CIRCUIT ANALYSIS WORKSHEET

Component ID: MCC-1B Component Type: 480 V MOT CONT CTR

Component Description: Example 14

Normal Position: ENERGIZED

Failed Electrical Position: DEENERGIZED

Failed Air Position: N/A

Function State:

Initial Position: ENERGIZED

Desired Position ENERGIZED

BE Code: EPS-MCC1BF (480 V MCC1B FAULT)

High Consequence Component Yes ☐ No ☒

Power Supplies: _____ Breaker: _____ Req'd ☐

_____ Breaker: _____ Req'd ☐

Cable Analysis:

Cable ID	Req'd ?	MHS ?	Fault Consequence	Comments

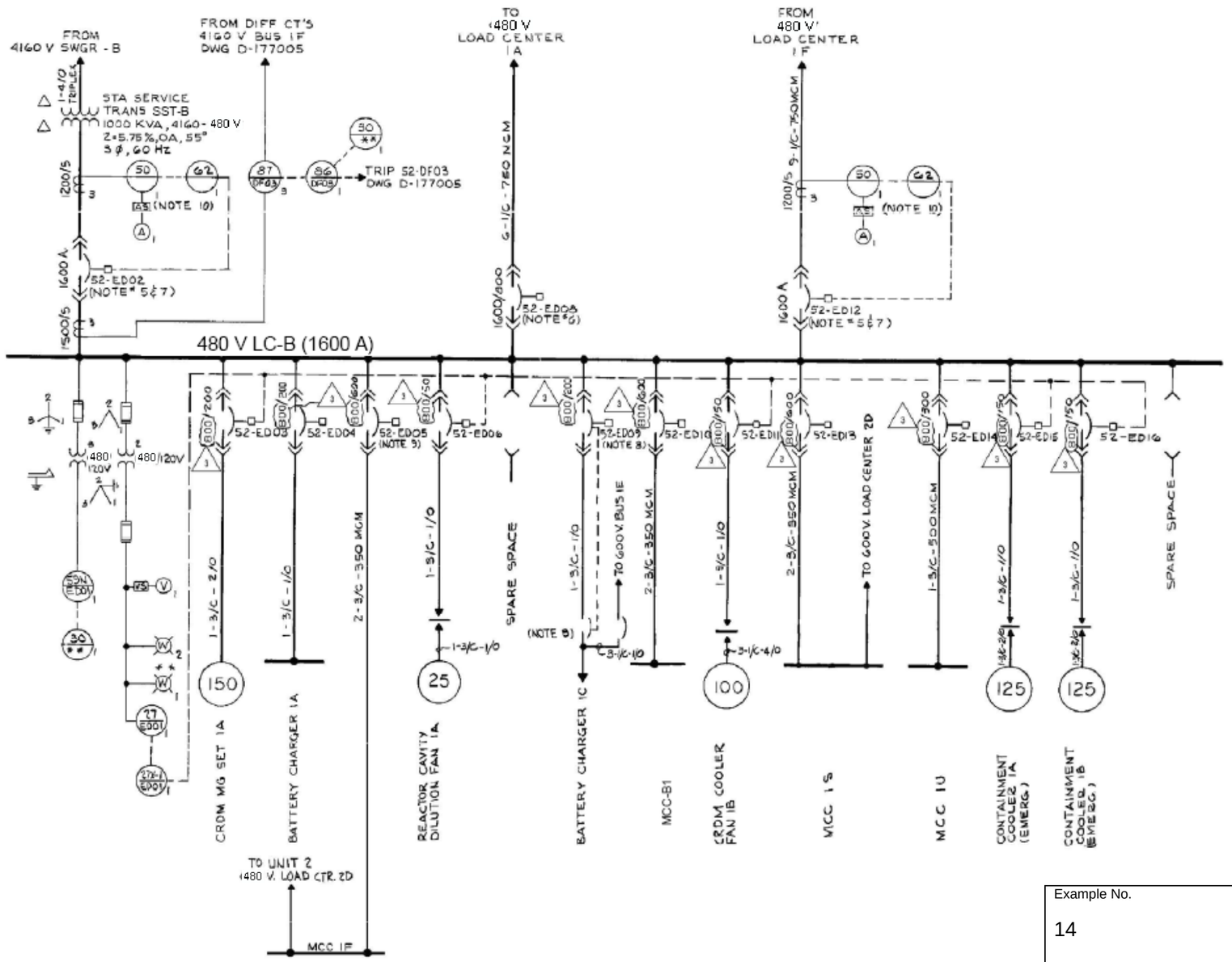
Cable ID	Req'd ?	MHS ?	Fault Consequence	Comments

Equipment Dependencies:

Comments:

Fault Mode Likelihood Analysis:

Cable ID	Insulation	Raceway	6850 Table	No. Cond	Gnd Cond	Sources	Targets	P (x)



