

Figure 5.4-4 – Reactor Recirculation System P&ID (Sheet 1 of 2)

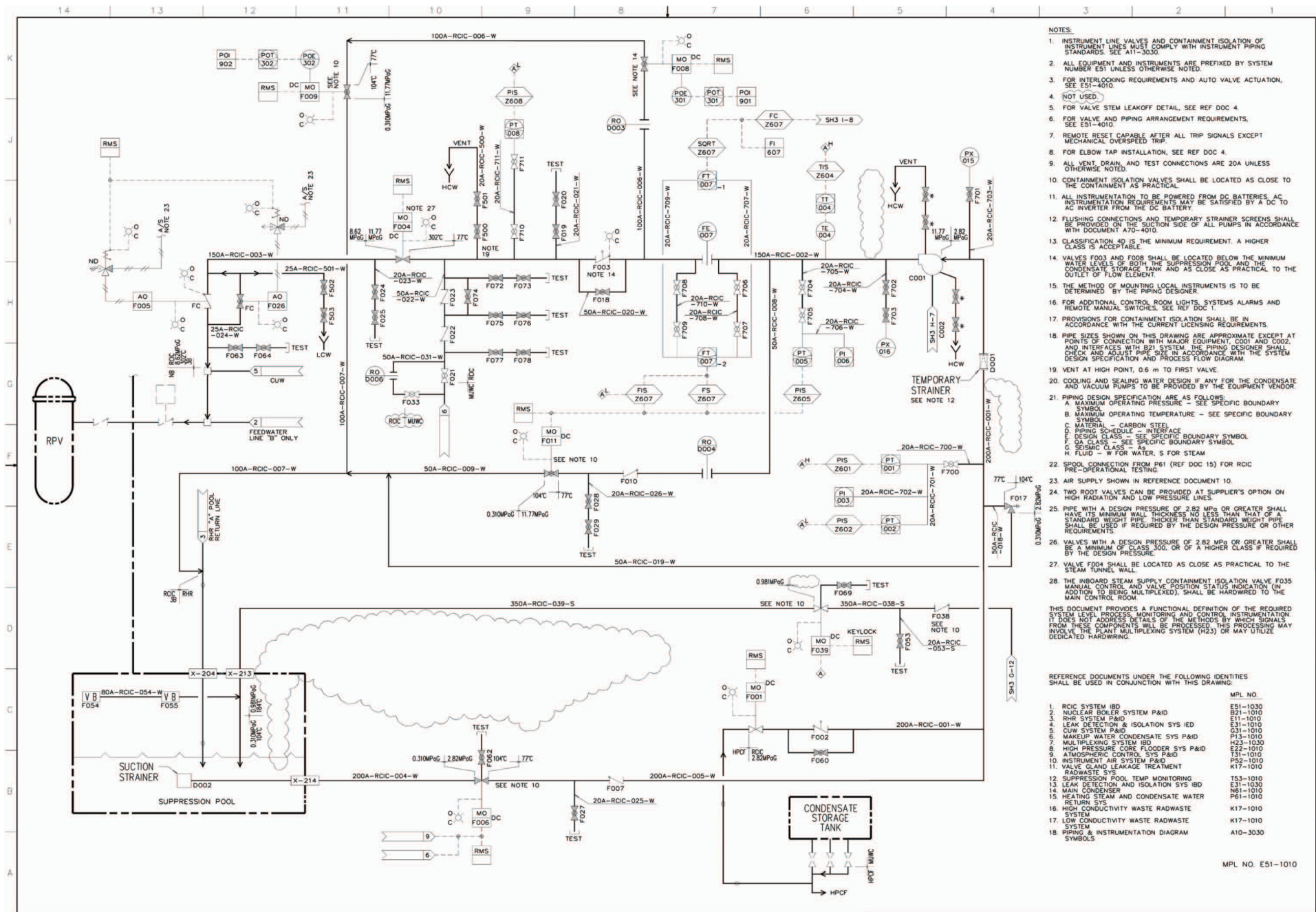


Figure 5.4-8 – Reactor Core Isolation Cooling System P&ID (Sheet 1 of 3)

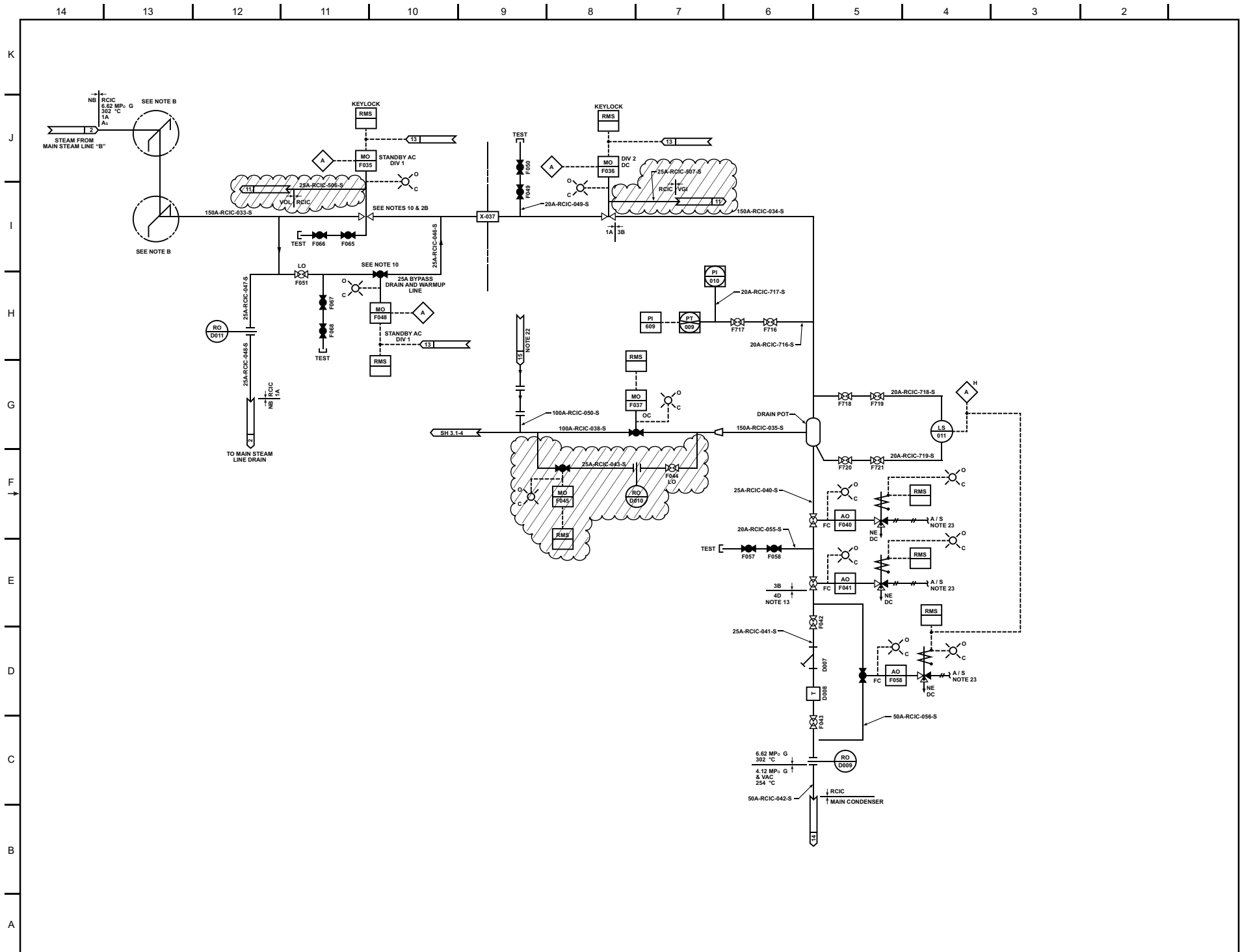


Figure 5.4-8 – Reactor Core Isolation Cooling System P&ID (Sheet 2 of 3)

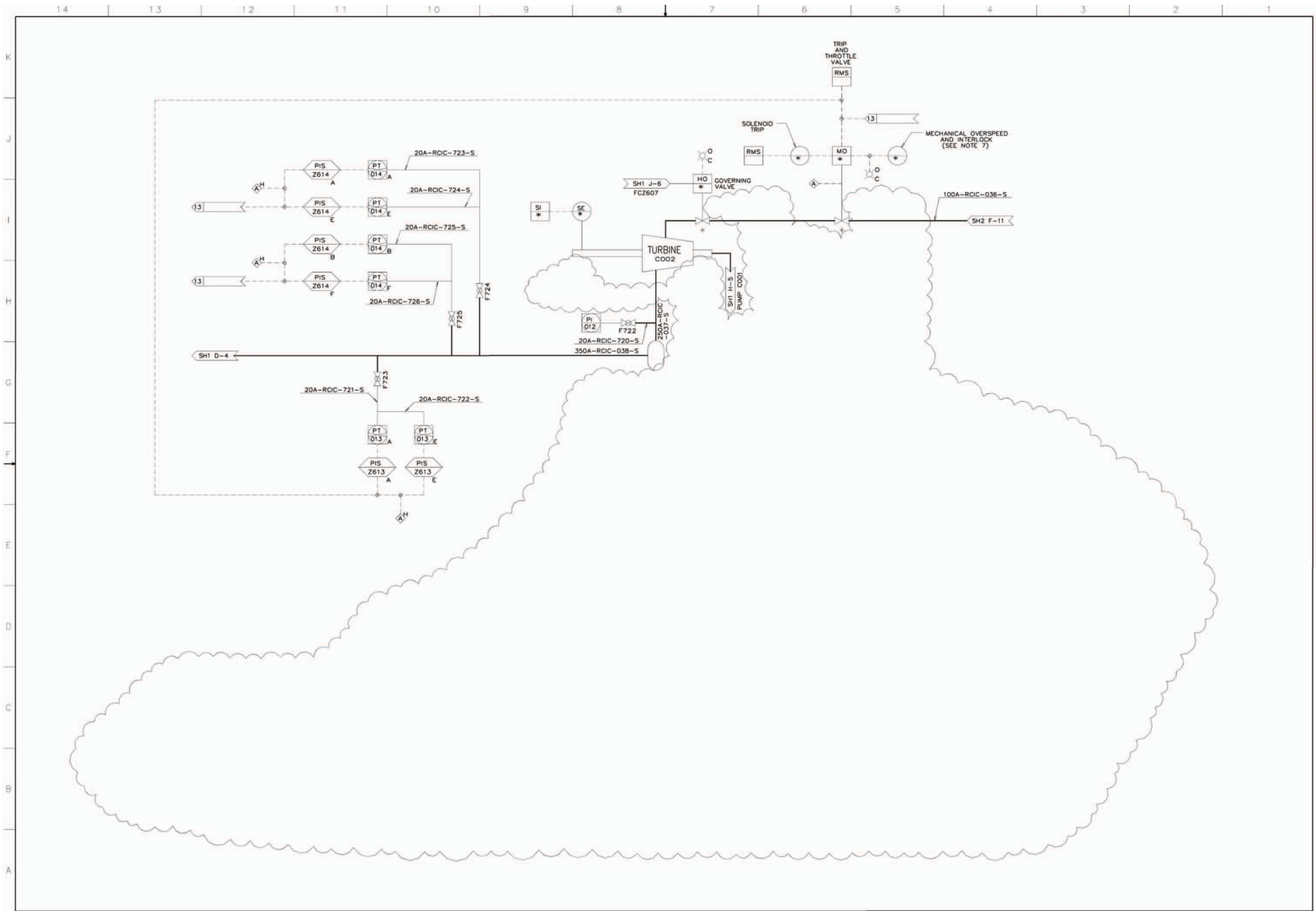


Figure 5.4-8 – Reactor Core Isolation Cooling System P&ID (Sheet 3 of 3)

