

	7	6	5	4	3	2	1
E							
	TABLE 1: ANNUNCIATORS/ALARM LIGHTS						
	INDICATION	FUNCTION	SOURCE OF SIGNAL				
	ALARM	LOW REACTOR WATER LEVEL 1.5	LOGIC OUTPUT				
	ALARM	HIGH DRYWELL PRESSURE	LOGIC OUTPUT				
	ALARM	HPCF PUMP MOTOR OVERLOAD LOOP B	M/C HPCF PUMP B POWER FAILURE				
	ALARM	HPCF PUMP MOTOR OVERLOAD LOOP C	M/C HPCF PUMP C POWER FAILURE				
D	ALARM	OVERLOAD ANY HPCF VLV MOTOR LOOP B	MOTOR CONTROL CENTER				
	ALARM	OVERLOAD ANY HPCF VLV MOTOR LOOP C	MOTOR CONTROL CENTER				
	ALARM	HPCF LOOP B MANUAL INITIATION ARMED	PBS				
	ALARM	HPCF LOOP C MANUAL INITIATION ARMED	PBS				
	ALARM	HIGH REACTOR WATER LEVEL B	LOGIC OUTPUT				
	ALARM	HPCF LOOP B INITIATED	LOGIC OUTPUT				
	ALARM	HPCF LOOP C AUTO INITIATION	LOGIC OUTPUT				
	ALARM	HPCF LOOP B OUT OF SERVICE	LOGIC OUTPUT, COS				
C	ALARM	HPCF LOOP C OUT OF SERVICE	LOGIC OUTPUT, COS				
	ALARM	HPCF PUMP B LOW-LOW SUCTION PRESSURE	PSZ603B				
	ALARM	HPCF PUMP C LOW-LOW SUCTION PRESSURE	PSZ603C (NOT HARDWIRED)				
	ALARM	HPCF PUMP B DISCHARGE LINE NOT FILLED	PSZ602B-2				
	ALARM	HPCF PUMP B HIGH SUCTION PRESSURE	PSZ602B-1				
	ALARM	HPCF PUMP C DISCHARGE LINE NOT FILLED	PSZ602C-2				
	ALARM	HPCF PUMP C HIGH SUCTION PRESSURE	PSZ602C-1				
	WHITE LIGHT	HPCF PUMP B MANUAL OVERRIDE	LOGIC OUTPUT, CS				
	WHITE LIGHT	HPCF PUMP C MANUAL OVERRIDE OF AUTO INITIATION	LOGIC OUTPUT, CS				
	WHITE LIGHT	HPCF INJECTION VALVE F003B MANUAL OVERRIDE	LOGIC OUTPUT, CS				
B	WHITE LIGHT	HPCF INJECTION VALVE F003C MANUAL OVERRIDE OF AUTO INITIATION	LOGIC OUTPUT, CS				
	WHITE LIGHT	HPCF LOOP B INITIATION SEALED-IN	LOGIC OUTPUT				
	WHITE LIGHT	HPCF LOOP C AUTO INITIATION SEALED-IN	LOGIC OUTPUT				
	ALARM	HPCF C MANUAL INITIATION DIVERSE	LOGIC OUTPUT				
	ALARM	HPCF C PUMP C LOW-LOW SUCTION PRESSURE	PS603C (HARDWIRED)				
	WHITE LIGHT	HPCF C MANUAL INITIATION SEALED-IN	LOGIC OUTPUT				
A	WHITE LIGHT	HPCF C INJECTION VALVE F003C MANUAL OVERRIDE OF DIVERSE MANUAL INITIATION	LOGIC OUTPUT, CS DIVERSE				
	TABLE 1: ANNUNCIATORS/ALARM LIGHTS (CONT'D)						
	INDICATION	FUNCTION	SOURCE OF SIGNAL				
	ALARM	HPCF LOOP B LOW CST WATER LEVEL	LOGIC OUTPUT				
	ALARM	HPCF LOOP B HIGH SUPPR POOL WATER LEVEL	LOGIC OUTPUT				
	ALARM	HPCF LOOP C LOW CST WATER LEVEL	LOGIC OUTPUT				
	ALARM	HPCF LOOP C HIGH SUPPR POOL WATER LEVEL	LOGIC OUTPUT				
	WHITE LIGHT	HPCF LOOP B HIGH REACTOR WATER LEVEL B SEALED-IN	LOGIC OUTPUT				
	WHITE LIGHT	HPCF LOOP C HIGH REACTOR WATER LEVEL B SEALED-IN	LOGIC OUTPUT				
	ALARM	HPCF LOOP B PUMP CONTROL SW IN PULL LOCK	PULL LOCK				
	ALARM	HPCF LOOP C PUMP CONTROL SW IN PULL LOCK	PULL LOCK				
	ALARM	HPCF LOOP B LOSS OF LOGIC POWER SOURCE	LOGIC OUTPUT				
	ALARM	HPCF LOOP C LOSS OF LOGIC POWER SOURCE	LOGIC OUTPUT				
	ALARM	HPCF LOOP B TESTING	CS				
	ALARM	HPCF LOOP C TESTING	CS				
	ALARM	HPCF PUMP B TRIP	LOGIC OUTPUT				
	ALARM	HPCF PUMP C TRIP	LOGIC OUTPUT				
	ALARM	EMERGENCY CONTAINMENT FLOODING-CST/SP SUCTION TRANSFER OVERRIDE LOOP B	KOS				
	ALARM	EMERGENCY CONTAINMENT FLOODING-CST/SP SUCTION TRANSFER OVERRIDE LOOP C	KOS				
	ALARM	MCC EQUIPMENT IN TEST MODE (THERMAL RELAY NOT BYPASSED) FOR LOOP B	KOS				
	ALARM	MCC EQUIPMENT IN TEST MODE (THERMAL RELAY NOT BYPASSED) FOR LOOP C	KOS				
	ALARM	HPCF LOOP B FLOW LOW	FIS-2608B, PS-2607B				
	ALARM	HPCF LOOP C FLOW LOW	FIS-2608C, PS-2607C				

Figure 7.3-1 – High Pressure Core Flooder System IBD (Sheet 2 of 17)

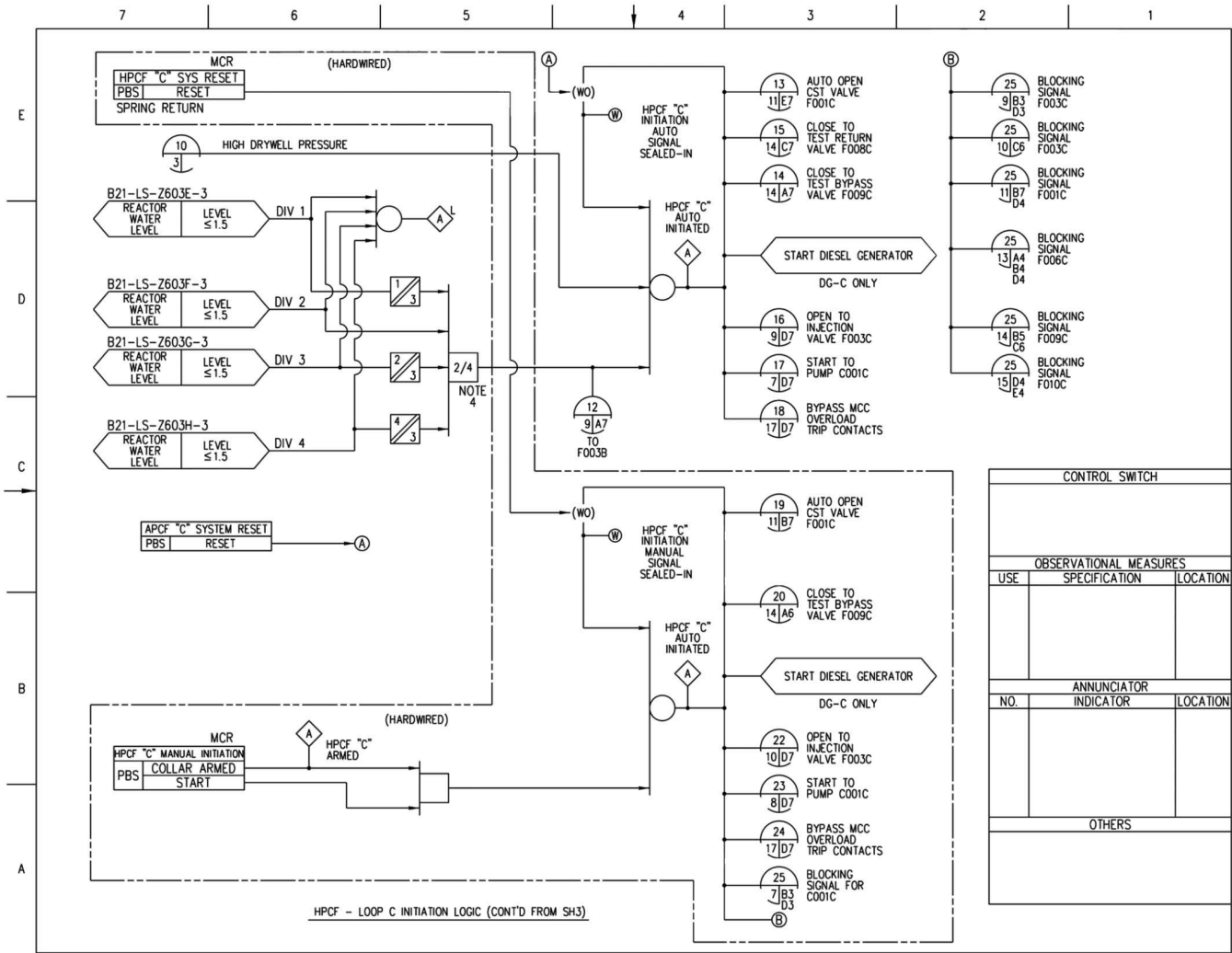


Figure 7.3-1 High Pressure Core Flooder System IBD (Sheet 5 of 17)

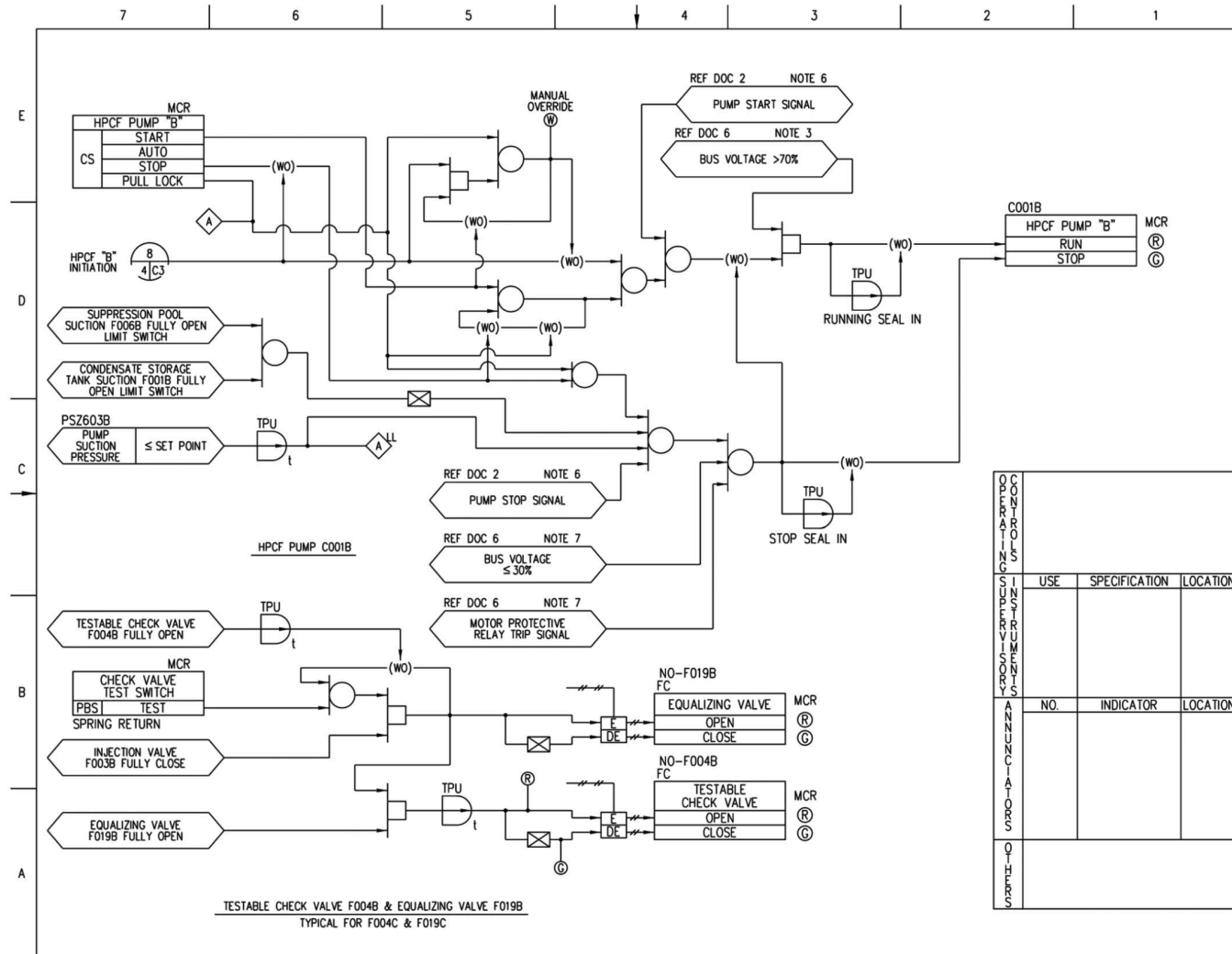


Figure 7.3-1 – High Pressure Core Flooder System IBD (Sheet 6 of 17)