DEVICE	DESCRIPTION	MFR/TYPE	REMARKS
50 NOTE 10	STA. SERVICE TRANSF. 1D OVER CURRENT RELAY, 3Ø	GE/PJC32G	
62 NOTE 10	TIME DELAY RELAY	AGASTAT/ E7012PA	
50 NOTE 10	OVER CURRENT RELAY, 3Ø, FOR INC FDR FROM LOAD CTR 1F	GE/PJC32G	
62 NOTE 10	TIME DELAY RELAY	AGASTAT/ E7012PA	
87 DF03	STA. SERVICE TRANSF. 1D DIFFERENTIAL RELAY	GE/12STD15C5A	
86 DF03	STA. SERVICE TRANSF 1D LOCKING OUT RELAY	G.E/HEA	
59N ED01	BUS 1D OVER VOLTAGE RELAY (GROUND DETECTION)	WEST/CV-8	
27 ED01	BUS 1D UNDER VOLTAGE RELAY	WEST/CV-2	
27X-1 ED01	BUS 1D UNDER VOLTAGE AUXILIARY RELAY.	WEST/MG-6	

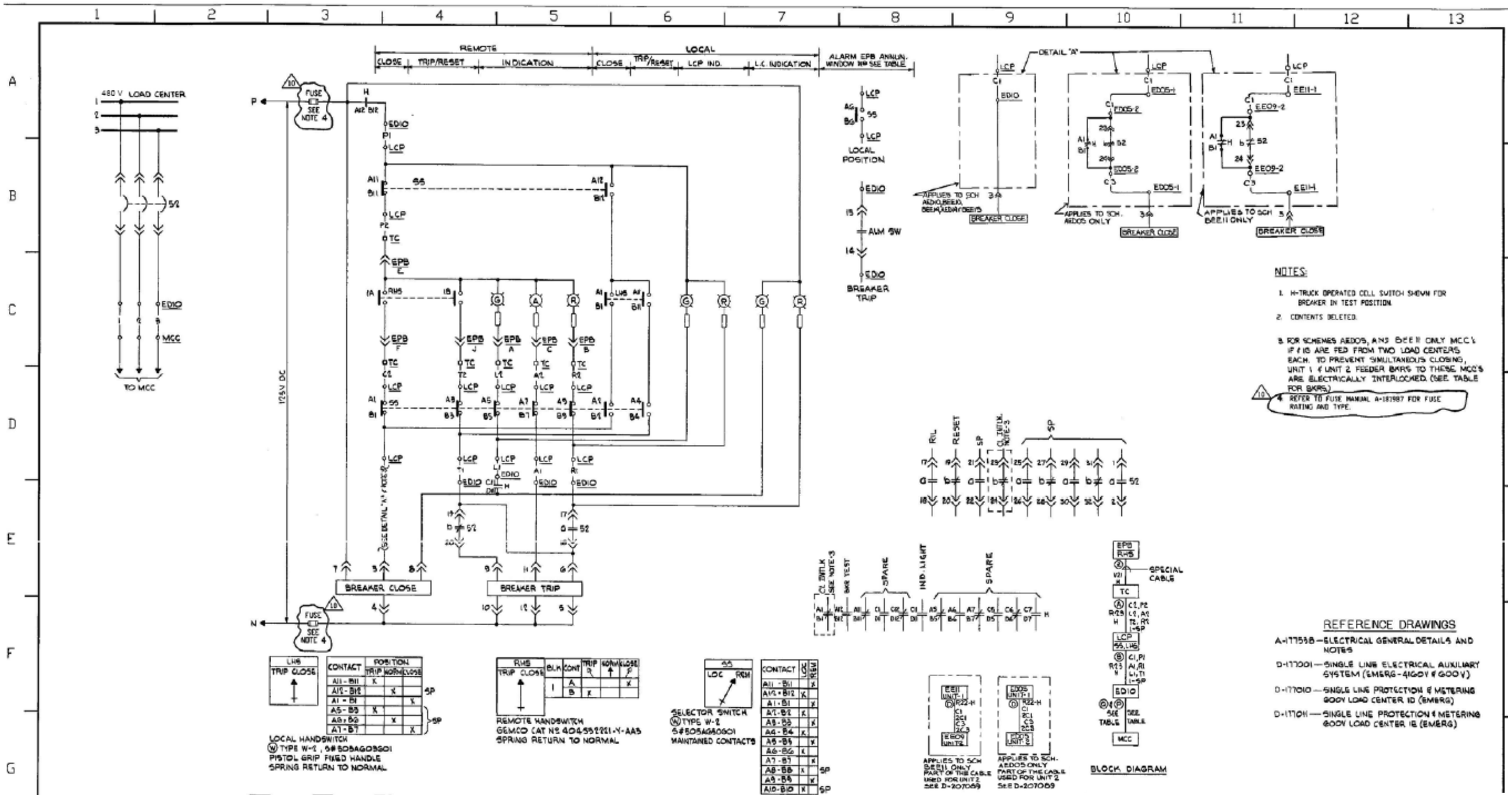
NOTES

1. ** - DENOTES EMERG. POWER BOARD IN MAIN CONT. RM.
2. INTERRUPTING RATING OF ACB'S IS 22,000 AMPS RMS SYMMETRICAL (MIN)
3. BUS SHORT CIRCUIT RATING 22,000 AMPS SYMMETRICAL.
4. STATION SERVICE TRANSFORMER "ASKAREL" TYPE.
5. BREAKERS 52-ED02 AND 52-ED12 ARE KEY INTERLOCKED SO THAT ONLY ONE CAN BE CLOSED AT ANY TIME (DWG. B-177128)
6. BREAKERS 52-ED08 AND 52-EA09 (ON 600V. BUS 1A) ARE OPERATED BY A SINGLE CONTROL SWITCH IN THE MAIN CONTROL ROOM.
7. ALL BKR'S EXCEPT 52-ED02 & 52-ED12 HAVE SOLID STATE TRIP UNITS WITH FOLLOWING DESIGNATIONS (BREAKER FRAME/SENSOR RATING-AMPERES)
8. BREAKERS 52-ED09, 52-EE06 AND MOLDED CASE BKRS. TO BATTERY CHARGER 1C ARE KEY INTERLOCKED SO THAT ONLY ONE BREAKER AND CORRESPONDING MOLDED CASE BKRS CAN BE CLOSED AT ANY TIME (DWG-C-177153).
9. UNIT 1 BREAKER ED06 IS ELECTRICALLY INTERLOCKED WITH UNIT 2 BREAKER ED06 TO PREVENT SIMULTANEOUS CLOSING OF BOTH BREAKERS.
10. LOCATED IN TERMINAL BLOCK COMPARTMENT ABOVE ASSOCIATED BREAKER.
11. THIS DRAWING SUPERSEDES DRAWING C-177010, SHT 1 OF 1 REV. 14, DATED 11-15-90, PER PCN S-93-1-8690, REV. 0.

