

Figure 8-1  
Instrumentation and Control Architecture

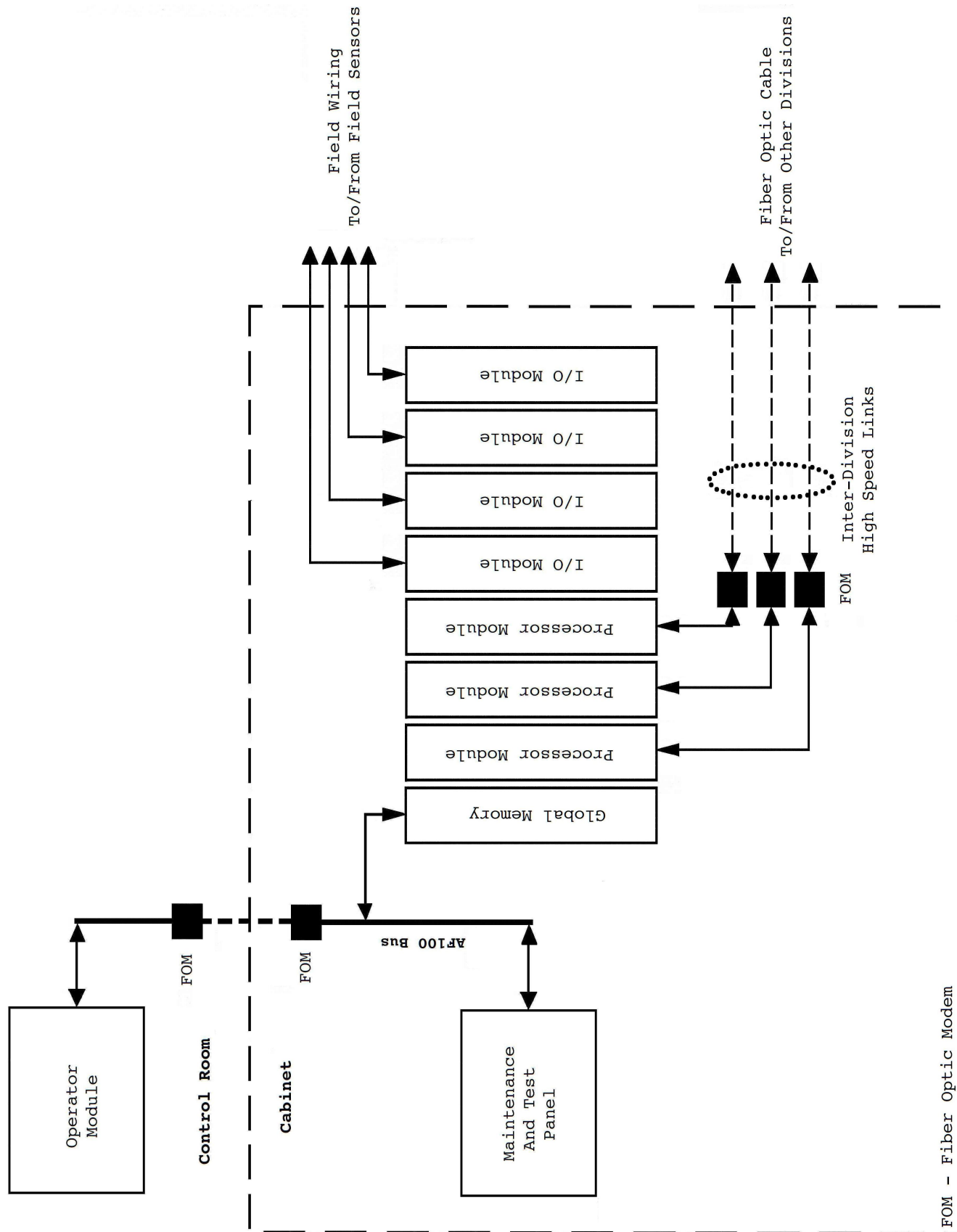


Figure 8-2  
Advant Controller (Common Q)