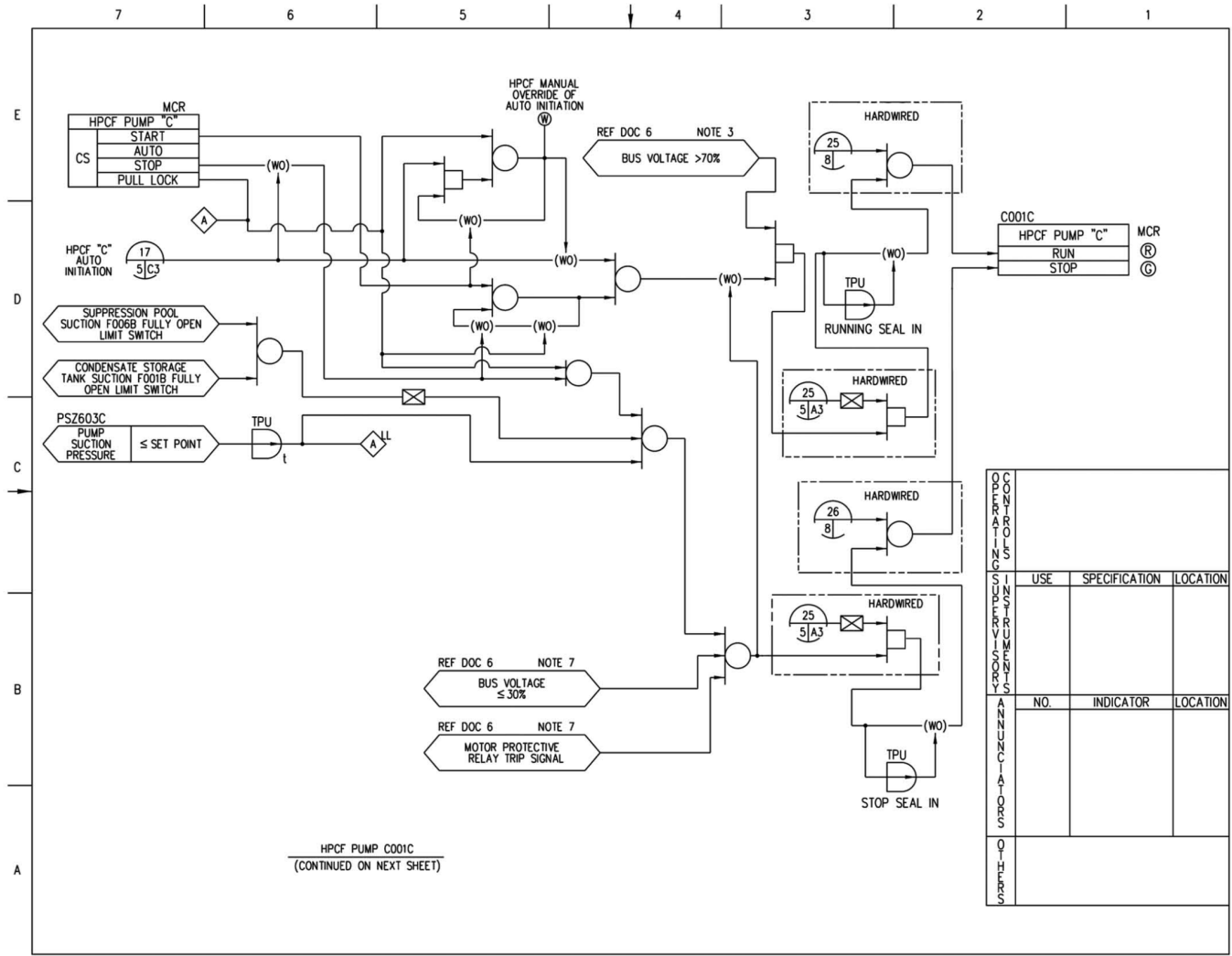


Figure 7.3-1 – High Pressure Core Flooder System IBD (Sheet 7 of 17)

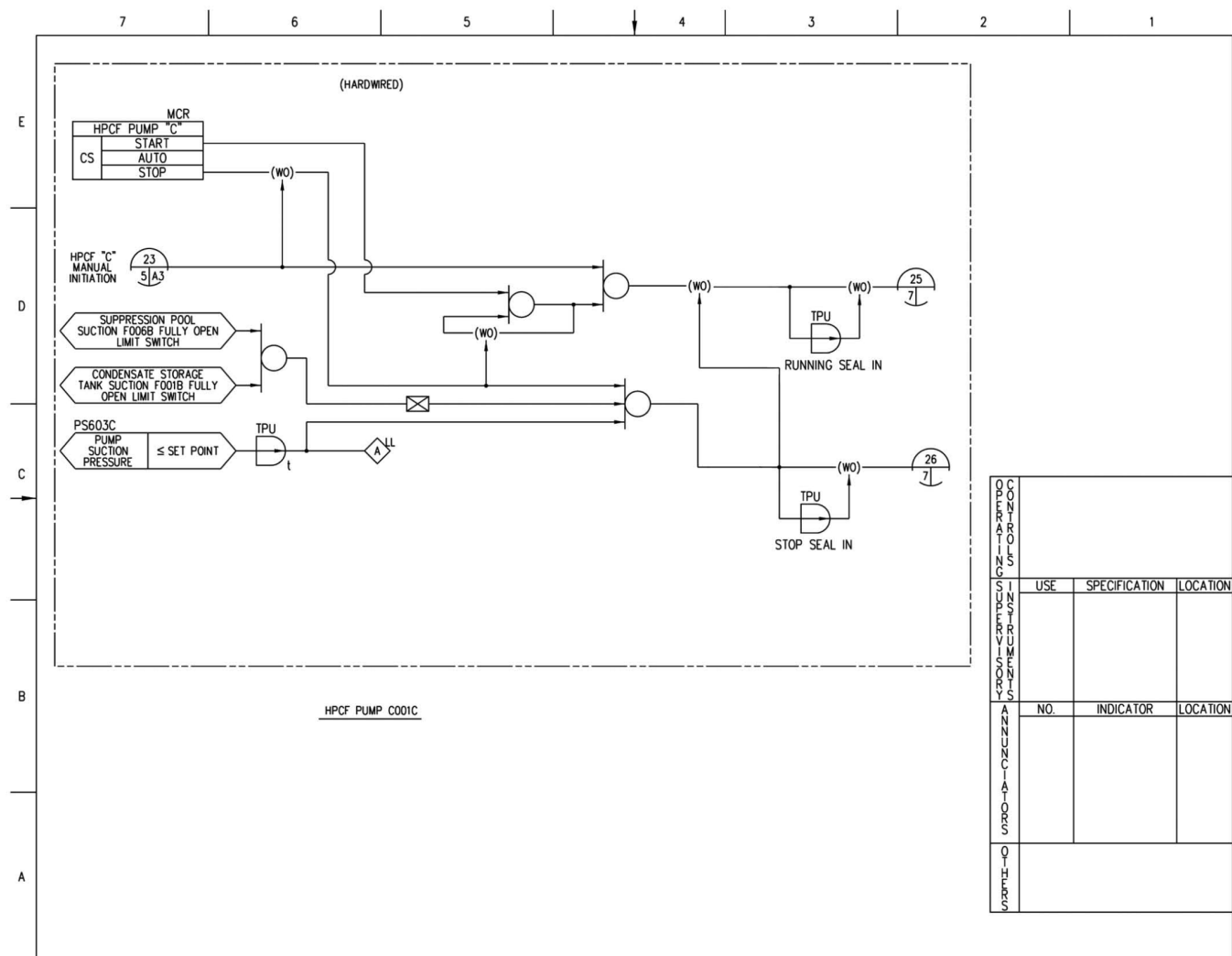


Figure 7.3-1 – High Pressure Core Flooder System IBD (Sheet 8 of 17)

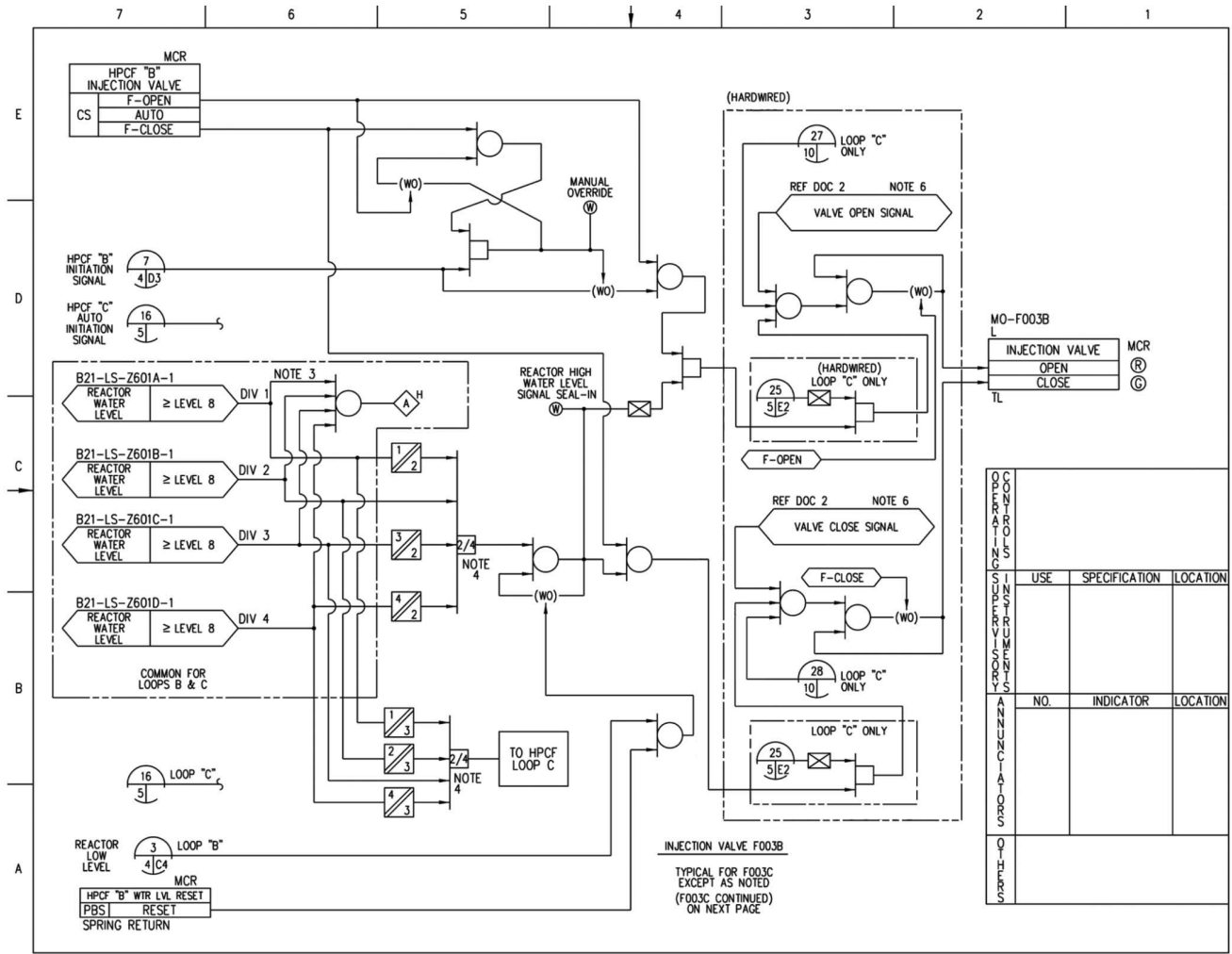


Figure 7.3-1 – High Pressure Core Flooder System IBD (Sheet 9 of 17)

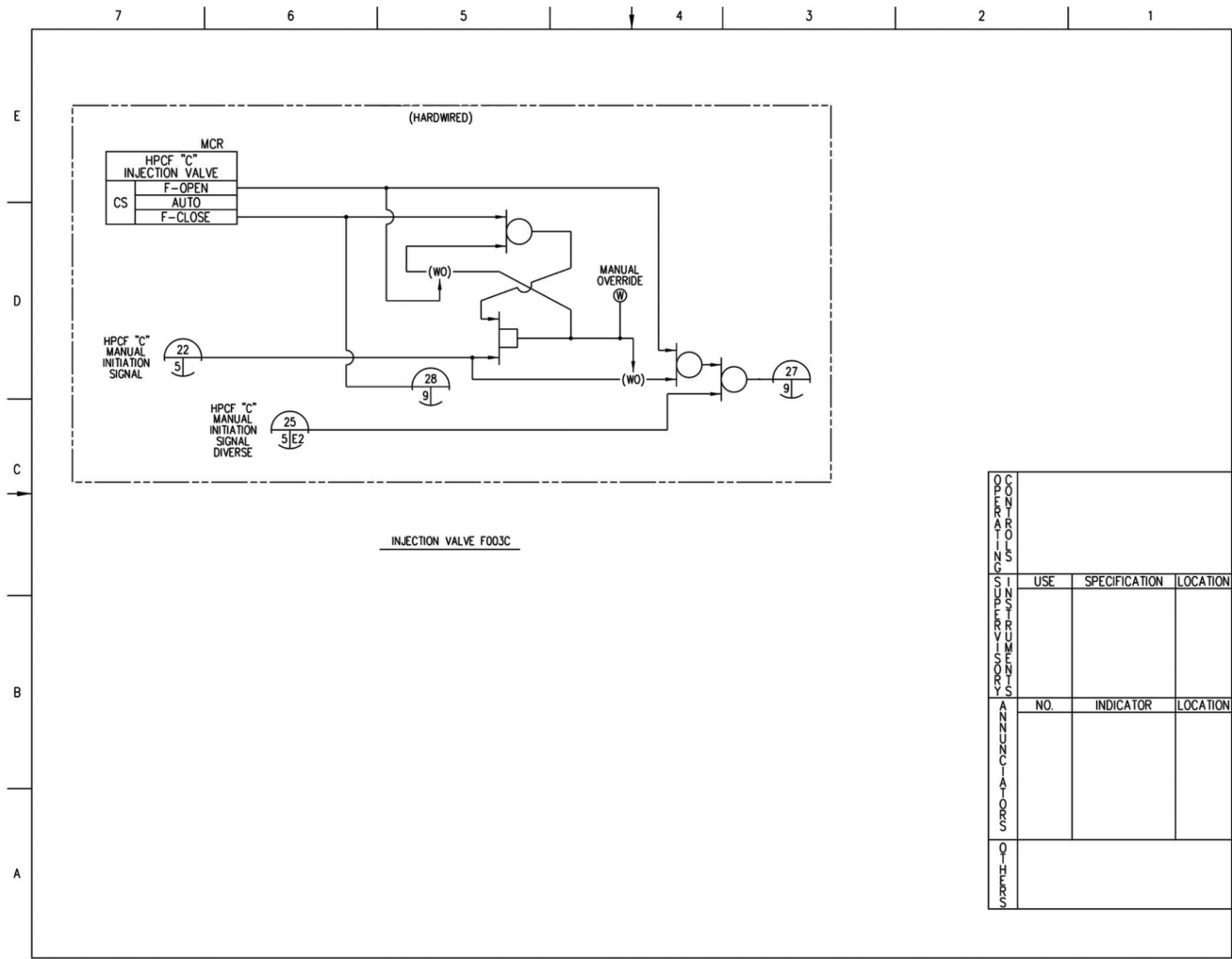


Figure 7.3-1 – High Pressure Core Flooder System IBD (Sheet 10 of 17)

