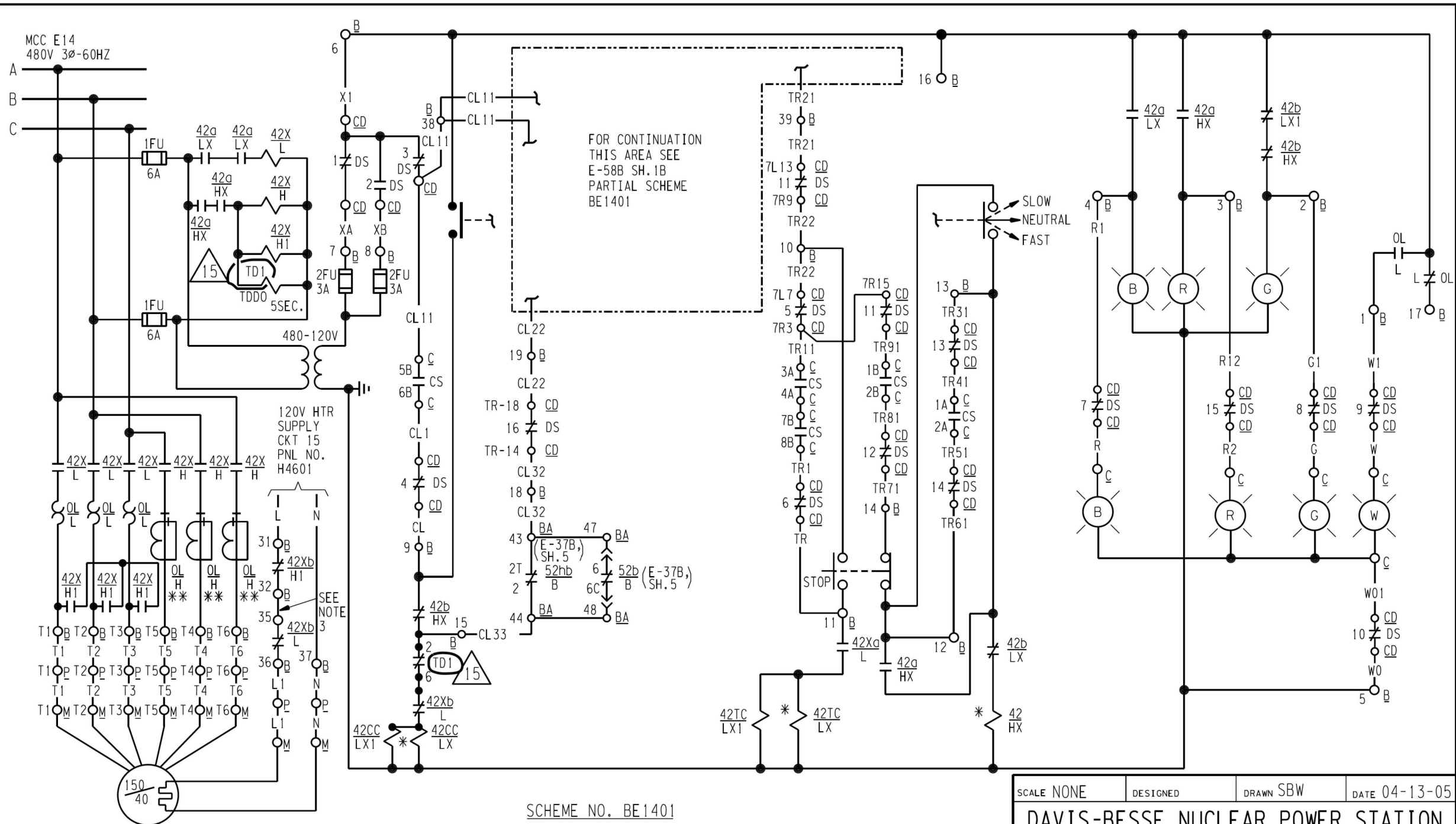


15	INC. PDUN 601250410-001 REV.0	REVISIONS	INITIALS ON FILE	FINAL APPROVAL
14	12-4-11 INC. DUN 11-0593-001-015 REV.00		CH'K BY	
NO.	DATE		DRAWN BY	



- * LOW AND HIGH SPEED STARTERS ARE NON LATCH-IN TYPE BUT THE LOW SPEED STARTER OPERATES LIKE A LATCH-IN TYPE THROUGH THE USE OF LOW SPEED AUXILIARY LATCH-IN RELAY 42/LX.
- ** SHORT CIRCUIT THE HIGH SPEED OVER LOAD RELAY CURRENT TRANSFORMER SECONDARY LEADS AT THE OVERLOAD RELAY.

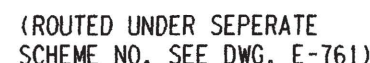
GENERAL NOTE:
FOR SCHEME NO. BF1401
CONTAINMENT CLR FAN 1-2
SEE DWG. E-58B SH.1C AND 1D

THIS DRAWING WAS REDRAWN ON CADD
AND SUPERSEDES REVISION 11

SCALE NONE	DESIGNED	DRAWN SBW	DATE 04-13-05
DAVIS-BESSE NUCLEAR POWER STATION UNIT NO. 1			
ELEMENTARY WIRING DIAGRAMS CONTAINMENT VENTILATION SYSTEM CTMT CLR FAN 1			
DRAWING NO. E-58B-SH 1A			REV. 15

DB 06-04-20

DFN=F:/SCHEME/E58BSH1A.DGN

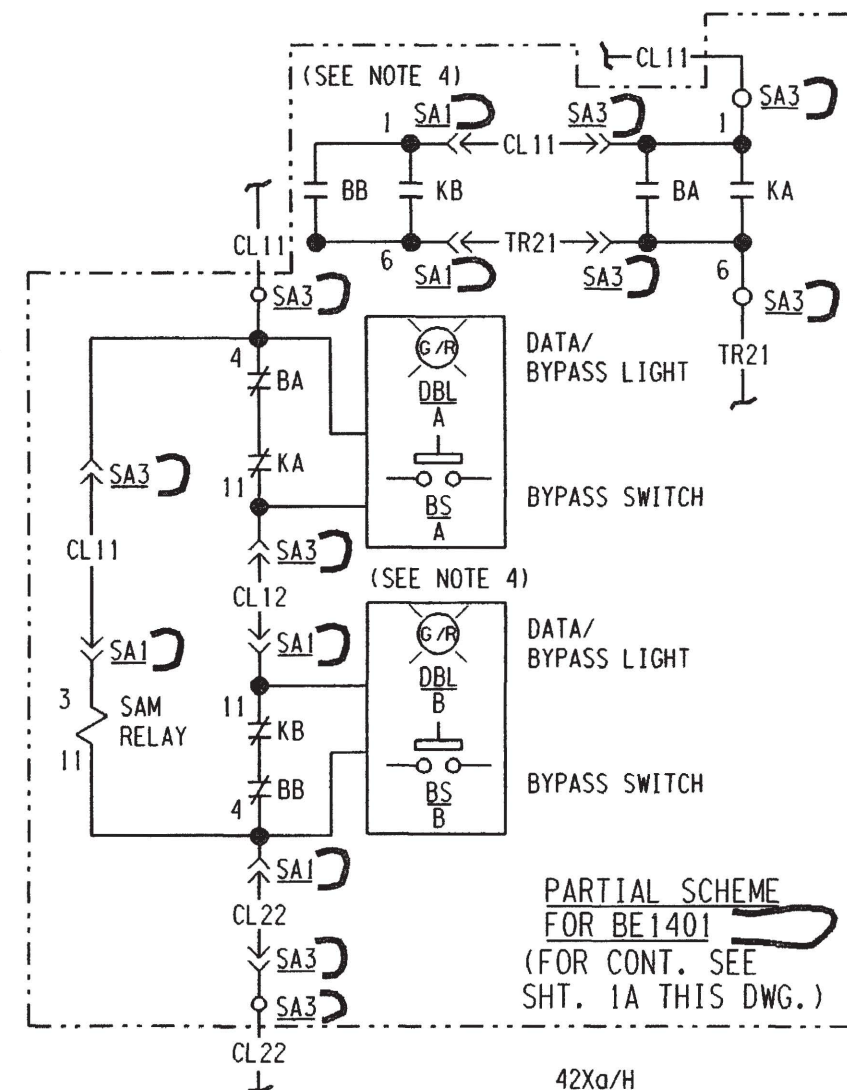
111

NON-ESSENTIAL CABLES

CL 11, CL 12, CL 22
(PREFABRICATED
CABLE)

CL 11, CL 22, CL 32,
TR 21, TR 22

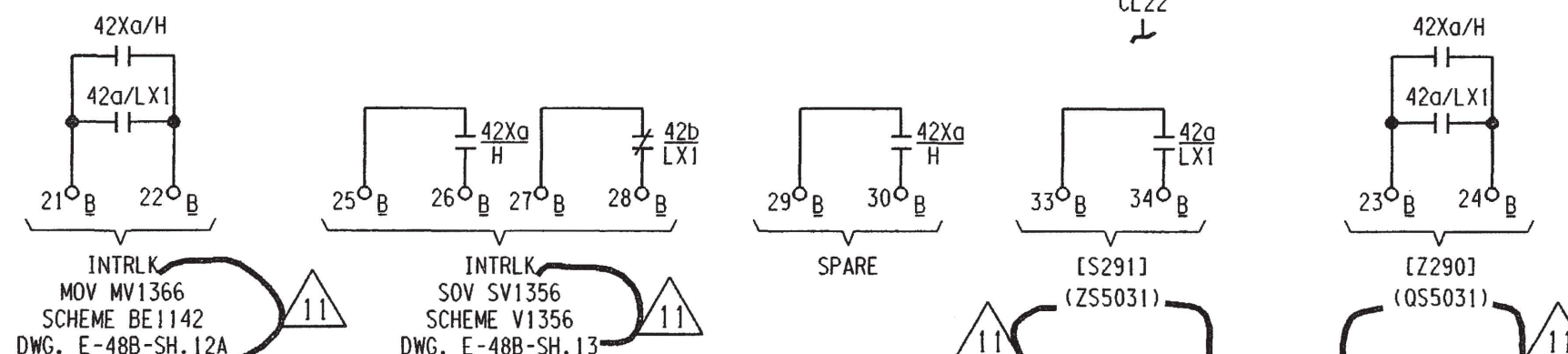
BLOCK DIAGRAM



PARTIAL SCHEME
FOR BE1401
(FOR CONT. SEE
SHT. 1A THIS DWG.)

NOTES:

1. FOR GENERAL NOTES SEE DWG. INDEX E-58B.
2. FOR CONTROL SWITCH DETAILS SEE DWG. E-30B, SH. 6A FIG. 1.
3. CONTRACTOR TO JUMPER TERMINAL No. 32 AND TERMINAL No. 35.
4. FOR VENDOR DWG. REFER TO E-17B, SEE VENDOR DWG. FOR SFAS INTERNAL WIRING.
5. FOR MOTOR CONNECTIONS SEE RELIANCE DWG. 600276-17 (7749-M400-21-1).
6. RELAYS 42/LX AND 42/LX1 ARE POTTER AND BRUMFIELD MDR RELAY AND HAS 8 PDT CONTACTS. FOR SPARE CONTACTS SEE DRAWINGS E-8-103 AND E-8Q-165.
7. FOR SCHEME NO. BF1401 CONTAINMENT CLR FAN 1-2 SEE DWG. E-58B SH. 1C AND 1D.

$$\begin{array}{c} \diagup \quad \diagdown \\ 1 \quad 1 \end{array}$$


CONTINUED FROM SHEET 1A THIS DWG.

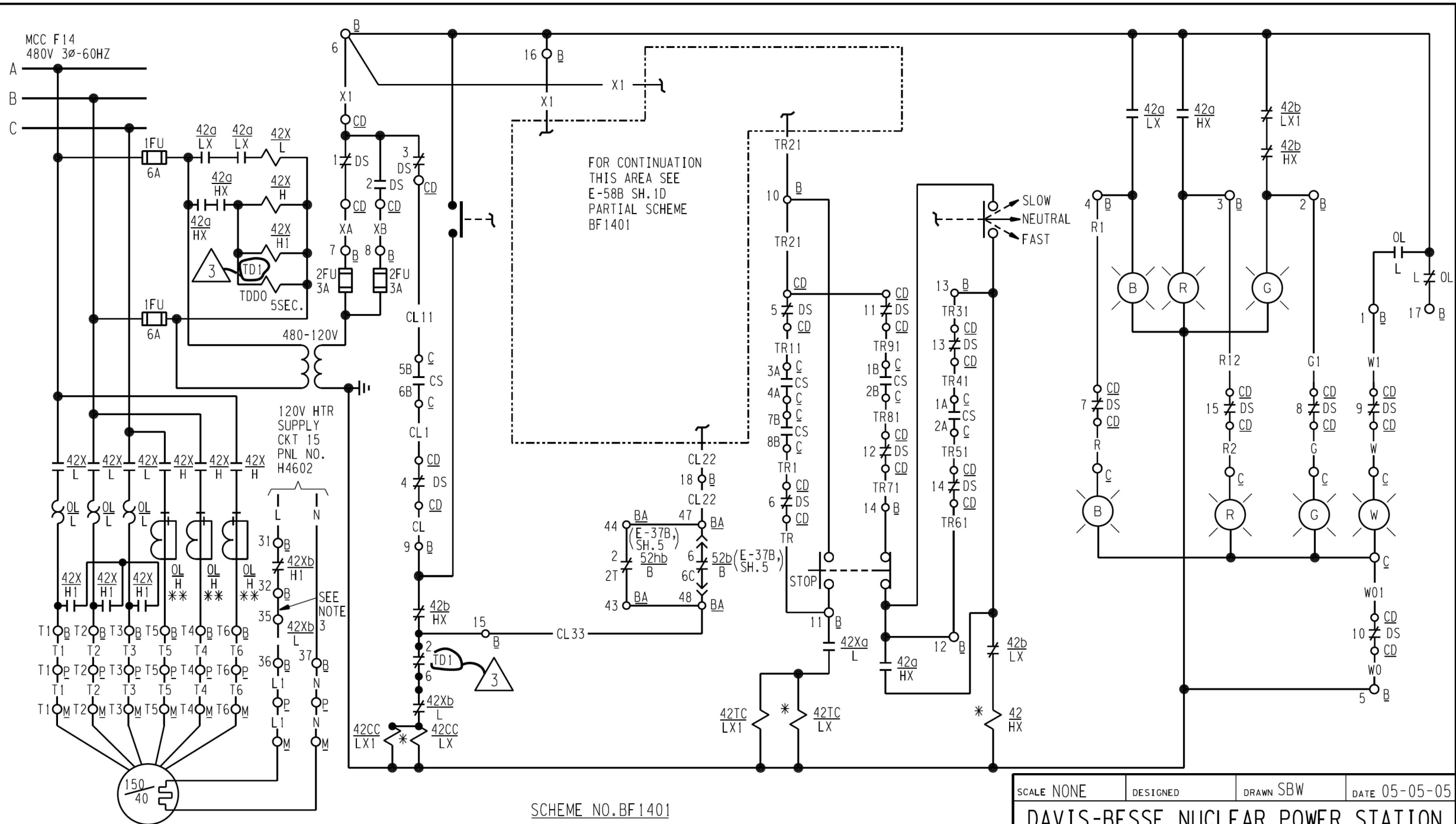
THIS DRAWING WAS REDRAWN ON CADD AND SUPERSEDES REVISION 10

SCALE NONE	DESIGNED	DRAWN SBW	DATE 04-18-05
DAVIS-BESSE NUCLEAR POWER STATION UNIT NO. 1			
ELEMENTARY WIRING DIAGRAMS CONTAINMENT VENTILATION SYSTEM CTMT CLR FAN 1			
DRAWING NO.			REV.
E-58B-SH.1B			11

DB 05-23-05

DFN=F:/SCHEME/E58BSH1B.DGN

INC. PDUN 601250410-002 REV.0		INITIALS ON FILE		FINAL APPROVAL	
12-4-11 INC. DUN 11-0593-001-016 REV.00		DRAWN BY		CH'K BY	
3		DATE		REV.	
2					



SCHEME NO. BF1401
CONTINUED ON SHEET 1D THIS DWG.

* LOW AND HIGH SPEED STARTERS ARE NON LATCH-IN TYPE BUT THE LOW SPEED STARTER OPERATES LIKE A LATCH-IN TYPE THROUGH THE USE OF LOW SPEED AUXILIARY LATCH-IN RELAY 42/LX.

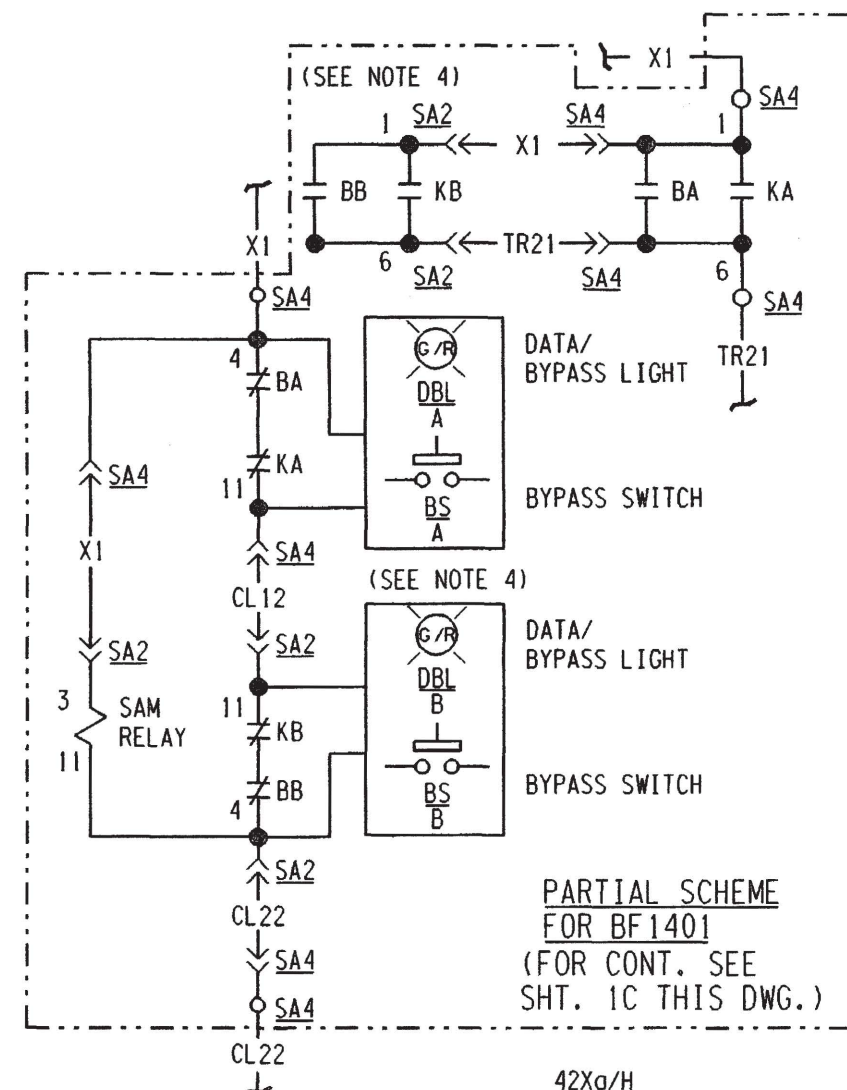
** SHORT CIRCUIT THE HIGH SPEED OVER LOAD RELAY CURRENT TRANSFORMER SECONDARY LEADS AT THE OVERLOAD RELAY.

SCALE NONE	DESIGNED	DRAWN SBW	DATE 05-05-05
DAVIS-BESSE NUCLEAR POWER STATION UNIT NO. 1			
ELEMENTARY WIRING DIAGRAMS CONTAINMENT VENTILATION SYSTEM CTMT CLR FAN 2			
DRAWING NO. E-58B-SH 1C			REV. 3

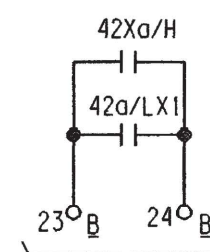
DB 06-04-20

DFN=F:/SCHEME/E58BSH1C.DGN

5/24/05	GEN. UPDATE FOR ECR 04-0267-00 PER DCN E-58B-239 AND RELOCATED SHEME BF 1401	SBW	Take	—	AGM	—
0	INFORMATION FROM E-58B SH.1B (REV. 11 UPDATE)	SBW		—		—
	REVISIONS	BY	CH'K	ENGR.	ENGR. SUPV.	GEN. SUPV.



1. FOR GENERAL NOTES SEE DWG. INDEX E-58B.
2. FOR CONTROL SWITCH DETAILS SEE DWG. E-30B, SH. 6A FIG. 1.
3. CONTRACTOR TO JUMPER TERMINAL No. 32 AND TERMINAL No. 35.
4. FOR VENDOR DWG. REFER TO E-17B, SEE VENDOR DWG. FOR SFAS INTERNAL WIRING.
5. FOR MOTOR CONNECTIONS SEE RELIANCE DWG. 600276-17 (7749-M400-21-1).
6. RELAYS 42/LX AND 42/LX1 ARE POTTER AND BRUMFIELD MDR RELAY AND HAS 8 PDT CONTACTS. FOR SPARE CONTACTS SEE DRAWINGS E-8-103 AND E-8Q-165.



INTRLK
SOV SV1357
SCHEME V1357
DWG. E-48B-SH.13

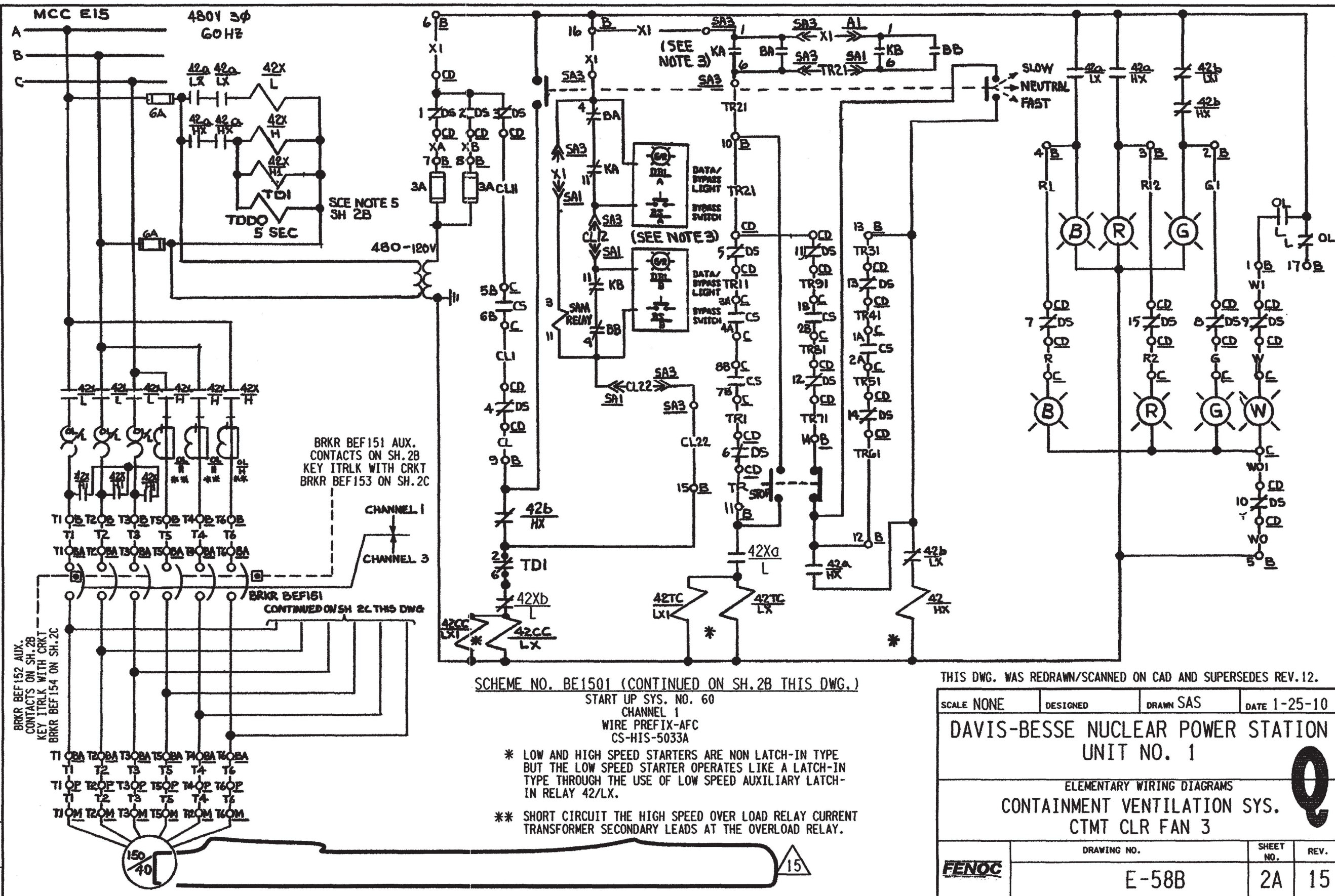
[S293]
(ZS5032)

[Z292]
(QS5032)

CONTINUED FROM SHEET 1C THIS DWG.

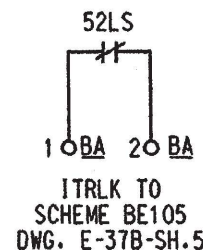
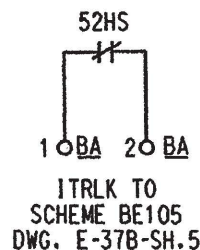
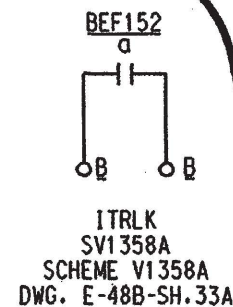
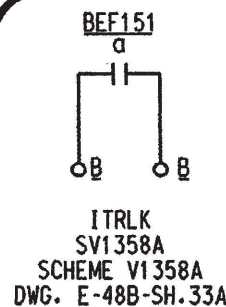
SCALE NONE	DESIGNED	DRAWN SBW	DATE 05-05-05
DAVIS-BESSE NUCLEAR POWER STATION UNIT NO. 1			
ELEMENTARY WIRING DIAGRAMS CONTAINMENT VENTILATION SYSTEM CTMT CLR FAN 2			
	DRAWING NO.		REV.
	E-58B-SH.1D		0

15	12/4/11	INC. DUN 11-0143-001-001 REV.00	ISSUED FOR CONSTRUCTION	NO.	DATE	REVISIONS	BY	CH'K	ENGR.	SUPV.	INITIALS ON FILE	ENGR.	SUPV.
0	11-27-72												



REV.	DESCRIPTION	DATE	DR	CHK	SUPV	CHIEF	PROJ	OWNER
10	INC. DUN 11-0140-001-002 REV. 00 (REDRAWN)							
9	INC. DCN E-58B-211 PER ERR 60-0001-040							
0	ISSUED FOR CONSTRUCTION							

10

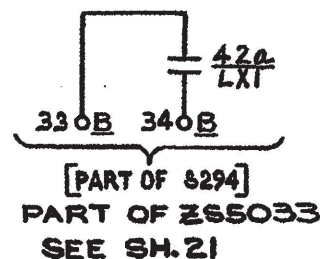
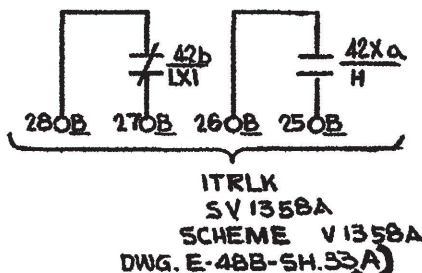
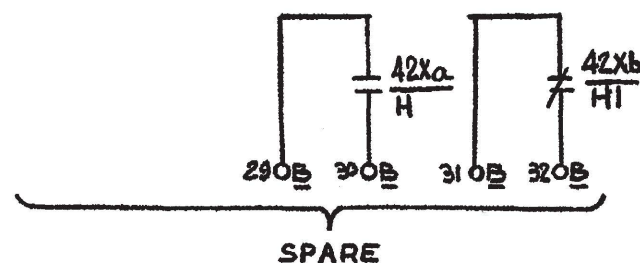
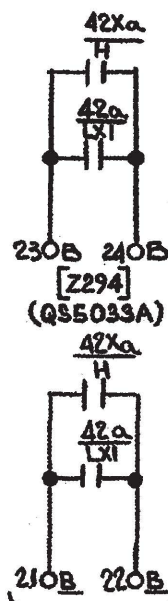


NOTES CONT.:

5. TD1 RELAY WAS ORIGINALLY AGASTAT MODEL 7022CB, ANY FUTURE REPLACEMENT IS TO BE MODEL E-7022CB. REF NRC INFO, NOTICE 87-66.
6. RELAYS 42/LX AND 42/LXI ARE POTTER & BRUMFIELD MDR RELAY AND HAS 8 PDT CONTACTS. FOR SPARE CONTACTS SEE DRAWINGS E-8-103 & E-8Q-165.

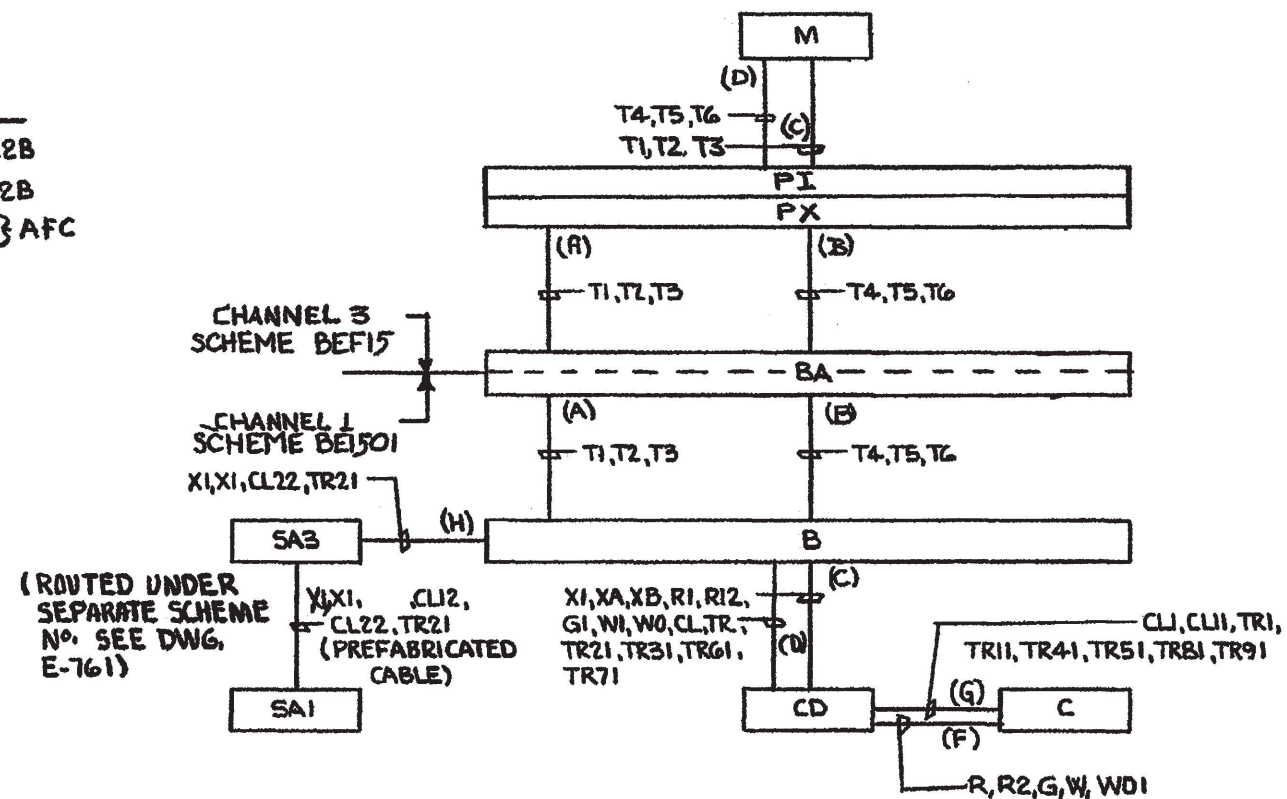
LEGEND

C - C571G KA-K22B
 CD - CDE12A-1 KB-K22B
 B - BE1501 WIRE 3 AFC
 BA - BEF15 PREFIX
 PX(1)-P3P4CX(1)
 SAI - C5762D
 SA3 - C5763C
 CS - H159033A
 M - MC0013



NOTES:

1. FOR GENERAL NOTES SEE DWG. INDEX E-58B
2. FOR CONTROL SW. DETAILS SEE DWG. E-30B, SH.6A FIG.1
3. FOR VENDOR DWG. REFER TO E-17B. SEE VENDOR DWG FOR SFAS INTERNAL WIRING.
4. FOR MOTOR CONNECTIONS SEE RELIANCE DWG. 600276-17 (7749-M400-21-1)



BLOCK DIAGRAM

THIS DWG. WAS REDRAWN/SCANNED ON CAD AND SUPERSEDES REVISION 9.