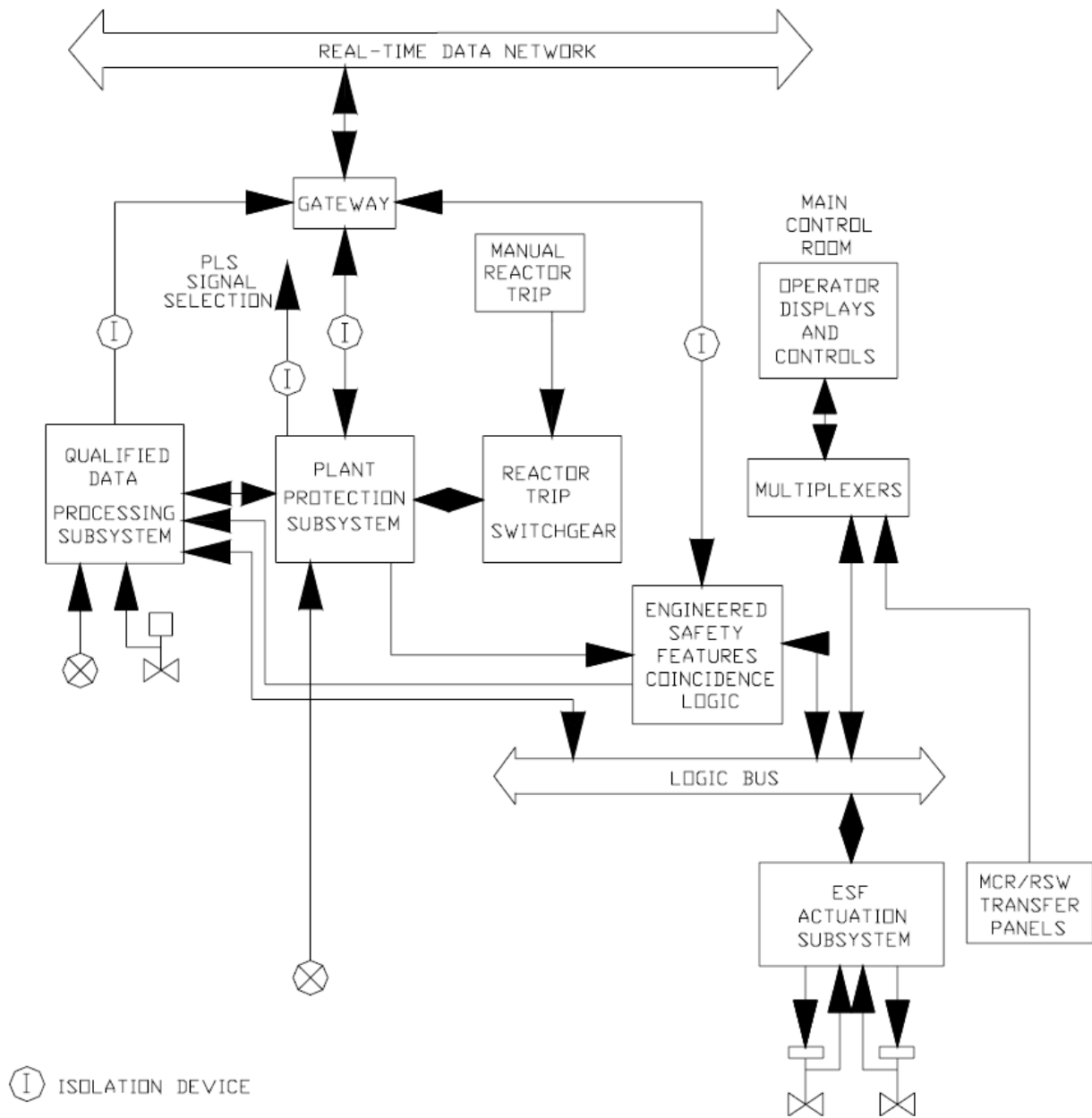


Figure 8-3  
Protection and