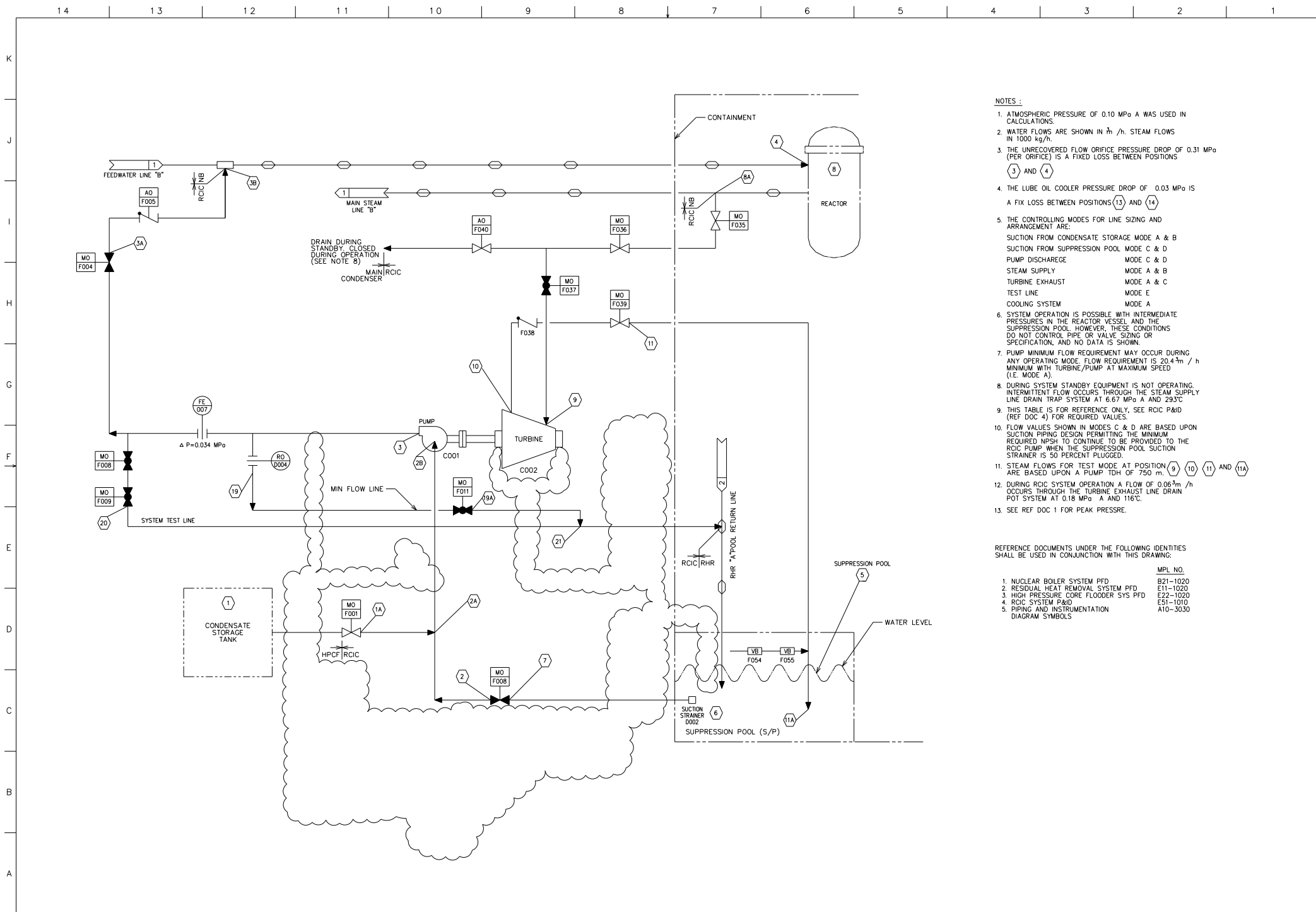
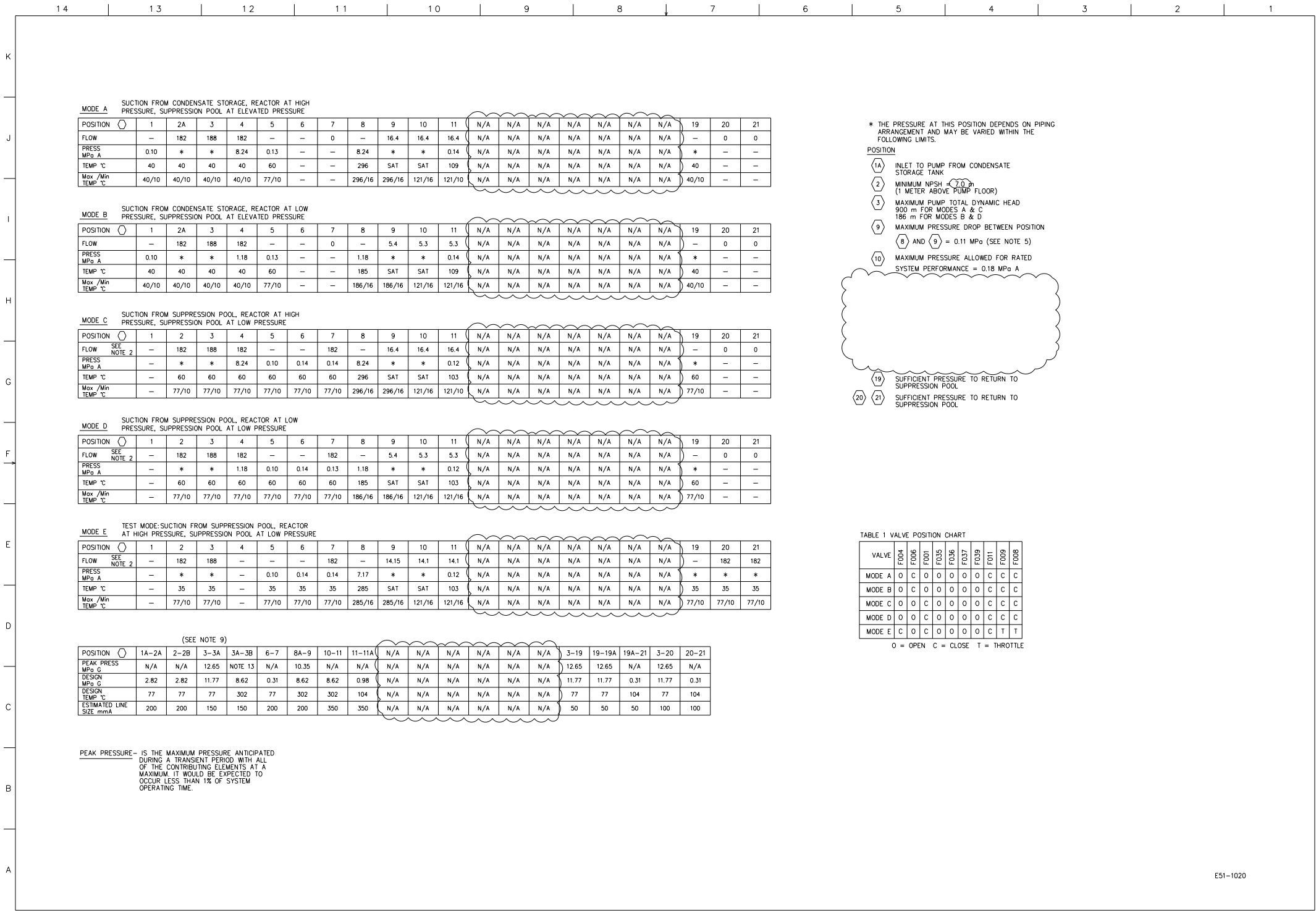
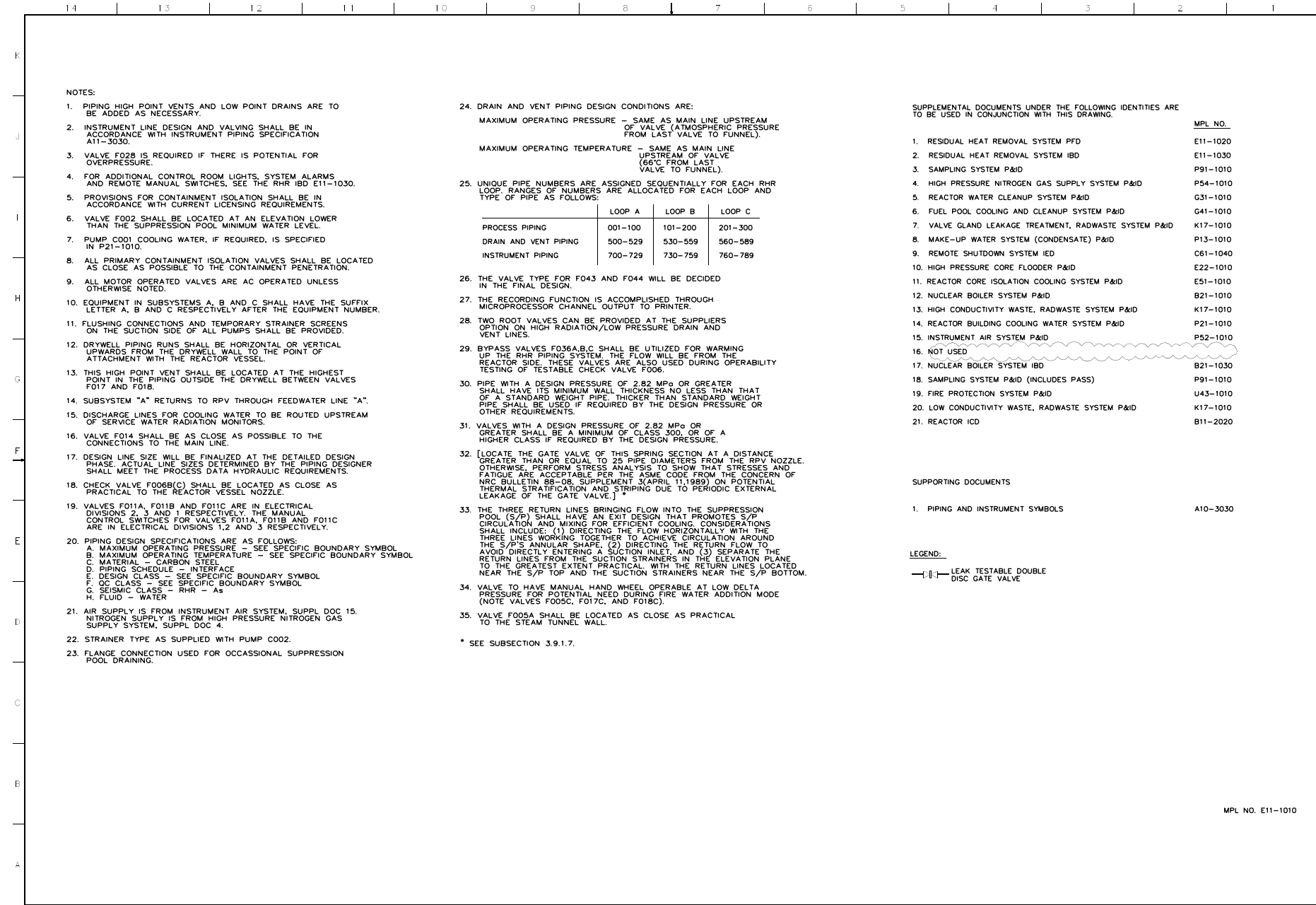


Figure 5.4-9 – Reactor Core Isolation Cooling System PFD (Sheet 1 of 2)





