NOTES

GPU Nuclear

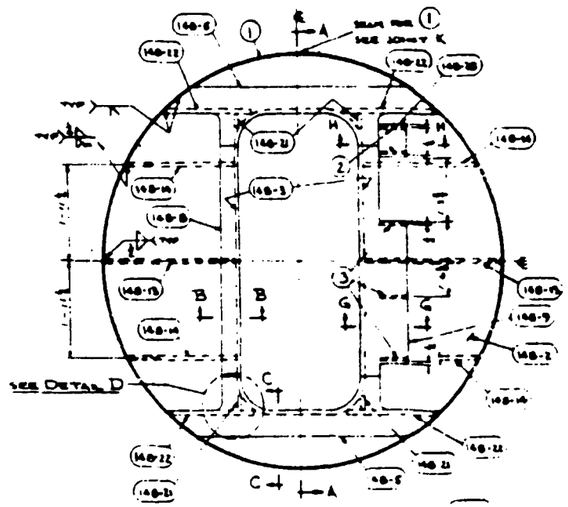
Oyster Creek

2-6 and 6-0 Personnel Lock — Interior Bulkhead Assembly

Update - 5

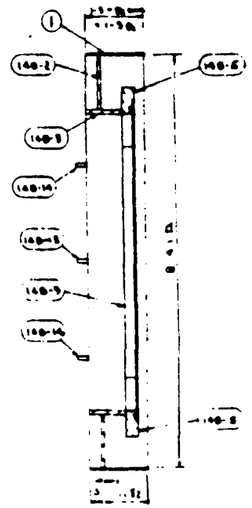
12/90

Fig. 3.8-22



EXTERIOR BULKHEAD ASSEMBLY [103-A]

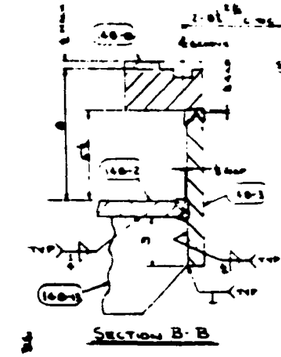
(MACHINING NOT SHOWN)

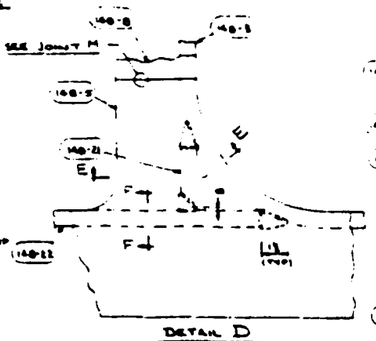


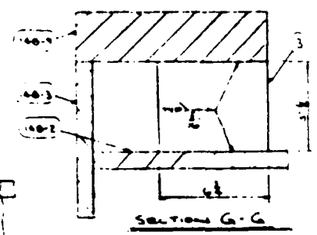
SECTION A-A

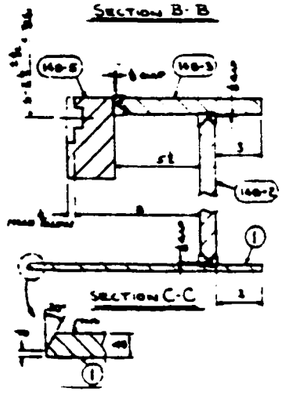
SQ	MARK NO	QTY	DESCRIPTION	WEIGHT UNIT	WEIGHT TOTAL	MATL
	103-A		(1) ELECTRIC BULKHEAD ASSEMBLY			
	103-1	1	PL - 15" x 1"	26	26	A-36
	103-2	2	PL - 6" x 1"	3	6	A-36
	103-3	3	PL - 5" x 1"	3	4.5	A-36
	140-1		PL - 99" x 1" x 140'-0" (SEE NOTE 6)			A-36
	140-2	2	PL - 7" x 1" x 8'-0" (SEE NOTE 6)	7	14	A-36
	140-3	2	PL - 14" x 1" x 140'-0" (SEE NOTE 6)			A-36
	140-8	1	PL - 8" x 1" x 140'-0" (SEE NOTE 6)	6	7.5	A-36
	140-9	1	PL - 8" x 1" x 140'-0" (SEE NOTE 6)	6	7.5	A-36
	140-13	2	PL - 4" x 1" x 140'-0" (SEE NOTE 6)	2	10	A-36
	140-14	4	PL - 4" x 1" x 140'-0" (SEE NOTE 6)	3	3.5	A-36
	140-21	4	PL - 8" x 1" x 140'-0" (SEE NOTE 6)	9	5.5	A-36
	140-22	4	PL - 5" x 1" x 140'-0" (SEE NOTE 6)	2	2.5	A-36
	140-23	1	PL - 6" x 1" x 140'-0" (SEE NOTE 6)	5	8	A-36

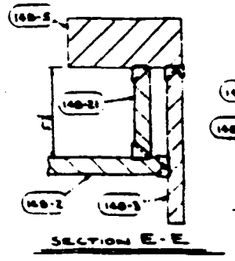
GENERAL NOTES

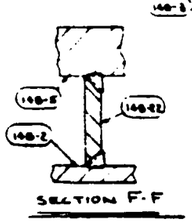


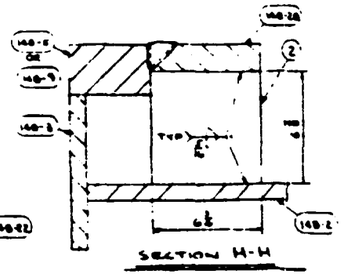


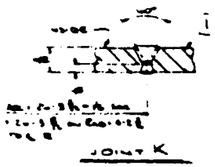


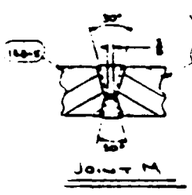


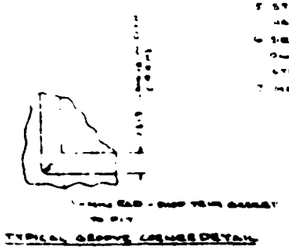


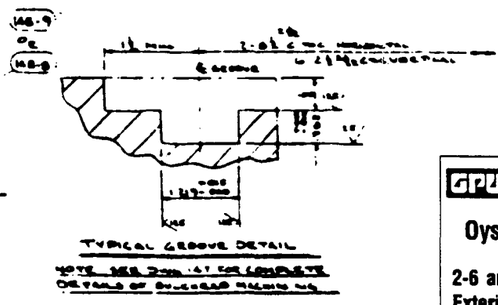












GPU Nuclear

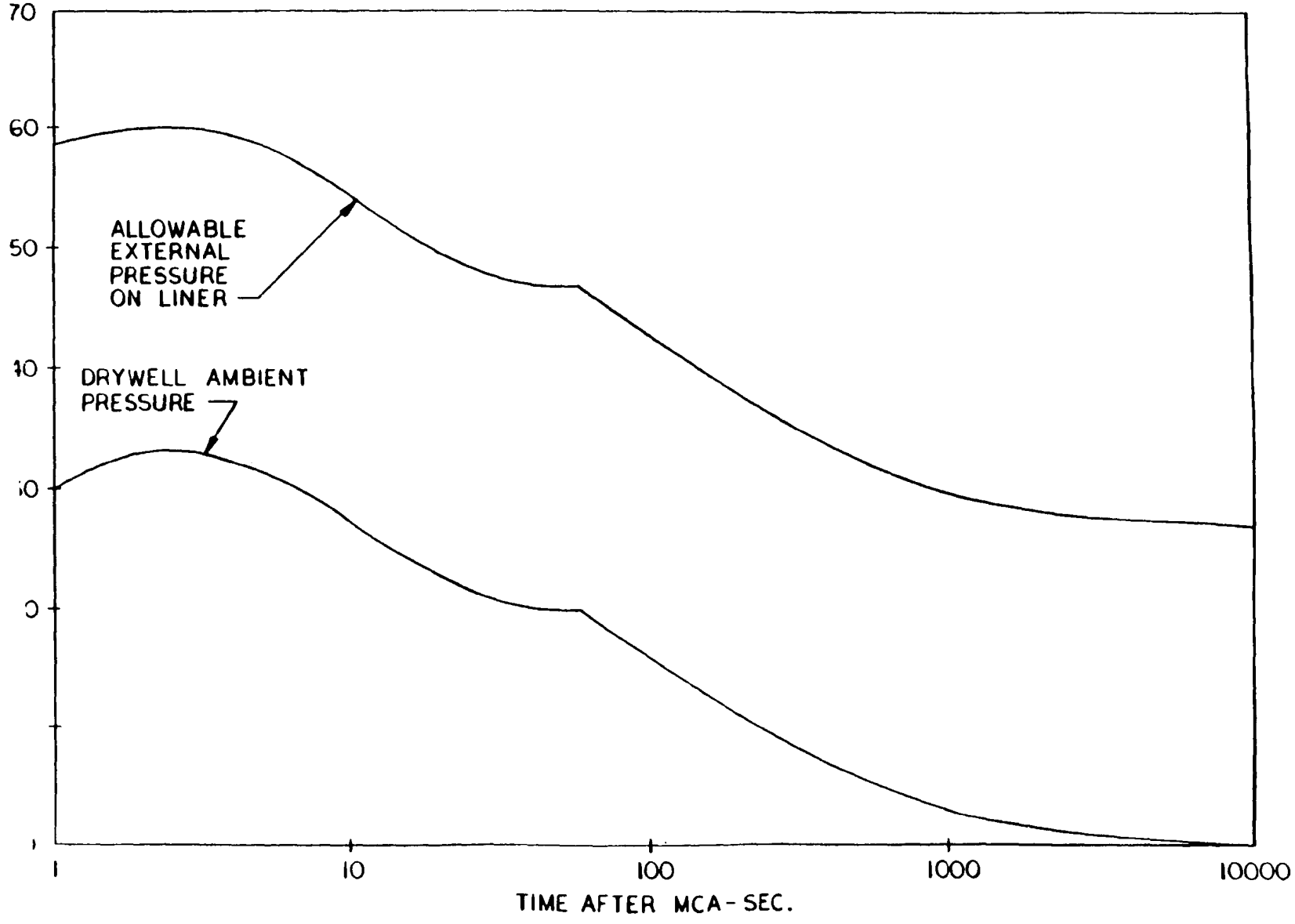
Oyster Creek

2-6 and 6-0 Personnel Lock — Exterior Bulkhead Assembly

Update - 5

12/90

Fig. 3.8-23



GPU Nuclear

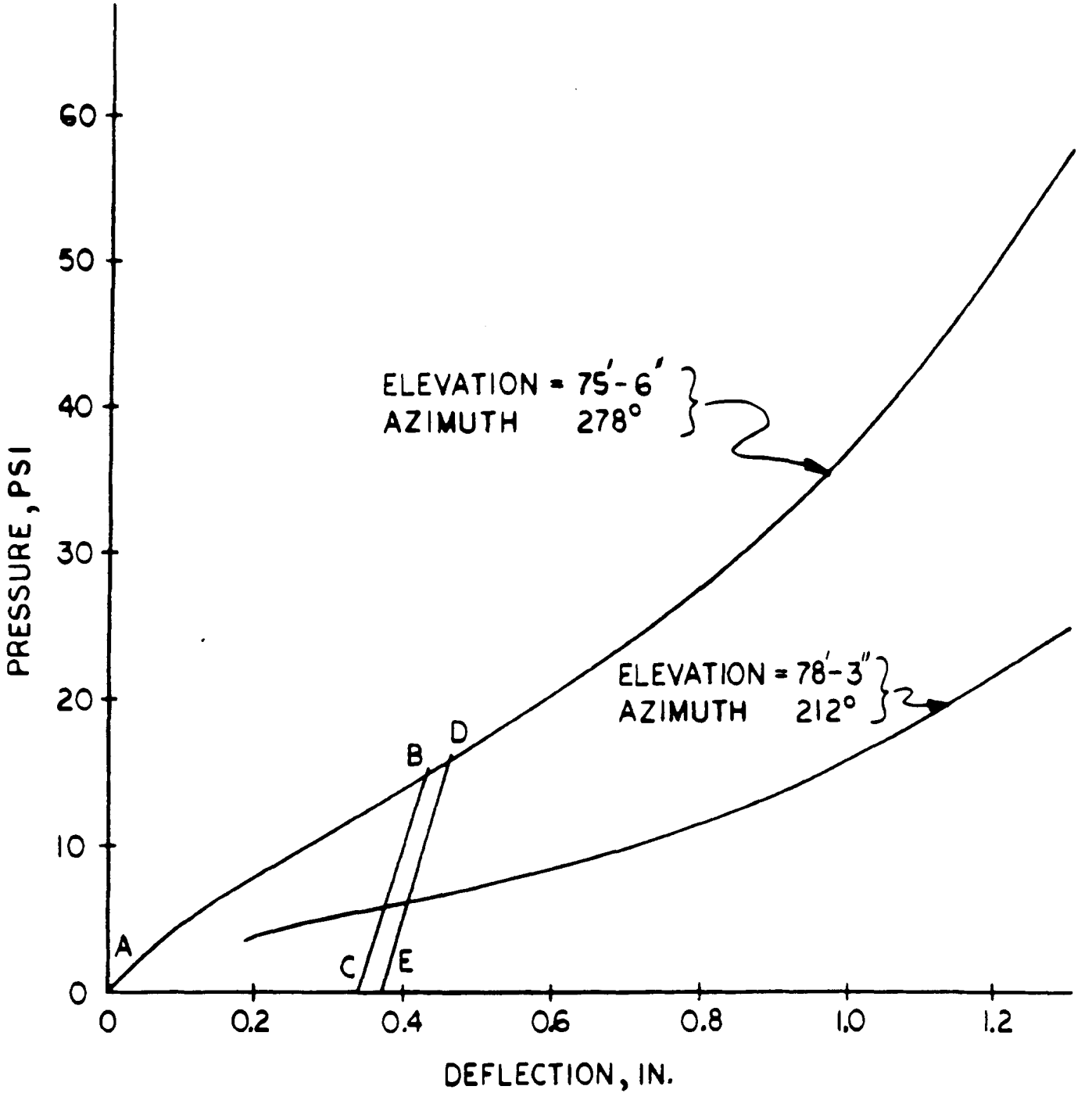
Oyster Creek

Update - 5

12/90

Allowable External Pressure on Liner

Fig. 3.8-24A



GPU Nuclear	Update - 5
Oyster Creek	12/90
Pressure vs. Deflection for Off Wall Sample — Firebar D	
	Fig. 3.8-24B