REFERENCE DRAWINGS

A-177538 - ELECTRICAL GENERAL DETAILS & NOTES
D-177001 - SINGLE LINE ELEC. AUX. SYSTEM (4160 & 600V)

Example No.	Title	Drawing No.
14	LC-B One-Line Diagram	E-14-1
Normal Position	**Failed Position**	**Function State**
ENERIZED	Elec: DEENERGIZED Air: N/A	ENERGIZED



EQUIPMENT		FAC	SCHEME	L.C. COMPT.	LCP LOCAL CONTROL PANEL	EPB EMERGENCY POWER BOARD	TC TERMINATION CABINET	START-UP NUMBER	POWER CABLE CODE	MCC MOTOR CONT CENTER	CONDUCTOR NOS CABLE	CONDUCTOR NOS CABLE 2	RHS REMOTE HANDSWITCH	(2) ANNUNCIATOR WINDOW NO. BKR ON LOCAL CONTROL	(2) ANNUNCIATOR WINDOW NO. BKR TRIP	LC COMPT
600V LOAD CENTER BKR'S TO MOTOR CONTROL CENTER	1A	IV	AEDIO	IEE10	Q1H21E009-A	Q1H11EPB1608-AB	Q1H25L037-A	6	LO9-F	FA-A2	1,2,3	1,2,3	Q1R16H5201BKA-A	PANEL V, WINDOW G2	PANEL V, WINDOW G1	
	1B	IV	BEE10	IED10	Q1H21E010-B		Q1H25L039-B	6	LO9-F	FB-A2	1,2,3	1,2,3	Q1R16H5201BKA-B	PANEL V, WINDOW G2	PANEL V, WINDOW G1	
	1F	IV	AEDOS	EDO5	Q1H21E009-A		Q1H25L037-A	6	LO9-F	FF-A2	1,2,3	1,2,3	Q1R16H5201BEA-A	PANEL V, WINDOW G2	PANEL V, WINDOW G1	EDO5-2
	1G	IV	BEE11	EE11	Q1H21E010-B		Q1H25L039-B	6	LO9-F	FG-A2	1,2,3	1,2,3	Q1R16H5201EL-B	PANEL V, WINDOW G2	PANEL V, WINDOW G1	EE09-2
	1T	IV	BEE14	EE14	Q1H21E010-B		Q1H25L039-B	6	LO9-F	FT-A1	1,2,3	1,2,3	Q1R16H5201PB-B	PANEL V, WINDOW G2	PANEL V, WINDOW G1	
	1U	IV	AEDI4	EDI4	Q1H21E009-A		Q1H25L037-A	6	LO-F	FU-A1	1,2,3		Q1R16H5201BA-A	PANEL V, WINDOW G2	PANEL V, WINDOW G1	
	1V	IV	BEE15	EE15	Q1H21E010-B		Q1H25L039-B	6	LO-F	FV-A1	1,2,3		Q1R16H5201AQA-B	PANEL V, WINDOW G2	PANEL V, WINDOW G1	

Example No.	Title	Drawing No.
14	MCC-1B SUPPLY BREAKER ELEMENTARY DIAGRM	E-14-2
Normal Position	**Failed Position**	**Function State**
ENERIZED	Elec: DEENERGIZED Air: N/A	ENERGIZED