POOR ORIGINAL

APERTURE CARD

CLOSED SECTION OF INSERT LINE IS FOR CONTAINMENT PENETRATION PURPOSES ONLY. PENETRATION MAY BE MADE AT ANY CONVENIENT LOCATION INSIDE CONTAINMENT.

FOR WDS LINE CONT SEE DWG. 9321-F-27193

TEST VENT CONN
SWAGELOK CONN.
3/8" S.S. TUBING
3/4-RC-151R
3/4"-RC-151R LINE #610
RUPTURE DISCS

PRESSURIZER RELIEF TANK #31
ITEM: RCPC*R 1

3/4-RC-151R LINE #564
LINE #565

TO STAND PIPE MAKEUP LINES 9321-F-27383

PRIMARY WATER 9321-F-27243

OUTSIDE REACTOR CONTAINMENT BLDG.

INSIDE REACTOR CONTAINMENT BLDG.

1-RC-601R LINE #383

ST.S. 9321-F-27358

4-RC-601R LINE #38

4-RC-601R LINE #35

3-RC-601R LINE #84

LETDOWN LINE (CVCS) 9321-F-27365

8-RC-151R

1-RC-761R

1-RC-151R

2-RC-151R

RESIDUAL HEAT LOOP SYS 9321-F-27363

3-RC-151R LINE #85

AUXILIARY SPRAY (CVCS) 9321-F-27363

ACS 9321-F-27203

3/4-RC-601R LINE #61

3/4-V-524

3/4-V-525

PRESSURIZER SURGE LINE

14-RC-2501R, LINE #53

8-RC-2501R, LINE #62

8-RC-2501R, LINE #61

CONTINUED ON DWG 9321-F-27383

8-RC-602R LINE #343

6-RC-602R LINE #342

6-RC-602R LINE #344

4-RC-2501R LINE #91

6-RC-2501R LINE #343

3-RC-2501R LINE #92

4-RC-2501R LINE #90

3-RC-2501R LINE #70

VENT (WDS) 9321-F-27193

DEAD WEIGHT CALIBRATOR

OUTSIDE REACTOR CONTAINMENT BLDG.

INSIDE REACTOR CONTAINMENT BLDG.

PRESSURIZER #31
ITEM: RCPC*R 1

HEATER CONTROL

14-RC-2501R LINE #63 NOTE #4

NOTES

1. 29" INSIDE DIAMETER.
2. 31" INSIDE DIAMETER.
3. 275 INSIDE DIAMETER.
4. SCHEDULE 160 PIPE.
5. GLOBE VALVES NORMALLY INSTALLED WITH FLOW UNDER SEAT.
6. LOCATE OUTSIDE SECONDARY SHIELD WALL.
   VALVE NO. 8011 IS FROM INNER O-RING.
   VALVE NO. 8028 IS FROM OUTER O-RING.
7. SPRAY LINE SCOOP.
8. ELBOW FLOW METER.
9. TEE & CAP DIA. SCHEDULE 160 STAND PIPE, CAP BOTH ENDS.
10. PIPE SLOPED DOWNHILL TO DRAIN TANK.
11. ALL SCOOPS LOCATED IN ONE SAME CROSS-SECTIONAL PLANE.
12. HOT LEG BYPASS LINE SCOOPS.
   (A) PARALLEL 1 INCH PIPE PATHS ENDED SO FOR APPROX. EQUAL EQUIVALENT LENGTHS.
   FLOW PATH LENGTHS OF EACH 1 INCH PIPING SECTION SHOULD BE KEPT TO A MINIMUM.
   (B) LENGTH OF HOT LEG 2 INCH PIPE UPSTREAM OF RTD MANIFOLD TO BE A MAX. OF 3 FEET.
   (C) LENGTH OF COLD LEG 2 INCH PIPE UPSTREAM OF RTD MANIFOLD TO BE A MAXIMUM OF 6 FEET.
13. RTD MANIFOLD AND RTD'S SUPPLIED AS A PACKAGE, MANIFOLD APPROX. 20 INCHES LONG.
14. LOCATE RTD MANIFOLD ISOLATION VALVES APPROX. 9 INCHES FROM MANIFOLD.
15. LOCATE CONNECTION ON UPPER 180° OF PIPE CIRCUMFERENCE.
16. ALL BYPASS LOOP PIPING AND RTD MANIFOLDS SHALL HAVE REMOVABLE INSULATION UP TO ROOT VALVES.
17. LOCATE ROOT VALVES ABOVE ELEVATION OF REACTOR VESSEL NOZZLES.
18. VESSEL VENT LINE AND GASKET MONITORING LINES FURNISHED WITH VESSEL.
19. WHERE APPLICABLE LOCATE ELBOWS KEPT WELL DOWN STREAM OF DRAIN LINE.
20. FLANGES ARE PROVIDED FOR FLOW LIMITATION ORIFICES & PROVIDED FIELD INSTRUMENT BLANK ORIFICE PLATES TO BE INSTALLED TO SIZE IN THE FIELD DURING INITIAL TESTING.
21. LOCATE VALVES 559, 560, 561, 562 BELOW HOT LEG PIPING.
22. PHYSICAL PROTECTION SHIELDS FOR RCS RTD'S PER MOD. 79-2-056 RCS