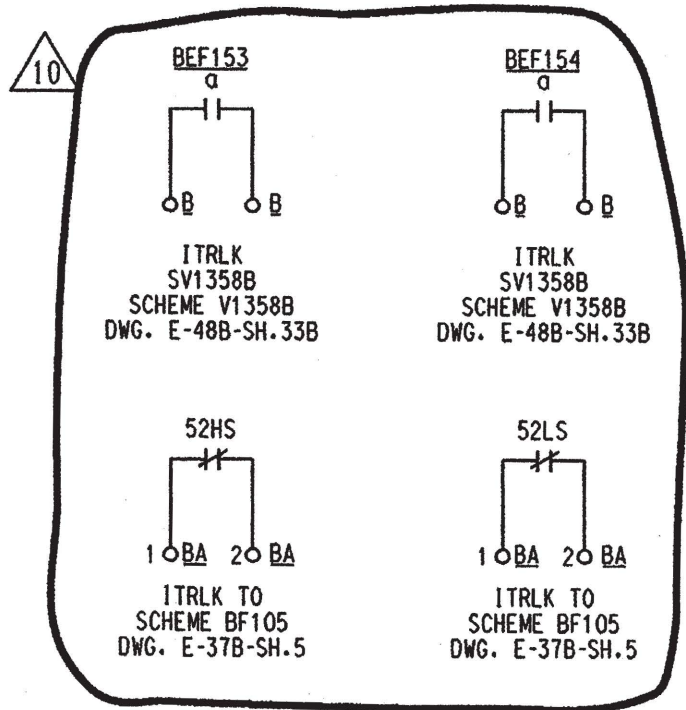
DAVIS-BESSE NUCLEAR POWER STATION

THE TOLEDO EDISON COMPANY
 THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

ELEMENTARY WIRING DIAGRAMS CONTAINMENT VENTILATION SYS. CTMT CLR FAN 3

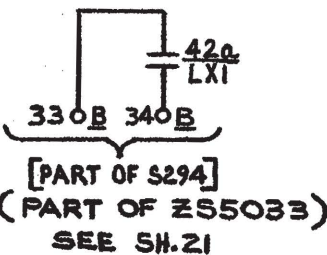
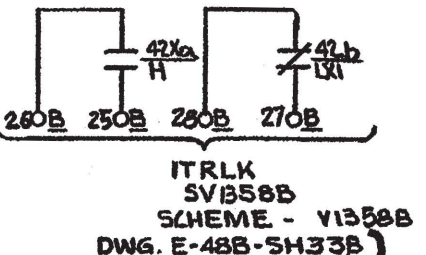
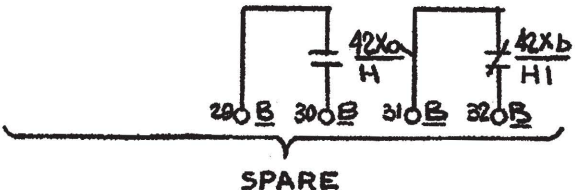
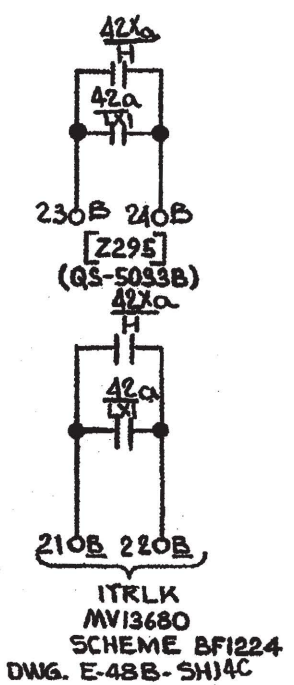
BECHTEL COMPANY	JOB NO.	DRAWING NO.	REV.
	7749	E-58B-SH.2B	10

REV.	DESCRIPTION	DATE	DR	CHK	SUPV	CHIEF	PROJ	OWNER
10	INC. DUN 11-0140-001-004 REV. 00 (REDRAWN)	9.16.11						
9	INC. DUN E-58B-212 PER ERR 60-0001-040	9/16/11						
0	ISSUED FOR CONSTRUCTION	9/16/11						

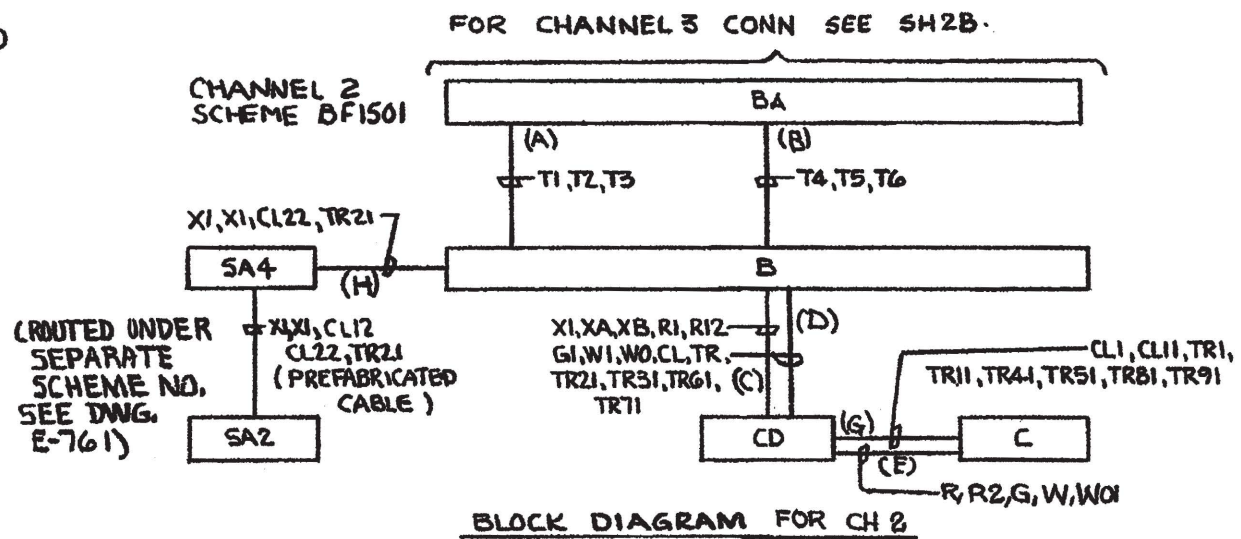


LEGEND

C—C5716 KA—K22B
 CD—CDF12A-1 KB—K22B
 B—BF1501 WIRE } AFD
 BA—BEF15 PREFIX
 SA2—C5755 D
 SA4—C5756 C
 CS—H155093B
 M—MC0013



- NOTES:**
1. FOR GENERAL NOTES SEE DWG. INDEX E-58B
 2. FOR CONTROL SW. DETAILS SEE DWG. E-30B, SH.6A, FIG.1
 3. FOR VENDOR DWG, REFER TO E-17B, SEE VENDOR DWG. FOR SFAS INTERNAL WIRING.
 4. FOR MOTOR CONNECTIONS SEE RELIANCE DWG. 600276-17 (7749-M400-21-1)
 5. TDI RELAY WAS ORIGINALLY AGASTAT MODEL 7022CB. ANY FUTURE REPLACEMENT IS TO BE MODEL E-7022CB. REF. NRC INFO. NOTICE 87-66.
 6. RELAYS 42/LX AND 42/LXI (FOR BF1501) ARE POTTER AND BRUMFIELD MDR RELAY AND HAS 8 PDT CONTACTS, FOR SPARE CONTACTS SEE DRAWINGS E-8-103 AND E-8Q-165.



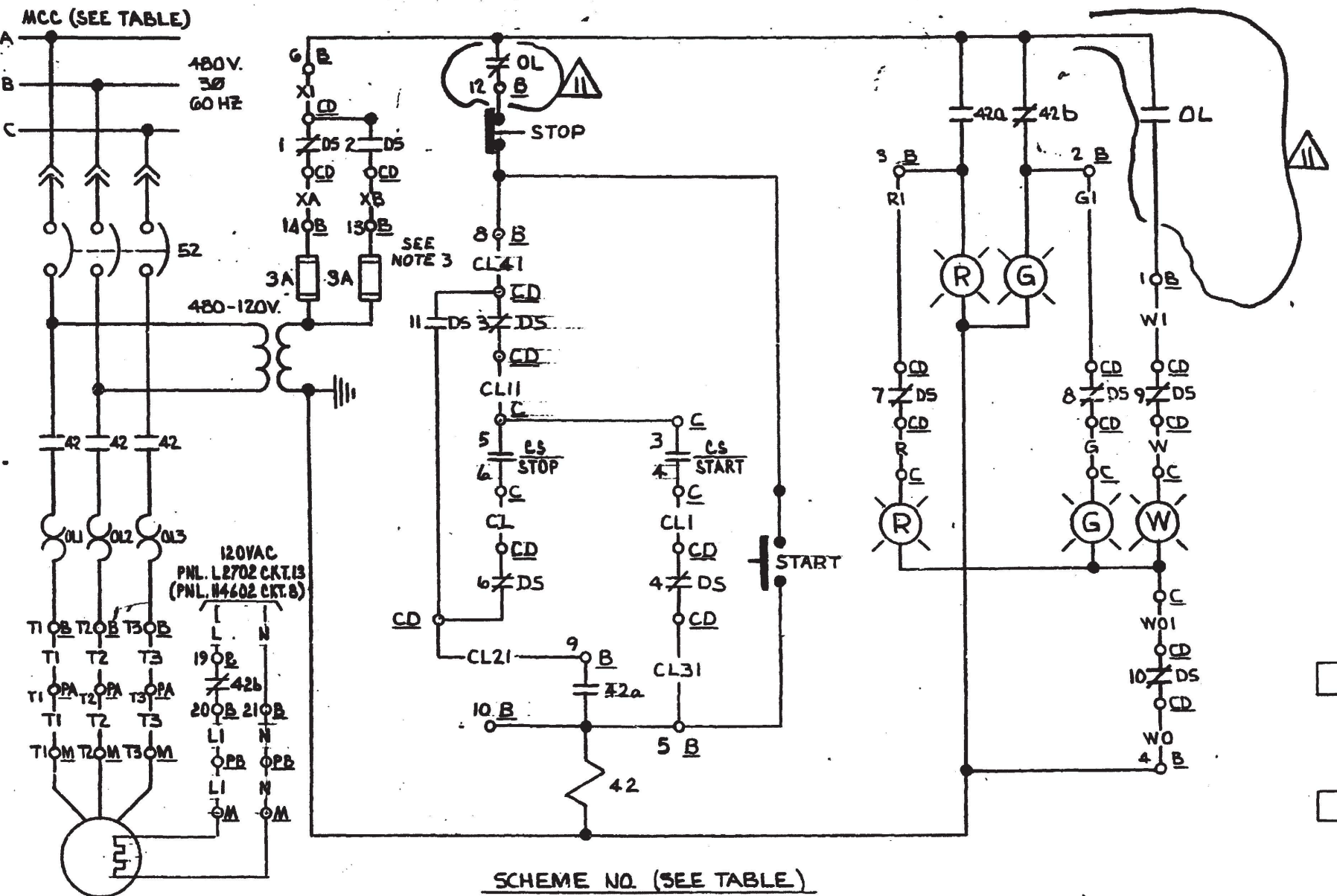
THIS DWG. WAS REDRAWN/SCANNED ON CAD AND SUPERSEDES REVISION 9.

DAVIS-BESSE NUCLEAR POWER STATION
 THE TOLEDO EDISON COMPANY
 THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

ELEMENTARY WIRING DIAGRAMS
CONTAINMENT VENTILATION SYS.
CTMT CLR FAN 3

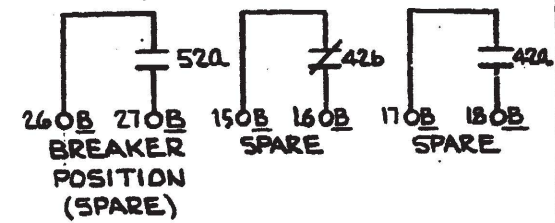
BECHTEL COMPANY	JOB NO.	DRAWING NO.	REV.
	7749	E-58B-SH.2D	10

11	INC. DCN E-58B-224 AND 227 PER ECR03-0335-000	DATE	DR	CHK	SUPV	CHIEF	PROJ	OWNER
10	INC. DCN E-58B-194 PER DCR 95-0044	DATE	DR	CHK	SUPV	CHIEF	PROJ	OWNER
0	ISSUED FOR CONSTRUCTION	DATE	DR	CHK	SUPV	CHIEF	PROJ	OWNER

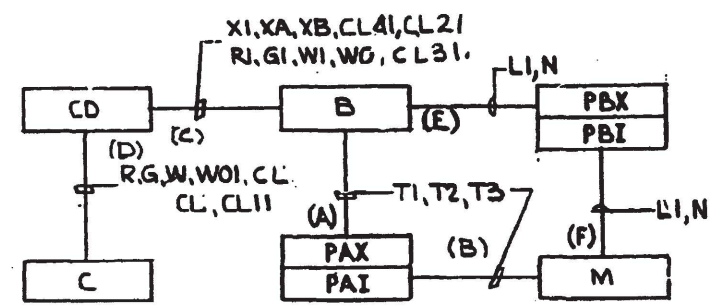


SCHEME NO. (SEE TABLE)

SCHEME NO.	MCC	START UP SYS. NO.	CHANNEL	WIRE PREFIX	CTRL. SW. CS	EQUIPMENT NO'S					
						C	CD	B	M	FAX(I)	PBX(I)
BE1109	EJ1B	60	1	RA	HIS5034	C5716	CDE1B-1	BE1109	MC0561	PIP2MX(I)	PAC1NX(I)
BF1113	FI1A	60	8	RB	HIS5035	C5716	CD11A-1	BF1113	MC0562	P2P5FX(I)	PBC2DX(I)



- NOTES:
1. FOR GENERAL NOTES SEE DWG. INDEX E-58B
 2. FOR DETAILS OF CONTROL SWITCH SEE DWG. E-30B, SHEET G, FIG. 8
 3. CONTRACTOR TO REMOVE PRESENT WIRE BETWEEN FUSE AND TERMINAL NO. 6, AND WIRE FUSE TO TERMINAL NO. 14. INSTALL SECOND FUSE AND WIRE IT TO TERMINAL NO. 13.



BLOCK DIAGRAM

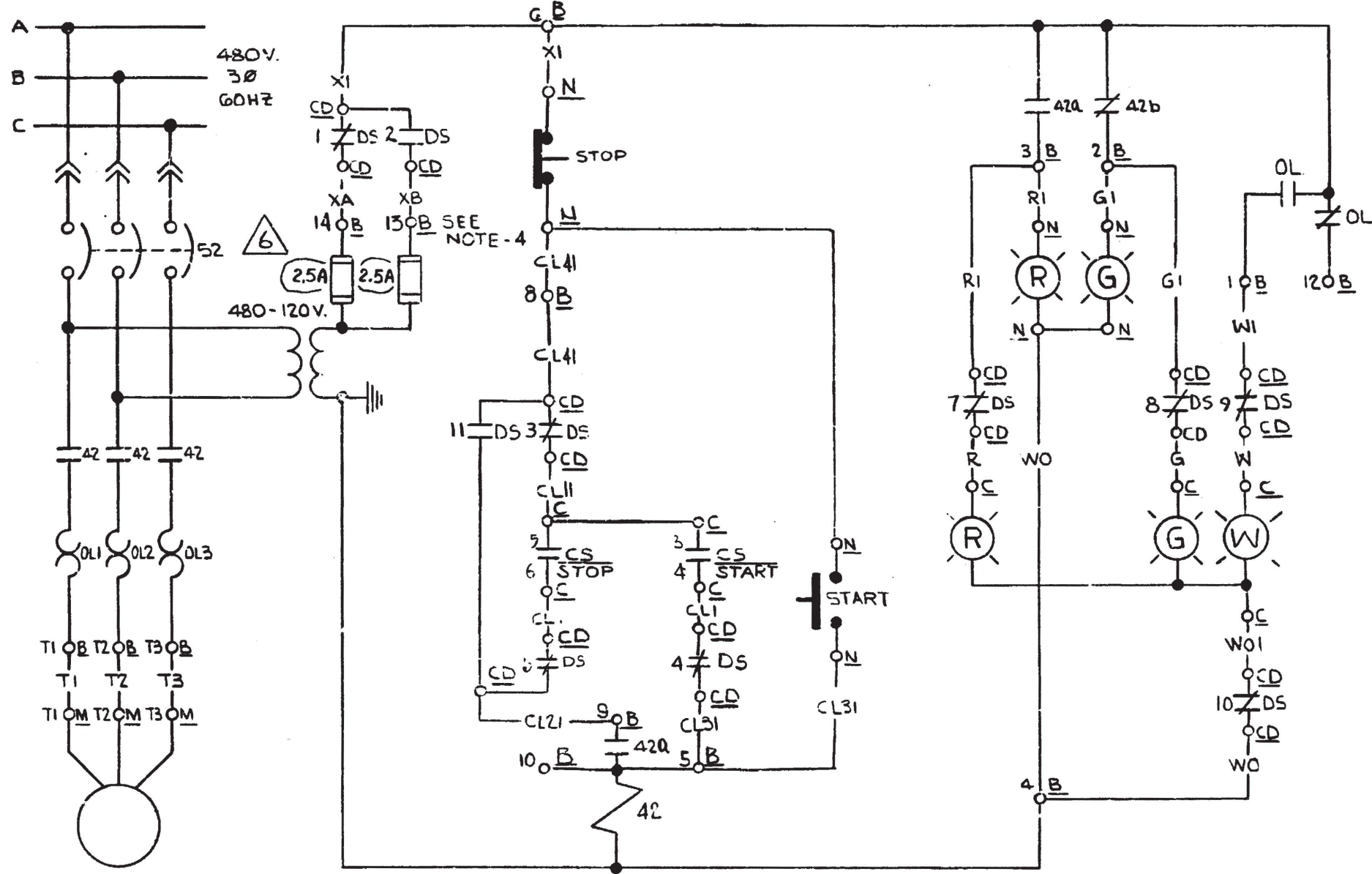
DAVIS-BESSE NUCLEAR POWER STATION
THE TOLEDO EDISON COMPANY
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

ELEMENTARY WIRING DIAGRAMS
CONTAINMENT VENTILATION SYS.
GTMT RECIRC FANS

BECHTEL COMPANY	JOB NO.	DRAWING NO.	REV.
	7749	E-58B-SH. 3	11

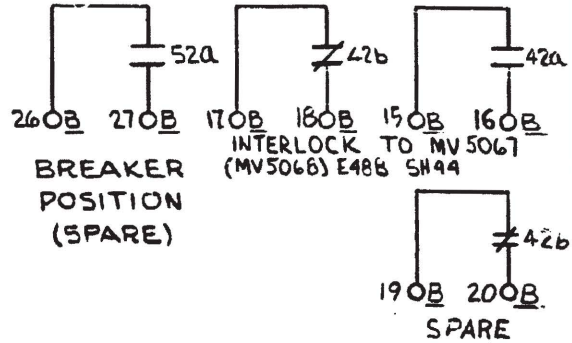
REV.	DESCRIPTION	DATE	CHK	SUPV	CHIEF	PROJ	OWNER
5	ADDED "START" & "STOP" TO CS CONTACTS	12.15.76	DVB	A/C	SAC	SW	SW
6	INC. DCN E-58B-1, FOR 77-217, "AS BUILT"	3.27.78	JLH	1/1	SAC	SW	SW
0	ISSUED FOR CONSTRUCTION	11/7/78	G.T.S.	ENS/KS	SW	SW	SW

MCC (SEE TABLE)

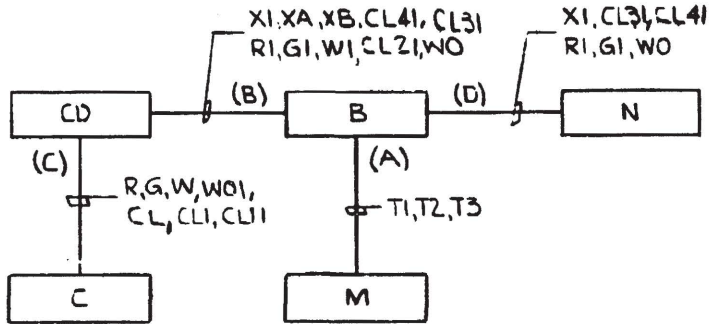


SCHEME NO. (SEE TABLE)

SCHEME NO.	MCC	START IIP SYS. NO.	CHANNEL	WIRE PREFIX	CONT SW CS	EQUIPMENT NO'S				
						C	CD	E	M	N
BE1102	E11A	60	1	DA	H15 5067	C5716	CDE11A	BE1102	MCO621	NCO621
BE1109	F11A	60	2	DB	H15 5065	C5716	CDF11A.2	BE1109	MCO622	NCO622



- NOTES:
- 1. FOR GENERAL NOTES SEE DWG. INDEX E-38B
 - 2. FOR DETAILS OF CONTROL SWITCH SEE DWG. E-30B, SH.6, FIG.8
 - 3. FOR DETAILS OF LOCAL PUSHBUTTONS & IND. LIGHTS SEE E-30B, SH.7, TYPES 1 & 4
 - 4. CONTRACTOR TO REMOVE PRESENT WIRE BETWEEN FUSE & TERMINAL NO.6 AND WIRE IT TO TERMINAL NO.14. INSTALL SECOND FUSE AND WIRE IT TO TERMINAL NO.13.



BLOCK DIAGRAM

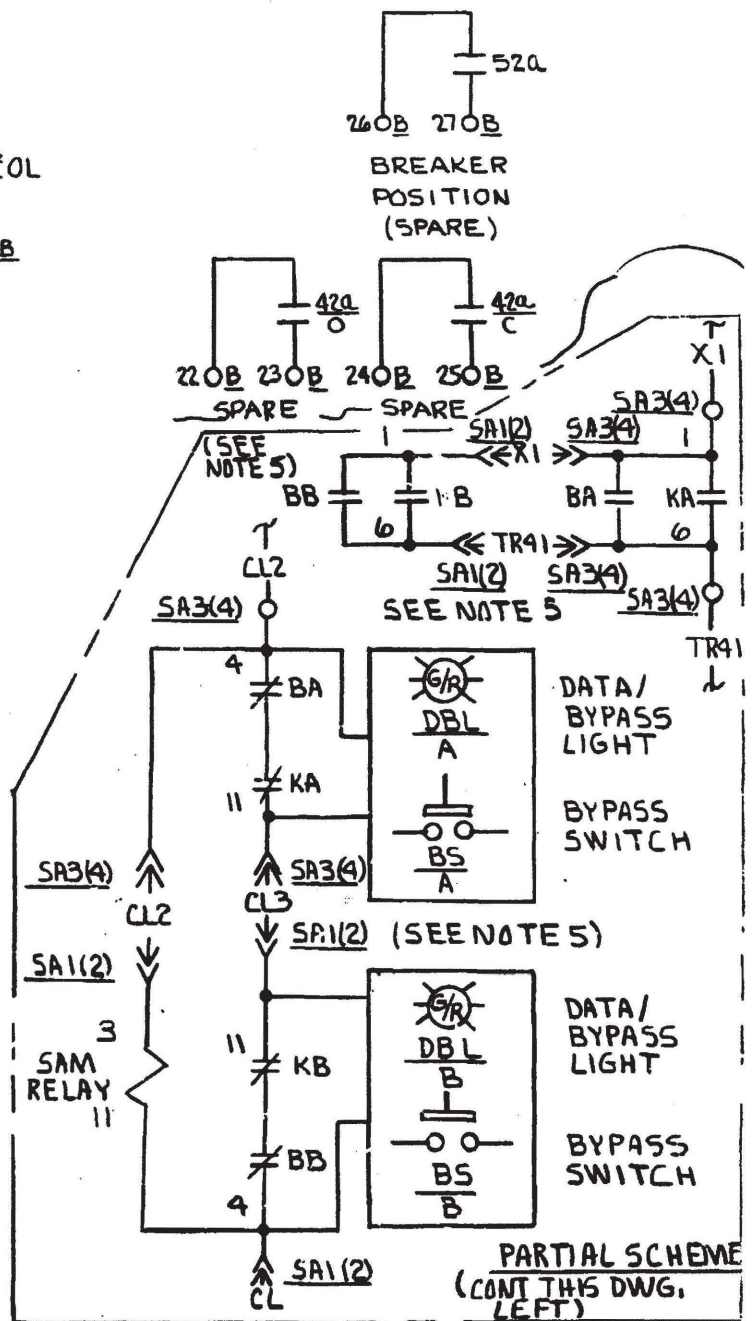
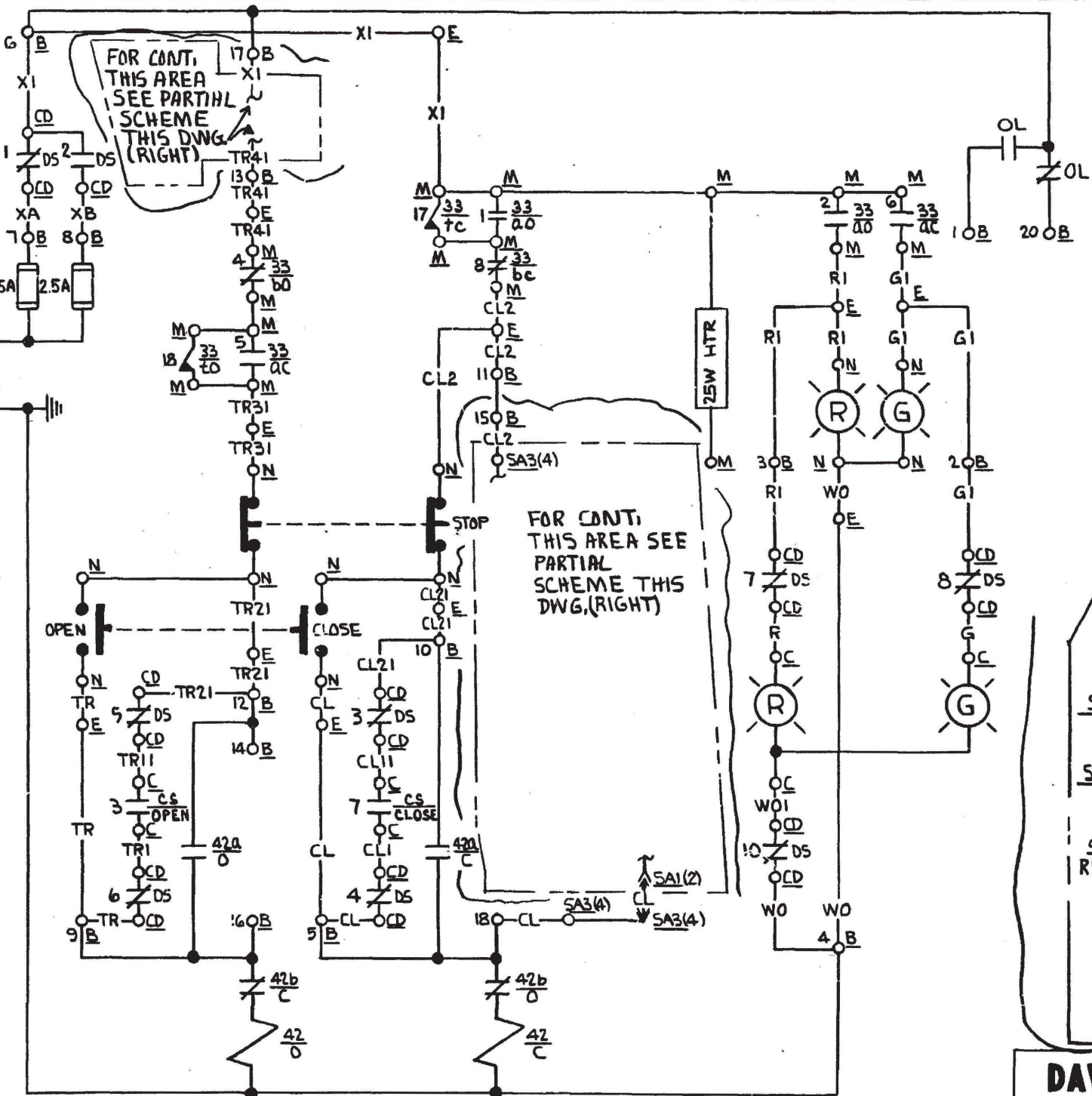
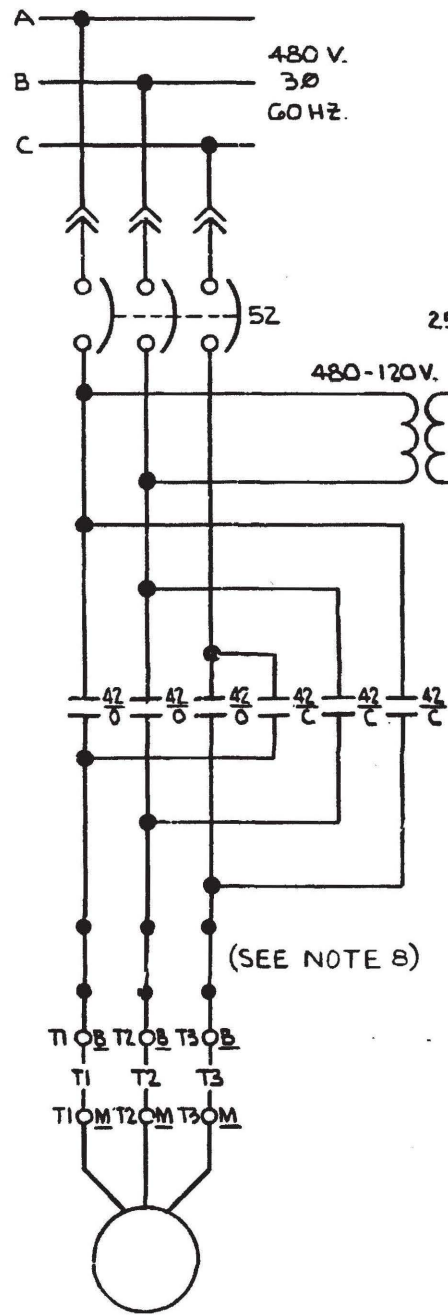
DAVIS-BESSE NUCLEAR POWER STATION
THE TOLEDO EDISON COMPANY
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

ELEMENTARY WIRING DIAGRAMS
**CONTAINMENT VENTILATION SYS.
H2 DILUTION SYS BLOWER**

BECHTEL COMPANY	JOB NO. 7749	DRAWING NO. E-58B-SH.4	REV. 6
-----------------	------------------------	----------------------------------	------------------

REV.	DESCRIPTION	DATE	DR	CHK	SUPV	CHIEF	PROJ	OWNER
8	AS BUILT FOR FCR 85-112; INC. DCN E-58B-48	11/20/93	MTF	SBW	MTF	MTF	JAC	JAC
9	INC. DCN E-58B-137, 139, 175 & 177 PER MOD 90-0006 SUP. D	12/21/94	SBW	MTF	MTF	MTF	JAC	JAC
0	ISSUED FOR CONSTRUCTION	1/17/95	G.T.S.	EMSKS	MTF	MTF	JAC	JAC

MCC (SEE TABLE)



SCHEME NO. (SEE TABLE)
CONTINUED ON SHEET 5B THIS DWG.

