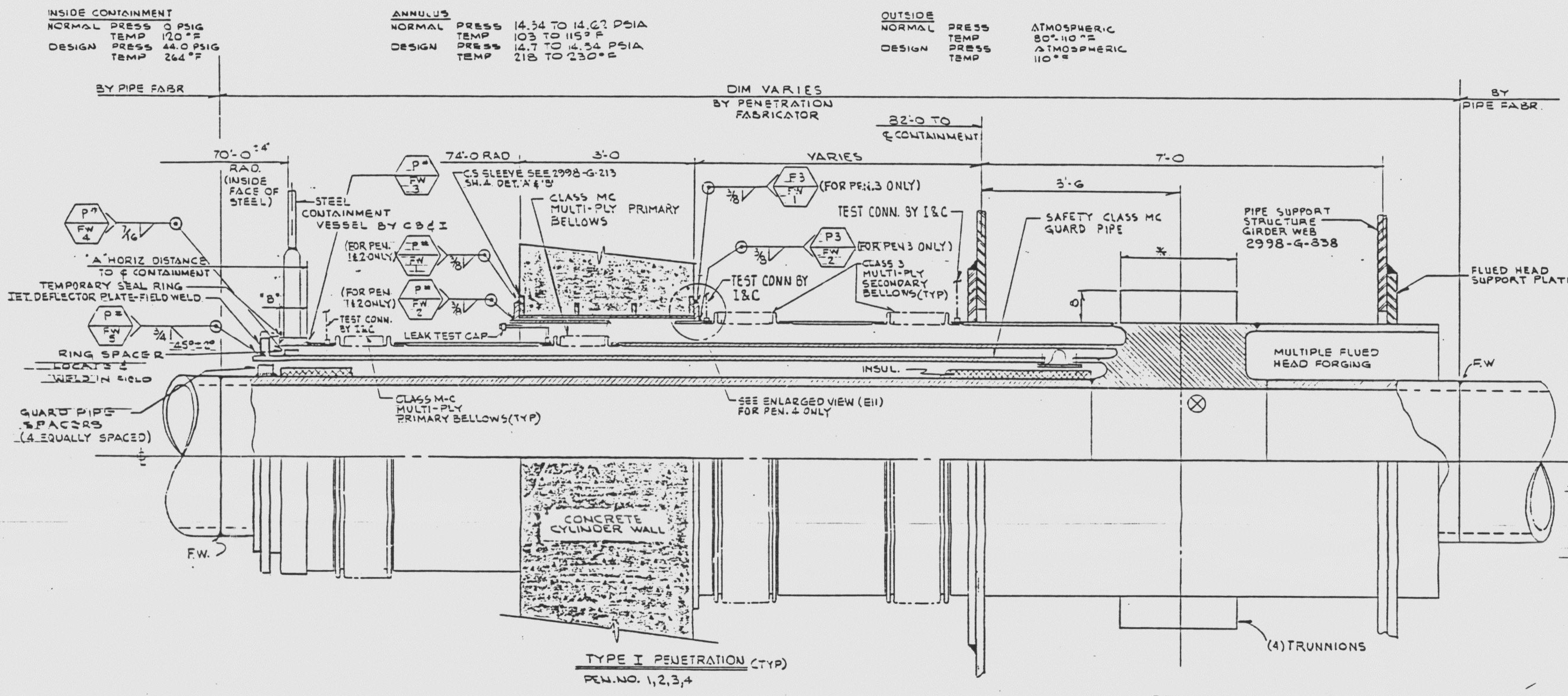
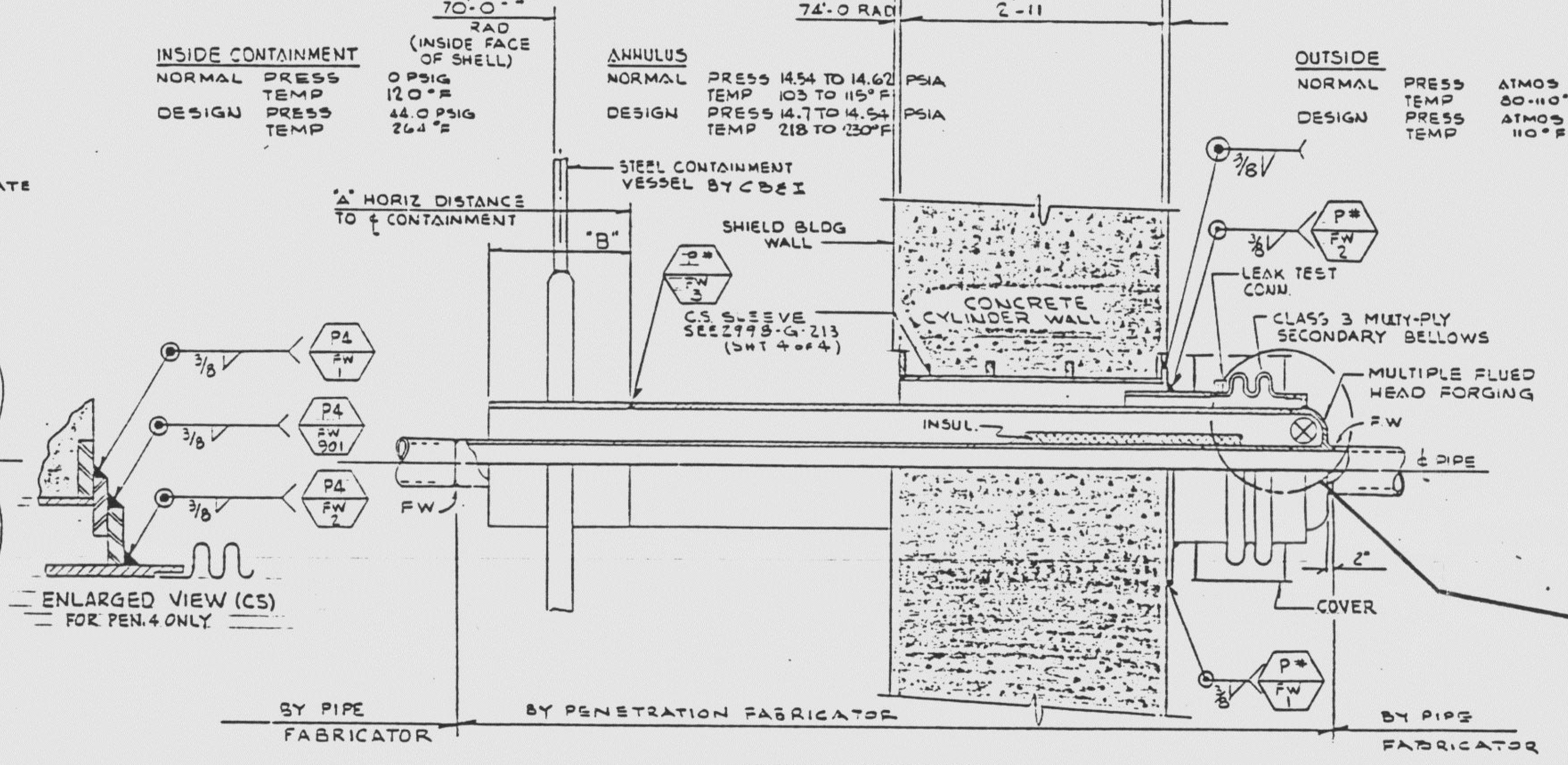
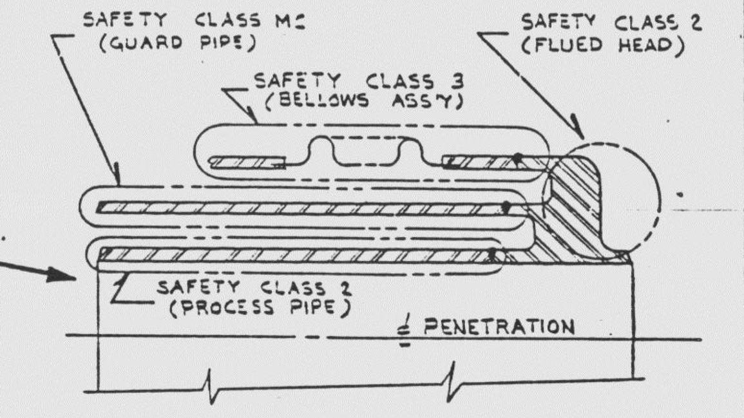
2998-G-213 SH.3 OF 4



