

FIGURE 7.7-4 CONTROL ROD DRIVE SYSTEM IBD (Sheet 1 of 8)
STP 3 & 4 Rev.2

Figure 7.7-4 – Control Rod Drive System IBD (Sheet 1 of 8)

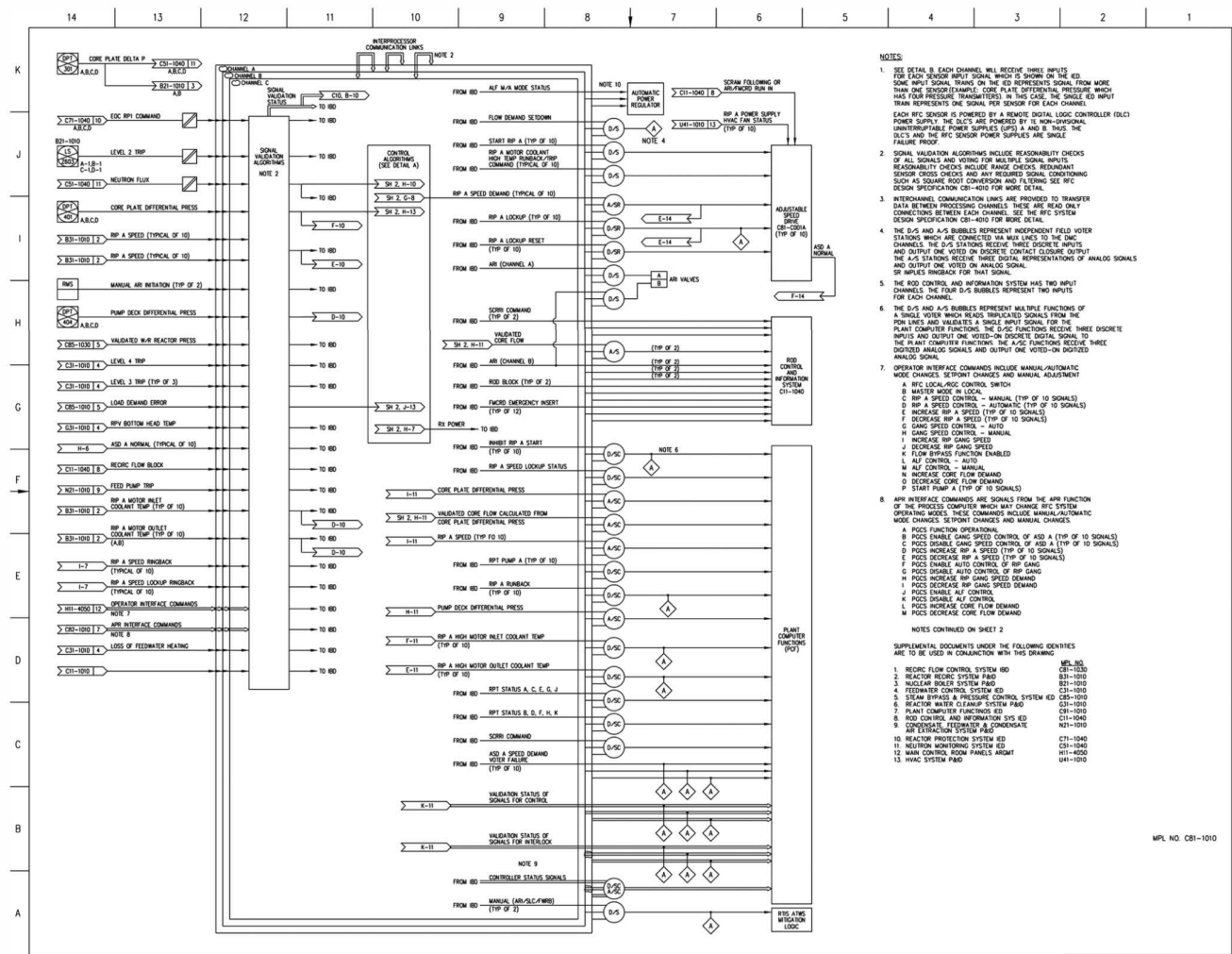


Figure 7.7-5 – Recirculation Flow Control System IED (Sheet 1 of 2)

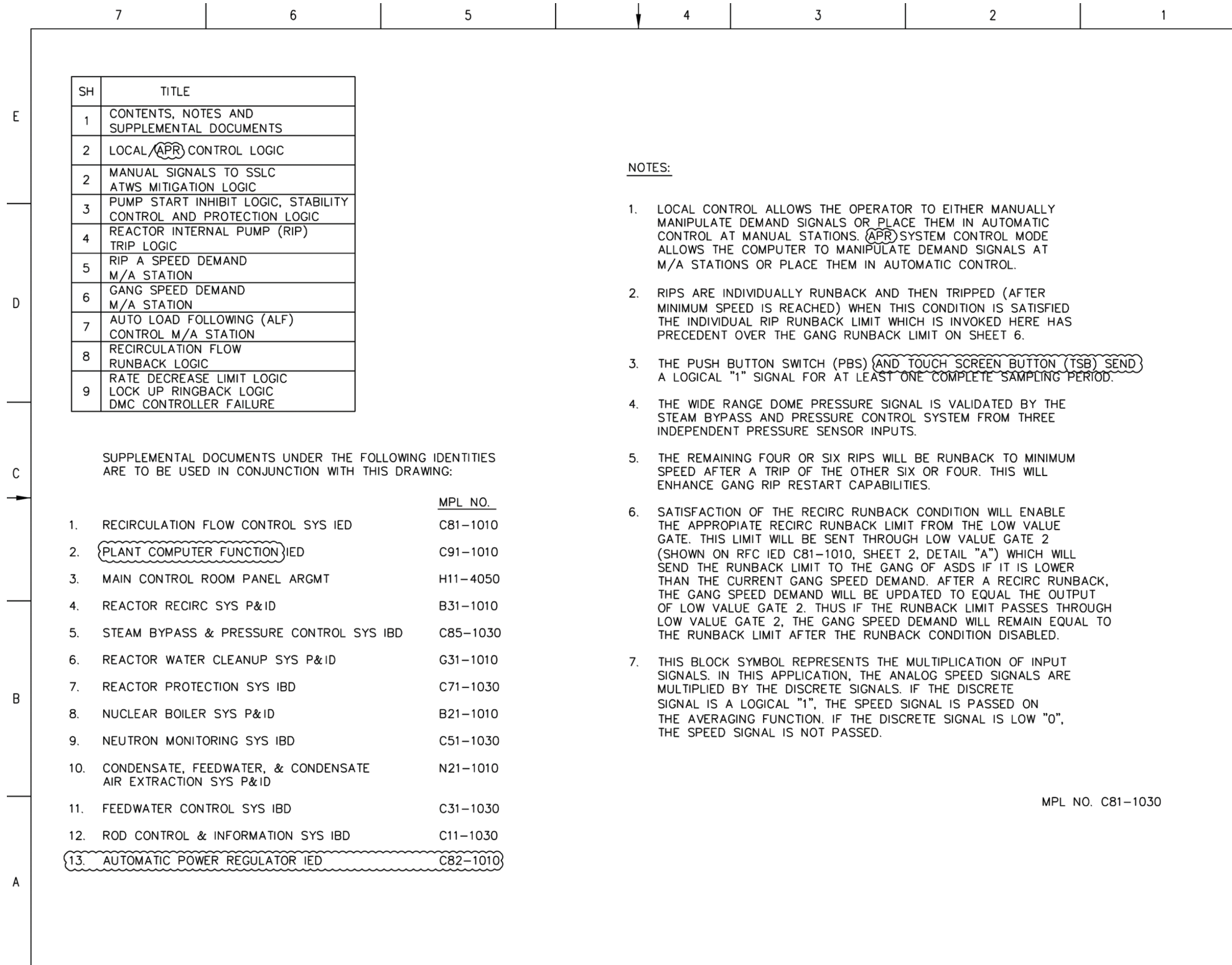


Figure 7.7-7 – Recirculation Flow Control System IBD (Sheet 1 of 9)

