

TECHNICAL REQUIREMENT 4.1 (continued)

TABLE 4.1.1a (continued)

UNIT 1

CONTAINMENT PENETRATION CONDUCTOR
OVERCURRENT PROTECTIVE DEVICES

DEVICE NUMBER
AND LOCATION

3. 480VAC from Motor Control Centers

3.1 Device Location - MCC 1EB1-2 Compartment Numbers
listed below.

Primary and Backup Breakers - Both primary and backup breakers
have identical trip ratings and
are in the same MCC Compt. These
breakers are General Electric
type THED with thermal-
magnetic trip elements.

MCC 1EB1-2
COMPT. NO.

G.E.
BKR. TYPE

SYSTEM POWERED

4G	THED	Motor Operated Valve 1-TV-4691
4M	THED	Motor Operated Valve 1-TV-4693
3F	THED	Containment Drain Tank Pump-03
9H	THED	Reactor Cavity Sump Pump-01
9M	THED	Reactor Cavity Sump Pump-02
7H	THED	Containment Sump #1 Pump-01
7M	THED	Containment Sump #1 Pump-02
6H	THED	RCP #11 Motor Space Heater-01
6M	THED	RCP #13 Motor Space Heater-03
8B	THED	Incore Detector Drive "A"
8D	THED	Incore Detector Drive "B"
7B	THED	Incore Detector Drive "F"
3B	THED	Stud Tensioner Hoist Outlet-01
7D	THED	Hydraulic Deck Lift-01
4B	THED	Reactor Coolant Pump Motor Hoist Receptacle-42
8H	THED	RC Pipe Penetration Cooling Unit-01
8M	THED	RC Pipe Penetration Cooling Unit-02
5H	THED	RCP #11 Oil Lift Pump-01
5M	THED	RCP #13 Oil Lift Pump-03
10B	THED	Preaccess Filter Train Package Receptacle-17
10F	THED	S.G. Wet Layup Circ. Pump 01 (CP1-CFAPRP-01)
12M	THED	S.G. Wet Layup Circ. Pump 03 (CP1-CFAPRP-03)
12H	THED	Containment Ltg. XFMR-28 (PNL C11 & C12)

TECHNICAL REQUIREMENT 4.1 (continued)

TABLE 4.1.1a (continued)

UNIT 1

CONTAINMENT PENETRATION CONDUCTOR
OVERCURRENT PROTECTIVE DEVICES

DEVICE NUMBER
AND LOCATION

3. 480VAC from Motor Control Centers (continued)

MCC 1EB1-2
COMPT. NO.

G.E.
BKR. TYPE

SYSTEM POWERED

2M	THED	RC Drain Tank Pump No. 1
2F	THED	Containment Ltg. XFMR-16 (PNL C7 & C9)
1M	THED	Containment Ltg. XFMR-12 (PNL C1 & C5)
3M	THED	Preaccess Fan No. 11

3.2 Device Location - MCC 1EB2-2 Compartment Numbers
listed below.

Primary and Backup Breakers - Both primary and backup breakers have
identical trip ratings and are
located in the same MCC compt. These
breakers are General Electric type
THED with thermal-magnetic
trip elements.

MCC 1EB2-2
COMPT. NO.

G.E.
BKR. TYPE

SYSTEM POWERED

4G	THED	Motor Operated Valve 1-TV-4692
4M	THED	Motor Operated Valve 1-TV-4694
3F	THED	Containment Drain Tank Pump-04
7H	THED	Containment Sump No. 2 Pump-03
7M	THED	Containment Sump No. 2 Pump-04
6H	THED	RCP #12 Motor Space Heater-02
6M	THED	RCP #14 Motor Space Heater-04
5B	THED	Incore Detector Drive "C"
2B	THED	Incore Detector Drive "D"
7B	THED	Incore Detector Drive "E"
5D	THED	Containment Fuel Storage Crane-01
3B	THED	Stud Tensioner Hoist Outlet-02
4B	THED	Containment Solid Rad Waste Compactor-01

TECHNICAL REQUIREMENT 4.1 (continued)

TABLE 4.1.1a (continued)

UNIT 1

CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

DEVICE NUMBER AND LOCATION

3. 480VAC from Motor Control Centers (continued)