Safety Monitoring System

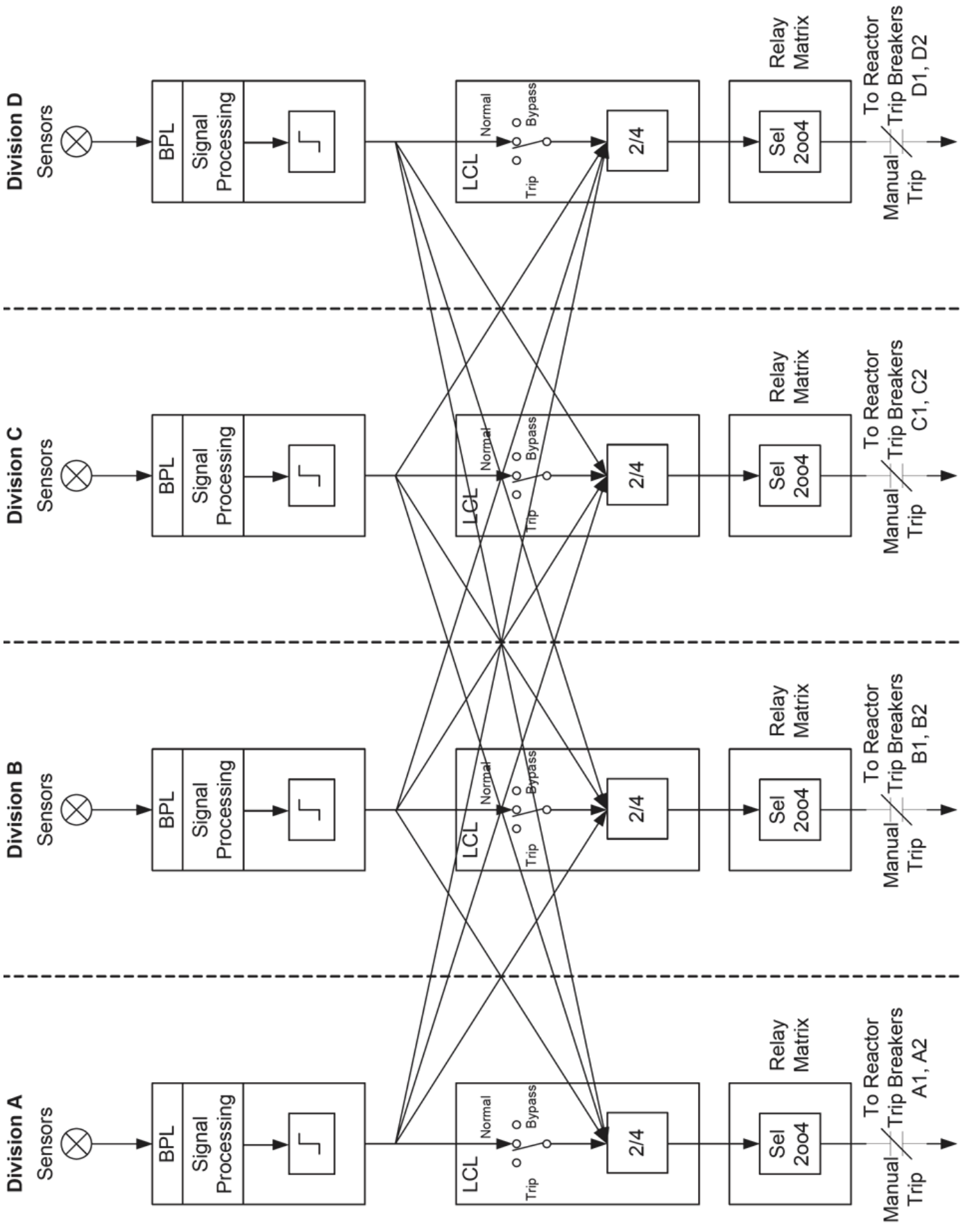


