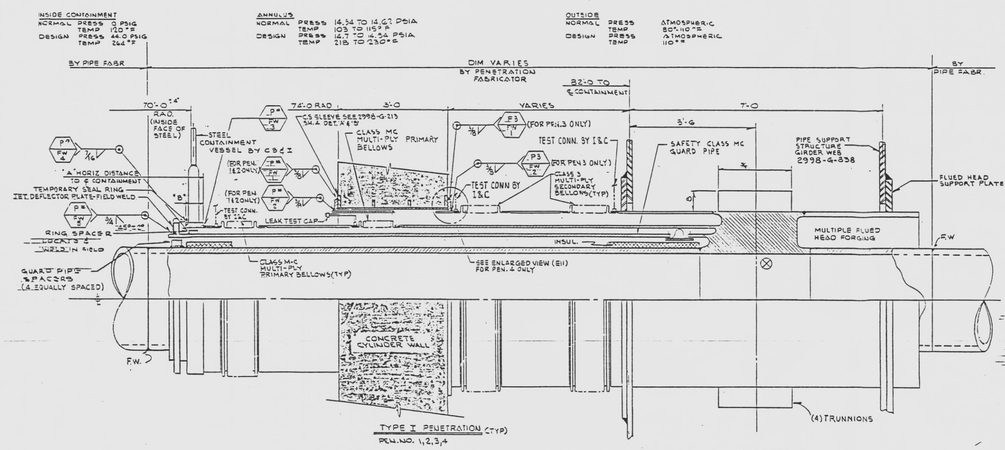
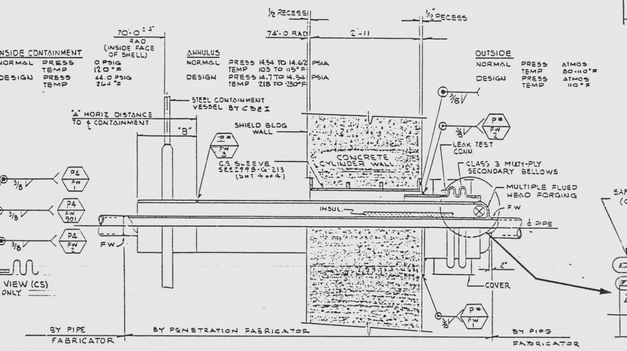
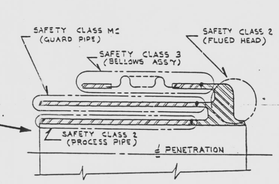
2998-G-213 SH.3 OF 4




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

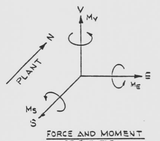



TYPE III PENETRATION
PENETRATION # 5, 6, 26, 27, 36-41, 44, 64, 69 & 70




## 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

## 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.# 422544.
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. 2998-1011 DET. III
8. SEE EBASCO DESIGN GUIDE M4-2
9. ⊗ INDICATES LOCATIONS OF PENETRATION LOAD APPLICATIONS.
10. O-INDICATES NOZZ. ID OUT SIDE OF CONTAINMENT
    I-INDICATES NOZZ. I.D INSIDE OF CONTAINMENT
    ALL OTHER WELD PREP NOZZ. ID ARE UNIFORM INSIDE & OUTSIDE OF CONTAINMENT.
11. PENETRATION #30 WILL BE USED FOR TEMPORARY FACILITIES PIPING DURING CONST. IN THE R.C.B. IT WILL BE CAPPED PRIOR TO THE LTRT. (SEE DWG. 2998-G-921 (-01))
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 ±1.5"
13. SEE DWGS 2998-B-231 SH.19 + X2E5-X4E SH.42 FOR TUBE SUPPORT DETAILS.
14. PENETRATIONS P-48 & P-51 WILL BE USED FOR: HE 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 2998E2E-2E2-SH.D
★ REANALYZED AT 175 PSIG & 235 PSIG DG-1

## NUCLEAR SAFETY RELATED

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

DOCUMENTS REVISED OR UNDER REVIEW

| |
|---|
| FCR-21-1559 |
| FCR-21-1557 |
| FCR-21-1556 |
| FCR-21-1501 |
| FCR-21-1011 R1 |
| FCR-21-1544 |
| FCR-21-1188 R1 |
| FCR-21-1137 |

FEB 24

ARTHUR JOHN ... REGISTERED PROFESSIONAL ENGINEER 13782 STATE OF FLORIDA

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

INFORMATION ONLY
VERIFY WITH A CONTROLLED COPY BEFORE USE.