DAVIS-BESSE NUCLEAR POWER STATION
THE TOLEDO EDISON COMPANY
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

ELEMENTARY WIRING DIAGRAMS
**CONTAINMENT VENTILATION SYS.
H2 DILUTION SYS MOV'S**

BECHTEL COMPANY	JOB NO. 7749	DRAWING NO. E-58B-SH.5A	REV. 9
-----------------	------------------------	-----------------------------------	------------------

NOTE 7

$\frac{33}{\alpha c}$

P N

M M

[Z071]

(ZS5037)

NOTE 7

$\frac{33}{\alpha c}$

P N

M M

[Z072]

(ZS5038)

NOTE 7

$\frac{33}{\alpha c}$

P N

M M

[Z069]

(ZS5090)

NOTE 7

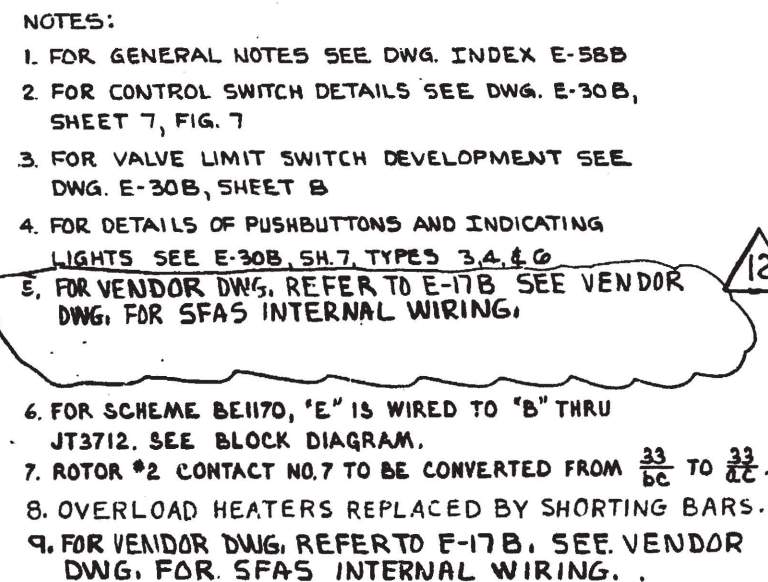
$\frac{33}{\alpha c}$


P N

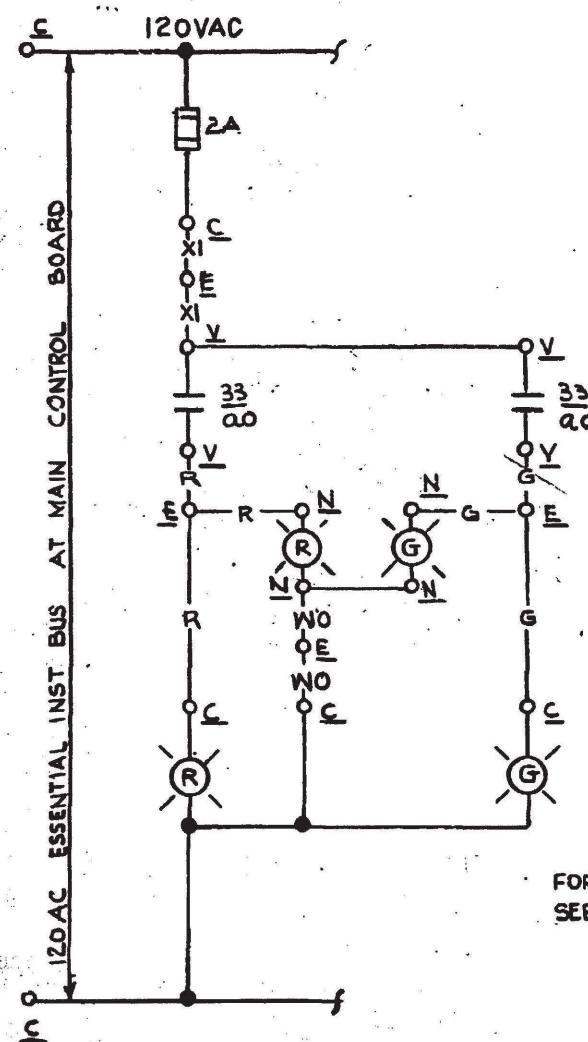
M M

[Z068]

(ZS5065)




DAVIS-BESSE NUCLEAR POWER STATION			
THE TOLEDO EDISON COMPANY THE CLEVELAND ELECTRIC ILLUMINATING COMPANY			
ELEMENTARY WIRING DIAGRAMS			
CONTAINMENT VENTILATION SYS			
H2 DILUTION SYS. MOV'S			
BECHTEL COMPANY 	JOB NO.	DRAWING NO.	REV.
	7749	E-58B-SH.5B	12



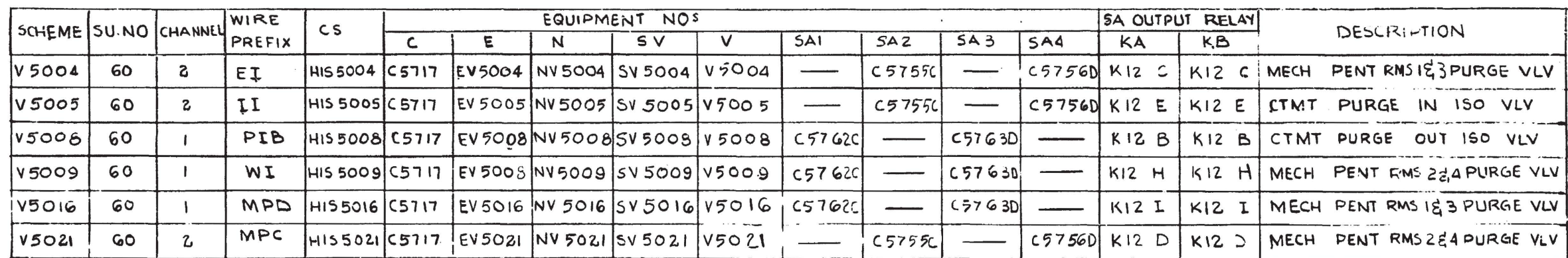
Z55004 Z55004 Z55005 Z55005 Z55006 Z55006 Z55008 Z55008 Z55008 Z55009 Z55009 Z55009 Z55021 Z55021 Z55021

 TO C6801-C2 (SEE DWG E-803 & FP-7749-M410-112)
 TO C6801-C3 (SEE DWG E-803 & FP-7749-M410-112)

ELEMENTARY WIRING DIAGRAMS
CONTAINMENT VENTILATION SYS.
MECH. PENT. RM. & CTMT. PURGE VLV

	JCS NO.	DRAWING NO.	REV.
	7749	E 58B-SH 7A	6


I CERTIFY THAT THE IMAGE CONTAINED ON THIS FRAME WAS MADE IN THE NORMAL AND REGULAR COURSE OF BUSINESS, ON THE DATE STATED BELOW AND THAT IT IS AN ACCURATE REPRODUCTION OF THE RECORD(S) SUBMITTED TO NUCLEAR RECORDS MANAGEMENT.



- 1 FOR GENERAL NOTES SEE DWG INDEX E 588
- 2 FOR DETAILS OF LOCAL PUSHBUTTONS AND IND. LIGHTS SEE DRAWING E 30B SH 7 TYPE 486
3. FOR DETAILS OF CONTROL SW "CS" SEE DWG E30B SH 7 FIG 7
4. FOR VENDOR DWG, REFER TO E-17B. SEE VENDOR DWG. FOR SPAS INTERNAL WIRING.
5. INSTALL "DIODE" IN ACCORDANCE WITH DWG. E-10374-SH.17.



ELEMENTARY WIRING DIAGRAMS
CONTAINMENT VENTILATION SYS.
MECH PENT RM & CTMT PURGE VLV

BECHTEL COMPANY	JOB NO.	DRAWING NO.	REV.
	7749	E58B SH 7B	5

10, 1956




1. FOR GENERAL NOTES SEE DWG. INDEX E-58B.
2. ELAPSED TIME METER EAGLE SIGNAL
BULLETIN 705 CAT #HKS10A6 MOUNTED IN A
SIZE ONE BOX.

DAVIS-BESSE NUCLEAR POWER STATION

THE TOLEDO EDISON COMPANY
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

ELEMENTARY WIRING DIAGRAM
CTMT VENTILATION SYSTEM
EVS FAN 1 & 2 ELAPSED TIME METER

	JOB NO.	DRAWING NO.	REV.
	7749	E-58B SH.8A	0

NOTES


- △



CONTINUED FROM SHEET 10A. THIS DWG

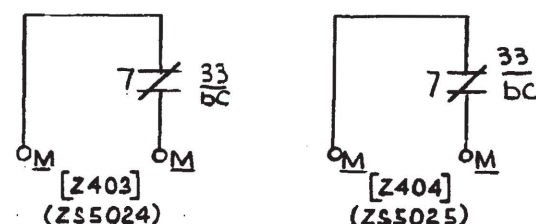
THE TOLEDO EDISON COMPANY
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

ELEMENTARY WIRING DIAGRAMS
CONTAINMENT VENTILATION SYSTEM
CTMT VACM RLF VLV PENT

	BECHTEL COMPANY	JOB NO.	DRAWING NO.	REV.
		7749	E-58B SH-10B	8

ITRLK TO MC5017, SEE SH 12

ITRLK TO MC5018, SEE SH 12



1. FOR GENERAL NOTES SEE DWG INDEX E58B
2. FOR CONTROL SW. DETAILS SEE DWG E30B SH7 FIG7
3. FOR VALVE LIMIT SW DEV. SEE DWG E30B SH8
4. FOR DETAILS OF PUSH BUTTONS AND INDICATING LIGHT SEE E30B SH7 FIG 3,4 & 6.
5. FOR VENDOR DWG. REFERTO E-17B: SEE VENDOR DWG. FOR SEAS INTERNAL WIRING.

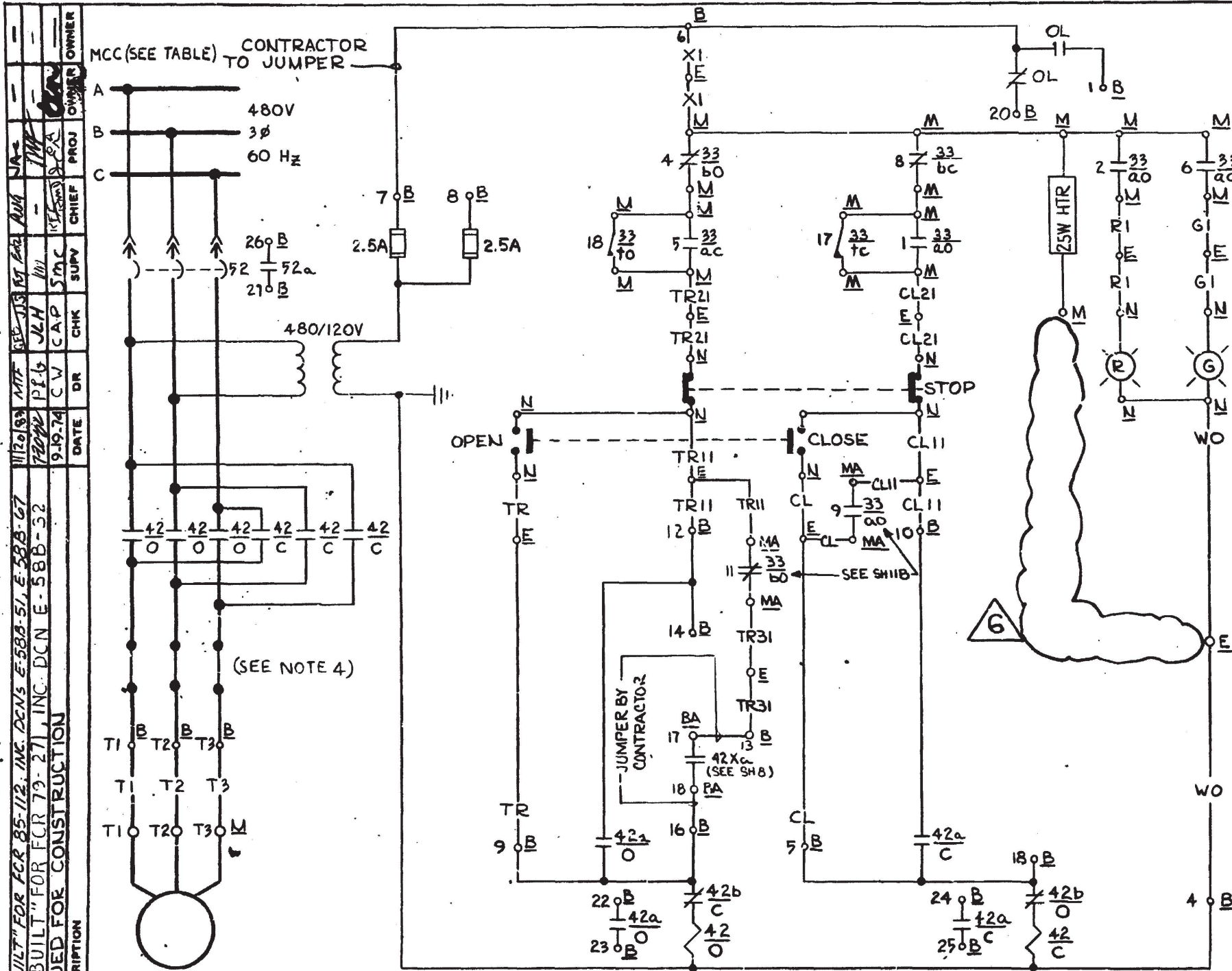
6. OVERLOAD HEATERS REPLACED BY SHORTING BARS.

THE TOLEDO EDISON COMPANY
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

ELEMENTARY WIRING DIAGRAMS
CONTAINMENT VENTIL SYSTEM
FUEL HAND AREA BYPASS VLV

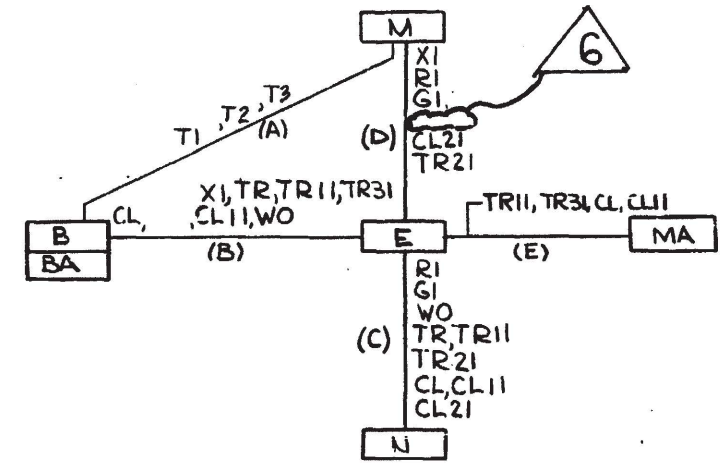
BECHTEL COMPANY	JOB NO. 7749	DRAWING NO. E 58B SHIIB	REV. 9
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I CERTIFY THAT THE IMAGE CONTAINED ON THIS FRAME WAS MADE IN THE NORMAL AND REGULAR COURSE OF BUSINESS ON THE DATE STATEMENT IS MADE BELOW AND THAT IT IS AN ACCURATE REPRODUCTION OF THE RECORDING.



SCHEME NO. (SEE TABLE)

SCHEME NO.	MCC	SU NO.	CHANNEL	EQUIPMENT						DESCRIPTION
				B	M	N	E	BA	MA	
BE1237	E12A	34	1	BE1237	MC5017	NC5017	EC5017	BE1219	MV50240	EMER VENT FAN-1 IN
BF1218	F12A	34	2	BF1218	MC5018	NC5018	EC5018	BF1203	MV50250	EMER VENT FAN-2 IN



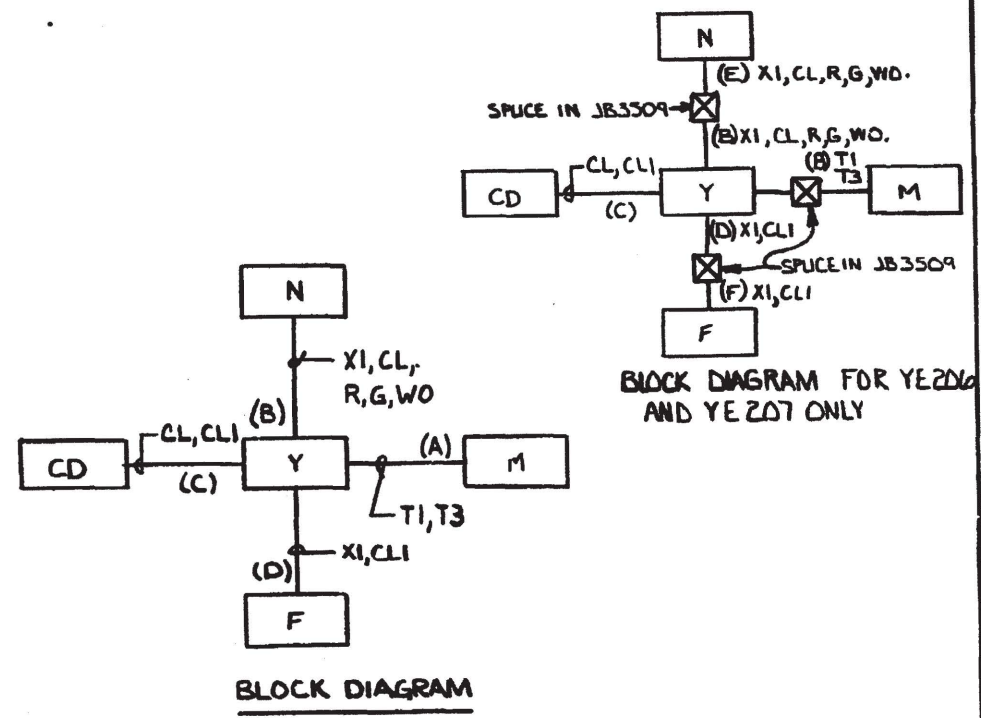
- NOTES
1. FOR GENERAL NOTES SEE DWG. E-58B INDEX SH.
 2. FOR VLV LIMIT SWCH DEVELOPMENT SEE DWG. E-30B SH.8
 3. FOR DETAILS OF PUSHBUTTONS & IND. LIGHTS SEE DWG. E-30B SH.7 FIG. 3, 4 & 6.
 4. OVERLOAD HEATERS REPLACED BY SHORTING BARS.

DAVIS-BESSE NUCLEAR POWER STATION

THE TOLEDO EDISON COMPANY
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY


ELEMENTARY DIAGRAM
CTMT VENTILATION SYSTEM
EMER VENT FAN INLET DAMPERS

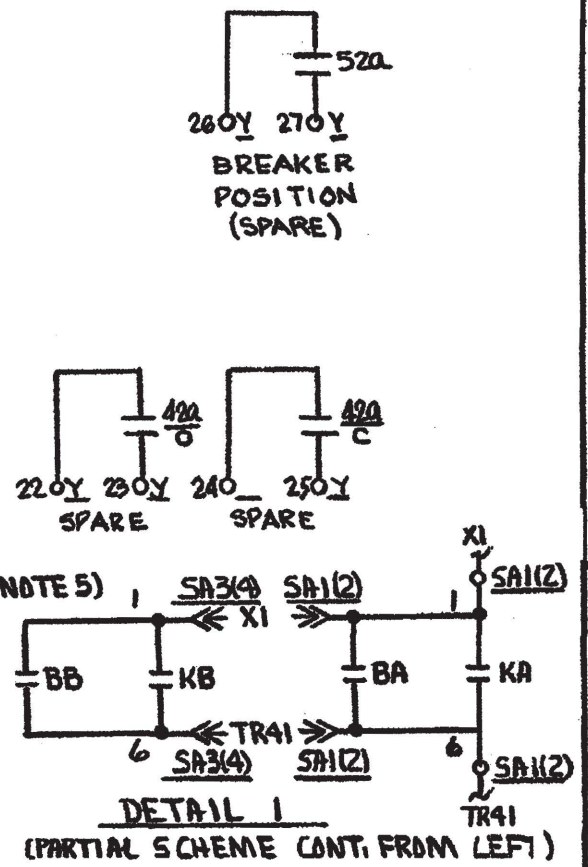
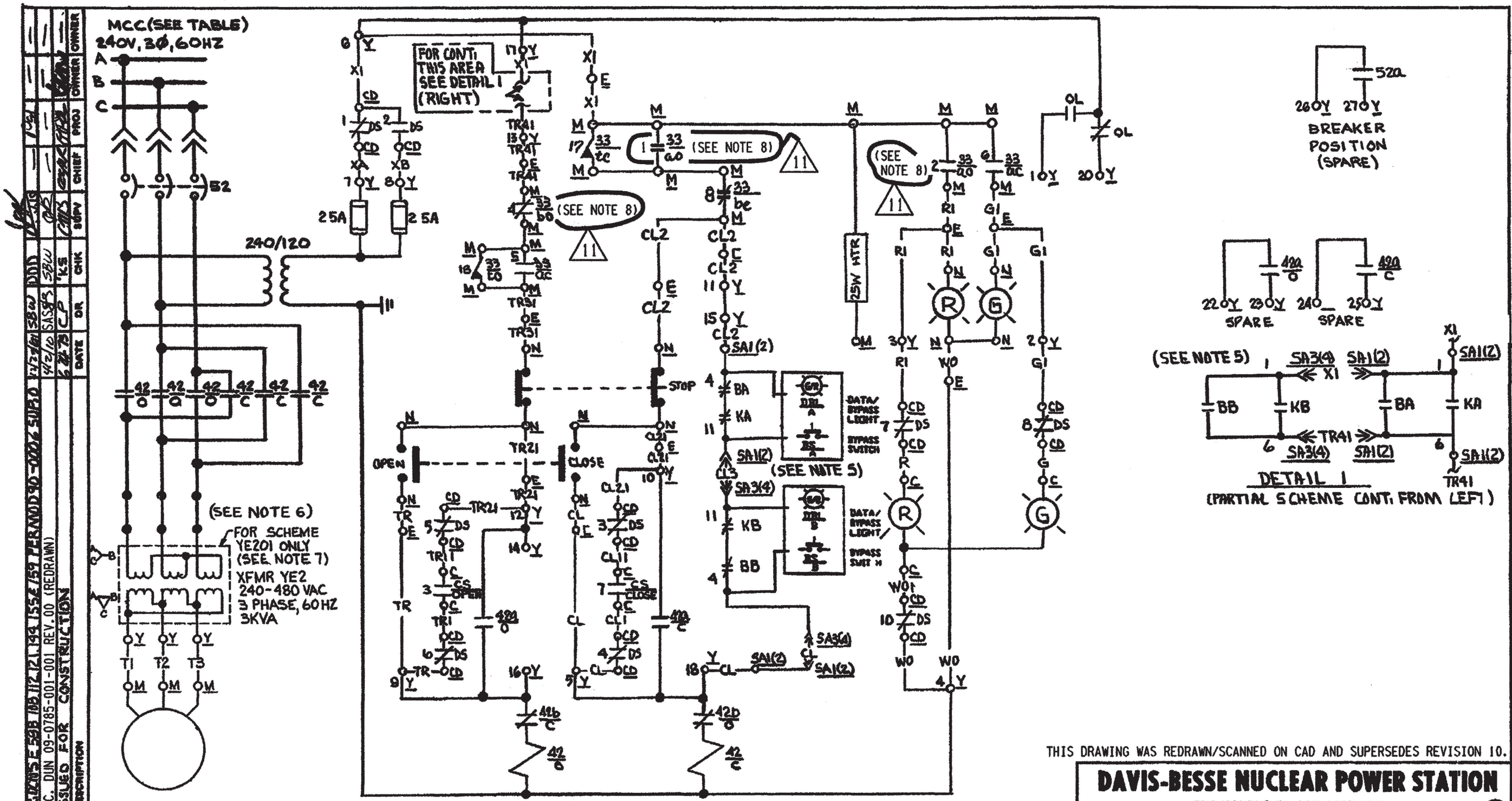
BECHTEL COMPANY	JOB NO.	DRAWING NO.	REV.
	7749	E58B SH12	6



- 6

SCHEME NO.	MCC	SU NO.	CHANNEL	EQUIPMENT						DESCRIPTION
				Y	N	M	PRESSURE CONTROLLER	F	CD	
YE206	YE2	34	1	YE206	NV5000A	MV5000A	PDC 5000	FPDIS5017	CDE12A-1	EMER VENT SYS 1 DAMPER 1-1
YE207	YE2	34	1	YE207	NV5000B	MV5000B	PDY5000C	FPDIS5017	CDE12A-1	EMER VENT SYS 1 DAMPER 1-2
YF206	YF2	34	2	YF206	NV5014A	MV5014A	PDC 5014	FPDIS5018	CDF12A-1	EMER VENT SYS 2 DAMPER 1-3
YF207	YF2	34	2	YF207	NV5014B	MV5014B	PDY5014C	FPDIS5018	CDF12A-1	EMER VENT SYS 2 DAMPER 1-4

DAVIS-BESSE NUCLEAR POWER STATION			
THE TOLEDO EDISON COMPANY			
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY			
ELEMENTARY WIRING DIAGRAMS			
CONTAINMENT VENTL SYS			
MODULATING DAMPER			
BECHTEL COMPANY	JOB NO.	DRAWING NO.	REV.
	7749	E-58B SH.13	6

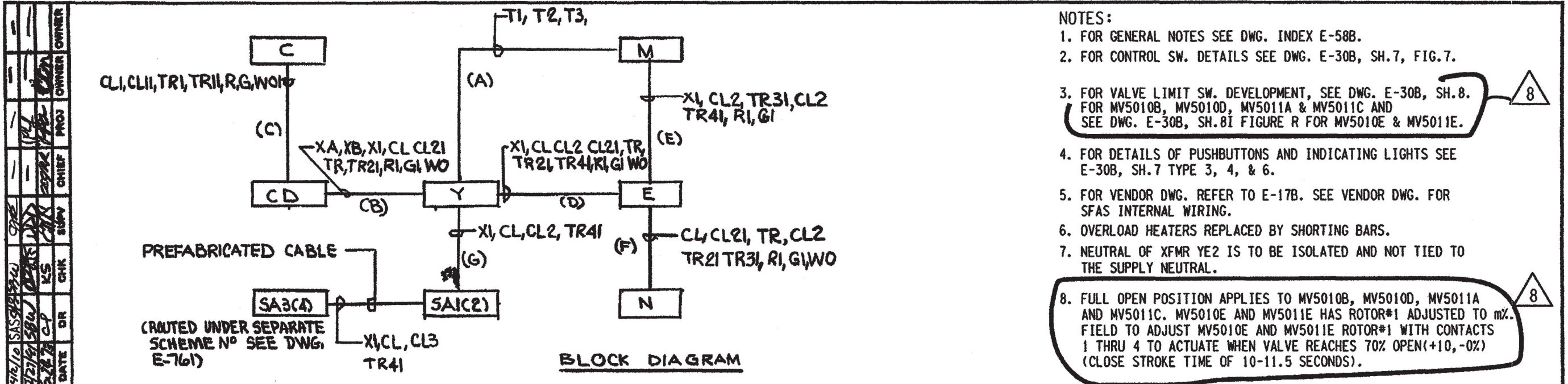


SCHEME NO (SEE TABLE)
CONTINUED ON SHEET 14 B THIS DWG

THIS DRAWING WAS REDRAWN/SCANNED ON CAD AND SUPERSEDES REVISION 10.

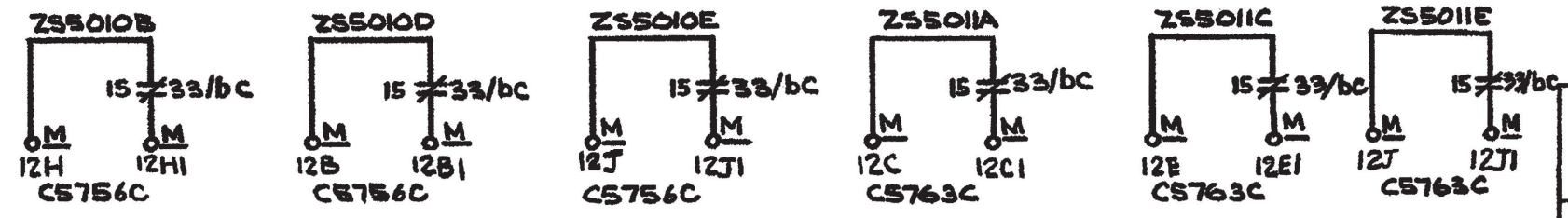
DAVIS-BESSE NUCLEAR POWER STATION			
THE TOLEDO EDISON COMPANY THE CLEVELAND ELECTRIC ILLUMINATING COMPANY			
ELEMENTARY WIRING DIAGRAMS			
CONTAINMENT VENTL SYSTEM			
CTMT AIR SMPL ISO VLV			
BECHTEL COMPANY	JOB NO	DRAWING NO	REV
	7749	E58B SH14A	11

REV	DESCRIPTION	DATE	CHK	APP	OWNER
10	ISSUED FOR CONSTRUCTION	11/12/14	11/12/14	11/12/14	11/12/14
11	INC. DUN 09-0785-001-001 REV. 00 (REDRAWN)	11/12/14	11/12/14	11/12/14	11/12/14



- NOTES:
- 1. FOR GENERAL NOTES SEE DWG. INDEX E-58B.
 - 2. FOR CONTROL SW. DETAILS SEE DWG. E-30B, SH.7, FIG.7.
 - 3. FOR VALVE LIMIT SW. DEVELOPMENT, SEE DWG. E-30B, SH.8. FOR MV5010B, MV5010D, MV5011A & MV5011C AND SEE DWG. E-30B, SH.8I FIGURE R FOR MV5010E & MV5011E.
 - 4. FOR DETAILS OF PUSHBUTTONS AND INDICATING LIGHTS SEE E-30B, SH.7 TYPE 3, 4, & 6.
 - 5. FOR VENDOR DWG. REFER TO E-17B. SEE VENDOR DWG. FOR SFAS INTERNAL WIRING.
 - 6. OVERLOAD HEATERS REPLACED BY SHORTING BARS.
 - 7. NEUTRAL OF XFMR YE2 IS TO BE ISOLATED AND NOT TIED TO THE SUPPLY NEUTRAL.
 - 8. FULL OPEN POSITION APPLIES TO MV5010B, MV5010D, MV5011A AND MV5011C. MV5010E AND MV5011E HAS ROTOR#1 ADJUSTED TO m%. FIELD TO ADJUST MV5010E AND MV5011E ROTOR#1 WITH CONTACTS 1 THRU 4 TO ACTUATE WHEN VALVE REACHES 70% OPEN(+10,-0%) (CLOSE STROKE TIME OF 10-11.5 SECONDS).

SCHEME NO	MCC	SU NO	CHANNEL	WIRE PREFIX	CS	EQUIPMENT NUMBERS										SA OUTPUT RELAY		DESCRIPTION
						C	CD	Y	E	M	N	SA1	SA2	SA3	SA4	KA	KB	
YF202	YF2	60	2	ISD	HIS5010B	C5717	CDYF2	YF 202	EV5010B	MV5010B	NV5010B	—	C5755C	—	C5756D	K12 H	K12 H	CTMT AIR SMPL ISO VLV
YF204	YF2	60	2	ISH	HIS5010D	C5717	CDYF2	YF 204	EV5010D	MV5010D	NV5010D	—	C5755C	—	C5756D	K12 B	K12 B	" " " " "
YF205	YF2	60	2	ISK	HIS5010E	C5717	CDYF2	YF 205	EV5010D	MV5010E	NV5010E	—	C5755C	—	C5756D	K12 J	K12 J	CTMT AIR SMPL RET ISO VLV
YE201	YE2	60	1	ISA	HIS5011A	C5717	CDYE2	YE 201	EV1544	MV5011A	NV5011A	C5762C	—	C5763D	—	K12 C	K12 C	CTMT AIR SMPL ISO VLV
YE203	YE2	60	1	ISE	HIS5011C	C5717	CDYE2	YE 203	EV5011C	MV5011C	NV5011C	C5762C	—	C5763D	—	K12 E	K12 E	" " " " "
YE205	YE2	60	1	ISJ	HIS5011E	C5717	CDYE2	YE 205	EV607	MV5011E	NV5011E	C5762C	—	C5763D	—	K12 J	K12 J	CTMT AIR SMPL RET ISO VLV



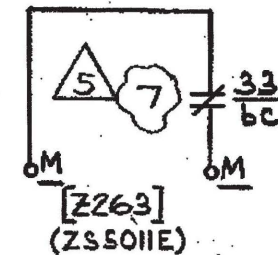
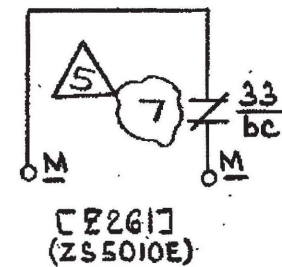
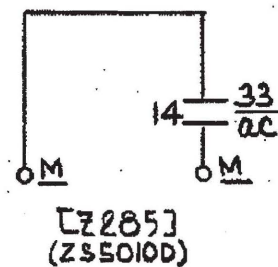
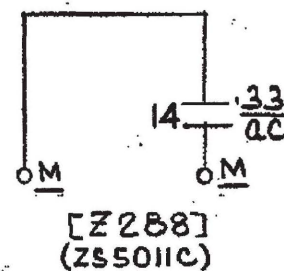
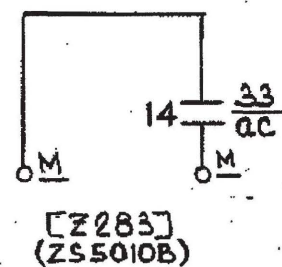
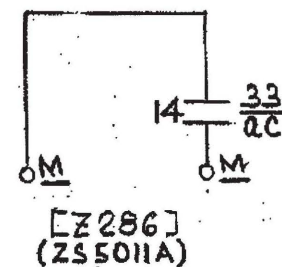
THIS DRAWING WAS REDRAWN/SCANNED ON CAD AND SUPERSEDES REVISION 7.

