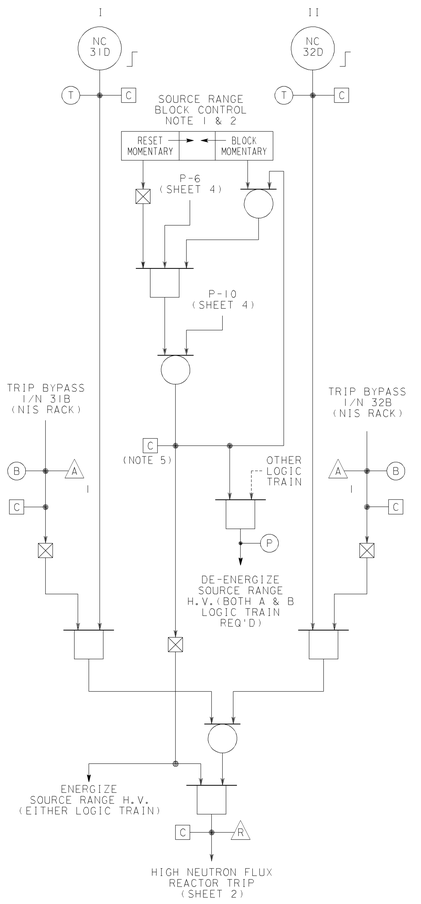
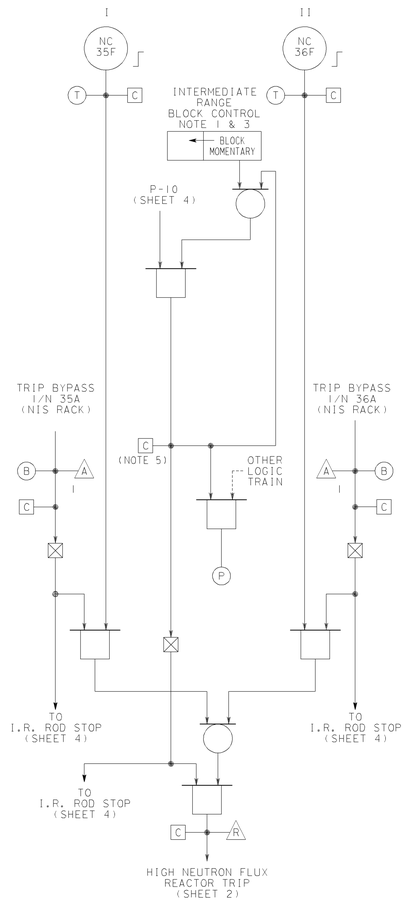
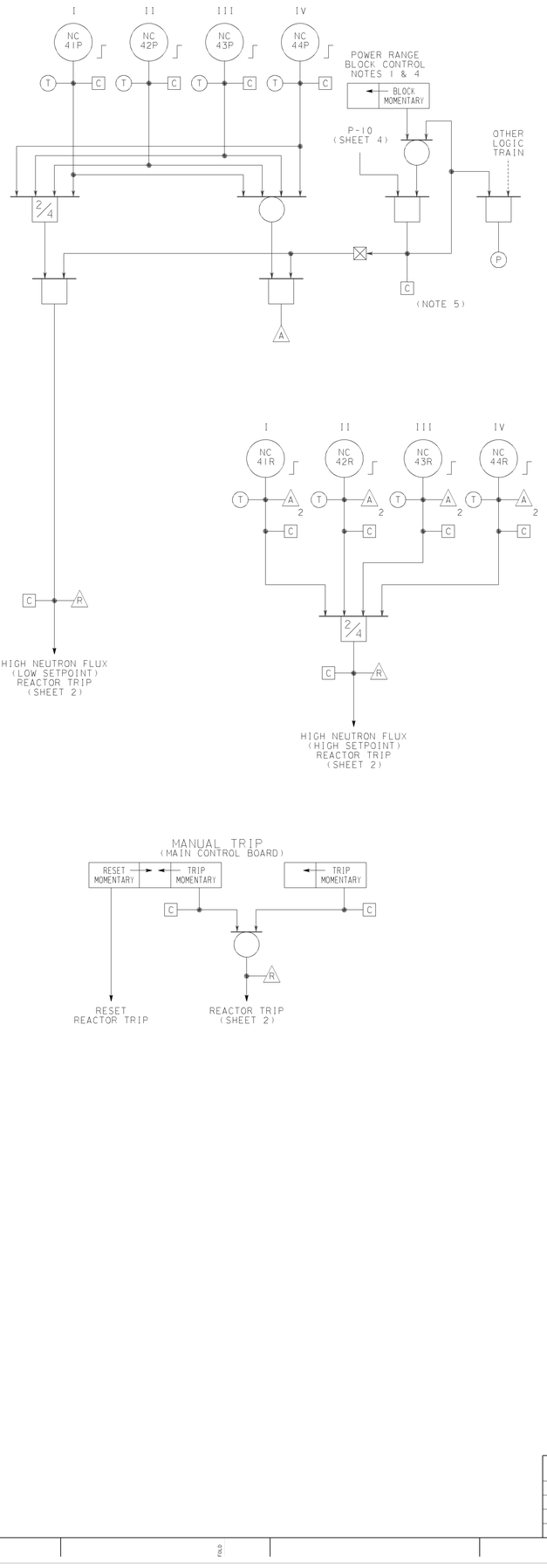
SOURCE RANGE REACTOR TRIP