POINTS	ELEV.	AZ
1	36'	125°
2	27'	38°
3	44'	290°
4	27'	171°
5	62'	340°
6	62'	240°
7	86'	190° (CYL)

GPU Nuclear

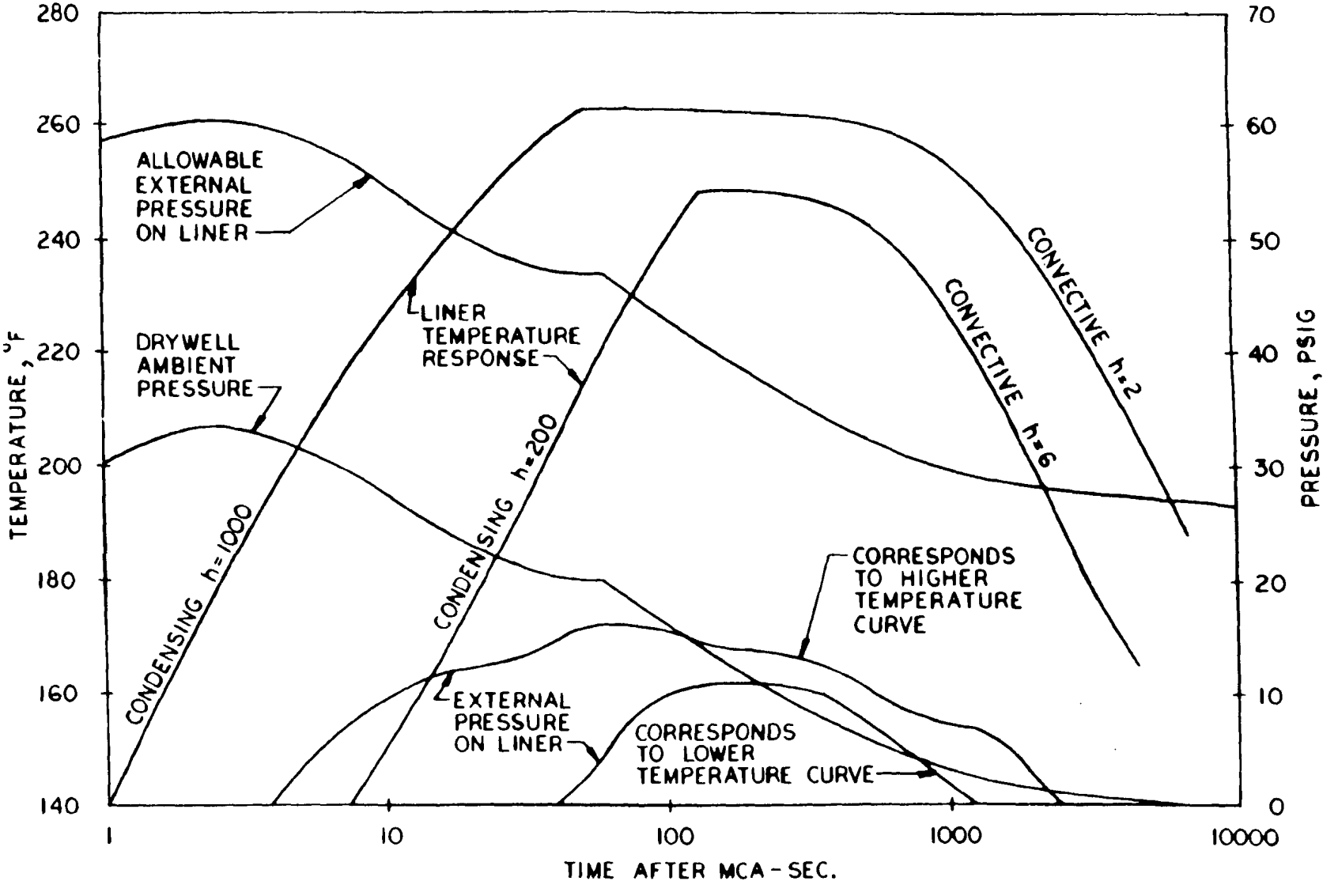
Oyster Creek

Update - 5

12/90

Locations at Which Liner Displacement Was Measured

Fig. 3.8-24C



GPU Nuclear

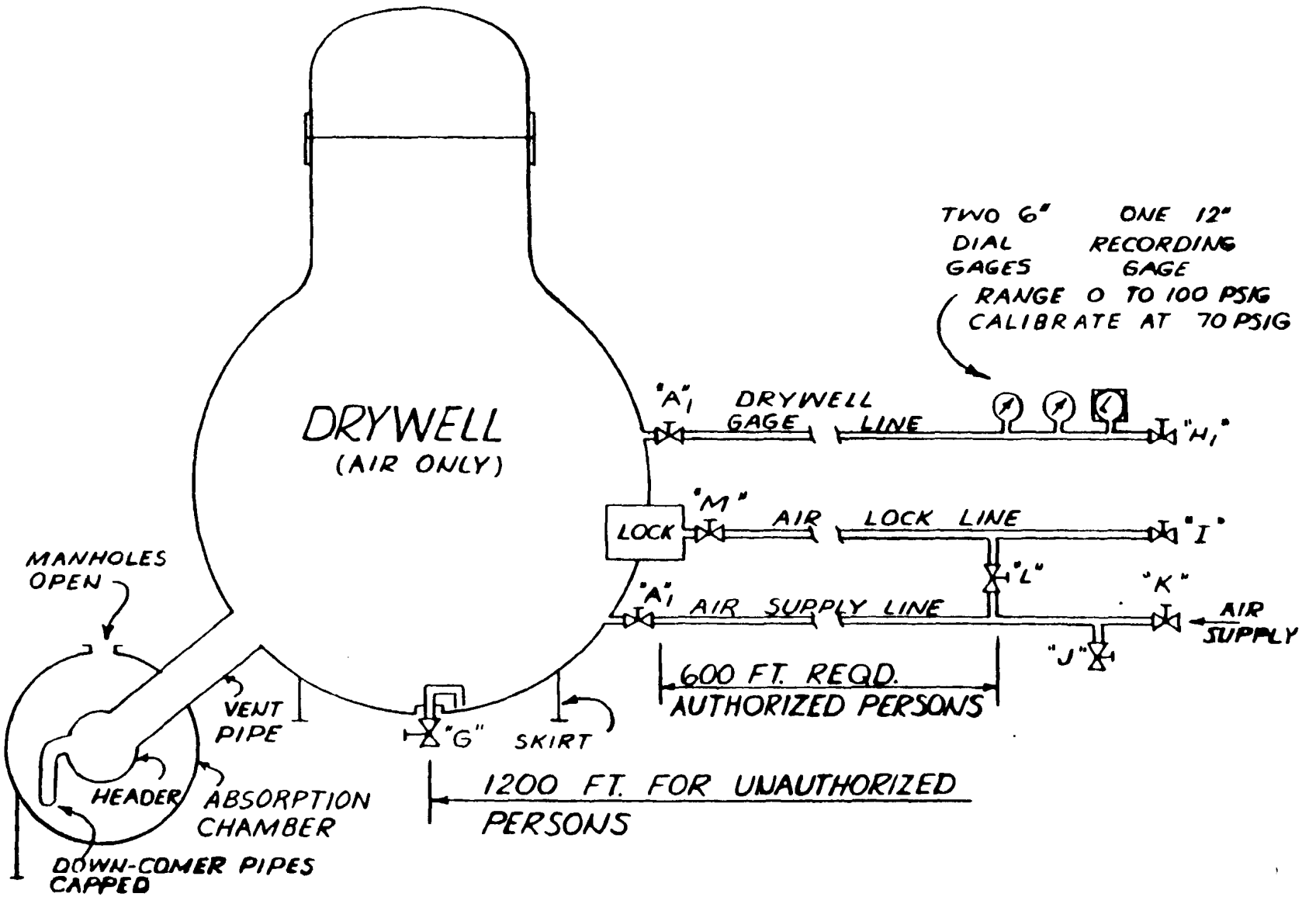
Oyster Creek

Update - 5

12/90

Liner External Pressure and Temperature After MCA

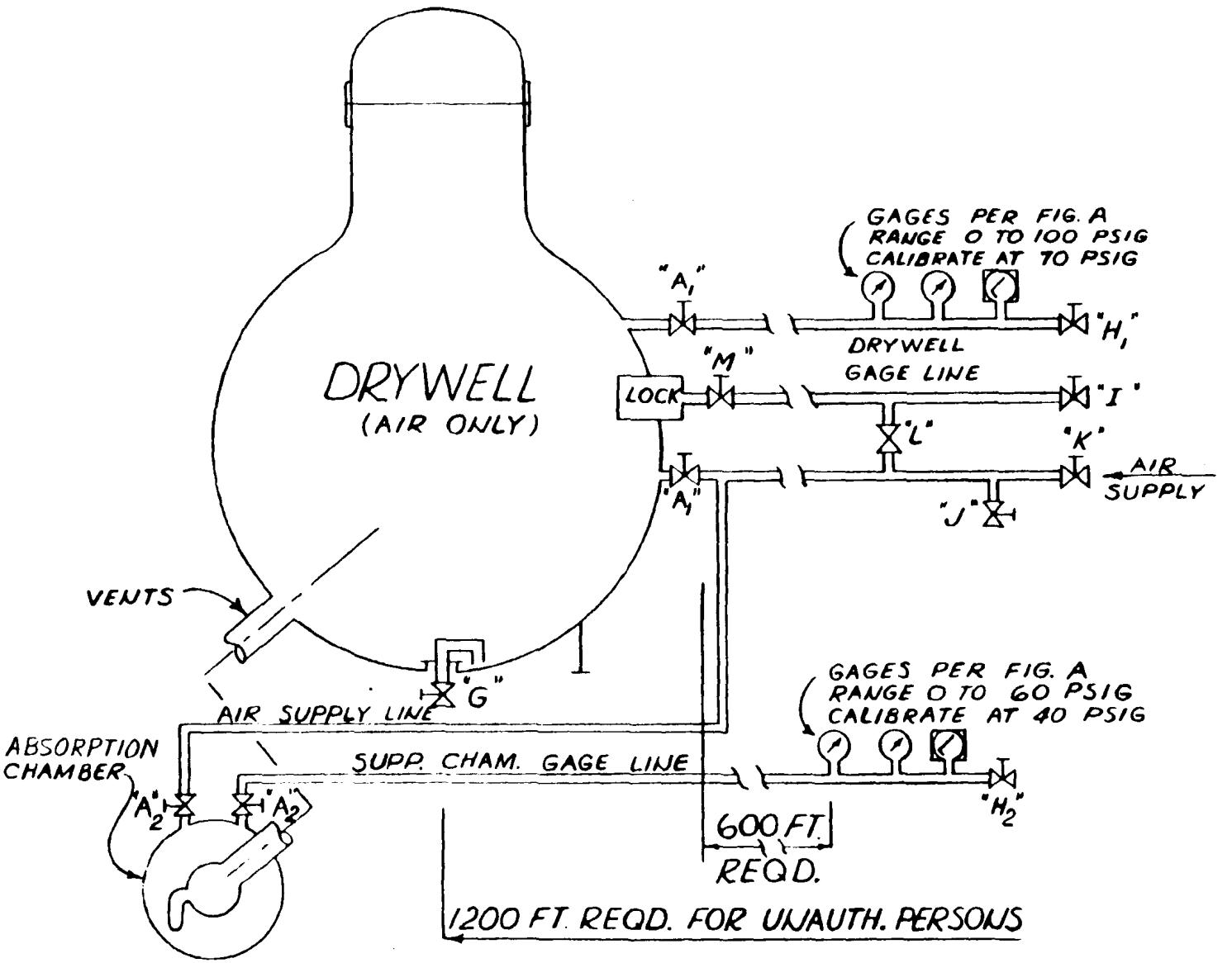
Fig. 3.8-24D



GPU Nuclear
Oyster Creek
Update - 5
12/90

Overload Test of Drywell

Fig. 3.8-25



GPU Nuclear

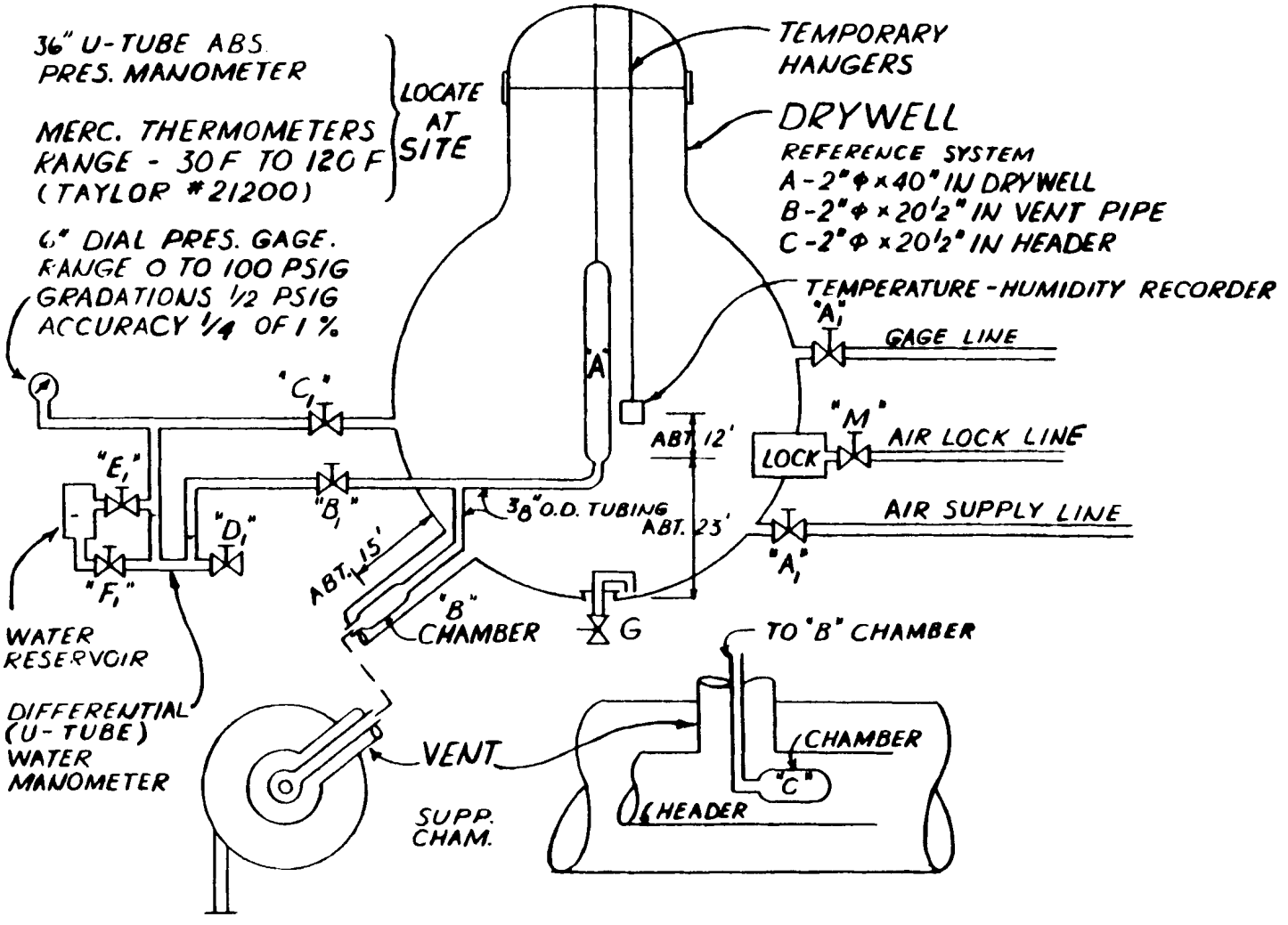
Oyster Creek