DAVIS-BESSE NUCLEAR POWER STATION

THE TOLEDO EDISON COMPANY
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

ELEMENTARY WIRING DIAGRAMS
CONTAINMENT VENTL SYS
CTMT AIR SMPL ISO VLV

BECHTEL COMPANY	JOB NO	DRAWING NO	REV
	7749	E58B-SH14B	8



DAVIS-BESSE NUCLEAR POWER STATION

THE TOLEDO EDISON COMPANY
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

ELEMENTARY WIRING DIAGRAMS
CONTAINMENT VENTL SYS
CTMT AIR SMPL ISO VLV

**BECHTEL
COMPANY**

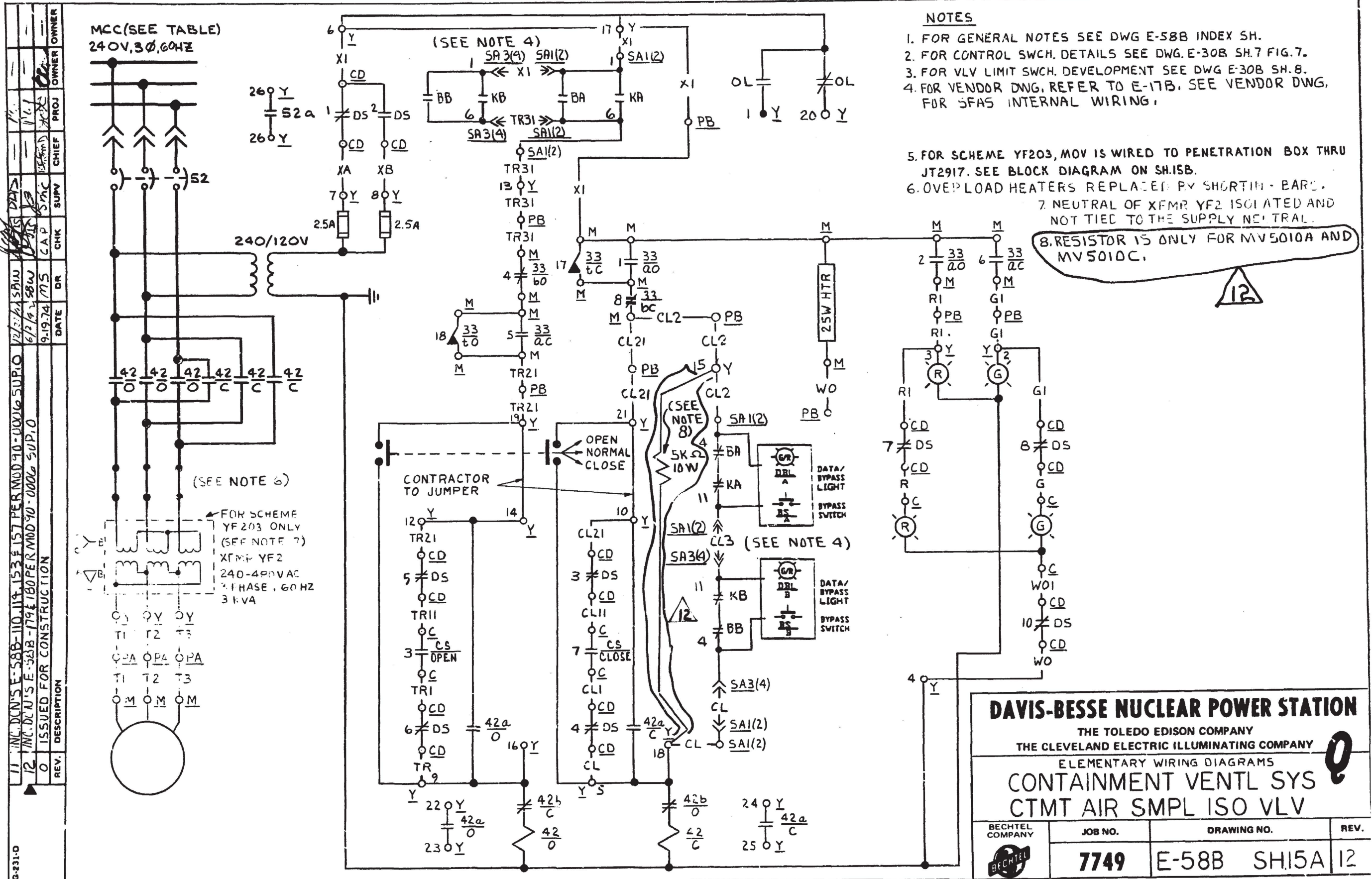
JOB NO.

DRAWING NO.

REV:

7749

E58B	SH	4C	5
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11 INC. DCN'S E-58B-110, 114, 153 & 157 PER MOD 90-00016 SUP. O

12 INC. DCN'S E-58B-174 & 180 PER MOD 90-00016 SUP. O

0 ISSUED FOR CONSTRUCTION

REV. DESCRIPTION

OWNER

PROJ

CHIEF

SUPV

CHK

DR

DATE

11 INC. DCN'S E-58B-110, 114, 153 & 157 PER MOD 90-00016 SUP. O

12 INC. DCN'S E-58B-174 & 180 PER MOD 90-00016 SUP. O

0 ISSUED FOR CONSTRUCTION

REV. DESCRIPTION

OWNER

PROJ

CHIEF

SUPV

CHK

DR

DATE

MCC(SEE TABLE)
240V, 3Ø, 60HZ

(SEE NOTE 4)

(SEE NOTE 6)

FOR SCHEME YF203 ONLY
(SEE NOTE 7)
XFMR YF2
240-480VAC
3 PHASE, 60 HZ
3 kVA

CONTRACTOR TO JUMPER

OPEN
NORMAL
CLOSE

DATA/BYPASS LIGHT
BYPASS SWITCH

DATA/BYPASS LIGHT
BYPASS SWITCH

12

12

11 INC. DCN'S E-58B-110, 114, 153 & 157 PER MOD 90-00016 SUP. O

12 INC. DCN'S E-58B-174 & 180 PER MOD 90-00016 SUP. O

0 ISSUED FOR CONSTRUCTION

REV. DESCRIPTION

OWNER

PROJ

CHIEF

SUPV

CHK

DR

DATE

11 INC. DCN'S E-58B-110, 114, 153 & 157 PER MOD 90-00016 SUP. O

12 INC. DCN'S E-58B-174 & 180 PER MOD 90-00016 SUP. O

0 ISSUED FOR CONSTRUCTION

REV. DESCRIPTION

OWNER

PROJ

CHIEF

SUPV

CHK

DR

DATE

MCC(SEE TABLE)
240V, 3Ø, 60HZ

(SEE NOTE 4)

(SEE NOTE 6)

FOR SCHEME YF203 ONLY
(SEE NOTE 7)
XFMR YF2
240-480VAC
3 PHASE, 60 HZ
3 kVA

CONTRACTOR TO JUMPER

OPEN
NORMAL
CLOSE

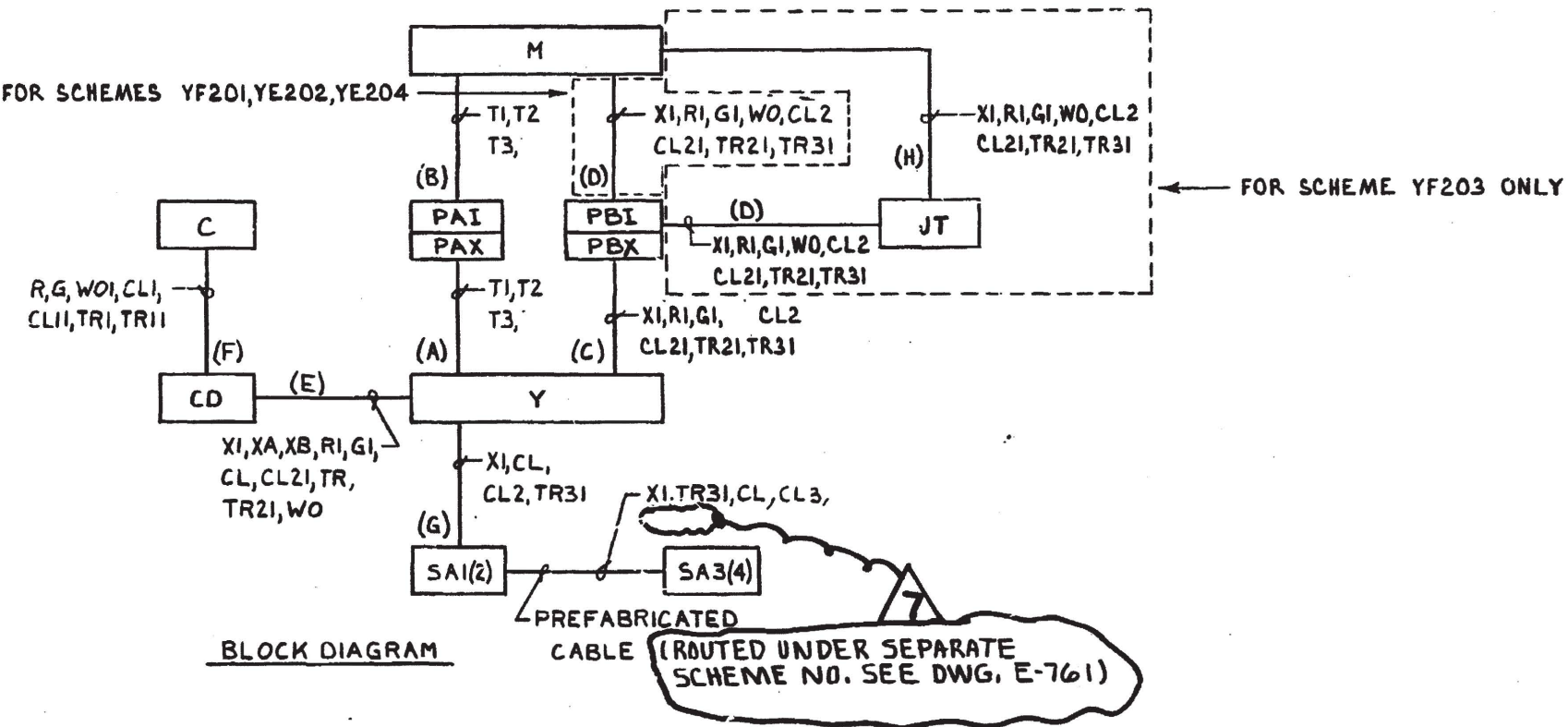
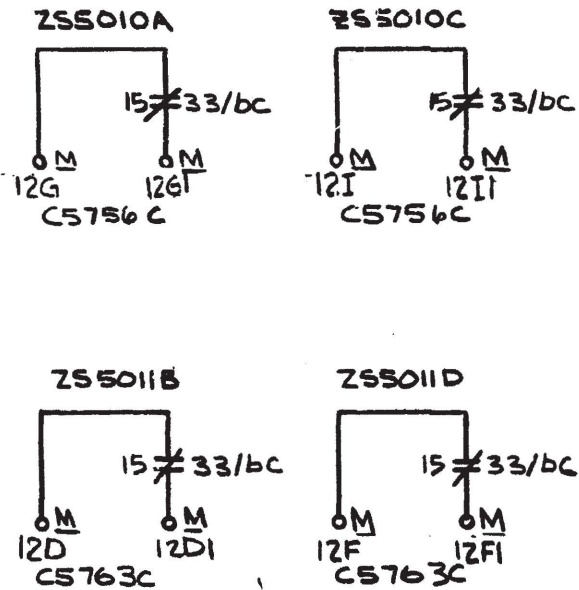
DATA/BYPASS LIGHT
BYPASS SWITCH

DATA/BYPASS LIGHT
BYPASS SWITCH

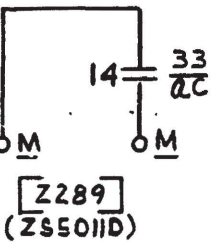
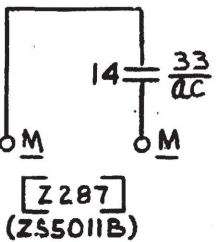
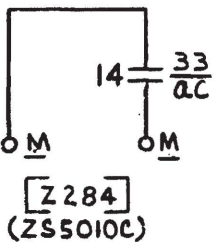
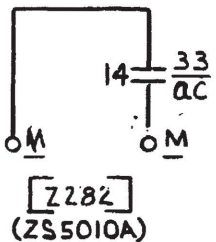
12

12

REV.	DESCRIPTION	DATE	DR	CHK	SUPV	CHIEF	PROJ	OWNER
6	AS BUILT FOR P&R 85-112 SUPP. 1, INC. DCN E-58B-59	11/20/84	MTF	GRK	MT	PA	RUI	MAC
7	INC DCN'S E-58B-111, 115, 154 & 158 PER NUD90-0006 SUPP. D	12/20/84	SWW	WIS	WIS	WIS	WIS	WIS
0	ISSUED FOR CONSTRUCTION	9/19/74	MS	CAP	MS	MS	MS	MS



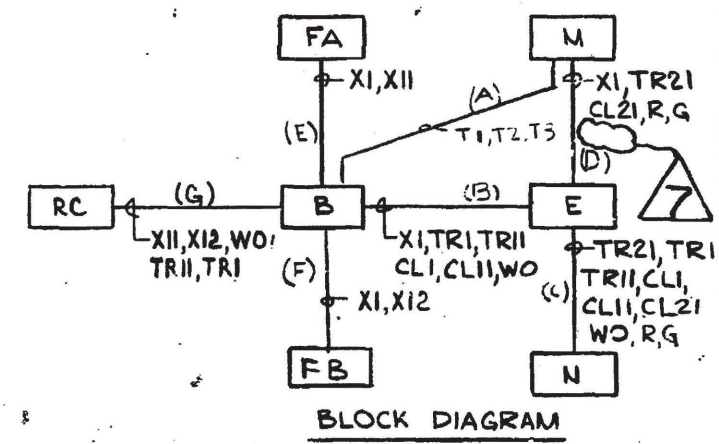
SCHEME NO.	MCC	SU NO.	CHANNEL	WIRE PREFIX	CS	EQUIPMENT											SA OUTPUT RELAY		DESCRIPTION
						C	CD	Y	PAX(I)	M	PBX(I)	SA1	SA2	SA3	SA4	JT	KA	KB	
YF201	YF2	60	2	ISB	HIS5010A	C5717	CDYF2	YF201	P2P5FX(I)	MV5010A	P2C5GX(I)	—	C5755C	—	C5756D	—	K12 G	K12 G	CTMT AIR SMPL ISO VLV
YF203	YF2	60	2	ISF	HIS5010C	C5717	CDYF2	YF203	P2P5FX(I)	MV5010C	P2C5GX(I)	—	C5755C	—	C5756D	JT2917	K12 I	K12 I	CTMT AIR SMPL ISO VLV
YE202	YE2	60	1	ISC	HIS5011B	C5717	CDYE2	YE202	PIP2MX(I)	MV5011B	PIC2LX(I)	C5762C	—	C5763D	—	—	K12 D	K12 D	CTMT AIR SMPL ISO VLV
YE204	YE2	60	1	ISG	HIS5011D	C5717	CDYE2	YE204	PIP2MX(I)	MV5011D	PIC2LX(I)	C5762C	—	C5763D	—	—	K12 F	K12 F	CTMT AIR SMPL ISO VLV



DAVIS-BESSE NUCLEAR POWER STATION
THE TOLEDO EDISON COMPANY
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

ELEMENTARY WIRING DIAGRAMS
CONTAINMENT VENTL SYS
CTMT AIR SMPL ISO VLV


BECHTEL COMPANY	JOB NO. 7749	DRAWING NO. E-58B SH.15B	REV. 7
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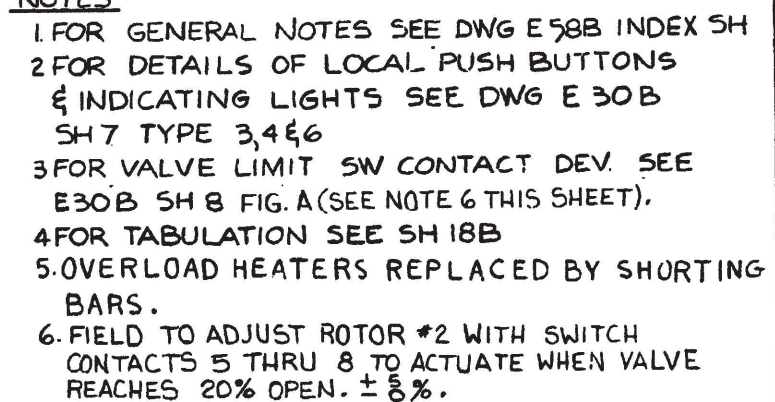


- NOTES:
- 1) FOR GENERAL NOTES SEE DWG. E-50B INDEX SH.
 - 2) FOR LOCAL PUSHBUTTONS AND IND. LIGHTS DETAILS
SEE DWG. E-30B, SH.7, TYPES 3, 4, & 5.
 - 3) FOR VALVE LIMIT SW. DEV. SEE DWG. E-30B, SH.8.
 - 4) CONTRACTOR TO JUMPER TERMINALS 6 & 7.
 - 5) TSHA & TSHB CONTACTS OPEN ON EMERG. VENT. FAN
FILTER HIGH TEMPERATURE.
 - 6) OVERLOAD HEATER: REPLACED BY SHORTING BARS.

SCHEME N ^o .	BE1238		BF1225	
RELAY	TSNAX/5022A	TSNBX/5022B	TSNAX/5058A	TSNBX/5058B
	a + b CONTACTS SPARE	a + b CONTACTS SPARE	a + b CONTACTS SPARE	a + b CONTACTS SPARE
	a + b CONTACTS SPARE	a + b CONTACTS SPARE	a + b CONTACTS SPARE	a + b CONTACTS SPARE
	b CONTACT SCHEME BE1238 THIS SH.	b CONTACT SCHEME BE1238 THIS SH.	b CONTACT SCHEME BF1225 THIS SH.	b CONTACT SCHEME BF1225 THIS SH.
	a CONTACT SCHEME LAN262 SH. 25	a CONTACT SCHEME LAN262 SH. 25	a CONTACT SCHEME LAN562 SH. 25	a CONTACT SCHEME LAN562 SH. 25

SCHEME NO	MCC	S.U. NO.	CHANNEL	EQUIPMENT							DESCRIPTION
				B	E	N	M	FB	FA	RC	
BE1238	E1ZA	34	1	BE1238	EC5056	NC5056	MC5056	FTSH5022B	FTSH5022A	RC4604	CROSS TIE DUCTWORK DAMPER
BF1225	F1ZA	34	2	BF1225	EC5057	NC5057	MC5057	FTSH5058B	FTSH5058A	RC4605	CROSS TIE DUCTWORK DAMPER

DAVIS-BESSE NUCLEAR POWER STATION			
THE TOLEDO EDISON COMPANY THE CLEVELAND ELECTRIC ILLUMINATING COMPANY			
ELEMENTARY WIRING DIAGRAM CTMT VENTILATION SYSTEM CROSS TIE DUCTWORK DAMPER			
BECHTEL COMPANY	JOB NO.	DRAWING NO.	REV.
	7749	E-58B SH-16	7



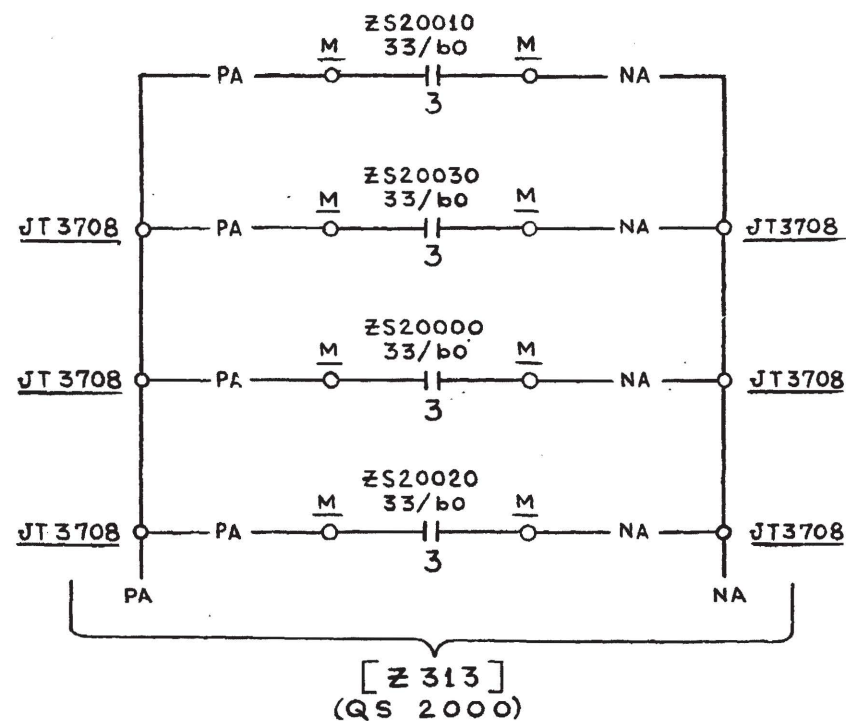
ELEMENTARY DIAGRAM
CTMT VENTILATION SYSTEM
CTMT ISO VLVS

REV.


E-58 B SH.18 A

7

SCHEME	MCC	S.U. NO.	CHANNEL	EQUIPMENT NUMBERS				DESCRIPTION
				B	M	N	E	
BE1145	E11E	60	1	BE1145	MV0645B	NV0645B	EV0645B	CTMT 150 VLV PENT-73
BF1160	F11B	60	2	BF1160	MV0624B	NV0624B	EV0624B	CTMT 150 VLV PENT-72
BF1140	F11A	60	2	BF1140	MV20000 (MV2000 D8C5)	NV20000	EV20000	CTMT 150 VLV PENT-71A RPS SFAS CHI CTMT PRESS SWITCH 150 VALVE
BE1123	E11A	60	1	BE1123	MV20010	NV20010	EV20010	CTMT 150 VLV PENT-72A
BF1144	F11A	60	2	BF1144	MV20020	NV20020	EV20020	CTMT 150 VLV PENT-73A
BE1124	E11A	60	1	BE1124	MV20030	NV20030	EV20030	CTMT 150 VLV PENT-74A



ELEMENTARY DIAGRAM
CTMT VENTILATION SYSTEM
CTMT ISO VLVS

 BECHTEL COMPANY	JOB NO.	DRAWING NO.	REV.
	7749	E-58 B SH18B	5


NO.	DATE	REVISIONS				INDEX			
		BY	CHK	ENGR.	ENGR. SUPV.	SHEET NO.	LATEST REV.	DESCRIPTION	
73	04-23-20	INC. DUN 07-0146-00-008 REV.0 & REVISED SH.9 (REV.13) & SH.29A (REV.2)	SAP	SMZ	JHR	1	10	CTRL. RM. EMER VENT. SYS FANS / E.T. MTR	Q
72	3-29-16	REVISED SHT. 2 (REV.7), SHT. 16A (REV.10) & SHT. 16B (REV. 6)				1A	0	CTRL. RM. EMER VENT. SYS FANS / E.T. MTR	-
71	4/19/14	INC. DUN 12-0527-001-003 REV.00 & REVISED SH.9 (REV.12), SH.12B & 30 (REV.8), SH.14D & 51 (REV.6), SH.16B (REV.5), SH.28 (REV.7), SH.29 (REV.9) & SH.29A (REV.1)				2	7	DSL. GENERATOR RM SUPPLY FANS	Q
70	12/27/10	REVISED SH. 8C,(REV.6),SH. 8D,(REV.7), SH. 8E,(REV.6), SH.8F, (REV. 3) & SH.52, (REV.3)				3	10	ECCS RM CLR FANS	Q
						4	2	REPLACED BY 4A & 4B	
						4A	12	ECCS RM CLR FANS 1-3	Q
						4B	13	LOW VOLTAGE SWGR RM VENT FANS	Q
						4C	4	LOW VOLTAGE SWGR RM VENT FANS	Q
						4D	1	LOW VOLTAGE SWGR RM VENT FANS	Q
						5	12	ECCS RM HV & A/C ISO VLVS	Q
						6	4	NEUTRALIZING TK IN VLV	
						7	5	FIRE & DEMIN WTR STRG TK IN VLVS	
						8A	3	GEN ISO PHASE BUS CLR. FANS.	
						8B	7	GEN ISO PHASE BUS CLR. FANS.	
						8C	6	GEN ISO PHASE BUS CLR. ALARMS.	
						8D	7	GEN ISO PHASE BUS CLR ANNUNCIATOR	
						8E	6	GEN ISO PHASE BUS CLR INSTR LEGEND	
						8F	3	GEN ISO PHASE BUS TEMP ALARM	
						8G	2	GEN ISO PHASE BUS CLR FLOW SWITCH	
						8H	1	GEN ISO PHASE BUS CLR O.A. LOUVER	
						9	13	AUX FEED PMP RM VENT FANS	Q
						10	1	AUX BLR RM COMBUSTION AIR LOUVER	
						11A	6	2 STAGE HTR WITH 1 STAGE CONTROL	
						11B	3	2 STAGE HTR WITH 1 STAGE CONTROL	
						12A	7	2 STAGE HEATER	
						12B	8	2 STAGE HEATER	
						12C	6	2 STAGE HEATER WITH AUX RELAY	
						12D	6	2 STAGE HEATER WITH AUX RELAY	
						13A	5	3 STAGE HEATER	
						13B	3	3 STAGE HEATER	
						14A	8	CTRL RM AIR HANDLING VLV'S 1 & 2	Q
						14B	3	DELETED	
						14C	2	CTRL RM AIR HANDLING VLV'S 1 & 2	
						14D	6	CTRL RM AIR HANDLING VLV'S 1 & 2	Q
						15	3	MN. WORKSHOP AREA DOOR HTR FAN	
						16A	10	CTRL RM WTR CHILLER FAN	
						16B	6	CTRL RM WTR CHILLER S.12-2	

GENERAL NOTES


1. FOR EXPLANATION OF EQUIPMENT & WIRING NUMBERS SEE 7749-11A ELECTRICAL NUMBERING SYSTEM.
2. FOR MOTOR INFORMATION SEE 7749-E-12B ELECTRICAL MOTOR LIST.
3. FOR CONTROL PANEL, MCC DESCRIPTIONS SEE E-13B ELECTRICAL EQUIP. LIST.
4. WIRE NO. PREFIX MUST BE ADDED TO FORM COMPLETE WIRE NO FOR THOSE WIRES AT MAIN CONTROL BOARD.
5. AUX. CONTROL RELAY IN SOLENOID OPER. VALVE CONTROL CIRCUITS TO BE COUCH TYPE 4AP44-AF.
6. NUMBER IN BRACKETS [] REPRESENTS COMPUTER INPUT NUMBER. NUMBER IN PARENTHESIS () REPRESENTS COMPUTER INPUT SOURCE NUMBER.
7. DRAWING INDEX SHEETS 3 AND 4 GENERAL UPDATED TO SHOW AS DWG. VOID AT REV.47. THE INFORMATION ON THESE SHEETS WAS COMBINED INTO SHEETS 1 & 2 AT THE CADD REDRAW DONE AT REVISION 47. THE UPDATE WAS DONE PER GEN. UPDATE AND DCN UPDATE AT DRAWING INDEX REVISION 65 FOR SHEETS 1 AND 2.

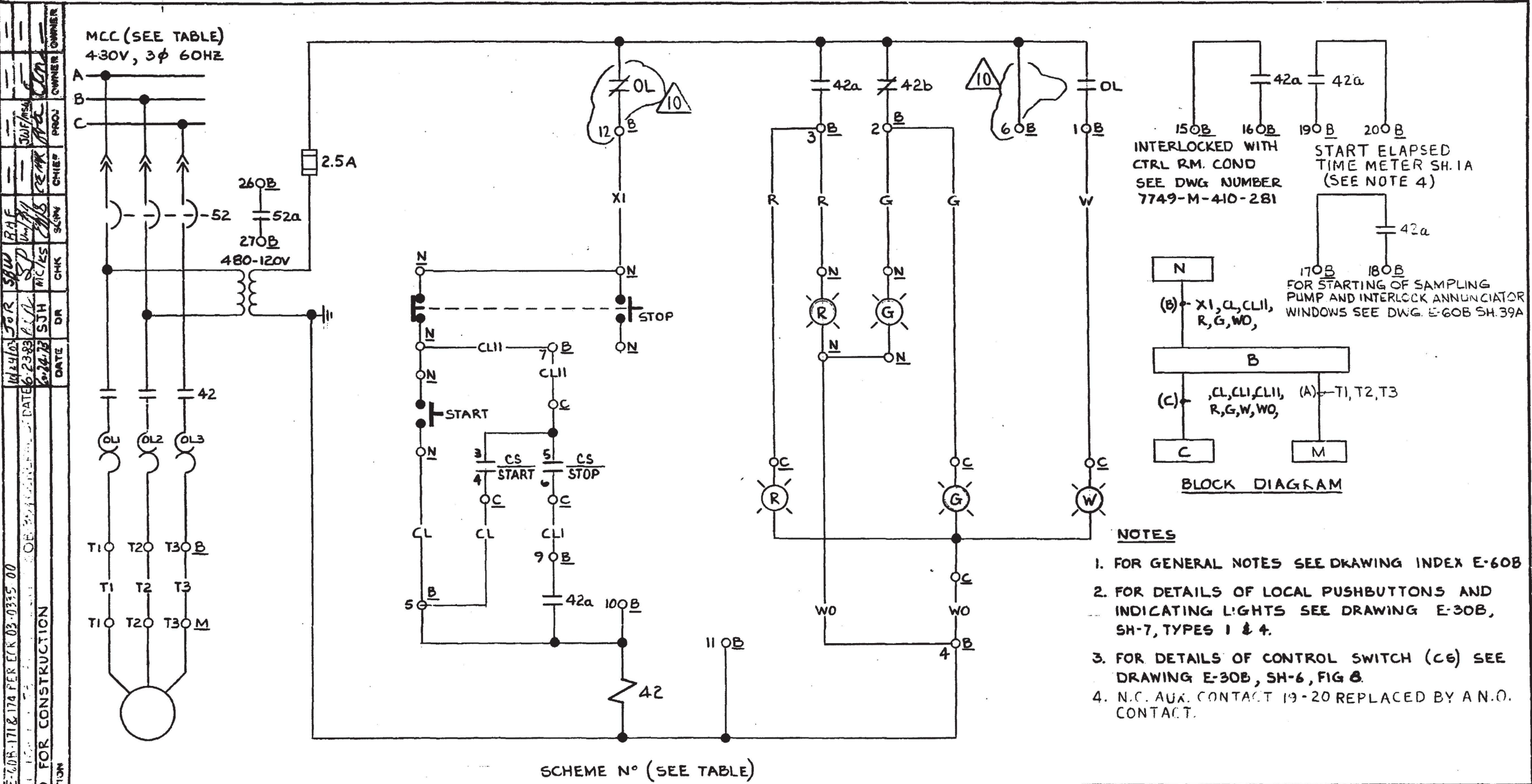
REFERENCE DRAWINGS

- E-5 SH-1 THRU 5 480V MCC (NONESENTIAL) ONE LINE DIAGRAM.
- E-6 SH 1 & 2 480V MCC (ESSENTIAL) ONE LINE DIAGRAM.
- E-10A STANDARD NOTES & SYMBOLS.
- E-14B SOLENOID VALVE LIST.
- E-30B GENERAL GUIDES ELEMENTARY DIAGRAMS
- E-13B ELECTRICAL EQUIPMENT LIST.

SCALE NONE	DESIGNED GB	DRAWN JFA	DATE 09-06-89
DAVIS-BESSE NUCLEAR POWER STATION UNIT NO. 1 <small>THE TOLEDO EDISON COMPANY</small>			
ELEMENTARY WIRING DIAGRAMS STA HTG, VENTL & CLNG SYS DRAWING INDEX			Q
	DRAWING NO.		REV.
	E-60B	DWG. INDEX SHEET 1	73

THIS DWG. WAS REDRAWN ON CAD & SUPERSEDES REV. 46

FOR GENERAL NOTES AND REFERENCE DRAWINGS SEE DRAWING E-60B DWG. INDEX SH-1.			
SCALE NONE	DESIGNED GB	DRAWN JFA	DATE 09-06-89
DAVIS-BESSE NUCLEAR POWER STATION UNIT NO. 1 THE TOLEDO EDISON COMPANY			
ELEMENTARY WIRING DIAGRAMS STA HTG, VENTL & CLNG SYS DRAWING INDEX			Q
	DRAWING NO.		REV.
	E-60B	DWG. INDEX SHEET 2	73



SCHEME N°	MCC	SU N°	CHANNEL	WIRE PREFIX	CS	EQUIPMENT				DESCRIPTION
						B	M	N	C	
BE1209	E12A	28	1	VFA	HIS5261	BE1209	MC0211	NC0211	C5720	CTRL. RM. EMER VENT SYS FAN 1-1
BF1149	F11A	28	2	VFB	HIS5262	BF1149	MC0212	NC0212	C5720	CTRL. RM. EMER VENT SYS FAN 1-2

DAVIS-BESSE NUCLEAR POWER STATION
THE TOLEDO EDISON COMPANY
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

ELEMENTARY WIRING DIAGRAMS
STA HTG. VENTL & CLNG SYS
CTRL RM EMER VENT SYS FANS

BECHTEL COMPANY	JOB NO.	DRAWING NO.	REV.
	7749	E-60B SH-1	10

G-231-0

1995




1. FOR GENERAL NOTES SEE DWG. INDEX E-60B.
2. ELAPSED TIME METER EAGLE SIGNAL BULLETIN 705 CAT #HKE10AG MOUNTED IN A SIZE ONE BOX.