TYPE I PENETRATION (TYP)
PEN. NO. 1,2,3,4

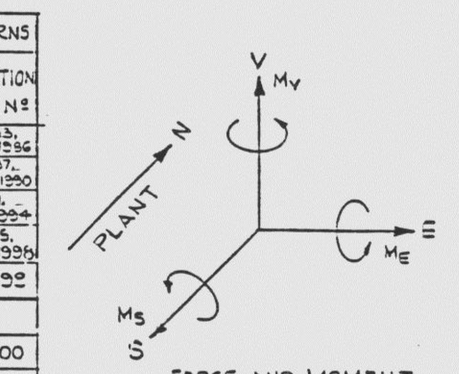


TYPE III PENETRATION
PENETRATION # 5, 6, 26, 27, 36-41, 44, 64, 69 & 70



TYPE III PENETRATION

CLASS 2 PENETRATION ASSEMBLIES
CODE CLASS BOUNDARIES
PER ASME B & PV CODE SECTION III



FORCE AND MOMENT ORIENTATION
SEE DWG 2998-G-213 SHEET 1 OF 4 FOR ORIENTATION OF NOZZLES

PENETRATION NO	TYPE	LINE DESCRIPTION SYSTEM	LINE NO.	FLOW DIAG.	PROCESS LINE NOM SIZE (IN)	WALL THKN (IN)	MATERIAL	DESIGN PRESS (PSIG)	DESIGN TEMP (°F)	MAX OPER PRESS (PSIG)	MAX OPER TEMP (°F)	INSUL THKN (IN.)	PENETRATION DESIGN PRESS (PSIG)	PENETRATION DESIGN TEMP (°F)	STEEL CONTAINMENT NOZZLE NOM SIZE (IN)	WALL THKN (IN.)	MATERIAL	WELD PREP "C" DIM (IN)	DIMENSION (DESIGN) A	DIMENSION (DESIGN) B	CONC. NOM OPENING (IN)	THERMAL AXIAL & TRANS. KIPS	THERMAL MOMENT & TORSION IN-KIPS	SEISMIC SSE AXIAL & TRANS. KIPS	SEISMIC SSE MOMENT & TORSION IN-KIPS	PIPE RUPTURE AXIAL & TRANS. KIPS	PIPE RUPTURE BEND MOMENT IN-KIPS	PIPE RUPTURE TORSION IN-KIPS	IMPINGEMENT IMPING. FORCE ON GUARD PIPE KIPS	IMPINGEMENT MOMENT ON PROCESS PIPE IN-KIPS	IMPINGEMENT TRANS. LOAD ON PROCESS PIPE KIPS	PIPE WEIGHT KIPS	BELLOWS MOVEMENT TOTAL AXIAL INCHES	BELLOWS MOVEMENT LATERAL INCHES	BELLOWS MOVEMENT VERTICAL INCHES	C.B.&I NOZZLE EMDRAC Nº	TUBE TURNS PENETRATION EMDRAC Nº
1	I	MAIN STEAM (SG-2A)	I-34 MS-23	2998-G-079 SH 1	34	1.250	C.S.	985	550	885	532	3	985	550	60	3	C.S	57.625	SEE PLAN SHT 1		24	A 40.0 T 20.0	M 1440.0 T 3040.0	89.5	M 15220 T 9000	869.0	74,286.0	71,475.0	369.0	74,286.0	869.0	30.0	5.1	±2.10	±2.10	2998-834	2998-1983, 1984, 1985, 1986
2	I	MAIN STEAM (SG-2B)	I-34 MS-29	2998-G-079 SH 1	34	1.250		985	550	885	532	3	985	550	60	3		57.625			24	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓				2998-834	2998-1987, 1988, 1989, 1990
3	I	FEEDWATER (SG-2A)	I-20 BF-14	2998-G-080 SH 2	20	5/80		1100	500	1050	440	3	1100	500	45	2.25		42.625			70	41.5	2640	41.5	2640	860	21 197.0	19 743.0	334.3	21,197.0	334.3	15.0				2998-835	2998-1991, 1992, 1993, 1994
4	I	FEEDWATER (SG-2B)	I-20 BF-19	2998-G-080 SH 2	20			1100	500	1050	440	3	1100	500	45	2.25		42.625	↓	↓	70	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓				2998-835	2998-1995, 1996, 1997, 1998
5	III	BLOWDOWN (SG-2B)	I-2 B-2	2998-G-086 SH 1	2			985	550	885	532	2	985	550	12	5/80		11.505	70'-10	16	20	1.1	11.0	1.1	11.0	3.3	62.0	53.6	—	—	—	1.0	2.9	±0.75	±0.75	2998-824	2998-1999
6	III	BLOWDOWN (SG-2A)	I-2-B-1	2998-G-086 SH 1	2	↓	↓	985	550	885	532	2	985	550	12	5/80	↓	↓	↓		20	1.1	11.0	1.1	11.0	3.3	↓	↓	—	—	—	↓	↓	↓	↓	2998-825	↓
7	II	PRIM. WATER SUPPLY	I-2-PMW-7	2998-G-084	2	5/80S	S.S.	150*	300	100	95	-	150*	265	4	5/80	SB-167	3.869	70'-9		12	1.1	11.0	1.1	11.0	—	—	—	—	—	—	0.3	2.3	±0.75	±0.75	2998-761	2998-2000