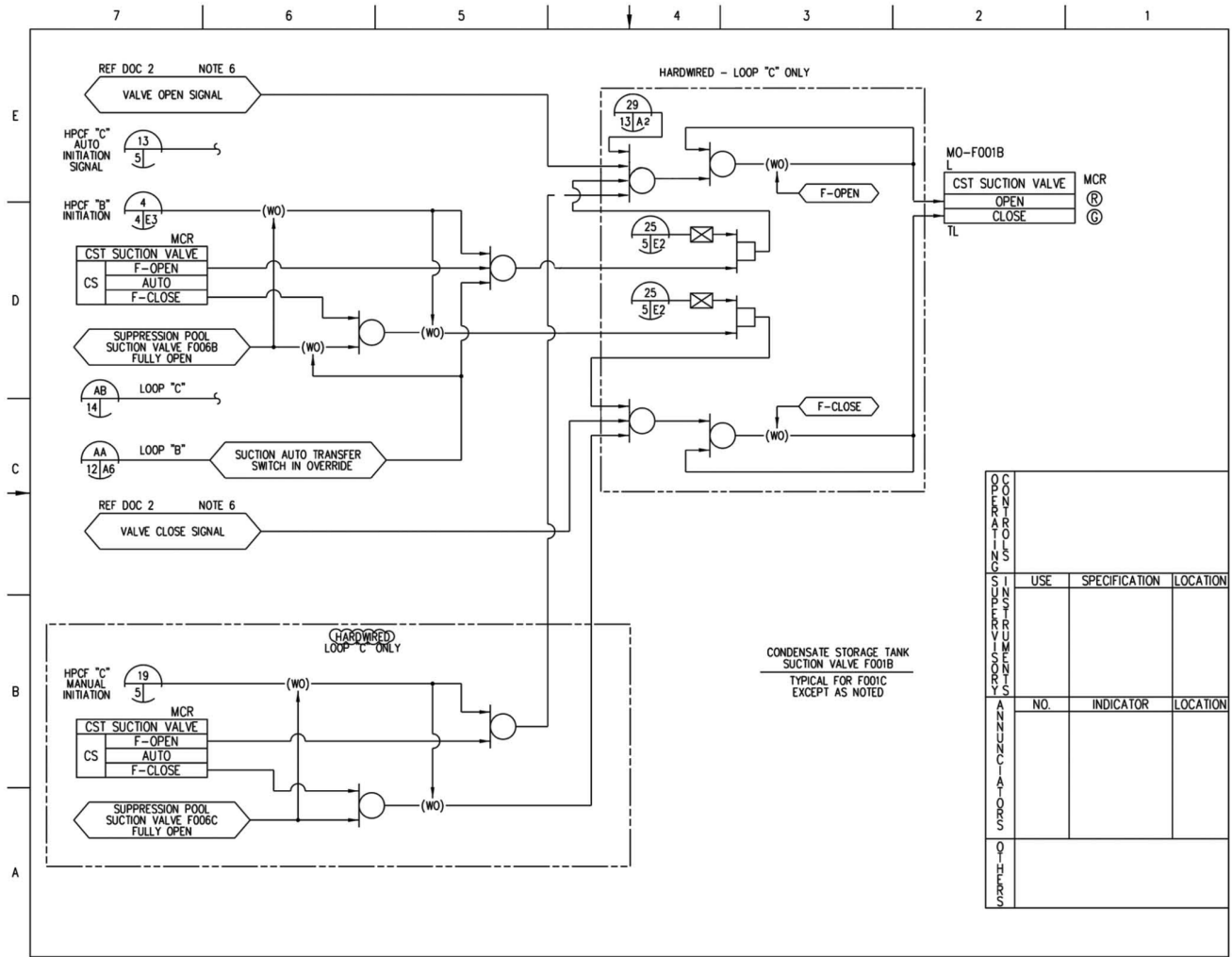


Figure 7.3-1 – High Pressure Core Flooder System IBD (Sheet 11 of 17)

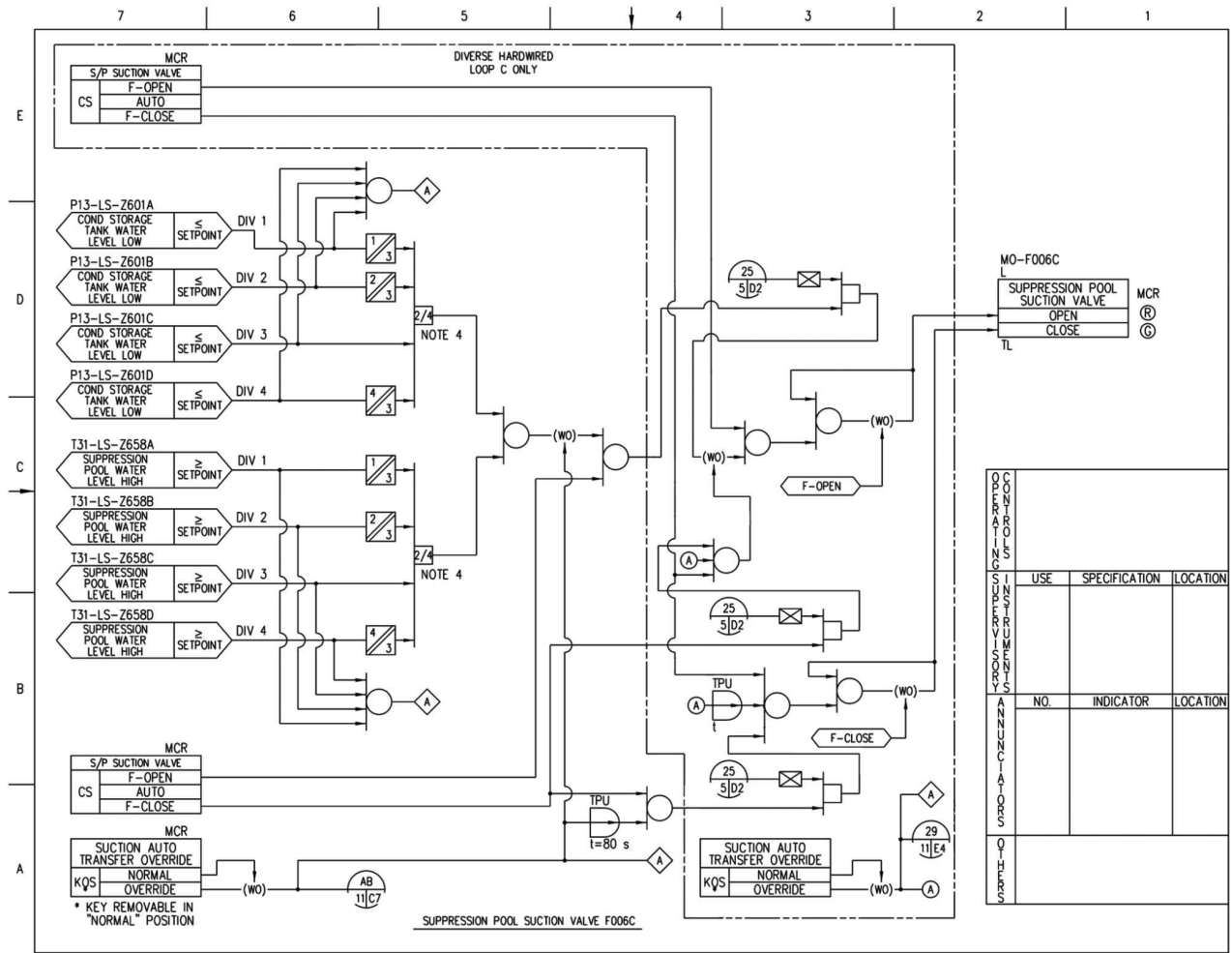


Figure 7.3-1 – High Pressure Core Flooder System IBD (Sheet 13 of 17)

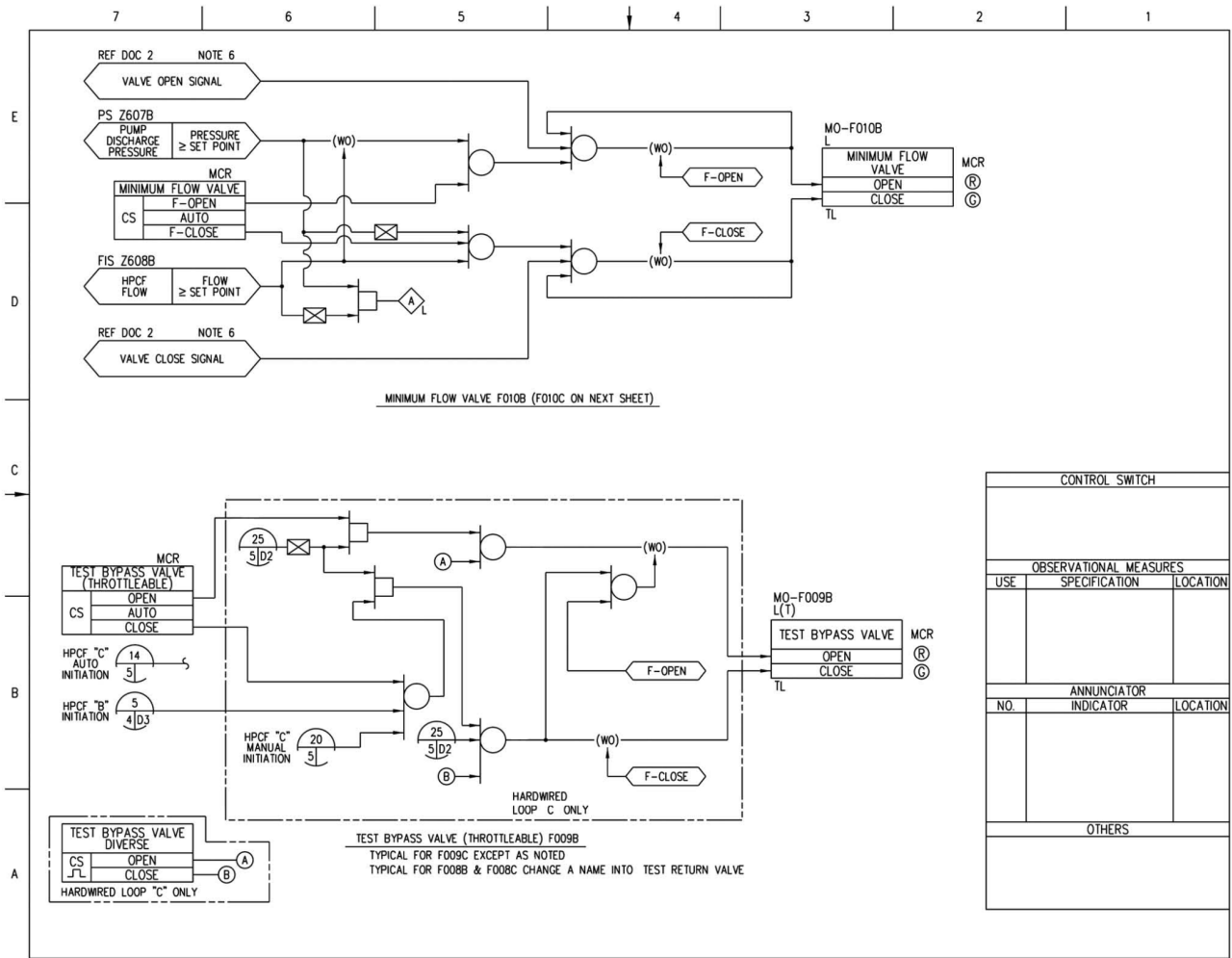


Figure 7.3-1 – High Pressure Core Flooder System IBD (Sheet 14 of 17)