DAVIS-BESSE NUCLEAR POWER STATION

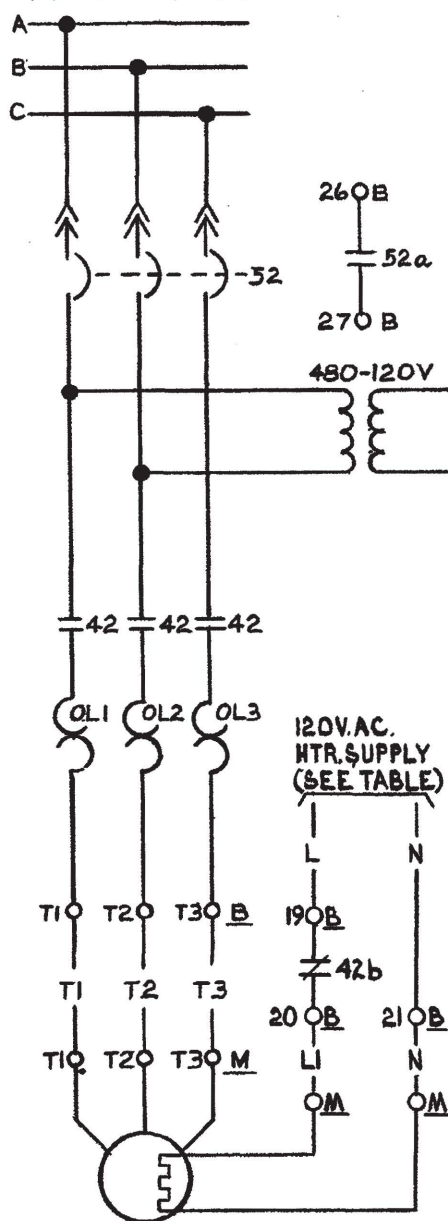
THE TOLEDO EDISON COMPANY
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

ELEMENTARY WIRING DIAGRAM
STA HTG VENTL & CLNG SYS
CTRL RM EMER VENT SYS E.T. MTR

 BECHTEL COMPANY	JOB NO.	DRAWING NO.	REV.
	7749	E-60B SH. 1A	0

REV.	DESCRIPTION	DATE	DR	CHK	SUPV	CHIEF	PROJ	OWNER
6	INC DGN E-60B-2, FOR 77-217, "AS BUILT"	4/11/77	JLH	MM	SHL	SHL	SHL	SHL
7	INC. DUN 14-0369-001-002 & 14-0370-001-002 BOTH REV. 00 (REDRAWN)	3/29/16	SHL	SHL	SHL	SHL	SHL	SHL
0	ISSUED FOR CONSTRUCTION	4/11/77	MM	MM	MM	MM	MM	MM

MCC (SEE TABLE)
480V 3 ϕ 60HZ



SCHEME NO.	PNL/CRKT.
BE1255	L3501/27
BE1256	L3501/27
BF1255	H3602/18
BF1256	H3602/18

SCHEME NO.	MCC	SU NO.	CHANNEL	EQUIPMENT					DESCRIPTION
				RC	N	B	C	M	
BE1255	E12B	24	1	RC3605	NC0251	BE1255	C3621	MC0251	DIESEL GENERATOR ROOM SUPPLY FAN I-1
BE1256	E12B	24	1	RC3605	NC0252	BE1256	C3621	MC0252	DIESEL GENERATOR ROOM SUPPLY FAN I-2
BF1255	F12B	24	2	RC3606	NC0253	BF1255	C3622	MC0253	DIESEL GENERATOR ROOM SUPPLY FAN I-3
BF1256	F12B	24	2	RC3606	NC0254	BF1256	C3622	MC0254	DIESEL GENERATOR ROOM SUPPLY FAN I-4

THIS DWG. WAS REDRAWN/SCANNED ON CAD AND SUPERSEDES REVISION 6.

SEE NOTE 3

SCHEME NO (SEE TABLE)

* AUX. RELAY DESIGNATION FOR EACH SCHEME WILL BE AS FOLLOWS
BE1255 \rightarrow 42X1
BE1256 \rightarrow 42X2
BF1255 \rightarrow 42X3
BF1256 \rightarrow 42X4

NOTES:

- FOR GENERAL NOTES SEE DRAWING INDEX E-60B.
- FOR DETAILS OF LOCAL PUSHBUTTONS & INDICATING LIGHTS SEE DWG. E-30B, SH.7 TYPES 3 & 4.
- CONTRACTOR TO ADD JUMPER BETWEEN STARTER TERMINALS NO. 6 & 7.
- SS1X1 IS CLOSED WHEN DIESEL GENERATOR IS AT 40 RPM AND ABOVE. SEE REF. DWG. 7749-M-180-2 BRUCE GEN. MTR. SCHEMATIC DIAGRAM No. B157F02501.
- RELAY 42X HAS BEEN REPLACED WITH A POTTER AND BRUMFIELD MDR RELAY AND HAS 8 SPDT CONTACTS. FOR ADDITIONAL SPARE CONTACTS SEE DRAWINGS E-8-78 AND E-80-165. (BE1255 & BE1256 ONLY)

DAVIS-BESSE NUCLEAR POWER STATION

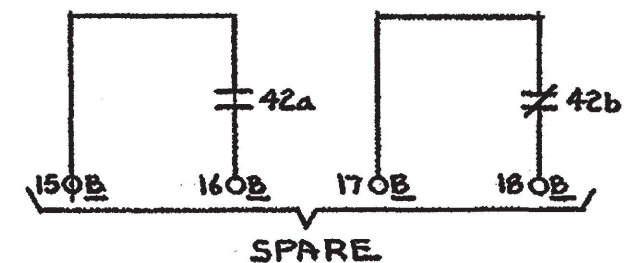
THE TOLEDO EDISON COMPANY
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

ELEMENTARY WIRING DIAGRAMS
STA HTG, VENT & CLNG SYS
DSL GENERATOR RM SYS FANS

BECHTEL COMPANY	JOB NO.	DRAWING NO.	REV.
7749	E-60B SH-2	7	

DB 03-09-16

DFN= F:/SCHEME/E60BSH2.DGN/TIF



1. FOR GENERAL NOTES SEE DRAWING INDEX E-60B
2. FOR DETAILS OF LOCAL PUSHBUTTONS AND INDICATING LIGHTS SEE DRAWING E-30B SH-7, TYPES. 1 & 4.
3. TSH CONTACT CLOSSES AT HIGH TEMP (INCREASING) TO START FAN. TSL CONTACT OPENS AT LOW TEMP. (DECREASING) TO STOP FAN.
4. HEATER NOT REQUIRED TO OPERATE MC31-2 HEATER FAILED OPEN. (REF. CR 02-08811)


THIS DWG. WAS REDRAWN/SCANNED ON CADD AND SUPERSEDES REVISION 9.

SCHEME N°	MCC	SU N°	CHANNEL	EQUIPMENT				HTR.SUPPLY PNL/CRKT.	DESCRIPTION
				B	M	N	F		
BF1192	FILE	32	2	BF1192	MC0311	NC0311	FTSH5425/FTSL5425	L2702 CRKT.19	ECCS RM CLR FAN 1-1
BF1193	FILE	32	2	BF1193	MC0312	NC0312	FTSH5424/FTSL5424	L2703 CRKT.19	ECCS RM CLR FAN 1-2
BE1292	E12E	32	1	BE1292	MC0314	NC0314	FTSH5422/FTSL5422	L1701 CRKT.27	ECCS RM CLR FAN 1-4
BE1293	E12E	32	1	BE1293	MC0315	NC0315	FTSH5421/FTSL5421	L1701 CRKT.27	ECCS RM CLR FAN 1-5

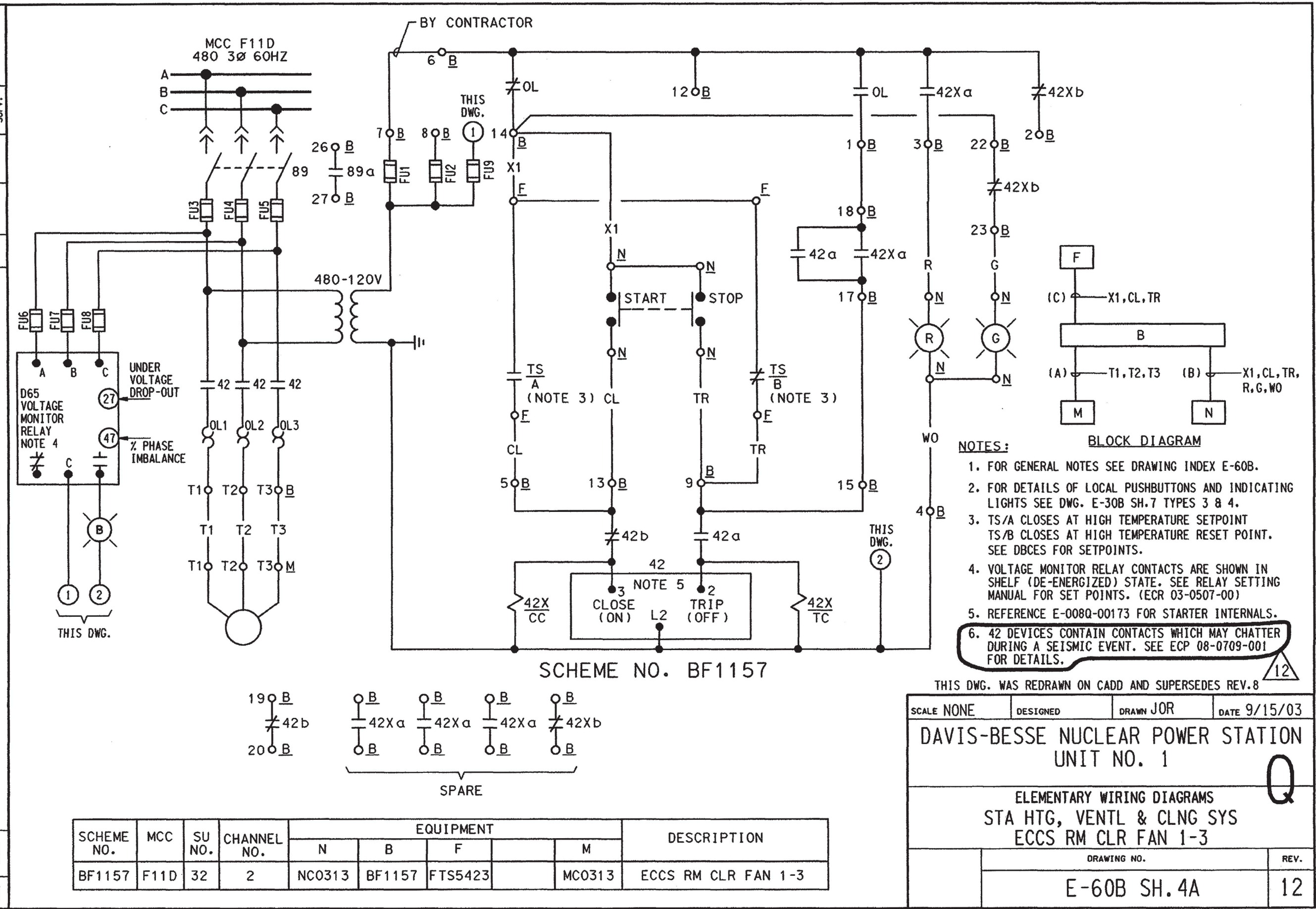
DAVIS-BESSE NUCLEAR POWER STATION

THE TOLEDO EDISON COMPANY
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

**ELEMENTARY WIRING DIAGRAMS
STA HTG, VENTL & CLNG SYS
ECCS RM CLR FANS**

 BECHTEL COMPANY	JOB NO.	DRAWING NO.	REV.
	7749	E-60B SH-3	10

NO.	DATE	REV.	DESCRIPTION	INITIALS	ON FILE
11	1-31-05		INC. DCN E-60B-214 PER ECR 03-0507-00 REV.2 (CR 03-10201 CA1)		
10	05-06-04		INC. DCN'S E-60B-200 PER ECR 03-0507-00 & E-60B-211 PER ECR 03-0335-00 AND GEN. UPDATE ADD NOTE 4 REF. IN D65 VOLTAGE MONITOR RELAY BOX FOR CLARITY		
12	4/6/09		INC. DUN 08-0709-001-009 REV.00	SAS	
				BY	
				CH'K	
				ENGR.	
				ENGR. SUPV.	
				GEN. SUPV.	



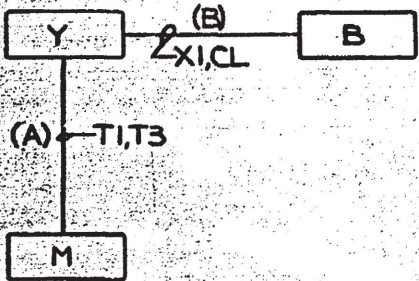
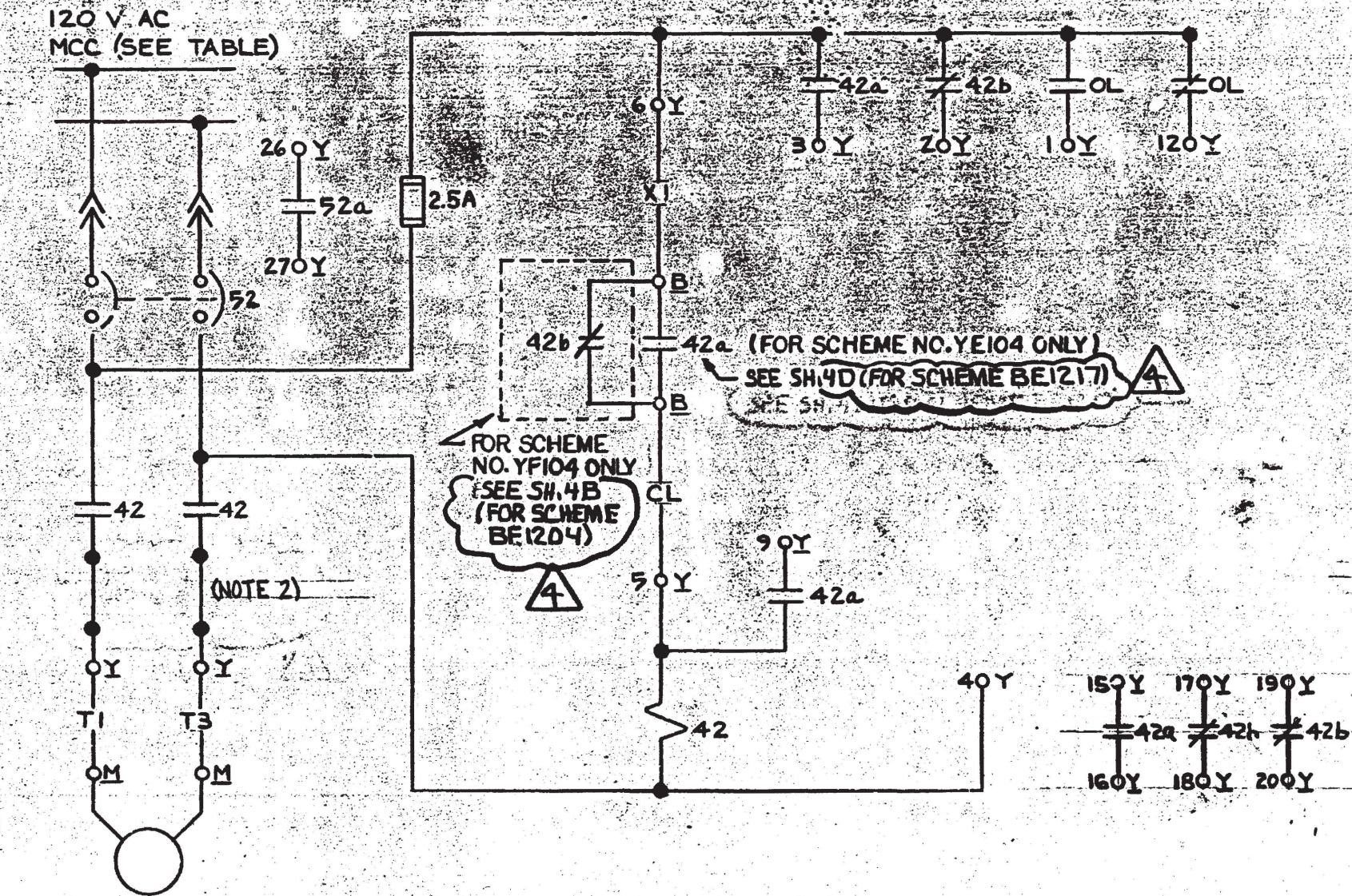
BY	CH'K	ENGR.	ENGR. SUPV.	GEN. SUPV.
----	------	-------	-------------	------------

DFN=F : /SCHEME /E60BSH4B.DGN

REV.	DESCRIPTION	DATE	DR	CHK	SUPV	CHIEF	PROJ	OWNER
4	GEN UPDATE ADD SH 4D REF. PER SH 4B REV. IN UPDATE (DNUG, SPLIT)	5/7/68	SAW	JK	W			
3	INC. DCN'S E-60B-1B2 & 1B3 PER ECR 03-0380-00	10-24-68	JOR	SAW	W			
0	ISSUED FOR CONSTRUCTION & INC SRN 27/E	4-28-77	FWK	GLM	STY			

Q-231-D

N32687



BLOCK DIAGRAM

NOTES

1. FOR GENERAL NOTES SEE DWG INDEX E-60B
2. OVERLOADS ARE REPLACED BY SHORTING BARS.

SCHEME NO.	MCC	S.U. NO.	CHANNEL	EQUIPMENT			DESCRIPTION
				B	Y	M	
YE104	YE1	30A	1	BE1217	YE104	MV53050	LOW VOLTAGE SWGR RM VENT FAN 1-1 DMFR
YF104	YF1	30A	2	BE1204	YF104	MV53140	LOW VOLTAGE SWGR RM VENT FAN 2-2 DMFR

DAVIS-BESSE NUCLEAR POWER STATION

THE TOLEDO EDISON COMPANY
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

ELEMENTARY WIRING DIAGRAM
STA HTG VENTL & CLNG SYS
LOW VOLTAGE SWGR RM VENT FAN

BECHTEL
COMPANY

JOB NO.

DRAWING NO.

REV.

7749

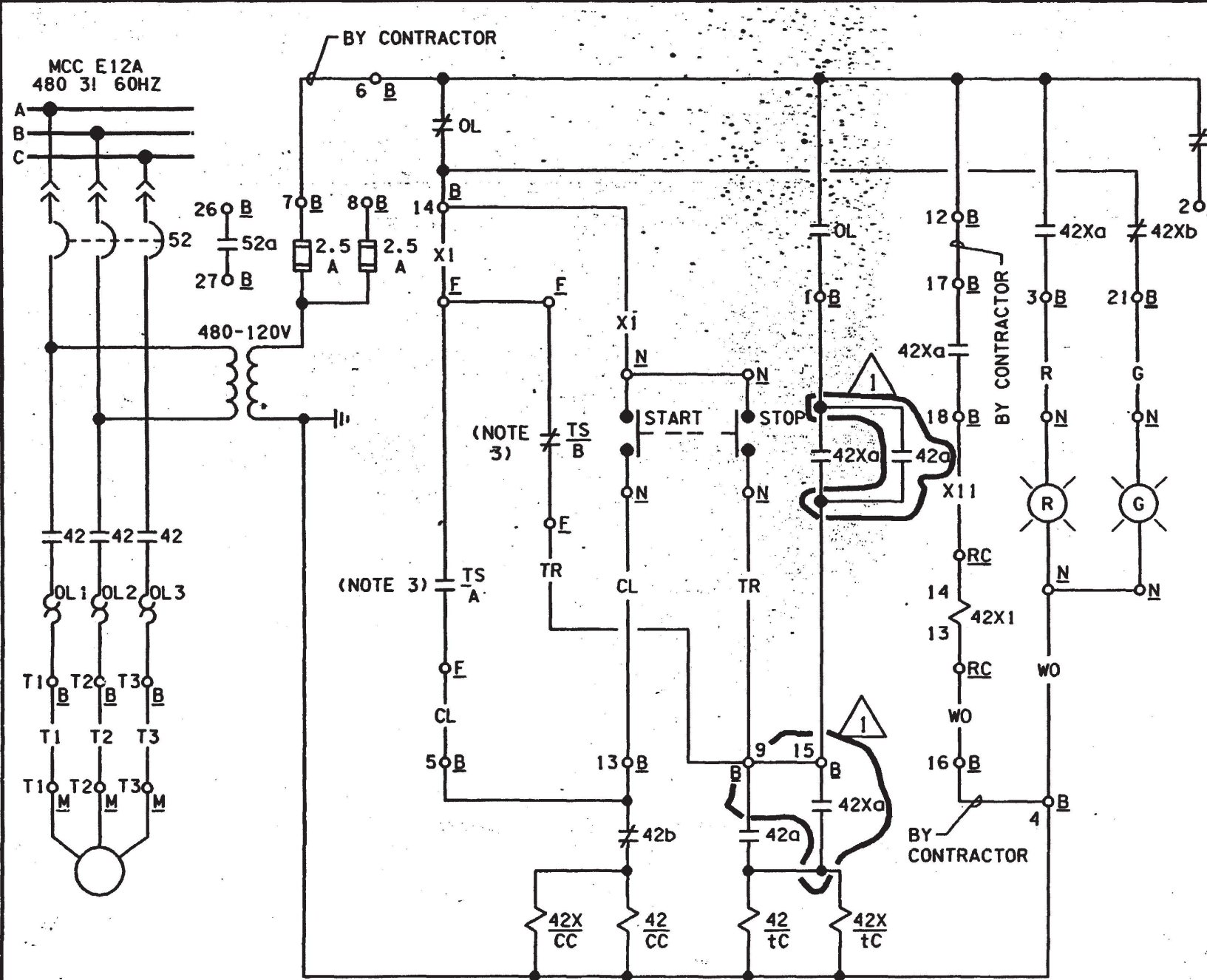
E-60 B SH 4C

4

NEWFAX 3/85 N58313

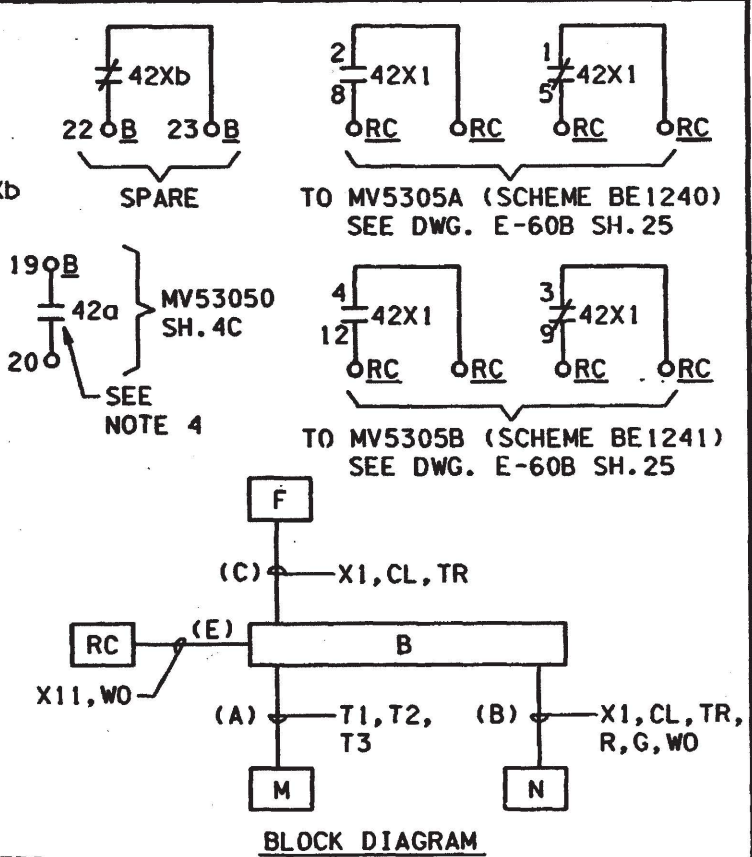
ED 7489

NO.	DATE	REVISIONS				BY	CHK	ENGR.	SUPV.	GEN. SUPV.
		1	2	3	4					
1	5/6/84	GEN. UPDATE FOR ECR 03-0335-00 REV. 4, REF. DCN E-60B-195+DWG. TITLE				SBW	JOR			
0	10-24-03	GEN. UPDATE FOR ECR 03-0335-00, REF. DCN E-60B-175				SBW	JOR			



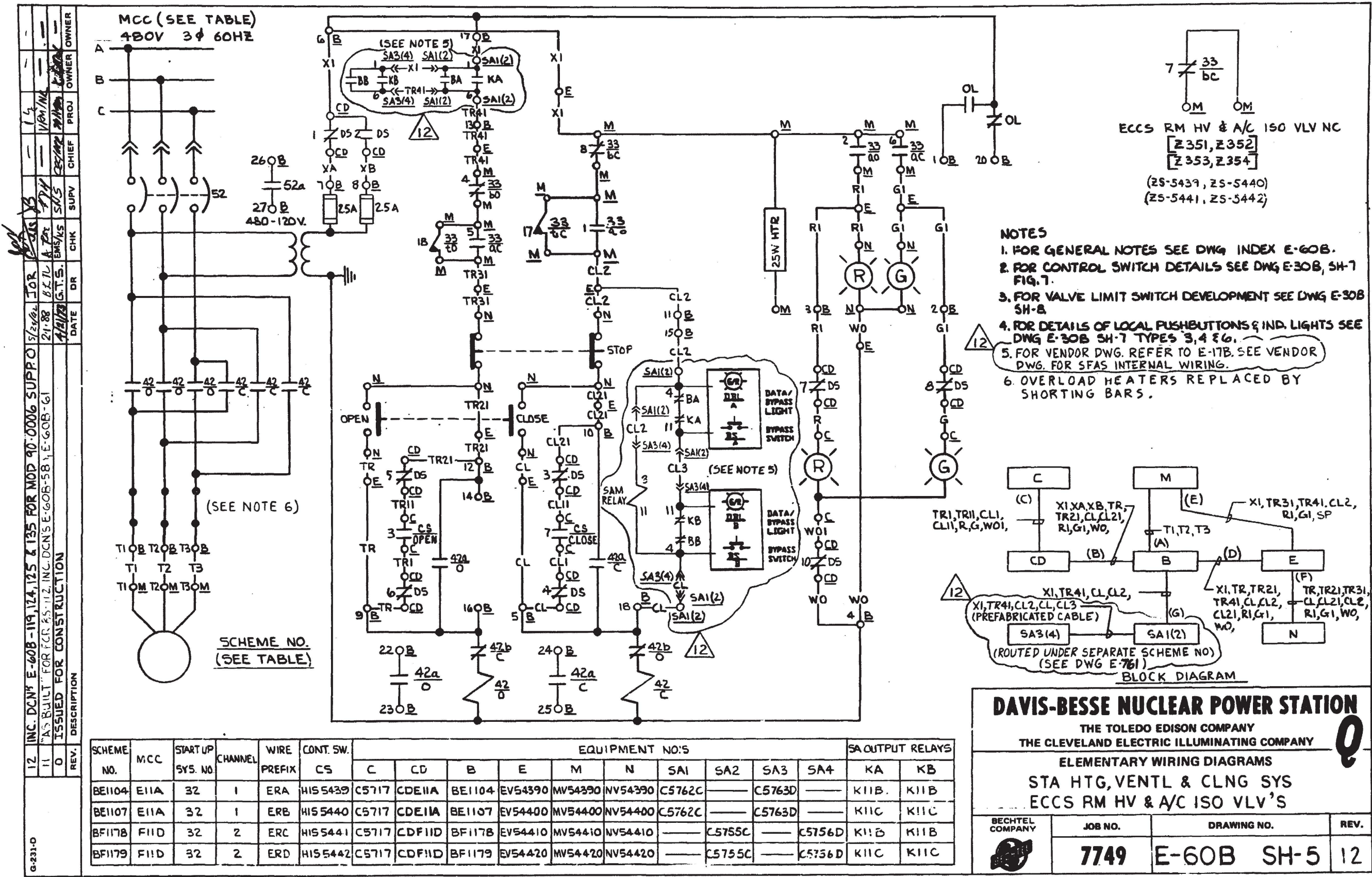
SCHEME BE1217

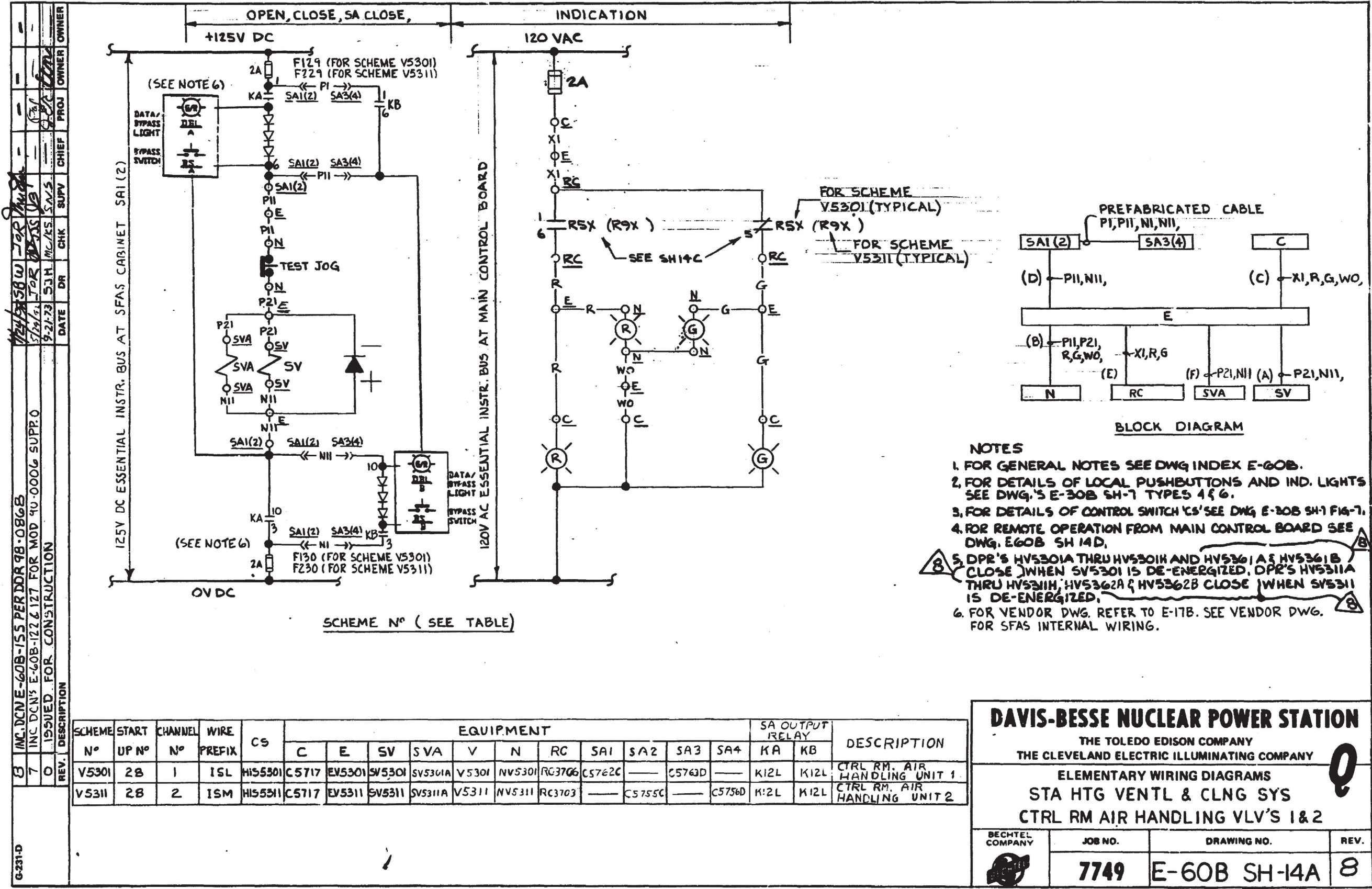
SCHEME NO.	MCC	SU NO.	CHANNEL NO.	EQUIPMENT					DESCRIPTION
				N	B	F	M	RC	
BE1217	E12A	30	1	NC0711	BE1217	FTS5318	MC0711	RC3801	LOW VOLTAGE SWGR RM VENT FAN 1-1



- NOTES:
1. FOR GENERAL NOTES SEE DRAWING INDEX E-60B.
 2. FOR DETAILS OF LOCAL PUSHBUTTONS AND INDICATING LIGHTS SEE DWG. E-30B SH.7 TYPES 3 & 4.
 3. TS/A CLOSSES AT HIGH TEMPERATURE TS/B AND CLOSSES ON LOW TEMPERATURE. SEE DRAWING M-720I FOR SETPOINTS.
 4. CONTRACTOR TO REPLACE N.C. CONTACT 19-20 WITH N.O. CONTACT.
 5. RELAY 42X IS A POTTER & BRUMFIELD MDR RELAY AND HAS 8 PDT CONTACTS. FOR SPARE CONTACTS SEE DRAWINGS E-8-78 & E-8Q-165.