THIS DOCUMENT IS THE PROPERTY OF EBASCO SERVICES INCORPORATED. ITS USE IS EXPRESSLY RESTRICTED BY THE TERMS OF THE CONTRACT, DATED AS OF 9-1-75 BETWEEN EBASCO SERVICES INCORPORATED AND FLORIDA POWER & LIGHT COMPANY.

FLORIDA POWER & LIGHT COMPANY
ST. LUCIE PLANT
1982, 850 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. Bisnar
CHK. DAGIO VA
2998-G-213
SH. 3 OF 4 | 8

| PENETRATION NO | TYPE | LINE DESCRIPTION: SYSTEM | LINE NO. | FLOW DIAG. | PROCESS LINE: NOM SIZE (IN) | WALL THKN (IN) | MATERIAL | DESIGN PRESS (PSIG) | DESIGN TEMP (L) (F) | MAX OPER PRESS (PSIG) | MAX OPER TEMP (R) (F) | INSUL THKN (IN) | PENETRATION DESIGN: PRESS (PSIG) | TEMP (F) | STEEL CONTAINMENT NOZZLE: NOM SIZE (IN) | WALL THKN (IN) | MATERIAL | WELD PREP (C DIM (IN)) | DIMENSION (DESIGN) Δx | Δy | CONC NOM OPENING (IN) | THERMAL: AXIAL & TRANS. KIPS | MOMENT & TORSION IN-KIPS | SEISMIC, SSE: AXIAL & TRANS. KIPS | MOMENT & TORSION IN-KIPS | PIPE RUPTURE: AXIAL & TRANS. KIPS | BEND MOMENT IN-KIPS | TORSION IN-KIPS | IMPINGEMENT: IMPING. FORCE ON GUARD PIPE KIPS | MOMENT ON TRANS. LOAD PIPE IN-KIPS | MOMENT ON PROCESS PIPE KIPS | PIPE WEIGHT KIPS | BELLOWS MOVEMENT: TOTAL AXIAL INCHES | LATERAL INCHES | VERTICAL INCHES | NOZZLE EMDRAC NO | TUBE TURNS PENETRATION EMDRAC NO |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | I | MAIN STEAM (SG-2A) | I-34 MS-2A | 2998-G-079 SH1 | 34 | 1.250 | CS | 989 | 590 | 885 | 532 | 3 | 989 | 590 | 60 | .3 | C.S. | 57.625 | SEE PLAN SH1 | | 24 | 52.0 ↑ 20.0 | 1040.0 ↑ 1040.0 | 89.5 | 2860 | 869.0 | 74,284.0 | 71,475.0 | 334.0 | 74,284.0 | 869.0 | 30.0 | 5.1 | ± 2.10 | ± 2.10 | 2998-834 | 2998-835, 2998-836, 2998-837, 2998-838, 2998-839, 2998-840 |
| 2 | I | MAIN STEAM (SG-2B) | I-34 MS-2B | 2998-G-079 SH1 | 34 | 1.250 | CS | 989 | 590 | 885 | 532 | 3 | 989 | 590 | 60 | .3 | C.S. | 57.625 | | | 24 | | | | | | | | | | | | | | | | 2998-834 | 2998-835, 2998-836, 2998-837, 2998-838, 2998-839, 2998-840 |
| 3 | I | FEEDWATER (SG-2A) | I-20 BF-1A | 2998-G-080 SH1 | 20 | 7/80 | | 1100 | 500 | 1050 | 440 | 3 | 1100 | 500 | 45 | 2.25 | | 42.625 | | | 70 | 41.5 | 2640 | 41.5 | 2640 | 840 | 21,197.0 | 19,743.0 | 334.3 | 21,197.0 | 334.3 | 15.0 | | | | 2998-835 | 2998-836, 2998-837, 2998-838, 2998-839, 2998-840 |
