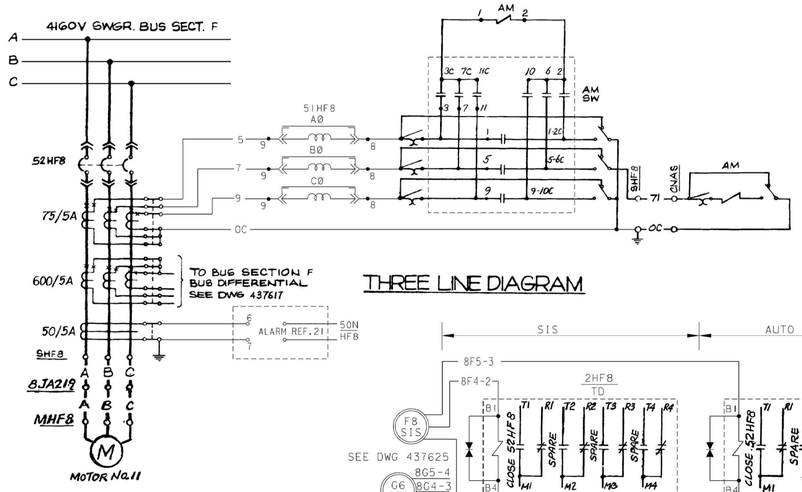
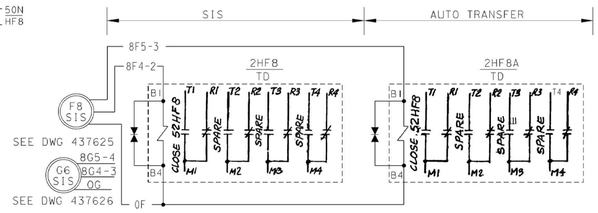
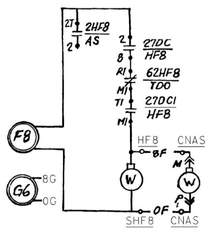


THREE LINE DIAGRAM



TIME DELAY RELAYS
FOR MOTOR NO. 11 & NO. 12



POTENTIAL INTERLOCK

CONTACTS	POSITION A	INT	B	INT	C
1-⊣⊢-2C 1-2	1		X	X	X	X
	2	X	X			
3-⊣⊢-3C	3	X	X			
5-⊣⊢-5C 5-6 5-6	5	X	X		X	X
	6			X	X	
7-⊣⊢-7C	7			X	X	
9-⊣⊢-9-10C 9-10 9-10	8		X	X	X	
	10				X	X
11-⊣⊢-11C	11				X	X

AMMETER SWITCH AM SW
USED AT LOCATION SHF8, SHG6

CONTACTS	POSITION MAN	AUTO	REMARKS
A	X		THIS DWG
B		X	THIS DWG
C	X		THIS DWG
D		X	ALARM

TRANSFER SWITCH 43HF8 43HG6
USED AT LOCATION CNAS
No SPRING RETURN

CONTACTS	POSITION TRIP	AFTER TRIP	CLOSE	REMARKS
1-⊣⊢-1C			X	THIS DWG
2C-⊣⊢-2	X			THIS DWG
3-⊣⊢-3C	X		X	SPARE
4C-⊣⊢-4			X	SPARE
5-⊣⊢-5C	X	X		SPARE
5C-⊣				
7-⊣⊢-7C		X	X	SPARE
7C-⊣				

CONTROL SWITCH 52HF8 CS 52HG6 CS
USED AT LOCATION SHF8 SHG6
SPRING RETURN TO NEUTRAL

CONTACTS		POSITION STOP	NEUT	START	REMARKS
	A	X			THIS DWG
	B			X	THIS DWG
	C		X	X	THIS DWG
	D	X	X		THIS DWG
	E		X	X	THIS DWG
	F			X	SPARE