Update - 5

12/90

Overload Test of Absorption Chamber

Fig. 3.8-26



GPU Nuclear

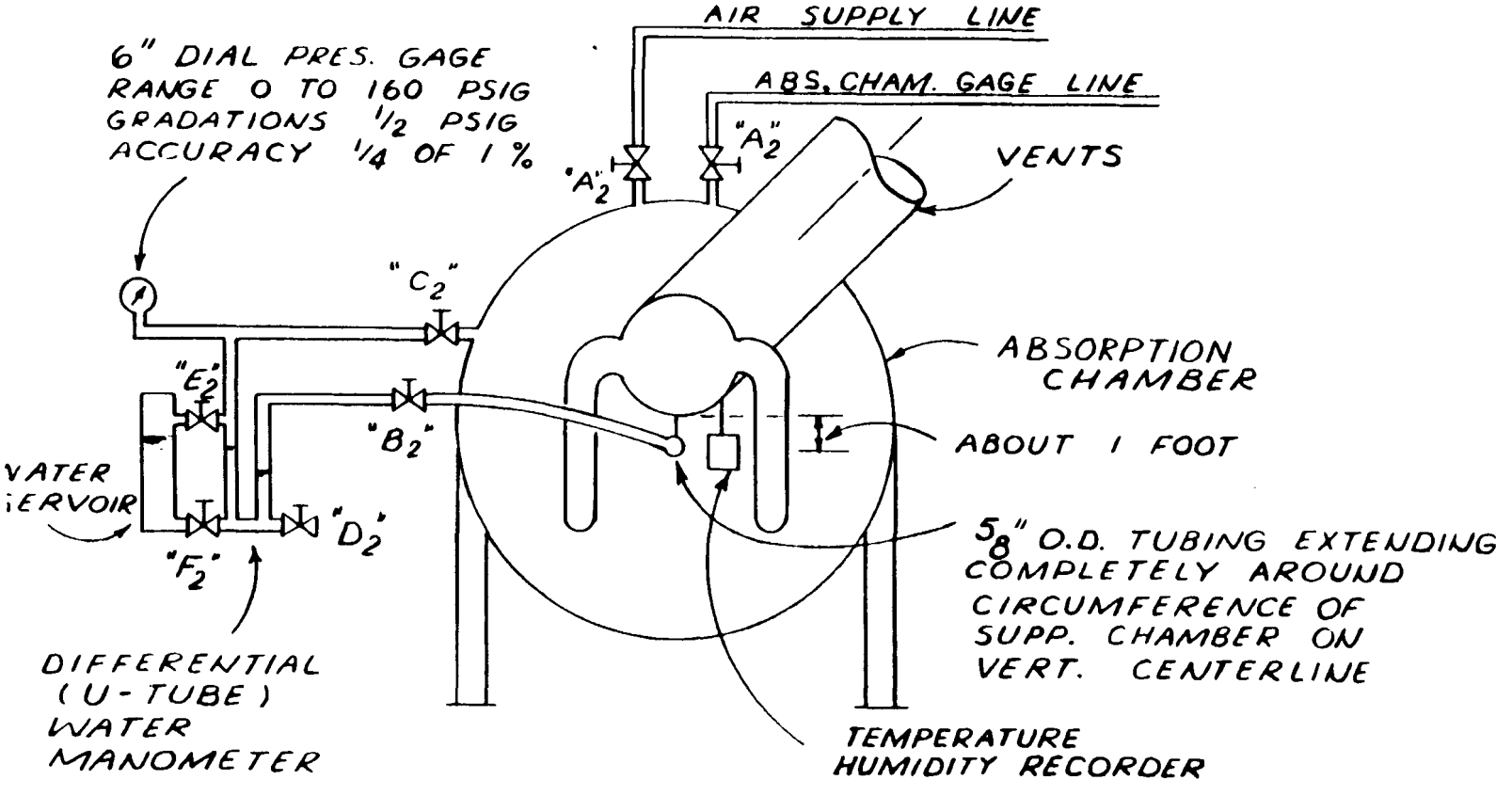
Oyster Creek

Leakage Rate Test of Drywell

Update - 5

12/90

Fig. 3.8-27



GPU Nuclear

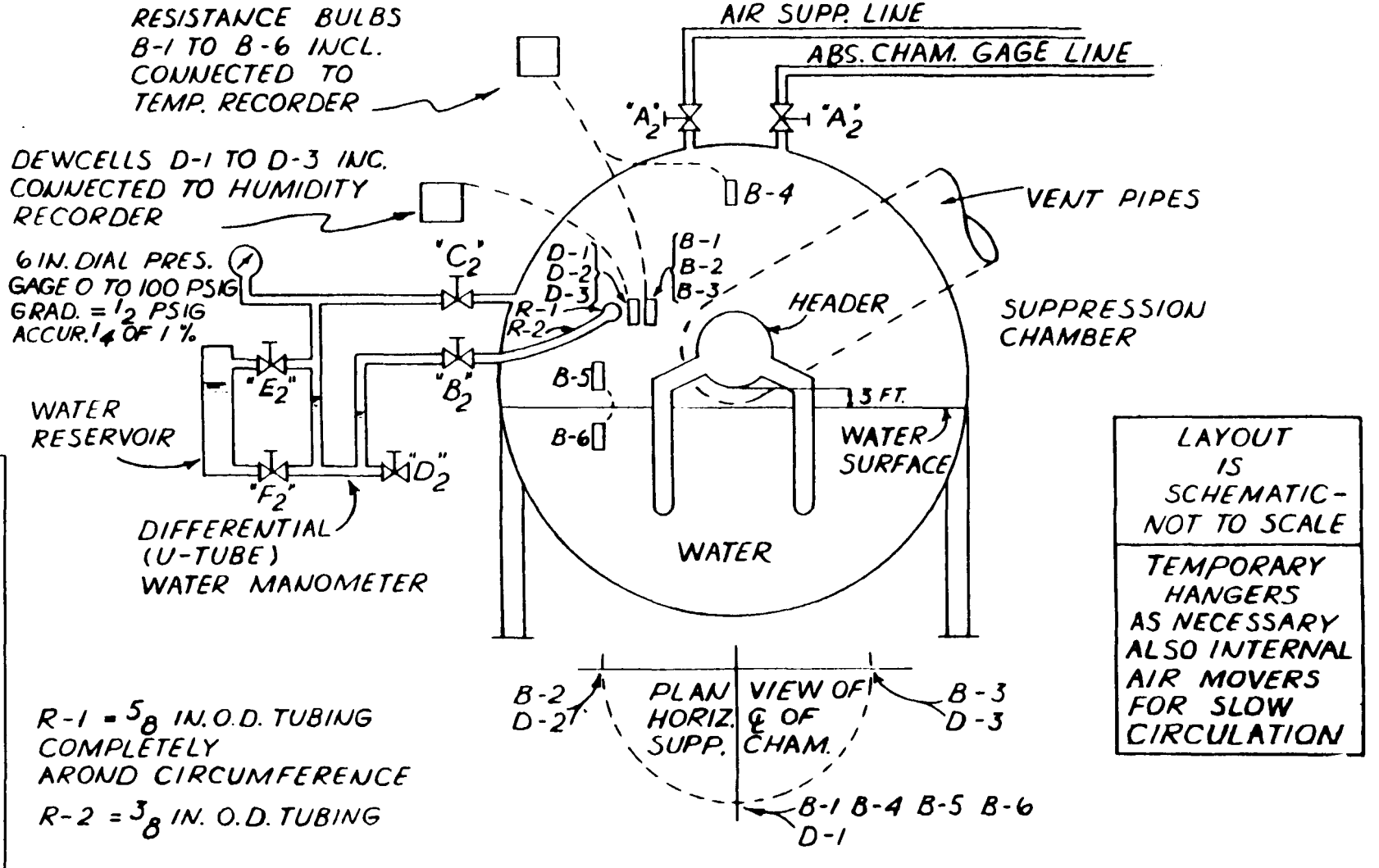
Oyster Creek

Update - 5

12/90

Leakage Rate Test of Absorption Chamber

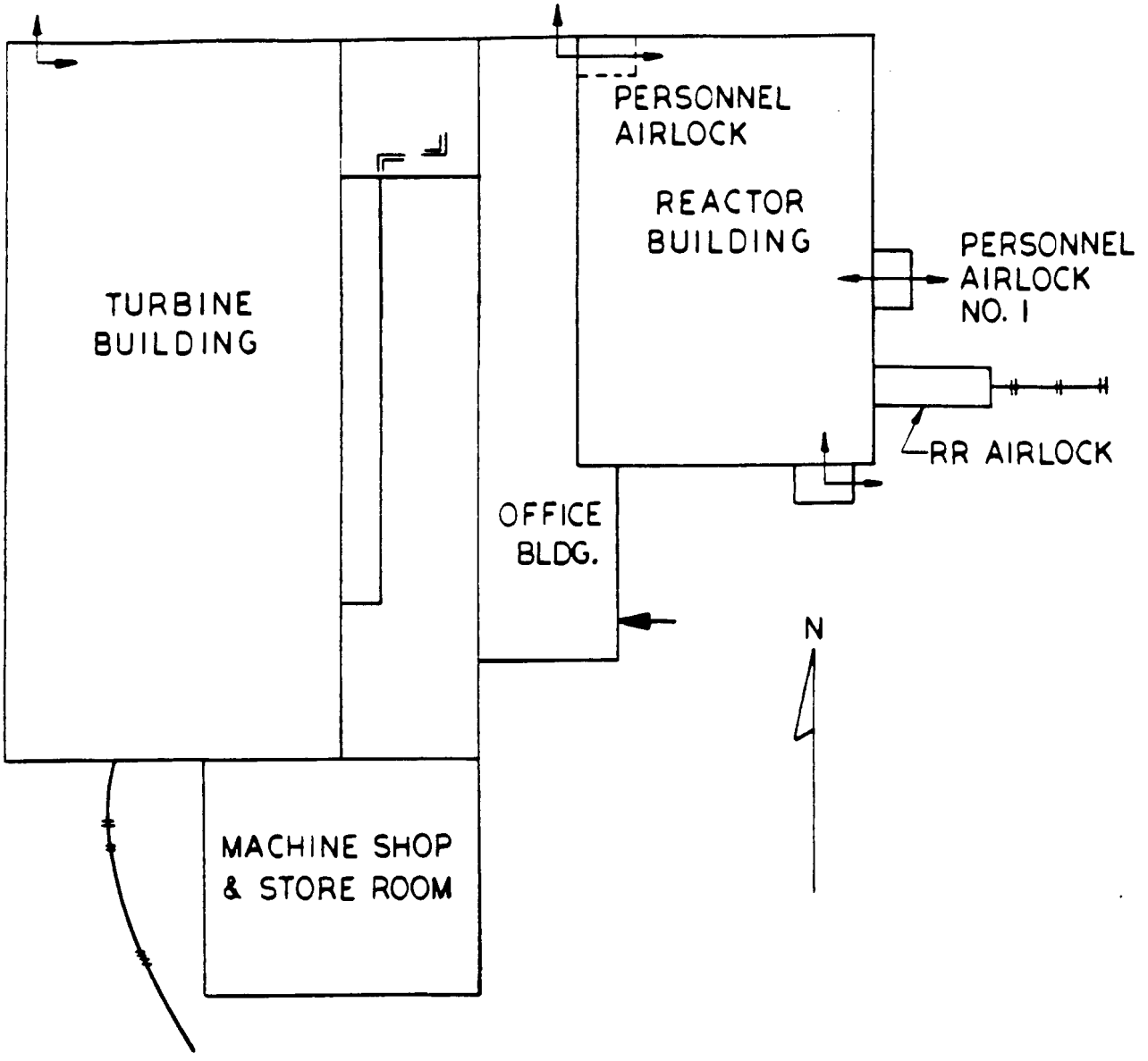
Fig. 3.8-28



GPU Nuclear
Oyster Creek
Update - 5
12/90

Wet Leakage Rate Test of Absorption Chamber

Fig. 3.8-29



GPU Nuclear

Oyster Creek

Update - 5

12/90

Main Power Plant Complex — Key Plan

Fig. 3.8-30

Figures 3.8-31 through 3.8-36