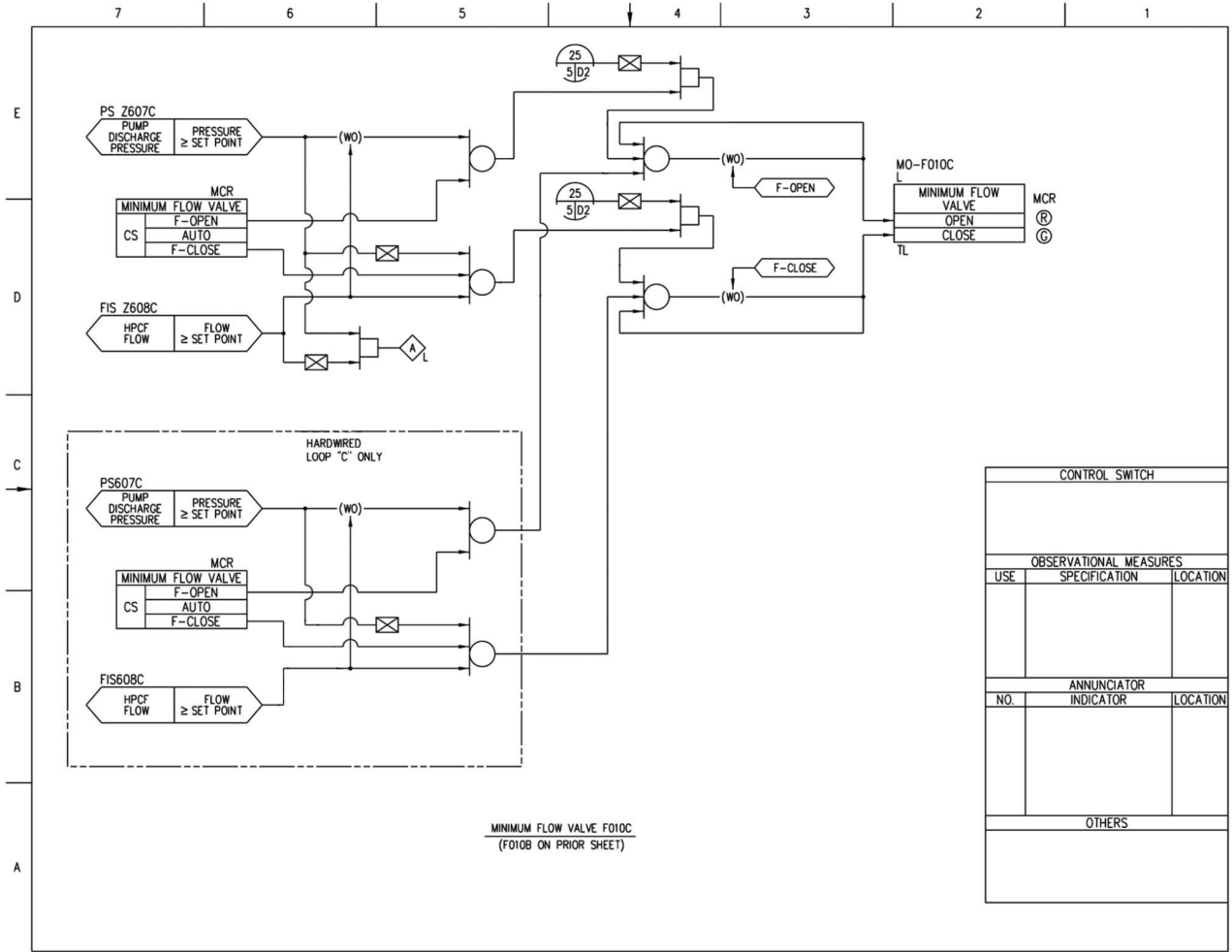


Figure 7.3-1 – High Pressure Core Flooder System IBD (Sheet 15 of 17)

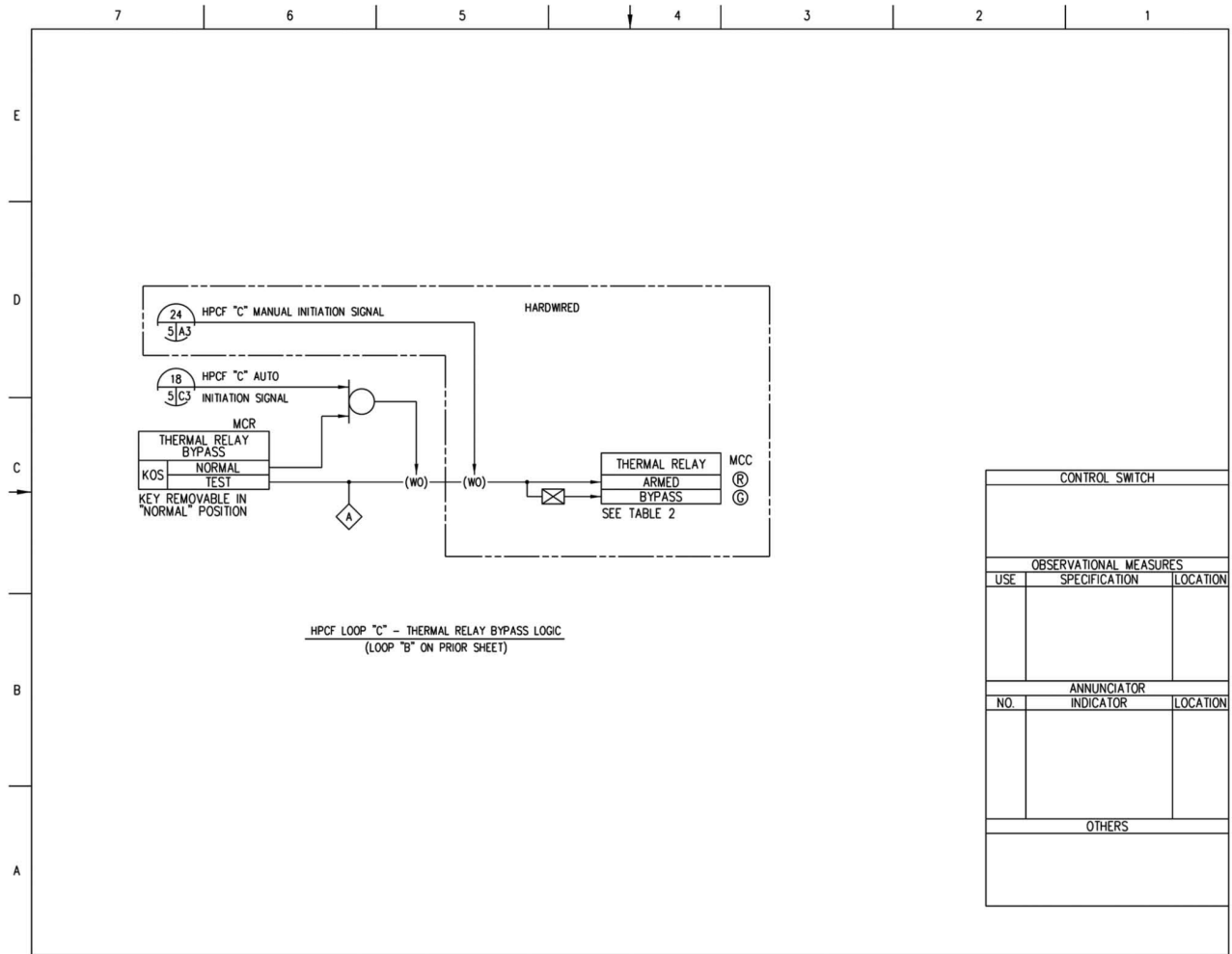


Figure 7.3-1 – High Pressure Core Flooder System IBD (Sheet 17 of 17)

SH. NO.	TITLES
1	CONTENTS
2	NOTES AND REFERENCES
3	SRV LOGIC AND CONTROL DIVISION 1 FOR SRV F010P
4	SRV LOGIC AND CONTROL DIVISION 2 FOR SRV F010J
5	SRV LOGIC AND CONTROL DIVISION 3(2,3) FOR SRV'S F010M(F010S, F010B)
6	SRV LOGIC AND CONTROL DIVISION 1 FOR SRV F010G
7	SRV LOGIC AND CONTROL DIVISION 1 FOR SRV F010K
8	SRV LOGIC AND CONTROL DIVISIONS 2(3,1) FOR SRV'S F010E(F010U, F010D)
9	SRV LOGIC AND CONTROL DIVISIONS 2(3,1,2) FOR SRV'S F010N(F010H, F010T, F010C)
10	SRV LOGIC AND CONTROL DIVISIONS 3(1,2,3) FOR SRV'S F010L(F010F, F010R, F010A)
11	ADS LOGIC AND CONTROL
12	ADS LOGIC AND CONTROL (CONTINUED)
13	ADS LOGIC AND CONTROL (CONTINUED)
14	ADS LOGIC AND CONTROL (CONTINUED)
15	ADS LOGIC AND CONTROL (CONTINUED)
16	ADS LOGIC AND CONTROL (CONTINUED)
17	ADS LOGIC AND CONTROL (CONTINUED)
18	ADS LOGIC AND CONTROL (CONTINUED)
19	FEEDWATER VALVES F001A(F001B)
20	FEEDWATER CHECK VALVES F003A(F003B)
21	FEEDWATER GATE VALVES F005A(F005B)
22	CUW RETURN FW LOOP SELECTOR VALVES F007A(F007B)
23	MAIN STEAM BYPASS/DRAIN ISOLATION VALVE F011(F012)
24	STEAM LINE DRAIN VALVES F013(F014, F016)
25	MAIN STEAM DRAIN LINE AOV'S F015(F017)
26	RPV HEAD VENT VALVES F018(F019, F020)
27	RPV WATER LEVEL ALARMS AND INDICATORS
28	LOW RPV METAL & BOTTOM DRAIN TEMPERATURE ALARM & RECORDER
29	HIGH DRYWELL PRESSURE ALARMS AND INDICATORS
30	SRV VALVE STEM POSITION ALARM
31	SRV DISCHARGE LINE AND RPV VENT DISCHARGE LINE HIGH TEMP ALARM
32	MSIV VALVE STEM POSITION SWITCHES
33	RPV HEAD SEAL LEAKOFF HIGH PRESSURE ALARM
34	ANNUNCIATOR LIST
35	ANNUNCIATOR LIST (CONTINUED)
36	ELCS (LDS/ECCS) BLOCK DIAGRAM DIV 1 (TYPICAL FOR DIV 2 & DIV 3)
37	ELCS (LDS/ECCS) BLOCK DIAGRAM (CONTINUED)

Figure 7.3-2 – Nuclear Boiler System IBD (Sheet 1 of 37)

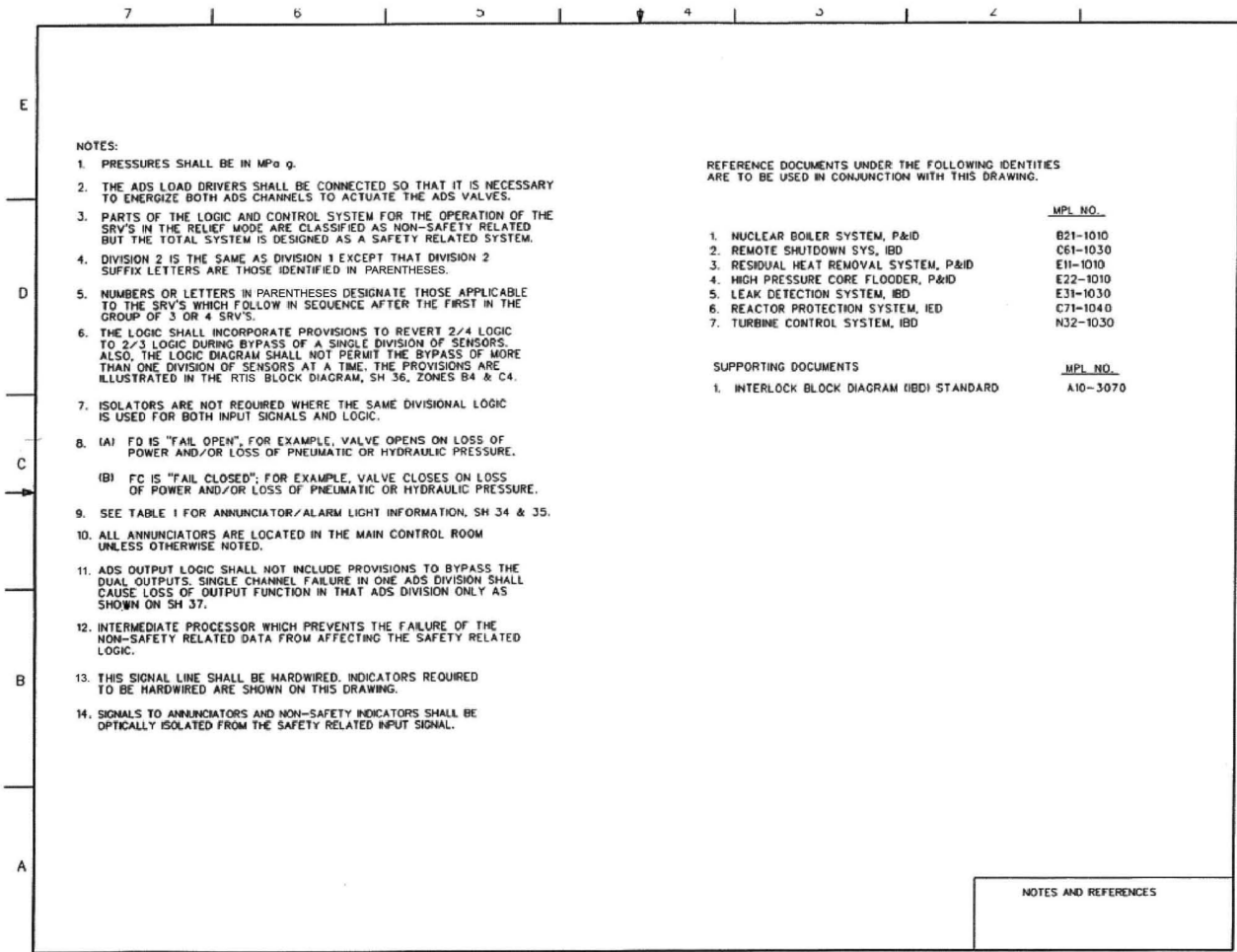


Figure 7.3-2 – Nuclear Boiler System IBD (Sheet 2 of 37)