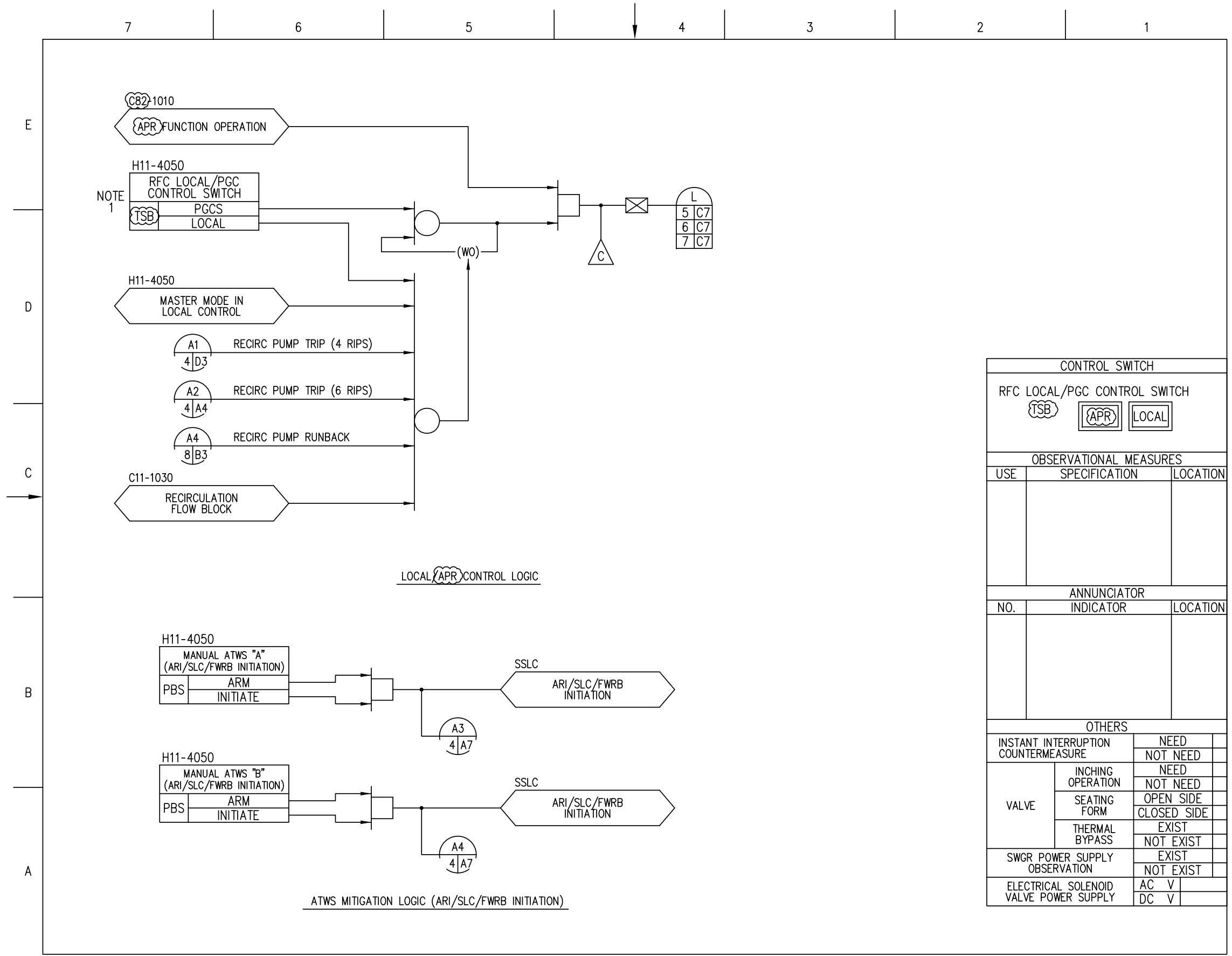
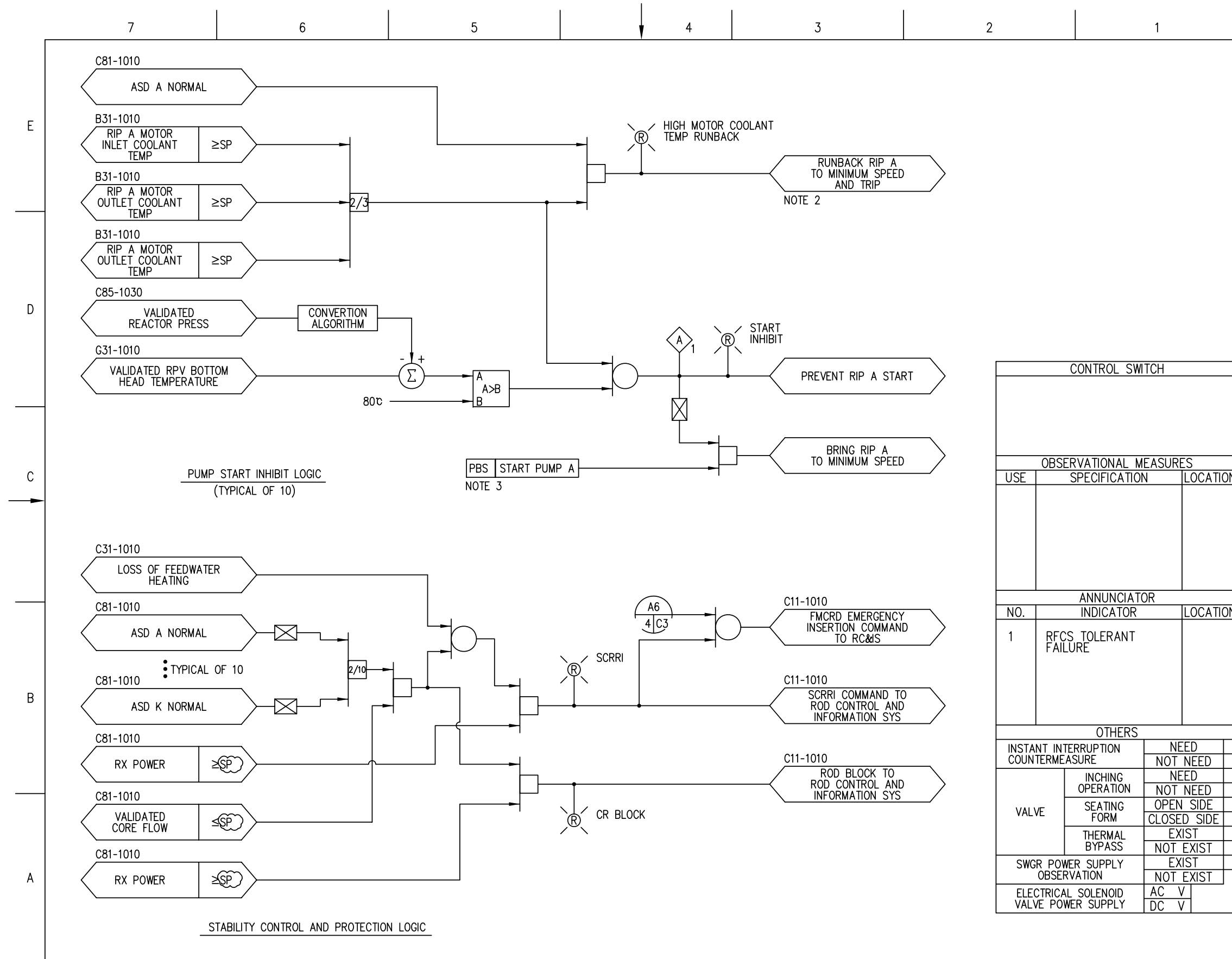
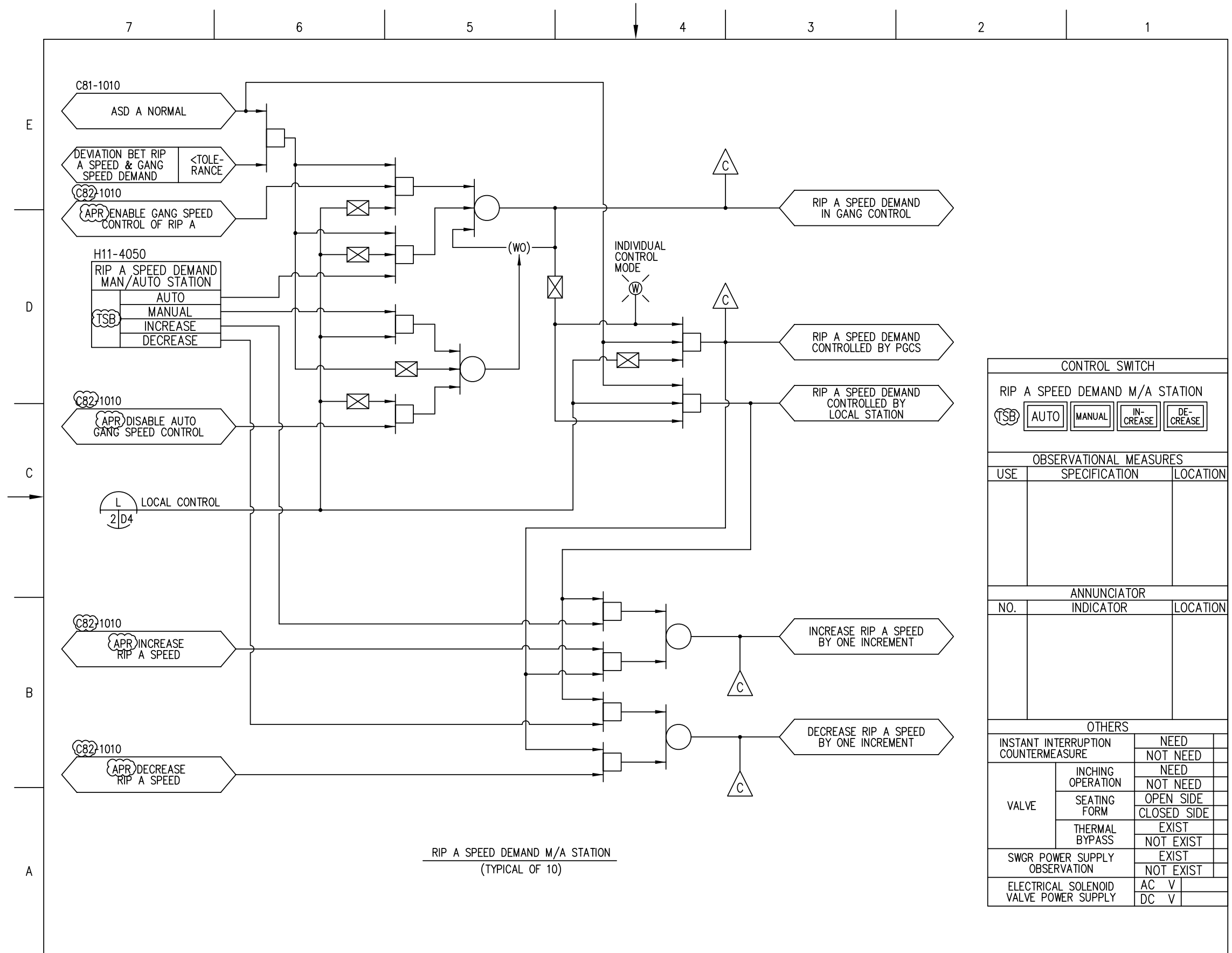


Figure 7.7-7 – Recirculation Flow Control System IBD (Sheet 2 of 9)



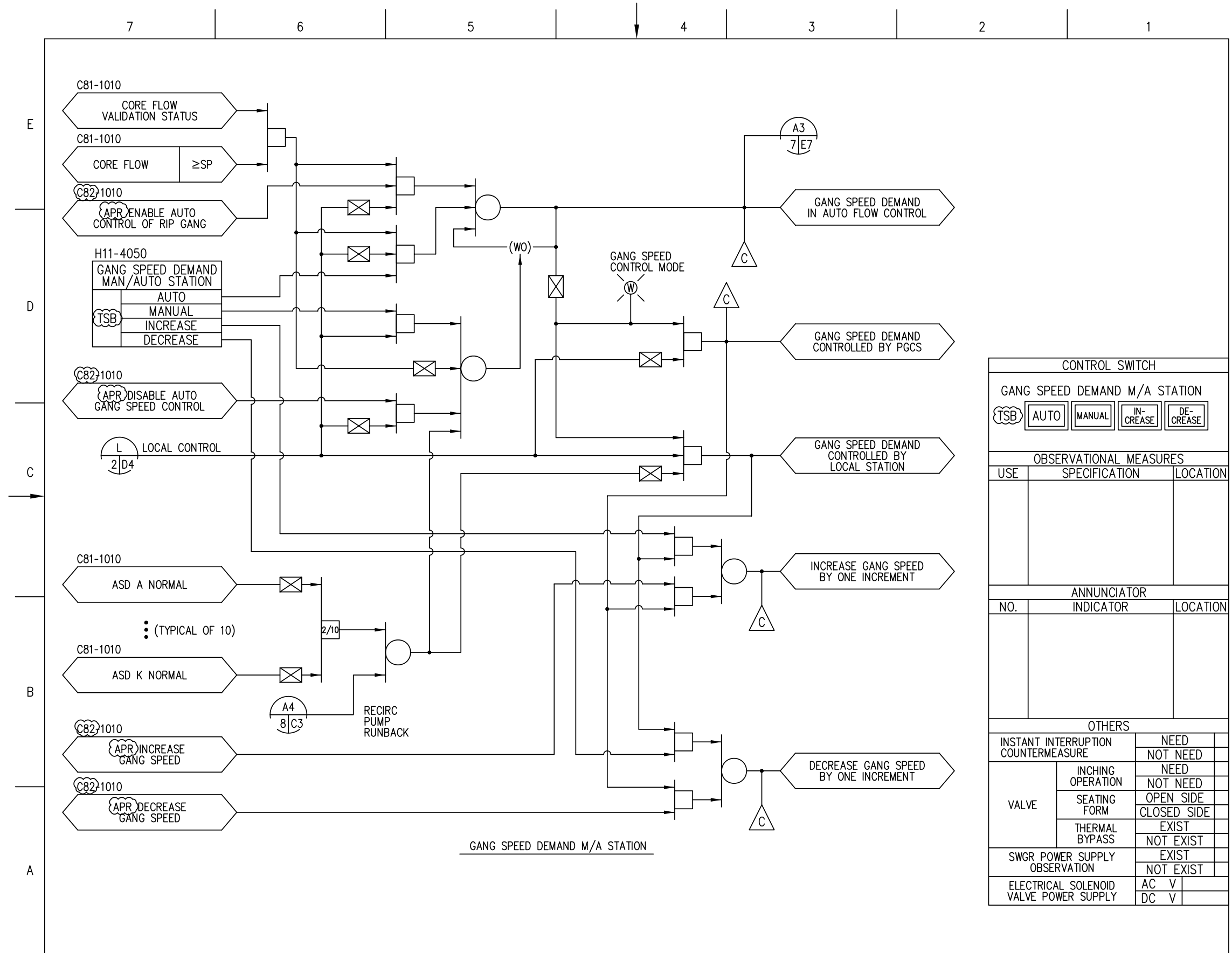
CONTROL SWITCH		
OBSERVATIONAL MEASURES		
USE	SPECIFICATION	LOCATION
ANNUNCIATOR		
NO.	INDICATOR	LOCATION
1	RFCS TOLERANT FAILURE	
OTHERS		
INSTANT INTERRUPTION COUNTERMEASURE	NEED	
	NOT NEED	
VALVE	INCHING OPERATION	NEED
	SEATING FORM	NOT NEED
		OPEN SIDE
		CLOSED SIDE
	THERMAL BYPASS	EXIST
		NOT EXIST
SWGR POWER SUPPLY OBSERVATION	EXIST	
	NOT EXIST	
ELECTRICAL SOLENOID VALVE POWER SUPPLY	AC V	
	DC V	

Figure 7.7-7 – Recirculation Flow Control System IBD (Sheet 3 of 9)



CONTROL SWITCH		
RIP A SPEED DEMAND M/A STATION		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OBSERVATIONAL MEASURES		
USE	SPECIFICATION	LOCATION
ANNUNCIATOR		
NO.	INDICATOR	LOCATION
OTHERS		
INSTANT INTERRUPTION COUNTERMEASURE	NEED	
	NOT NEED	
VALVE	INCHING OPERATION	NEED
	SEATING FORM	NOT NEED
		OPEN SIDE
THERMAL BYPASS	CLOSED SIDE	
	EXIST	
SWGR POWER SUPPLY OBSERVATION	NOT EXIST	
	EXIST	
ELECTRICAL SOLENOID VALVE POWER SUPPLY	AC V	
	DC V	

Figure 7.7-7 – Recirculation Flow Control System IBD (Sheet 5 of 9)



CONTROL SWITCH		
GANG SPEED DEMAND M/A STATION		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OBSERVATIONAL MEASURES		
USE	SPECIFICATION	LOCATION
ANNUNCIATOR		
NO.	INDICATOR	LOCATION
OTHERS		
INSTANT INTERRUPTION COUNTERMEASURE	NEED	
	NOT NEED	
VALVE	INCHING OPERATION	NEED
		NOT NEED
	SEATING FORM	OPEN SIDE
		CLOSED SIDE
	THERMAL BYPASS	EXIST
		NOT EXIST
SWGR POWER SUPPLY OBSERVATION	EXIST	
	NOT EXIST	
ELECTRICAL SOLENOID VALVE POWER SUPPLY	AC V	
	DC V	

Figure 7.7-7 – Recirculation Flow Control System IBD (Sheet 6 of 9)