| 4 | I | FEEDWATER (SG-2B) | I-20 BF-1B | 2998-G-080 SH2 | 20 | | | 1100 | 500 | 1050 | 440 | 3 | 1100 | 500 | 45 | 2.25 | | 42.625 | | | 70 | | | | | | | | | | | | | | | 2998-835 | 2998-836, 2998-837, 2998-838, 2998-839, 2998-840 |
| 5 | III | BLOWDOWN (SG-2B) | I-2 B-2 | 2998-G-086 SH1 | 2 | | | 985 | 550 | 885 | 532 | 2 | 985 | 550 | 12 | 5/80 | | 11.625 | 70'-10 | 1'-6 | 20 | 1.1 | 11.0 | 1.1 | 11.0 | 3.3 | 62.0 | 53.6 | — | — | — | 1.0 | 1.5 | ± 0.75 | ± 0.75 | 2998-824 | 2998-1022 |
| 6 | III | BLOWDOWN (SG-2A) | I-2 B-1 | 2998-G-086 SH1 | 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-11-PW-7 | 2998-G-084 | 2 | 5/80 | SS | 150# | 500 | 100 | 59 | - | 150# | 265 | 4 | 5/80 | SS-147 | 3.849 | 70'-9 | | 12 | 1.1 | 11.0 | 1.1 | 11.0 | — | — | — | — | — | — | 0.3 | 2.3 | ± 0.75 | ± 0.75 | 2998-741 | 2998-2000 |
| 8 | II | STATION AIR SUPPLY | I-26A-12 | 2998-G-085 SH1 | 2 | 3/40 | C.S. | 150 | 125 | 100 | 115 | - | | | | | | | | | | 1.0 | 8.9 | 1.0 | 8.5 | — | — | — | — | — | — | 0.2 | 2.61 | ± 0.75 | ± 0.75 | 2998-742 | 2998-2001 |
| 9 | II | INSTRUMENT AIR SUPPLY | I-26A-14 | 2998-G-085 SH2 | 2 | 3/40 | C.S. | 150 | 125 | 100 | 115 | - | | | | | | 3.849 | | | | | | | | | | | | | | | | | | 2998-742 | 2998-2002 |
| 10 | III | HVAC CONTAINMENT PURGE | — | 2998-G-878 | 48 | 0.59 | C.S. | 2.5 | 265 | 1.15 | 120 | - | 44 | 265 | 48 | 2.5 | C.S. | — | 71'-0 1/8 | 2'-9 1/4 | 58 | — | — | — | — | — | — | — | — | — | — | 15.0 | 3.3 | ± 1.25 | ± 1.25 | 2998-833 | 2998-2002 |
| 11 | II | NITROGEN SUPPLY | — | 2998-G-085 SH3 | 1 | 3/32 | SS | 300 | 150 | 300 | 100 | - | 900 | 265 | 4 | 5/80 | SS-147 | 3.849 | 70'-9 | 1'6 | 10 | 1.0 | 8.5 | 1.0 | 8.5 | — | — | — | — | — | — | 0.2 | 2.61 | ± 0.75 | ± 0.75 | 2998-741 | 2998-2003 |
| 12 | II | CCW RETURN FAN COOLER 1C | I-8-CC-43 | 2998-G-083 | 8 | 5/40 | C.S. | 150 | 250 | 100 | 210 | 1½ | 150 | 265 | 6 | 5/40 | C.S. | 3.849 (1.70 SH1) | 70'-10 | 1'8 | 18 | 6.4 | 252.0 | 6.4 | 252.0 | — | — | — | — | — | — | 1.5 | 2.61 | ± 0.75 | ± 0.75 | 2998-742 | 2998-2004 |
| 13 | II | SUPPLY 1C | I-8-CC-39 | | | | | | 200 | | 120 | - | | | | | | | | | | | | | | | | | | | | | | | | 2998-742 | |