8	II	STATION AIR SUPPLY	I-2-SA-12	2998-G-085 SH 1	2	5/40	C.S.	150	125	100	115	-					C.S.	3.869				1.0	8.5	1.0	8.5	—	—	—	—	—	—	0.2	2.61	±0.75	±0.75	2998-762	2998-2001
9	II	INSTRUMENT AIR SUPPLY	I-2-IA-14	2998-G-085 SH 2	2	5/40	C.S.	150	125	100	115	-	↓	↓	↓	↓	↓	3.869	↓	↓	↓	↓	↓	↓	↓	—	—	—	—	—	—	↓	↓	↓	↓	2998-762	2998-2029
10	II	H&V CONTAINMENT PURGE		2998-G-878	48	0.50	C.S.	-½-15	263	-½-15	120	-	44	265	48	2.5	C.S.	—	71'-0⅞	2'-9¼	58	—	—	—	—	—	—	—	—	—	—	15.0	3.3	±1.25	±1.25	2998-833	2998-2002
14	II	NITROGEN SUPPLY	I-1-WM-226 / I-1-WM-331	2998-G-078 SH 163	1	5/80 / 5/40	S.S	900	150	700	100	-	900	265	4	5/80	SB167	3.869	70'-9	16	10	1.0	8.5	1.0	8.5	—	—	—	—	—	—	0.2	2.61	±0.75	±0.75	2998-761	2998-2003
15	II	CCW RETURN FAN COOLER 2C	I-8-CC-43	2998-G-083	8	5/40	C.S.	150	250*	100	210	1½	150	265	8	5/160	C.S	7.709 / 7.991	70'-10	18	18	6.4	252.0	6.4	252.0	—	—	—	—	—	—	1.5	2.61	±0.75	±0.75	2998-762	2998-2004
16	II	SUPPLY 2C	I-8-CC-39						200		120	-														—	—	—	—	—	—					2998-762	
17	II	RETURN 2D	I-8-CC-44						250		210	1½														—	—	—	—	—	—						
18	II	SUPPLY 2D	I-8-CC-40						200		120	-														—	—	—	—	—	—						
19	II	RETURN 2A	I-8-CC-41						250		210	1½														—	—	—	—	—	—						
20	II	SUPPLY 2A	I-8-CC-37						200		120	-														—	—	—	—	—	—						
21	II	RETURN 2B	I-8-CC-42						250		210	1½														—	—	—	—	—	—						
22	II	SUPPLY 2B	I-8-CC-38						200		120	-														—	—	—	—	—	—						
23	II	WATER SUPPLY REACTOR COOLANT PUMPS	I-8-CC-138					200*	265		120	-	200*													—	—	—	—	—	—						
24	II	WATER RETURN REACTOR COOLANT PUMPS	I-8-CC-168	↓	↓	↓	↓	200*	265	↓	130	—	200*	↓	↓	5/160	↓	7.709 / 7.991	↓	↓	↓	↓	↓	↓	↓	—	—	—	—	—	—	↓	2.61	±0.75	±0.75	↓	2998-2005
25	V	FUEL TRANSFER TUBE	—	—	36	.375	SS	44	264	20	100	-	50	265	48	1.00	C.S	46.186	SEE SH #2	SEE SH #2	60	← BY COMBUSTION ENG. CO. →														2998-833	2998-1558 & 1557
26	III	LETDOWN LINE	I-2-CH-103	2998-G-078 SH 122	2	5/160		2485	550	2188	265	2	2485	550	12	5/160		10.740	70-10	16	22	1.5	15.0	1.5	15.0	6.2	86.1	78.3	—	—	—	1.0	2.9	±0.75	±0.75	2998-825	2998-2006
27	III	CHARGING LINE	I-2-CH-331	2998-G-078 SH 122	2	5/160		2735	550	2377	120	1	2735	265	10	5/160		8.740	↓	↓	20	↓	↓	↓	↓	10.5	109.2	97.2	—	—	—	↓	↓	↓	↓	2998-825	2998-2007
28	II	SAMPLING HOT LEG	SPARE / I-3/8-SS-???	2998-G-078 SH 150	3-3/8 OD TUBES	.065		2485	650	2235	595	3	2485	700	6	5/80		5.828	↓	↓	16	0.05	0.1	0.05	0.1	—	—	—	—	—	—	0.2	2.61	±0.75	±0.75	2998-762	2998-2008
29	II	↓ PRESSURIZER STEAM SPACE	I-3/8-SS-632	↓	2-3/8 OD TUBES	↓	↓	↓	↓	↓	↓	3	2485	700				5.828	70-9	15	↓	↓	↓	↓	↓	—	—	—	—	—	—		↓	↓	↓	2998-762	2998-2009