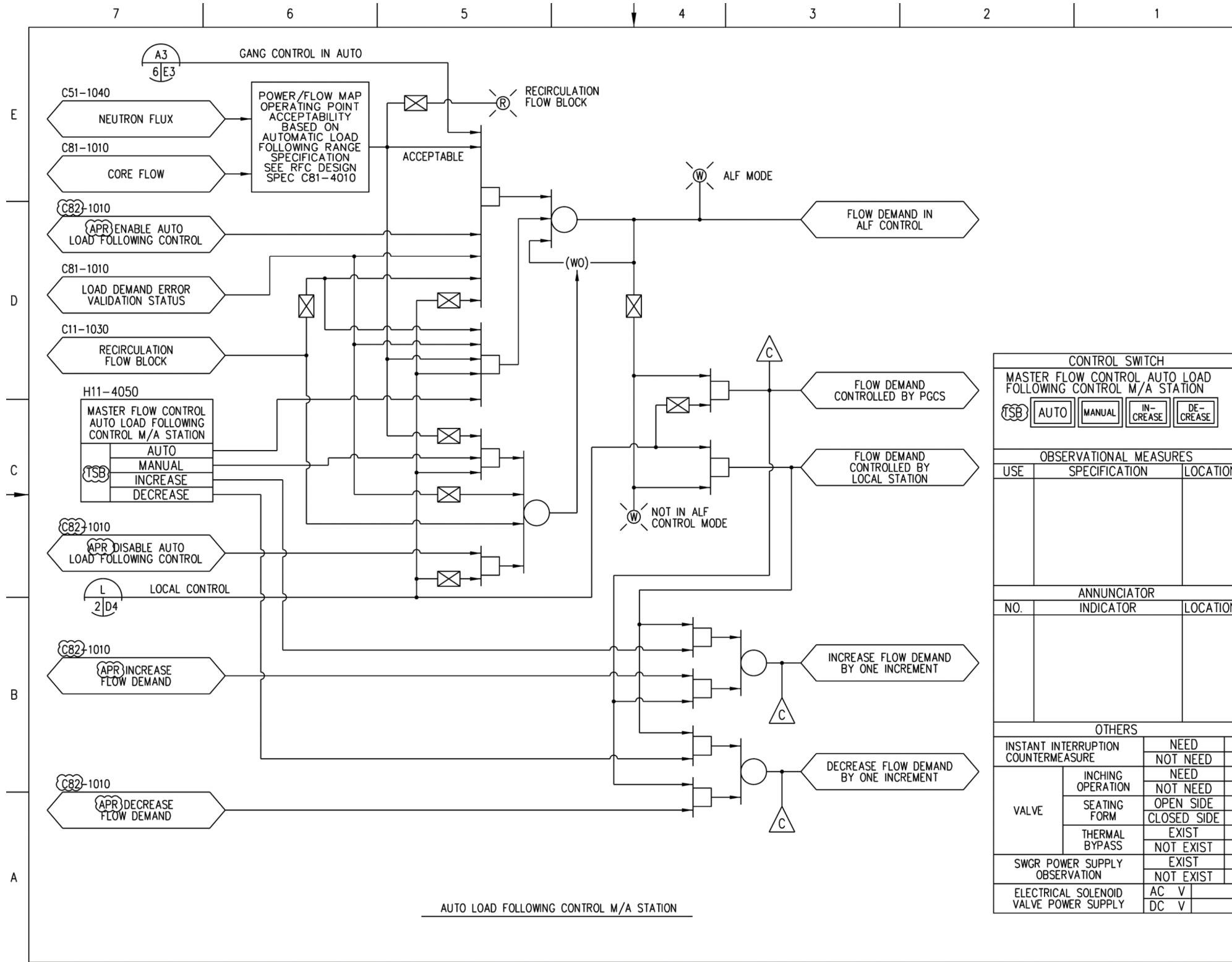


Figure 7.7-7 – Recirculation Flow Control System IBD (Sheet 7 of 9)

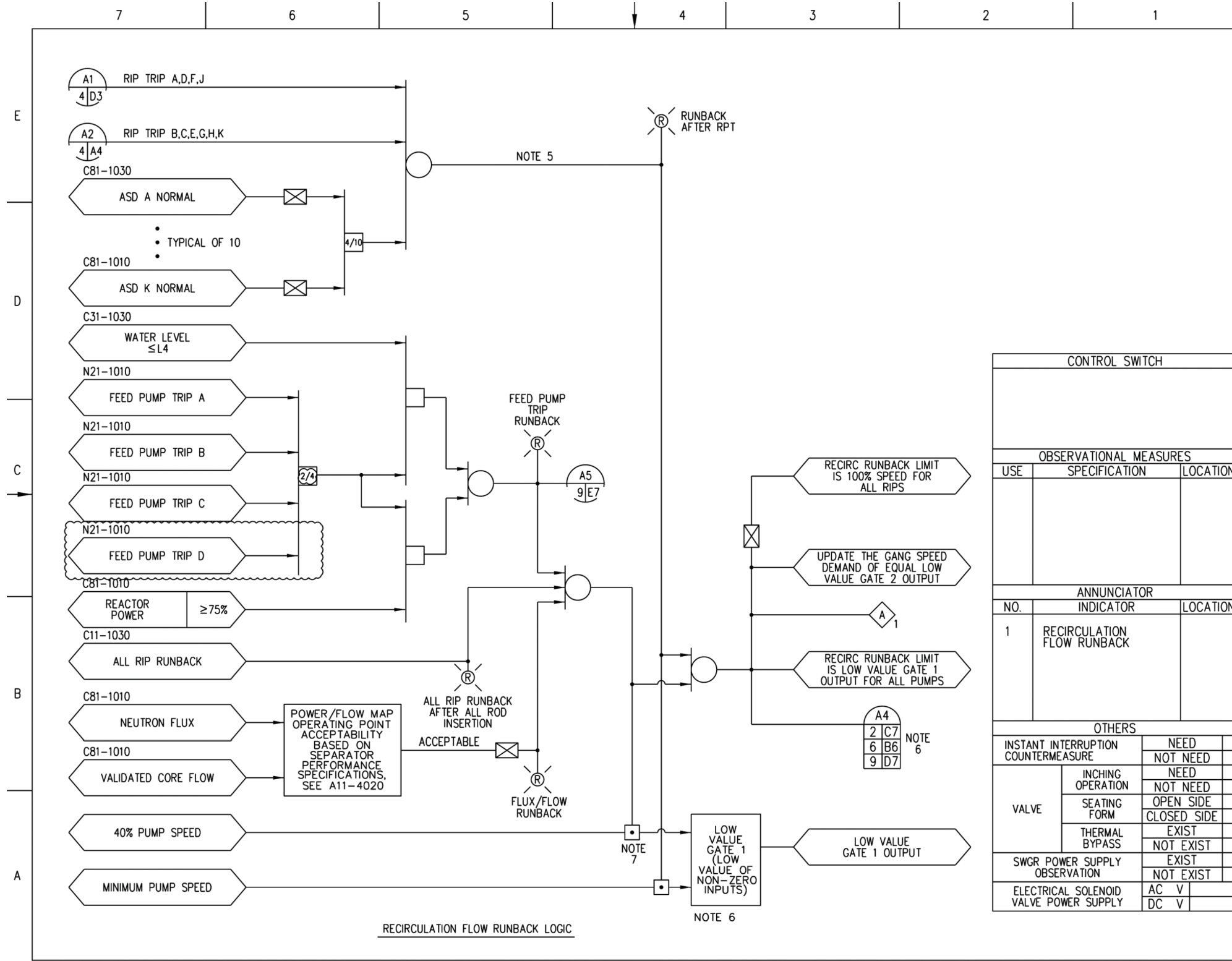


Figure 7.7-7 – Recirculation Flow Control System IBD (Sheet 8 of 9)

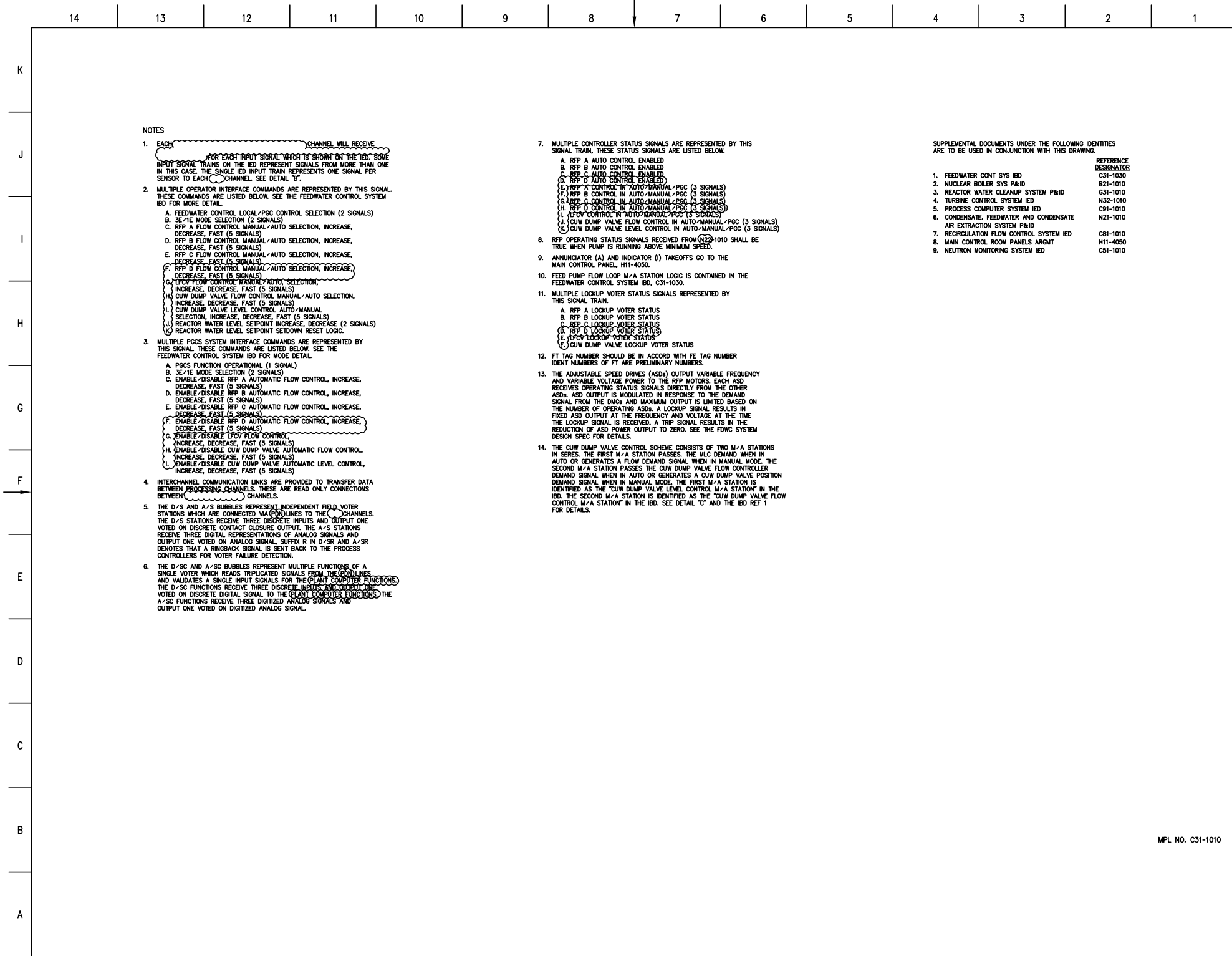


Figure 7.7-8 – Feedwater Control System IED (Sheet 1 of 3)

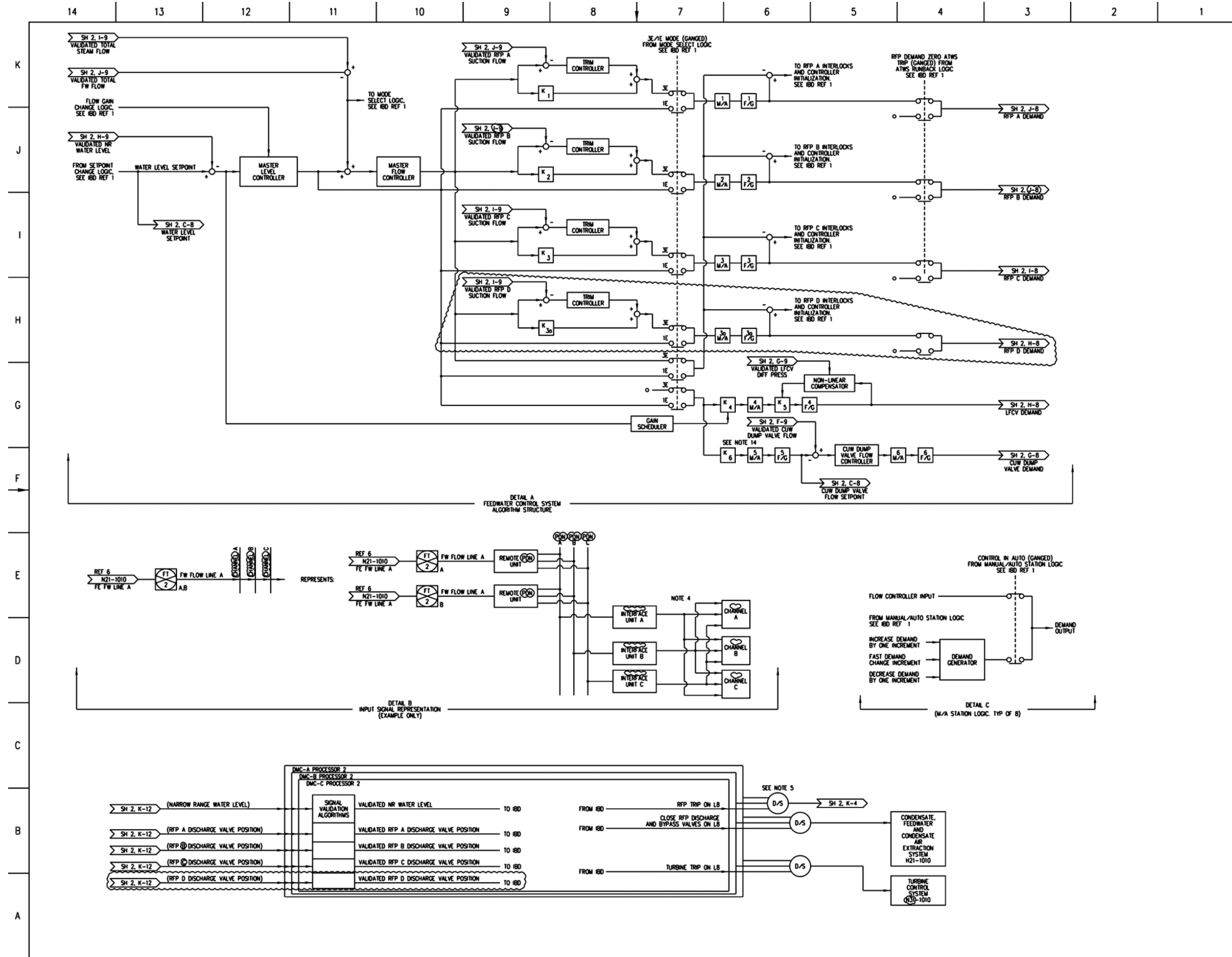


Figure 7.7-8 – Feedwater Control System IED (Sheet 3 of 3)