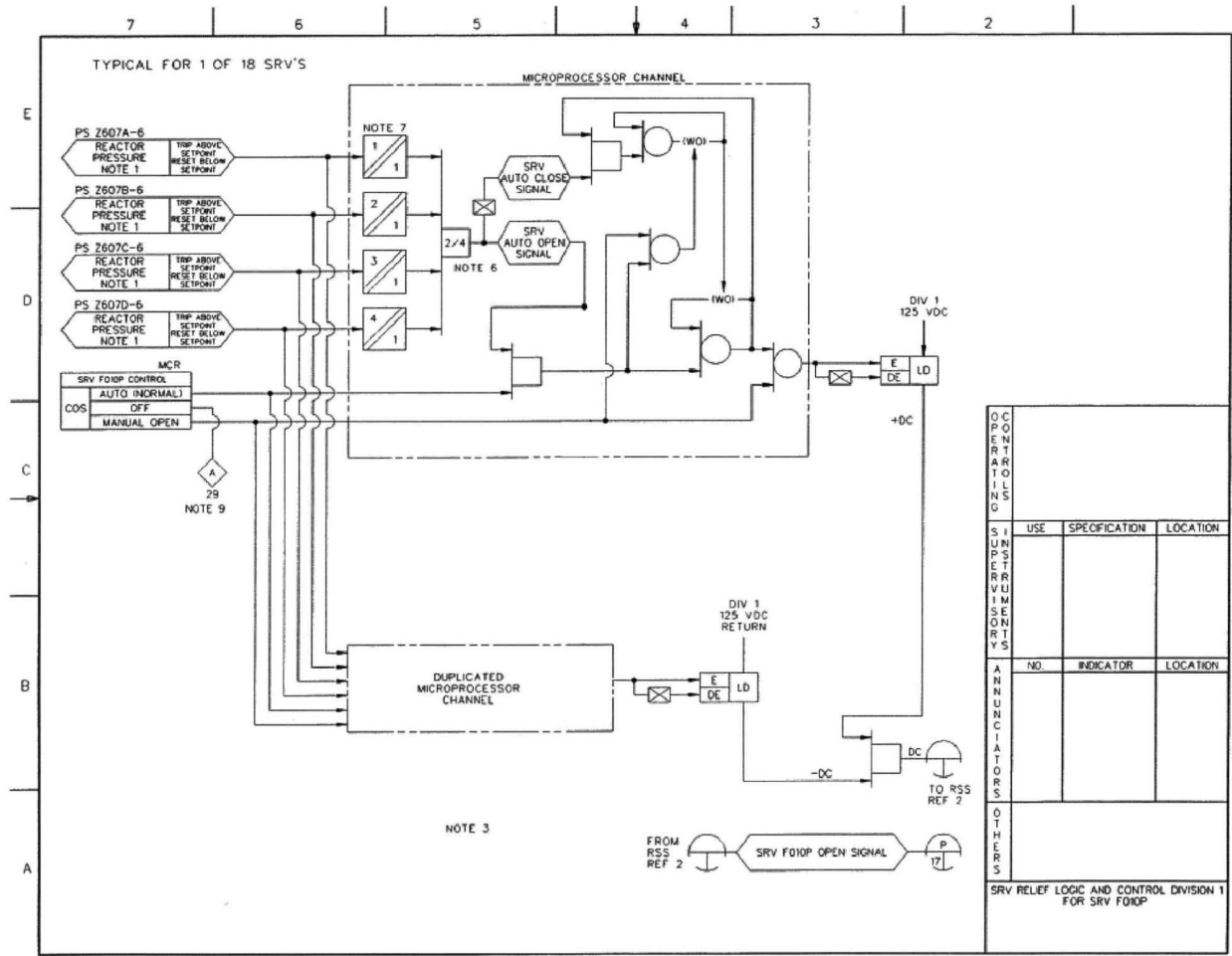


Figure 7.3-2 – Nuclear Boiler System IBD (Sheet 3 of 37)

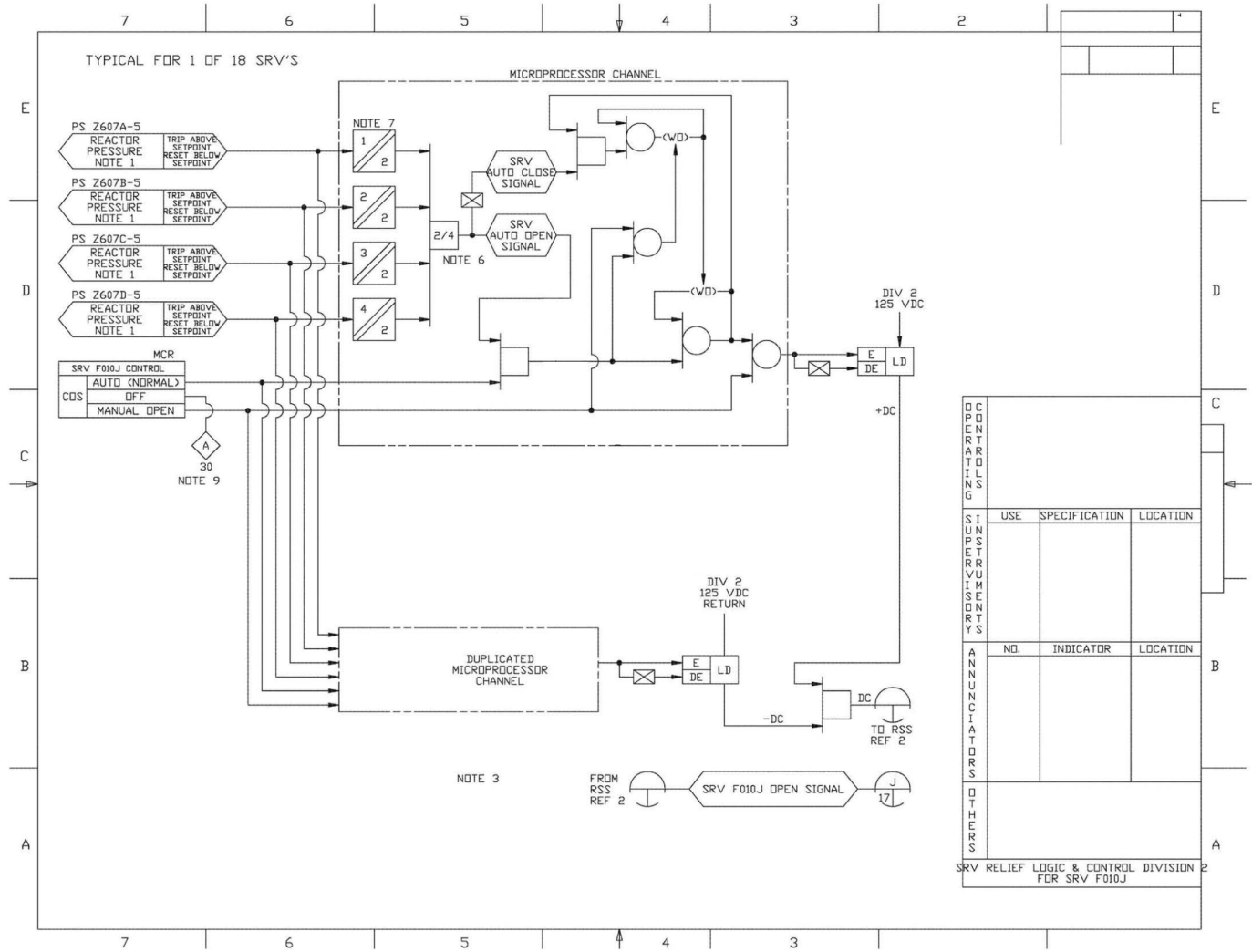


Figure 7.3-2 – Nuclear Boiler System IBD (Sheet 4 of 37)

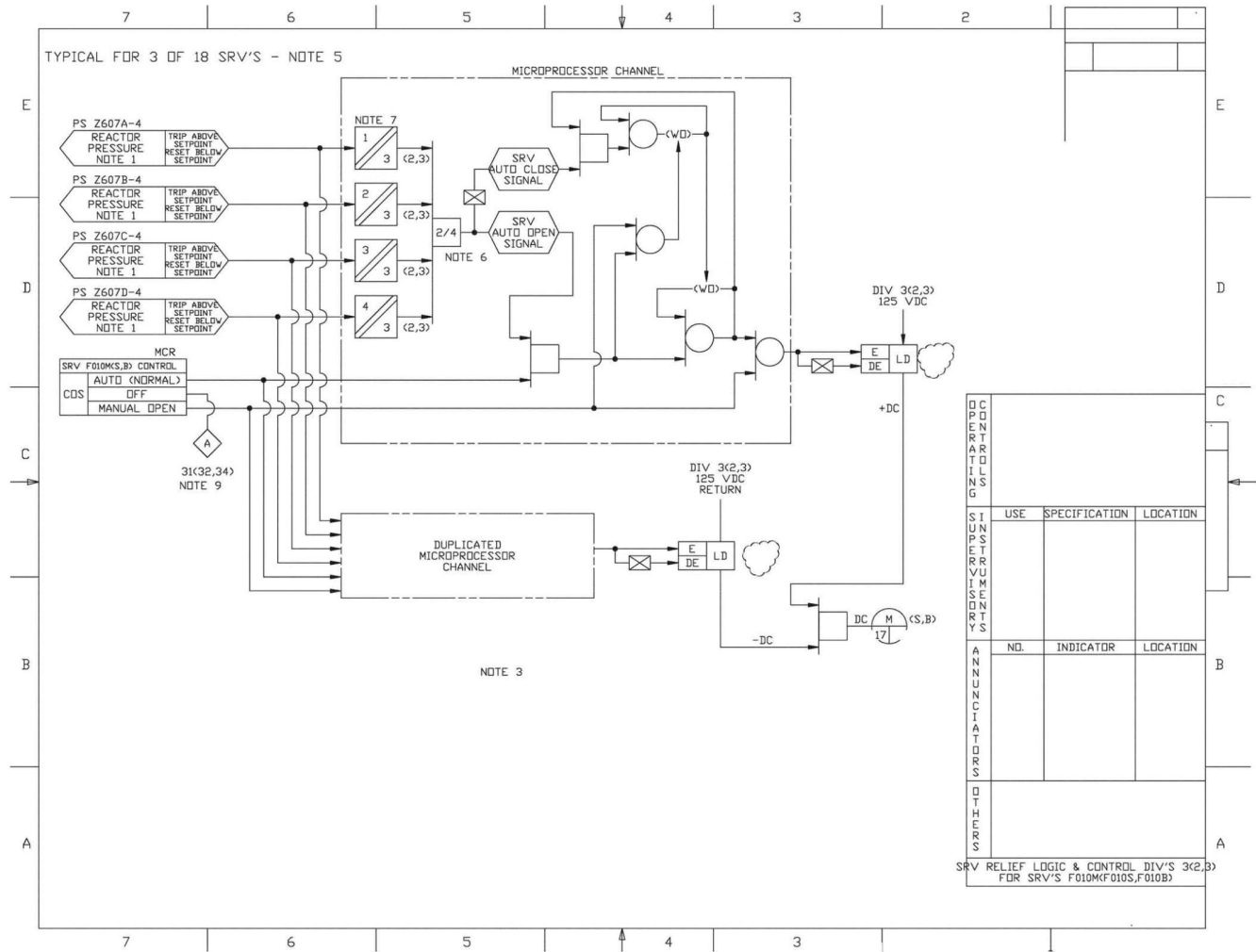


Figure 7.3-2 – Nuclear Boiler System IBD (Sheet 5 of 37)

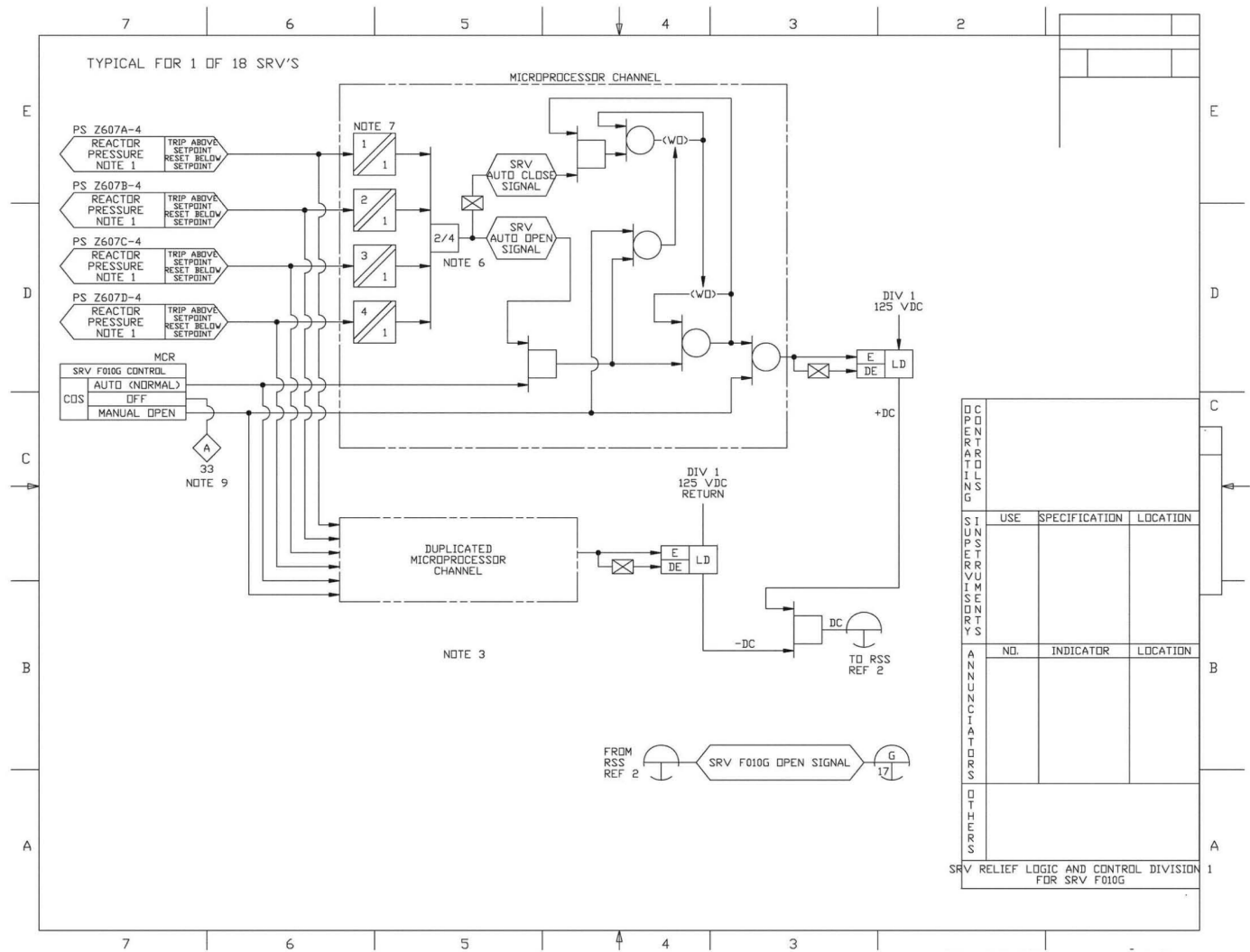


Figure 7.3-2 – Nuclear Boiler System IBD (Sheet 6 of 37)