Figure 8-4  
Reactor Trip Logic

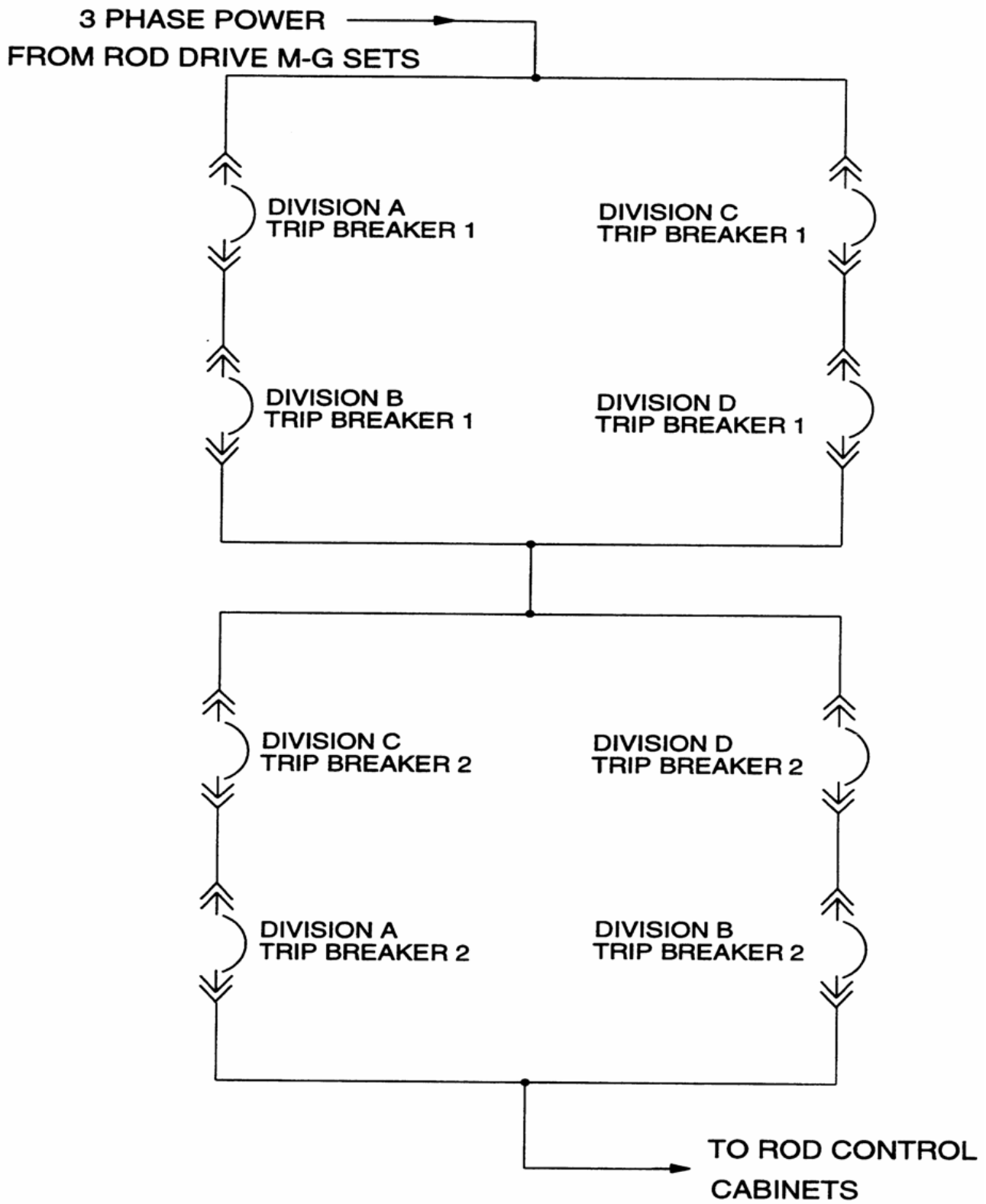