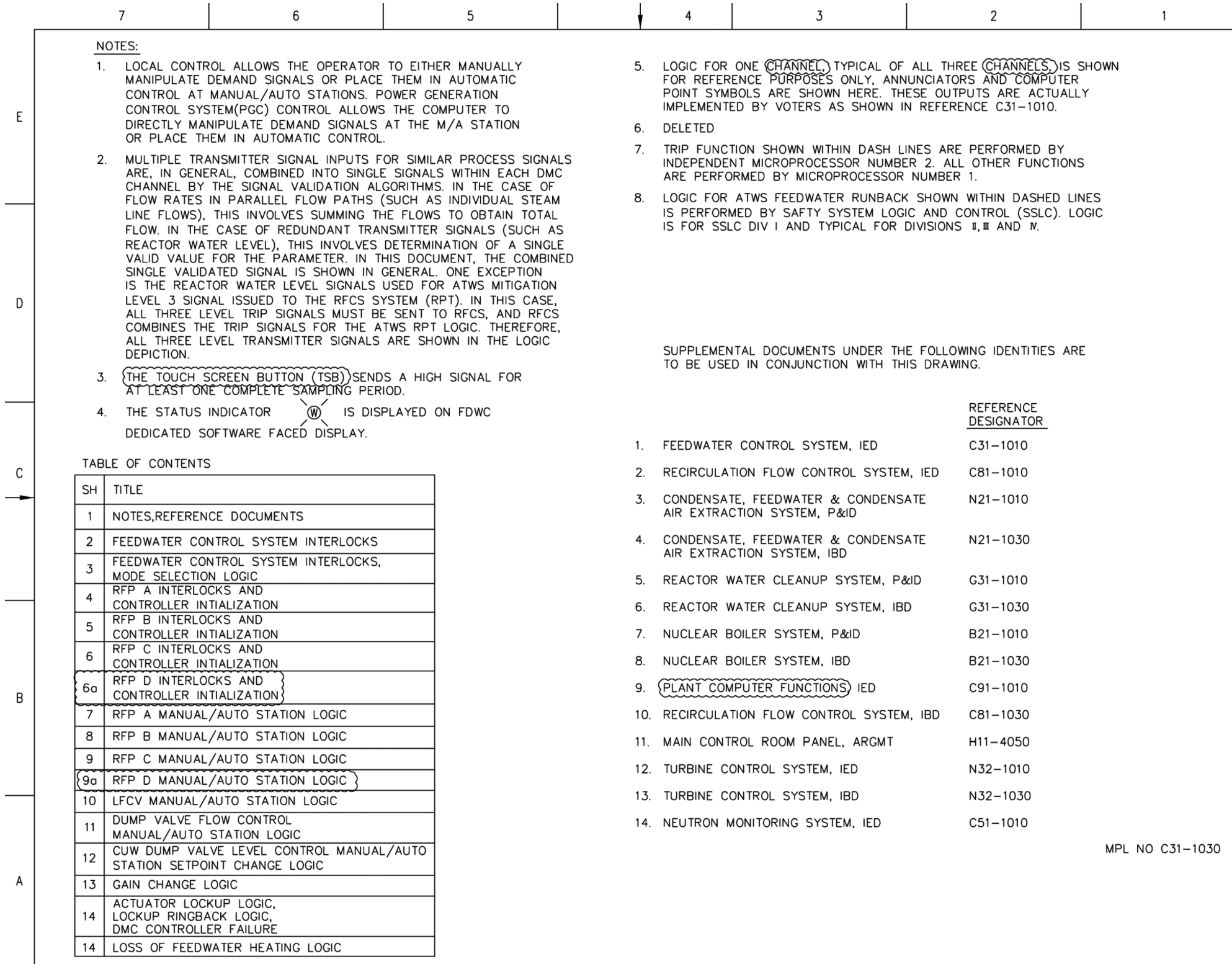


Figure 7.7-9 – Feedwater Control System IBD (Sheet 1 of 14)

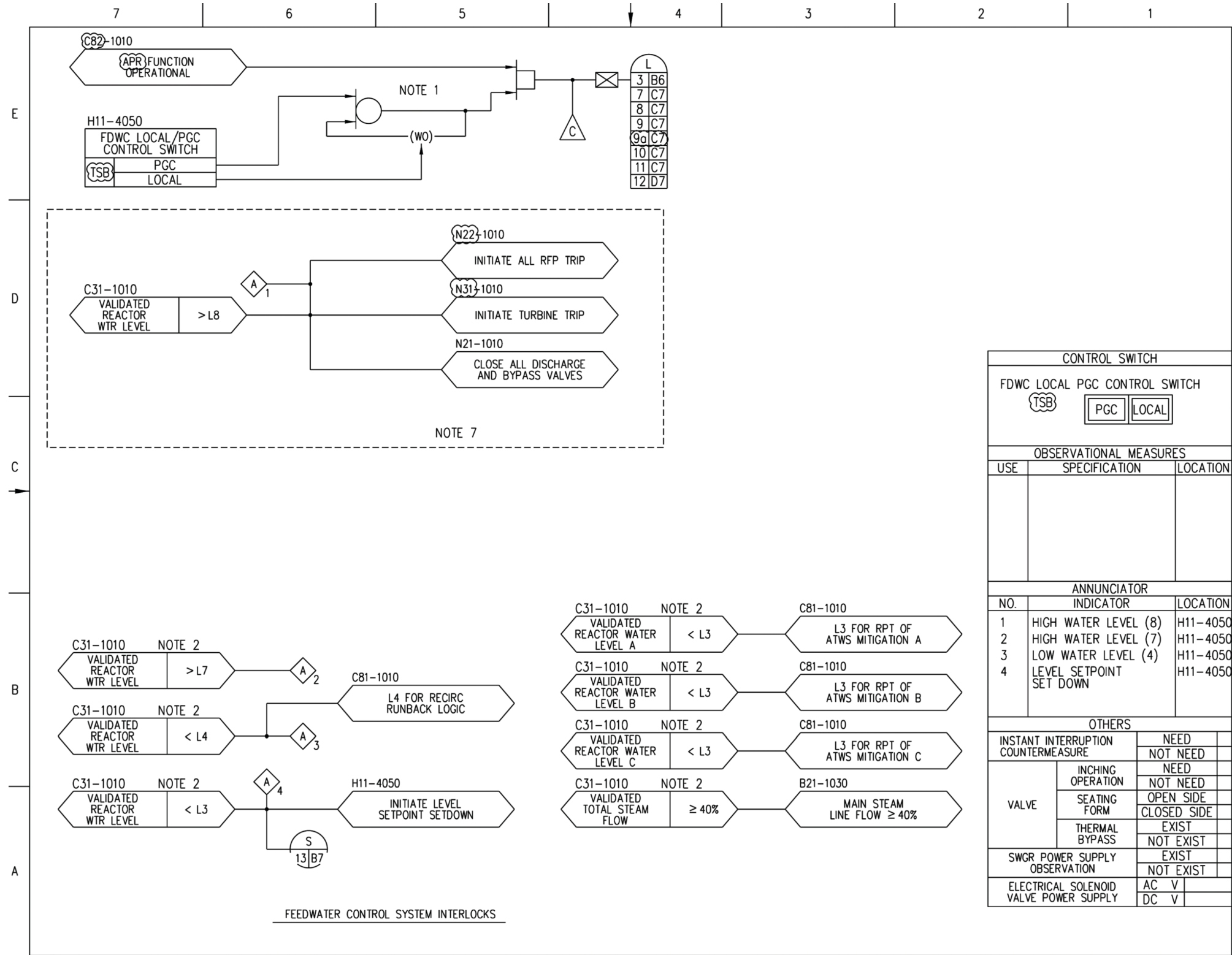


Figure 7.7-9 – Feedwater Control System IBD (Sheet 2 of 14)

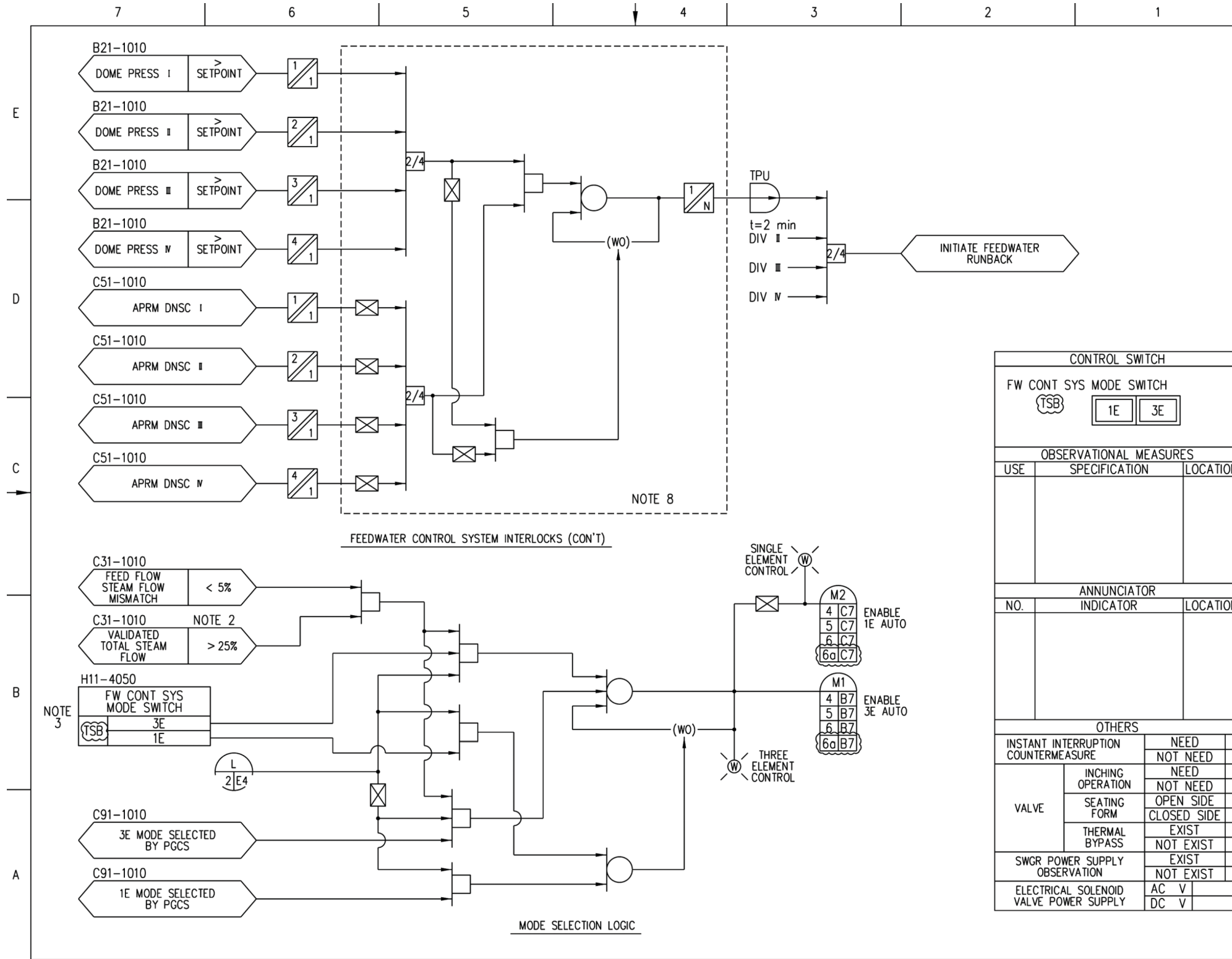


Figure 7.7-9 – Feedwater Control System IBD (Sheet 3 of 14)