<u>MCC 1EB2-2 COMPT. NO.</u>	<u>G.E. BKR. TYPE</u>	<u>SYSTEM POWERED</u>	
10B	THED	RCC Change Fixture Hoist Drive-01	
10F	THED	Refueling Cavity Skimmer Pump-01	
12B	THED	Power Receptacles (Cont. El. 841')	
1M	THED	S.G. Wet Layup Circ. Pump 02 (CP1-CFAPRP-02)	
12M	THED	S.G. Wet Layup Circ. Pump 04 (CP1-CFAPRP-04)	
8H	THED	RC Pipe Penetration Fan-03	
8M	THED	RC Pipe Penetration Fan-04	
5H	THED	RCP #12 Oil Lift Pump-02	
5M	THED	RCP #14 Oil Lift Pump-04	
12H	THED	Preaccess Filter Train Package Receptacles - 18	
6D	THED	Containment Auxiliary Upper Crane-01	
2F	THED	Containment Ltg. XFMR-13 (PNL C2)	13
2D	THED	Containment Access Rotating Platform-01	
2M	THED	Reactor Coolant Drain Tank Pump-02	
9F	THED	Containment Ltg. XFMR-17 (PNL C8 & C10)	
9M	THED	Containment Ltg. XFMR-15 (PNL C4 & C6)	
3M	THED	Preaccess Fan-12	13
3.3	Device Location	- MCC 1EB3-2 Compartment numbers listed below.	12
	Primary and Backup	- Unless noted otherwise, both primary and backup breakers have identical trip ratings and are located in the same MCC compt. These breakers are General Electric type THED or THFK with thermal- magnetic trip elements.	

TECHNICAL REQUIREMENT 4.1 (continued)

TABLE 4.1.1a (continued)

8

UNIT 1

8

CONTAINMENT PENETRATION CONDUCTOR
OVERCURRENT PROTECTIVE DEVICES

DEVICE NUMBER
AND LOCATION

3. 480VAC from Motor Control Centers (continued)

<u>MCC 1EB3-2</u> <u>COMPT. NO.</u>	<u>G.E.</u> <u>BKR. TYPE</u>	<u>SYSTEM POWERED</u>
8RF	THED	JB-1S-10050, Altern. Feed to Motor Operated Valve 1-8702A
1G	THED	Motor Operated Valve 1-8112
9G	THED	Motor Operated Valve 1-8701A
9M	THED	Motor Operated Valve 1-8701B
5M	THED	Motor Operated Valve 1-8000A
5G	THED	Motor Operated Valve 1-HV-6074
4G	THED	Motor Operated Valve 1-HV-6076
4M	THED*	Motor Operated Valve 1-HV-6078
2G	THED	Motor Operated Valve 1-HV-4696
2M	THED	Motor Operated Valve 1-HV-4701
3G	THED*	Motor Operated Valve 1-HV-5541
3M	THED*	Motor Operated Valve 1-HV-5543
1M	THED	Motor Operated Valve 1-HV-6083
6F	THED	Motor Operated Valve 1-8808A
6M	THED	Motor Operated Valve 1-8808C
7M	THED	Containment Ltg. XFMR-18 (PNL SC1 & SC3)
8M	THED	Neutron Detector Well Fan-09
7F	THFK	Electric H ₂ Recombiner Power Supply PNL-01
8RM	THED	Motor Operated Valve 1-HV-4075C
9RF	THED	Motor Operated Valve 1-HV-4782
9RM	THED	Motor Operated Valve 1-8811A

12

12

* Primary protection is provided by Gould Tronic TR5 fusible switch with 3.2A fuse.

TECHNICAL REQUIREMENT 4.1 (continued)

TABLE 4.1.1a (continued)

8

UNIT 1

8

CONTAINMENT PENETRATION CONDUCTOR
OVERCURRENT PROTECTIVE DEVICES

DEVICE NUMBER
AND LOCATION

3. 480VAC From Motor Control Centers (continued)

3.4 Device Location - MCC 1EB4-2 Compartment numbers listed below.

12

Primary and Backup - Unless noted otherwise, both primary and backup breakers have identical trip ratings and are located in the same MCC compt. These breakers are General Electric type THED or THFK with thermal-magnetic trip elements.

MCC 1EB4-2
COMPT. NO.

G.E.
BKR. TYPE

SYSTEM POWERED

1M	THED	JB-1S-1230G, Altern. Feed to Motor Operated Valve 1-8701B
8G	THED	Motor Operated Valve 1-8702A
8M	THED	Motor Operated Valve 1-8702B
4M	THED	Motor Operated Valve 1-8000B
4G	THED	Motor Operated Valve 1-HV-6075
3G	THED	Motor Operated Valve 1-HV-6077
3M	THED*	Motor Operated Valve 1-HV-6079
2G	THED	Motor Operated Valve 1-HV-5562
2M	THED*	Motor Operated Valve 1-HV-5563
5F	THED	Motor Operated Valve 1-8808B
5M	THED	Motor Operated Valve 1-8808D
6M	THED	Containment Ltg. XFMR-19 (PNL SC2 & SC4)
7M	THED	Neutron Detector Well Fan-10
6F	THFK	Elect. H ₂ Recombiner Power Supply PNL-02
8RF	THED	Motor Operated Valve 1-HV-4783
8RM	THED	Motor Operated Valve 1-8811B

* Primary protection is provided by Gould Tronic TR5 fusible switch with 3.2A fuse.

TECHNICAL REQUIREMENT 4.1 (continued)

TABLE 4.1.1a (continued)

UNIT 1

CONTAINMENT PENETRATION CONDUCTOR
OVERCURRENT PROTECTIVE DEVICES

DEVICE NUMBER
AND LOCATION

4. 480VAC From Panelboards

4.1 Pressurizer Heater groups A, B, & D

a. Primary Breakers - General Electric Type TJJ Thermal
Magnetic breakers.