30	II	BLOWDOWN (SG-2A)	I-½-B-81	2998-G-086 SH 1	½	5/80	C.S.	985	550	885	532	2	985	550	↓	↓	↓	5.828		↓	16	0.3	0.7	0.3	0.7	—	—	—	—	—	—		2.61	±0.75	±0.75	2998-762	2998-2010
31	II	CONTAINMENT VENT HEADER	I-1-WM-225	2998-G-078 SH 163	1	5/40	C.S.	80	200	0.5	120	-	80	265	2	5/160	SB167	SEE NOTE #8	↓	16	10	1.0	8.5	1.0	8.5	—	—	—	—	—	—	↓	2.61	±0.75	±0.75	2998-761	2998-2011
32	IV	CONTAINMENT SUMP SUCT.	I-24-CS-4	2998-G-088	24	5/10S	S.S.	60	300	45	240	—	60	300	34	1.50	C.S.	31.334	78'-0	19'-6	34	1.2	10.0	7.0	1000.0	—	—	—	—	—	—	5.5	1.25	±1.25	±1.25	2998-763	1998-1559 / 2998-3779
33	IV	CONTAINMENT SUMP SUCT.	I-24-CS-5	2998-G-088	24	5/10S	S.S.	60	300	45	240	—	60	300	34	1.50	↓	↓	↓	19'-5¾	34	1.1	55.4	18.3	1295.1	—	—	—	—	—	—	2.0	↓	↓	↓	2998-832 / 2998-764	2998-1555 / 2998-3778
34A	—	CONTAINMENT SPRAY	I-10-CS-12	2998-G-088	10	5/20	SS.	300	300	215	240	—	300	300	10	5/80	SB-168	10.250	70'-10	18	—	6.4	316.0	6.4	316.0	—	—	—	—	—	—		—	—	—	2998-765	—
35A	—	CONTAINMENT SPRAY	I-10-CS-13	2998-G-088	10	5/20	SS	300	300	215	240	—	300	300	10	5/80	SB-168	10.250	70'-10	18	—	↓	↓	↓	↓	—	—	—	—	—	—		—	—	—	2998-765	—
34B	II	CONTAINMENT SPRAY	I-12-CS-18	2998-G-088	12	5/20	SS	300	300	215	240	—	—	—	—	—	—	—	—	—	-	—	—	—	—	—	—	—	—	—	—	1.3	2.3	±0.75	±0.75	—	2998-2012
35B	II	CONTAINMENT SPRAY	I-12-CS-19	2998-G-088	12	5/20		300	300	215	240	—	—	—	—	—	—	—	—	—	-	—	—	—	—	—	—	—	—	—	—	1.3	↓	↓	↓	—	2998-2012
36	III	SAFETY INJECTION-LOOP 2A2	I-6-SI-113	2998-G-078 SH 131	6	5/160		2485	650	2235	330	1½	2485	650	18	1.75	CS	14.942	70-10	16	26	9.0	268.0	9.0	268.0	12.0	1712	1449	12.0	1440	12.0	2.4	2.9	±0.75	±0.75	2998-824	2998-2013
37	III	2A1	I-6-SI-112						650																											2998-824	
38	III	2B1	I-6-SI-111						650																											2998-823	
39	III	↓ 2B2	I-6-SI-110	↓	↓	↓		↓	650	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	2998-822	↓
40	III	SHUTDOWN COOLING	I-10-SI-362	↓	10	5/20		350	350	300	350	1½	350	350	24	1.25	C.S.	22.188	71'-4	24	32	9.0	450.0	9.0	450.0	30.0	2520.0	1607.0	30.0	2520.0	30.0	3.3	2.61	±0.75	±0.75	2998-762	2998-2014
41	III	SAFETY INJECTION TANK TEST	I-2-SI-599	2998-G-078 SH 130	2	5/80		700	350	600	300	-	700	350	8	5/160	C.S.	7.709	70-10	16	18	1.1	11.0	1.1	11.0	23	68.0	57.0	—	—	—	1.0				2998-761	2998-2015
42	II	CONT. SUMP PUMP DISCH.	I-3-CS-65	2998-G-088	3	5/10S		200*	300	70	120	-	200*	300	3	5/160	SB167	3.068	70-10	18	14	1.8	25.9	1.8	25.9	—	—	—	—	—	—	0.3	↓	↓	↓	2998-762	2998-2016
43	IV	REACTOR DRAIN PUMP SUCT	I-3-WM-108	2998-G-078 SH 160	3	5/40S		80	250	0.5	120	-	80	265	8	5/80	SB168	7.918	78-0	18-7	8	1.1	23.9	1.1	23.9	—	—	—	—	—	—	1.5	—	—	—	2998-763 / 2998-764	—
44	III	REACTOR COOLANT PUMPS CONTROLLED BLEED OFF	I-¾-CH-129	2998-G-078 SH 121	¾	5/160		2485	550	31	135	1	2485	550	6	5/XXS	C.S.	5.326	70-10	16	16	0.4	1.5	0.4	1.5	—	—	—	—	—	—	↓	2.61	±0.75	±0.75	2998-762	2998-2017