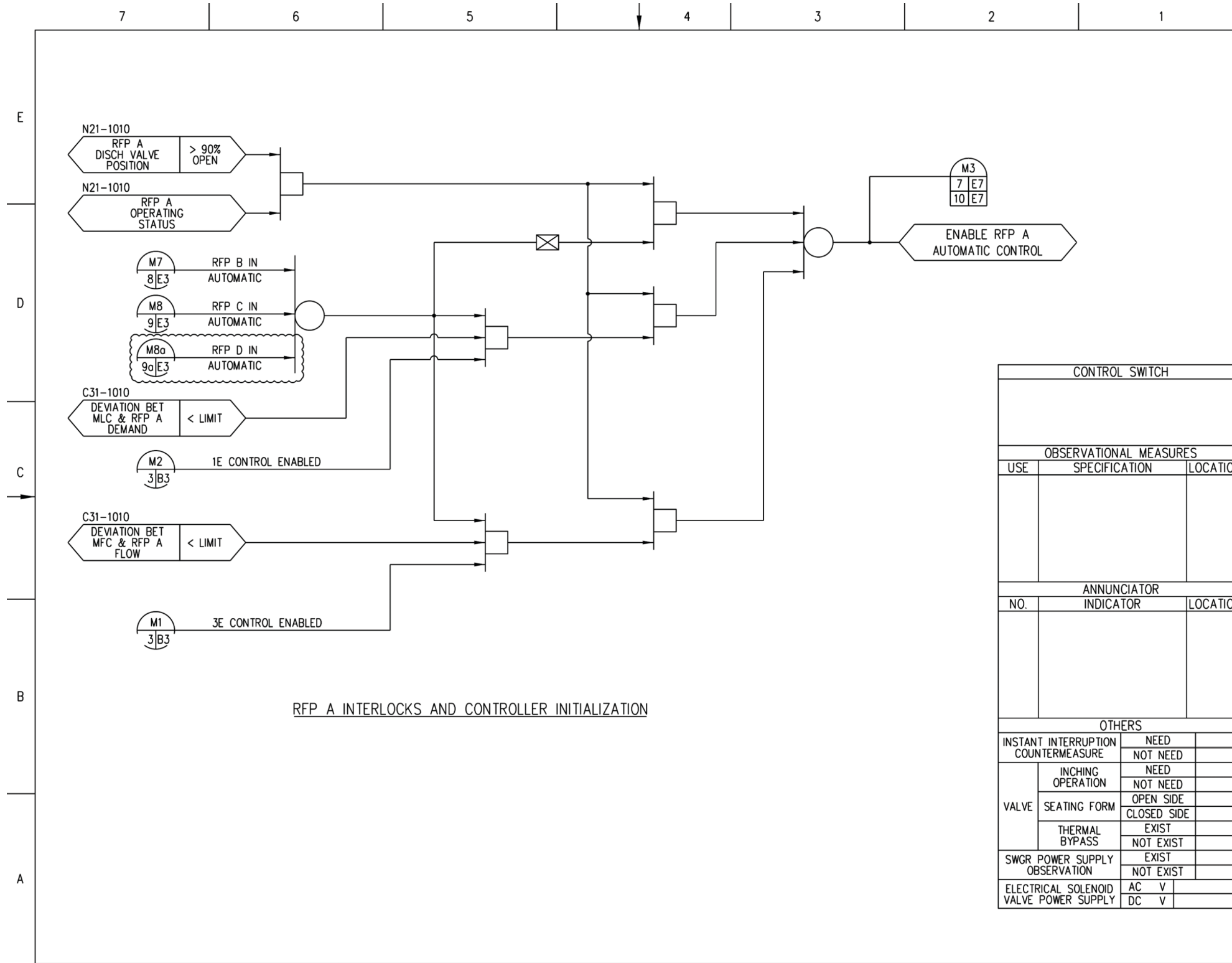


Figure 7.7-9 – Feedwater Control System IBD (Sheet 4 of 14)

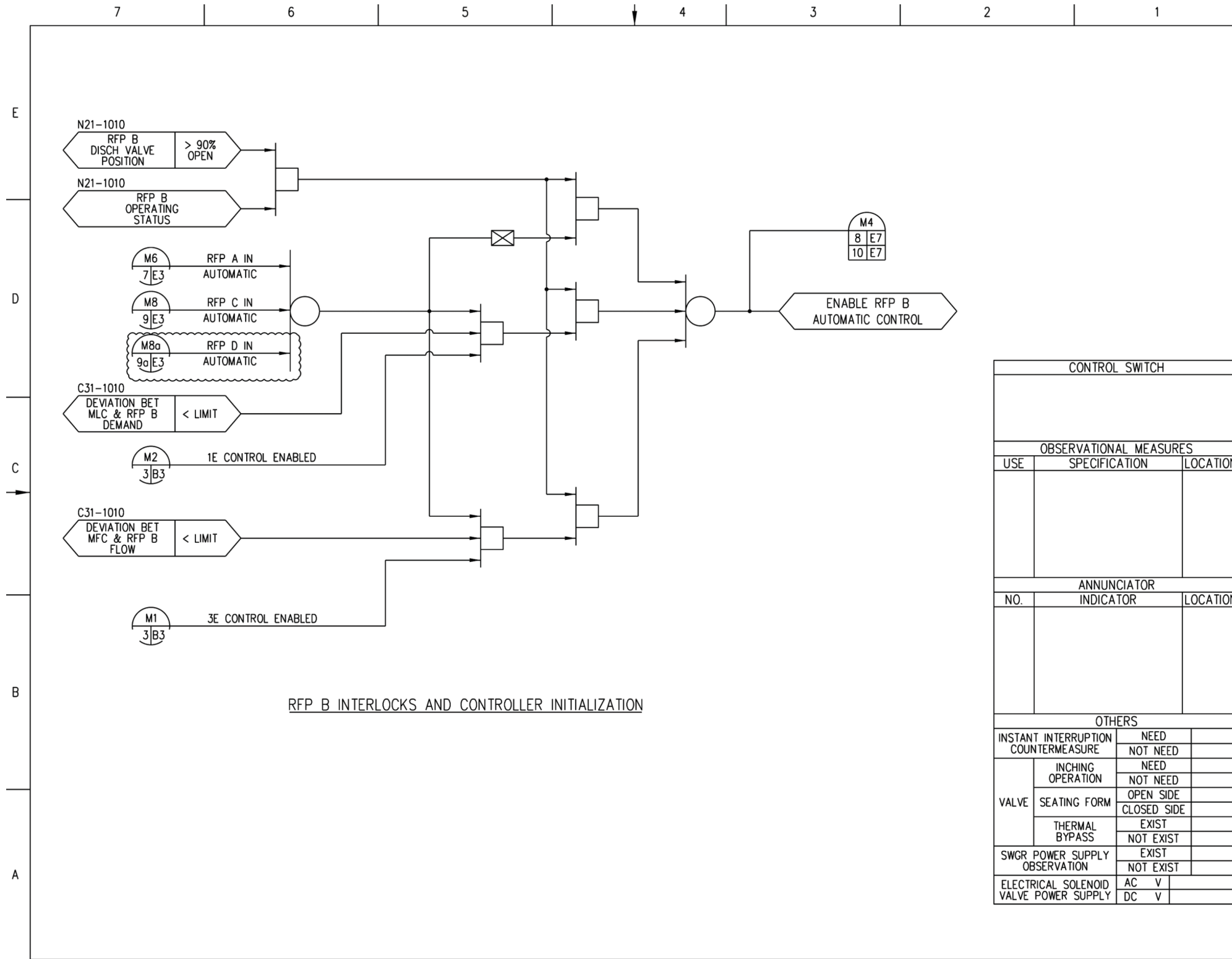


Figure 7.7-9 – Feedwater Control System IBD (Sheet 5 of 14)

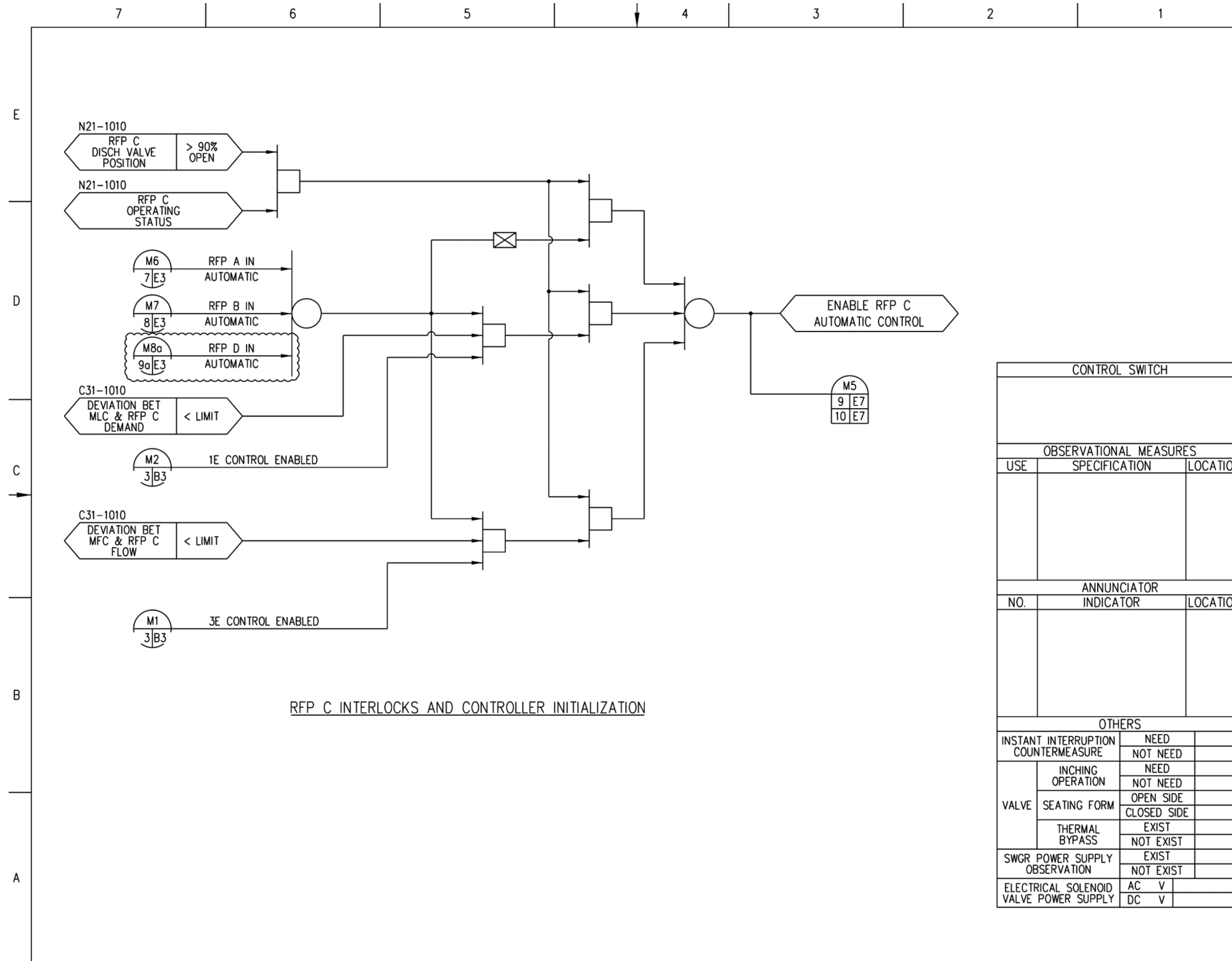
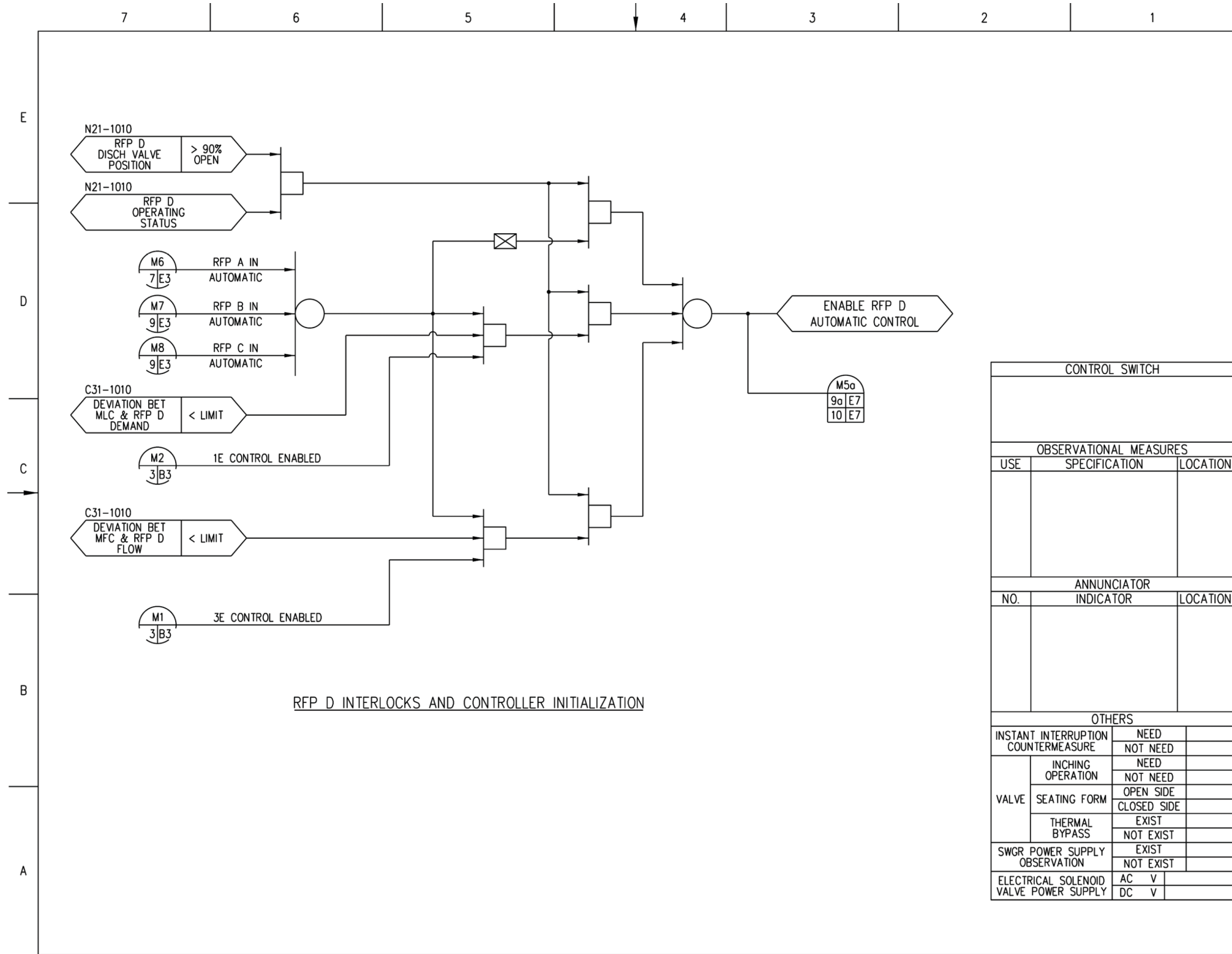