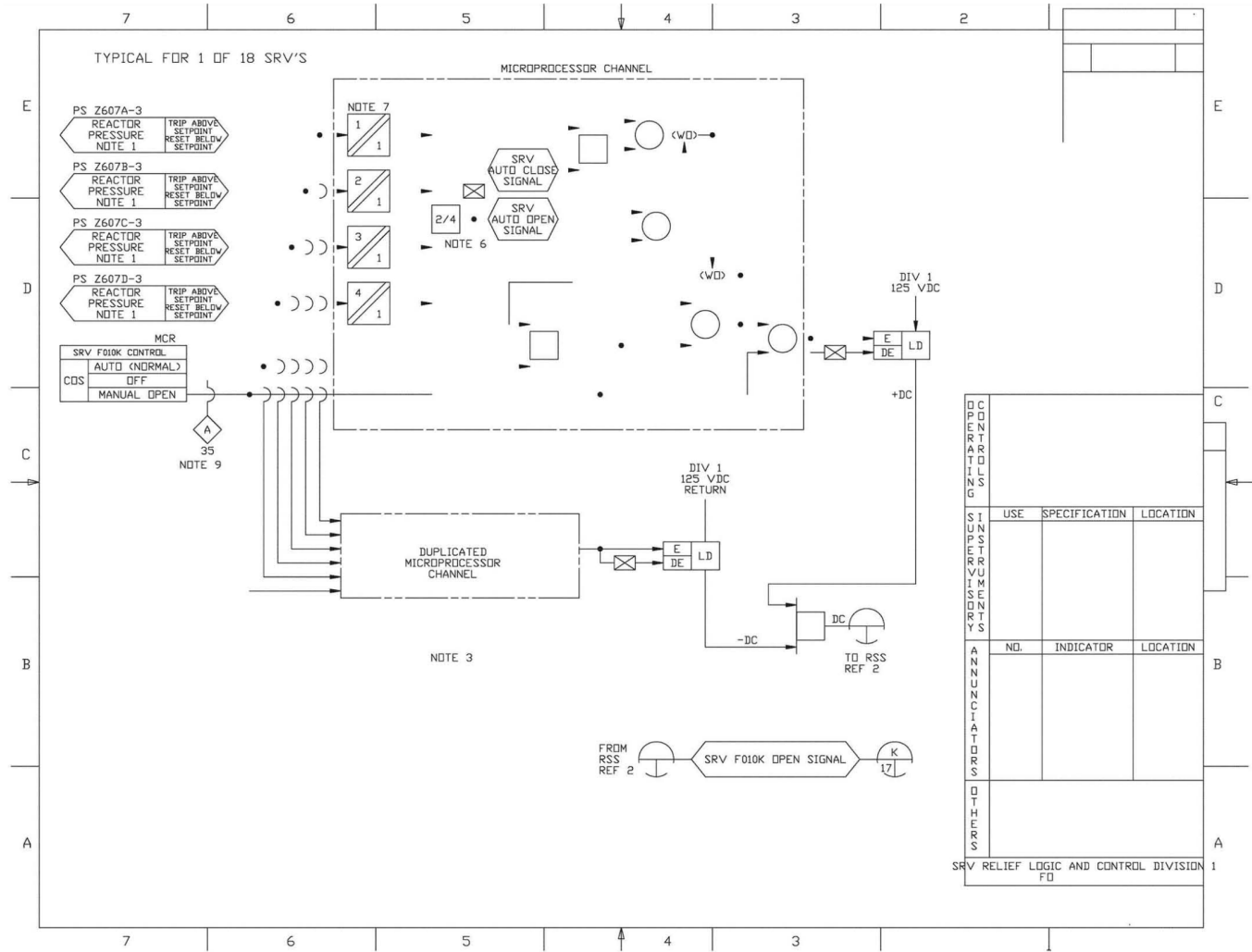


Figure 7.3-2 – Nuclear Boiler System IBD (Sheet 7 of 37)

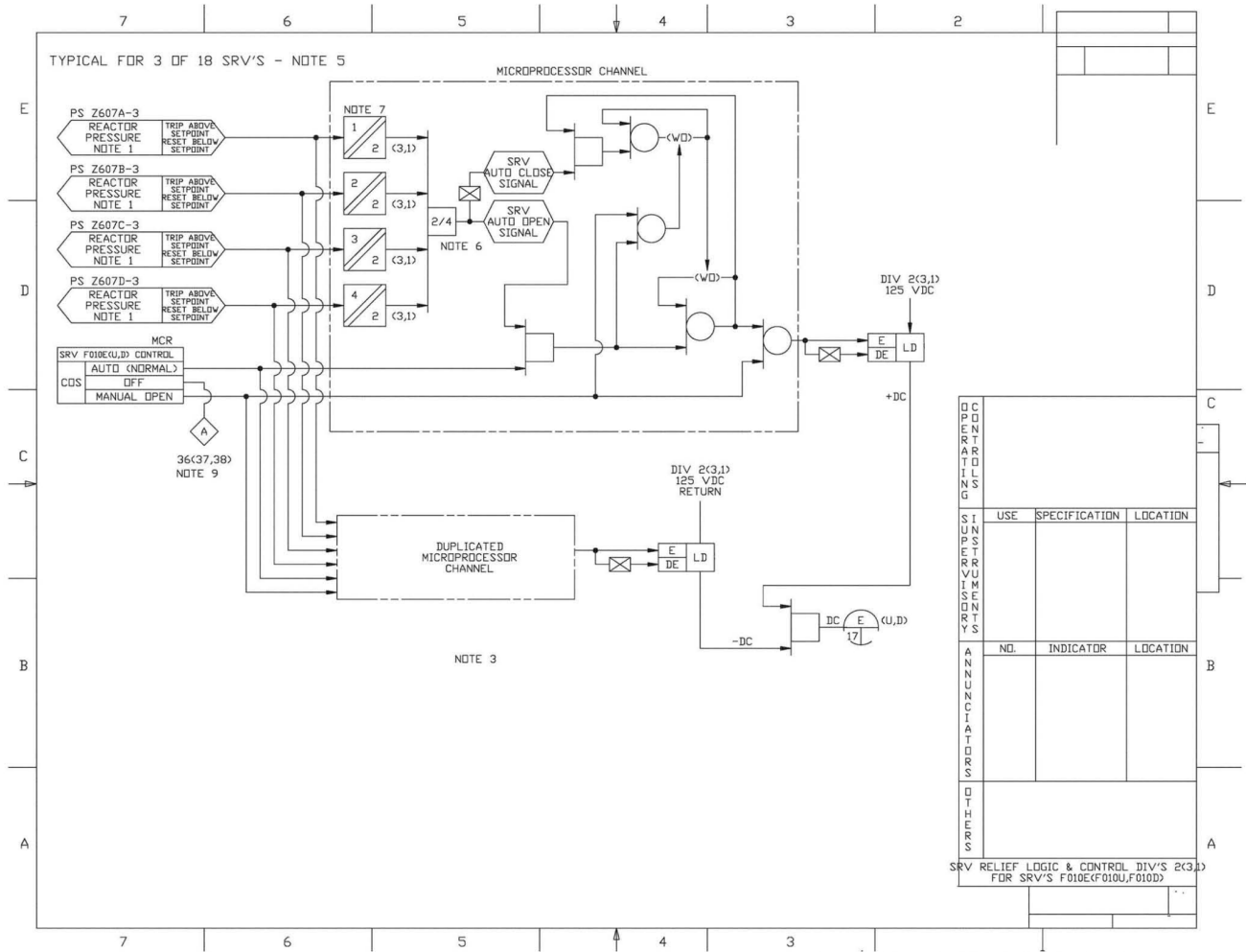


Figure 7.3-2 – Nuclear Boiler System IBD (Sheet 8 of 37)

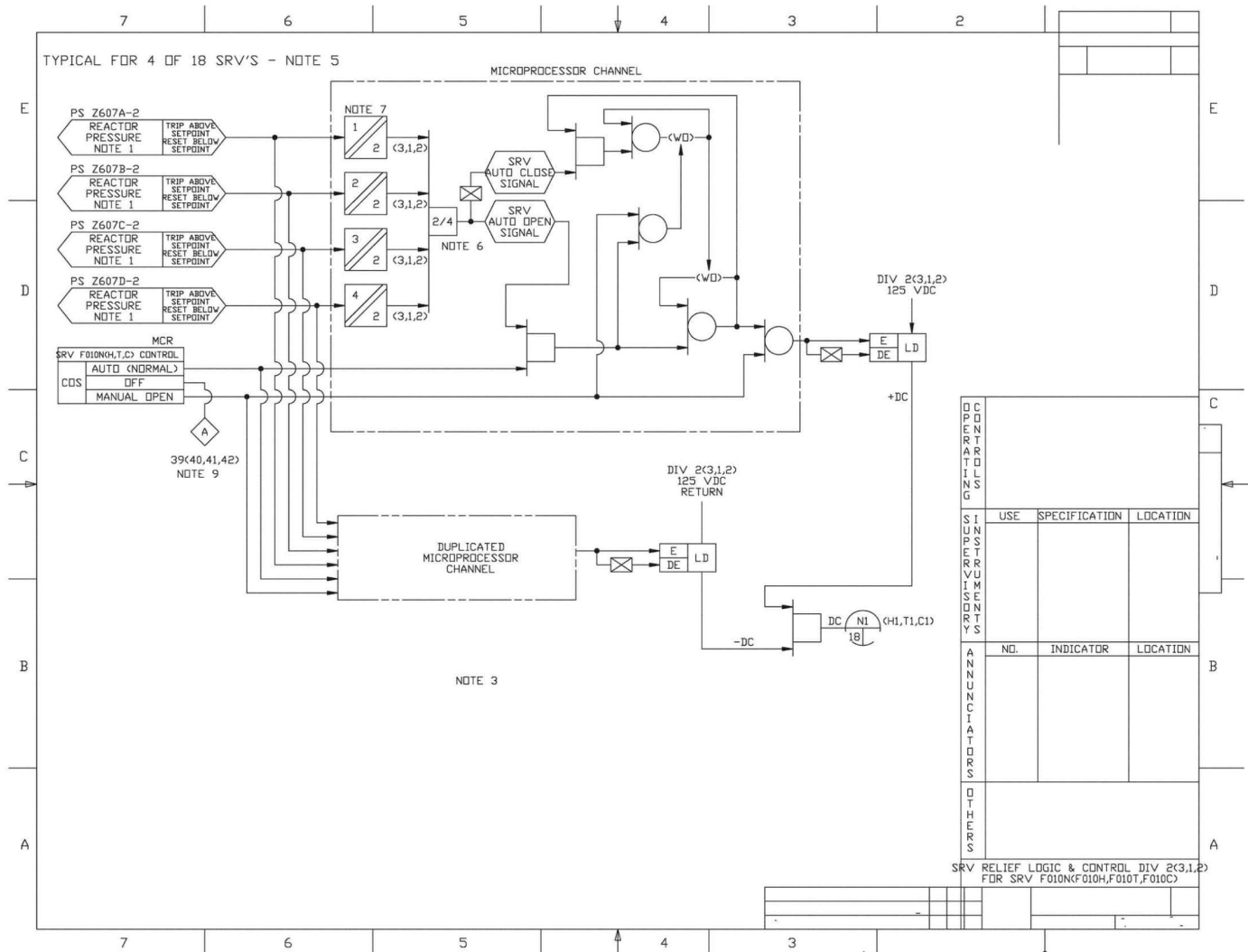


Figure 7.3-2 – Nuclear Boiler System IBD (Sheet 9 of 37)

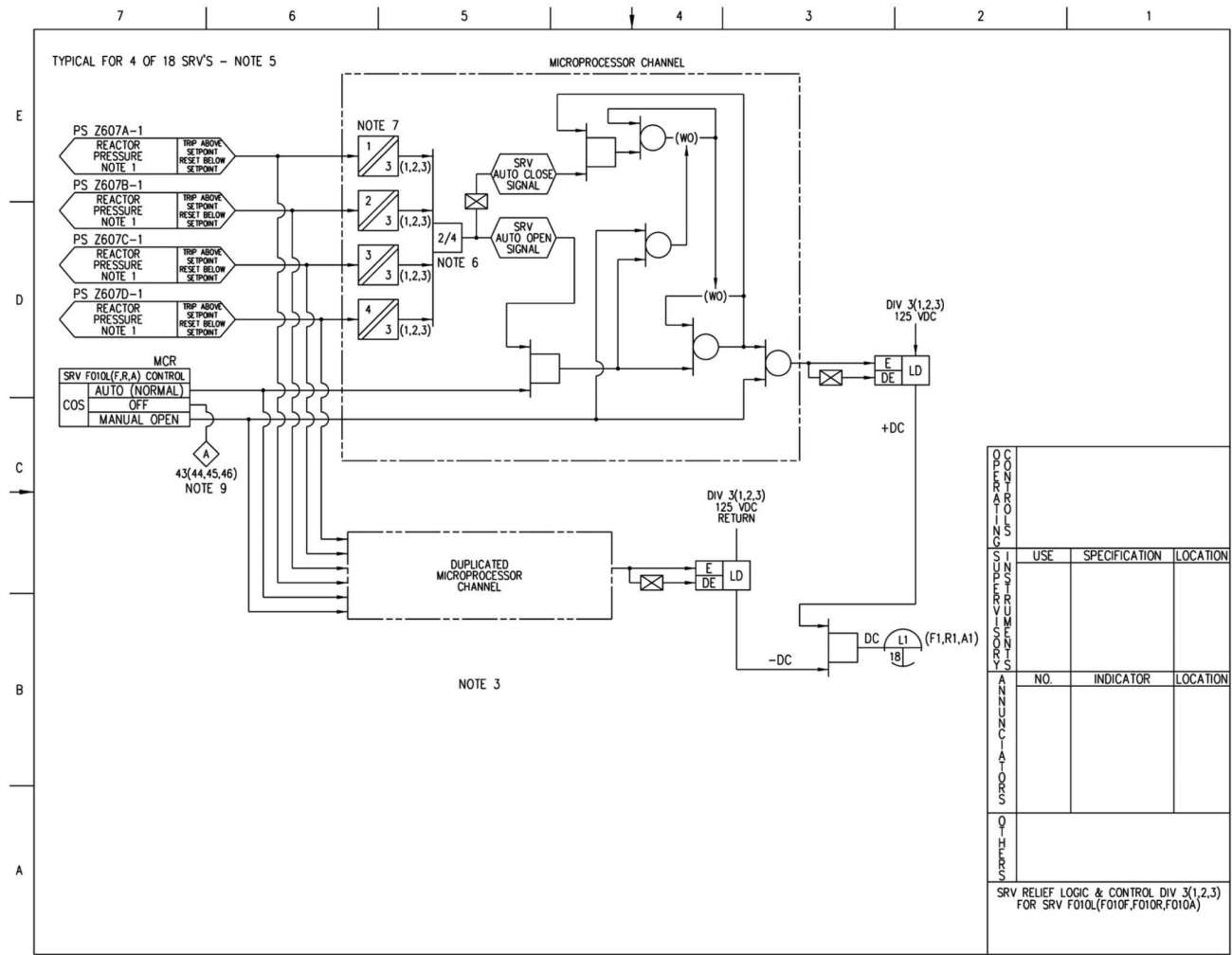


Figure 7.3-2 – Nuclear Boiler System IBD (Sheet 10 of 37)