Figure 8-5  
Reactor Trip Switchgear Configuration

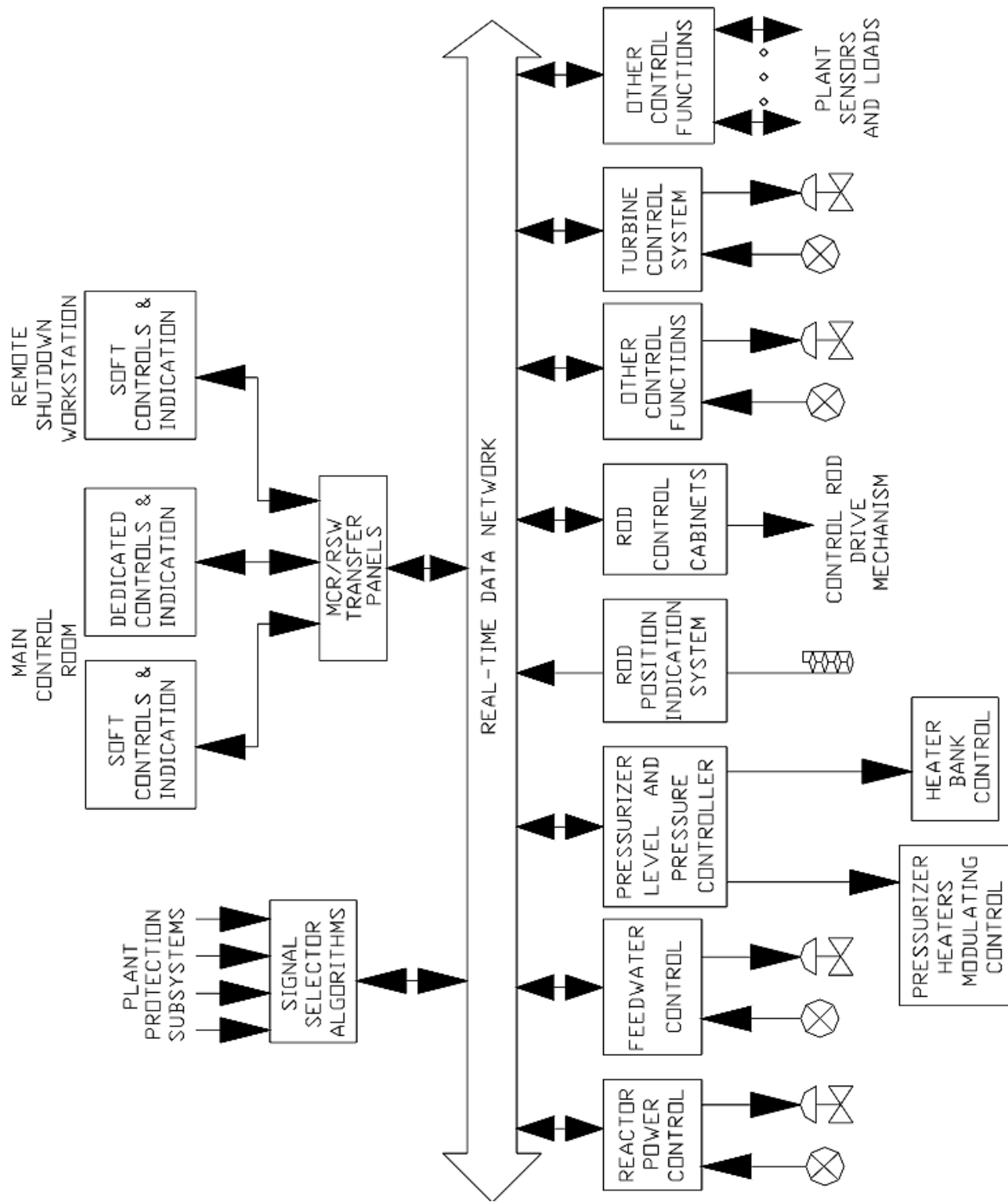
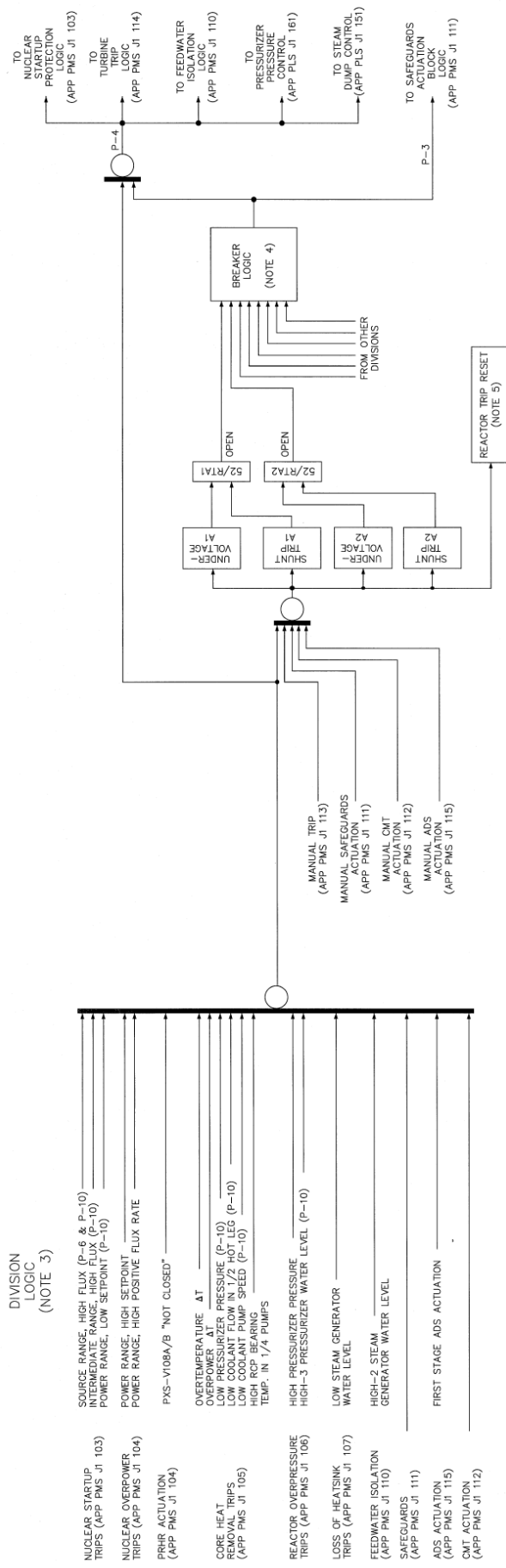