THIS DRAWING CONTAINS CLASS 1 ITEMS
All drawings in supplement 1 to Q-249

REFERENCES

1 - PROCESS FLOW DIAGRAM (W) DWG. 9321-F-27243
2 - DESIGNATION OF SYMBOLS (W) SPEC. G-2757-A, REV. 3
3 - INSTRUMENTATION & CONTROL DIAGRAMS AND APPLICATIONS FOR INSTRUMENT [illegible]
   ISSUED AUG. 12, 1968
   (W) - WESTINGHOUSE INSTALLATION SPEC. 15 SUBSECTION
4 - MATERIAL SPEC. 1 FITTINGS.
(W) 5. SPEC. G-2575-00 REV. 7
(W) 6. SPEC. G-2676-293 REV. 0

REFERENCE DRAWINGS

IVSWS - ISOLATION VALVE SEAL WATER SYSTEM DWG. 9321-F-27403
CVCS - CHEMICAL & VOLUME CONTROL SYSTEM SHT 1, DWG. 9321-F-27365
SHT 2, DWG. 9321-F-27366
ACS - AUXILIARY COOLING SYSTEM SHT 1, DWG. 9321-F-27203
SHT 2, DWG. 9321-F-27204
SIS - SAFETY INJECTION SYSTEM SHT 1, DWG. 9321-F-27358
SHT 2, DWG. 9321-F-27359
S.S. - SAMPLING SYSTEM DWG. 9321-F-27483
WDS - WASTE DISPOSAL SYSTEM SHT 1, DWG. 9321-F-27193
SHT 2, DWG. 9321-F-27194
RCS - REACTOR COOLANT SYSTEM SHT 1, DWG. 9321-F-27383
NULL LINE SHT 1 DWG. 9321-F-27411
DWG. 9321-F-27412

LEGEND

DT - DRAIN TANK (CVCS)
V - VENT TO ATMOSPHERE
FO - FAIL OPEN
FC - FAIL CLOSED
T - TRIP ON CONTAINMENT ISOLATION
VH - VENT HEADER
D - LOCAL DRAIN
△ - CONTAINMENT PENETRATION
○ - SEISMIC CLASSIFICATION

NOTE:
ALL PIPING ON THIS DWG. IS [illegible] CLASS 1 EXCEPT AS NOTED

A21046S

REDRAWN (W)

LEGEND
////// DESIGNATES SYSTEM BOUNDARY

NOTE
THIS DWG. PHOTOGRAPHICALLY REPRODUCED FROM U.E.&C. DWG NO. 9321-F-27473-16

FLOW DIAGRAM
REACTOR COOLANT SYSTEM
SHT 1 OF 2

FD-9209-05-SH2