Figure 7.7-9 – Feedwater Control System IBD (Sheet 6 of 14)



CONTROL SWITCH			
OBSERVATIONAL MEASURES			
USE	SPECIFICATION	LOCATION	
ANNUNCIATOR			
NO.	INDICATOR	LOCATION	
OTHERS			
INSTANT INTERRUPTION COUNTERMEASURE	NEED		
	NOT NEED		
VALVE	INCHING OPERATION	NEED	
		NOT NEED	
	SEATING FORM	OPEN SIDE	
		CLOSED SIDE	
THERMAL BYPASS	EXIST		
	NOT EXIST		
SWGR POWER SUPPLY OBSERVATION	EXIST		
	NOT EXIST		
ELECTRICAL SOLENOID VALVE POWER SUPPLY	AC V		
	DC V		

Figure 7.7-9 – Feedwater Control System IBD (Sheet 6a of 14)

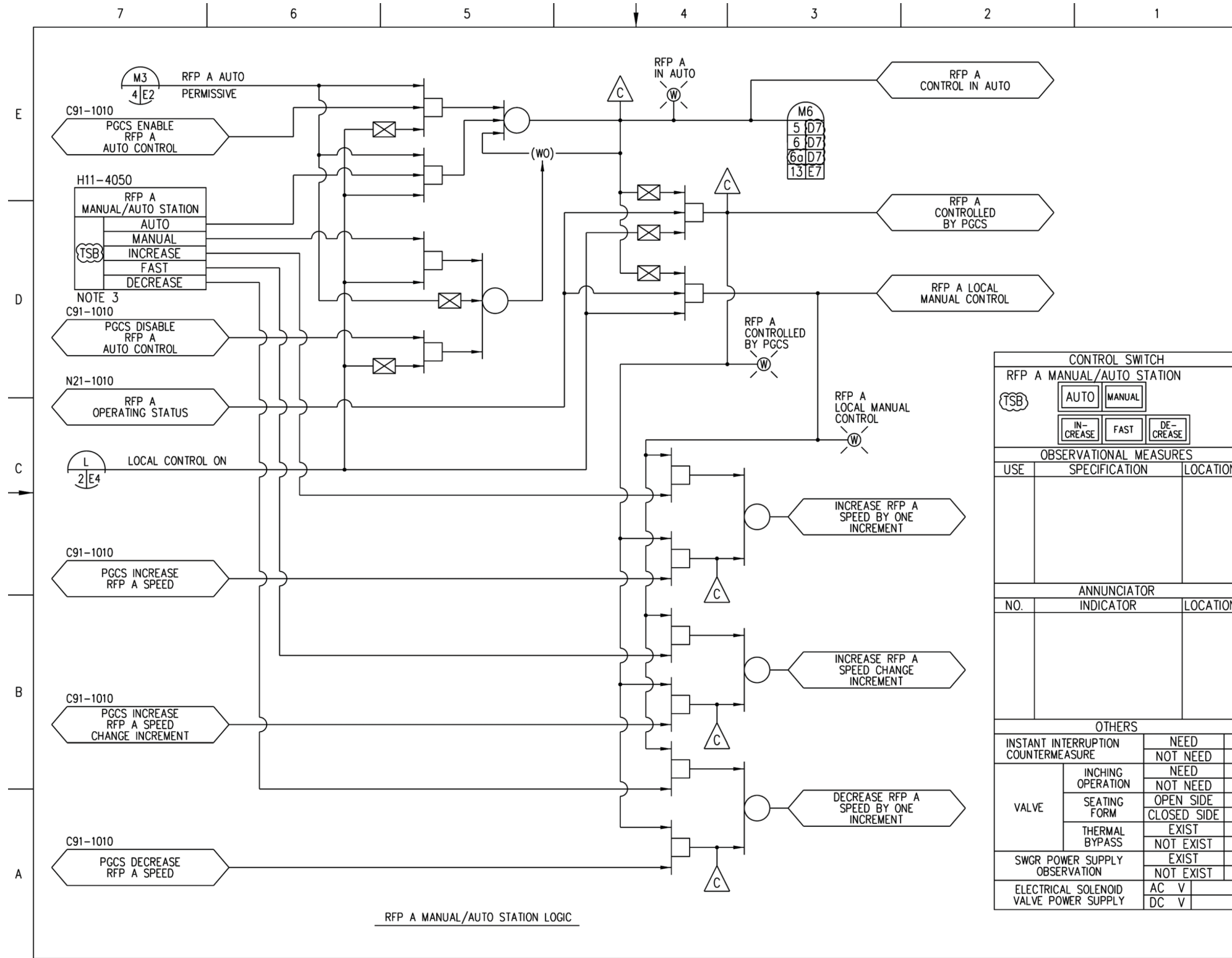


Figure 7.7-9 – Feedwater Control System IBD (Sheet 7 of 14)

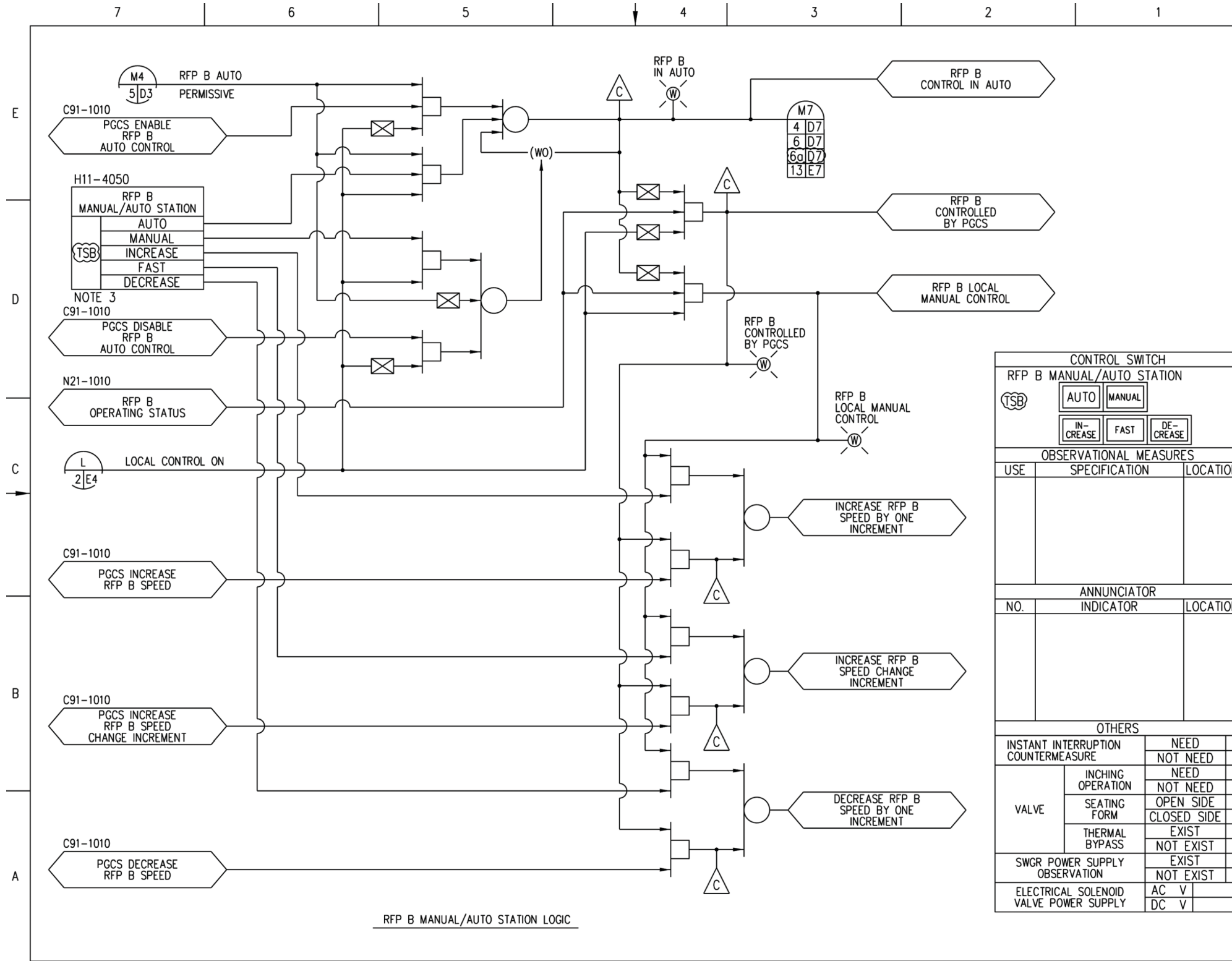


Figure 7.7-9 – Feedwater Control System IBD (Sheet 8 of 14)

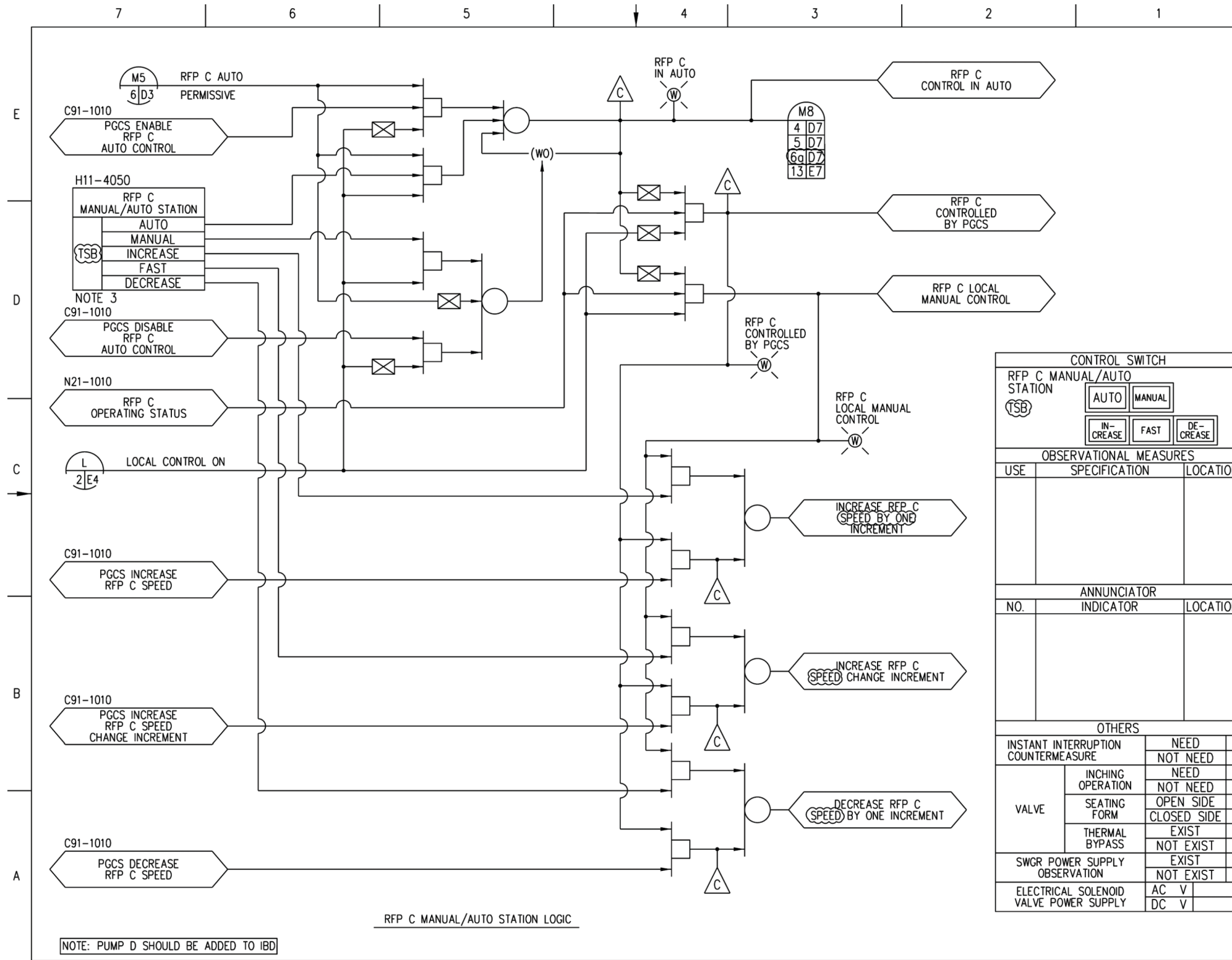
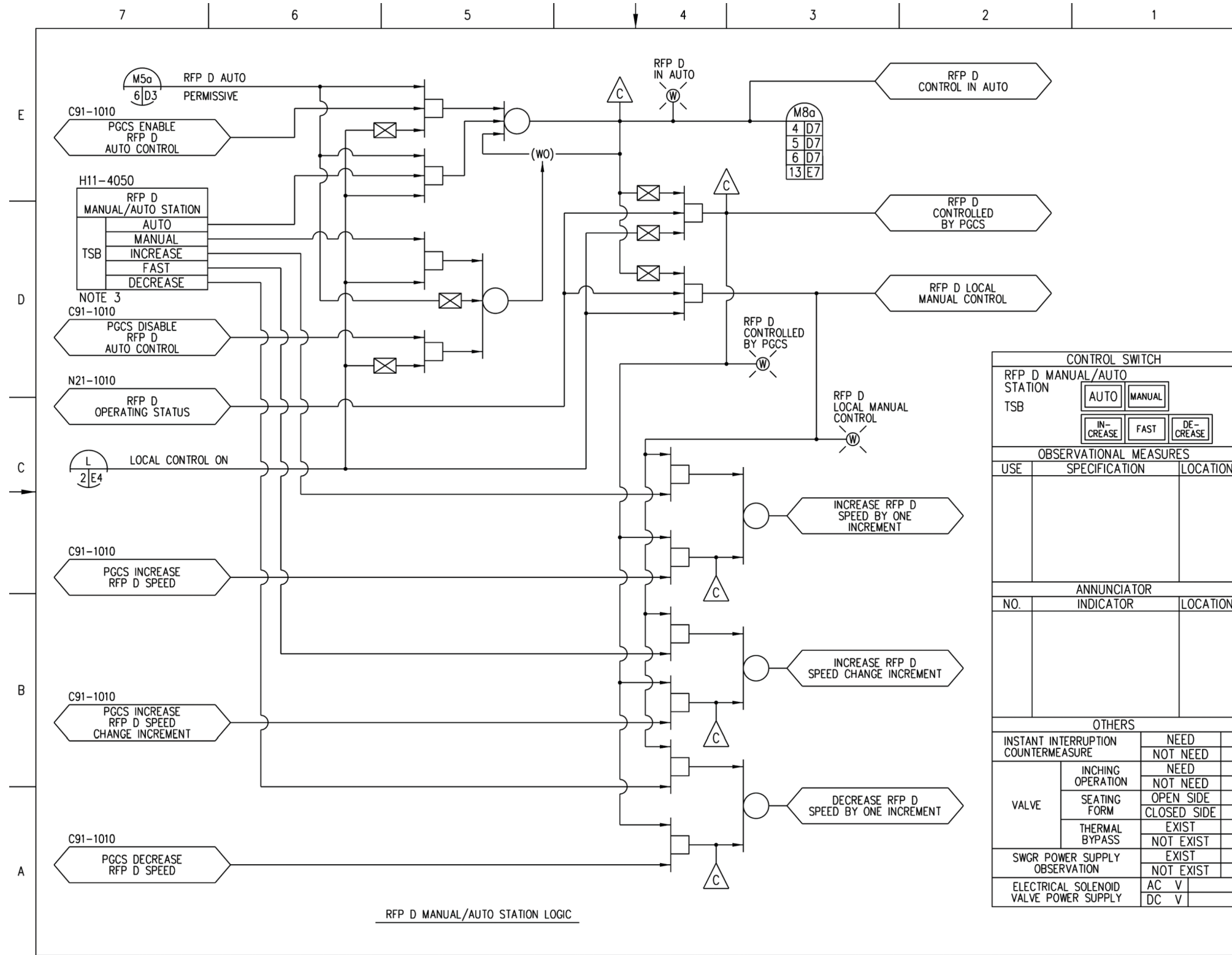