Figure 8-6  
Plant Control System



**NOTES:**

1. TRIPPING ANY TWO OR MORE BREAKER SETS, BOTH 1 AND 2 BREAKERS DE-ENERGIZE THE ROD DRIVES. THE FULL LENGTH CONTROL RODS AND SHUTDOWN RODS ARE THEREBY RELEASED FOR GRAVITY INSERTION INTO THE REACTOR CORE.
2. DELETED.
3. THIS CIRCUITRY IS FOURFOLD REDUNDANT. ONLY ONE DIVISION IS SHOWN WHICH IS TYPICAL OF THE OTHER DIVISIONS.
4. REACTOR TRIP LOGIC PRODUCES A TRUE (LOGIC "1") OUTPUT IF [ (A1+B1) · (C1+D1) ] + [ (A2+B2) · (C2+D2) ]
5. PERFORMED IN PLS.

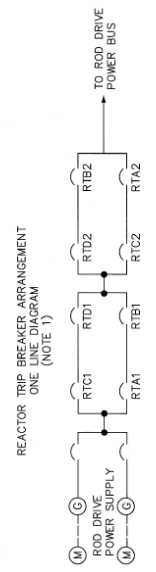
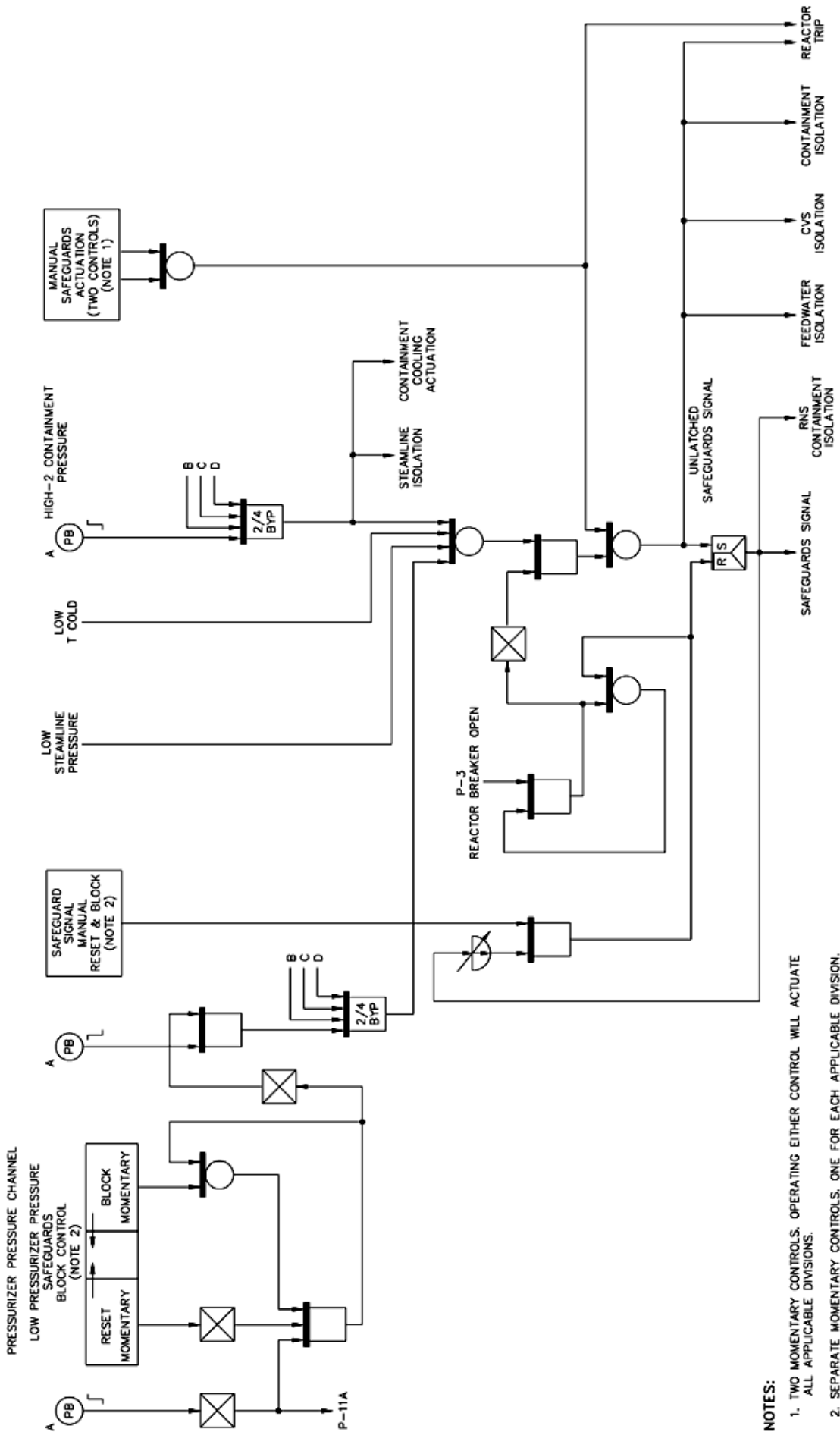


Figure 8-7  
Functional Diagram - Reactor Trip Functions



- NOTES:**
1. TWO MOMENTARY CONTROLS. OPERATING EITHER CONTROL WILL ACTUATE ALL APPLICABLE DIVISIONS.
  2. SEPARATE MOMENTARY CONTROLS. ONE FOR EACH APPLICABLE DIVISION.