45	II	DIFF. PRESS. BETWEEN INSIDE CONTAINMENT & ANNULUS	—	2998-G-227 SH6	3-3/8 O.D. TUBES	.065		44	265	10	120	—	44	265	6	5/80		5.828	70'-9	16	12	0.03	0.1	0.03	0.1	—	—	—	—	—	—	0.3				2998-761	2998-2018
46	II	REFUEL CAVITY PURIF. INLET	I-3-CS-52	2998-G-088	3	5/40S		100*	300	55	265	-	100*	300	6	5/80	↓	5.828	70-10	18	14	1.8	25.9	1.8	25.9	—	—	—	—	—	—	0.5				2998-761	2998-2019
47	II	REFUEL CAVITY PURIF. OUTLET	I-3-CS-56	2998-G-088	3	5/40S		60*	300	45	265	-	60*	300	6	5/160	SB167	5.828	70'-10		↓	↓	↓	↓	↓	—	—	—	—	—	—					2998-761	2998-2020
48	II	MULTIPURPOSE (SEE NOTE #14)	I-3/8-HS-12&13	2998-G-227 SH6 / 2998-G-232 SH7	4-3/8 O.D. TUBES	.065	↓	60	340	45	264	-	60	340	6	5/XXS	CS	5.828	71'-0		16	0.24	0.5	0.24	0.5	—	—	—	—	—	—	↓			↓	2998-762	2998-2021
49	II	BLOWDOWN (SG-2B)	I-½-B-82	2998-G-086 SH 1	½	5/80	C.S	985	550	885	532	2	985	550	6	5/80		5.828	71'-0	↓	16	0.3	0.7	0.3	0.7	—	—	—	—	—	—	0.3	2.61	±0.75	±0.75	2998-762	2998-2010
50	—	SPARE	—	2998-G-091	—	—	—	—	—	—	—	—	44	265	14	5/80		—	71'-0	20	26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2998-761	—
51	II	MULTIPURPOSE (SEE NOTE #14)	I-3/8-HS-14&15	2998-G-227 SH6 / 2998-G-232 SH7	4-3/8" OD TUBES	.065	S.S.	60	340	45	264	-	60	340	6	5/XXS		5.828	71'-6	2'-2	26	0.24	0.5	0.24	0.5	—	—	—	—	—	—	0.5	2.9	±0.75	±0.75	2998-825	2998-2022
52	II	INTEGRATED LEAK RATE TEST INSTRUMENTATION	—	—	4-1" PIPE / 1-3/4" TUBE	5/40S / .065	S.S.	44	265	44	120	—	44	265	12	5/160		10.413 BY FIELD	71'-0	20	22	1.6	8.0	1.6	8.0	—	—	—	—	—	—	↓	2.61	±0.75	±0.75	2998-761	2998-7945
53	II	DIFF. PRESS. BETWEEN INSIDE CONTAINMENT & ANNULUS	—	2998-G-227 SH6	3-3/8 OD TUBES	.065	S.S.	44	270	10	120	—	44	265	6	5/80		5.828	70'-10	18	12	0.03	0.1	0.03	0.1	—	—	—	—	—	—	0.3	2.61	±0.75	±0.75	2998-761	2998-2023
54	II	INTEGRATED LEAK RATE TESTING	I-8-IT-21	2998-G-091	8	5/40	C.S.	60	110	45	95	—	44	265	16	1.0		14.482	71'-0	18	26	20	150	20	150	—	—	—	—	—	—	1.5	2.61	±0.75	±0.75	2998-761	2998-7946
55	II	DIFF. PRESS. BETWEEN INSIDE OFF CONTAINMENT & RAB	—	2998-G-227 SH6	3/8" PIPE	5/80S	S.S.	44	420	43.7	420	—	44	265	4	5/160		4.026	70'-9	16	8	2.4	48.2	2.4	48.2	—	—	—	—	—	—	0.3	—	—	—	2998-711	2998-13464
56	II	H&V PURGE INLET	I-8-CV-3	2998-G-879 SH3	8	5/40	CS	44	265	44	265	—	44	265	8	5/160		7.981			10	6.4	252.0	6.4	252.0	—	—	—	—	—	—	1.5	2.41	±0.56	±0.56	2998-711	2998-3110
57	II	H&V PURGE OUTLET	I-8-CV-38	↓	8	5/40	CS	44	270	44	265	—	44	265	8	5/160		7.981			10	↓	↓	↓	↓	—	—	—	—	—	—	1.5	3.3	±1.25	±1.25	2998-826	2998-8679
58	II	DIFF. PRESS. BETWEEN INSIDE OF CONTAINMENT & RAB	—	2998-G-227 SH6	3/8" PIPE	5/80S	S.S.	44	420	43.7	420	—	44	265	4	5/160	↓	4.062	↓	↓	8	6.4	252.0	6.4	252.0	—	—	—	—	—	—	0.3	↓	↓	↓	2998-826	2998-13465