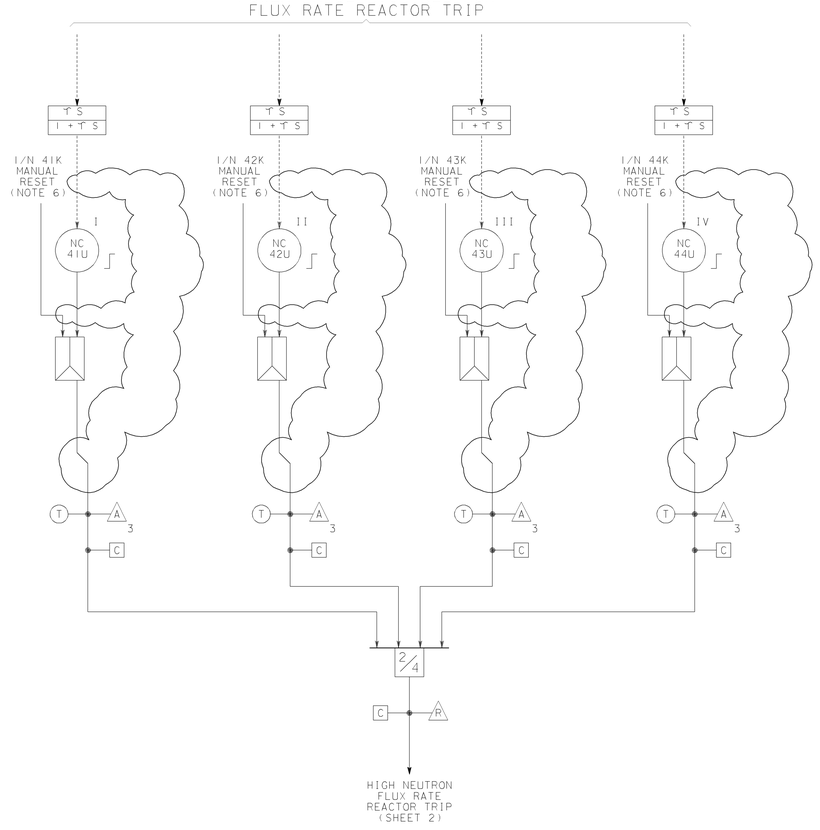
INTERMEDIATE RANGE REACTOR TRIP



POWER RANGE REACTOR TRIP



POWER RANGE HIGH NEUTRON FLUX RATE REACTOR TRIP



MANUAL TRIP
(MAIN CONTROL BOARD)

NOTES:

1. THE REDUNDANT MANUAL BLOCK CONTROLS CONSIST OF TWO CONTROLS ON THE CONTROL BOARD FOR EACH RANGE, ONE FOR EACH TRAIN.
2. I/N 33A IS IN LOGIC TRAIN A.
   I/N 33B IS IN LOGIC TRAIN B.
3. I/N 38A IS IN LOGIC TRAIN A.
   I/N 38B IS IN LOGIC TRAIN B.
4. I/N 47A IS IN LOGIC TRAIN A.
   I/N 47B IS IN LOGIC TRAIN B.
5. TWO COMPUTER INPUTS ARE CONNECTED TO THIS CIRCUIT, INDIVIDUAL FOR EACH TRAIN.
6. MANUAL RESET CONTROLS CONSIST OF FOUR MOMENTARY CONTROLS IN THE CONTROL ROOM, ONE CONTROL FOR EACH INSTRUMENT CHANNEL.
7. SHEET NUMBERS REFER TO THE REFERENCE NUMBERS BELOW.
8. WHENEVER A PROCESS SIGNAL IS USED FOR CONTROL AND IS DERIVED FROM A PROTECTION CHANNEL, ISOLATION MUST BE PROVIDED.
9. THIS DRAWING ILLUSTRATES THE FUNCTIONAL REQUIREMENTS OF THE REACTOR CONTROL AND PROTECTION SYSTEM. THIS DRAWING DOES NOT REPRESENT ACTUAL HARDWARE IMPLEMENTATION. FOR HARDWARE IMPLEMENTATION, REFER TO THE APPLICABLE SCHEMATIC.