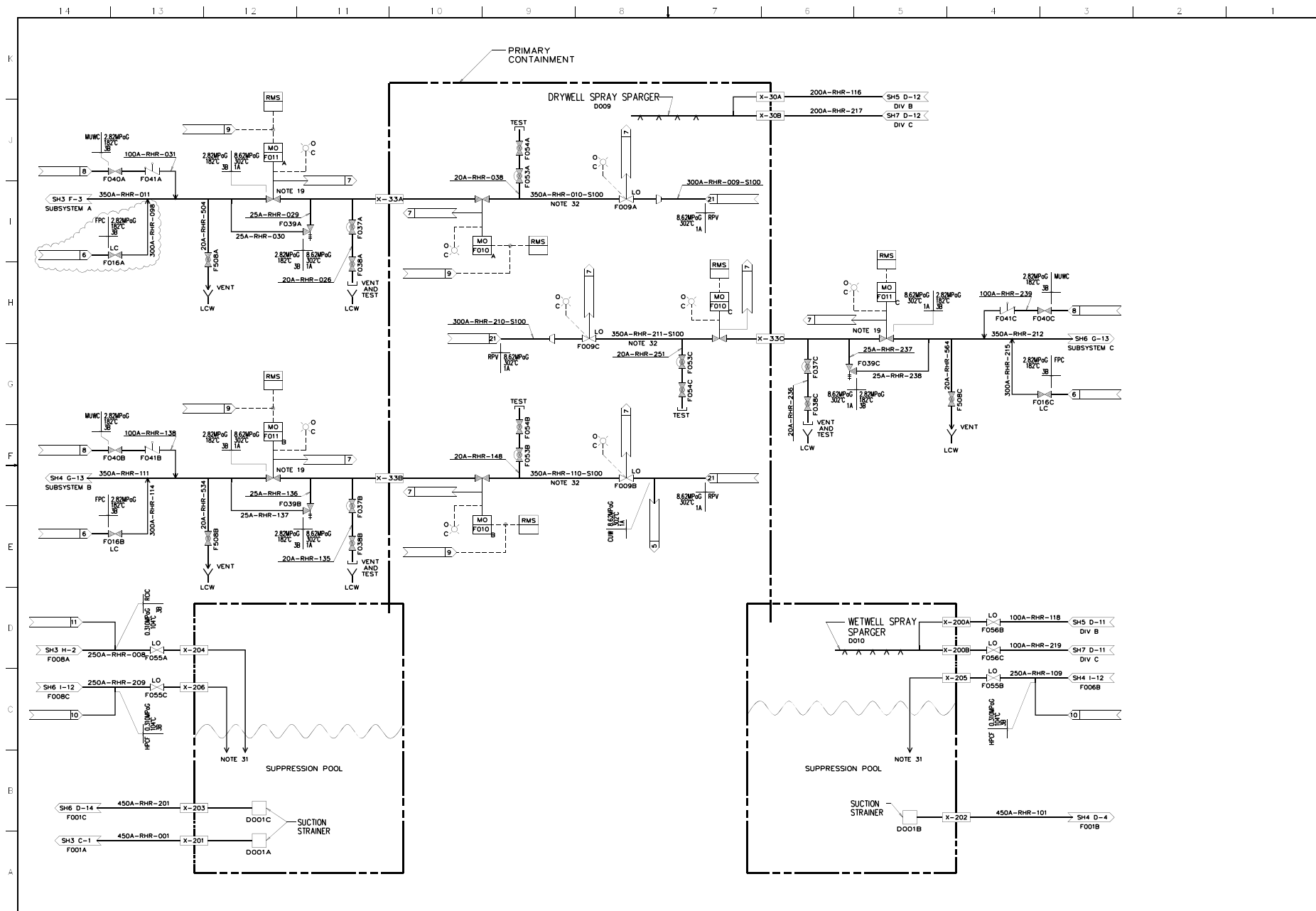


Figure 5.4-10 – Residual Heat Removal System P&ID (Sheet 2 of 7)

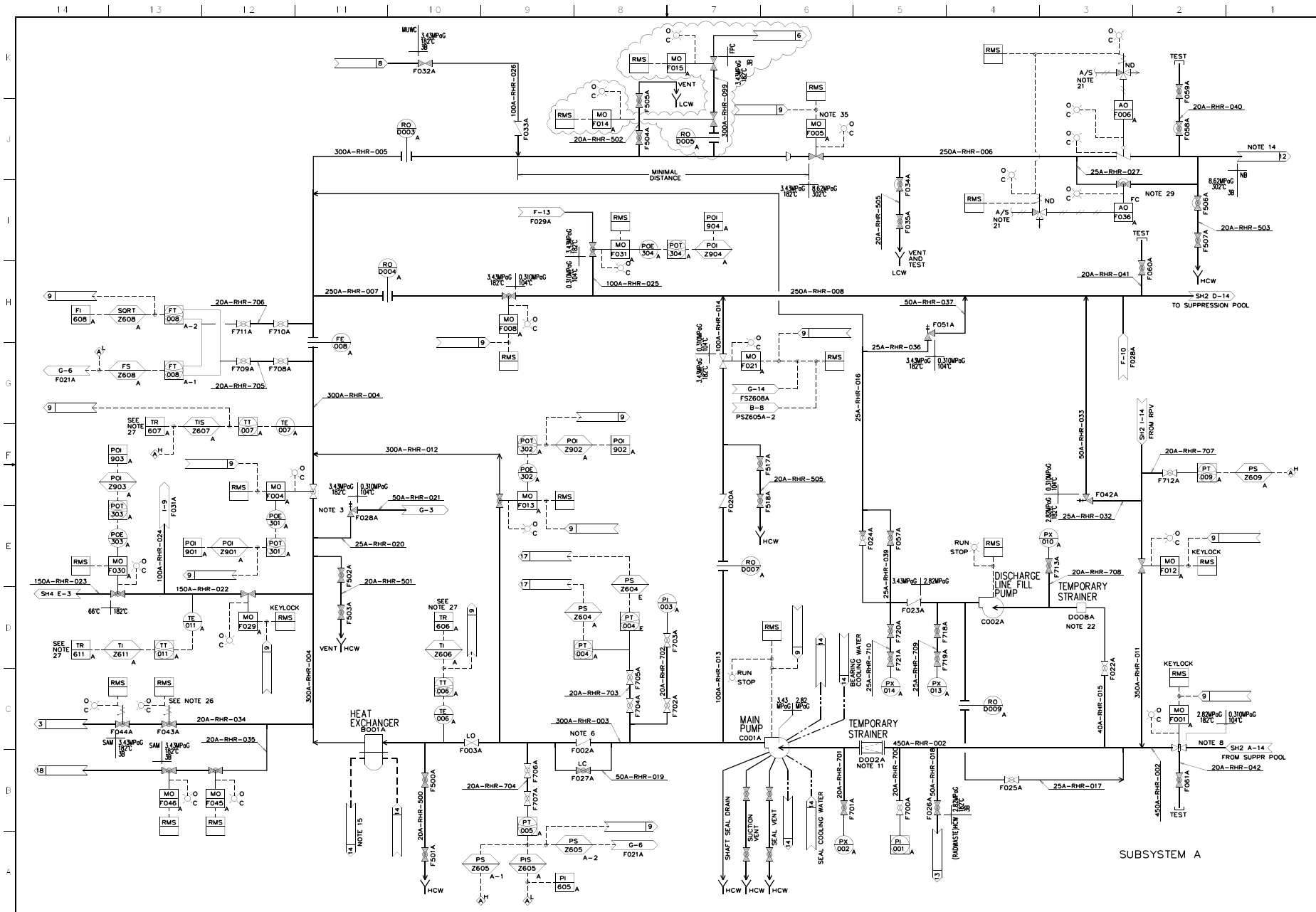


Figure 5.4-10 – Residual Heat Removal System P&ID (Sheet 3 of 7)

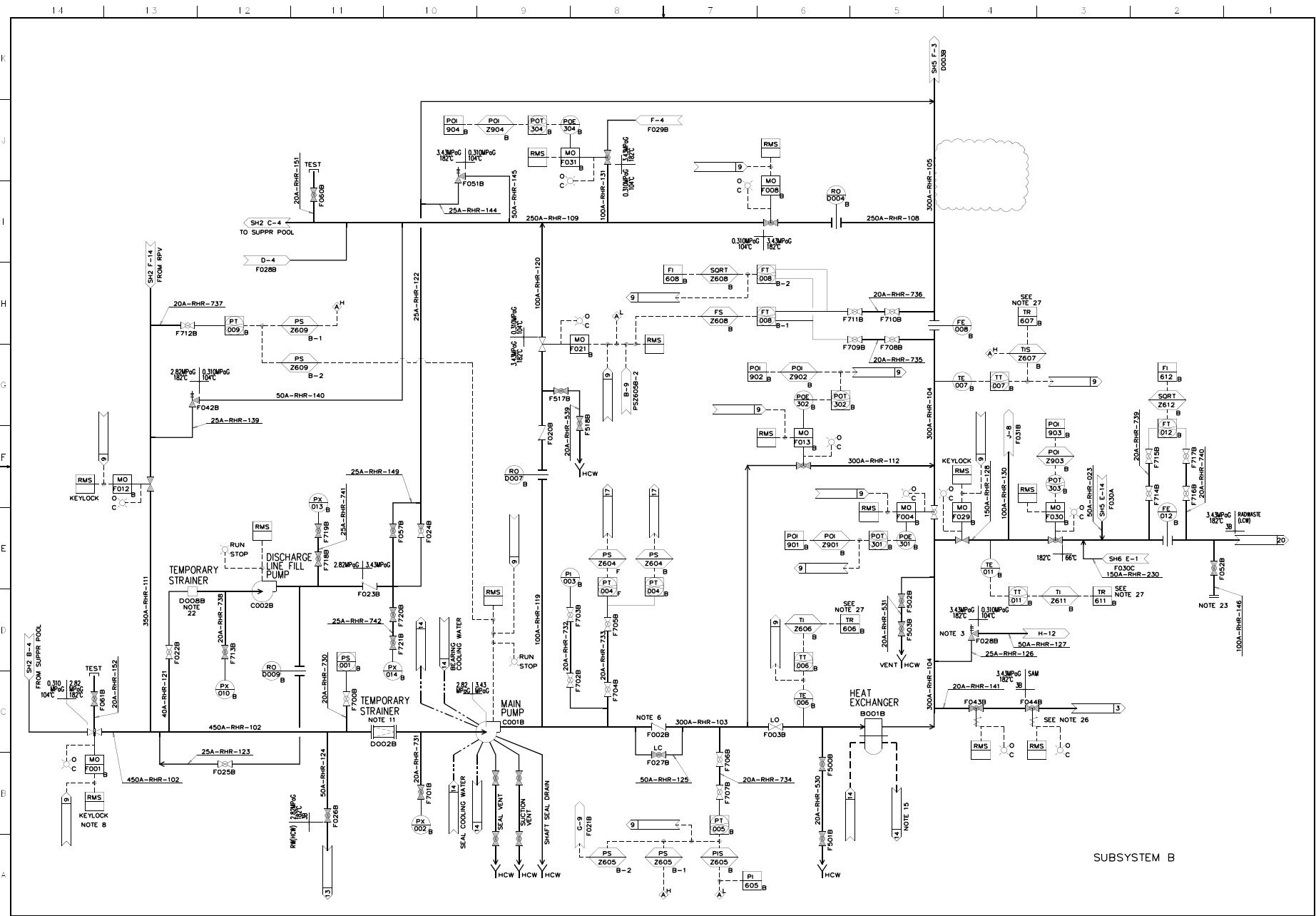


Figure 5.4-10 – Residual Heat Removal System P&ID (Sheet 4 of 7)

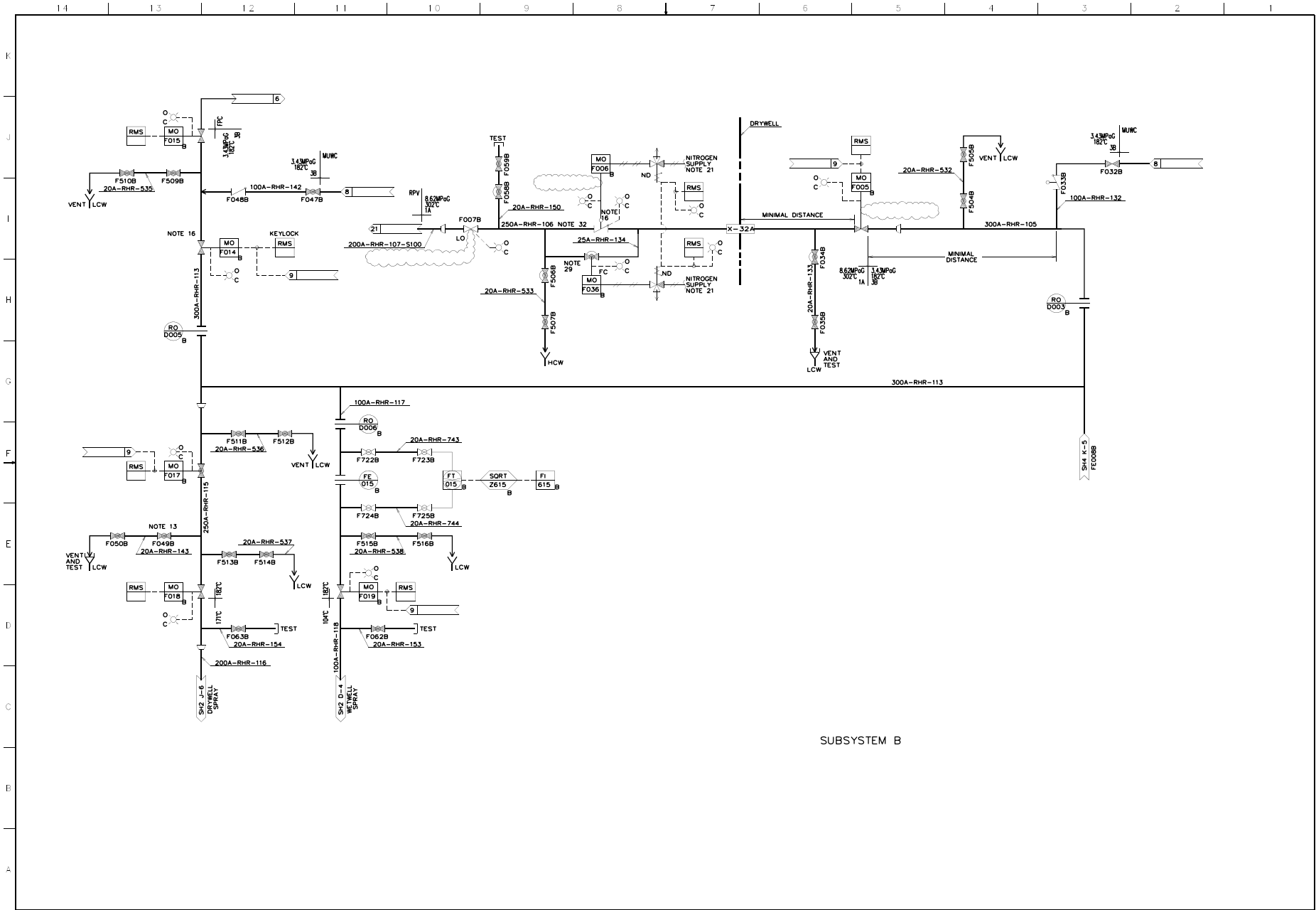


Figure 5.4-10 – Residual Heat Removal System P&ID (Sheet 5 of 7)