Deleted

NOTES

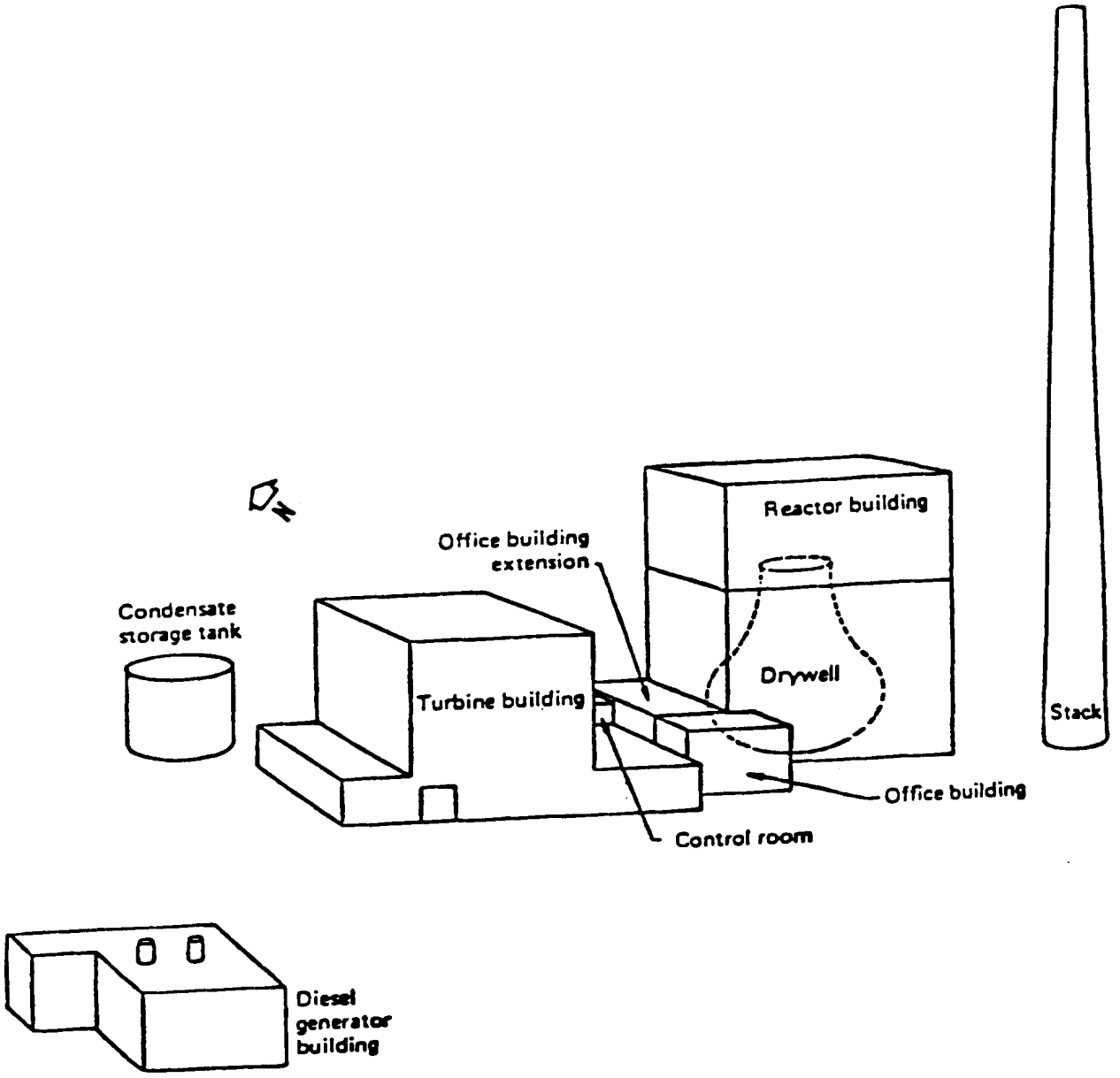
1. ONLY THOSE STRUCTURAL ELEMENTS DESIGNED AS CATEGORY I ARE SHOWN.
2. AT EL. 48.0' ONLY CONCRETE SLAB IN AREA SHOWN IS DESIGNED AS CATEGORY I.

GPU Nuclear | Update - 5

Oyster Creek | 12/90

Radwaste Building Identification of Seismic Category I Elements

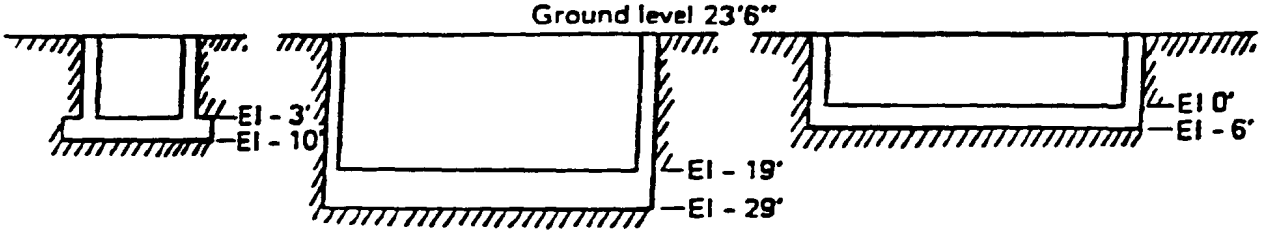
Fig. 3.8-37



GPU Nuclear	Update - 5
Oyster Creek	12/90

Isometric of Oyster Creek Plant Showing Major Structures (Looking North)

Fig. 3.8-38



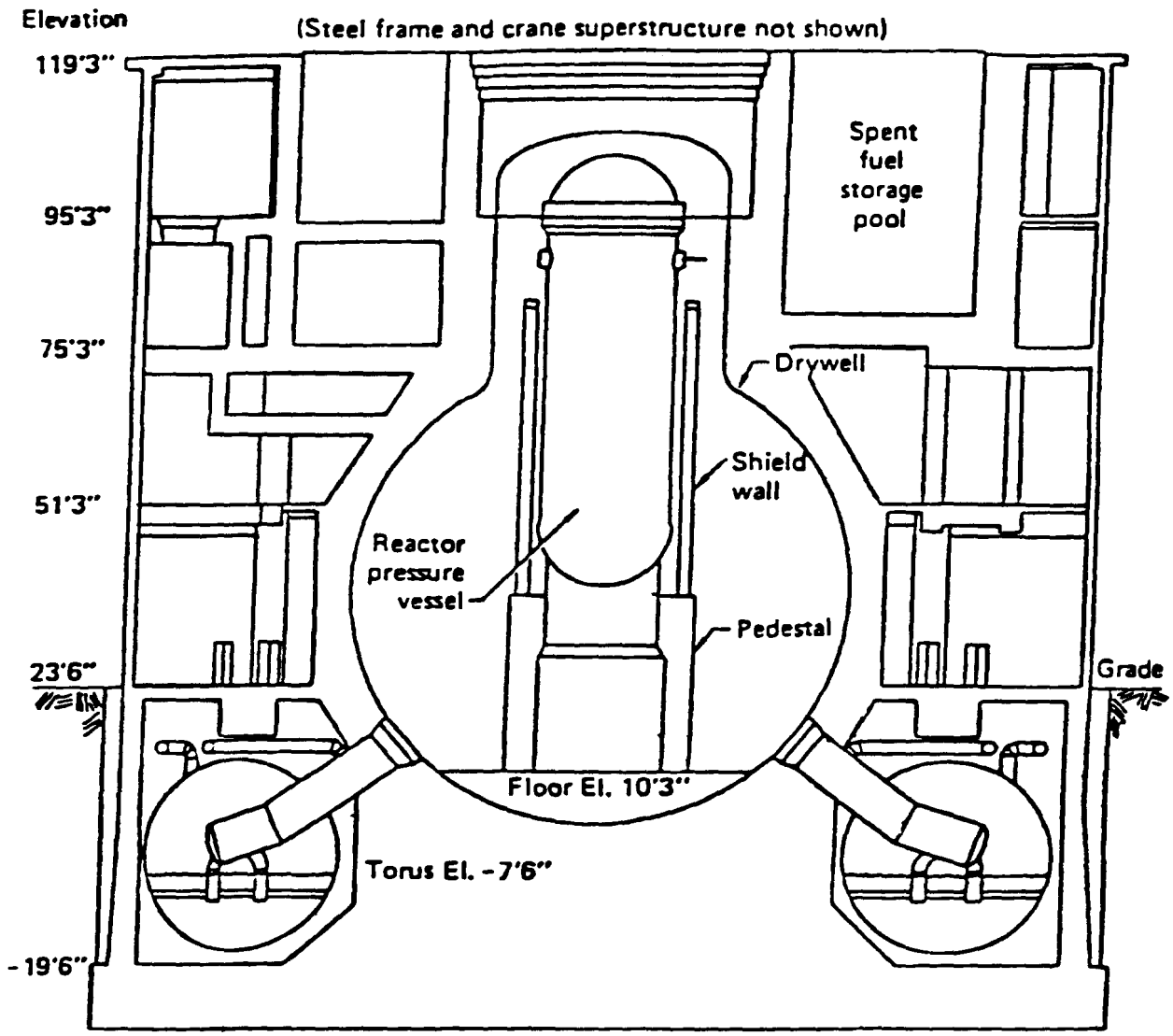
Stack hexagonal base:
45' face to face
E/b = 0.74

