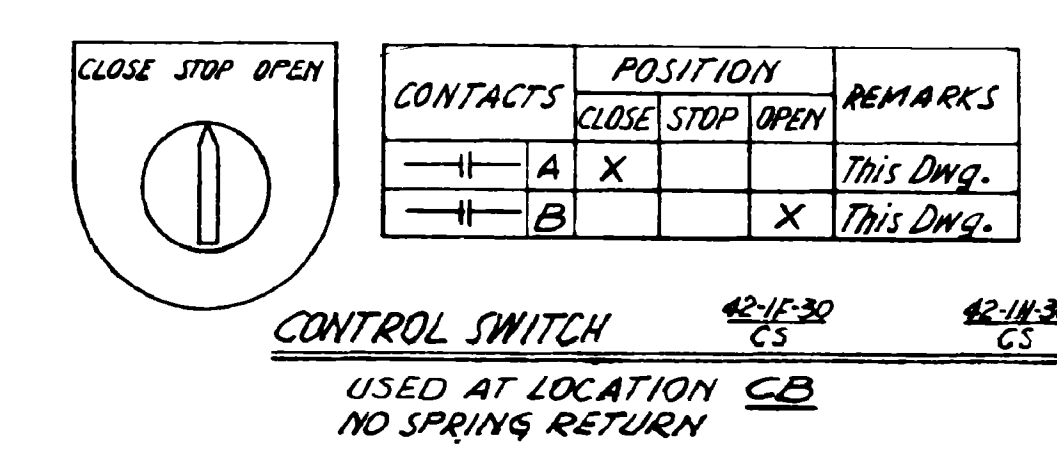


120V AC CONTROL SCHEMATIC
 FCV 37-AUX. FWP TURB II LEAD 2 STEAM SUPPLY MOV. CKT. NO. H30P00
 AUX FWP MOV'S SIMILAR EXCEPT AS SHOWN IN TABLE

ERFDS	VALVE NO	DESCRIPTION	CIRCUIT BKR. NO.	CIRCUIT No.	BUS SECT.	NORMAL POSITION	ENGINEER SAFETY VITAL FUNCTION	VALVE POSITION SWITCH (POS)		ALARM CIRCUIT NO.		MOTOR LOC. NO.
								POS No.		OVER-CURRENT	VALVE CLOSED	
MUX03-II-2	FCV 37	AUX FWP TURB II LEAD 2 STEAM SUPPLY	52-IH-30	H30P00	IH	OPEN		425		A142080H	AY2413DH	MPH30
MUX01-2A-4	FCV 38	" " " " " "	52-IF-30	F30P00	IF	OPEN		433		A144080F	AY2413DF	MPF30

TABLE OF DEVICES

DEVICE NO	FUNCTION	RATING	MFR.	TYPE	CAT/DWG*	REMARKS
42-1F-30, 42-1H-30	480V AC MOTOR STARTER REVERSIBLE, SIZE 1				REF DWG # 1, 13	
49-1F-30, 49-1H-30	MOTOR OVERLOAD RELAY		WE CORP			PART OF MOTOR STARTER
49X-1F-30, 49X-1H-30	MOTOR OVERLOAD AUX RELAY		WE CORP			PART OF MOTOR STARTER
52-1F-30, 52-1H-30	480V AC AIR CIRCUIT BKR				REF DWG # 1, 13	
FCV-	FLOW CONTROL VALVE					SEE TABLE FOR VALVE NOS
POS-	FCV POSITION SWITCH					SEE TABLE FOR SW NOS
CIAX2-G	ENT. 150V PHA. AUX RELAY MOTOR OP. BYPASS				REF. DWG 15	CLOSES ON PHA ISOLATION & SLS. ACTUATION
SV	SOLENOID VALVE					
TS	TORQUE SWITCH					



CONTACTS	VALVE POSITION		FUNCTION CONTACTS TO B POS 425, 433	FUNCTION CONTACTS 3 TO R POS 425, POS 433 POS 441
	FULL OPEN	FULL CLOSE		
1			SPARE	3 SPARE
2			SPARE	4 SPARE
3			GREEN LIGHT	5 ALARM
4			OPEN LIMIT	6 SPARE
5			BYPASS INTLK	7 SPARE
6			SPARE	8 SPARE
7			SPARE	9 RED LIGHT
8			CLOSE LIMIT	10 BYPASS INTLK

TYPICAL VALVE POSITION SWITCH CONTACT DEVELOPMENT FOR POS 425, POS 433 ACTUAL SETPOINTS ARE IN PIMS.