| 14 | II | RETURN 1D | I-8-CC-44 | | | | | | 250 | | 210 | 1½ | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | II | SUPPLY 1D | I-8-CC-40 | | | | | | 200 | | 120 | - | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | II | RETURN 1A | I-8-CC-41 | | | | | | 250 | | 210 | 1½ | | | | | | | | | | | | | | | | | | | | 2.61 | ± 0.75 | ± 0.75 | | 2998-2005 |
| 17 | II | SUPPLY 2A | I-8-CC-37 | | | | | | 200 | | 120 | - | | | | | | | | | | | | | | | | | | | | | | | 2998-833 | 2998-1584 1557 |
| 18 | II | RETURN 1B | I-8-CC-42 | | | | | | 250 | | 210 | 1½ | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | II | SUPPLY 2B | I-8-CC-38 | | | | | | 200 | | 120 | - | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | II | WATER SUPPLY REACTOR COOLANT PUMPS | I-8-CC-13B | | | | | | 200* | 145 | | 120 | - | 200* | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | II | WATER RETURN REACTOR COOLANT PUMPS | I-8-CC-16B | | | | | | 200* | | | 120 | - | 200* | | | | 5/40 | | | | | | | | | | | | | | | 2.61 | ± 0.75 | ± 0.75 | | 2998-2005 |
| 22 | II | FUEL TRANSFER TUBE | — | — | 34 | .375 | SS | 44 | 265 | 20 | 100 | - | 50 | 265 | 48 | 1.00 | C.S. | 46.156 | SEE NOTE 14 | SEE NOTE 14 | 60 | ← | | | BY | COMBUSTION | ENG. | CO. | | | | | | | 2998-833 | 2998-1584 1557 |
| 23 | II | LETDOWN LINE | I-2-CH-103 | 2998-G-078 SH1 | 2 | 3/40 | | 2485 | 550 | 2485 | 125 | 2 | 2485 | 550 | 12 | 5/160 | | 10.740 | 70'-10 | 1'-6 | 22 | 1.5 | 15.0 | 1.5 | 15.0 | 6.2 | 86.1 | 76.3 | — | — | — | 1.0 | 2.9 | ± 0.75 | ± 0.75 | 2998-825 | 2998-2006 |
| 24 | II | CHARGING LINE | I-2-CH-351 | 2998-G-078 SH1 | 2 | 3/160 | | 2735 | 550 | 2735 | 120 | 1 | 2735 | 265 | 10 | 5/160 | | 8.740 | | | 20 | | | | | 10.5 | 109.2 | 97.2 | — | — | — | | | | | 2998-825 | 2998-2007 |
| 25 | II | SAMPLING HOT LEG | I-78-SS-044 | 2998-G-081 SH1 | 1/2 | 0.109 | SS | 2485 | 550 | 2485 | 125 | 3 | 2485 | 550 | 6 | 5/80 | | 9.828 | | | 16 | 0.05 | 0.1 | 0.05 | 0.1 | — | — | — | — | — | — | 0.2 | 2.61 | ± 0.75 | ± 0.75 | 2998-742 | 2998-2008 |
| 26 | II | PRESSURIZER STEAM SPACE | I-8-CC-22C | | | 0.109 | | 2485 | 700 | 2485 | 125 | 3 | 2485 | 700 | | | | 5.828 | 70'-9 | 1'5 | | | | | | | | | | | | | | | | 2998-742 | 2998-2009 |
| 27 | II | BLOWDOWN (SG-2A) | I-2A-B-81 | 2998-G-086 SH1 | 1/2 | 3/80 | C.S. | 985 | 550 | 885 | 532 | 2 | 985 | 550 | 1 | | | 5.828 | | | 16 | 0.3 | 0.7 | 0.3 | 0.7 | — | — | — | — | — | — | | 2.61 | ± 0.75 | ± 0.75 | 2998-742 | 2998-2010 |