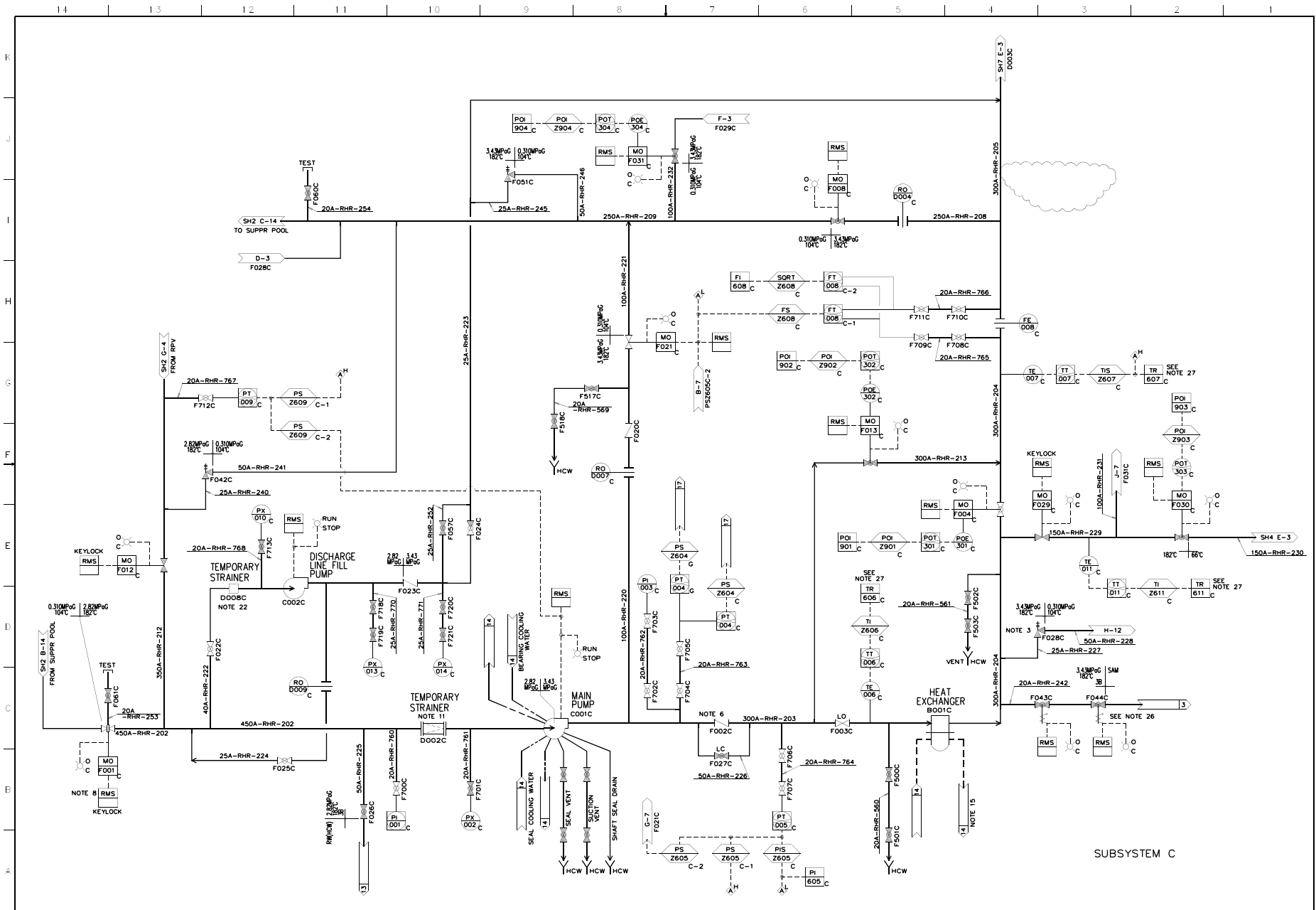


Figure 5.4-10 – Residual Heat Removal System P&ID (Sheet 6 of 7)

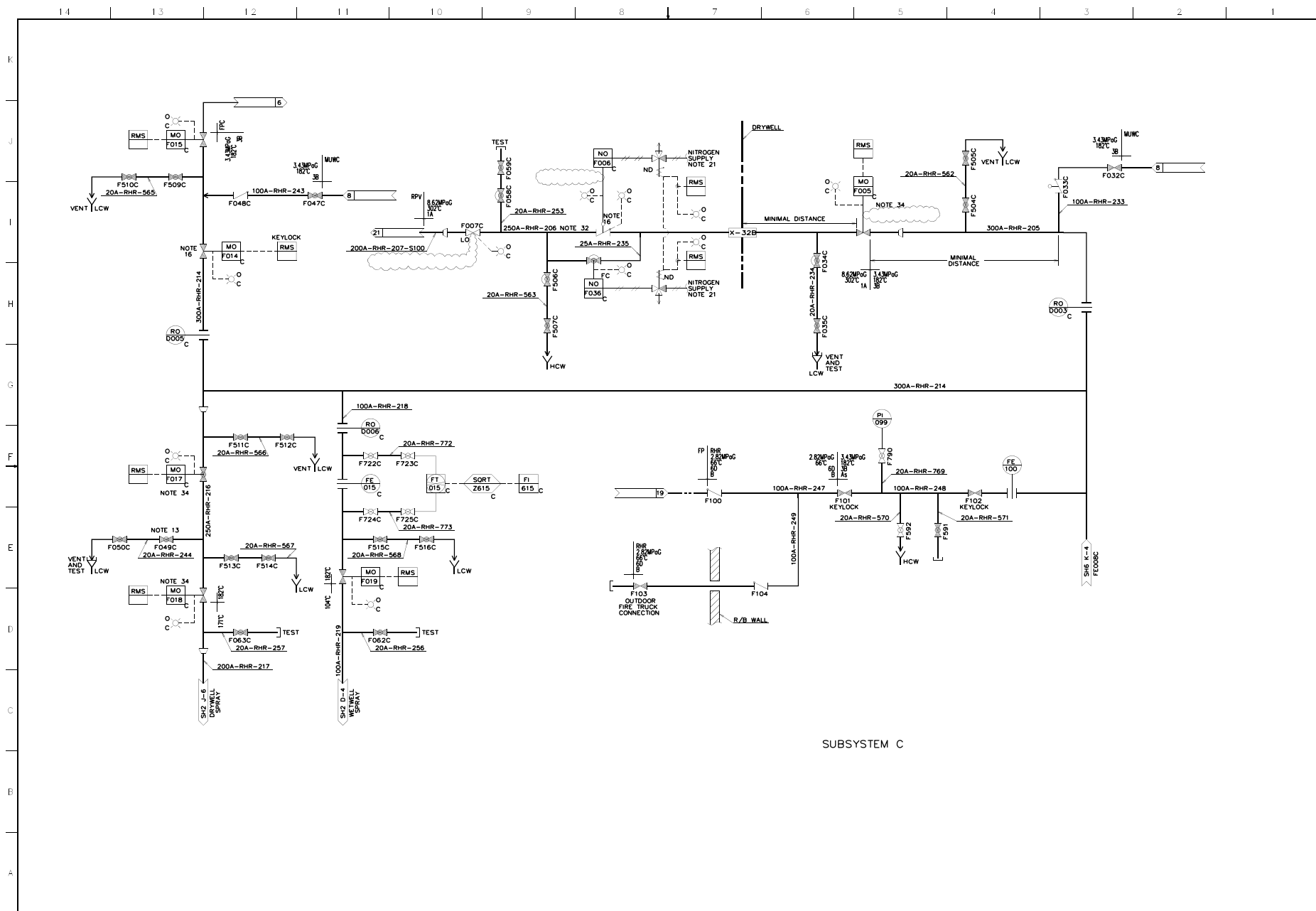


Figure 5.4-10 – Residual Heat Removal System P&ID (Sheet 7 of 7)

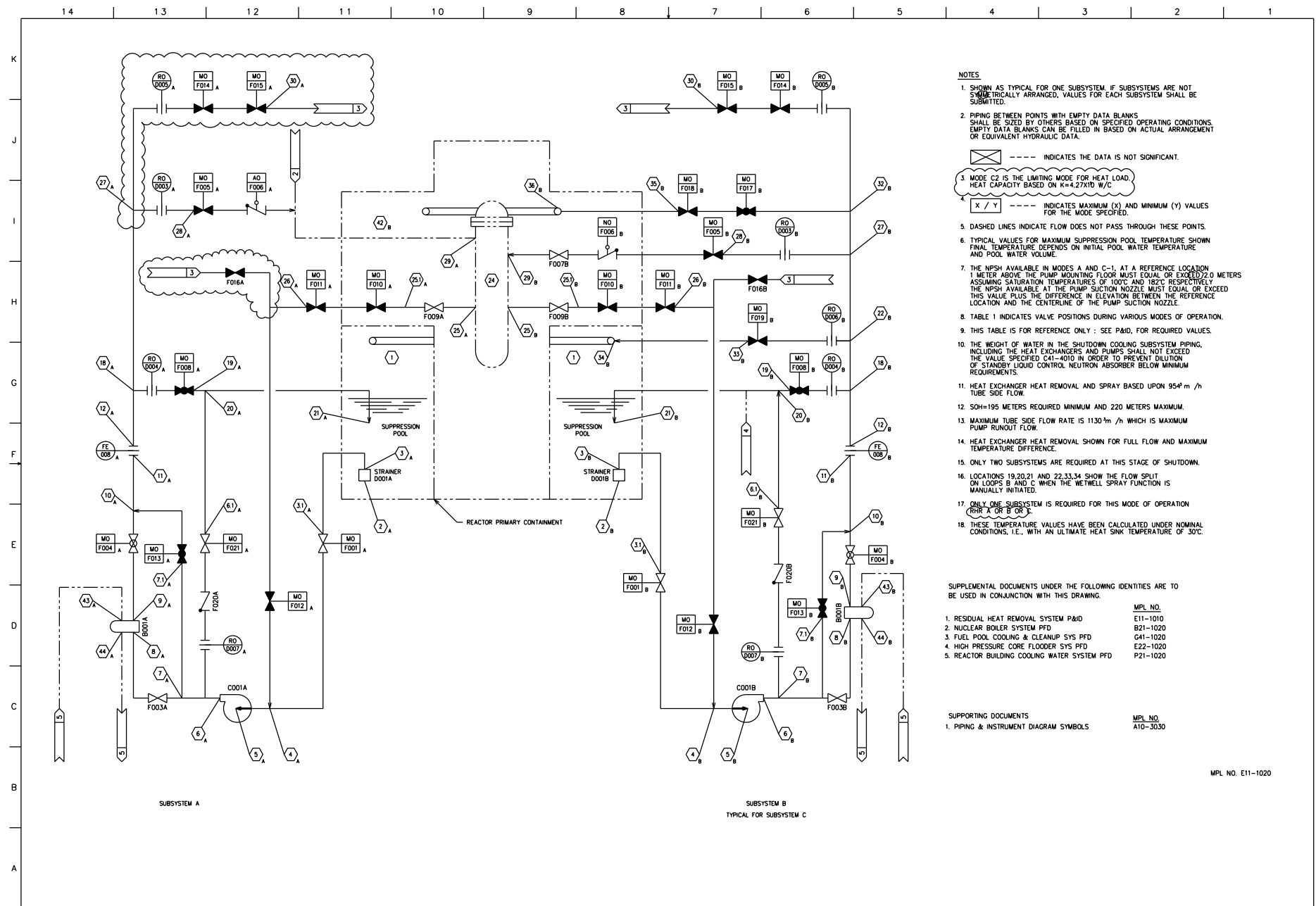
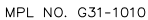