REFERENCES

		WE DWG	PG&E DWG
1.	FUNCTIONAL LOGIC DIAGRAM INDEX AND SYMBOLS	5653D74-1	495841
2.	FUNCTIONAL LOGIC DIAGRAM REACTOR TRIP SIGNALS	5653D74-2	495842
3.	FUNCTIONAL LOGIC DIAGRAM NUCLEAR INSTR AND MANUAL TRIP SIGNALS	5653D74-3	495843
4.	FUNCTIONAL LOGIC DIAGRAM NUCLEAR INSTR PERMISSIVES AND BLOCKS	5653D74-4	495844
5.	FUNCTIONAL LOGIC DIAGRAM PRIMARY COOLANT SYSTEM TRIP SIGNALS	5653D74-5	495845
6.	FUNCTIONAL LOGIC DIAGRAM PRESSURIZER TRIP SIGNALS	5653D74-6	495846
7.	FUNCTIONAL LOGIC DIAGRAM STEAM GENERATOR TRIP SIGNALS	5653D74-7	495847
8.	FUNCTIONAL LOGIC DIAGRAM SAFEGUARDS ACTUATION SIGNALS	5653D74-8	495848
9.	FUNCTIONAL LOGIC DIAGRAM ROD CONTROLS AND ROD BLOCKS	5653D74-9	495849
10.	FUNCTIONAL LOGIC DIAGRAM STEAM DUMP CONTROL	5653D74-10	495850
11.	FUNCTIONAL LOGIC DIAGRAM PRESSURIZER PRESSURE AND LEVEL CONTROL	5653D74-11	495851
12.	FUNCTIONAL LOGIC DIAGRAM PRESSURIZER HEATER CONTROL	5653D74-12	495852
13.	FUNCTIONAL LOGIC DIAGRAM FEEDWATER CONTROL AND ISOLATION	5653D74-13	495853
14.	FUNCTIONAL LOGIC DIAGRAM FEEDWATER CONTROL AND ISOLATION	5653D74-14	495854
15.	FUNCTIONAL LOGIC DIAGRAM AUXILIARY FEEDWATER PUMPS STARTUP	5653D74-15	495855
16.	FUNCTIONAL LOGIC DIAGRAM TURBINE TRIPS, RUNBACKS & SIGNALS	5653D74-16	495856
17.	FUNCTIONAL LOGIC DIAGRAM AMSAC SIGNALS	5653D74-17	495857
18.	FUNCTIONAL LOGIC DIAGRAM SEISMIC TRIP	8759D77	495858
19.	FUNCTIONAL LOGIC DIAGRAM DIGITAL FW CONT SYS INPUT SIGNAL VALIDATION	5653D74-18	495859
20.	FUNCTIONAL LOGIC DIAGRAM DIGITAL FW CONT SYS FW FLOW CONTROLLER & C_V DEMAND	5653D74-19	495860
21.	FUNCTIONAL LOGIC DIAGRAM DIGITAL FW CONT SYS CONT VCV SEQ & TRACKING LOGIC	5653D74-20	495861
22.	FUNCTIONAL LOGIC DIAGRAM DIGITAL FW CONT SYS SIGNAL SELECTOR LOGIC	5653D74-21	495862
23.	DRAWING INDEX SOLID STATE PROTECTION SYS INTERCONNECTION & SCHEM. DIAGRAM	108D442-1	458862

NUCLEAR SAFETY RELATED

KEY DWG. SECTION 3

UNIT 1

DATE	
11-18-2010	
D.D.	MNRU
R.E.	FxC2
I.V.	
P.E.	AGB2

REVISION DESCRIPTION
REVISED PER DDN-2*506-0
2*533-0

I & C
FUNCTIONAL LOGIC DIAGRAM
NUCLEAR INSTRUMENTATION
& MANUAL TRIPS

DIABLO CANYON POWER PLANT
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA

DWG SCALE:
BILL OF MATL:
SUPSDS: 663195-3
SUPSD BY:

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U2 - 495873

DRAWING NUMBER 495843 1

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CAD User:MNRU Date:11-18-2010

OLD4 OUTLINE