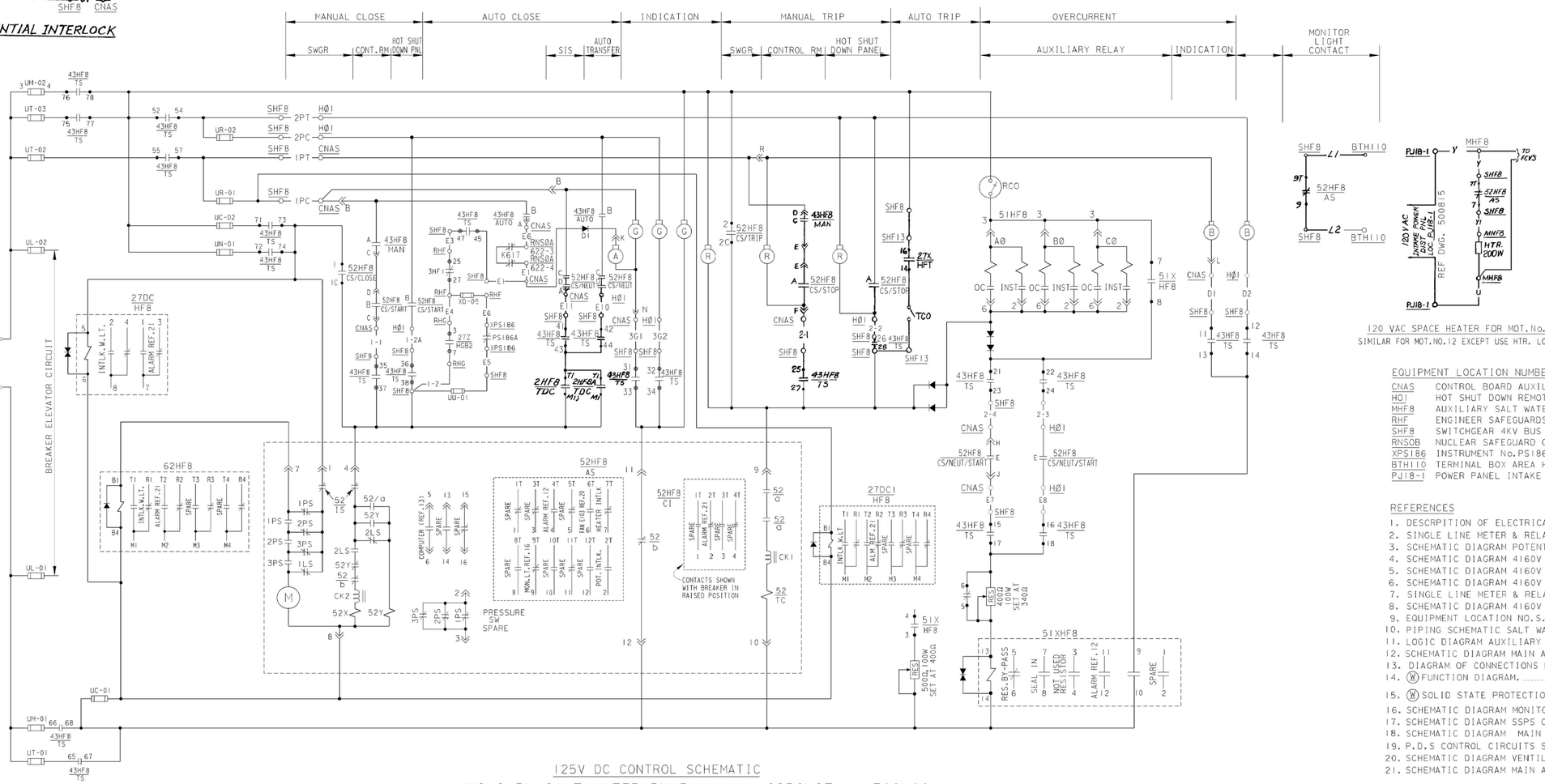
CONTROL SWITCH 52HF8 CS 52HG6 CS
USED AT LOCATION CNAS ; HØI
SPRING RETURN TO NEUTRAL

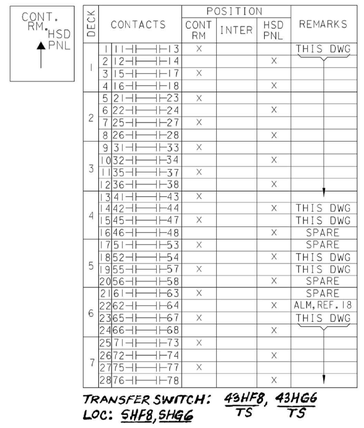
CONTACTS		POSITION AUTO	MANUAL	REMARKS
	A		X	SPARE
	B	X		THIS DWG
	C		X	SPARE
	D	X		
	E		X	
	F		X	
	G		X	
	H		X	