Figure 5.4-11 – Residual Heat Removal System PFD (Sheet 1 of 2)



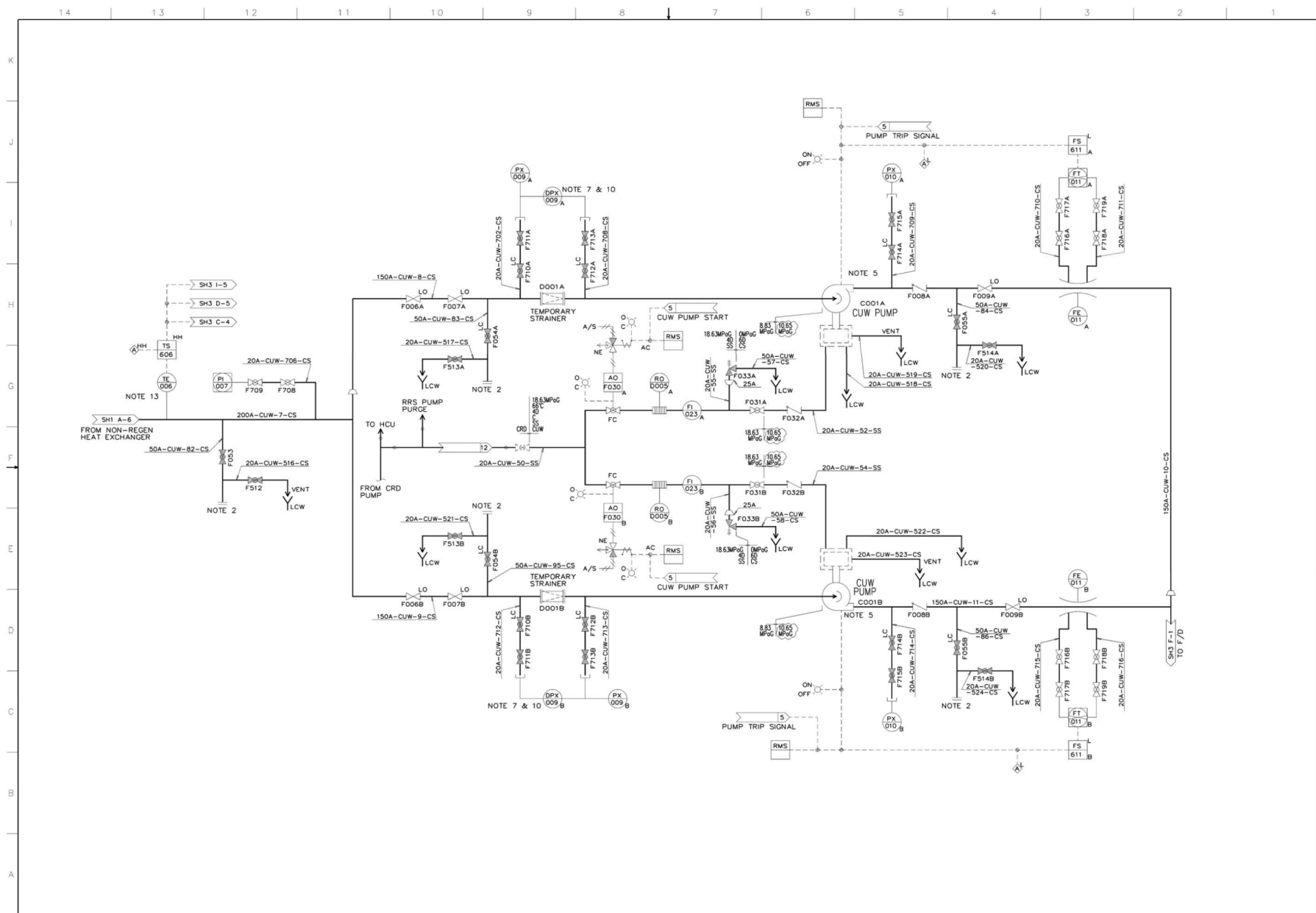


Figure 5.4-12 – Reactor Water Cleanup System P&ID (Sheet 2 of 4)

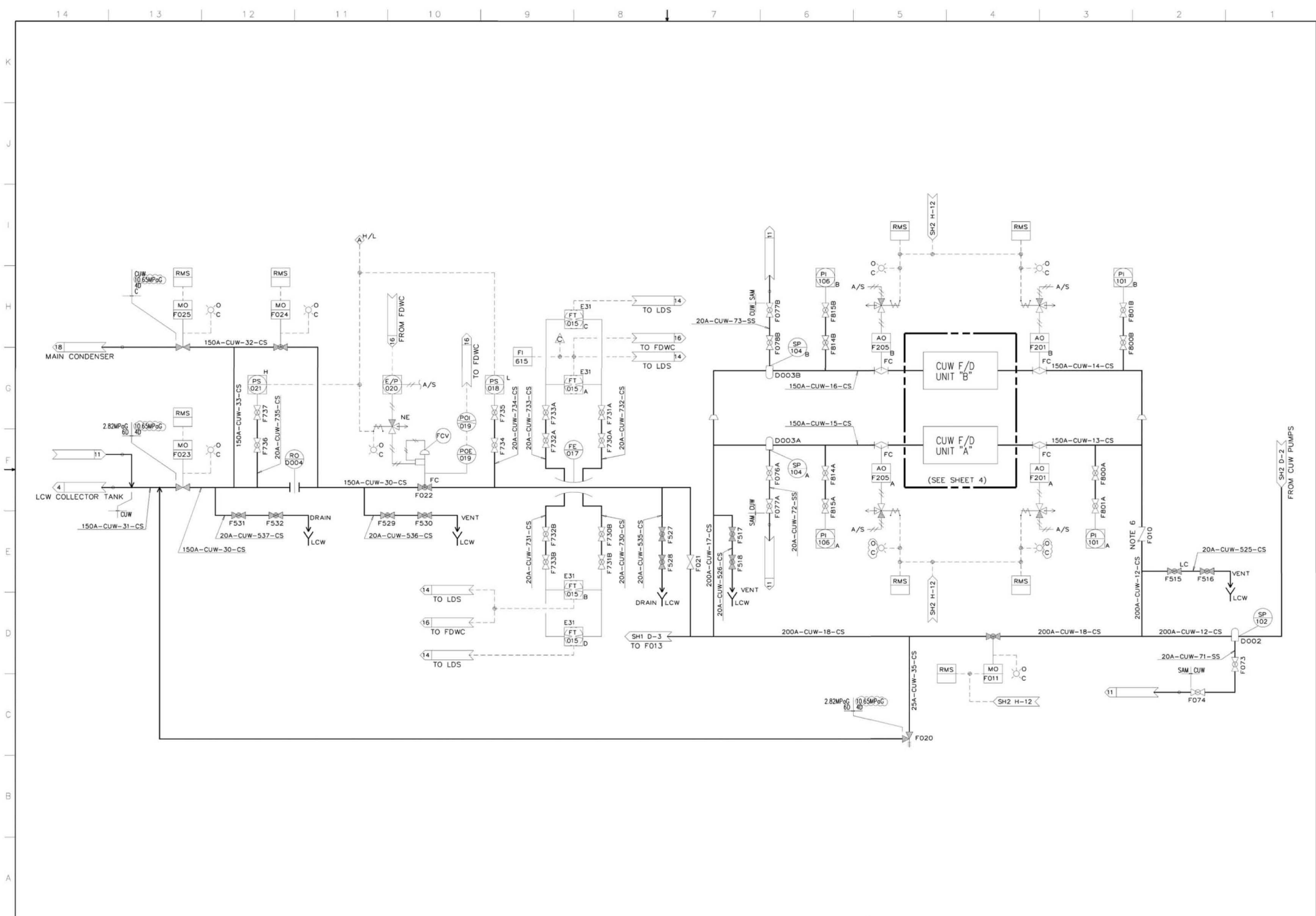


Figure 5.4-12 – Reactor Water Cleanup System P&ID (Sheet 3 of 4)

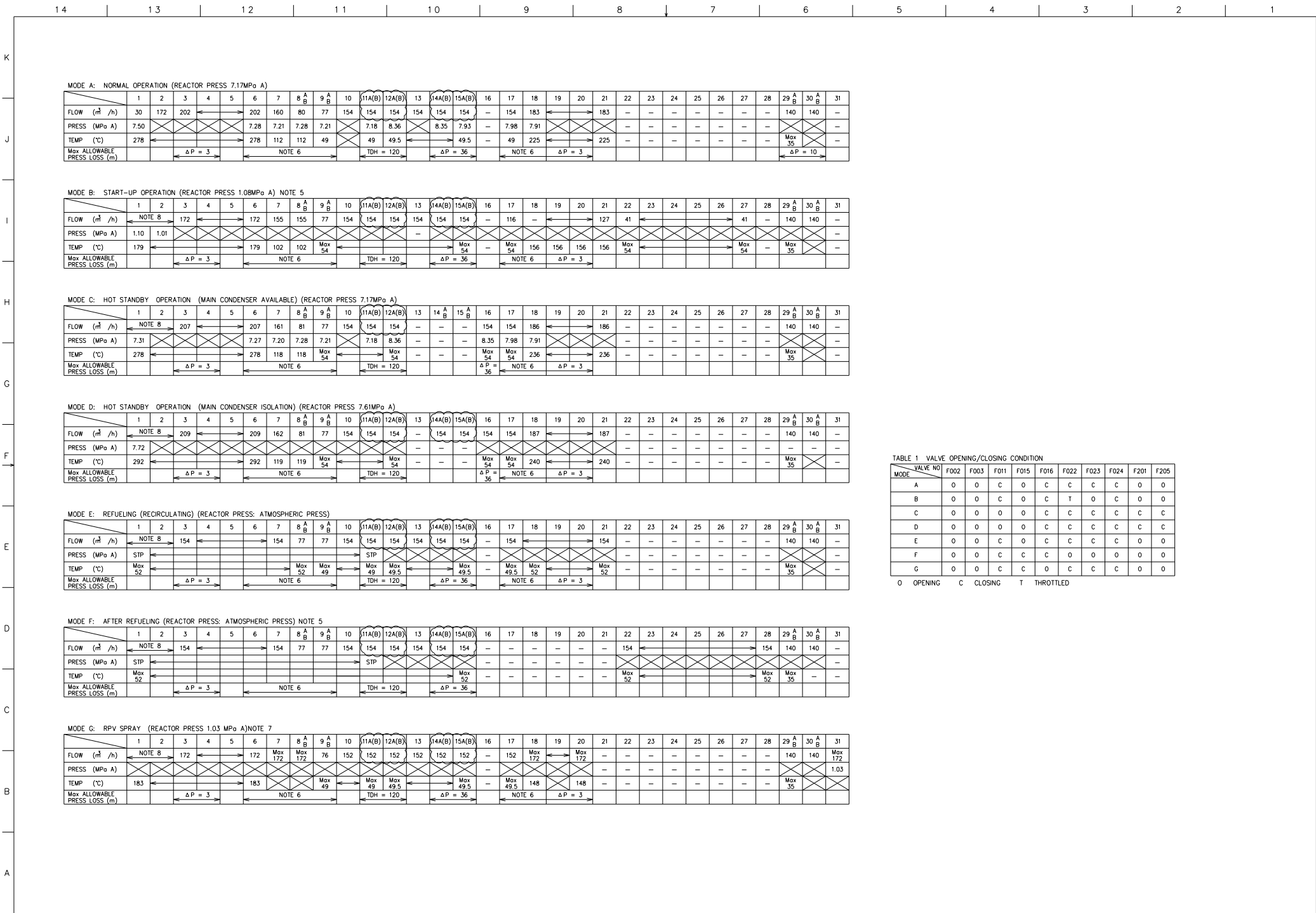


Figure 5.4-13 – Reactor Water Cleanup System PFD (Sheet 2 of 2)