Figure 8-8  
Functional Diagram – Safeguards Actuation



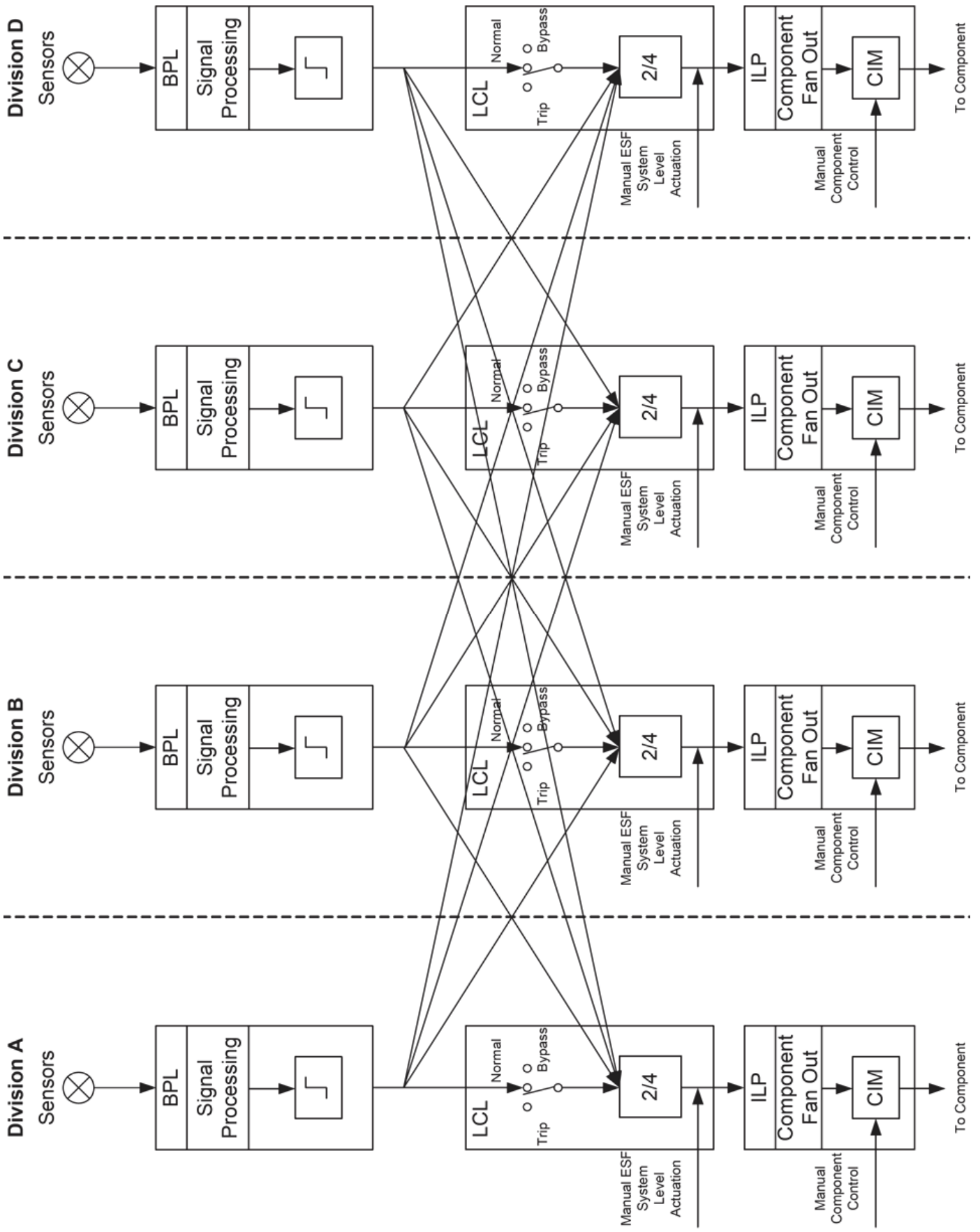


Figure 8-9  
ESF Logic