SCALE NONE	DESIGNED	DRAWN JOR	DATE 9/18/03
DAVIS-BESSE NUCLEAR POWER STATION UNIT NO. 1			
ELEMENTARY WIRING DIAGRAMS STA. HTG, VENTL. & CLNG. SYS. LOW VOLTAGE SWGR RM VENT FAN 1-1			
DRAWING NO. E-60B SH. 4D			REV. 1



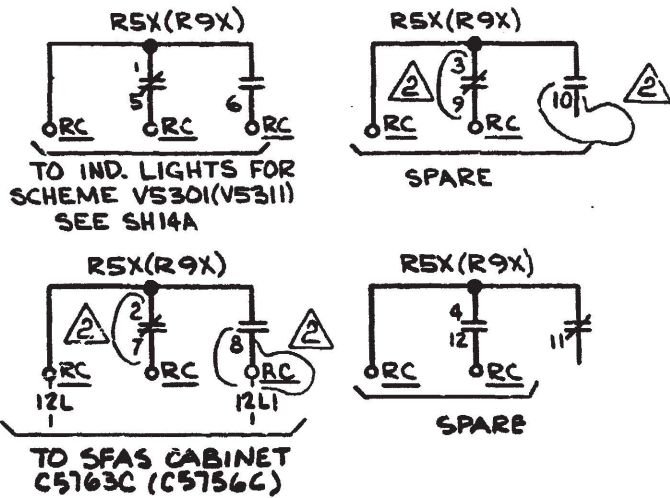
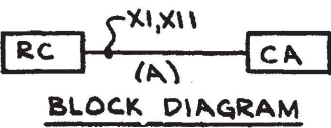
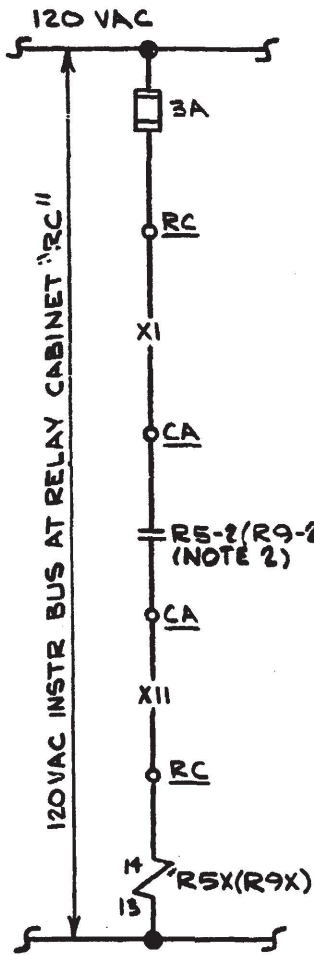


B

A

A

REV.	DESCRIPTION	DATE	DR	CHK	SUPV	CHIEF	PROJ	OWNER
2	REVISED AS NOTED	4.30.76	R.W.S.	APC	DR	CHIEF	PROJ	OWNER
1	REVISED RELAY CABINET NO. 5 AS NOTED	6.9.75	X.S.	APC	SN'S	CHIEF	PROJ	OWNER
0	ISSUED FOR CONSTRUCTION	8.26.74	CW	APC	J.M.D.	CHIEF	PROJ	OWNER



- NOTES**
- 1) FOR GENERAL NOTES SEE DWG E-60B INDEX SHEET
 - 2) RS-1(R9-1) CONTACT SHOWN IN SHELF POSITION IT OPENS ON LOW PRESS AT CTRL RM DAMPER PNEUMATIC LINE. SEE HONEYWELL DWG. 347-72008 SH. 10D (F.P.-M-410-222).

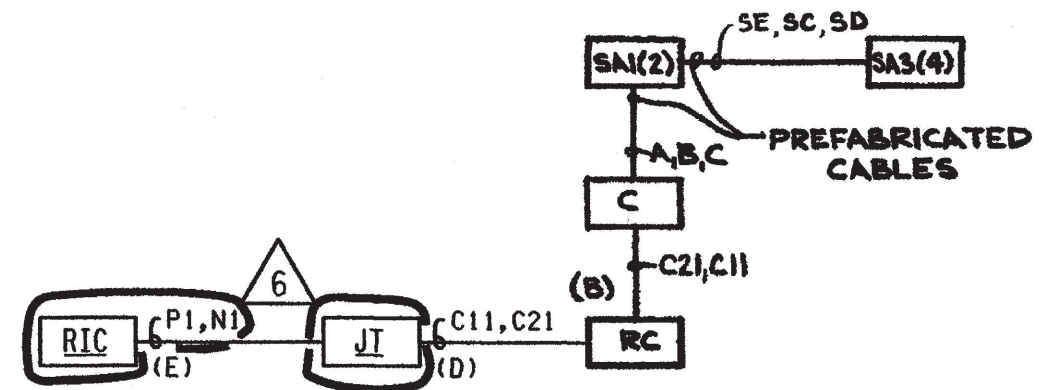
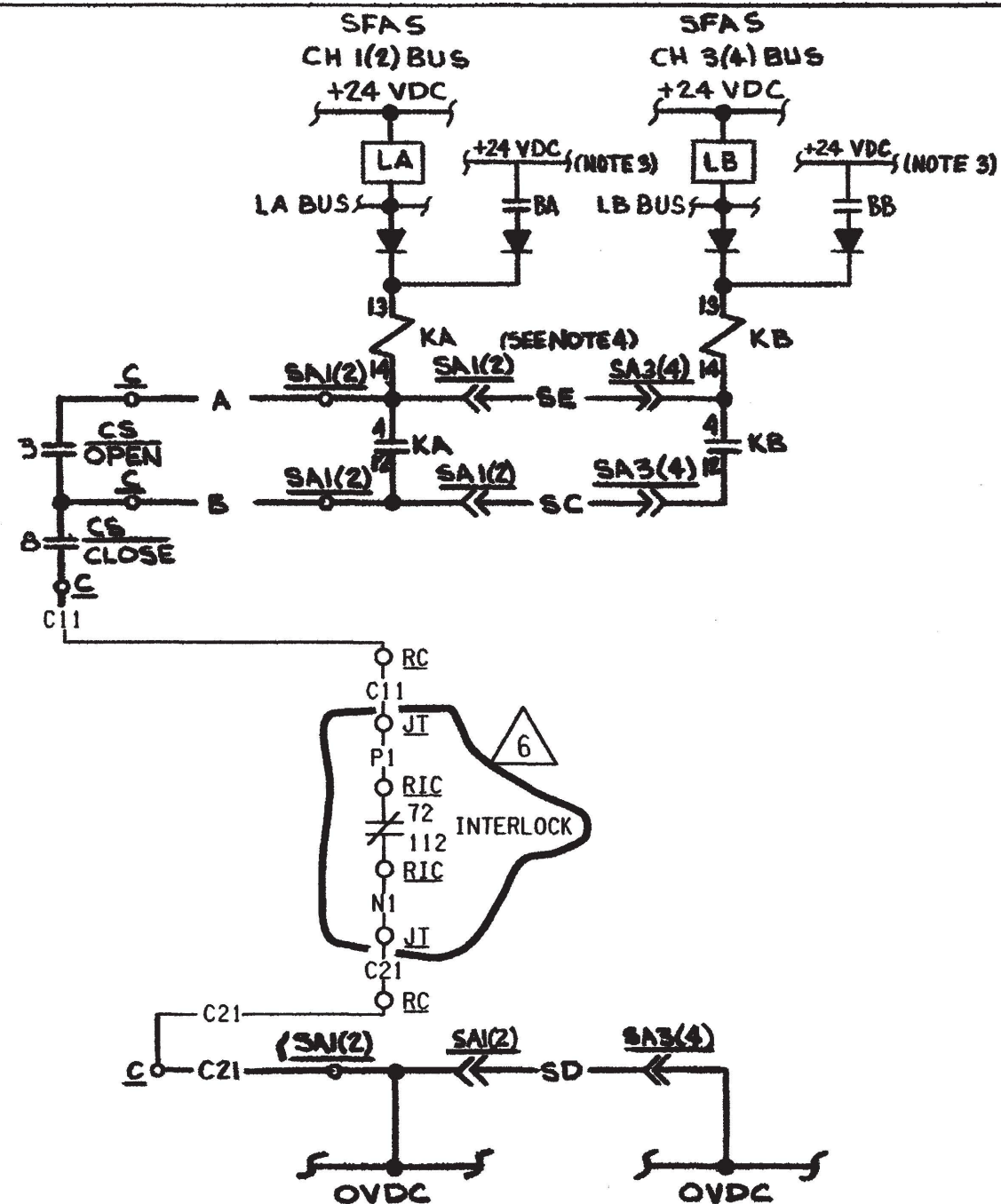
SCHEME NO	S.U. NO.	CHANN	EQUIPMENT		DESCRIPTION
			CA	RC	
PR5301	28	A	C6705	RC3706	AUX BLDG CTRL RM DAMPER AIR PRESS AUX RELAY
PR5311	28	B	C6705	RC3703	AUX BLDG CTRL RM DAMPER AIR PRESS AUX RELAY

DAVIS-BESSE NUCLEAR POWER STATION
THE TOLEDO EDISON COMPANY
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

ELEMENTARY WIRING DIAGRAMS
STA HTG VENTL & CLNG SYS
CTRL RM AIR HANDLING VLVS 1 & 2

BECHTEL COMPANY	JOB NO.	DRAWING NO.	REV.
	7749	E-60B SH-14 C	2

8	INC. DUN' S: 04-0006-003-015 & 04-0006-004-015 BOTH REV. 01, 04-0006-012-001, 04-0006-013-001, 04-0006-014-001 & 04-0006-015-001 ALL REV. 00 (REDRAWN)	4/19/14	SBW SJBW	ghe	RJC	—	—	—
5	INC. DUN E-608-116 FOR MOD 90-0014 SUPP OF INC DUN E-608-154-191 FOR MOD 90-0006 SUPP OF	5/24/02	EBR	EBR	VS	—	—	—
0	ISSUED FOR CONSTRUCTION	8-26-74	CW	APC	DMC	—	—	—
REV.	DESCRIPTION	DATE	OR	CHK	SUPV	CHIEF	PROJ	OWNER



BLOCK DIAGRAM

NOTES

- 1) FOR GENERAL NOTES SEE DWG E-608 INDEX SHEET.
- 2) DELETED
- 3) BYPASS VOLTAGE IS DERIVED FROM THE STATION BATTERY SEE DWG. E-50-339.
- 4) FOR VENDOR DWG. REFER TO E-17B. SEE VENDOR DWG. FOR SFAS INTERNAL WIRING.
- 5) DELETED
- 6) INTERLOCK CONTACT OPENS ON HIGH RAD AT STA. VENT.



SCHEME NO.	SU NO.	CH	WIRE PREFIX AT MAIN CTRL BD	CS	EQUIPMENT								
					C	RIC	JT	RC	SA1	SA2	SA3	SA4	
SF1713	28	1	ISL	HIS5301	C5717	RIC4598AA-2	JT6750	RC3706	C5762C	—	C5763D	—	
SF1723	28	2	ISL	HIS5311	C5717	RIC4598BA-2	JT6751	RC3703	—	C5755C	—	C5756D	


EQUIPMENT			SA OUTPUT RELAY		DESCRIPTION
	RT	RTA	KA	KB	
6	_____	_____	K12L	K12L	CTRL RM AIR HANDLING UNIT 1
	_____	_____	K12L	K12L	CTRL RM AIR HANDLING UNIT 2

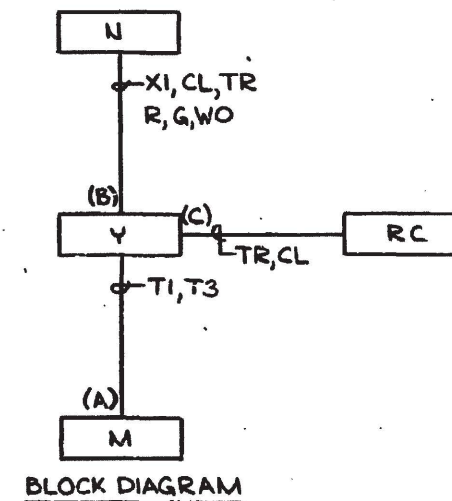
THIS DWG. WAS REDRAWN/SCANNED ON CAD AND SUPERSEDES REVISION 5.

DAVIS-BESSE NUCLEAR POWER STATION

THE TOLEDO EDISON COMPANY
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

ELEMENTARY WIRING DIAGRAM
STA HTG VENTL & CLG SYS
CTRL RM AIR HANDLING VLV'S 1 & 2

BECHTEL COMPANY 	JOB NO.	DRAWING NO.	REV.
	7749	E-60B SH-14D	6




- NOTES
- 1) FOR GENERAL NOTES SEE DWG INDEX E-60B
 - 2) FOR DETAILS OF LOCAL PUSHBUTTONS & IND. LIGHTS SEE DWG E-30B SH 7, TYPES 1 & 4.
 - 3) FOR ITRLK3 FROM DSL GENERATOR ROOM
SUPPLY FANS SEE DWG E-60B SH 2
 - 4) FOR DESCRIPTION OF ACTUATOR SEE BECHTEL
FP-7749-M-410-196.
 - 5) OVERLOADS ARE REPLACED BY SHORTING BARS.

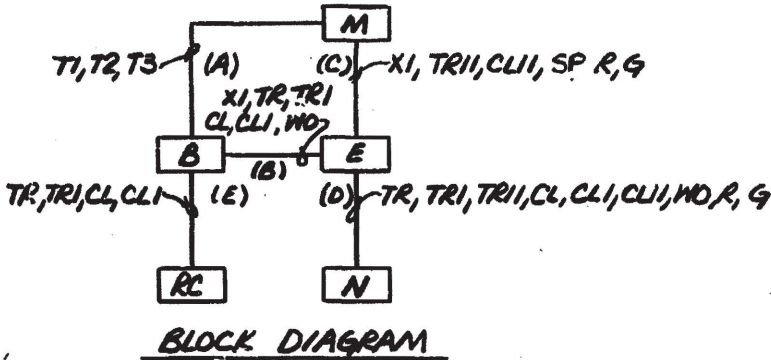
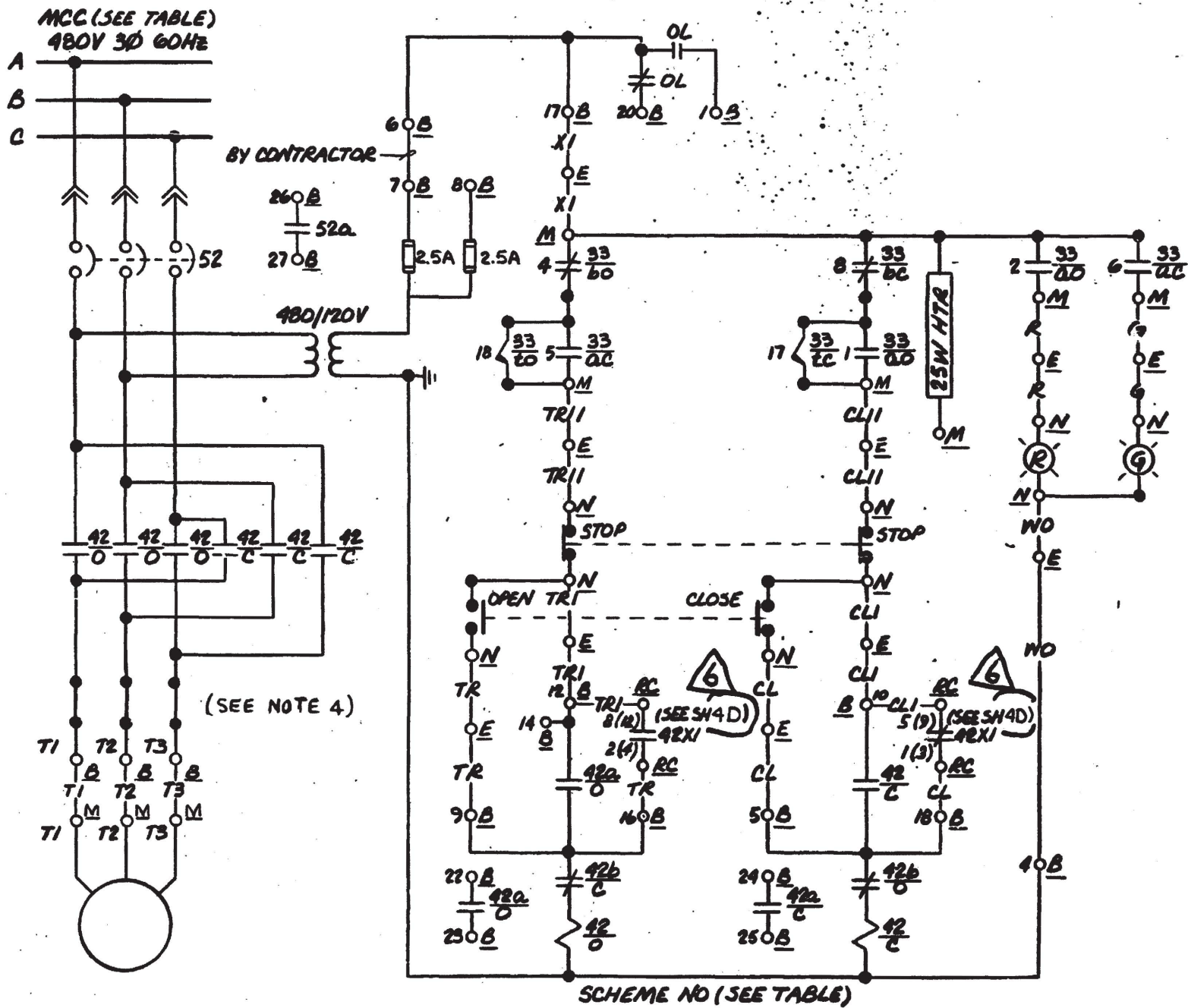
SCHEME NO.	MCC	SU	CHANNEL	EQUIPMENT				DESCRIPTION
				N	Y	M	RC	
YE101	YE1	24	1	NV5329A	YE101	MV5329A	RC3605	EMR DG RM 1 SUPPLY FAN IN
YE102	YE1	24	1	NV5329B	YE102	MV5329B	RC3605	EMR DG RM 1 SUPPLY FAN RECIRC
YE103	YE1	24	1	NV5329C	YE103	MV5329C	RC3605	EMR DG RM 1 SUPPLY FAN OUT
YF101	YF1	24	2	NV5336A	YF101	MV5336A	RC3606	EMR DG RM2 SUPPLY FAN IN
YF102	YF1	24	2	NV5336B	YF102	MV5336B	RC3606	EMR DG RM2 SUPPLY FAN RECIRC
YF103	YF1	24	2	NV5336C	YF103	MV5336C	RC3606	EMR DG RM2 SUPPLY FAN OUT

THE TOLEDO EDISON COMPANY
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

ELEMENTARY WIRING DIAGRAM
STA HTG, VENTL&CLNG SYS
EMER DG RM SUP FAN MODULATING DAMPERS

BECHTEL COMPANY	JOB NO.	DRAWING NO.	REV.
	7749	E-60B SH-18A	4

REV.	DESCRIPTION	DATE	CHK	SUPV	CHIEF	PROJ	OWNER
6	RE-UPDATE DNG. REF FROM 48 TO 45 PER ASSOC. DNG. REVIEW FOR 04-02/23	5/16/04	SPW	JOR	—	—	—
5	"AS BUILT" FOR FCR 85-112, INC. DCN'S E-60B-55 & E-60B-65	2/1/88	SPW	—	—	—	—
4	ISSUED FOR CONSTRUCTION	6-9-78	SPW	—	—	—	—



NOTES

- 1. FOR GENERAL NOTES SEE DNG. E-60B INDEX SH.
- 2. FOR DETAILS OF LOCAL PUSHBUTTONS & IND. LIGHTS SEE DNG. E-30B SH-7 TYPES 3, 4 & 6.
- 3. FOR VALVE LIMIT SW. CONTACT DEVELOPMENT SEE DNG. E-30B SH-8.
- 4. OVERLOAD HEATERS REPLACED BY SHORTING BARS.

SCHEME NO	MCC	SU NO	CH	EQUIPMENT					DESCRIPTION
				B	E	M	N	RC	
BE1240	E12A	30	1	BE1240	EV5305A	MV5305A	NV5305A	RC3801	LOW VOLTAGE SWGR RM 429 VENT
BE1241	E12A	30	1	BE1241	EV5305A	MV5305B	NV5305B	RC3801	LOW VOLTAGE SWGR RM 429 VENT

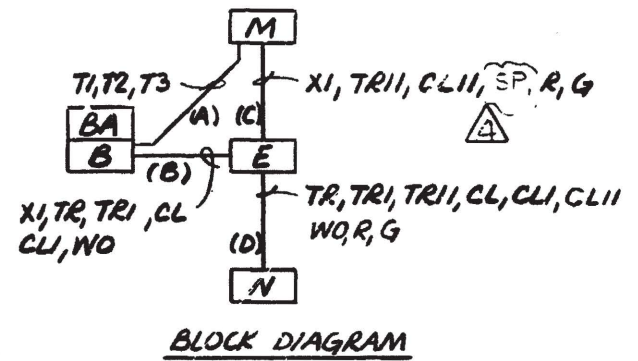
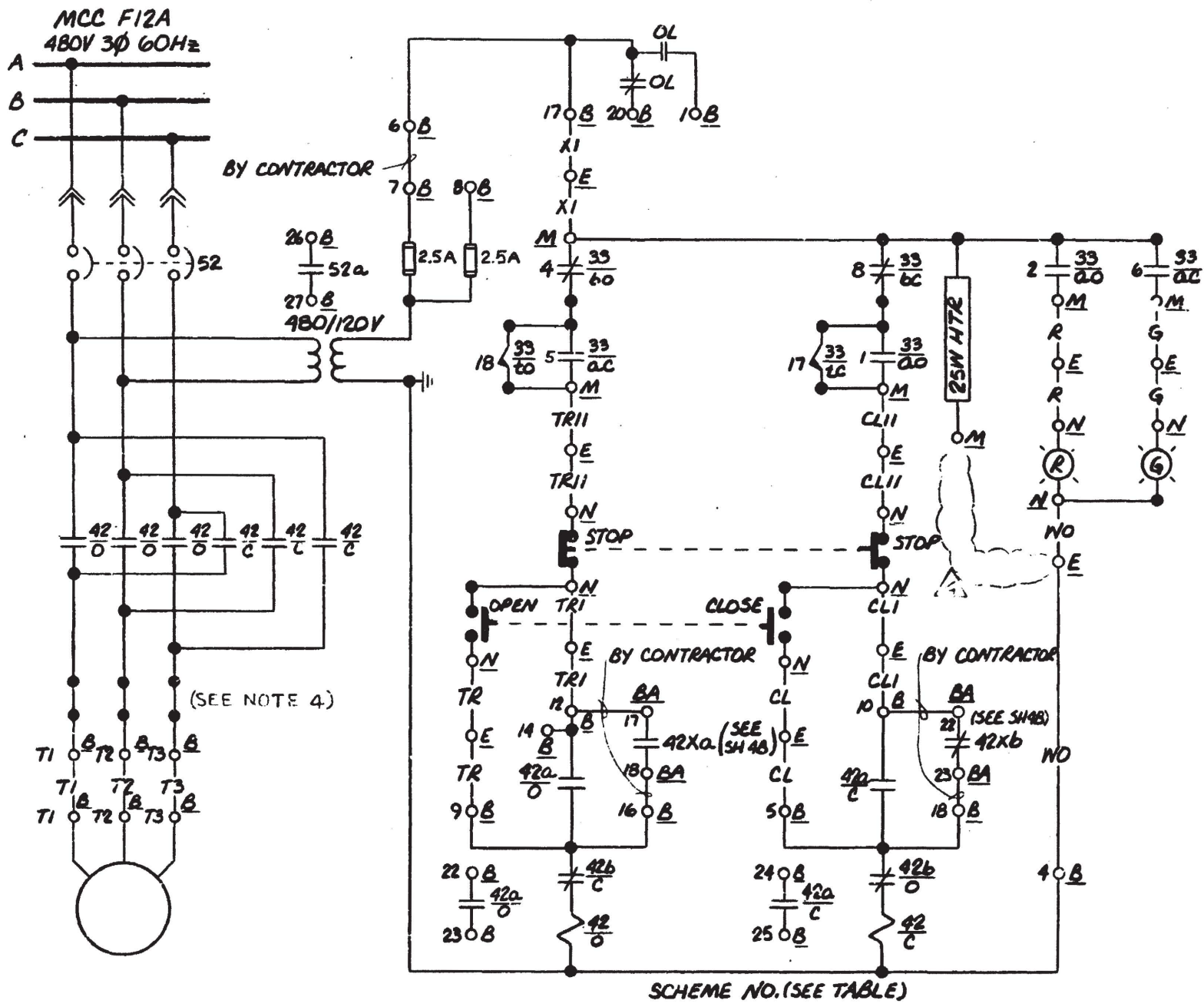
DAVIS-BESSE NUCLEAR POWER STATION
THE TOLEDO EDISON COMPANY
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY
ELEMENTARY WIRING DIAGRAM
STA HTG VENT & CLNG SYS
LOW VOLTAGE SWGR RM 429 VENT DPRS

BECHTEL COMPANY	JOB NO. 7749	DRAWING NO. E60B SH 25	REV. 6
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G-231-0

N15138

REV.	DESCRIPTION	DATE	CHK	SUP	CHIEF	PROJ	OWNER
4	AS BUILT FOR FCR 85-112, INC. DCN'S E-60B-57 & E-60B-59	21-88	AKL	AKL	AKL	AKL	AKL
3	AS BUILT FOR FCR 79-271, INC. DCN E-60B-44	72-82	AKL	AKL	AKL	AKL	AKL
0	ISSUED FOR CONSTRUCTION	6-9-73	AKL	AKL	AKL	AKL	AKL

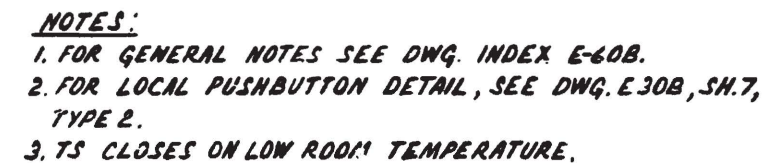
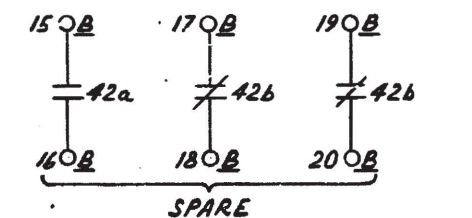


- NOTES**
- 1. FOR GENERAL NOTES SEE DWG. E-60B INDEX SH.
 - 2. FOR DETAILS OF LOCAL PUSHBUTTONS & IND. LIGHTS SEE DWG E-30B SH-7, TYPES 3, 4, 5 & 6.
 - 3. FOR VALVE LIMIT SW CONTACT DEVELOPMENT SEE DWG E-30B SH-8.
 - 4. OVERLOAD HEATERS REPLACED BY SHORTING BARS.


SCHEME NO.	MCC	SU. NO.	CH	EQUIPMENT					DESCRIPTION
				B	E	M	N	BA	
BF1239	F12A	30	2	BF1239	EV5314A	MV5314A	NV5314A	BF1204	LOW VOLTAGE SWGR RM 428 VENT

DAVIS-BESSE NUCLEAR POWER STATION
THE TOLEDO EDISON COMPANY
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY
ELEMENTARY WIRING DIAGRAM
STA HTG VENTL & CLNG SYS
LOW VOLTAGE SWGR RM 428 VENT DPR

BECHTEL COMPANY	JOB NO.	DRAWING NO.	REV.
	7749	E-60B SH26	4



SCHEME NO.	MCC	S.U. NO.	CHANNEL	EQUIPMENT				DESCRIPTION
				B	F	N	M	
BE3135	E31A	33	A	BE3135	FTS4887	NE1240	ME1240	TURBINE BLDG. UNIT HTR. FAN

<h1>DAVIS-BESSE NUCLEAR POWER STATION</h1> <p>THE TOLEDO EDISON COMPANY THE CLEVELAND ELECTRIC ILLUMINATING COMPANY</p>			
<h2>ELEMENTARY WIRING DIAGRAM</h2> <p>STA HTG VENTL & CLNG SYS TURBINE BLDG UNIT HTR FAN</p>			
	JOB NO.	DRAWING NO.	REV
	7749	E 60B SH.33	3

INDEX			
SHEET NO.	LATEST REV.	DESCRIPTION	
1A	8	VOID	
1B	8	VOID	
1C	5	VOID	
2A	6	VOID	
2B	6	VOID	
3			
4	6	AIR & N ₂ SUPPLY SYSTEMS CTMT AIR ISO VALVES	Q
5	6	AIR & N ₂ SUPPLY SYSTEMS N ₂ CTMT ISO VALVE	Q
6	1	AIR & N ₂ SUPPLY SYSTEMS INST AIR DRYERS	
7	6	AIR & N ₂ SUPPLY SYSTEMS STA AIR CMPSR 1-1	
8	6	AIR & N ₂ SUPPLY SYSTEMS STA AIR CMPSR 1-1	
8A	3	AIR & N ₂ SUPPLY SYSTEMS STA AIR CMPSR 1-1	
9	5	AIR & N ₂ SUPPLY SYSTEMS EMER. INST. AIR CMPSR. 1-1	
9A	1	AIR & N ₂ SUPPLY SYSTEMS EMER. INST. AIR CMPSR. 1-1	
10	3	AIR & N ₂ SUPPLY SYSTEMS EMER. INST. AIR CMPSR. 1-1	
11	5	AIR & N ₂ SUPPLY SYSTEMS EMER. INST. AIR CMPSR. 1-1	
11A	1	VOID	
12	4	AIR & N ₂ SUPPLY SYSTEMS CLOSED COOLING LOOP S229	
13	8	AIR & N ₂ SUPPLY SYSTEMS STATION AIR CMPSR 1-2	
13A	1	AIR & N ₂ SUPPLY SYSTEMS STATION AIR CMPSR 1-2	
14	2	VOID	
15	1	AIR & N ₂ SUPPLY SYSTEMS CROSSTIE LINE SOLENOID VALVE	
16	1	AIR & N ₂ SUPPLY SYSTEMS STATION AIR AUTOMATIC DRAIN VALVE	
17	1	AIR & N ₂ SUPPLY SYSTEMS STATION AIR CMPSR 1-2 FDR BKR	
17A	2	AIR & N ₂ SUPPLY SYSTEMS STATION AIR CMPSR 1-2 FDR BKR	

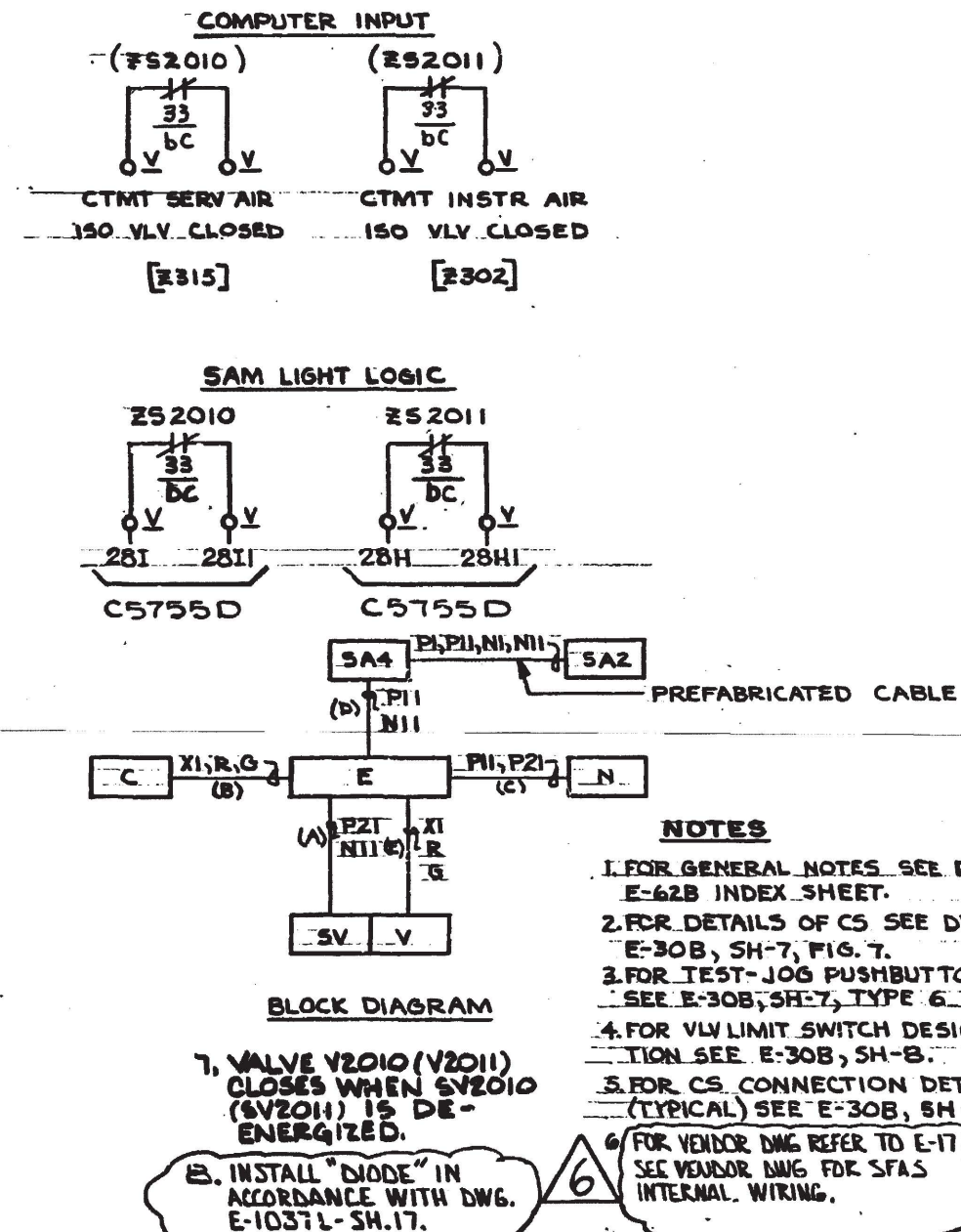
30	3-30-16	INC. DUN 13-0685-002-026 REV.00 & REVISED SH.'S 7 & 8 (REV.6) SH. 8A (REV.3), SH. 11 (REV.5), SH.13 (REV.8), SH. 13A (REV.1) AND SH.14 (REV.2)	SBW		
29	5/2/11	REVISED SH.'S 7, 8 & 9 (REV.5) AND SH.13 (REV.7)	INITIALS ON	FILE	
28	7/19/07	REVISED SH.'S 9, 11 & 12 (REV.4) AND SH. 10 (REV.3)	INITIALS ON	FILE	
27	10/4/04	REVISED SH.13 (REV.6)	INITIALS ON	FILE	
REV	DATE	DESCRIPTION	DR	CH'K	SUPV

- GENERAL NOTES:
- FOR EXPLANATION OF EQUIPMENT & WIRING NUMBERS SEE 7749-E-11A, ELECTRICAL NUMBERING SYSTEM.
 - FOR MOTOR INFORMATION SEE 7749-E-12B, ELECTRICAL MOTOR LIST.
 - FOR CONTROL PANEL, MCC, DESCRIPTIONS SEE 7749-E-13B, ELECTRICAL EQUIPMENT LIST.
 - WIRE NUMBER PREFIX MUST BE ADDED TO FORM COMPLETE WIRE NUMBER FOR THOSE WIRES AT MAIN CONTROL BOARD.
 - AUX. CONTROL RELAY IN SOLENOID OPERATED VALVE CONTROL CIRCUITS TO BE COUCH RELAY TYPE 4AP.
 - NUMBERS IN BRACKETS [] REPRESENTS COMPUTER INPUT NUMBER. NUMBER IN PARENTHESIS () REPRESENTS COMPUTER INPUT SOURCE NUMBER.