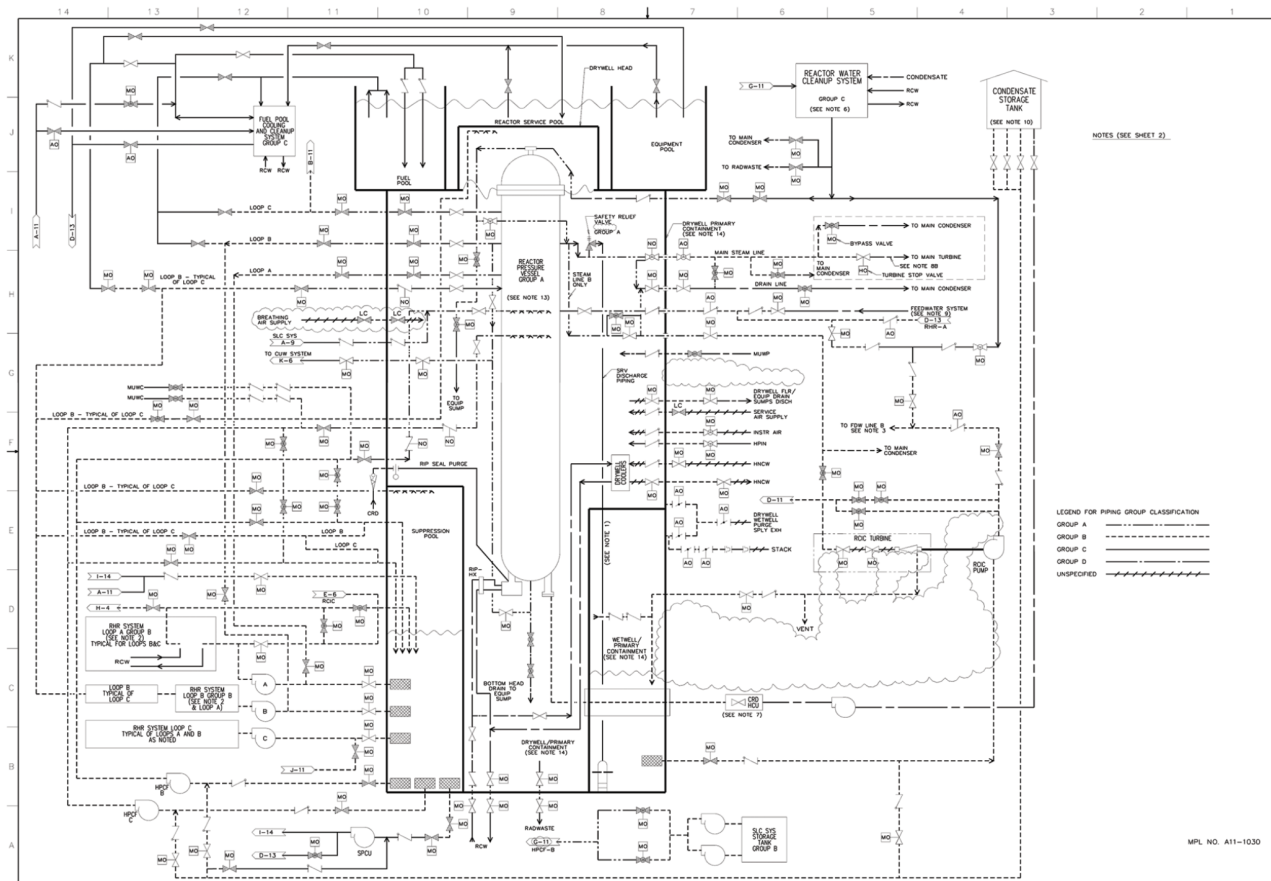


Figure 6.2-38 – Plant Requirements, Group Classification and Containment Isolation Diagram (Sheet 1 of 2)

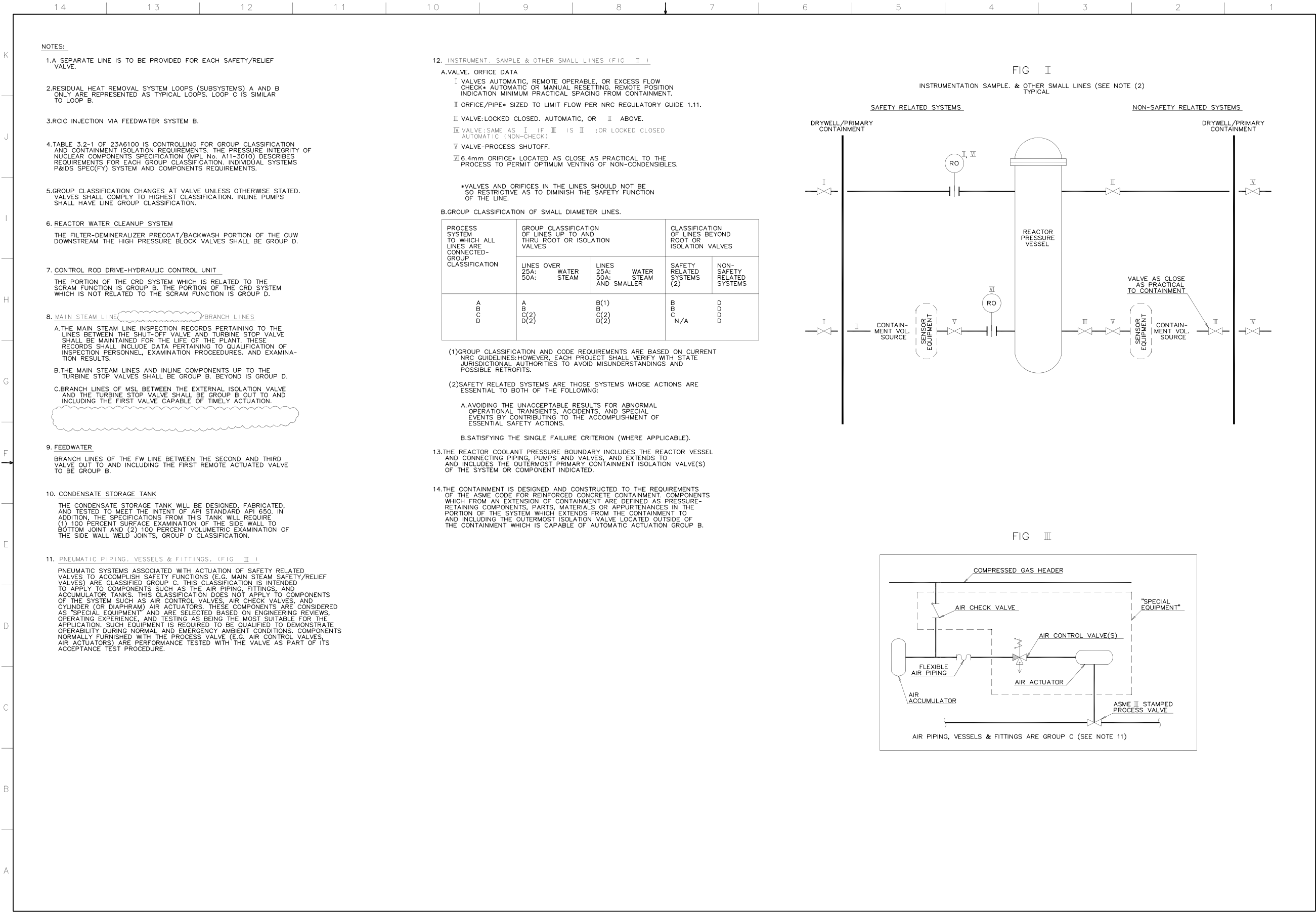
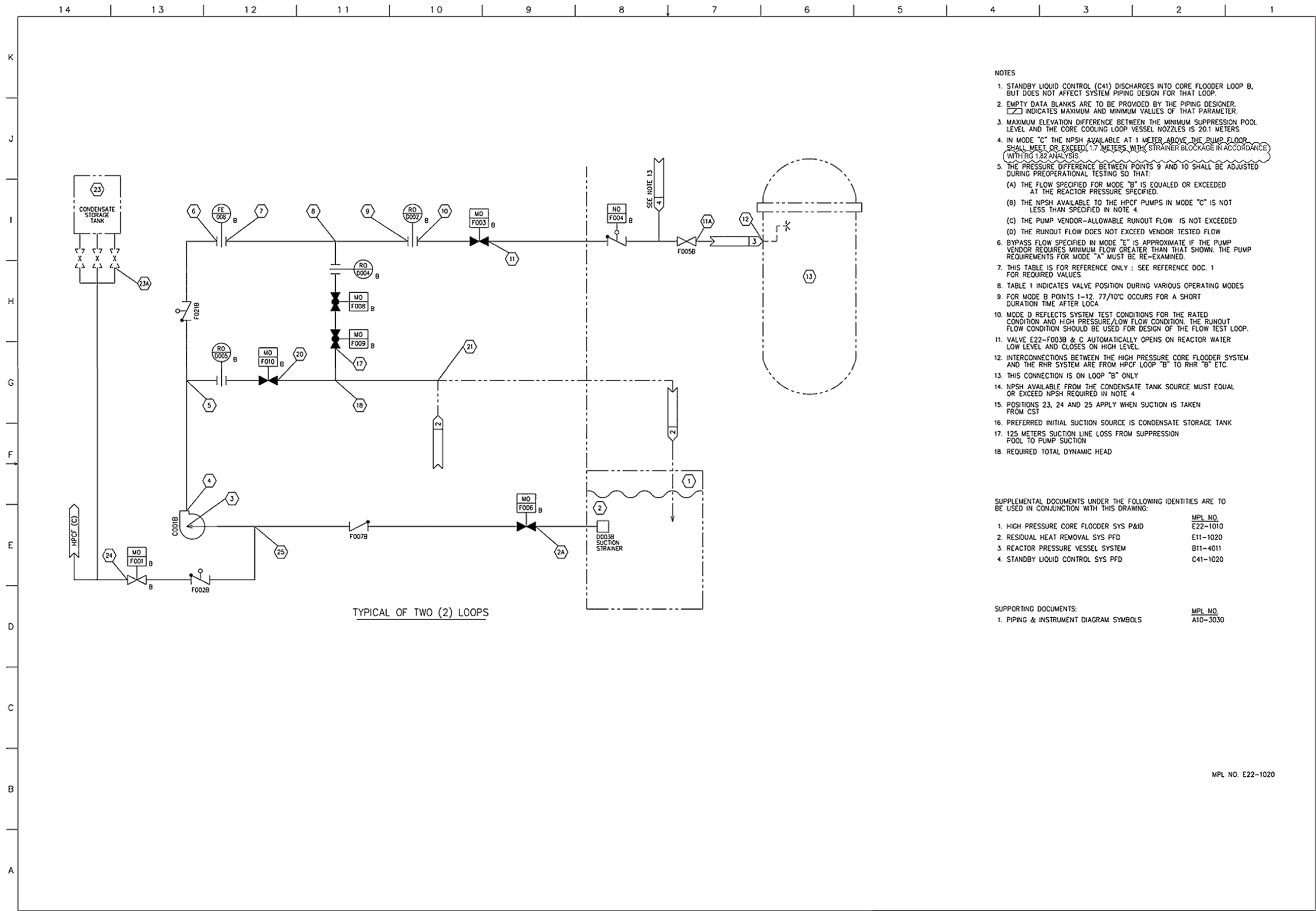


Figure 6.2-38 – Plant Requirements, Group Classification and Containment Isolation Diagram (Sheet 2 of 2)



NOTES

1. STANDBY LIQUID CONTROL (C41) DISCHARGES INTO CORE FLOODER LOOP B, BUT DOES NOT AFFECT SYSTEM PIPING DESIGN FOR THAT LOOP.
2. EMPTY DATA BLANKS ARE TO BE PROVIDED BY THE PIPING DESIGNER.
[] INDICATES MAXIMUM AND MINIMUM VALUES OF THAT PARAMETER.
3. MAXIMUM ELEVATION DIFFERENCE BETWEEN THE MINIMUM SUPPRESSION POOL LEVEL AND THE CORE COOLING LOOP VESSEL NOZZLES IS 20.1 METERS.
4. IN MODE "C" THE NPSH AVAILABLE AT 1 METER ABOVE THE PUMP FLOOR SHALL MEET OR EXCEED 1.7 METERS WITH STRAINER BLOCKAGE IN ACCORDANCE WITH RG 1.82 ANALYSIS.
5. THE PRESSURE DIFFERENCE BETWEEN POINTS 9 AND 10 SHALL BE ADJUSTED DURING PREOPERATIONAL TESTING SO THAT:
(A) THE FLOW SPECIFIED FOR MODE "B" IS EQUALED OR EXCEEDED AT THE REACTOR PRESSURE SPECIFIED.
(B) THE NPSH AVAILABLE TO THE HPCF PUMPS IN MODE "C" IS NOT LESS THAN SPECIFIED IN NOTE 4.
(C) THE PUMP VENDOR-ALLOWABLE RUNOUT FLOW IS NOT EXCEEDED
(D) THE RUNOUT FLOW DOES NOT EXCEED VENDOR TESTED FLOW
6. BYPASS FLOW SPECIFIED IN MODE "E" IS APPROXIMATE IF THE PUMP VENDOR REQUIRES MINIMUM FLOW GREATER THAN THAT SHOWN. THE PUMP REQUIREMENTS FOR MODE "A" MUST BE RE-EXAMINED.
7. THIS TABLE IS FOR REFERENCE ONLY : SEE REFERENCE DOC. 1 FOR REQUIRED VALUES.
8. TABLE 1 INDICATES VALVE POSITION DURING VARIOUS OPERATING MODES
9. FOR MODE B POINTS 1-12, 77/10°C OCCURS FOR A SHORT DURATION TIME AFTER LOCA
10. MODE D REFLECTS SYSTEM TEST CONDITIONS FOR THE RATED CONDITION AND HIGH PRESSURE/LOW FLOW CONDITION. THE RUNOUT FLOW CONDITION SHOULD BE USED FOR DESIGN OF THE FLOW TEST LOOP.
11. VALVE E22-F003B & C AUTOMATICALLY OPENS ON REACTOR WATER LOW LEVEL AND CLOSSES ON HIGH LEVEL.
12. INTERCONNECTIONS BETWEEN THE HIGH PRESSURE CORE FLOODER SYSTEM AND THE RHR SYSTEM ARE FROM HPCF LOOP "B" TO RHR "B" ETC.
13. THIS CONNECTION IS ON LOOP "B" ONLY
14. NPSH AVAILABLE FROM THE CONDENSATE TANK SOURCE MUST EQUAL OR EXCEED NPSH REQUIRED IN NOTE 4
15. POSITIONS 23, 24 AND 25 APPLY WHEN SUCTION IS TAKEN FROM CST
16. PREFERRED INITIAL SUCTION SOURCE IS CONDENSATE STORAGE TANK
17. 125 METERS SUCTION LINE LOSS FROM SUPPRESSION POOL TO PUMP SUCTION
18. REQUIRED TOTAL DYNAMIC HEAD