Margin notes beside table: NOTE 12 (pen. 1–4); SEE NOTE #13 (pen. 28, 29, 45, 48, 51); SEE NOTE #7 (pen. 30); SEE NOTE #11 (pen. 50); SEE NOTE 8 (pen. 53–54); FOR REV 7 SEE (A-18) (pen. 57–58).

— SEE NOTE 10 (Weld Prep "C" Dim)

SEE SHEET 4 OF 4 FOR ADDITIONAL PENETRATIONS

NOTES

1. INITIAL DESIGN DIFFERENTIAL SETTLEMENT BETWEEN ANY TWO STRUCTURES SHALL BE 1 INCH.
2. OPERATING BASIS EARTHQUAKE LOAD VALUES ARE ONE HALF OF SSE VALUES
3. * INDICATES DIMENSIONS BY PENETRATION FABRICATOR
4. THIS DRAWING SHOWS CONCEPTUAL ARRANGEMENT AND DESIGN INFORMATION. FOR FINAL DETAILS SEE MANUFACTURER'S DWG. UNDER P.O. NY.-422564.
5. ALL TYPE I & TYPE III PENETRATIONS REQUIRE "C" DIM. ON OUTSIDE OF CONTAINMENT.
6. THIS PENETRATION WILL BE USED FOR LEAK RATE TESTING OF CONTAINMENT, AND FOR VACUUM CLEANING DURING CONSTRUCTION.
7. FOR PROCESS LINE SIZE CHANGE SEE DWG. 2998-2011 DET. III
8. SEE EBASCO DESIGN GUIDE M4-2
9. ⊗ INDICATES LOCATIONS OF PENETRATION LOAD APPLICATIONS.
10. O-INDICATES NOZZ. I.D. OUT SIDE OF CONTAINMENT
    I-INDICATES NOZZ. I.D. INSIDE OF CONTAINMENT
    ALL OTHER WELD PREP NOZZ. I.D. ARE UNIFORM INSIDE & OUTSIDE OF CONTAINMENT.
11. PENETRATION P50 WILL BE USED FOR TEMPORARY FACILITES PIPING DURING CONST. IN THE RCB. IT WILL BE CAPPED PRIOR TO THE ILRT. (SEE DWG. 2998-G-162) (N11)
12. BELLOWS MOVEMENTS IN THIS TABLE FOR TYPE I PENETRATIONS ARE CONTAINMENT NOZZLE (PRIMARY) BELLOWS MOVEMENTS. SECONDARY SEAL BELLOWS MOVEMENTS FOR TYPE I PENETRATIONS ARE AXIAL ±1.7 "LATERAL ±1.9"
13. SEE DWGS 2998-B-231 SH X19 - X25 - X41 & X42 FOR TUBE SUPPORT DETAILS.
14. PENETRATIONS P-48 & P-51 WILL BE USED FOR: H_2 SAMPLING (2 LINES ON EACH PENETRATION), DIFFERENTIAL PRESSURE BETWEEN INSIDE OF CONTAINMENT AND ANNULUS (1 LINE ON EACH PENETRATION) AND CONTAINMENT PRESSURE (1 LINE ON EACH PENETRATION).
15. FOR INSTRUMENT TUBING PENETRATION DETAILS SEE 2998-B-231 SH D.

★ REANALYZED AT 175 PSIG IC & 225 PSIG OC.