| 28 | II | CONTAINMENT VENT HEADER | I-1-HM-225 | 2998-G-078 SH1 | 3 | 3/40 | C.S. | 50 | 200 | 0.5 | 120 | - | 50 | 265 | 2 | 5/160 | SS-147 | SEE NOTE 14 | | | 10 | 1.0 | 8.5 | 1.0 | 8.5 | — | — | — | — | — | — | | 2.61 | ± 0.75 | ± 0.75 | 2998-741 | 2998-2011 |
| 29 | IV | CONTAINMENT SUMP SUCT. | I-24-CS-4 | 2998-G-088 | 24 | 5/16 | SS | 60 | 300 | 45 | 240 | — | 60 | 300 | 34 | 1.50 | C.S. | 31.334 | 78'-0 | 19'-6 | 34 | 17.2 | 110.0 | 17.0 | 1000.0 | — | — | — | — | — | — | 5.8 | 1.25 | ± 1.25 | ± 1.25 | 2998-737 | 2998-1319 |
| 30 | IV | CONTAINMENT SUMP SUCT. | I-24-CS-5 | 2998-G-088 | 24 | 5/16 | SS | 60 | 300 | 45 | 240 | — | 60 | 300 | 34 | 1.50 | | | | | 34 | 1.1 | 55.4 | 18.3 | 1295.1 | — | — | — | — | — | — | 2.0 | | | | 2998-737 | 2998-1319 |
| 31A | — | CONTAINMENT SPRAY | I-10-CS-12 | 2998-G-088 | 10 | 5/16 | SS | 300 | 300 | 215 | 240 | — | 300 | 300 | 10 | 5/80 | SS-148 | 10.256 | 70'-10 | 18 | — | 6.4 | 316.0 | 6.4 | 316.0 | — | — | — | — | — | — | | | | | 2998-764 | 2998-1323 |
| 31B | — | CONTAINMENT SPRAY | I-10-CS-13 | 2998-G-088 | 10 | 5/16 | SS | 300 | 300 | 215 | 240 | — | 300 | 300 | 10 | 5/80 | SS-148 | 10.250 | 70'-10 | 18 | — | | | | | — | — | — | — | — | — | | | | | 2998-763 | |
| 32A | — | CONTAINMENT SPRAY | I-12-CS-18 | 2998-G-088 | 12 | 5/40 | SS | 300 | 300 | 215 | 240 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.3 | 2.3 | ± 0.75 | ± 0.75 | — | 2998-2012 |
| 32B | — | CONTAINMENT SPRAY | I-12-CS-19 | 2998-G-088 | 12 | 5/40 | SS | 300 | 300 | 215 | 240 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 1.3 | | | | | 2998-2012 |
| 33 | III | SAFETY INJECTION-LOOP 1A | I-4-SI-113 | 2998-G-078 SH3 | 6 | 3/64 | | 2485 | 650 | 2235 | 330 | 1½ | 2485 | 640 | .18 | 1.75 | C.S. | 16.847 | 70'-10 | 1'6 | 26 | 3.0 | 268.0 | 3.0 | 268.0 | 12.0 | 1712 | 1449. | 12.0 | 1440 | 12.0 | 2.4 | 2.9 | ± 0.75 | ± 0.75 | 2998-824 | 2998-2013 |
| 34 | III | | | | | | | | 650 | | | | | | | | | | | | | | | | | | | | | | | | | | | 2998-824 | |
| 35 | III | | | | | | | | 650 | | | | | | | | | | | | | | | | | | | | | | | | | | | 2998-823 | |
| 36 | III | | 1A2 | I-4-SI-111 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2998-822 | |