MODE SELECTOR SWITCH 43HF8,43HG6
USED AT LOCATION HØI
NON SPRING RETURN

TABLE OF DEVICES

DEVICE No.	FUNCTION	RATING	MFR.	TYPE	CAT/DWG.No.	REMARKS
2HF8, 2HG6	SAFETY INJECTION SIGNAL TIMING REL.	120V AC	AGASTAT	ETR	ETR1413B	TIME DELAY 0.55-15 SEC.
2HF8A, 2HG6A	AUTO-TRANSFER TIMING RELAY	120V AC	AGASTAT	ETR	ETR14I3D	TIME DELAY 2-60. SEC.
3HF1, 3HG1	DIESEL AUTO TRANSFER INTERLOCK REL.	—	—	—	(4) (5)	
27X HFT, HGT	4KV BUS UV TRIP AUXILIARY RELAY	—	—	—	(4) (5)	TRIPS ON UV & TRANS. TO DIESEL
27Z HFB2, HGB2	4KV BUS START DIESEL UV AUX. RELAY	—	—	—	(4) (5)	
27DC-HF8, HG6	CONTROL BUS D.C. UV RELAY	125V DC	G.E. Co.	HGA		
27DC1-HF8, -HG6	CONTROL BUS D.C. UV RELAY	125VDC	AGASTAT	EGPD		ALARM ONLY
62HF8, -HF6	BREAKER CLOSING SPRING TIME DELAY RLY	125VDC	AGASTAT	ETR	ETR14D3C	TD-1-30 SEC.
50NHF8, HG6	GROUND OVERCURRENT SENSOR	—	—	—	(2)	ALARM ONLY
51HF8, HG6	OVERCURRENT RELAY				(2)	
51XHF8, HG6	OVERCURRENT AUX. RELAY	24V DC	GE Co.	HFA		
52HF8, HG6	AIR CIRCUIT BREAKER	—	—	—	(2)	REC. Nº 663332
52HF8 CI, 52HG6 CI	AIR CIRCUIT BKR. CELL INTERLOCK	—	—	—	—	PART OF SWITCHGEAR
43HF8/TS 43HG6/TS	CONTROL TRANSFER SWITCH	125V DC	ELECTRO SWITCH	24	24907B-2	
PS185A, PS186A	AUX. SALTWATER LOW PRESSURE					
D1		400V			1N5616	S/C 94-6789
K617	SAFETY INJECTION INT'LK. BLK. REL.	—	—	—	(14)(15)(17)	





120 VAC SPACE HEATER FOR MOT. No. 11 - CKT. No. PJ8110
SIMILAR FOR MOT. NO. 12 EXCEPT USE HTR. LOC. MHG6 & CKT. NO. PJ8116

EQUIPMENT LOCATION NUMBERS

CNAS	CONTROL BOARD AUXILIARY SALTWATER (SECT. 1VB1)
HØI	HOT SHUT DOWN REMOTE CONTROL PANEL 1
MHF8	AUXILIARY SALT WATER PUMP No. 11
RHF	ENGINEER SAFEGUARDS RELAY BOARD BUS F
SHF8	SWITCHGEAR 4KV BUS F CUBICLE 8
RNSØB	NUCLEAR SAFEGUARD OUTPUT RACK - TRAIN B
XPS186	INSTRUMENT No. PS186 LOCAL MOUNTED
BTH110	TERMINAL BOX AREA H No. 110
PJ18-1	POWER PANEL INTAKE STRUCTURE