Breaker No. & Location - Ckt. Nos. 2 thru 4 of Panelboards
1EB2-1-2, 1EB3-1-2, 1EB4-1-1,
1EB4-1-2 and Ckt. Nos. 2 thru 5
of Panelboards 1EB2-1-1 and
1EB3-1-1.

b. Backup Breakers - General Electric Type THJS with longtime
and insts. solid state trip devices with
400 Amp. sensor.

Breaker No. & Location - Ckt. No. 1 of Panelboards
1EB2-1-1, 1EB2-1-2, 1EB3-1-1,
1EB3-1-2, 1EB4-1-1 and 1EB4-1-2.

4.2 Pressurizer Heater group C

a. Primary Breakers - General Electric Type THED
breakers.

Breaker No. and Location - For both 1EB1-1-1 & 1EB1-1-2
are located at Ckt. Nos. 2
thru 4.

b. Backup Breakers - General Electric Type TJJ Thermal
Magnetic breakers.

Breaker No. and Location - Ckt Nos. 2 thru 4 of Switch-
boards 1EB1-1-1 & 1EB1-1-2.

TECHNICAL REQUIREMENT 4.1 (continued)TABLE 4.1.1a (continued)UNIT 1CONTAINMENT PENETRATION CONDUCTOR
OVERCURRENT PROTECTIVE DEVICES

4.3	480VAC From Plant Support Power System Panelboards	13																
	Both primary and backup breakers have identical trip settings, and are located in the same panel board. These breakers are Square D type FC, KH, and LH.	13																
	a) Panelboard 1B11-1-1																	
	<table><tr><th><u>Device Location</u></th><th><u>Breaker Type</u></th><th><u>System Powered</u></th></tr><tr><td>Ckt 2</td><td>FC</td><td>Containment Elevator CP1-MEELRB-01</td></tr><tr><td>Ckt 4</td><td>KH</td><td>Welding Receptacles Distribution Panel 1B11-1-1-1</td></tr><tr><td>Ckt 6</td><td>LH</td><td>Containment Polar Crane CP1-MESCCP-01</td></tr></table>	<u>Device Location</u>	<u>Breaker Type</u>	<u>System Powered</u>	Ckt 2	FC	Containment Elevator CP1-MEELRB-01	Ckt 4	KH	Welding Receptacles Distribution Panel 1B11-1-1-1	Ckt 6	LH	Containment Polar Crane CP1-MESCCP-01	<table><tr><td>13</td></tr><tr><td>13</td></tr><tr><td>13</td></tr><tr><td>13</td></tr></table>	13	13	13	13
<u>Device Location</u>	<u>Breaker Type</u>	<u>System Powered</u>																
Ckt 2	FC	Containment Elevator CP1-MEELRB-01																
Ckt 4	KH	Welding Receptacles Distribution Panel 1B11-1-1-1																
Ckt 6	LH	Containment Polar Crane CP1-MESCCP-01																
13																		
13																		
13																		
13																		
	b) Panelboard 1B11-1-2	13																
	<table><tr><th><u>Device Location</u></th><th><u>Breaker Type</u></th><th><u>System Powered</u></th></tr><tr><td>Ckt 2</td><td>FC</td><td>Fuel Transfer System Rx Side Cont. Pnl for TBX-FHSTTS-02</td></tr><tr><td>Ckt 14</td><td>FC</td><td>Containment Lighting Xfmr CP1-ELTRNT-14</td></tr><tr><td>Ckt 16</td><td>FC</td><td>Manipulator Crane 1-01 TBX-FHSCMC-01</td></tr></table>	<u>Device Location</u>	<u>Breaker Type</u>	<u>System Powered</u>	Ckt 2	FC	Fuel Transfer System Rx Side Cont. Pnl for TBX-FHSTTS-02	Ckt 14	FC	Containment Lighting Xfmr CP1-ELTRNT-14	Ckt 16	FC	Manipulator Crane 1-01 TBX-FHSCMC-01	<table><tr><td>13</td></tr><tr><td>13</td></tr><tr><td>13</td></tr></table>	13	13	13	
<u>Device Location</u>	<u>Breaker Type</u>	<u>System Powered</u>																
Ckt 2	FC	Fuel Transfer System Rx Side Cont. Pnl for TBX-FHSTTS-02																
Ckt 14	FC	Containment Lighting Xfmr CP1-ELTRNT-14																
Ckt 16	FC	Manipulator Crane 1-01 TBX-FHSCMC-01																
13																		
13																		
13																		
5.	120V Space Heater Circuits from 480V Switchgears	Containment Recirc. Fan and CRDM Vent. Fan Motor Space Heaters																

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Revision 10	January 22, 1993
Revision 11	February 3, 1993
Revision 12	July 15, 1993
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TECHNICAL REQUIREMENTS MANUAL (TRM)

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