Figure 7.7-9 – Feedwater Control System IBD (Sheet 9 of 14)



CONTROL SWITCH		
RFP D MANUAL/AUTO STATION		
<div style="display: flex; justify-content: space-around;"> AUTO MANUAL </div>		
TSB		
<div style="display: flex; justify-content: space-around;"> IN-CREASE FAST DE-CREASE </div>		
OBSERVATIONAL MEASURES		
USE	SPECIFICATION	LOCATION
ANNUNCIATOR		
NO.	INDICATOR	LOCATION
OTHERS		
INSTANT INTERRUPTION COUNTERMEASURE	NEED	
	NOT NEED	
VALVE	INCHING OPERATION	NEED
		NOT NEED
	SEATING FORM	OPEN SIDE
		CLOSED SIDE
	THERMAL BYPASS	EXIST
		NOT EXIST
SWGR POWER SUPPLY OBSERVATION	EXIST	
	NOT EXIST	
ELECTRICAL SOLENOID VALVE POWER SUPPLY	AC V	
	DC V	

Figure 7.7-9 – Feedwater Control System IBD (Sheet 9a of 14)

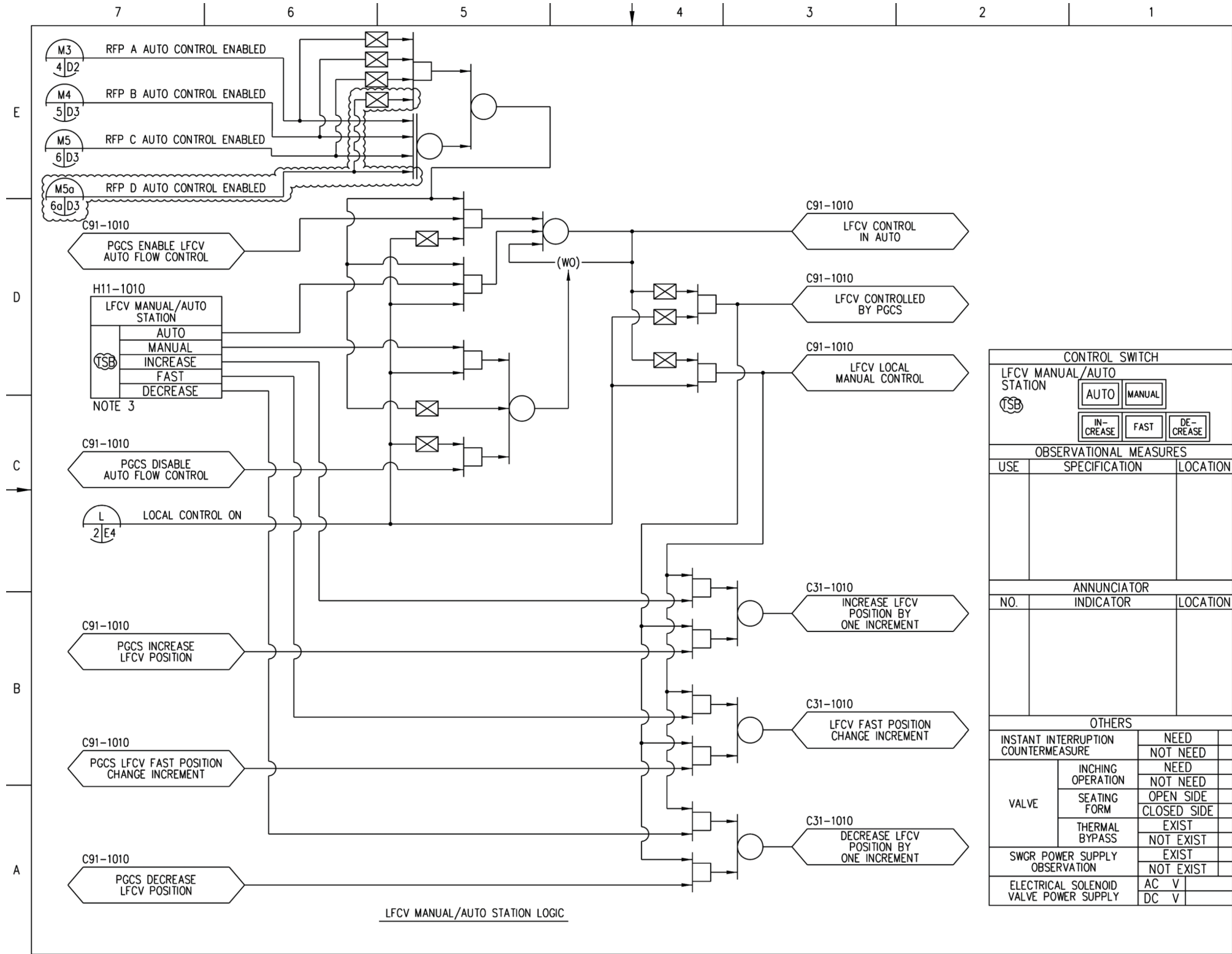
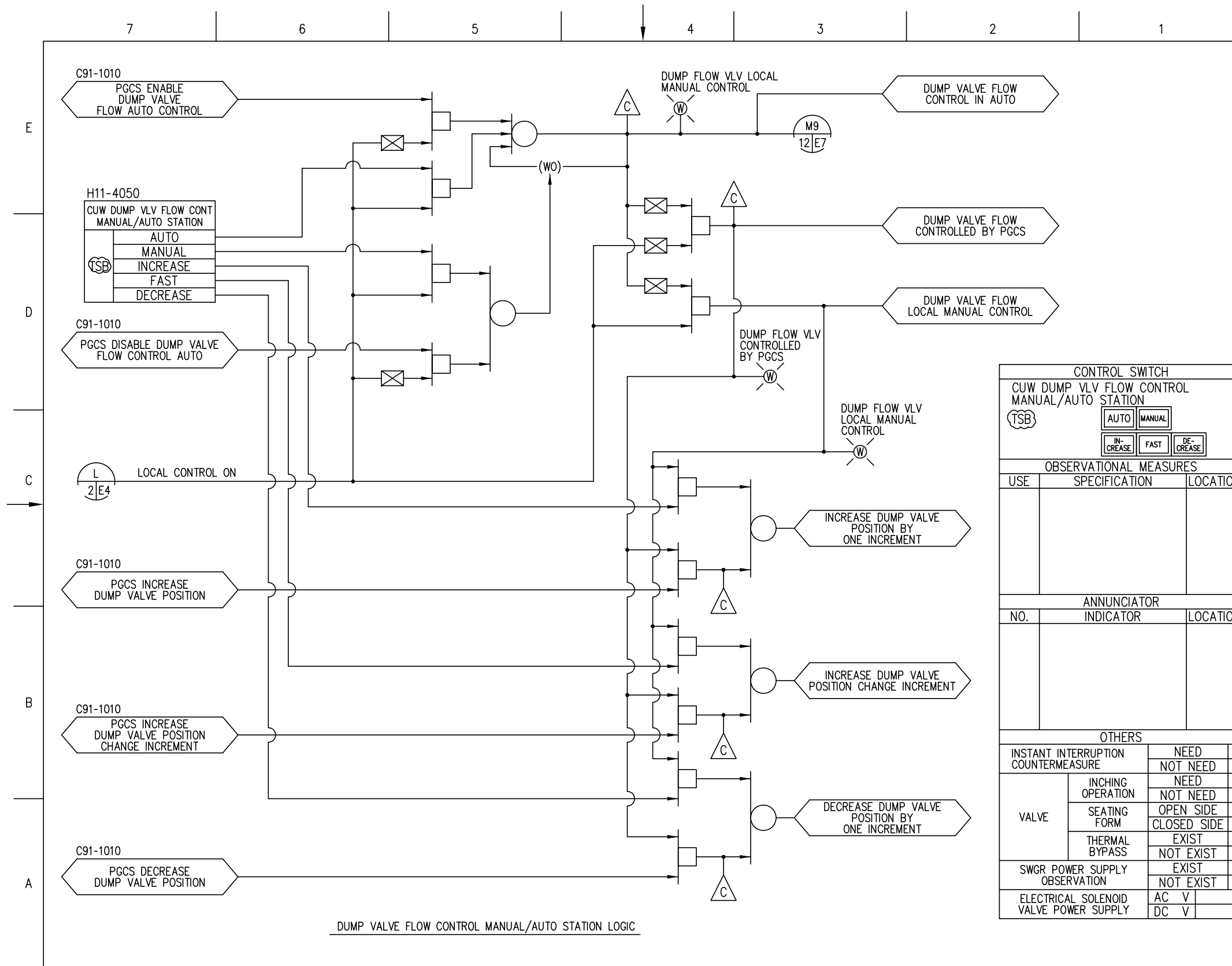
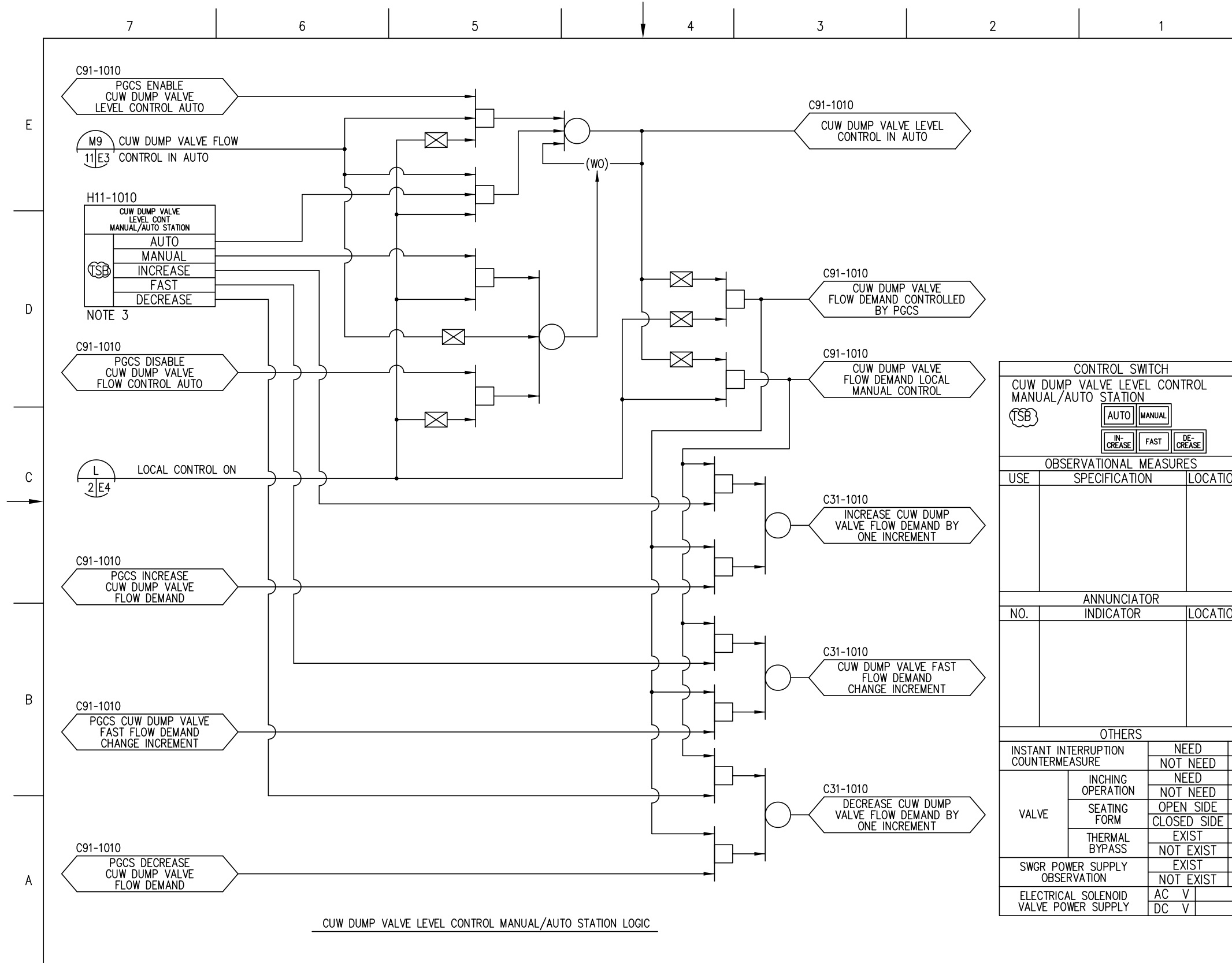