Reactor building square base:
140' X 140'
E/b = 0.375

Turbine building rectangular base:
270' (N-S) X 170' (E-W)
E/b = 0.173

E = embedment
b = least base dimension
Deep embedment case: E/b > 0.15

GPU Nuclear — Update - 5
Oyster Creek — 12/90
Sizes and Embedments of Bases of the Stack, Reactor Building, and Turbine Building (Orientation Looking South)
Fig. 3.8-39

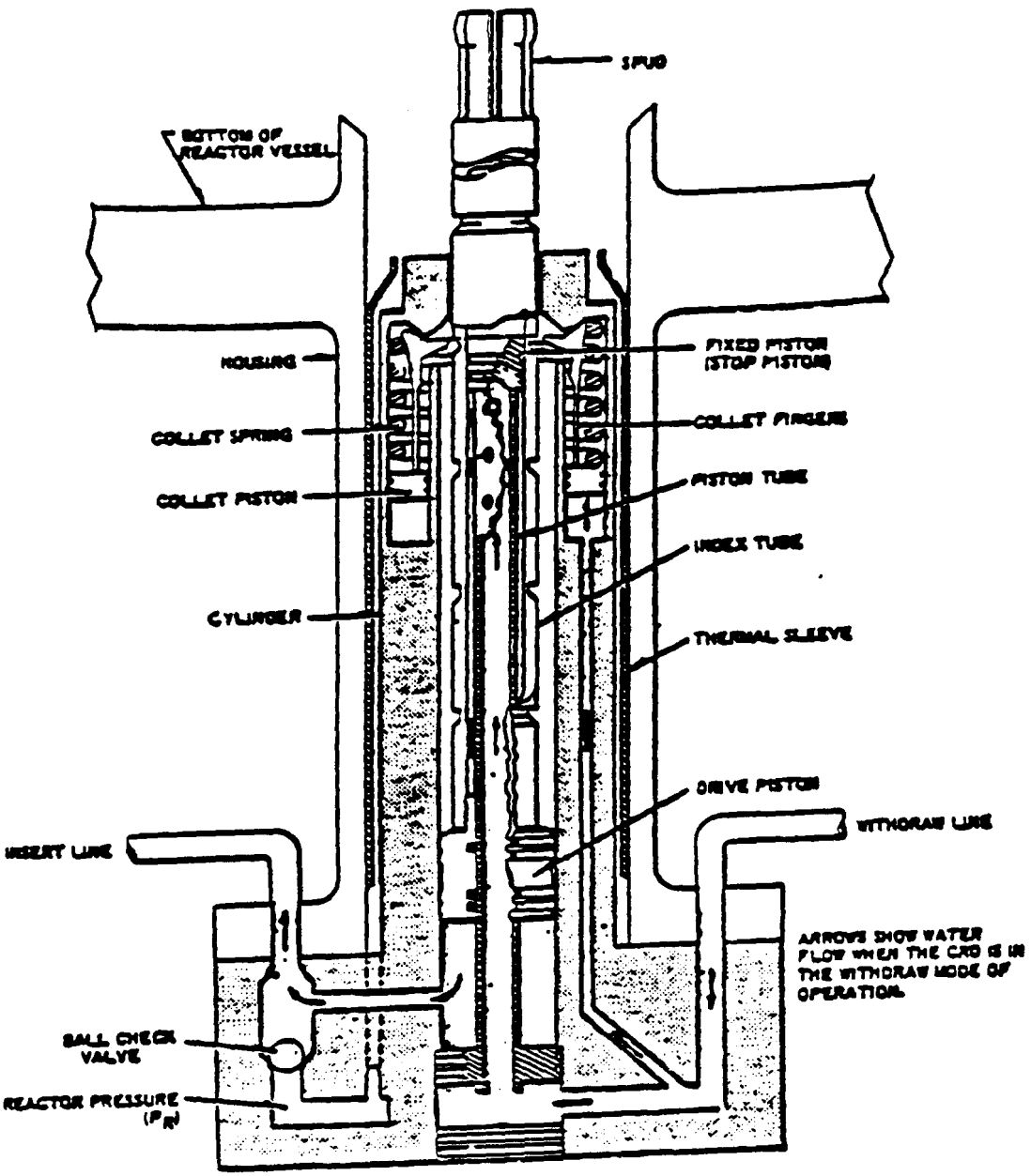


GPU Nuclear | Update - 5

Oyster Creek | 12/90

Cross Section of the Reactor Building
(Section Looking North)