- REFERENCE DRAWINGS:
- E-5 SH.1 THRU 5 - 480V MCC (NON-ESSENTIAL) ONE LINE DIAGRAM
 - E-6 SH.1 & 2 - 480V MCC (ESSENTIAL) ONE LINE DIAGRAM
 - E-10A - STANDARD NOTES AND SYMBOLS
 - E-11A - ELECTRICAL NUMBERING SYSTEM
 - E-12B - MOTOR LIST
 - E-14B - SOLENOID VALVE LIST
 - E-30B - GENERAL GUIDES - ELEMENTARY DIAGRAM

THIS DRAWING WAS REDRAWN ON CAD AND SUPERSEDES REVISION 26.

SCALE NONE	DESIGNED	DRAWN BT	DATE 10-4-04
DAVIS-BESSE NUCLEAR POWER STATION UNIT NO. 1 THE TOLEDO EDISON COMPANY			
ELEMENTARY WIRING DIAGRAMS AIR & N ₂ SUPPLY SYSTEMS DRAWING INDEX			
DRAWING NO. E-62B INDEX SH.1			REV. 30




DAVIS-BESSE NUCLEAR POWER STATION

THE TOLEDO EDISON COMPANY
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

ELEMENTARY WIRING DIAGRAMS
AIR & N₂ SUPPLY SYSTEMS
CTMT AIR ISO VLVS

Q

BECHTEL COMPANY	JOB NO.	DRAWING NO.	REV.
	7749	E-62 B SH-4	6

INDEX			
SHEET NO.	LATEST REV.	DESCRIPTION	SCHEME NO.
1A	13	EMERGENCY DIESEL GENERATORS DSL GEN 1-1 BRKR AC101 CONTROL	AC101
1B	12		
1C	10	EMERGENCY DIESEL GENERATORS DSL GEN 1-1 PROTECTIVE RELAYS TRIPPING & LOCKOUT CRKTS	GD102
1D	5		
1E	21	EMERGENCY DIESEL GENERATORS DSL GEN 1-1 MISC. AUX. RELAYS	GD103
1F	15	EMERGENCY DIESEL GENERATORS DSL GEN 1-1 REMOTE START & STOP SIGNALS	GD104
1G	11	EMERGENCY DIESEL GENERATORS DSL GEN 1-1 MANUAL SPEED & VOLTAGE CONTROL	GD105 GD106
1H	3	EMERGENCY DIESEL GENERATORS DSL GEN 1-2 MANUAL SPEED & VOLTAGE CONTROL	GD205 GD206
2A	14	EMERGENCY DIESEL GENERATORS DSL GEN 1-2 BRKR AD101 CONTROL	AD101
2B	11		
2C	10	EMERGENCY DIESEL GENERATORS DSL GEN 1-2 PROTECTIVE RELAYS TRIPPING & LOCKOUT CRKTS	GD202
2D	6		
2E	20	EMERGENCY DIESEL GENERATORS DSL GEN 1-2 MISC. AUX. RELAYS	GD203
2F	11	EMERGENCY DIESEL GENERATORS DSL GEN 1-2 REMOTE START & STOP SIGNALS	GD204
3	11	EMERGENCY DIESEL GENERATORS 1-1 MISC. COMPUTER & ANNUNCIATOR CONTACTS	GD1LA4
4	11	EMERGENCY DIESEL GENERATORS 1-2 MISC. COMPUTER & ANNUNCIATOR CONTACTS	GD2LA4
5	3	EMERGENCY DIESEL GENERATORS RM HVAC SUPPLY FAN DAMPER CTRL	GD109 (GD209)
6	3	DSL OIL PMP HOUSE SUMP PUMPS	BE1268 (BF1268)
7	14	EMERGENCY DIESEL GENERATOR AIR COMPRESSOR 1-2	BF1263
7A	3	EMERGENCY DIESEL GENERATOR AIR COMPRESSOR 1-1	BE1299
8	2	EMERGENCY DIESEL GENERATORS SOAK - BACK PUMPS	BE1261 (BF1261)
9	4	EMERGENCY DIESEL GENERATORS IMMERSION HEATER CONTROL	BE1258 (BF1258)
10A	14	DIESEL FIRE PUMP, DIESEL OIL XFER PUMPS	BE1257
10B	11	DIESEL FIRE PUMP, DIESEL OIL XFER PUMPS	BF1257
10C	7	EMERGENCY DIESEL GENERATORS, DIESEL OIL XFER PUMPS	BE1298 (BF1230)
11A	6	DELETED	

GENERAL NOTES:

1. FOR EXPLANATION OF EQUIPMENT, WIRING AND SCHEME NUMBERS SEE E-11A, ELECTRICAL NUMBERING SYSTEMS.
2. FOR MOTOR INFORMATION SEE DWG. E-12B, ELECT. MOTOR LIST.
3. FOR CONTROL PANEL, JUNCTION BOX AND TERMINAL BOX DESCRIPTIONS SEE DWG. E-13B, ELECTRICAL EQUIP. LIST.
4. FOR SOLENOID VALVE INFORMATION SEE DWG. E-14B, SOLENOID VALVE LIST.
5. NUMBERS SHOWN IN BRACKETS [] REPRESENT COMPUTER INPUT NUMBERS. NUMBERS IN () REPRESENT INPUT SOURCE NUMBERS.

REFERENCE DRAWINGS:

- 7749-E-30-33 - (CONSOLIDATED CONTROLS SCHEMATIC DWG. S9N16-1) SH.5
7749-E-30-47 - (CONSOLIDATED CONTROLS SCHEMATIC DWG. S9N16-2) SH.5
7749-E-30-38 - (CONSOLIDATED CONTROLS SCHEMATIC DWG. S9N16-3) SH.5
7749-E-30-48 - (CONSOLIDATED CONTROLS SCHEMATIC DWG. S9N16-4) SH.5
E-5-(SH.1-5) - SINGLE LINE DIAGRAM 480V MCC (NON-ESSENTIAL)
E-6-(SH.1-2) - SINGLE LINE DIAGRAM 480V MCC (ESSENTIAL)
E-10A - STANDARD NOTES & SYMBOLS
E-30B - GENERAL GUIDES - ELEMENTARY DIAGRAM
E-27 - EMERG DSL GENS 1-1, 1-2 THREE LINE DIAGRAM FOR METER, RELAY, INSTRUMENT & DEVICE CONN.
E-3 - 4.16 KV, METER & RELAY ONE LINE DIAGRAM FOR GENERAL ARRANGEMENT & RELAY FUNCTIONS
E-724 - BLOCK DIAGRAM STATION COMPUTER INPUTS-OUTPUTS
E-746 - BLOCK DIAGRAM STATION ANNUNCIATOR INPUTS-OUTPUTS
7749-E-30-15 - (CONSOLIDATED CONTROLS SCHEMATIC DWG. S9N16-1) SH.3
7749-E-30-25 - (CONSOLIDATED CONTROLS SCHEMATIC DWG. S9N16-2) SH.3
7749-E-30-29 - (CONSOLIDATED CONTROLS SCHEMATIC DWG. S9N16-3) SH.3
7749-E-30-36 - (CONSOLIDATED CONTROLS SCHEMATIC DWG. S9N16-4) SH.3
7749-E-39-6 - (GENERAL ELECTRIC ELEM. DIAGRAM 0194B3105)

THIS DRAWING WAS REDRAWN ON CAD AND SUPERSEDES REVISION 65.

FOR REVISION
DESCRIPTION
SEE INDEX SHT.3

SCALE NONE	DESIGNED	DRAWN JOR	DATE 04-26-04
DAVIS-BESSE NUCLEAR POWER STATION UNIT NO. 1 THE TOLEDO EDISON COMPANY			
ELEMENTARY WIRING DIAGRAMS EMER DSL GENS DRAWING INDEX			Q
	DRAWING NO. E-64B SH.1		
			REV. 78

INDEX (CONTINUED)			
SHEET NO.	LATEST REV.	DESCRIPTION	SCHEME NO.
11B	13	EMERGENCY DIESEL GENERATORS DAY TANK INLET VALVE	V1131
12	6	DRAWING VOID	
13	6	EMERGENCY DIESEL GENERATORS FIELD FLASHING AND SHORTING CRKTS	GD108 (GD208)
14	8	EMERGENCY DIESEL GENERATORS ENGINE RUNNING AND SPEED CRKT	GD111 (GD211)
15	3	EMERGENCY DIESEL GENERATORS ENGINE SAFETY SHUTDOWN	GD110 (GD210)
16	10	EMERGENCY DIESEL GENERATORS LOCAL ANNUNCIATOR	GD1LA4 (GD2LA4)
17	5	EMERGENCY DIESEL GENERATORS SFAS SEQUENCER START/STOP	SFSEQ 1,2,3,4
18	3	EMERGENCY DIESEL GENS/SFAS SEQUENCER START/STOP AUX RELAYS	SXSSEQ 1,2,3,4
19	2	EMERGENCY DSL GENS/DG EMER START WARNING LIGHT	BWLDG1(2)
20	0	EMER. DSL. GENS. A.C. TURBO OIL PUMPS	BE1289 BF1289
21	0	EMERGENCY DIESEL GENERATORS D.C. TURBO OIL PUMPS	C3625 C3626
22	4	EMERGENCY DIESEL GENERATOR AIR COMPRESSOR C11-3	BE2342
23A	2	DSL. GEN. 1-2 ANNUN. REFLASH FOR ANNUNCIATOR POINT Q400	Q400
23B	1	DSL. GEN. 1-2 ANNUN. REFLASH FOR ANNUNCIATOR POINT Q400	Q400
23C	1	DSL. GEN. 1-2 ANNUN. REFLASH FOR ANNUNCIATOR POINT Q400	Q400
24A	1	DSL. GEN. 1-1 ANNUN. REFLASH FOR ANNUNCIATOR POINT Q395	Q395
24B	2	DSL. GEN. 1-1 ANNUN. REFLASH FOR ANNUNCIATOR POINT Q395	Q395
24C	1	DSL. GEN. 1-1 ANNUN. REFLASH FOR ANNUNCIATOR POINT Q395	Q395
25A	4	STATION BLACKOUT DIESEL GENERATOR BRKR AD213 CONTROL AND TRIP	AD213
25B	2	STATION BLACKOUT DIESEL GENERATOR BRKR AD213 CONTROL	AD213
25C	2	STATION BLACKOUT DIESEL GENERATOR BRKR AD213 CONTROL AND TRIP	AD213
26A	4	STATION BLACKOUT DIESEL GENERATOR BRKR AD301 CONTROL AND TRIP	AD301
26B	5	STATION BLACKOUT DIESEL GENERATOR BRKR AD301 CONTROL AND TRIP	AD301

EQUIPMENT (LOCATION) NUMBERS

4.16 KV SWGR

BUS C1

BUS C2

AC101-UNIT 1

ABDC1-UNIT 2

AC103-UNIT 3

AC110-UNIT 10

AACC2-UNIT 9

4.16 KV SWGR

BUS D1

BUS D2

AD101-UNIT 1

AACD1-UNIT 2

AD103-UNIT 3

AC110-UNIT 10

ABDD2-UNIT 9

C5715

C3615 (C3616)

C3617 (C3618)

C3621 (C3622)

C3619

C5762D (C5763C)

C5755D (C5756C)

HA03 (HB03)

BE1257 (BF1257)

MP0081 (MP0082)

NP0081 (NP0082)

FLSLL1451 (FLSLL1451)

FLSL1128 (FLSL1122)

FLSL1125

FLSH1128 (FLSH1122)

FLSH1125

EV1115 (EV1123)

FLSL1122 (FLSL1123)

FLSH1122 (FLSH1123)

NV1115 (NV1123)

V1115 (V1123)

SV1115 (SV1123)

EV1131

FLSL1131

FLSH1131

NV1131

SV1131

FPS1133

FPS2902

FPS1134

FPS2790

CONTROL RM. STA. ELEC. DIST. PNL. C15

EMERG. DSL GEN 1-1 (1-2) ELECT CONTROL & RELAY BD

EMERG. DSL GEN 1-1 (1-2) EXCIT CONTROL & RELAY BD

EMERG. DSL GEN 1-1 (1-2) ENGINE CONTROL PNL

CNTRL PNL FOR EDG AIR START COMPRESSOR C11-3

CHANNEL 1(3) SFAS PNL

CHANNEL 2(4) SFAS PNL

13.8KV SWGR BUS A (B) UNIT 3

480V MCC E12B UNIT VC#3, COMP 3M (F12B UNIT VC#3, COMPT 3M)

EMER. DSL. GEN 1-1 (1-2) DSL OIL TRANSFER PMP MOT

EMER. DSL. GEN 1-1 (1-2) DSL OIL TRANSFER PMP MOT LOCAL CNTRL STA

EMER. DSL. GEN 1-1 (1-2) DAY TNK LEVEL SWCH

EMER. DSL. GEN 1-1 (1-2) DAY TNK LEVEL SWCH

FIRE PMP DSL DAY TNK LEVEL SWCH

EMER DSL GEN 1-1 (1-2) DAY TNK LEVEL

FIRE PMP DSL DAY TNK LEVEL SWCH

EMER DSL GEN 1-1 (1-2) DAY TNK INLET VLV

EMER DSL GEN 1-1 (1-2) DAY TNK LEVEL SW

EMER DSL GEN 1-1 (1-2) DAY TNK LEVEL SW

EMER DSL GEN 1-1 (1-2) DAY TNK INLET VLV LOCAL CNTRL STA

EMER DSL GEN 1-1 (1-2) DAY TNK INLET VLV POS SW

EMER DSL GEN 1-1 (1-2) DAY TNK INLET VLV SOLENOID

FIRE PMP DSL DAY TNK INLET VLV

FIRE PMP DSL DAY TNK LEVEL SWCH

FIRE PMP DSL DAY TNK LEVEL SWCH

FIRE PMP DSL DAY TNK INLET VLV CNTRL STA

FIRE PMP DSL DAY TNK INLET VLV SOLENOID

EMER DG STARTING AIR CMPSR 1-1 PRESS SWCH

EMER DG STARTING AIR CMPSR 1-2 PRESS SWCH

(CONT. ON SHEET 3)

FOR REVISION
DESCRIPTION
SEE INDEX SHT.3

THIS DRAWING WAS REDRAWN ON CAD AND SUPERSEDES REVISION 65.

SCALE NONE	DESIGNED	DRAWN JOR	DATE 04-26-04
DAVIS-BESSE NUCLEAR POWER STATION UNIT NO. 1 THE TOLEDO EDISON COMPANY			
ELEMENTARY WIRING DIAGRAMS EMER DSL GENS DRAWING INDEX			Q
DRAWING NO. E-64B SH.2			
			REV. 78

INDEX (CONTINUED)

SHEET NO.	LATEST REV.	DESCRIPTION	SCHEME NO.
26C	4	STATION BLACKOUT DIESEL GENERATOR BRKR AD301 CONTROL AND TRIP	AD301
27	2	SBO DIESEL GENERATOR SBO D.G. BLDG. SUMP PUMPS & CONTROL	BF8115 BF8116
28A	0	STATION BLACKOUT DIESEL GENERATOR BLDG. ELECT. EQUIPMENT ROOM VENT. FAN (C153) CONTROL	BF8112
28B	1	STATION BLACKOUT DIESEL GENERATOR BLDG. ELECT. EQUIPMENT ROOM M.O. LOUVER (CV6004 & CV6005) CONTROL	L34226
29A	0	STATION BLACKOUT DIESEL GENERATOR BLDG. D.G. ROOM VENT FAN 1 (C152-1) CONTROL	BF8113
29B	2	STATION BLACKOUT DIESEL GENERATOR BLDG. D.G. ROOM M.O. LOUVER (CV6001 & CV6002) CONTROL	L34220
30A	0	STATION BLACKOUT DIESEL GENERATOR BLDG. D.G. ROOM VENT FAN 2 (C152-2) CONTROL	BF114
30B	2	STATION BLACKOUT DIESEL GENERATOR BLDG. D.G. ROOM M.O. LOUVER (CV6000) CONTROL	L34222
31	1	STATION BLACKOUT DIESEL GENERATOR BLDG. MISC. CABLE BLOCK DIAGRAMS	BF8101 THRU BF8107
32	1	SBO DIESEL GENERATOR BLDG. MISC. CABLE BLOCK DIAGRAMS	BF8108 THRU BF8111, BF8117, BF8118
33	4	SBO DIESEL GENERATOR BLDG. MISC. CABLE BLOCK DIAGRAMS	SEE SHT.
34	2	STATION BLACKOUT DIESEL GENERATOR BLDG. MISC. CABLE BLOCK DIAGRAMS	DG300

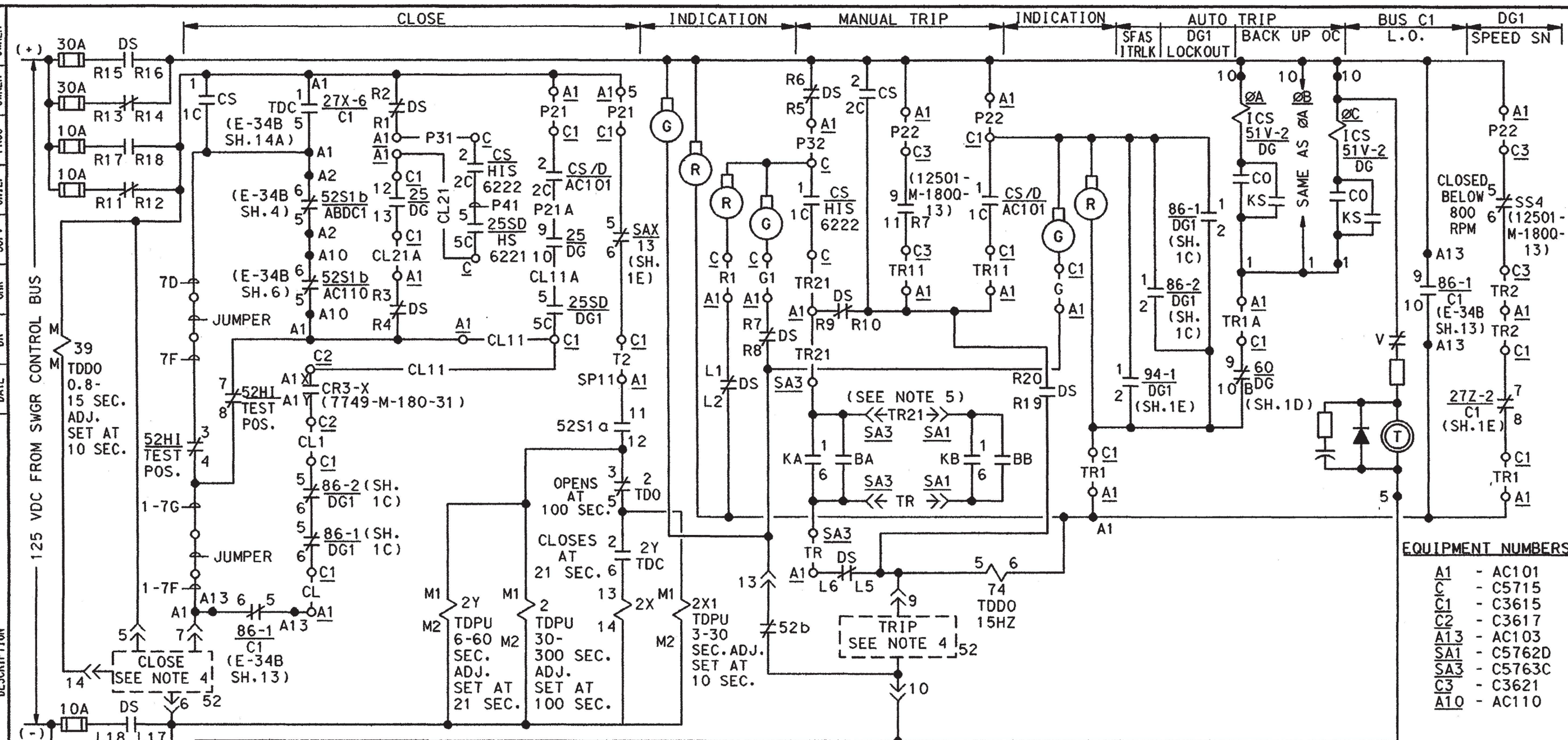
EQUIPMENT (LOCATION) NUMBERS (CONTINUED)

BE1263 (BF1263)	480V MCC E12B (F12B) STARTER
MC0111 (MC0112)	EMERG. DG STARTING AIR CMPSR 1-1 (1-2) MTR
BE1261 (BF1261)	480V MCC E12B (F12B) STARTER
MP1471 (MP1472)	EMER DG 1-1 (1-2) SOAK-BACK PUMP
BE1258 (BF1258)	480V MCC E-12B (F12B) CONTACTOR
FPSL-3751A(B)	EMER. DG 1-1 (1-2) AIR INTAKE
FPSH-3752A(B)	EMER. DG 1-1 (1-2) AIR EXHAUST
LTE5329 (36)	EMER. DG 1-1 (1-2) RM TEMP
MV5329A,B,C	EMER. DG 1-1 RM SUPPLY FANS
MV5336A,B,C	EMER. DG 1-2 RM SUPPLY FANS
MV3611A,B,C	EMER. DG STARTING AIR CMPSR C11-1 MOT. ACTUATED VALVES
MV3612A,B,C	EMER. DG STARTING AIR CMPSR C11-2 MOT. ACTUATED VALVES
MV3613A,B,C	EMER. DG STARTING AIR CMPSR C11-3 MOT. ACTUATED VALVES

78	04-23-20	REVISED SH.11B (REV.13)	SAP	SML	—	JHR	—
77	11-10-17	REVISED SH.2E (REV.20) & SH.33 (REV.4)		"INITIALS ON FILE"			
76	3-6-15	REVISED SH. 10C (REV.7) & SHT's 19 & 34 (REV.2)		"INITIALS ON FILE"			
75	11-4-11	REVISED SH.1A (REV. 13), SH.7 (REV. 14), SH.7A (REV. 3), SH'S 25A & 26A (REV. 4) & SH. 31 (REV. 1)		"INITIALS ON FILE"			
74	5-14-10	REVISED SH.1A (REV.12), SH.1E (REV.21), SH.1F (REV.15), SH.1G & SH.2F (REV.11), SH.1H (REV.3), SH.2A (REV.14), SH.2E (REV.19) & SH. 19 (REV.1)		"INITIALS ON FILE"			
73	12-21-09	REVISED SH. 2C (REV. 10), SH. 7A (REV. 2) & SH. 24B (REV. 2)		"INITIALS ON FILE"			
72	3-03-09	INC. DCN E-64B-444 PER ECR 03-0444-00, REVISED SH.1E (REV.20), SH.2E (REV.18), SH.12 (REV.6), SH'S.22 & 26C) (REV.4), SH'S. 25A & 26A (REV.3), & SH.26B (REV.5) & GEN. UPDATE SHOW SH. 12 AS "DRAWING VOID" PER REVIEW OF DCN E-64B-440 & DRAFTING PRACTICE		"INITIALS ON FILE"			
REV	DATE	DESCRIPTION	BY	CH'K	ENGR.	ENGR. SUPV.	GEN. SUPV.

THIS DRAWING WAS REDRAWN ON CAD AND SUPERSEDES REVISION 65.			
SCALE NONE	DESIGNED	DRAWN JOR	DATE 04-26-04
DAVIS-BESSE NUCLEAR POWER STATION UNIT NO. 1 THE TOLEDO EDISON COMPANY			
ELEMENTARY WIRING DIAGRAMS EMER DSL GENS DRAWING INDEX			Q
	DRAWING NO.	REV.	
	E-64B SH.3	78	

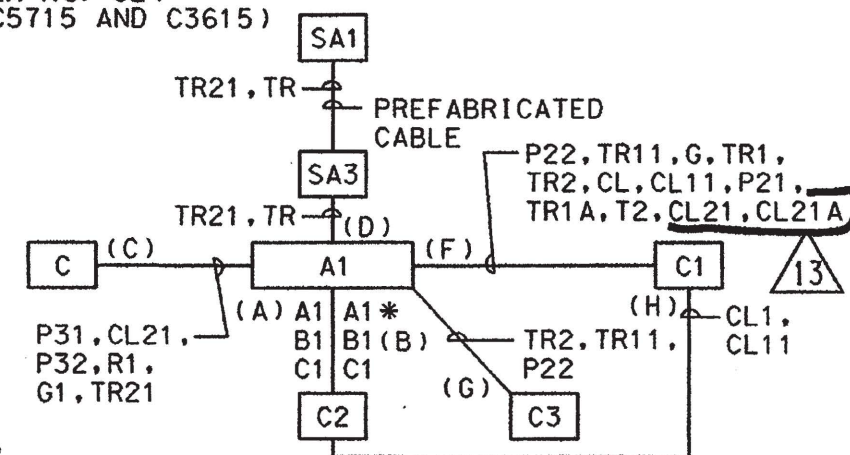
REV.	DESCRIPTION	DATE	CHK	SUPV	CHIEF	PROJ	OWNER
12 INC. DUN 01-0261-002-011 REV.00	INITIALS ON FILE	5-14-10					
13 INC. DUN 11-0591-001-001 REV.00	INITIALS ON FILE	11/4/11					
10 INC. DCN E-64B-368 PER ERR 60-0001-231 (REDRAWN)	INITIALS ON FILE	5-22-04					



EQUIPMENT NUMBERS	
A1	- AC101
C	- C5715
C1	- C3615
C2	- C3617
A13	- AC103
SA1	- C5762D
SA3	- C5763C
C3	- C3621
A10	- AC110

- NOTES:**
- FOR GENERAL NOTES & LOCATION DESIGNATIONS SEE DWG. INDEX E-64B.
 - SEE SH.1B FOR CONTACT ASSIGNMENTS, SPARES & SW. DEVELOPMENT REFERENCES.
 - WIRE JUMPERS AT SWGR TERM BLKS TO BE ADDED OR REMOVED BY CONTRACTOR AS INDICATED ON THIS DWG.
 - FOR BREAKER INTERNALS SEE DWG. E-30B SH.16A.
 - FOR INTERNAL WIRING SEE VENDOR DWGS. E-5-60.
 - FOR VENDOR DWG. REFER TO E-17B. SEE VENDOR DWG. FOR SFAS INTERNAL WIRING.
 - DELETED.

SCHEME No. AC101 CHANNEL 1
START UP SYSTEM No. 024
WIRE PREFIX G1 (AT C5715 AND C3615)



BLOCK DIAGRAM * SEE DWG. 7749-E-27
SCHEME No. AC101 FOR CONNECTIONS

THIS DWG. WAS REDRAWN ON CADD AND SUPERSEDES REV. 9

SCALE NONE	DESIGNED ---	DRAWN JOR	DATE 04-21-04
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DAVIS-BESSE NUCLEAR POWER STATION
UNIT NO. 1

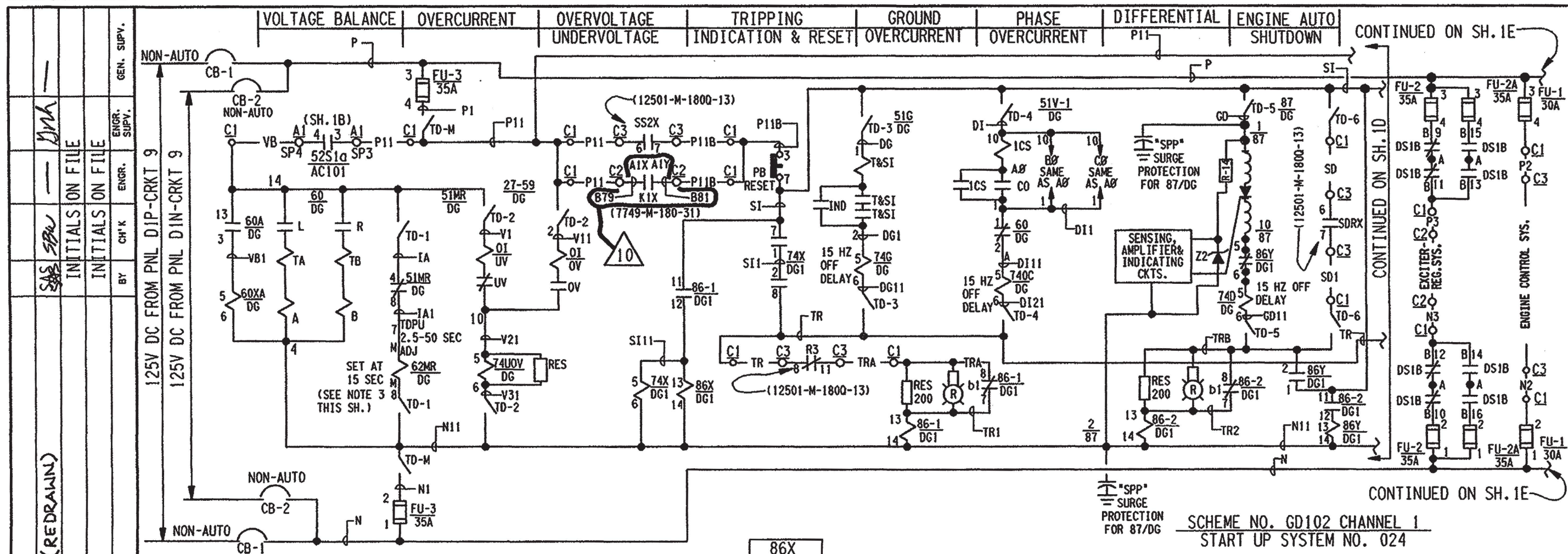
ELEMENTARY WIRING DIAGRAMS
EMER DSL. GENS.
DSL. GEN. 1-1 BRKR. AC101 CONTROL

DRAWING NO.	REV.
E-64B SH.1A	13

DFN=F /SCHEME /E64BSH1 B.DGN

NEWFAX 3/85 N58313

ED 7489



86-1 DG1	CONTACTS	FUNCTION	DWG. REF.
1-2	1-2	TRIP BRKR AC101	SH. 1A
3-4	3-4	COMP. PT. Q396	SH. 3
5-6	5-6	CLOSE ITRLK BRKR AC101	SH. 1A
7-8	7-8	RESISTOR BY-PASS	THIS SH.
9-10	9-10	TRIP DG 1-1 FIELD VIA FSS DEVICE	SH. 13
11-12	11-12	86X CRKT	THIS SH.

86-2 DG1	CONTACTS	FUNCTION	DWG. REF.
1-2	1-2	TRIP BRKR AC101	SH. 1A
3-4	3-4	COMP. PT. Q396	SH. 3
5-6	5-6	CLOSE ITRLK BRKR AC101	SH. 1A
7-8	7-8	RESISTOR BY-PASS	THIS SH.
9-10	9-10	TRIP DG 1-1 VIA SDR RELAYS	SH. 15
11-12	11-12	86Y CRKT	THIS SH.