Figure 7.7-9 – Feedwater Control System IBD (Sheet 10 of 14)

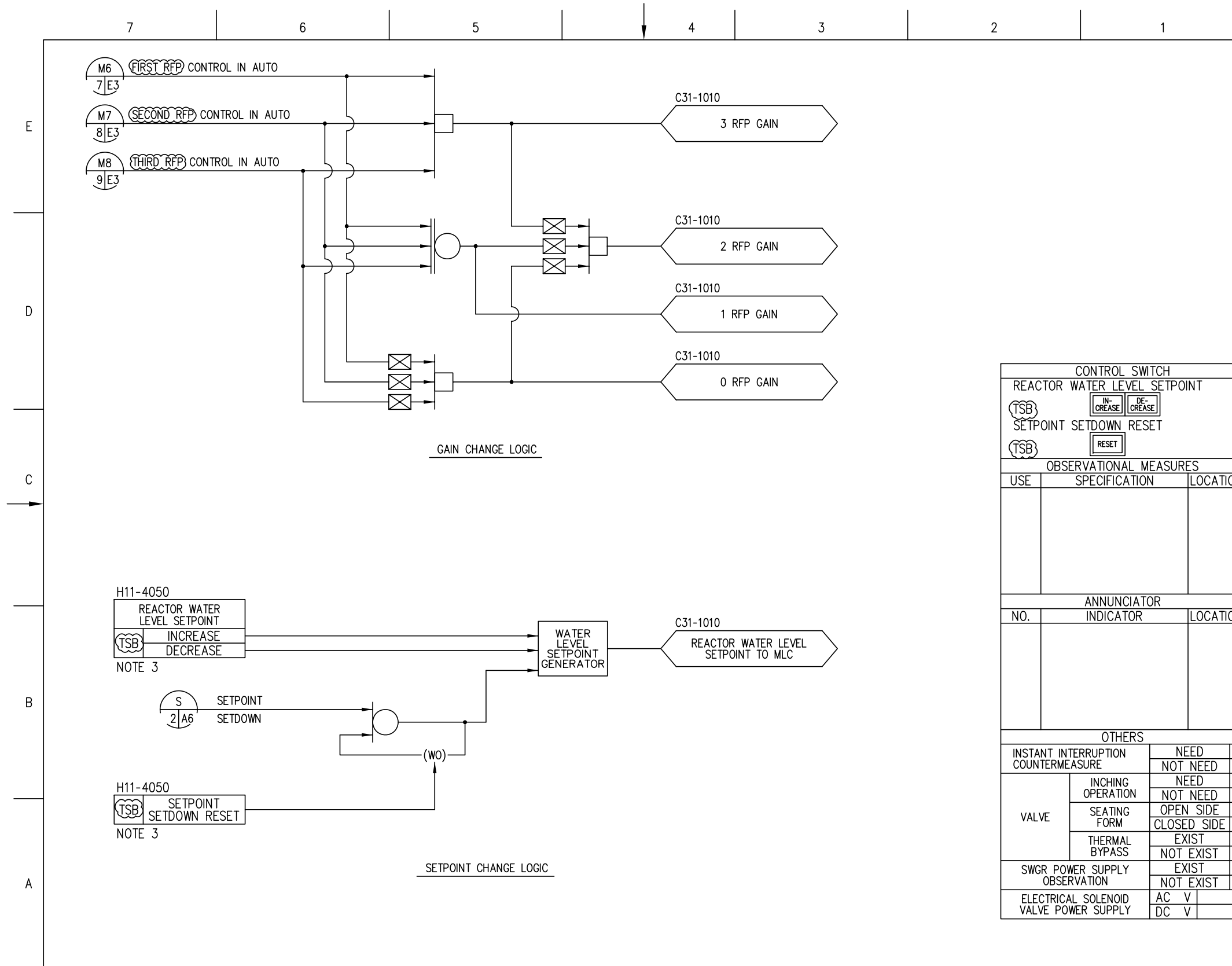


7.7-9 – Feedwater Control System IBD (Sheet 11 of 14)



CONTROL SWITCH		
CUW DUMP VALVE LEVEL CONTROL MANUAL/AUTO STATION		
<input type="checkbox"/> AUTO <input type="checkbox"/> MANUAL <input type="checkbox"/> INCREASE <input type="checkbox"/> FAST <input type="checkbox"/> DECREASE		
OBSERVATIONAL MEASURES		
USE	SPECIFICATION	LOCATION
ANNUNCIATOR		
NO.	INDICATOR	LOCATION
OTHERS		
INSTANT INTERRUPTION COUNTERMEASURE	NEED	
	NOT NEED	
VALVE	INCHING OPERATION	NEED
	SEATING FORM	OPEN SIDE
		CLOSED SIDE
	THERMAL BYPASS	EXIST
		NOT EXIST
SWGR POWER SUPPLY OBSERVATION	EXIST	
	NOT EXIST	
ELECTRICAL SOLENOID VALVE POWER SUPPLY	AC V	
	DC V	

7.7-9 – Feedwater Control System IBD (Sheet 12 of 14)



CONTROL SWITCH		
REACTOR WATER LEVEL SETPOINT		
(TSB)	IN-CREASE	DE-CREASE
SETPOINT SETDOWN RESET		
(TSB)	RESET	
OBSERVATIONAL MEASURES		
USE	SPECIFICATION	LOCATION
ANNUNCIATOR		
NO.	INDICATOR	LOCATION
OTHERS		
INSTANT INTERRUPTION COUNTERMEASURE		NEED
		NOT NEED
VALVE	INCHING OPERATION	NEED
		NOT NEED
	SEATING FORM	OPEN SIDE
		CLOSED SIDE
	THERMAL BYPASS	EXIST
		NOT EXIST
SWGR POWER SUPPLY OBSERVATION		EXIST
		NOT EXIST
ELECTRICAL SOLENOID VALVE POWER SUPPLY		AC V
		DC V

7.7-9 – Feedwater Control System IBD (Sheet 13 of 14)

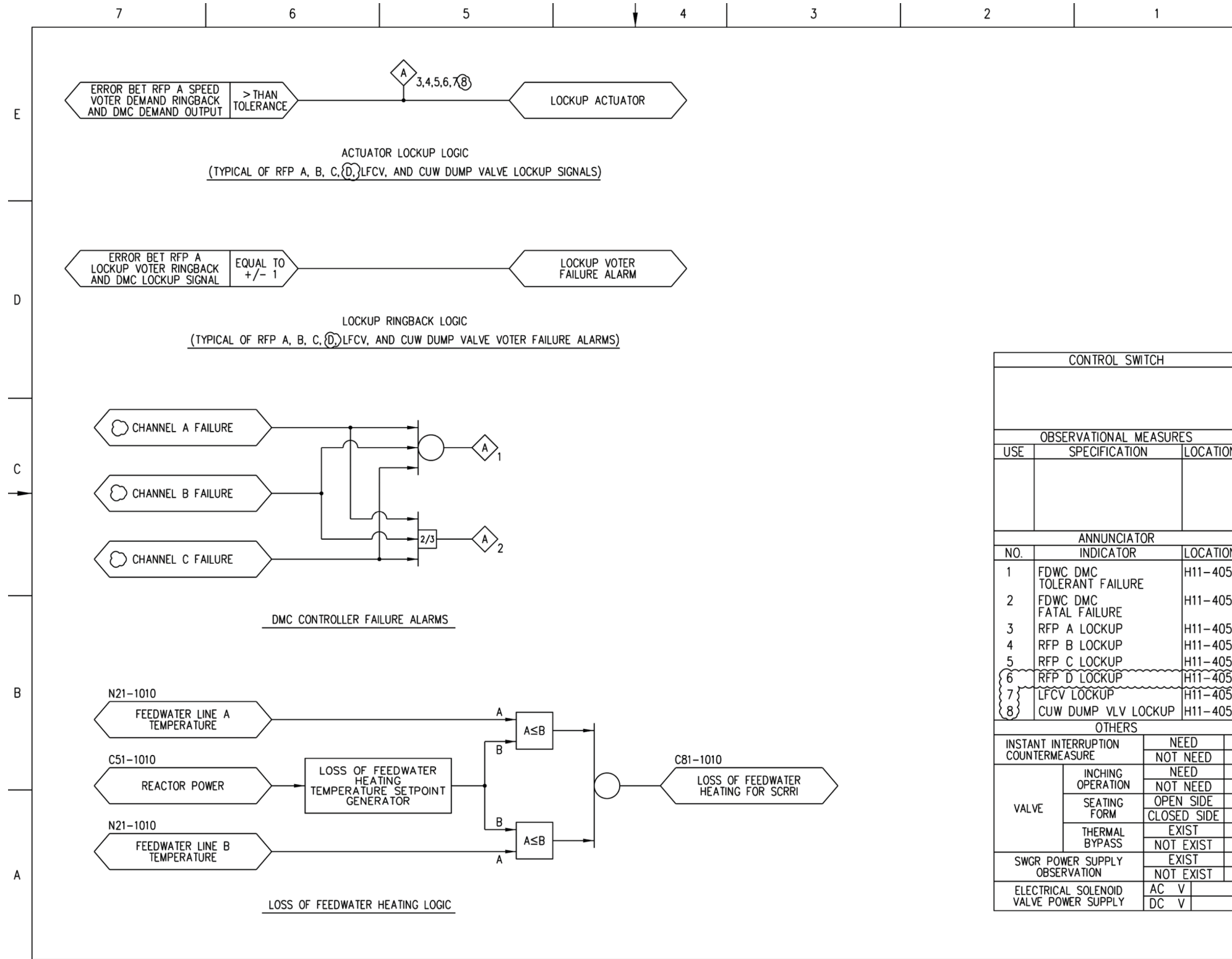


Figure 7.7-9 – Feedwater Control System IBD (Sheet 14 of 14)

CONTROL SWITCH		
OBSERVATIONAL MEASURES		
USE	SPECIFICATION	LOCATION
ANNUNCIATOR		
NO.	INDICATOR	LOCATION
1	FDWC DMC TOLERANT FAILURE	H11-4050
2	FDWC DMC FATAL FAILURE	H11-4050
3	RFP A LOCKUP	H11-4050
4	RFP B LOCKUP	H11-4050
5	RFP C LOCKUP	H11-4050
6	RFP D LOCKUP	H11-4050
7	LFCV LOCKUP	H11-4050
8	CUW DUMP VLV LOCKUP	H11-4050
OTHERS		
INSTANT INTERRUPTION COUNTERMEASURE	NEED	
	NOT NEED	
VALVE	INCHING OPERATION	NEED
	SEATING FORM	NOT NEED
		OPEN SIDE
	CLOSED SIDE	
	THERMAL BYPASS	EXIST
		NOT EXIST
SWGR POWER SUPPLY OBSERVATION	EXIST	
	NOT EXIST	
ELECTRICAL SOLENOID VALVE POWER SUPPLY	AC V	
	DC V	