| 37 | III | | 1B2 | I-4-SI-110 | | | | | 650 | | | | | | | | | | | | | | | | | | | | | | | | | | | 2998-822 | |
| 40 | II | SHUTDOWN COOLING | I-10-SI-362 | | 10 | 3/30 | | 350 | 350 | 300 | 350 | 1½ | 350 | 350 | 24 | 1.25 | C.S. | 22.188 | 71'-4 | 2'-6 | 32 | 9.0 | 490.0 | 9.0 | 490.0 | 30.0 | 2520.0 | 1607.0 | 30.0 | 2520.0 | 30.0 | 3.3 | 2.61 | ± 0.75 | ± 0.75 | 2998-742 | 2998-2014 |
| 41 | II | SAFETY INJECTION TANK TEST | I-2-SI-699 | 2998-G-078 SH3C | 2 | 3/80 | | 700 | 360 | 600 | 320 | - | 700 | 360 | 6 | 5/160 | C.S. | 7.703 | 70'-10 | 1'-6 | 16 | 1.1 | 11.0 | 1.1 | 11.0 | 2.3 | 68.0 | 57.0 | — | — | — | 1.0 | | | | 2998-741 | 2998-2015 |
| 42 | II | COMT. SUMP PUMP DISCH. | I-3-CS-68 | 2998-G-088 | 3 | 3/64 | | 200* | 300 | 70 | 120 | - | 200* | 300 | .3 | 5/160 | SS-147 | 3.068 | 70'-10 | 1'8 | 14 | 1.8 | 25.9 | 1.8 | 25.9 | — | — | — | — | — | — | 0.3 | | | | 2998-742 | 2998-2016 |
| 43 | II | REACTOR DRAIN PUMP SUCT | I-3-RM-108 | 2998-G-078 SH1C | 3 | 3/64 | | 80 | 150 | 0.5 | 120 | - | 80 | 265 | .8 | 5/80 | SS-148 | 7.918 | 78'-0 | 18'-7 | 3 | 1.1 | 23.9 | 1.1 | 23.9 | — | — | — | — | — | — | 1.5 | — | — | — | 2998-743 | — |
| 44 | — | REACTOR COOLANT PUMPS CONTROLLED BLEED OFF | I-2-RC-125 | 2998-G-078 SH21 | 3/4 | 3/64 | | 2485 | 550 | 31 | 135 | - | 2485 | 550 | 6 | 5/XXS | C.S. | 5.324 | 70'-10 | 16 | 16 | 0.4 | 1.5 | 0.4 | 1.5 | — | — | — | — | — | — | | 2.61 | ± 0.75 | ± 0.75 | 2998-742 | 2998-2017 |
| 45 | — | DIFF. PRESS. BETWEEN INSIDE CONTAINMENT & ANNULUS | — | 2998-G-222 SH6 | 1/4 | .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 | | | | 2998-741 | 2998-2018 |
| 46 | II | REFUEL CAVITY PURIFICATION INLET | I-3-CS-92 | 2998-G-089 | 3 | 3/64 | | 100* | 300 | 55 | 265 | — | 100* | 300 | 6 | 5/80 | | 5.828 | 70'-10 | 18 | 14 | 1.8 | 15.7 | 1.8 | 15.9 | — | — | — | — | — | — | 0.5 | | | | 2998-742 | 2998-2019 |
| 47 | II | REFUEL CAVITY PURIFICATION OUTLET | I-3-CS-96 | 2998-G-089 | 3 | 3/64 | | 60* | 300 | 45 | 265 | — | 60* | 300 | 6 | 5/160 | SS-147 | 5.828 | 70'-10 | | | | | | | | | | | | | | | | | 2998-741 | 2998-2020 |
| 48 | II | MULTIPURPOSE (SEE NOTE # 14) | I-7/8-HS-1X(1) | 2998-G-223 SH4 2998-G-225 SH7 | 1/4 | .065 | | 60 | 340 | 45 | 264 | — | 60 | 340 | 6 | 5/XXS | C.S. | 5.828 | 71'-0 | | 16 | 0.24 | 0.5 | 0.24 | 0.5 | — | — | — | — | — | — | 0.3 | 2.61 | ± 0.75 | ± 0.75 | 2998-742 | 2998-2021 |