REFERENCES

	DWG.
1. DESCRIPTION OF ELECTRICAL DIAGRAM, SYMBOLS & CKT. DESIGNATIONS.	050003
2. SINGLE LINE METER & RELAY 4160V SYSTEM SH. 2 (BUS F, G, H).	437533
3. SCHEMATIC DIAGRAM POTENTIAL & SYNCHRONIZING 4160V SYSTEM.	437614
4. SCHEMATIC DIAGRAM 4160V BUS F AUTOMATIC TRANSFER.	437625
5. SCHEMATIC DIAGRAM 4160V BUS G AUTOMATIC TRANSFER	437626
6. SCHEMATIC DIAGRAM 4160V BUS DIFFERENTIAL SH. 2.	437617
7. SINGLE LINE METER & RELAY 125V DC SYSTEM.	437546
8. SCHEMATIC DIAGRAM 4160V BUS H AUTOMATIC TRANSFER.	437627
9. EQUIPMENT LOCATION NO. S.	101900
10. PIPING SCHEMATIC SALT WATER SYSTEM.	102017
11. LOGIC DIAGRAM AUXILIARY SALT WATER PUMPS.	19406
12. SCHEMATIC DIAGRAM MAIN ANNUNCIATOR SH. 1	501121
13. DIAGRAM OF CONNECTIONS PPC COMPUTER TERMINALS (PCIC)	437865
14. (M) FUNCTION DIAGRAM.	663195
15. (M) SOLID STATE PROTECTION SYSTEM.	663231
16. SCHEMATIC DIAGRAM MONITOR LIGHT BOX C.	437698
17. SCHEMATIC DIAGRAM SSPS OUTPUT RELAYS, TRAIN A, TRAIN B.	501869, 503088
18. SCHEMATIC DIAGRAM MAIN ANNUNCIATOR.	437700
19. P.D.S CONTROL CIRCUITS SCHEMATIC DIAGRAM REC. DWG. NO. 6009838-69	
20. SCHEMATIC DIAGRAM VENTILATION FAN MOTORS	437637
21. SCHEMATIC DIAGRAM MAIN ANNUNCIATOR	501138 (BUS F) 501137 (BUS G)

125V DC CONTROL SCHEMATIC

AUXILIARY SALT WATER PUMP No. 11, CIRCUIT No. F08H00

AUXILIARY SALT WATER PUMP NO. 12 SIMILAR EXCEPT AS SHOWN IN TABLE BELOW

MOTOR	MOTOR LOC.	CKT BKR. No.	CIRCUIT No.	BUS SECTION	DC CIRCUIT No.	BUS UNDERVOLTAGE RELAY	LOC.	CONTACT TRIP	AUTO TRANSFER BLOCKING RELAY	LOC.	CONTACT INTERLOCK	AUX. SALT WATER LOW PRESS. DEVICE	LOC.	CONTACT INTERLOCK	LOSS OF BUS VOLTAGE RELAY	LOC	CONTACT INTERLOCK
No. 11	MHF8	52HF8	F08H00	F	113D	27XHFT	SHF13	16-⊣⊢-14	3HF1	RHF	25-⊣⊢-27	PS186A	XPS186	—⊣⊢—	27ZHGB2	RHG	3-⊣⊢-7
No. 12	MHG6	52HG6	G06H00	G	213D	27XHGT	SHG13	22-⊣⊢-28	3HG1	RHG	25-⊣⊢-27	PS185A	XPS185	—⊣⊢—	27ZHFB2	RHF	3-⊣⊢-7

MOTOR	EXH FAN START-BKR CONTACT FAN #	480V BKR	SPLICING BOX
NO. 11	E103	52-1F-39	BJA219
NO. 12	E101	52-1G-60	BJA216

MOTOR	ALARM CIRCUIT NOS. OVERCURRENT	GROUND OVERCURRENT	TRANSFER OF CONTROL	CONTROL BUS DC UV	AUTO-START	COMPUTER CKT. No. RUNNING	SIS BLOCKING DEVICE	LOC.	CONTACT INTLK.	TIME DELAY RELAY RELAY	LOC.	CONTACT
No. 11	A12400DF	A12409DF	AY5070DF	AV4407DF	AY2439DF	CY2853DF	K617	RNSØA	622-3 622-4	2HF8, 2HF8A	SHF8	T1-⊣⊢-M1, T1-⊣⊢-M1
No. 12	A12400DG	A12410DG	AY5071DG	AV4307DG	AY2440DG	CY2854DG	K617	RNSØB	622-3 622-4	2HG6, 2HG6A	SHG6	1-⊣⊢-5, 1-⊣⊢-5

NUCLEAR SAFETY RELATED

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

KEY DWG. SECTION 4

UNIT 1

DATE	
05-07-2015	
D.D.	MNRU
R.E.	FXC2
I.V.	FAZ1
P.E.	N/A

REVISION DESCRIPTION: REVISED PER DDN-2*143

ELECTRICAL
SCHEMATIC DIAGRAM
AUXILIARY SALT WATER PUMP

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

DWG SCALE:			
BILL OF MATL:			
SUPSDS:			
SUPSD BY:			
DRAWING	SHEET	PAGE	REV
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U2-441287

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