Fig. 3.8-40



GPU Nuclear

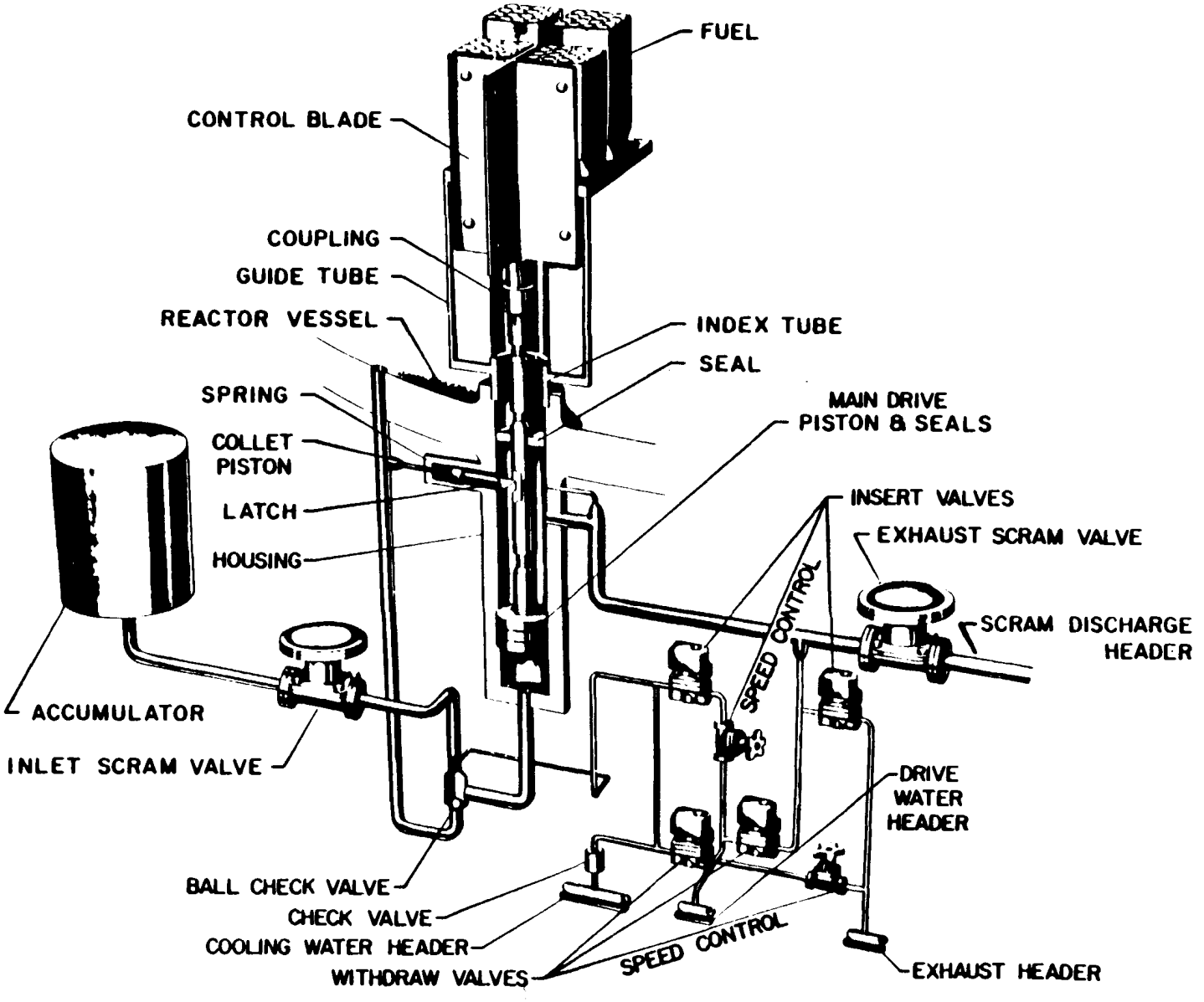
Oyster Creek

Update - 5

12/90

Control Rod Drive — Cutaway

Fig. 3.9-1



GPU Nuclear

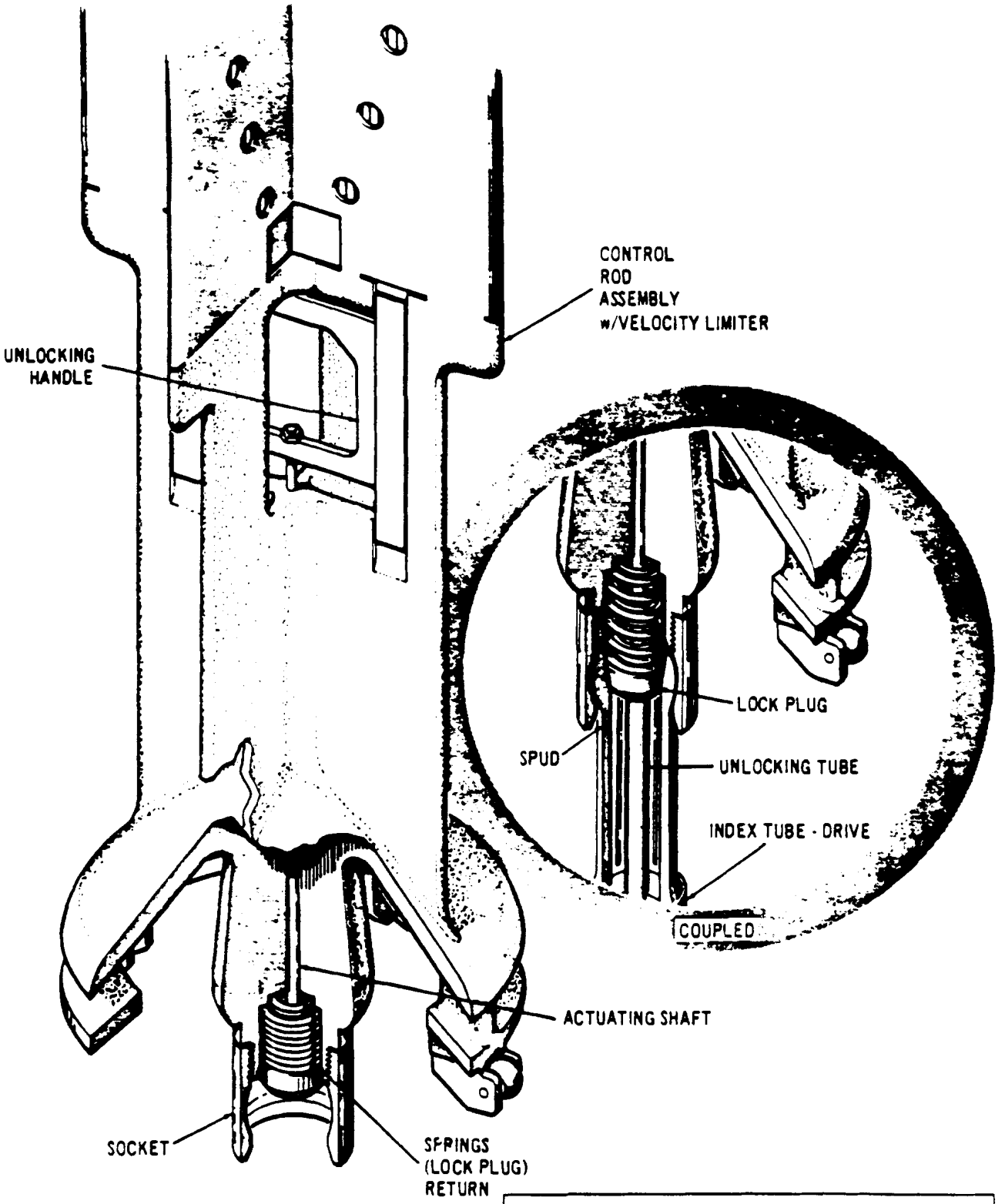
Oyster Creek

Update - 5

12/90

Control Rod Drive System — Simplified
Component Illustration

Fig. 3.9-2



GPU Nuclear | Update - 5

Oyster Creek | 12/90

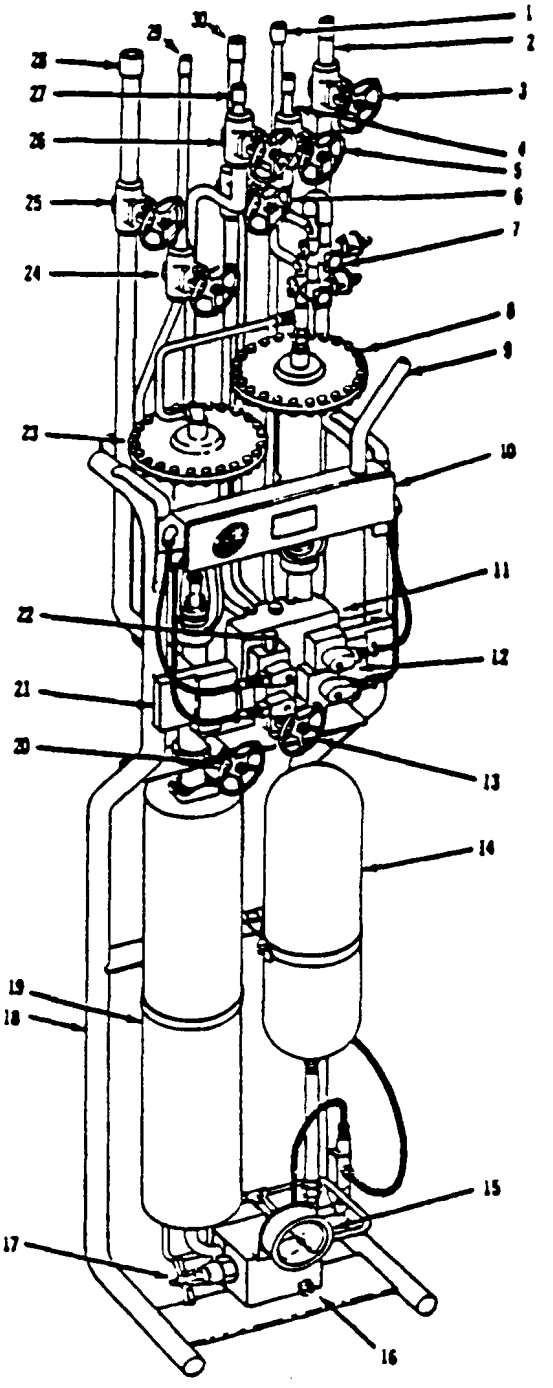
Control-Rod-to-Drive Coupling — Isometric

Fig. 3.9-3

Figure 3.9-4

Deleted

1. ACCUMULATOR CHARGING WATER RISER
2. DRIVE - WITHDRAW RISER
3. ISOLATION VALVE — DRIVE-WITHDRAW RISER (EP 102)
4. DRIVE WATER RISER
5. ISOLATION VALVE — DRIVE WATER RISER (EP 103)
6. ISOLATION VALVE — SCRAM DISCHARGE RISER (EP 108 OR EP 112)
7. SCRAM PILOT VALVE ASSEMBLY (EP 117, 118)
8. OUTLET SCRAM VALVE AND ACTUATOR (EP 127)
9. TYPICAL ELECTRICAL CONNECTION
10. WIRING TROUGH ASSEMBLY
11. MANIFOLD (PART OF PIPING ASSEMBLY)
12. DIRECTIONAL CONTROL VALVES (4 EACH) (EP 120, 121, 122, 123)
13. ISOLATION VALVE — ACCUMULATOR CHARGING WATER RISER (EP 106
14. SCRAM ACCUMULATOR — NITROGEN CYLINDER (EP 128)
15. ACCUMULATOR GAS PRESSURE INDICATOR (EP 131)
16. ACCUMULATOR INSTRUMENTATION ASSEMBLY
17. NEEDLE VALVE — ACCUMULATOR GAS CHARGING (EP 111)
18. FRAME
19. SCRAM ACCUMULATOR — WATER CYLINDER (EP 125)
20. NEEDLE VALVE — ACCUMULATOR WATER CYLINDER DRAIN (EP 107)
21. COOLING CHECK VALVE (IN MANIFOLD)
22. SPEED CONTROL VALVES (2 EACH)
23. INLET SCRAM VALVE AND ACTUATOR (EP 126)
24. ISOLATION VALVE — COOLING WATER RISER (EP 104)
25. ISOLATION VALVE — DRIVE-INSERT RISER (EP 101)
26. ISOLATION VALVE — EXHAUST WATER RISER (EP 105)
27. EXHAUST WATER RISER
28. DRIVE-INSERT RISER
29. COOLING WATER RISER
30. SCRAM DISCHARGE RISER



GPU Nuclear

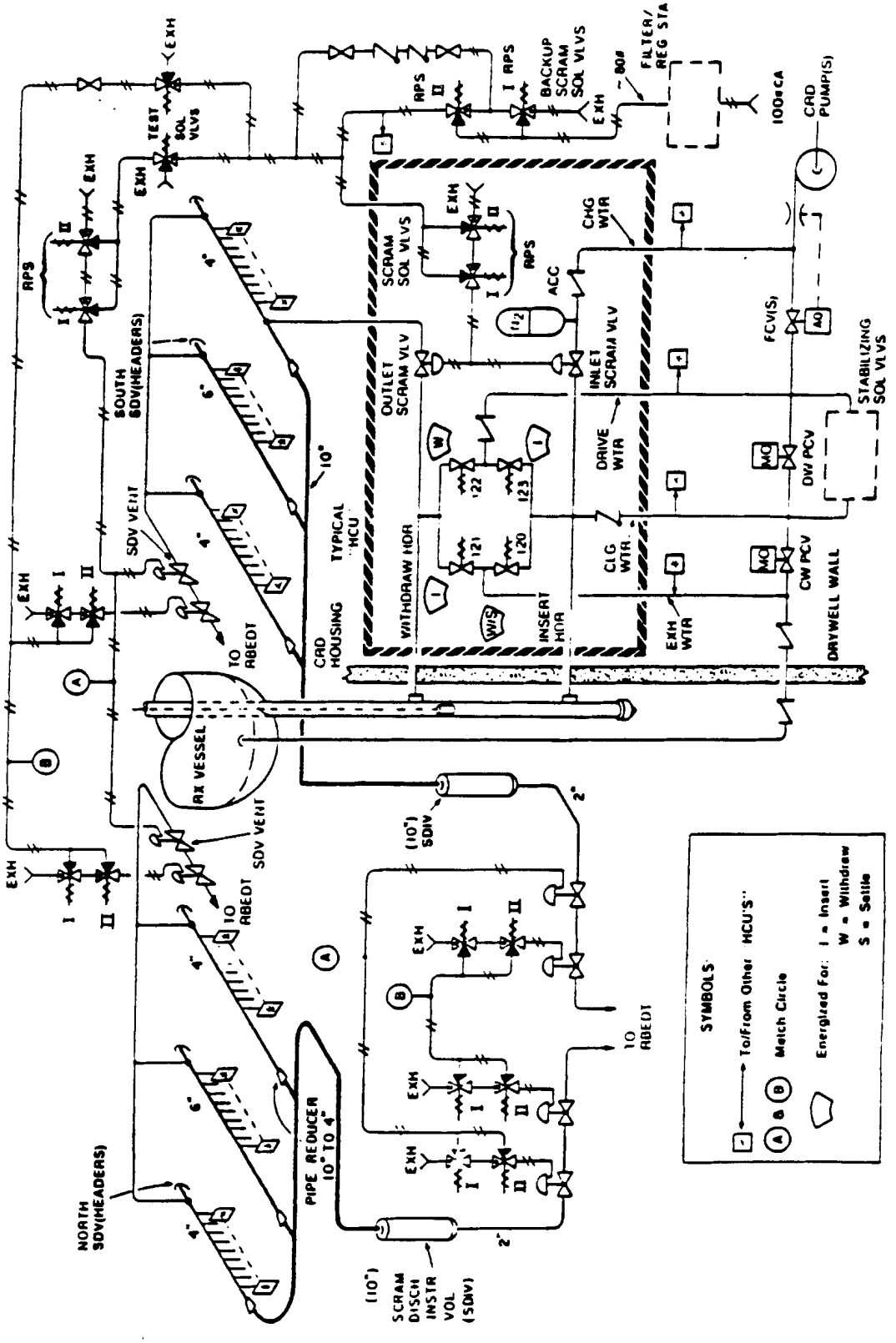
Oyster Creek

Update - 5

12/90

Control Rod Drive — Hydraulic Control Unit — Isometric

Fig. 3.9-5



GPU Nuclear | **Update - 5**

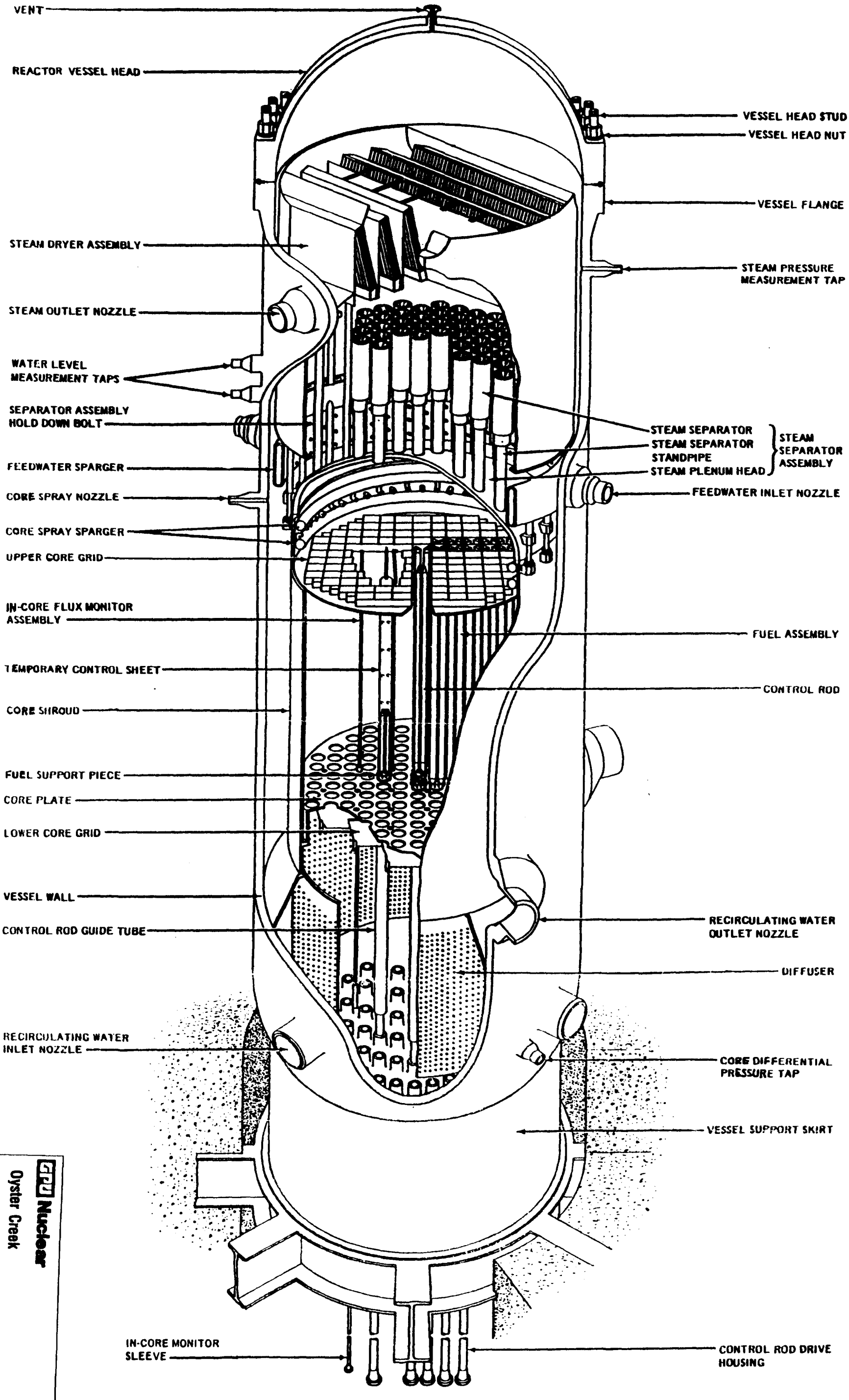
Oyster Creek | **12/90**

Oyster Creek Control Rod Drive Hydraulic Control Units, Scram Discharge Volumes and Scram Air Valving - Simplified Sketch

