GENERAL ELECTRIC 730E149BB

TITLE FUNC CONT DIAG NUCLEAR BOILER

FIRST MADE FOR COOPER

PCF: 238X100BB (2-203)

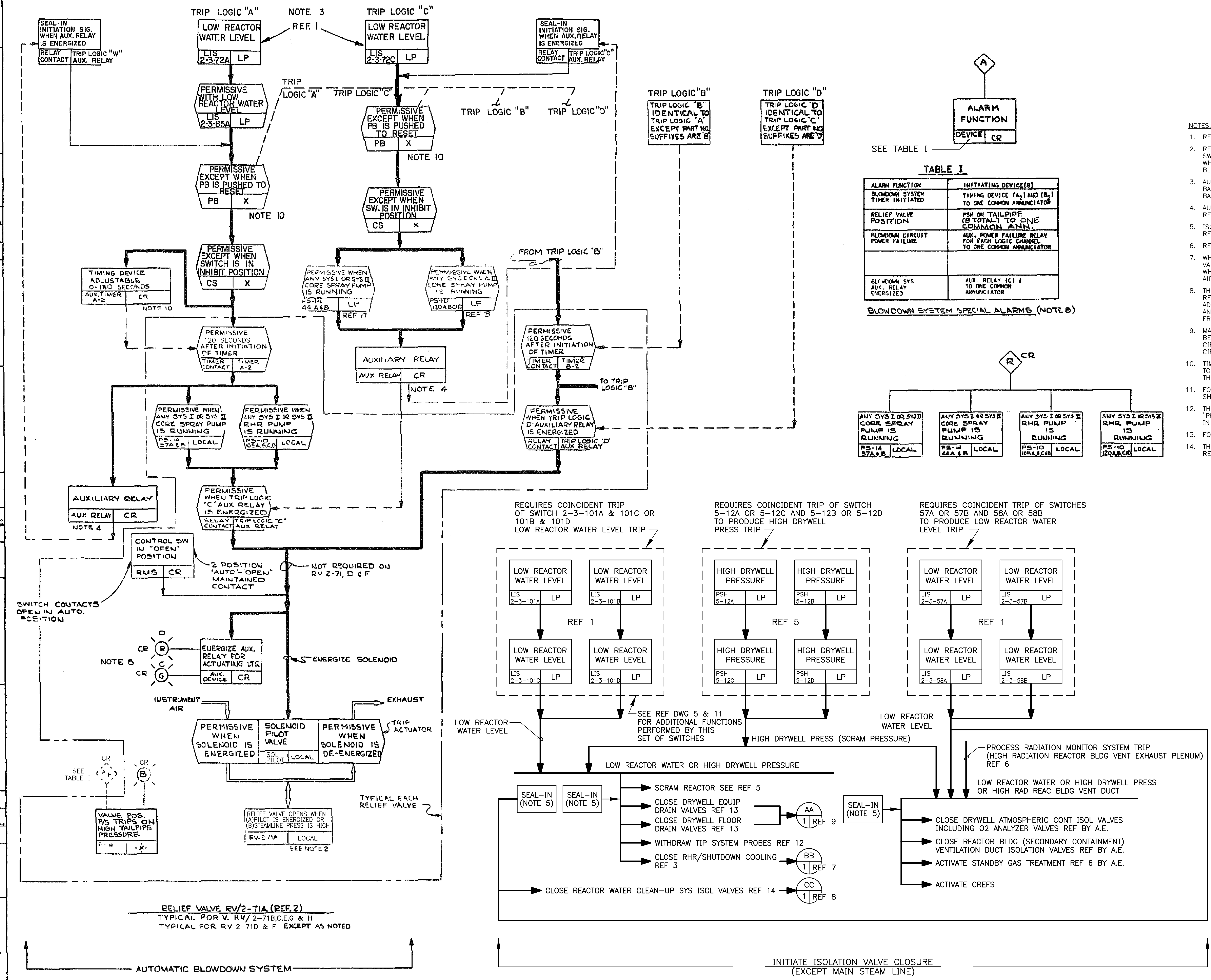

TABLE I

ALARM FUNCTION	INITIATING DEVICE(S)
BLOWDOWN SYSTEM TIMER INITIATED	TIMING DEVICE (A_2) AND (B_2) TO ONE COMMON ANNUNCIATOR
RELIEF VALVE POSITION	PSH ON TAILPIPE (8 TOTAL) TO ONE COMMON ANN.
BLOWDOWN CIRCUIT POWER FAILURE	AUX. POWER FAILURE RELAY FOR EACH LOGIC CHANNEL TO ONE COMMON ANNUNCIATOR
BLOWDOWN SYS AUX. RELAY ENERGIZED	AUX. RELAY (C) & TO ONE COMMON ANNUNCIATOR

BLOWDOWN SYSTEM SPECIAL ALARMS (NOTE 8)

NOTES:

1. REMOVED
2. RELIEF VALVE MAY BE MANUALLY OPENED AT ANY TIME BY CONTROL SWITCH OR AUTOMATICALLY BY REACTOR HIGH PRESS VALVES CLOSE WHEN SWITCH IS IN AUTO POSITION EXCEPT WHEN AUTOMATIC BLOW DOWN OR REACTOR HIGH PRESSURE SIGNALS ARE PRESENT.
3. AUTOMATIC BLOWDOWN TRIP LOGIC CIRCUITS A&C SHALL BE POWERED FROM STATION BATTERIES "A" TRIP LOGIC. CIRCUITS B&D SHALL BE POWERED FROM STATION BATTERIES "B" WITH AUTOMATIC TRANSFER TO BATTERY "A" ON LOSS OF POWER.
4. AUXILIARY RELAYS AND DEVICES ARE NOT SHOWN ON FCD EXCEPT WHERE REQUIRED TO CLARIFY FUNCTION.
5. ISOLATION VALVE CLOSURE SIGNALS SHALL BE SEALED IN UNTIL MANUALLY RESET FROM THE CONTROL ROOM PANEL.
6. REMOVED
7. WHEN TEST SOLENDID PILOT IS ENERGIZED, THE MAIN STEAM ISOLATION VALVE OPERATOR IS SLOWLY EXHAUSTED (60 SEC CLOSURE TIME) WHILE VALVE IS CLOSED BY ACTION OF THE VALVE SPRING WITHOUT AID OF THE AIR PRESSURE.
8. THE ALARMS AND VALVE INDICATING LIGHTS SHOWN ON THE FCD ARE SYSTEM REQUIREMENTS IN ADDITION TO THOSE SHOWN ON THE SYSTEM P&ID'S ADDITIONAL INFORMATION ON ALARMS, VALVE POSITION INDICATING LIGHTS, AND PROCESS INSTRUMENTATION NOT SHOWN ON THIS FCD MAY BE OBTAINED FROM REF 1, 2, 3, 4, 5, 6, 13 AND 14.
9. MAIN STEAM LINE ISOLATION VALVE TRIP LOGIC CIRCUITS A, B, C, & D SHALL BE POWERED FROM REACTOR PROTECTION SYS M-G SETS. TRIP ACTUATOR CIRCUIT I SHALL BE POWERED FROM ANY RELIABLE AC SOURCE. TRIP ACTUATOR CIRCUIT II SHALL BE POWERED FROM STATION BATTERIES.
10. TIMING DEVICES SHALL BE OF THE TYPE THAT AUTO. MECHANICALLY RESET TO ZERO, UPON LOSS OF POWER TO THE TIMING DEVICE OR UPON LOSS OF THE INITIATION SIGNAL, OR UPON PUSHING THE PB TO RESET.
11. FOR LOCATION AND IDENTIFICATION OF INSTRUMENTS SEE INSTRUMENT DATA SHEET LISTED IN MPL FOR EACH INSTRUMENT.
12. THE NUCLEAR BOILER SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH "PROPOSED CRITERIA FOR NUCLEAR POWER PLANT PROTECTION SYSTEM IEEE 279" IN SO FAR AS PRACTICABLE.
13. FOR TRIP SETTINGS SEE REF 18.
14. THE DEVICES IN THIS LOGIC ARE ESSENTIAL AND MUST MEET THE REQUIREMENTS OF IEEE 279.

REF DOCUMENTS		MPL #
1.	P&ID NUCLEAR BOILER VESSEL INSTRUMENTATION	2 - 3
2.	P&ID NUCLEAR BOILER	2
3.	P&ID RHR SYSTEM	10
4.	FCD HPCI SYSTEM	23
5.	IED REACTOR PROTECTION SYSTEM	5
6.	IED PROCESS RADIATION MONITOR	17
7.	FUNCTIONAL CONTROL DIAGRAM RHR SYSTEM	10 - 202
8.	FCD REACTOR WATER CLEAN-UP SYSTEM	12 - 202
9.	FCD RADWASTE SYSTEM	20 - 703
10.	DESIGN SPEC FOR CONTAINMENT ISOLATION SYSTEM	1 - 157
11.	FCD RECIRC FLOW CONTROL SYSTEM	2 - 184 - 5
12.	FCD NEUTRON MONITOR SYSTEM	7 - 2
13.	P&ID RADWASTE SYSTEM	20
14.	P&ID REACTOR WATER CLEANUP SYSTEM	12
15.	SCHEMATIC CONTROL DIAGRAM	175A9560
16.	LOGIC SYMBOLS	209A4756
17.	P&ID CORE SPRAY SYSTEM	14
18.	TURB GEN STEAM BYPASS SYS	1 - 139

LEGEND

✳ = SWITCH GEAR DEVICE FUNCTION NO'S USAS SPEC C-37.2

-X- = FURNISHED AS PART OF VALVE OR DEVICE ASSEMBLY.

INFORMATION ONLY

FOR PREVIOUS REVISIONS, SEE SUPERSEDED CARDS. 452005040

REVISIONS BY N.P.P.D.

NO.	REVISIONS	DFT	CKD	APP	DATE
N05	CED 6014280 (DCN 04-1263)	RAC	RHG	KG	8-18-05

SCAN/CADD DWG

DO NOT REVISE MANUALLY

CADD FILE: C0054654

730E149BB REV N05

CONT ON SHEET 2 SH NO. 1