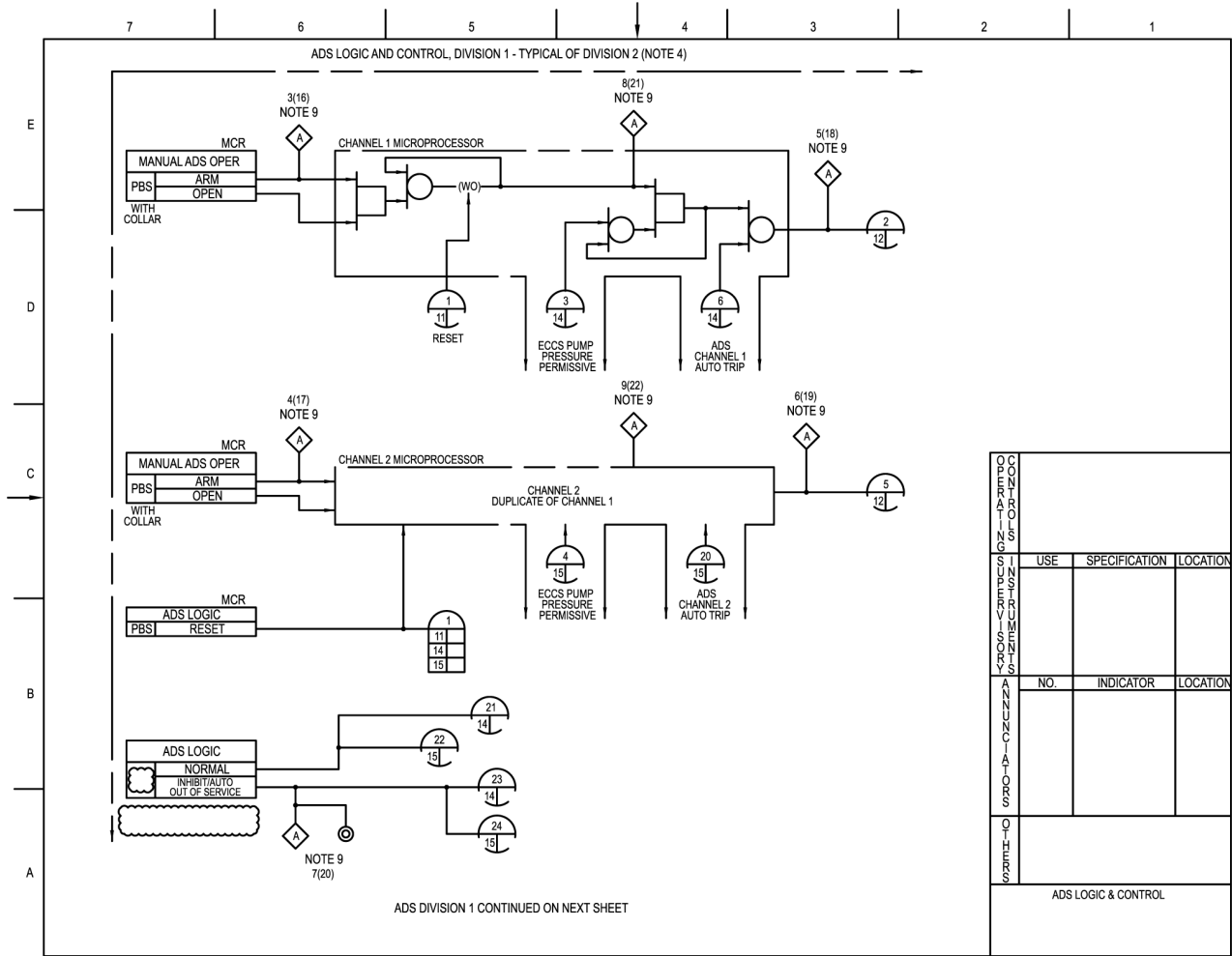


Figure 7.3-2 – Nuclear Boiler System IBD (Sheet 11 of 37)

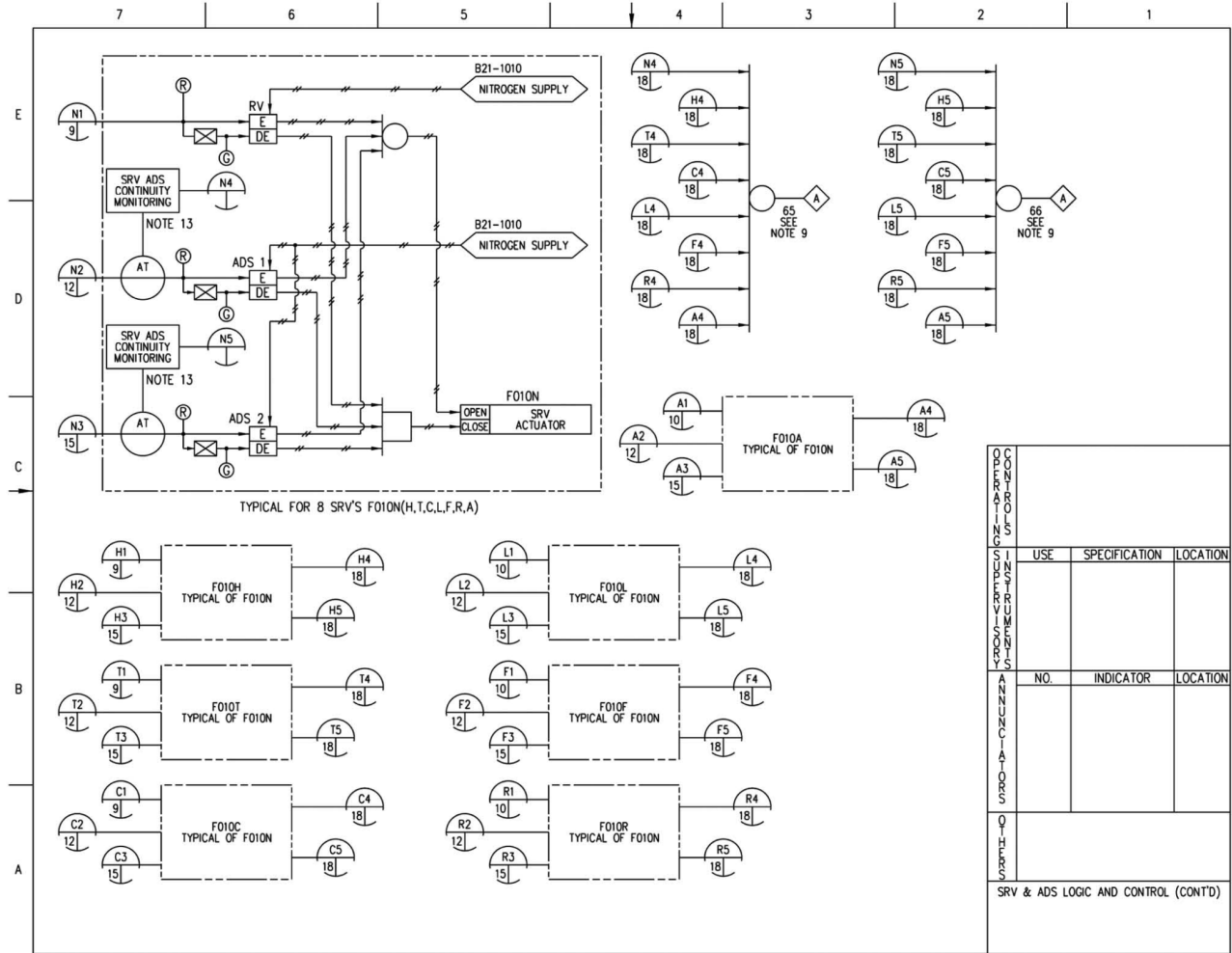


Figure 7.3-2 – Nuclear Boiler System IBD (Sheet 18 of 37)

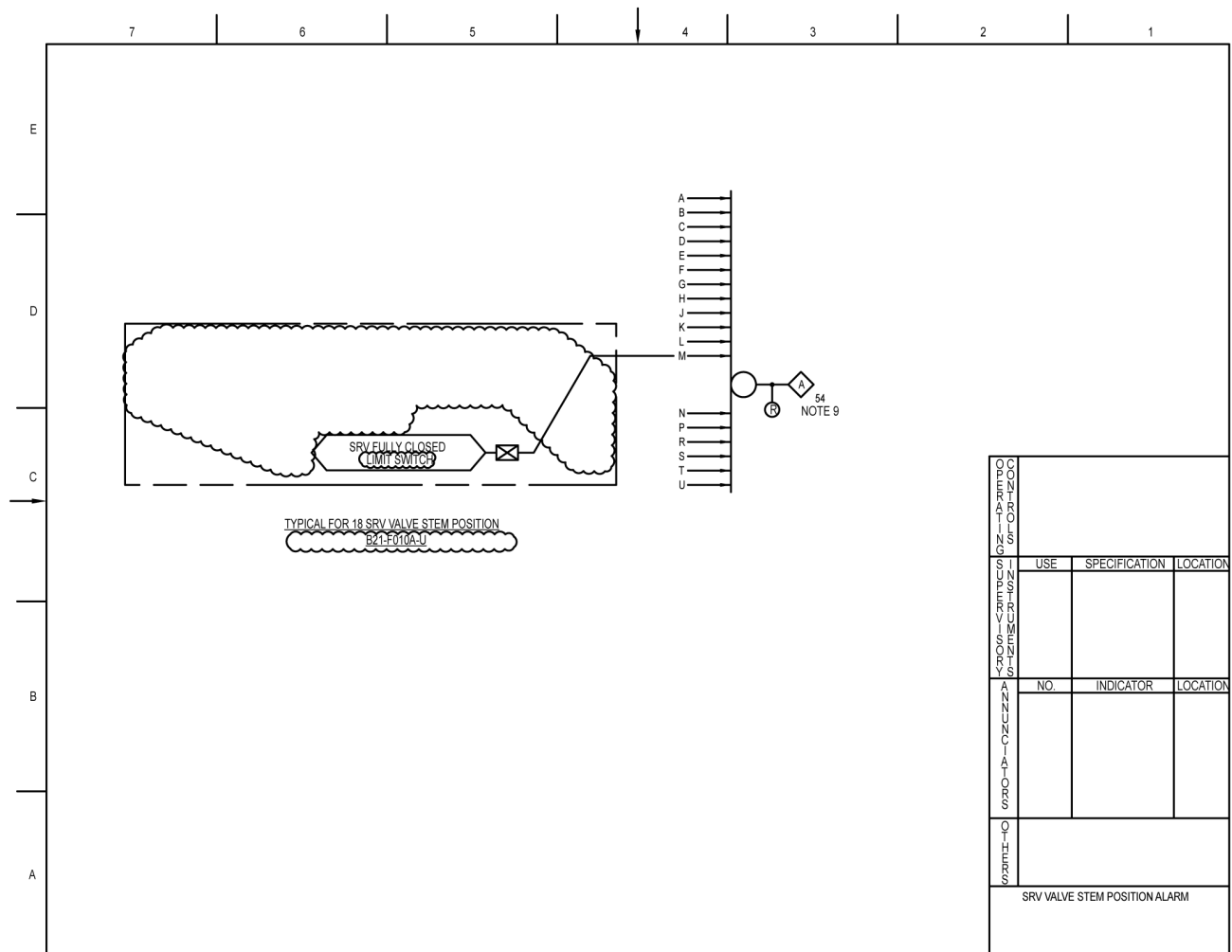


Figure 7.3-2 – Nuclear Boiler System IBD (Sheet 30 of 37)