Fig. 3.9-6

Figures 3.9-7 through 3.9-7B

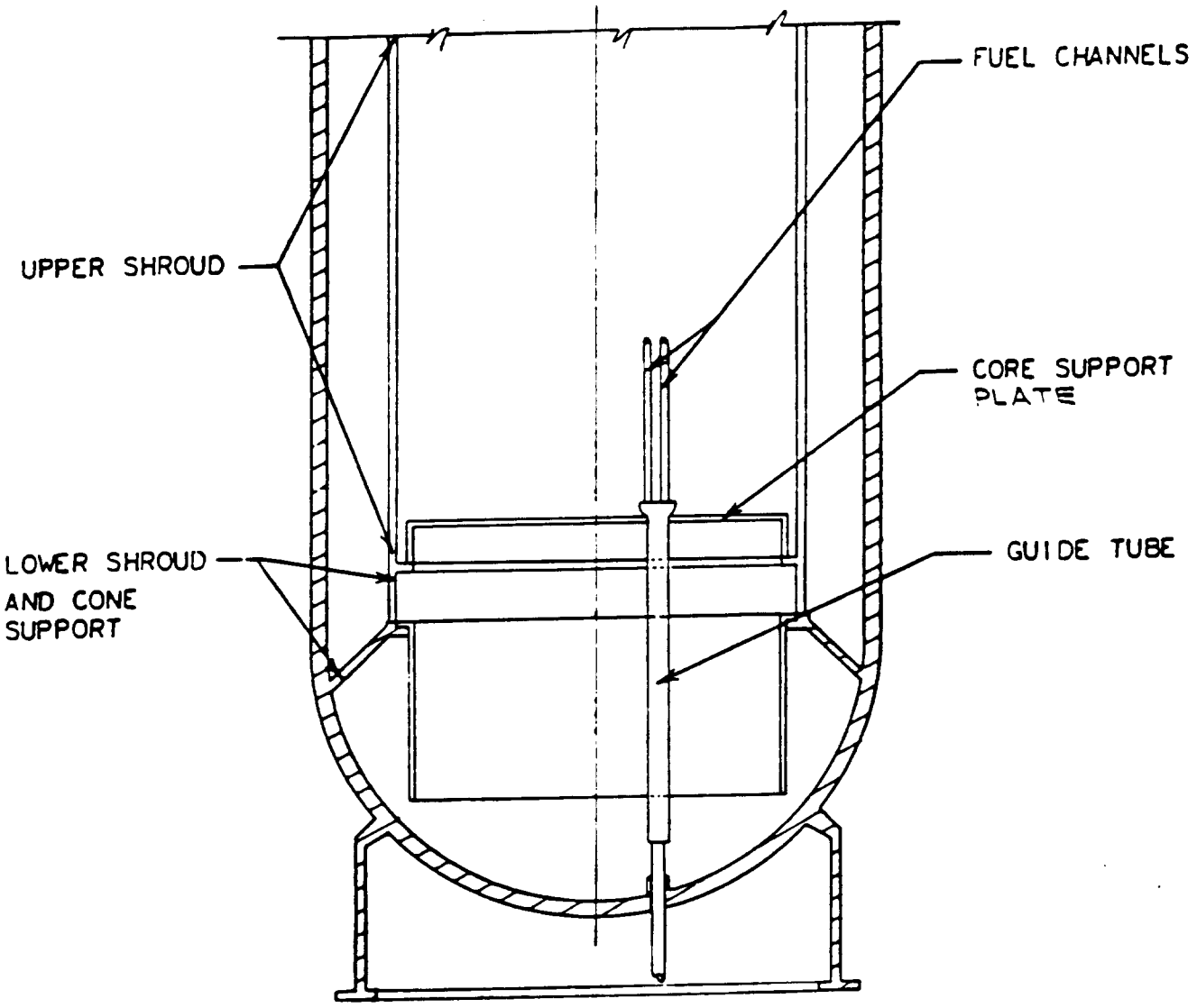
Deleted



GPU Nuclear
Oyster Creek
Reactor Vessel Isometric

Update - 5
12/90

Fig. 3.9-8



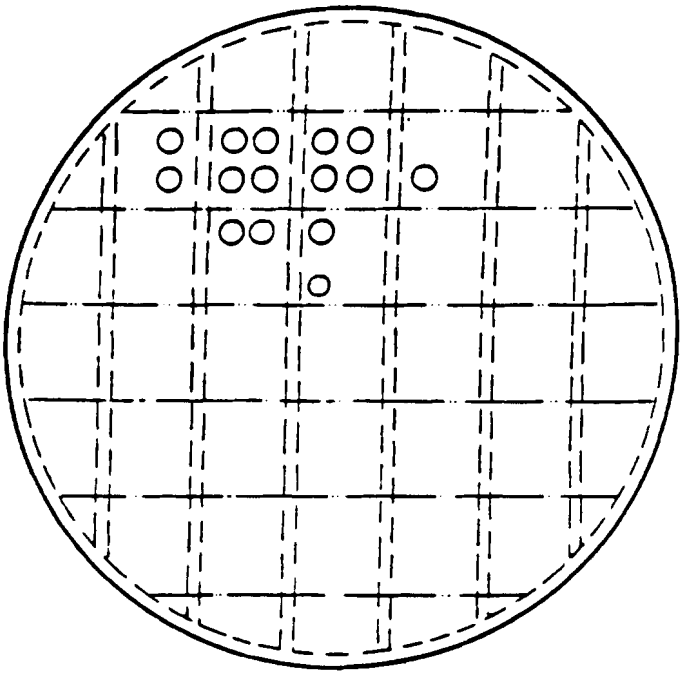
GPU Nuclear | Update - 5

Oyster Creek | 12/90

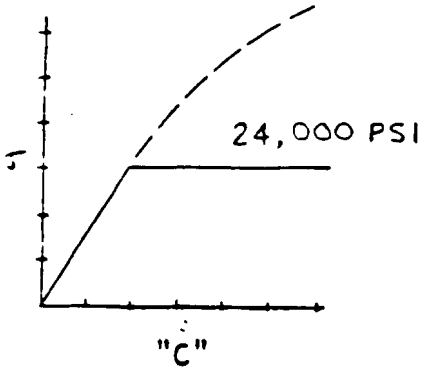
Core Structural Components

Fig. 3.9-9

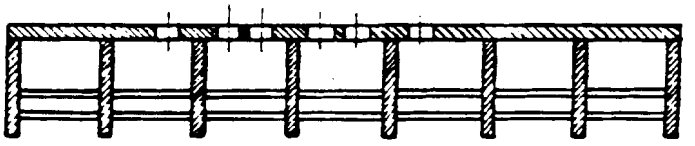
ACTUAL CONFIGURATION PLAN VIEW



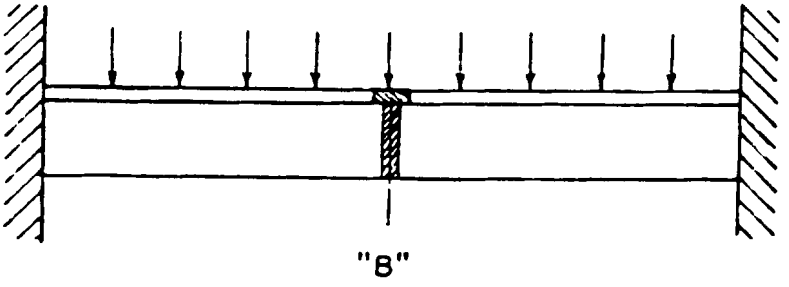
STRESS - STRAIN LAW



ACTUAL SECTION VIEW



ANALYTICAL MODEL

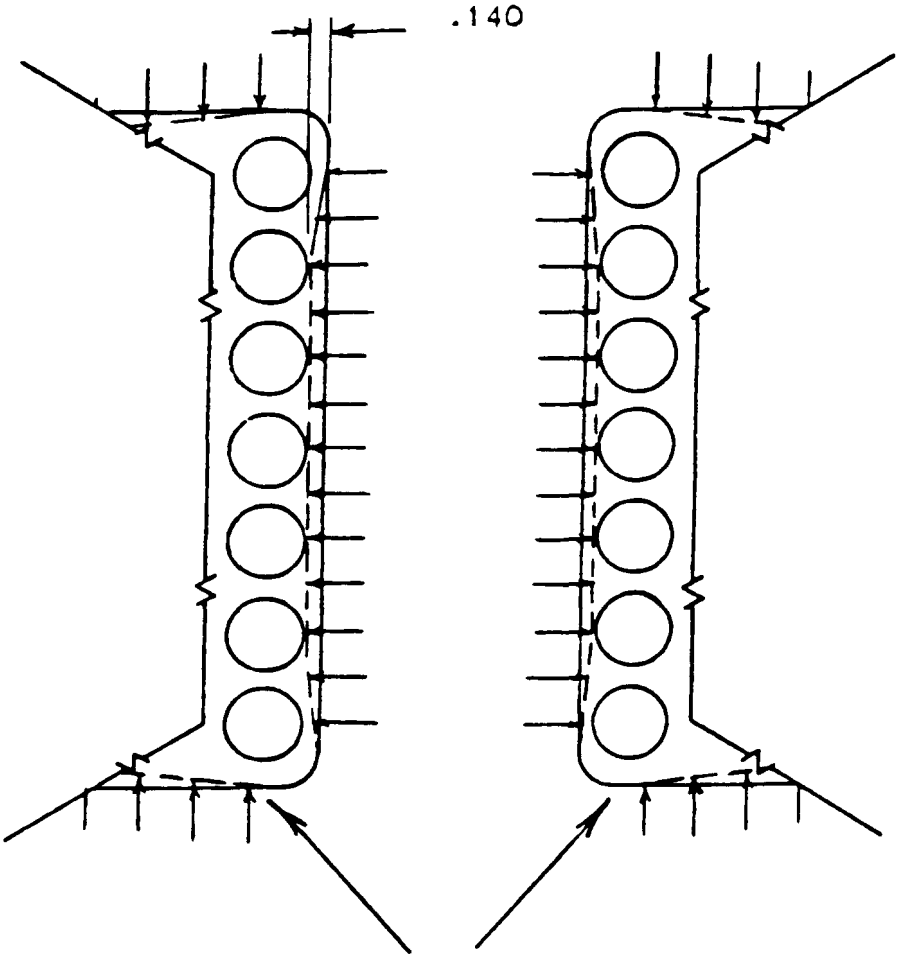


GPU Nuclear | Update - 5

Oyster Creek | 12/90

Core Plate Analysis

Fig. 3.9-10



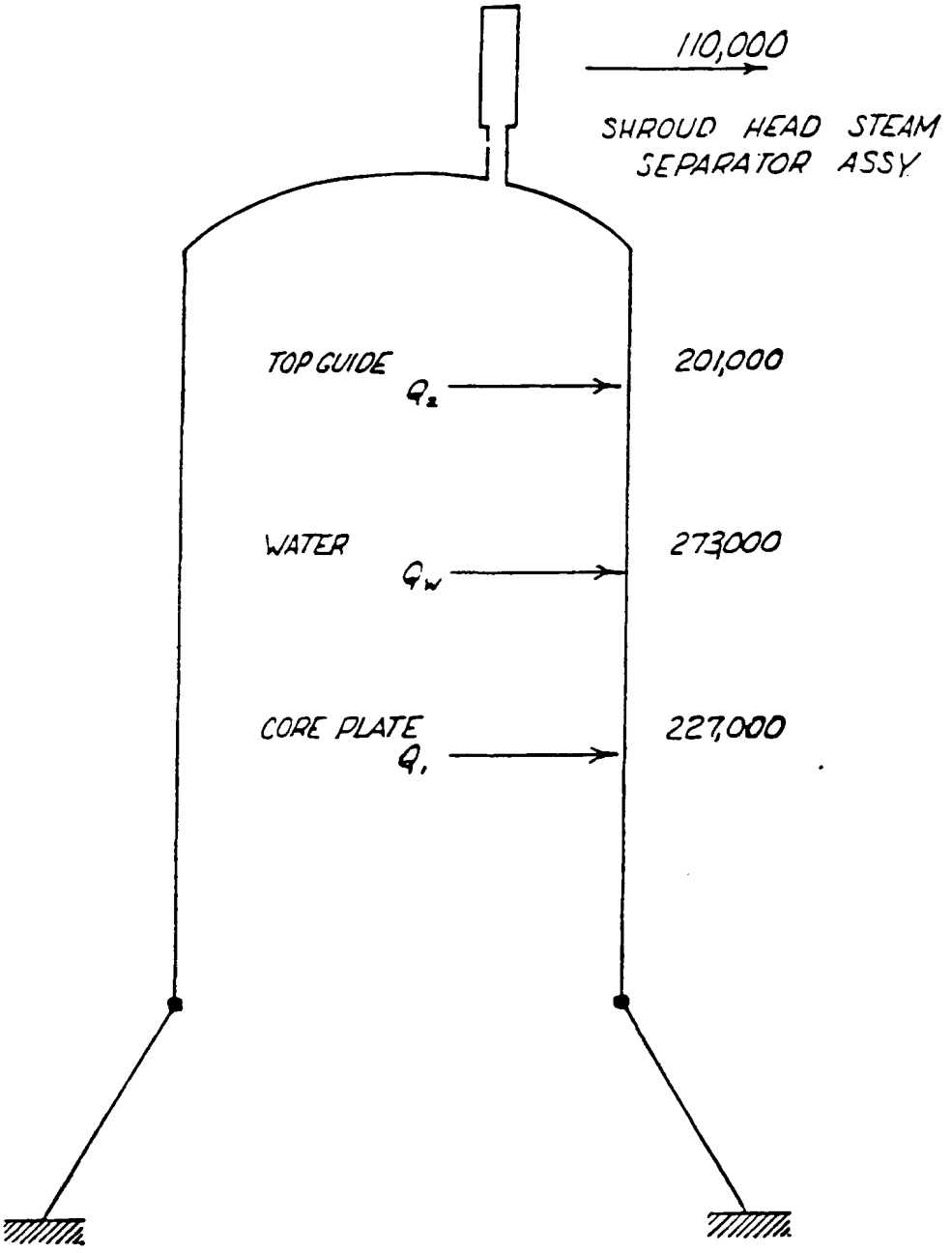
FUEL ASSEMBLIES

GPU Nuclear | Update - 5

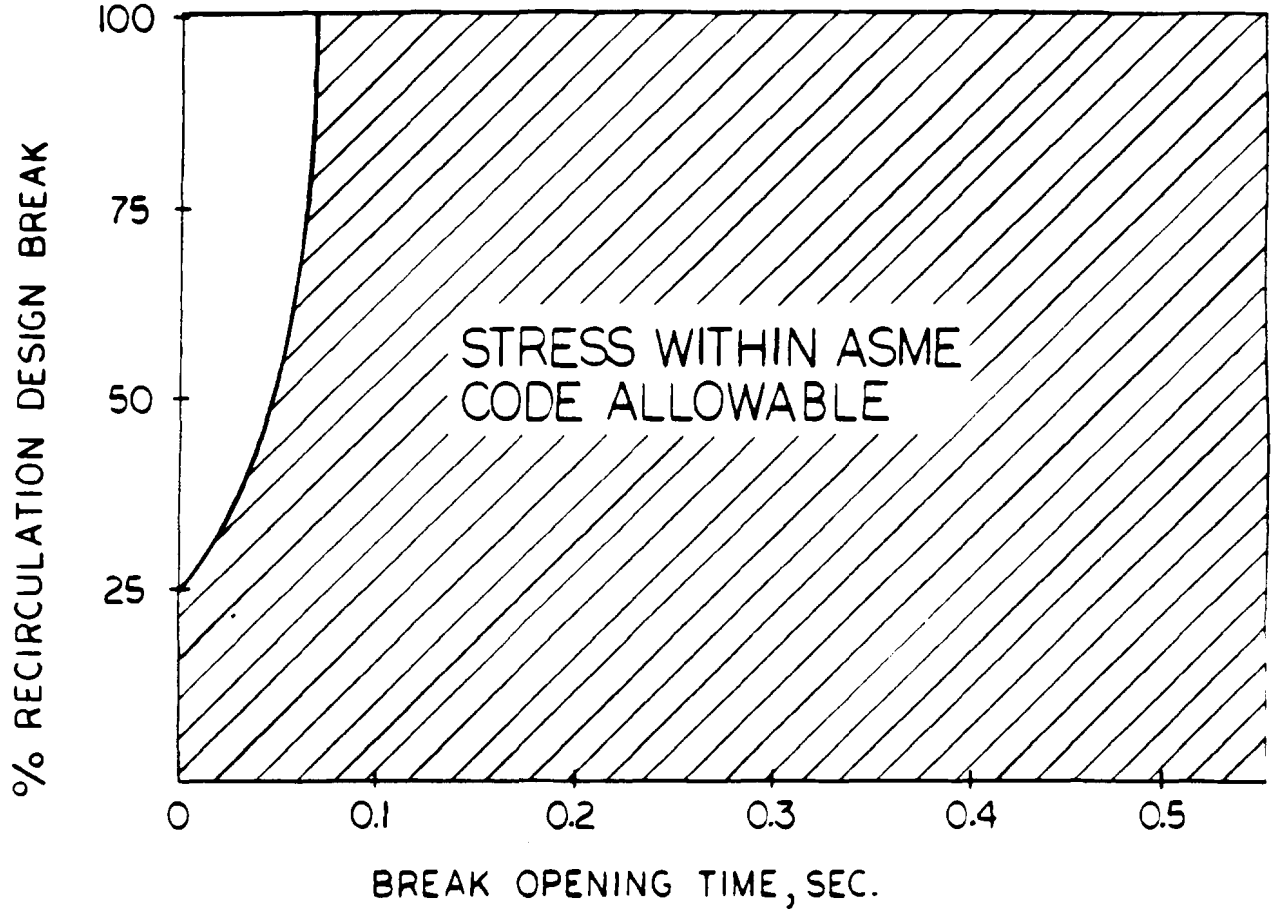