SUPPLEMENTAL DOCUMENTS UNDER THE FOLLOWING IDENTITIES ARE TO BE USED IN CONJUNCTION WITH THIS DRAWING:

1. HIGH PRESSURE CORE FLOODER SYS P&ID	MPL NO. E22-1010
2. RESIDUAL HEAT REMOVAL SYS PFD	E11-1020
3. REACTOR PRESSURE VESSEL SYSTEM	B11-4011
4. STANDBY LIQUID CONTROL SYS PFD	C41-1020

SUPPORTING DOCUMENTS:

1. PIPING & INSTRUMENT DIAGRAM SYMBOLS	MPL NO. A10-3030
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MPL NO. E22-1020

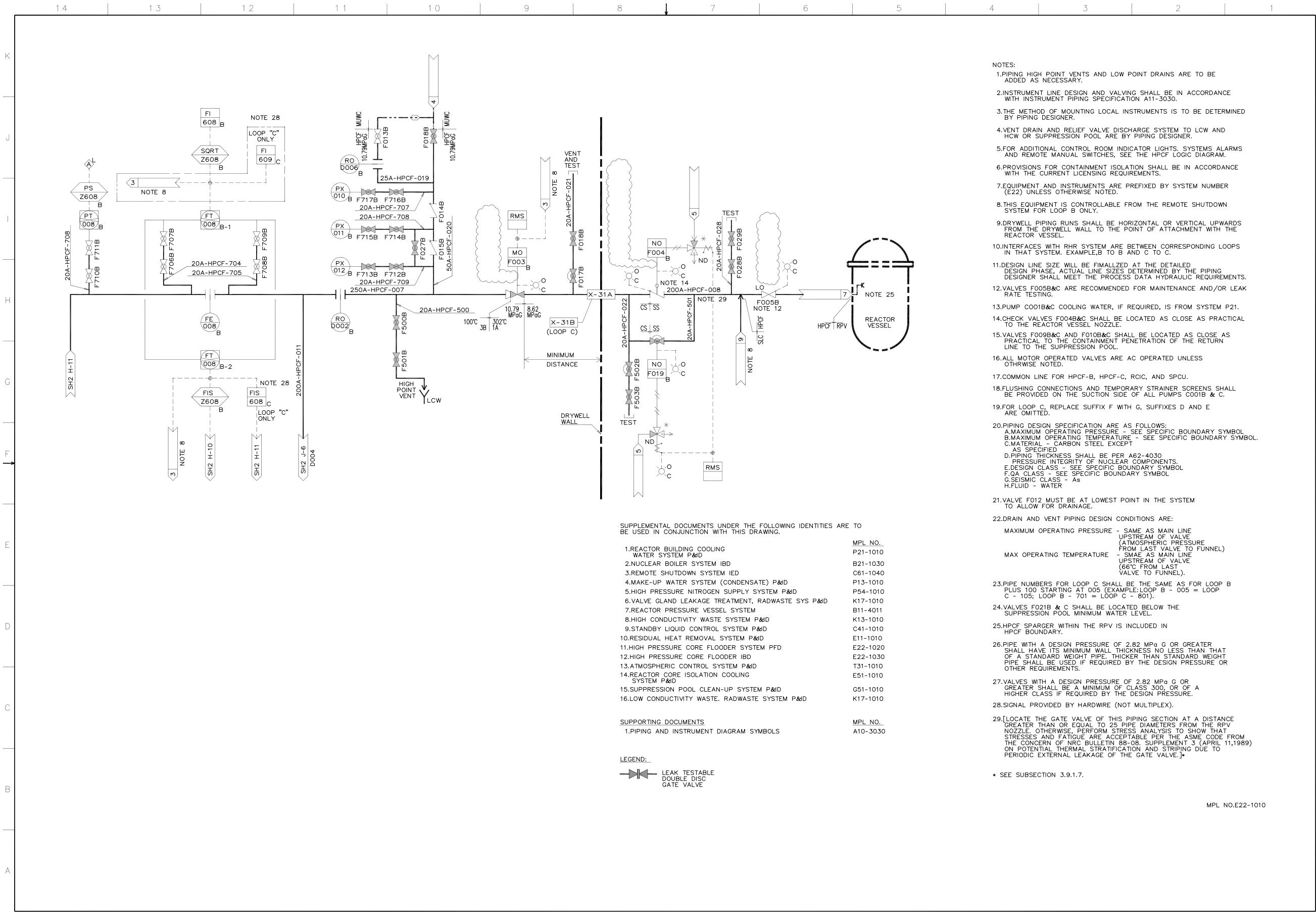


Figure 6.3-7 – High Pressure Core Flooder System P&ID (SHEET 1 OF 2)

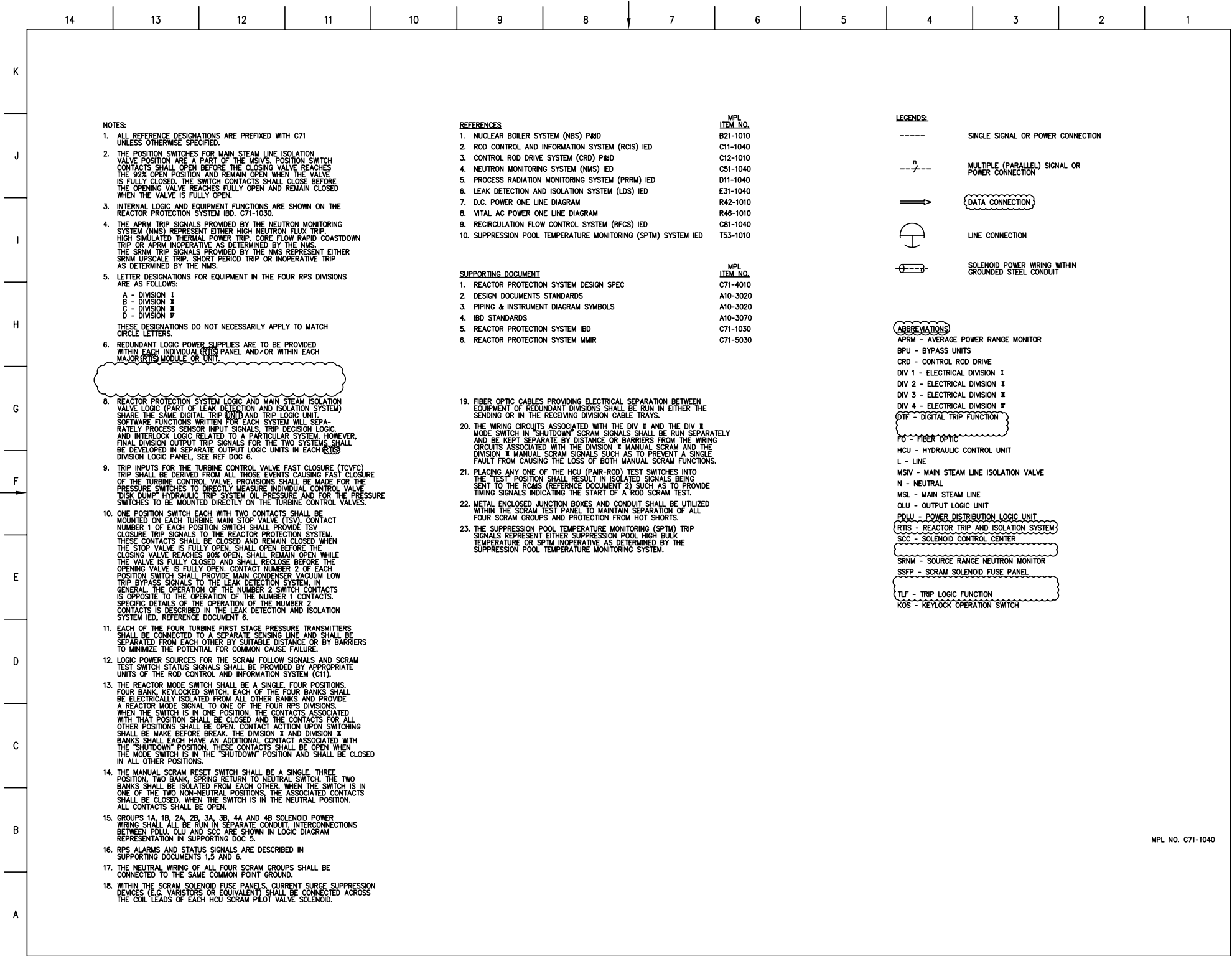


Figure 7.2-9 – Reactor Protection System IED (Sheet 1 of 11)

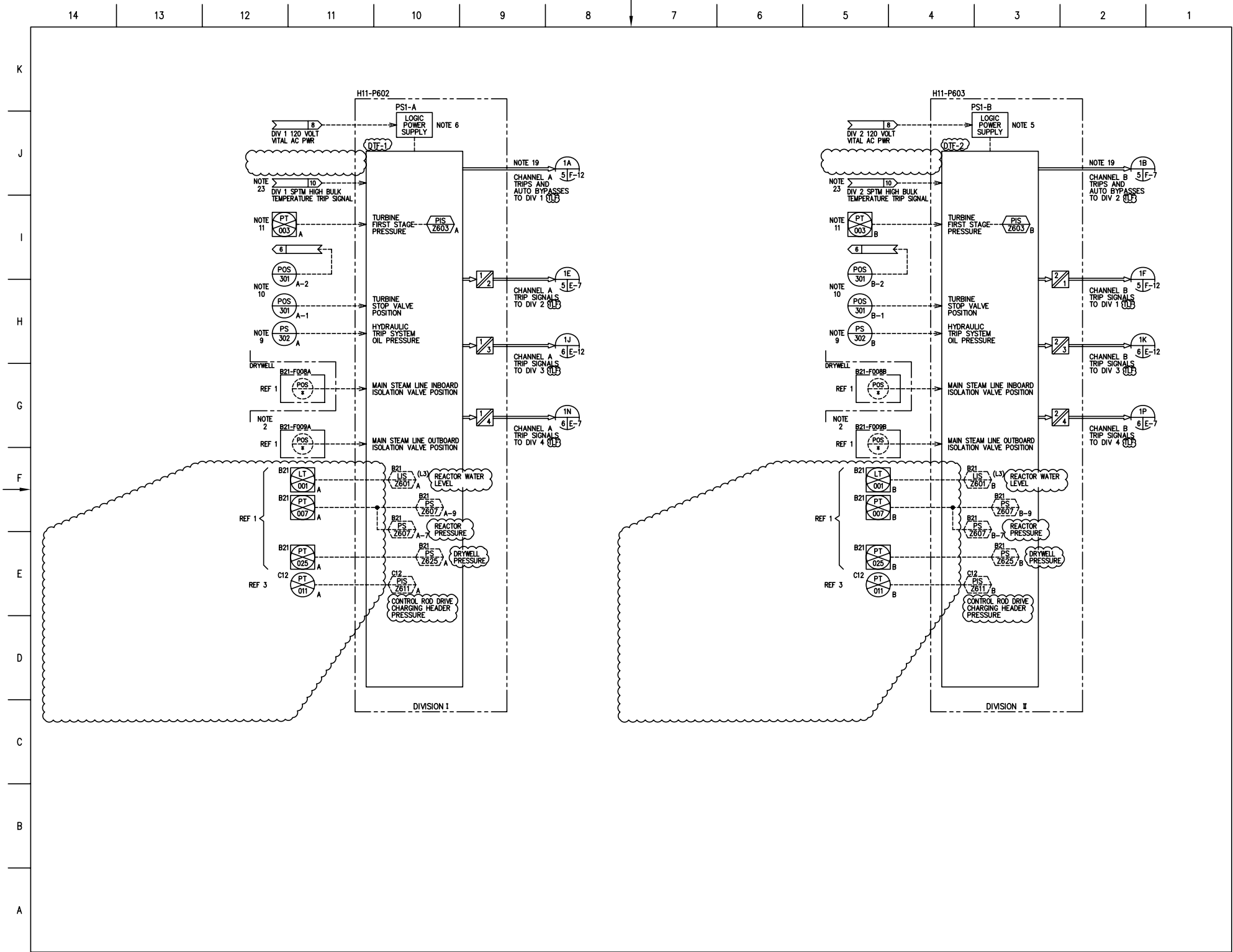


Figure 7.2-9 – Reactor Protection System IED (Sheet 2 of 11)