| 49 | II | BLOWDOWN (SG-2B) | I-7A-B-82 | 2998-G-086 SH1 | 1/2 | 3/80 | C.S. | 985 | 550 | 885 | 532 | 2 | 985 | 550 | 6 | 5/80 | | 5.828 | 71'-0 | | 14 | 0.3 | 0.7 | 0.3 | 0.7 | — | — | — | — | — | — | | | | | 2998-742 | 2998-2010 |
| 50 | — | SPARE | — | 2998-G-082 | — | — | — | — | — | — | — | — | 44 | 265 | 14 | 5/80 | | — | 71'-0 | 20 | 26 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | 2998-741 | — |
| 51 | II | MULTIPURPOSE (SEE NOTE # 14) | I-7/8-HS-1X(2) | 2998-G-223 SH4 2998-G-225 SH7 | .065 | SS | 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 | — | — | 1/4 | .065 | SS | 44 | 265 | 44 | 120 | — | 44 | 265 | 12 | 10-1/2 Sch 80 Pipe | | 10.43 | 71'-0 | 20 | 22 | 1.6 | 8.0 | 1.6 | 8.0 | — | — | — | — | — | — | | 2.61 | ± 0.75 | ± 0.75 | 2998-741 | 2998-1945 |
| 53 | II | DIFF. PRESS. BETWEEN INSIDE CONTAINMENT & ANNULUS | — | 2998-G-222 SH6 | 1/4 | .065 | SS | 44 | 265 | 44 | 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 | 2998-741 | 2998-2023 |
| 54 | II | INTEGRATED LEAK RATE TESTING | I-8-IT-21 | 2998-G-091 | 8 | 3/40 | C.S. | 60 | 110 | 45 | 95 | — | 44 | 265 | 16 | 10 | | 14.482 | 71'-0 | 18 | 26 | 20 | 150 | 20 | 150 | — | — | — | — | — | — | 1.5 | 2.61 | ± 0.75 | ± 0.75 | 2998-741 | 2998-1944 |
| 55 | II | DIFF. PRESS. BETWEEN INSIDE CONTAINMENT & RAB | — | 2998-G-222 SH6 | 1/4 | 3/16 | SS | 44 | 410 | 43.7 | 120 | — | 44 | 265 | 4 | 5/160 | | 4.026 | 70'-9 | 16 | 8 | 2.4 | 48.2 | 2.4 | 48.2 | — | — | — | — | — | — | 0.3 | — | — | — | 2998-711 | 2998-1464 |
| 56 | II | HEV PURGE INLET | — | I-8-CV-3 | 8 | 3/32 | CS | 44 | 265 | 44 | 265 | — | 44 | 265 | 8 | 5/160 | | 7.281 | | | 10 | 6.4 | 252.0 | 6.4 | 252.0 | — | — | — | — | — | — | 1.5 | 2.41 | ± 0.54 | ± 0.56 | 2998-711 | 2998-3110 |
| 57 | II | HEV PURGE OUTLET | — | I-8-CV-38 | 8 | 3/32 | CS | 44 | 170 | 44 | 265 | — | 44 | 265 | 8 | 5/160 | | 7.281 | | | 10 | | | | | | | | | | | 1.5 | 2.3 | ± 1.25 | ± 1.25 | 2998-824 | 2998-2019 |
| 58 | II | DIFF. PRESS. BETWEEN INSIDE OF CONTAINMENT & RAB | — | 2998-G-222 SH6 | 1/4 3/16 Pipe | 3/16 | SS | 44 | 420 | 43.7 | 420 | — | 44 | 265 | .4 | 5/160 | | 4.062 | | | 8 | 6.4 | 252.0 | 6.4 | 252.0 | — | — | — | — | — | — | 0.3 | | | | 2998-824 | 2998-17445 |