Oyster Creek | 12/90

Results of Delta-P on the Fuel Channel Configuration

Fig. 3.9-11



GPU Nuclear	Update - 5
Oyster Creek	12/90
Shroud Analytical Model	
	Fig. 3.9-12

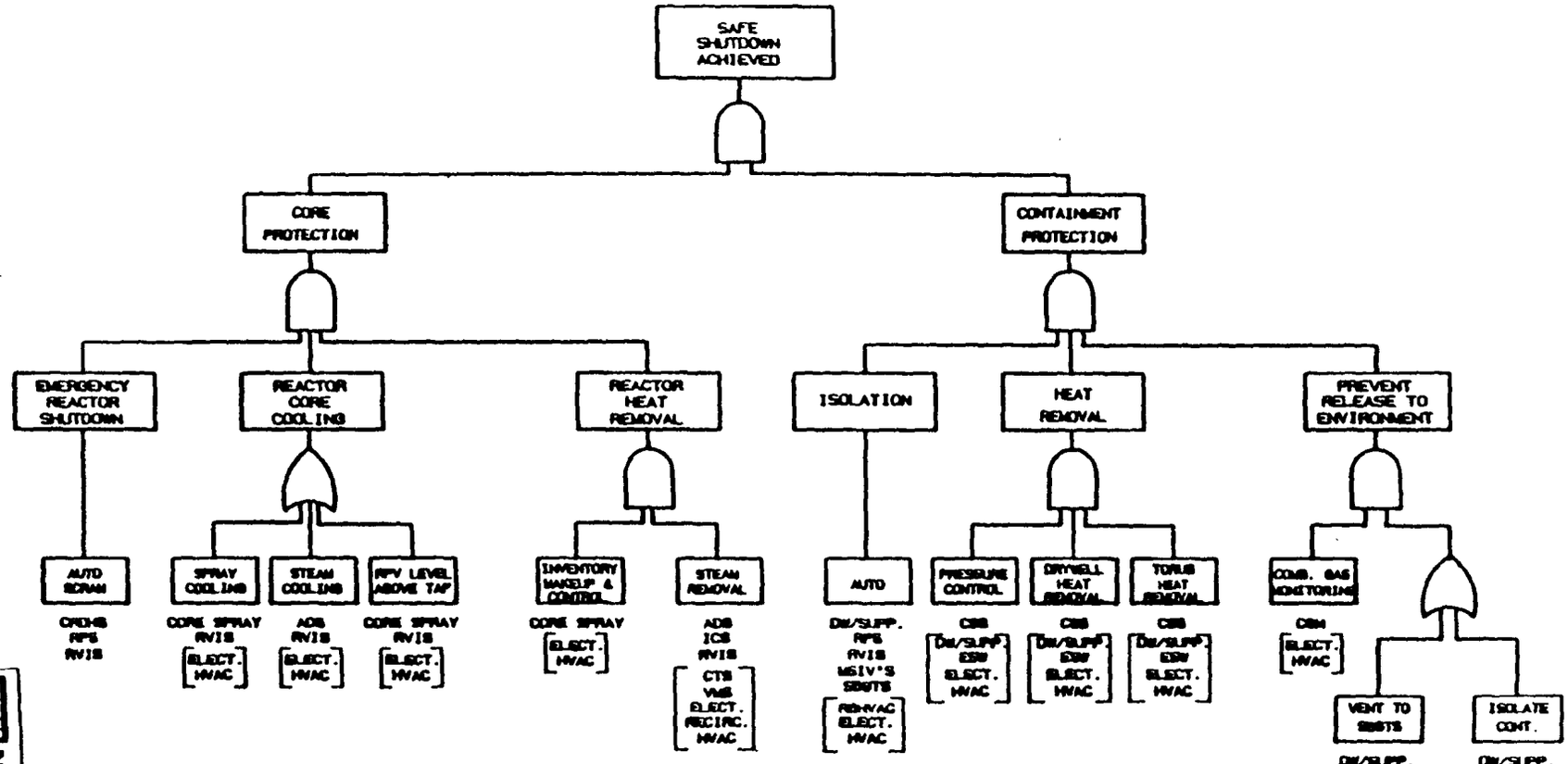


GPU Nuclear | Update - 5

Oyster Creek | 12/90

Core Plate - ASME Code Limiting Stress as a Function of Percent Design and Break Opening Time

Fig. 3.9-13



NOTE: [ ] DENOTES SUPPORTING SYSTEMS

GPU Nuclear

Oyster Creek

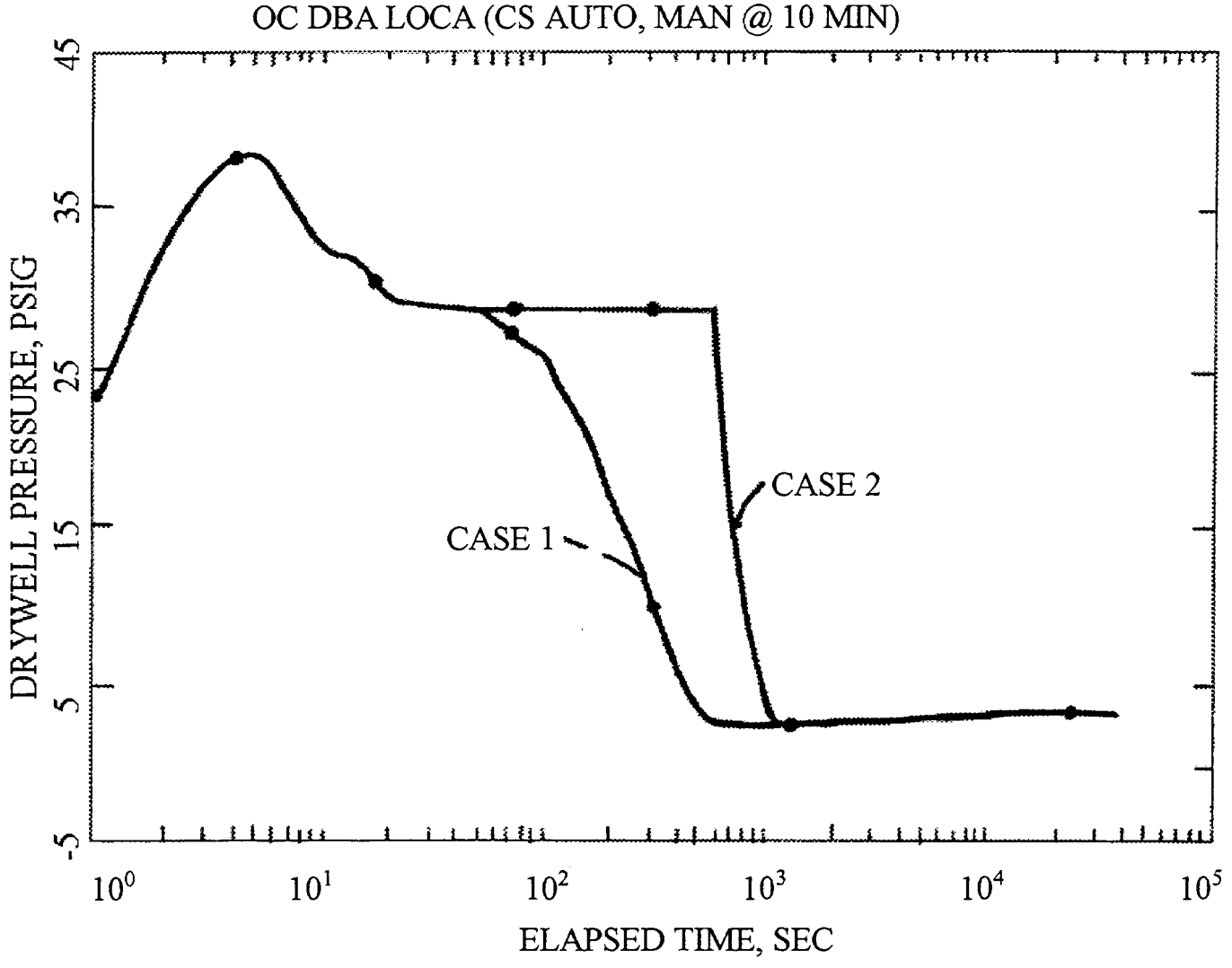
Plant Level Functional Criteria

Update - 5

12/90

Fig. 3.11-1

DBA PRESSURE PROFILE, DRYWELL



Rev. 12 04/01

OYSTER CREEK NUCLEAR GENERATING STATION

EQ Pressure Profile
Containment Spray Line Break
C-1302-241-E610-082

FIGURE 3.11-3

Figures 3.11-3A through 3.11-3C

Deleted