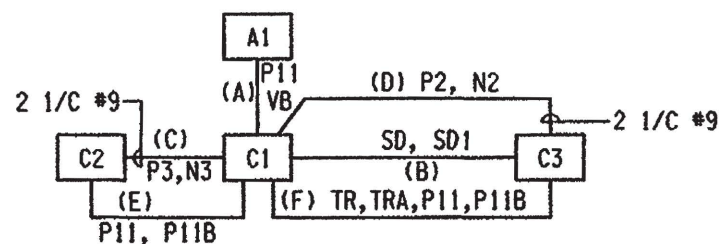
86X DG1	CONTACTS	FUNCTION	DWG. REF.
1-2	1-2	SPARE	
3-4	3-4	SPARE	
5-6	5-6	ITRLK FOR RES MATRIX	SH. 1D
7-8	7-8	ITRLK FOR RES MATRIX	SH. 1D
9-10	9-10	SPARE	
11-12	11-12	SPARE	

86Y DG1	CONTACTS	FUNCTION	DWG. REF.
1-2	1-2	86Y SEAL IN	THIS SH.
3-4	3-4	SPARE	
5-6	5-6	87 DG TURN OFF	THIS SH.
7-8	7-8	SPARE	
9-10	9-10	SPARE	
11-12	11-12	SPARE	

NOTES:

- FOR GENERAL NOTES AND LOCATION DESIGNATIONS SEE DRAWING INDEX E-64B.
- BRKR. CB-1 MECHANICALLY INTERLOCKED WITH BRKR. CB-2, PERMITS ONLY ONE BRKR TO BE CLOSED AT ONE TIME.
- RELAY 62MR/DG WAS ORIGINALLY AGASTAT MODEL 7012PD, ANY FUTURE REPLACEMENT IS TO BE MODEL E-7012PD. REFER NRC INFO. NOTICE 87-66

THIS DWG. WAS REDRAWN ON CADD AND SUPERSEDES REVISION 9.



EQUIPMENT NUMBERS

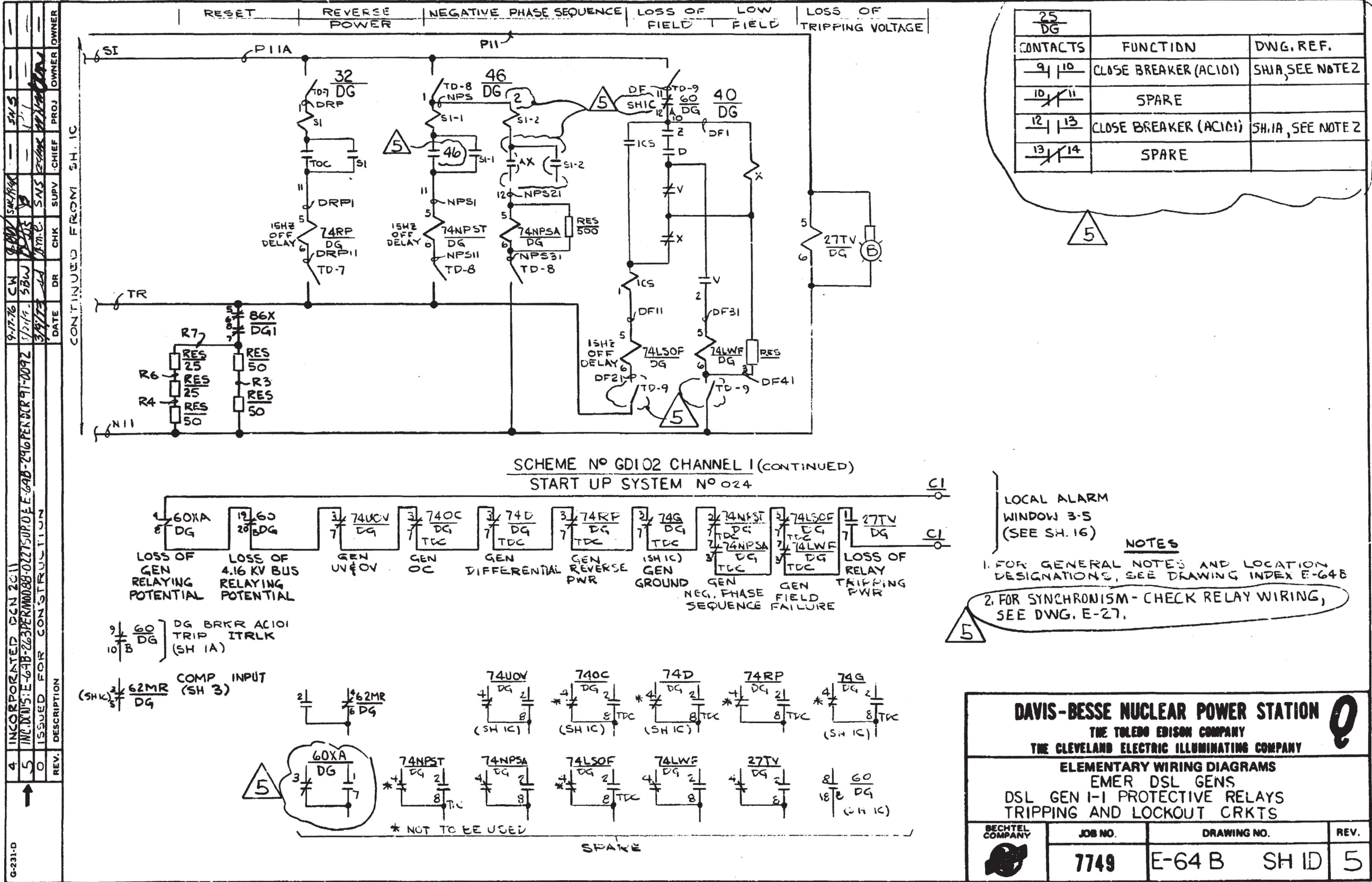
C1-C3615
A1-AC101
C3-C3621
C2-C3617

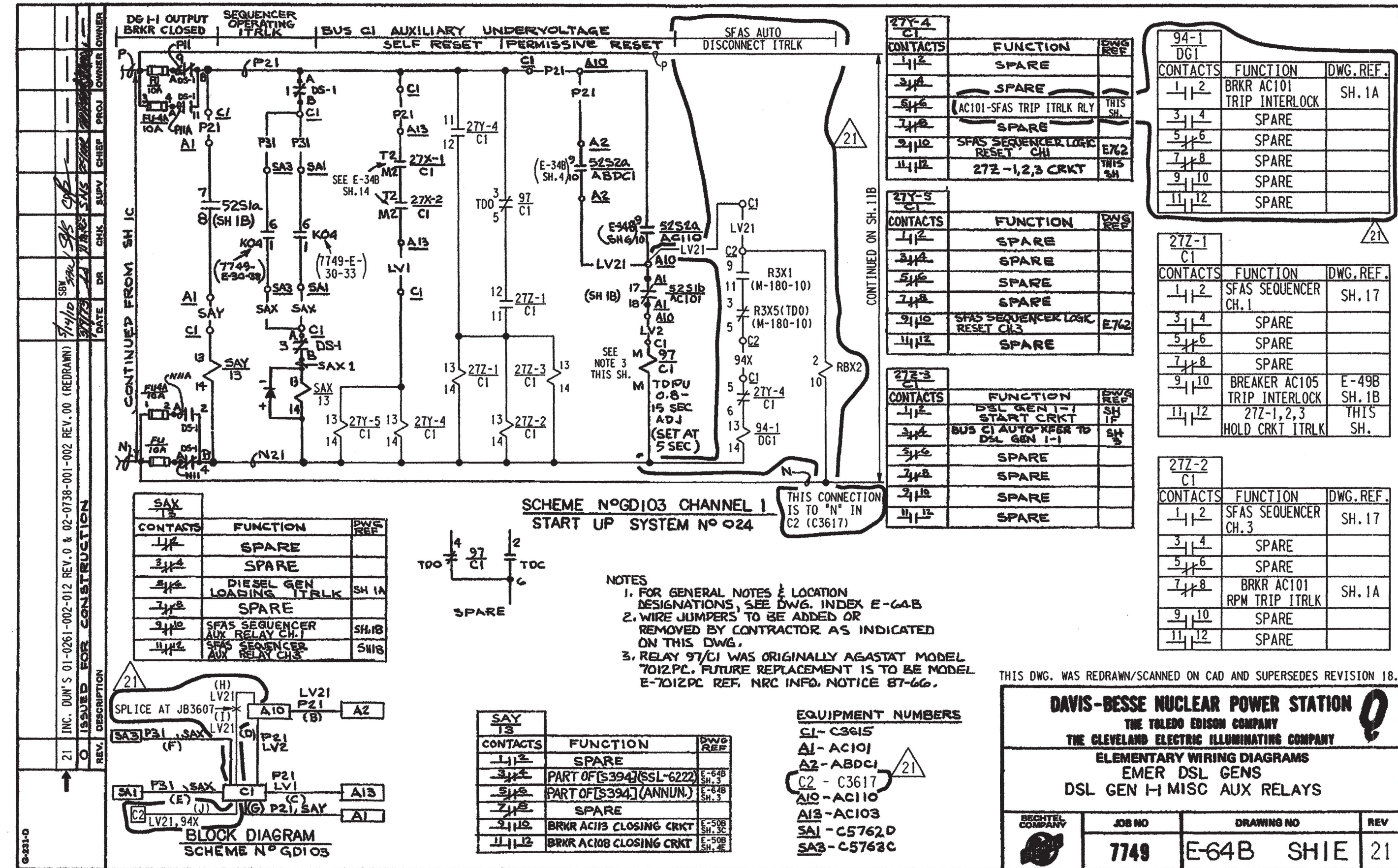
SCALE N/A	DESIGNED	DRAWN SAS	DATE 4-13-06
DAVIS-BESSE NUCLEAR POWER STATION UNIT NO. 1			
ELEMENTARY WIRING DIAGRAMS EMER DSL GENS DSL GEN 1-1 PROTECTIVE RELAYS TRIPPING AND LOCKOUT CRKTS			
DRAWING NO.			REV.
E-64B SH 1C			10

LEVELS: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62

DB 04-12-06

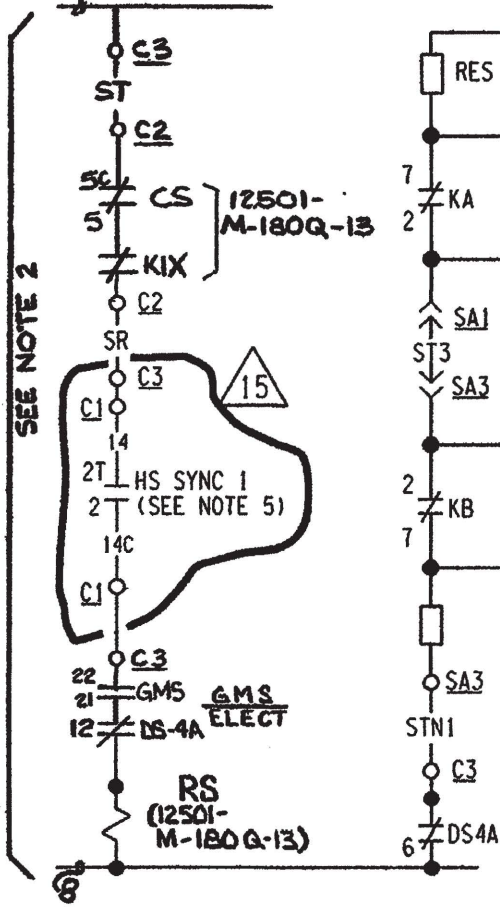
DFN=F/SCHEME/E64BSH1C.DGN



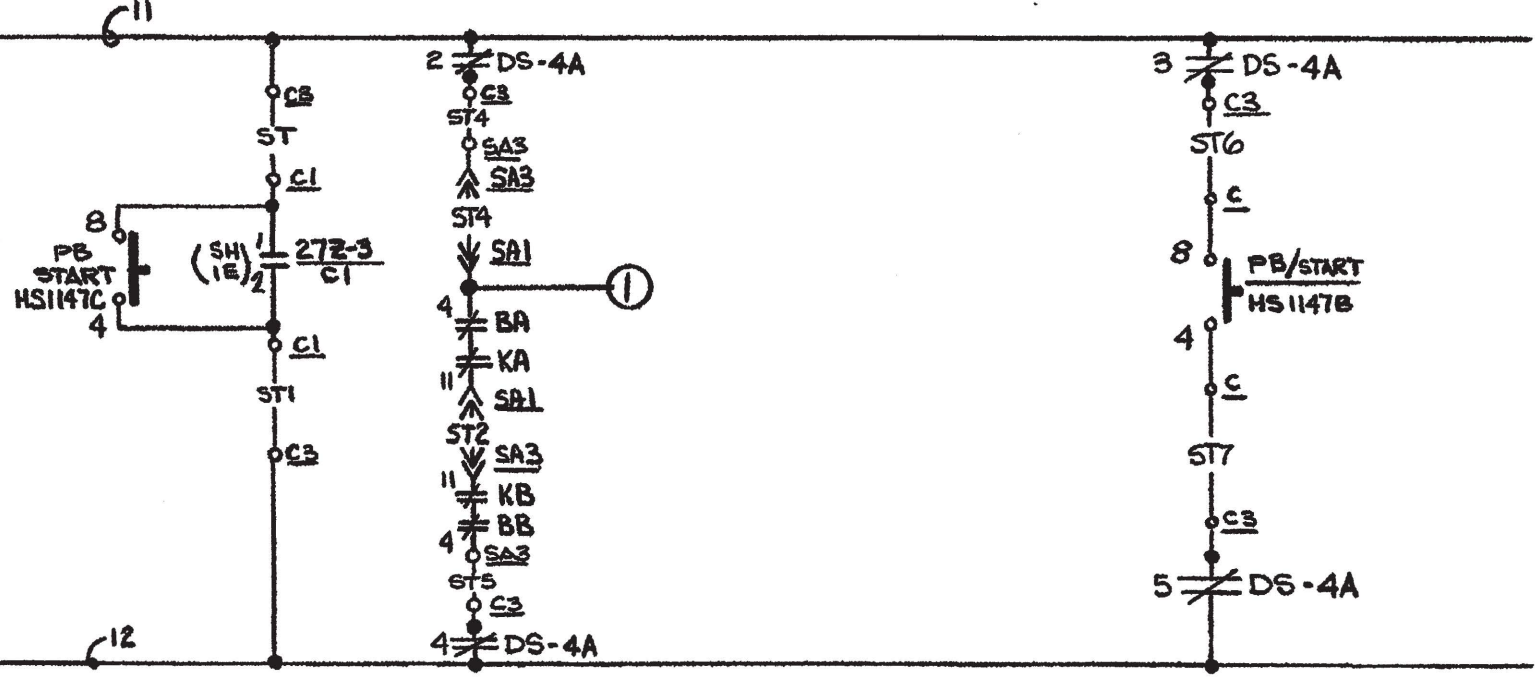


REV.	DESCRIPTION	DATE	CHK	SUPV	CHIEF	PROJ	OWNER
15	INC. DUN 02-0738-001-003 REV. 00 (REDRAWN)	5/14/70	SSS	SSS	SSS	SSS	SSS
14	INC. DUN E-64B-478 PER ECR 02-0737-80	6-2-66	SSS	SSS	SSS	SSS	SSS
0	ISSUED FOR CONSTRUCTION	3/19/70	SSS	SSS	SSS	SSS	SSS

TO ENGINE REMOTE AUTO START AND
MANUAL TEST RELAY CIRCUIT
(SEE NOTE 2)

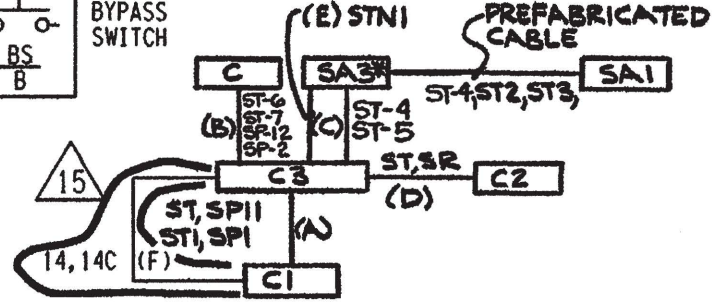


TO ENGINE REMOTE AUTO START
AND MANUAL TEST RELAY (RS) CRKT
(SEE NOTE 2)



ENGINE START

SCHEME NO GD104 CHANNEL 1
START UP SYSTEM NO 024
WIRE PREFIX GI (AT C5715 & C3615)



BLOCK DIAGRAM
SCHEME NO. GD104

EQUIPMENT NUMBERS

- C - C5715
- C1 - C3615
- C2 - C3617
- C3 - C3621
- SA1 - C5762D
- SA3 - C5763C FOR CABLE "C"
- * C5763D FOR CABLE "E"

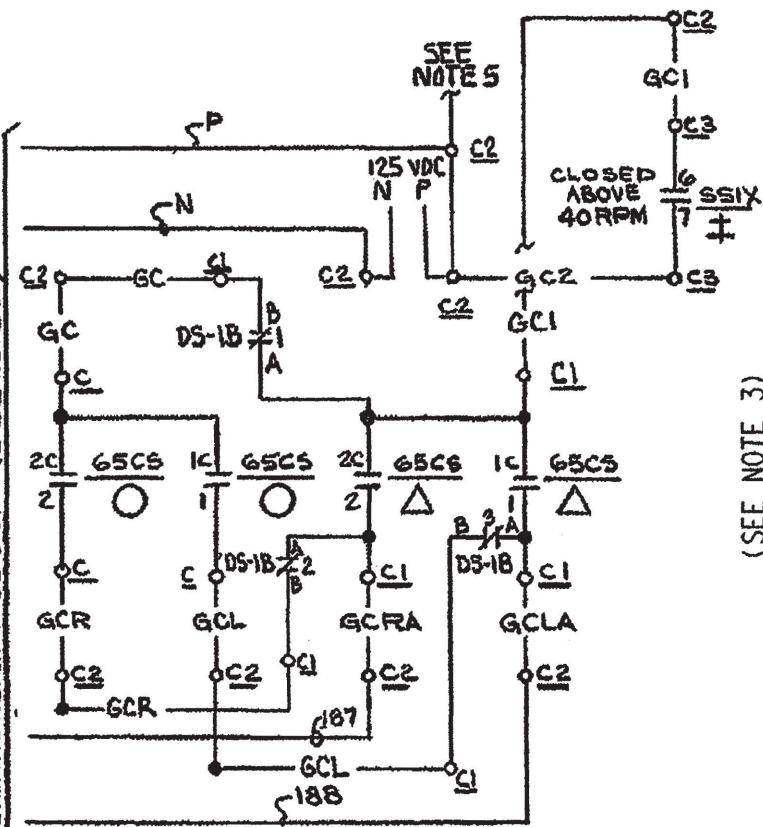
- NOTES
1. FOR GENERAL NOTES AND LOCATION DESIGNATIONS SEE DWG. INDEX E-64B.
 2. FOR COMPLETE ENGINE START, STOP AND CONTROL SCHEMATIC SEE BRUCE GM DWG. B157F02501, SHEETS 2 & 3 OF 5 (12501-M-180Q-13, 14)
 3. FOR COMPLETE ENGINE IDLE START, RELEASE AND IDLE STOP CONTROL SCHEMATIC, SEE NOTE 2.
 4. FOR VENDOR DWG. REFER TO E-17B. SEE VENDOR DWG. FOR SFAS INTERNAL WIRING.
 5. FOR SWITCH CONFIGURATION SEE DRAWING E-30B SH.9B, FIG. 1.

THIS DWG. WAS REDRAWN/SCANNED ON CAD AND SUPERSEDES REVISION 14.

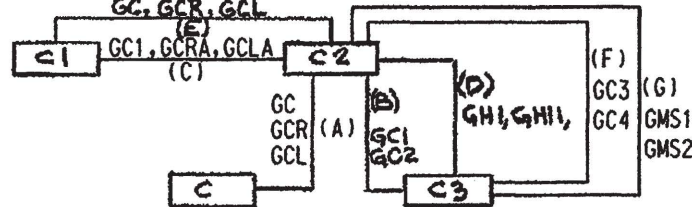
DAVIS-BESSE NUCLEAR POWER STATION			
THE TOLEDO EDISON COMPANY			
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY			
ELEMENTARY WIRING DIAGRAMS			
EMER DSL GENS			
DIESEL GEN I-1 REMOTE START & STOP SIGNALS			
BECHTEL COMPANY	JOB NO.	DRAWING NO.	REV.
	7749	E-64B SH IF	15

REV	DESCRIPTION	DATE	DR	CHK	SUPV	CHIEF	PROJ	OWNER
10	INC. DCN E-64B-485 PER ECP 02-0738-00 (REDRAWN)	2-11-08						
11	INC. DUN'S 01-0261-002-013 REV.00 & 02-0738-001-004 REV.00	9/19/08						
0	ISSUED FOR CONSTRUCTION	9/17/08						

TO EGB-10 ELECTRICAL GOV
DIGITAL REFERENCE UNIT (SEE NOTE 3)



ELECTRIC GOVERNOR CONTROL
SCHEME N° (SEE TABLE 1 BELOW)



BLOCK DIAGRAM
SCHEME N° (SEE TABLE 1)

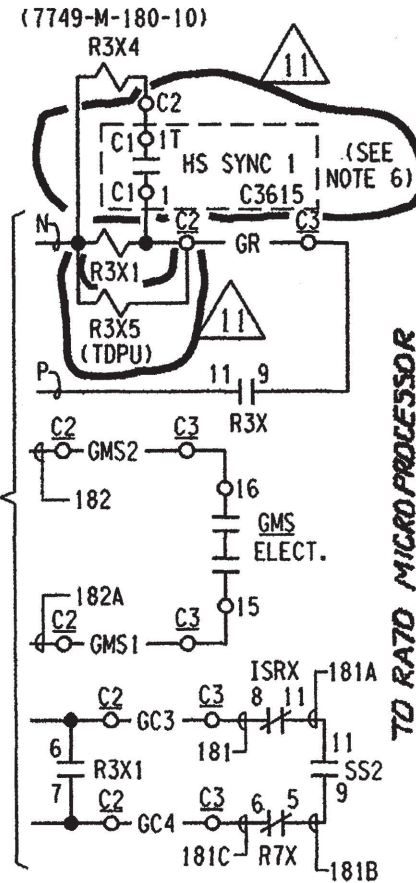
TABLE 1

SCHEME N°	START UP SYSTEM	CHANNEL	WIRE PREFIX (AT)	EQUIPMENT			
				C	C1	C2	C3
GD105	024	1	G1	H56222	DG1	DG1	C5715 C3615 C3617 C3621

TABLE 2

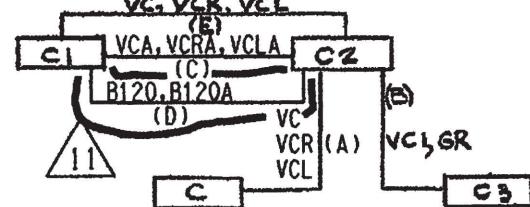
SCHEME N°	START UP SYSTEM	CHANNEL	WIRE PREFIX (AT)	EQUIPMENT			
				C	C1	C2	C3
GD106	024	1	G1	H56222	DG1	DG1	C5715 C3615 C3617 C3621

(SEE NOTE 3)



TO RATO MICROPROCESSOR
(SEE NOTE 4)

VOLTAGE CONTROL
SCHEME N° (SEE TABLE 2 BELOW)



BLOCK DIAGRAM
SCHEME N° (SEE TABLE 2)

NOTES

1. FOR GENERAL NOTES & LOCATION DESIGNATIONS SEE DWG INDEX E-64B.
2. SEE DWG E-30B, SH 11 FIG 5 FOR SWITCHES G5CS, 90CS AND SH.20, FIG.6 FOR SWITCH DS-1B.
3. FOR COMPLETE GOVERNOR CONTROL SCHEMATIC SEE BRUCE GM DWG B157FO2501, SH 5 (7749-M-180-10).
4. FOR VOLTAGE REGULATOR INTERCONNECTION DIAGRAM SEE DRAWING (7749-M-180-31).
5. FOR ADDITIONAL DRU CONNECTIONS SEE E-64B SH.14.
6. FOR SWITCH CONFIGURATION SEE DRAWING E-30B SH.9B, FIG.1.

THIS DWG. WAS REDRAWN/SCANNED ON CAD AND SUPERSEDES REVISION 9.

DAVIS-BESSE NUCLEAR POWER STATION

THE TOLEDO EDISON COMPANY
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

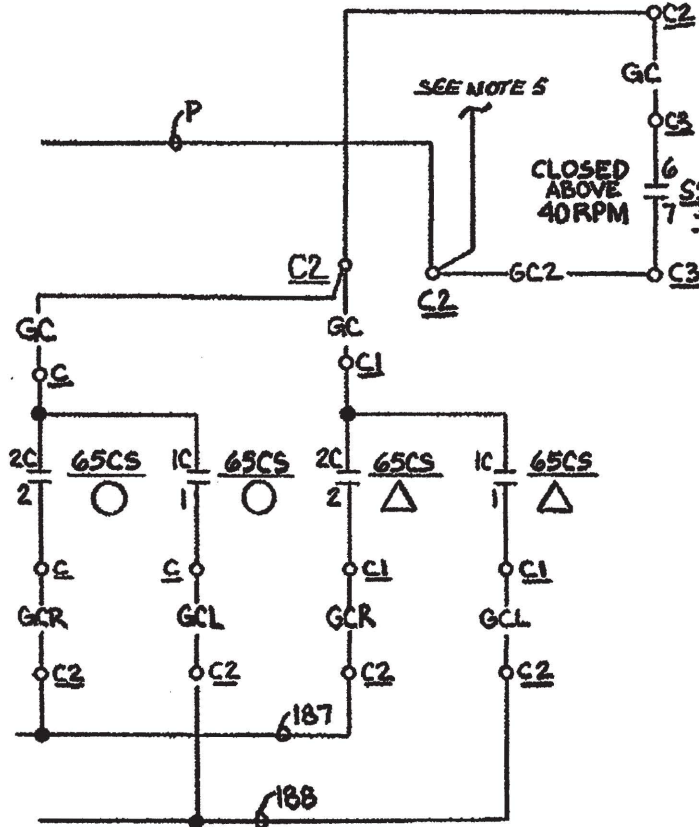
ELEMENTARY WIRING DIAGRAMS
EMER DSL GENS

DSL GEN I-1
MANUAL SPEED & VOLTAGE CONTROL

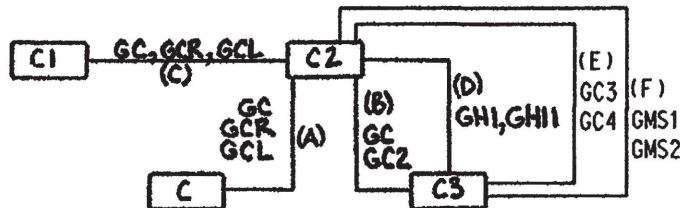
JOB NO	DRAWING NO	REV
7749	E-64B SH 1G	11

3	5/11/10	INC. DUN'S 01-0261-004-013 REV.00 & 02-0738-002-002 REV.00	SBW	INITIALS ON FILE	BY	CHK	ENGR	ENGR SUPV	GEN SUPV
2	2-11-08	INC. DCN E-64B-487 PER ECP 02-0738-00 (REDRAWN)	SBW	INITIALS ON FILE	BY	CHK	ENGR	ENGR SUPV	GEN SUPV
1	6/5/06	INC. DUN'S 01-0261-004-013 REV.00 & 02-0738-002-002 REV.00	SBW	INITIALS ON FILE	BY	CHK	ENGR	ENGR SUPV	GEN SUPV
0	3/25/87	INC. DUN'S 01-0261-004-013 REV.00 & 02-0738-002-002 REV.00	SBW	INITIALS ON FILE	BY	CHK	ENGR	ENGR SUPV	GEN SUPV

TO EGB-10 ELECTRICAL GOV. (SEE NOTE 3)
DIGITAL REFERENCE UNIT



ELECTRIC GOVERNOR CONTROL
SCHEME NO. (SEE TABLE 1 BELOW)



BLOCK DIAGRAM
SCHEME NO. (SEE TABLE 1)

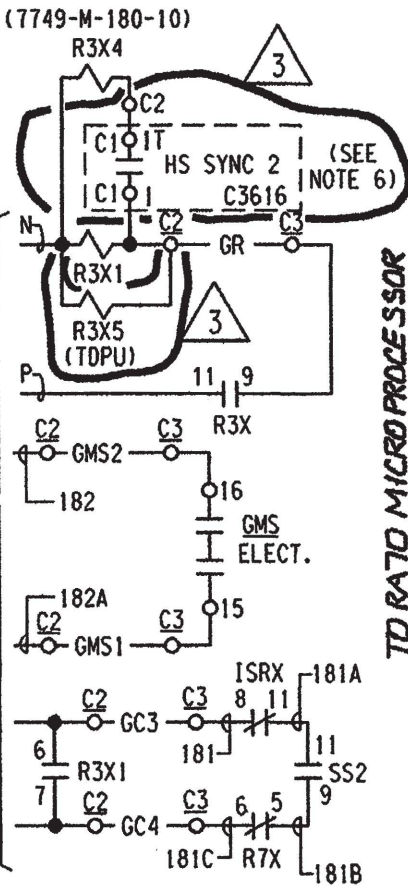
TABLE 1

SCHEME NO.	START UP SYSTEM	CHANNEL	WIRE PREFIX (ATC571)	○	△	±	EQUIPMENT
GD205	024	2	G2	HS6232	DG2	DG2	C5715 C3616 C3618 C3622

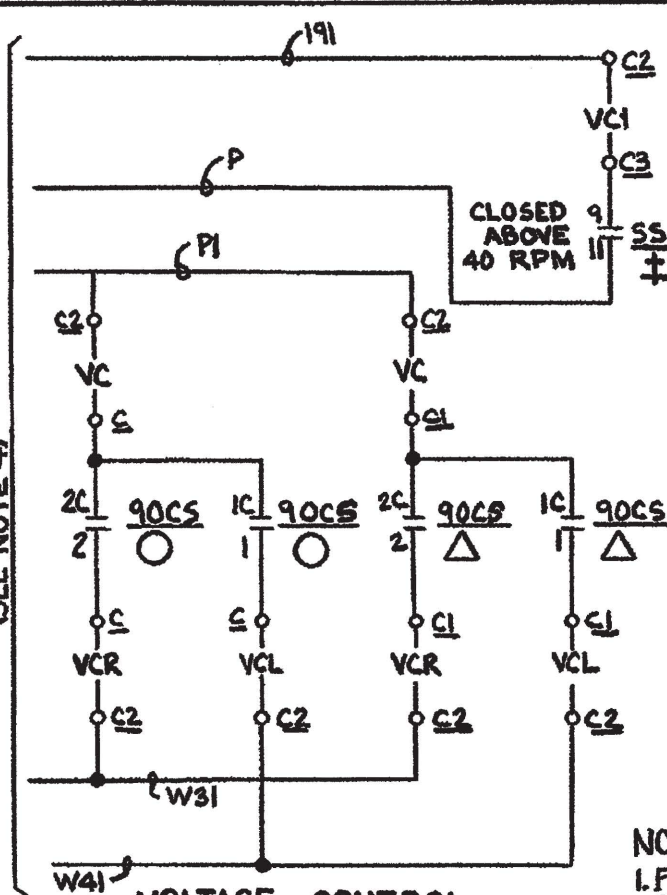
TABLE 2

SCHEME NO.	START UP SYSTEM	CHANNEL	WIRE PREFIX (ATC571)	○	△	±	EQUIPMENT
GD206	024	2	G2	HC6252	DG2	DG2	C5715 C3616 C3618 C3622

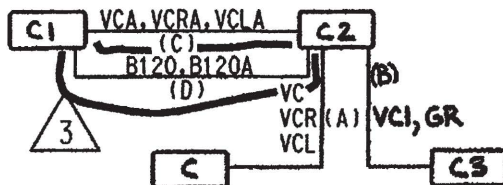
(SEE NOTE 3)



TO RATO MICROPROCESSOR
(SEE NOTE 4)



VOLTAGE CONTROL
SCHEME NO. (SEE TABLE 2 BELOW)



BLOCK DIAGRAM
SCHEME NO. (SEE TABLE 2)

NOTES:

1. FOR GENERAL NOTES & LOCATION DESIGNATIONS SEE DWG INDEX E-64B
2. SEE DWG E-30B, SH.11 FIG 5 FOR SWITCHES 65CS & 90CS.
3. FOR COMPLETE GOVERNOR CONTROL SCHEMATIC SEE BRUCE GM DWG B157F02501, SH 5 (7749-M-180-10)
4. FOR VOLTAGE REGULATOR INTERCONNECTION DIAGRAM SEE DRAWING 7749-M-180-31.
5. FOR ADDITIONAL DRU CONNECTIONS SEE E-64B, SH.14.
6. FOR SWITCH CONFIGURATION SEE DRAWING E-30B SH.9B, FIG.1.

THIS DWG. WAS REDRAWN/SCANNED ON CAD AND SUPERSEDES REVISION 1.

SCALE	DESIGNED	DRAWN	DATE
		JOR	2/24/87
DAVIS-BESSE NUCLEAR POWER STATION			
UNIT NO. 1			
THE TOLEDO EDISON COMPANY			
ELEMENTARY WIRING DIAGRAMS			
EMER DSL. GENS.			
DSL GEN. 1-2			
MANUAL SPEED & VOLTAGE CONTROL			
DRAWING NO			REV
E-64B SH 1H			3

DFN: F/SCHEME/E64BSH2A.DGN/TIF