FOR REV 7 SEE (A-18)

SEE NOTE 10

NOTE 12

SEE NOTE 13

SEE NOTE 14

SEE NOTE 8

SEE SHEET 4 OF 4 FOR ADDITIONAL PENETRATIONS

| NO | DATE | REVISION | BY | CH | APPROVED |
|---|---|---|---|---|---|
| 6 | 12/8/83 | APPD. BY ACNOD: PER 57-6-8, REV (6G-1M), M4, M5 NOTE PEN. 48, 51, 56, 58 & 59 (B) NOTE PER DCN 5M-058 (G-C-C-C-T) TEST CONN. PER DCN 5M-2137 (6G-C-C-5-1) PEN # PER REV 2 - TOST (J-M) PEN 19, 55 PER ICE 5-PIPE PEN (L) (L) (B) DWG. REVIEW GUIDE, (5N-M) 8E5-5N2M, ADDED (M) (1) 8E-2N6, FCR-1-11 (A) & FCR-1-11 (C) & (F) | DKH | AS | |
| 5. | 3-18-82 | REVISED DUE TO NOTE (J-L, M, N) DCN 5S-50 (DCR 5S-50) (ACT ADDED C-2-15, R1 W, C, E, F) (5S-50 (C) (C) (C) (C) (L) (M) & 5S-55 PER DWG. (5N-M) 8E5-5N2M, ADDED (M) (1) 8E-2N6, 5S-55 PER DWG. 5N-M (A, B, C, D) (E) (F) (G) (H) (J) (K) (L) (M) (N) | | | |
| 4 | 8-2-79 | REVISED: PENETS. 70 TO 2L, 45 TO 7P, 31 TO 4L, 4M-4B, 5D TO 5A & AND 5M TO 5B; (C3, K3, L3, M3) LINE NO. ADDED (E) (F) NOW ZONE (N-S) DWG NO. (E) 1-3, (L) M11 NOTES: D1-ADDED (A1, A3, A4, A7, B1, B2, B3, B7) NOTE; | JS | CDJ | |
| 3 | 2-6-79 | REVISED: PENET. 1, 2, 3, 7, 8, 9, 10, 14, 16, 17, 29, 30, 31, 33, 34A, 35B, 36, 38A, 41, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, (D1, E5, F13, B5, C3) NOTE; (6 (4 THRU N14) BELLOWS; ADDED (PENET. 3, 4A, 35A; (D9-C7) B4-F1, J18, (E19, F1) NOTE; (C1) WELD | JS | SR | |
| 2 | 1-30-76 | REVISED IN (N) NOTE; PENET 1, 3, N1, 23 (C-D-R1-4-4G-4B, M-C, S2, S4 THRU S8 (B, C) DCN, ADDED PENET. 1 THRU 58 EMDRAC NOS. (T) (B) P.O. NY | CJ | SR | |
| 1 | 7-2-74 | REVISED PEN. NO. 1-4, 7-9, 11, 14, 16, 17, 29, 30, 31, 33, 34A, 35B, 36, 38A, 41, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58 (D1, E5, F13, B5, C3) PER DWG. 5N-M 8E5-5N2M, ADDED (A-1) PENETRATION (F-10) & DCN, ADDED PENETS. EMDRAC NOS. (T) (B) P.O. NY | LT | RB | |

| NO | DATE | REVISION | BY | CH | APPROVED |
|---|---|---|---|---|---|
| 8 | 7/11/73 | REVISED PER DCN 5M-2137 (6G-C-C-5-1) PEN # PER REV 2 - TOST (J-M) PEN 19, 55 PER ICE 5-PIPE PEN (L) (L) (B) DWG. REVIEW GUIDE, (5N-M) 8E5-5N2M, ADDED (M) (1) 8E-2N6, FCR-1-11 (A) & FCR-1-11 (C) & (F) | LT | RB | |
| 7 | 11-19-73 | PCN/M 157-2-83 ADD (N-1) CONTINUATION (C-18) NOTE 19; (K, M-18) NOTES: (M-3) FLOW DWG REF | JS | CH | |

REVISIONS

2998-G-213 SH.3

9906040221-27

APERTURE CARD