		7		6		5		4		3		2		1															
TABLE 1: ANNUNCIATOR/ALARM LIGHTS - NOTE 10															TABLE 1: (CONT)														
		ALARM NO.	INDICATION	FUNCTION				SOURCE OF SIGNAL						ALARM NO.	INDICATION	FUNCTION				SOURCE OF SIGNAL									
																	30	ALARM	SRV RELIEF "J" SWITCHED OFF				SWITCH OUTPUT SHEET 4						
																	31	ALARM	SRV RELIEF "M" SWITCHED OFF				SWITCH OUTPUT SHEET 5						
		3	ALARM	ADS CHANNEL 1 ARMED DIVISION 1				LOGIC OUTPUT SHEET 11						32	ALARM	SRV RELIEF "S" SWITCHED OFF				SWITCH OUTPUT SHEET 5									
		4	ALARM	ADS CHANNEL 2 ARMED DIVISION 1				LOGIC OUTPUT SHEET 11						33	ALARM	SRV RELIEF "G" SWITCHED OFF				SWITCH OUTPUT SHEET 6									
		5	ALARM	ADS CHANNEL 1 TRIP DIVISION 1				LOGIC OUTPUT SHEET 11						34	ALARM	SRV RELIEF "B" SWITCHED OFF				SWITCH OUTPUT SHEET 5									
		6	ALARM	ADS CHANNEL 2 TRIP DIVISION 1				LOGIC OUTPUT SHEET 11						35	ALARM	SRV RELIEF "K" SWITCHED OFF				SWITCH OUTPUT SHEET 7									
		7	ALARM/ORANGE LIGHT	ADS INHIBIT SWITCH IN INHIBIT POSITION DIVISION 1				LOGIC OUTPUT SHEET 11						36	ALARM	SRV RELIEF "E" SWITCHED OFF				SWITCH OUTPUT SHEET 8									
		8	ALARM	ADS CHANNEL 1 MANUAL PERMISSIVE DIVISION 1				LOGIC OUTPUT SHEET 11						37	ALARM	SRV RELIEF "U" SWITCHED OFF				SWITCH OUTPUT SHEET 8									
		9	ALARM	ADS CHANNEL 2 MANUAL PERMISSIVE DIVISION 1				LOGIC OUTPUT SHEET 11						38	ALARM	SRV RELIEF "D" SWITCHED OFF				SWITCH OUTPUT SHEET 8									
		10	ALARM	ADS 2# SECOND TIMER RUNNING CHANNEL 1 DIVISION 1				LOGIC OUTPUT SHEET 14						39	ALARM	SRV RELIEF "N" SWITCHED OFF				SWITCH OUTPUT SHEET 9									
		11	ALARM	ADS 2# SECOND TIMER RUNNING CHANNEL 2 DIVISION 1				LOGIC OUTPUT SHEET 15						40	ALARM	SRV RELIEF "H" SWITCHED OFF				SWITCH OUTPUT SHEET 9									
		12	ALARM	ADS HIGH DRYWELL PRESSURE PERMISSIVE CHANNEL 1 DIV 1				LOGIC OUTPUT SHEET 14						41	ALARM	SRV RELIEF "T" SWITCHED OFF				SWITCH OUTPUT SHEET 9									
		13	ALARM	ADS HIGH DRYWELL PRESSURE PERMISSIVE CHANNEL 2 DIV 1				LOGIC OUTPUT SHEET 15						42	ALARM	SRV RELIEF "C" SWITCHED OFF				SWITCH OUTPUT SHEET 9									
		14	ALARM	ADS ECCS PUMP DISC PRESS PERMISSIVE CHANNEL 1 DIV 1				LOGIC OUTPUT SHEET 14						43	ALARM	SRV RELIEF "L" SWITCHED OFF				SWITCH OUTPUT SHEET 10									
		15	ALARM	ADS ECCS PUMP DISC PRESS PERMISSIVE CHANNEL 2 DIV 1				LOGIC OUTPUT SHEET 15						44	ALARM	SRV RELIEF "F" SWITCHED OFF				SWITCH OUTPUT SHEET 10									
		16	ALARM	ADS CHANNEL 1 ARMED DIVISION 2				LOGIC OUTPUT SHEET 11						45	ALARM	SRV RELIEF "R" SWITCHED OFF				SWITCH OUTPUT SHEET 10									
		17	ALARM	ADS CHANNEL 2 ARMED DIVISION 2				LOGIC OUTPUT SHEET 11						46	ALARM	SRV RELIEF "A" SWITCHED OFF				SWITCH OUTPUT SHEET 10									
		18	ALARM	ADS CHANNEL 1 TRIP DIVISION 2				LOGIC OUTPUT SHEET 11						47	ALARM/RED LIGHT	ENHANCED RPV WATER LEVEL LOW DIV 1				LOGIC OUTPUT SHEET 27									
		19	ALARM	ADS CHANNEL 2 TRIP DIVISION 2				LOGIC OUTPUT SHEET 11						48	ALARM/RED LIGHT	ENHANCED RPV WATER LEVEL LOW DIV 2				LOGIC OUTPUT SHEET 27									
		20	ALARM/ORANGE LIGHT	ADS INHIBIT SWITCH IN INHIBIT POSITION DIVISION 2				LOGIC OUTPUT SHEET 11						49	ALARM/ORANGE LIGHT	LOW RPV METAL OR BOTTOM DRAIN TEMP				LOGIC OUTPUT SHEET 28									
		21	ALARM	ADS CHANNEL 1 MANUAL PERMISSIVE DIVISION 2				LOGIC OUTPUT SHEET 11						50	ALARM/RED LIGHT	HIGH DRYWELL PRESSURE DIVISION 1				LOGIC OUTPUT SHEET 29									
		22	ALARM	ADS CHANNEL 2 MANUAL PERMISSIVE DIVISION 2				LOGIC OUTPUT SHEET 11																					
		23	ALARM	ADS 2# SECOND TIMER RUNNING CHANNEL 1 DIVISION 2				LOGIC OUTPUT SHEET 14																					
		24	ALARM	ADS 2# SECOND TIMER RUNNING CHANNEL 2 DIV 2				LOGIC OUTPUT SHEET 15																					
		25	ALARM	ADS HIGH DRYWELL PRESS PERMISSIVE CHANNEL 1 DIV 2				LOGIC OUTPUT SHEET 14																					
		26	ALARM	ADS HIGH DRYWELL PRESS PERMISSIVE CHANNEL 2 DIV 2				LOGIC OUTPUT SHEET 15																					
		27	ALARM	ADS ECCS PUMP DISCH PRESS PERMISSIVE CHANNEL 1 DIV 2				LOGIC OUTPUT SHEET 14																					
		28	ALARM	ADS ECCS PUMP DISCH PRESS PERMISSIVE CHANNEL 2 DIV 2				LOGIC OUTPUT SHEET 15																					
		29	ALARM	SRV RELIEF "P" SWITCHED OFF				SWITCH OUTPUT SHEET 3																					
															ANNUNCIATOR LIST														

Figure 7.3-2 – Nuclear Boiler System IBD (Sheet 34 of 37)

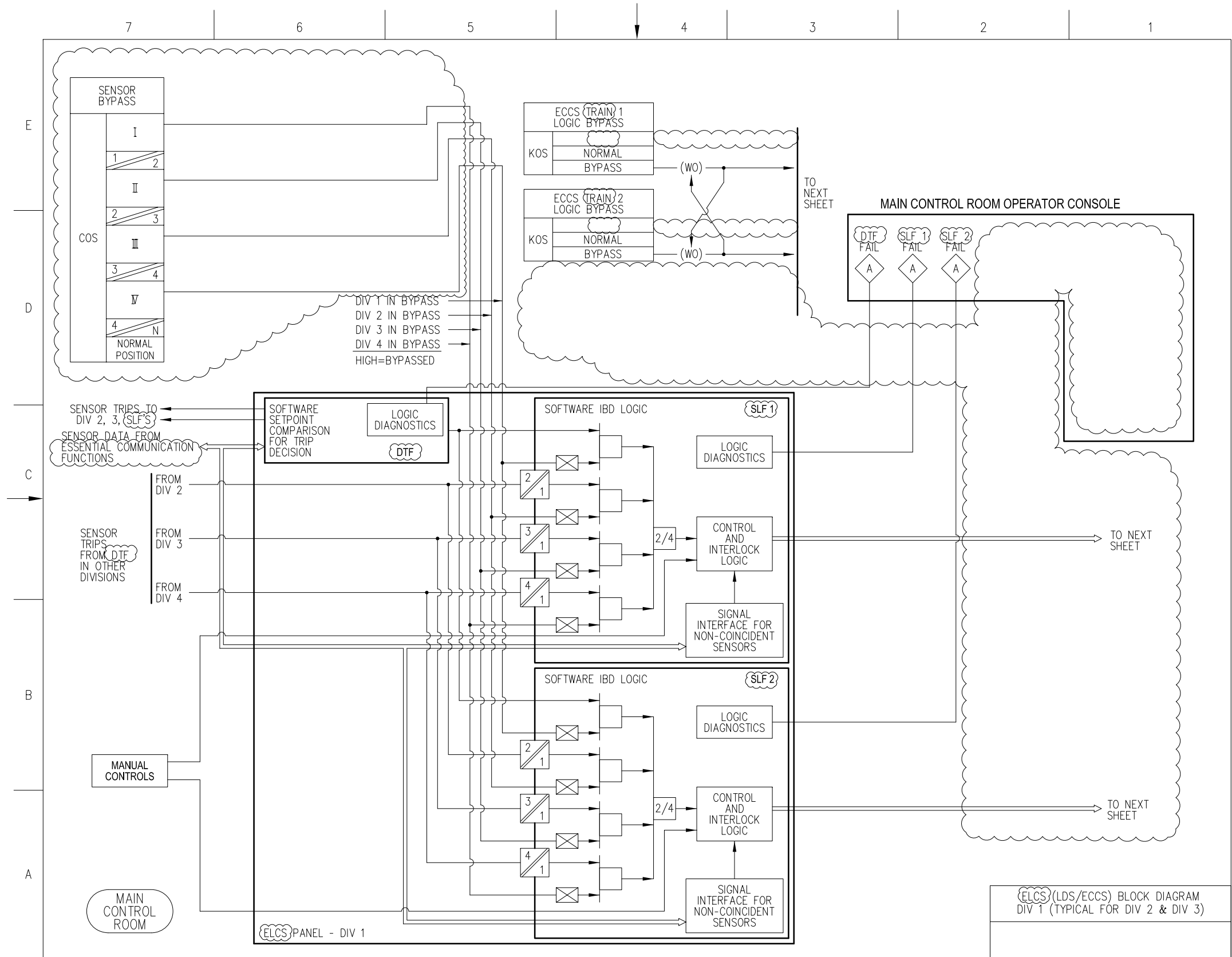


Figure 7.3-2 – Nuclear Boiler System IBD (Sheet 36 of 37)

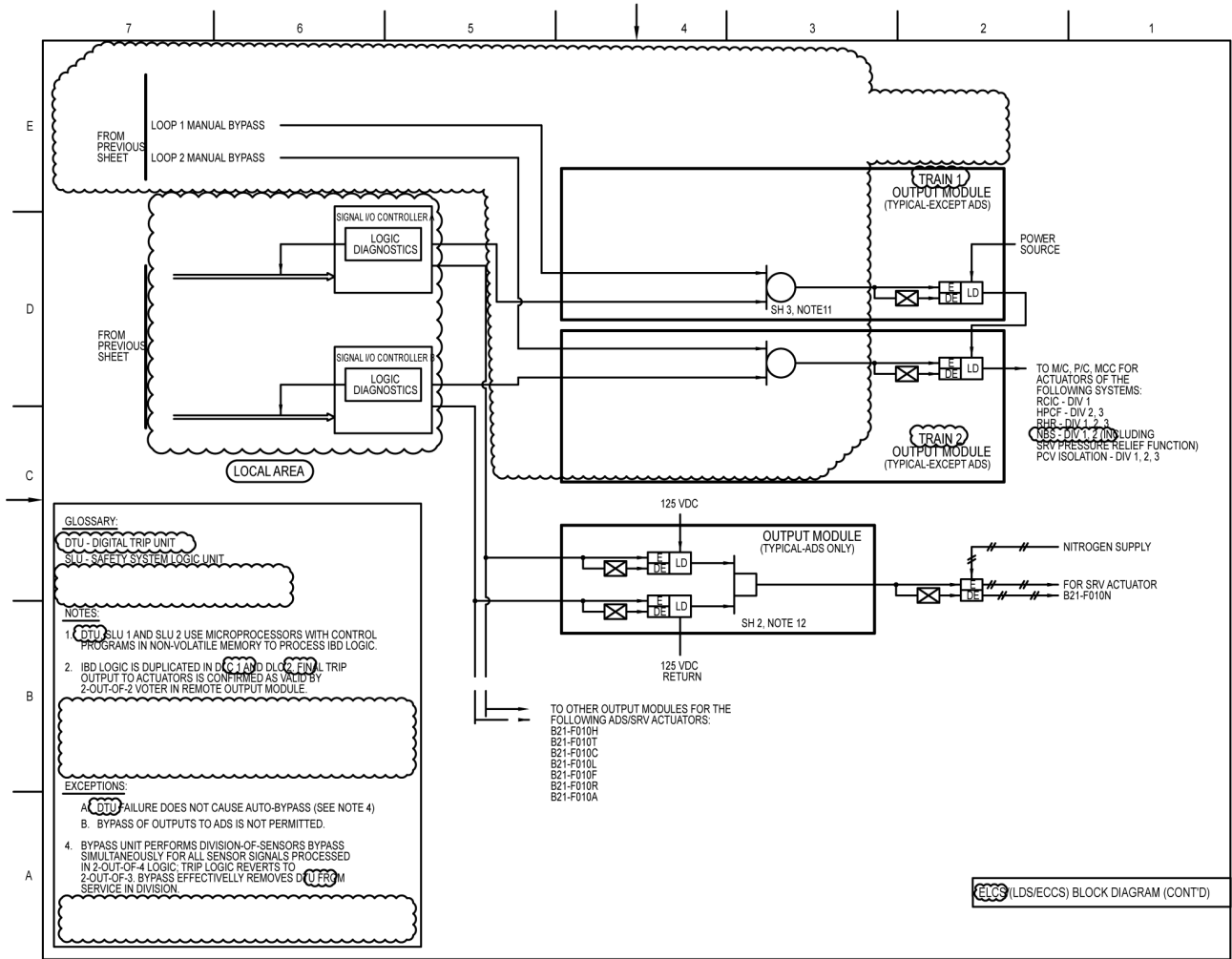


Figure 7.3-2 – Nuclear Boiler System IBD (Sheet 37 of 37)