EQUIPMENT LOCATION NUMBERS:
 SPH - 480V MOTOR CONTROL CENTER BUS SECTION 1H
 MPH30 - MOTOR OPERATED VALVE FCV 37
 CB - CONTROL BOARD, CONDENSATE & FEEDWATER

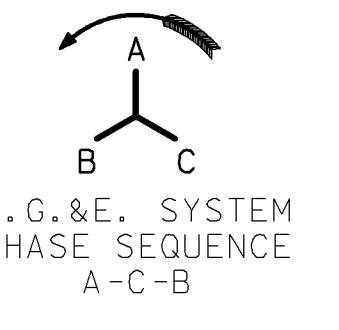
- NOTES:**
- SWITCH OPENS ON MECHANICAL TORQUE DURING OPENING CYCLE (18).
 - SWITCH OPENS ON MECHANICAL TORQUE DURING CLOSING CYCLE OF FULLY CLOSED VALVE (17).
 - FIELD TO INSTALL JUMPER FOR TORQUE SEATING.

7. "QUICK TEST" CURRENT SENSORS, FOR USE DURING VOTES TESTING, ARE FIELD-INSTALLED IN CERTAIN MOV HOUSINGS. THESE ARE SHOWN ONLY IN THE PERTINENT MOV DIAGRAM OF CONNECTIONS.

REFERENCE DRAWINGS

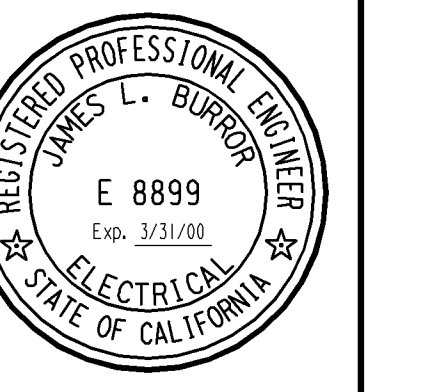
- SINGLE LINE METER & RELAY DIAGRAM, 480V. SYSTEM. BUS SECTION "1H" DWG. NO. 437916
- SINGLE LINE METER & RELAY DIAGRAM, 480V. SYSTEM. BUS SECTION "1H" 437543
- DESCRIPTION OF ELECT. SCHEMATIC DIAG., SYMBOLS & CKT. DESIGNATIONS 050003
- EQUIPMENT LOCATION NUMBER LIST 101900
- PIPING SCHEMATIC FEEDWATER SYSTEM 102003
- PIPING SCHEMATIC TURBINE STEAM SUPPLY SYSTEM 102004
- INSTRUMENT SCHEMATIC FLOW INSTRUMENT SYSTEMS 102232
- SCHEMATIC DIAGRAM MAIN ANNUNCIATOR SHEET NO. 1 501121
- FUNCTION DIAGRAM REC. NO. 663195
- SOLID STATE PROTECTION SYSTEM 663231
- BLOCK DIAG. ERFDS & TECHNICAL SUPPORT CENTER DWG. NO. 445278

DWG. NO. 437584
 437584
 050003
 101900
 102003
 102004
 102232
 501121



P.G. & E. SYSTEM PHASE SEQUENCE A-C-B

NUCLEAR SAFETY RELATED



DATE	DESCRIPTION	COORDINATION	REVISION INFORMATION	DWG SCALE
5/28/98	Enhanced per FCT 022812	NUCL. - MECH. - ELEC. - CIVIL - PIPING - I&C -		BILL OF MATL SUPPDS SUPSD BY SHEET NO. 1 OF
DWN.	RXC2			437584 19
R.E.	RVM1			
INDEP. VERIFIER				
P.E.	JLB1			

KEY DWG. SECTION 6 VALVE NO'S FCV 37, FCV 38, FCV 152, FCV 436 & FCV 437 UNIT 1
 ELECTRICAL SCHEMATIC DIAGRAM AUXILIARY FEEDWATER PUMP TURBINE CONTROL
 PACIFIC GAS AND ELECTRIC COMPANY
 SAN FRANCISCO, CALIFORNIA