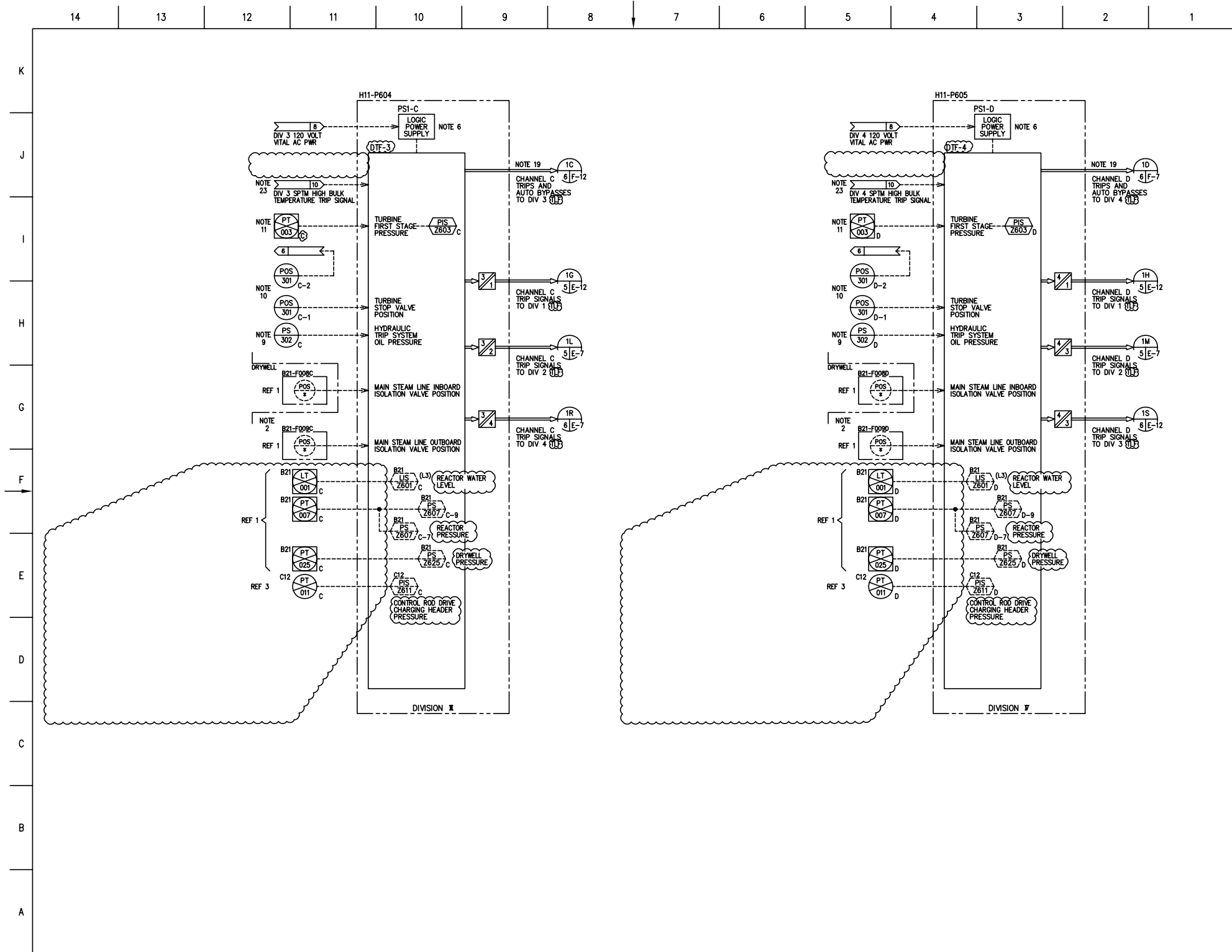


Figure 7.2-9 – Reactor Protection System IED (Sheet 3 of 11)

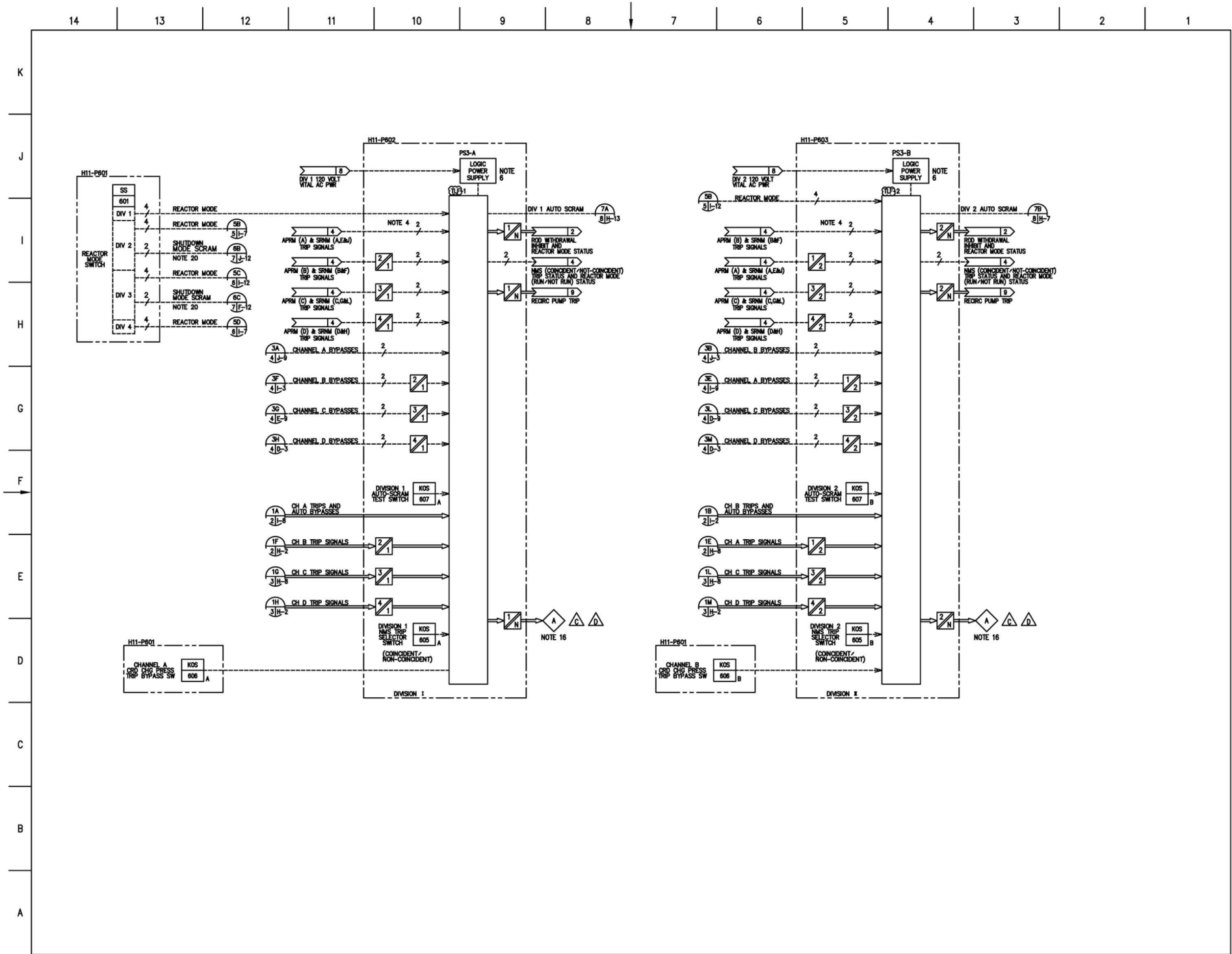


Figure 7.2-9 – Reactor Protection System IED (Sheet 5 of 11)

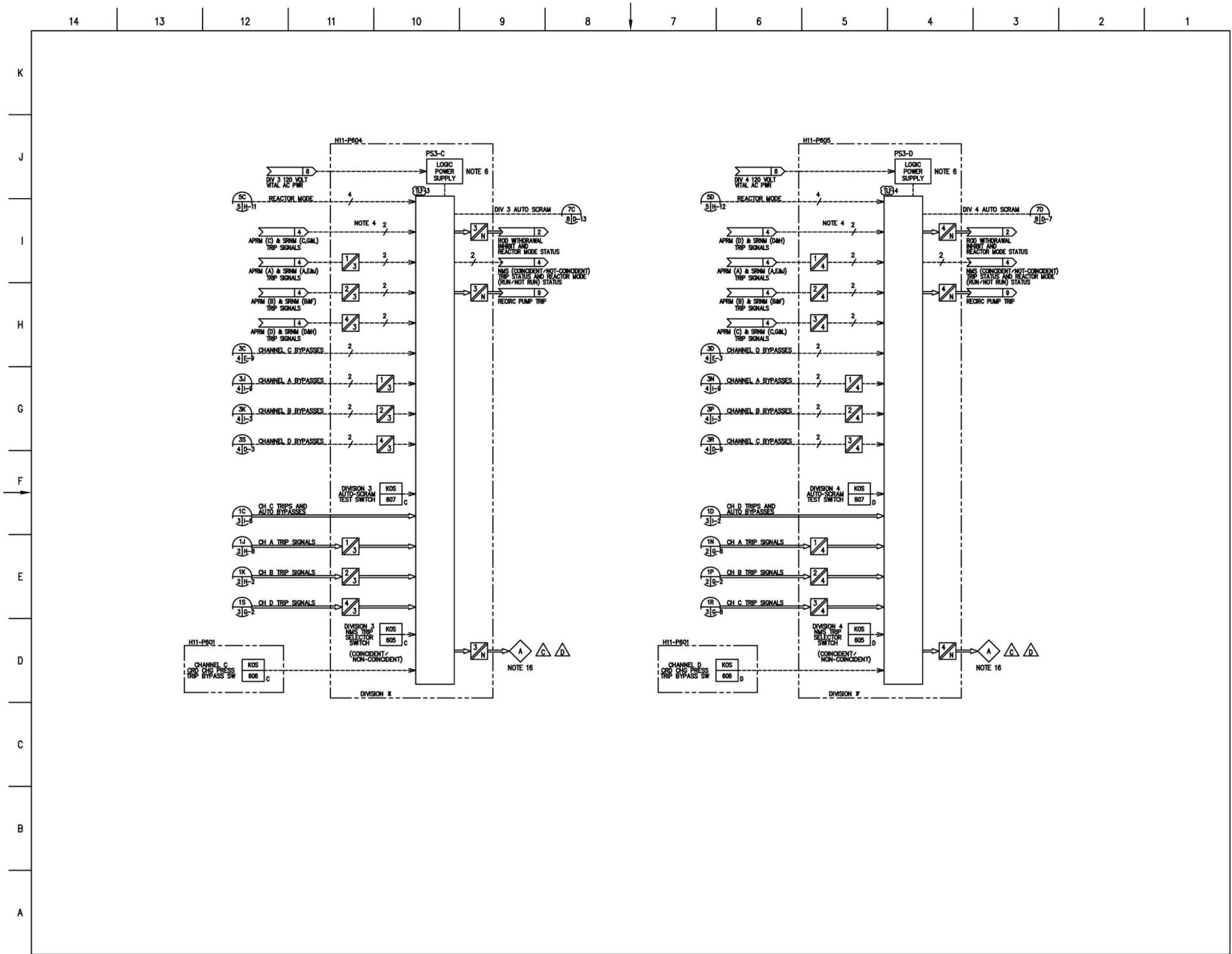


Figure 7.2-9 – Reactor Protection System IED (Sheet 6 of 11)