REVISIONS

NO	DATE	DESCRIPTION	BY	CH	APPROVED
7	10-29-92	PC/M 157-292 △ ADD: (N-1) CONTINUATION (J-18) NOTE 15; (K,M-18) NOTES; (M-3) FLOW DIAG REF	[signature]	PB	[signature]
8	2/11/99	PCM 97031 ADD: (J18, J19) NOTE, REV: (45, 46, I5, I6, L5, L6, M5, M6) LINE DATA.	GM	HS	[signature]

NUCLEAR SAFETY RELATED

△ THE DESIGN INFORMATION FOR THE CHANGES SHOWN IN THIS REVISION HAS BEEN ENGINEERED BY FLORIDA POWER & LIGHT COMPANY.

DOCUMENTS REVIEWED NO INCORP. REQUIRED
FCR-2-1356
FCR-2-1357
FCR-2-1495
FCR-2-1450
FCR-2-2013 R1
FCR-2-11554
FCR-2-11688 R1
FCR-2-1432

ARTHUR JOHN ROSSI REGISTERED PROFESSIONAL ENGINEER No. 13782 STATE OF FLORIDA

RECEIVED FEB 24

INFORMATION ONLY
VERIFY WITH A CONTROLLED COPY BEFORE USE.

REVISION OF THIS DRAWING MAY REQUIRE UPDATE OF THE FOLLOWING DOCUMENTS:
FSAR FIGURE 3.8-5

FLORIDA POWER & LIGHT COMPANY
ST. LUCIE PLANT
1983 890 MW(e) EXTENSION — UNIT NO. 2
REACTOR CONTAINMENT BUILDING
PIPING PENETRATIONS

EBASCO SERVICES INCORPORATED NEW YORK

SCALE 3/4"=1'-0 | APPROVED | DATE 7/11/73
DIV. MECH
DR. Geo. Biondo
CH. C. D'ANGIO
VA | FG
2998-G-213
SH. 3 OF 4 | 8

NO	DATE	REVISION	BY	CH	APPROVED
6	12/8/83	(APP'D. BY R.C. ROSSI P.E.# 32768) REVISED: (M2, M4 N9, N10) PEN. 48, 51, 55, 58 & (J18) NOTE PER DCN 530.053; (C2, C5, C7) TEST CONN. PER DCN 513.2237; (B6, C5, E11) PEN 4 PER FCR 2-7707; (N4) PEN 55, 58 PER FCR 2-7972 R2; (L18) DOC. REVIEW BLOCK; (L4, N4) REF DWG. ADDED: (M4) REF DWG. FCR 2-1216 R3 PREV. INCORP.	DKH	AS	[signatures]
5	3-18-82	REVISED: (J19) NOTE, (N2, N4, N15) P55, 58 (DCN 530.047) ADDED: (C4) S.RING & FCR 2-1216 (B1, E5, C1, C3, C5, C16, E16) NE. D DESIG. FCR 2-1217 (B3, I?) WELD DESIGN (AS BUILT); DCI 51?. TUBING ON R3	NA	[illegible]	[signatures]
4	11-3-80	REVISED: PENET. 15 TO 22, 25 TO 29, 31 TO 44, 46, 48, 50 TO 54 AND 56 TO 58; (I3, K3, L3, M3) LINE No. ADDED: (I19) DWG ZONE. (N15) DWG No; (I1, I9, L1, M1) NOTES. DELETED: (A1, A3, A4, A7, B12, B14, B17) NOTE.	JS JK	CCW SR	[signatures]
3	2-6-79	REVISED: PENET 1, 2, 5, 6, 7, 8, 9, 10, 14, 26, 27, 29, 30, 32, 33 34B, 35B 36 THRU 42 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58; (D18, E9, F13, B5, C2) NOTE; (G14 THRU N14) BELLOWS; ADDED: PENET. 34A, 35A; (D16, C7, B4, F1, I18, I19, M1) NOTE; (S2) WELD	JHA	SR	MM TPM [signature]
2	1-20-76	REVISED: (N19) NOTE, PENET. 1 THRU 23, 25 THRU 44, 46, 48, 49, 51, 52, 54 THRU 58 (B15) DIM. ADDED: PENET. 1 THRU 58 EMDRAC NOS; (I19) P.O. No	CZ	G.S	MM [signature]
1	7-2-74	REV: PEN. NO 1-4, 7-10, 15, 26, 28-28, 31, 34A, 35A, 36-45, 47, 48, 52-58. (F-16) TYPE II PEN. ADD: (K-19) NOTE #10 (F-15) COL. REF. FOR EMDRAC.	L.T.	RB	[signatures]

DRAWING NUMBER 2998-G-213 sht 3

2998-G-213 SH.3

97120 40015 -7
E