

ATTENDEES

NRC/TVA MEETING ON IMPROVED STANDARD TECHNICAL SPECIFICATIONS

MARCH 20, 1997

<u>Name</u>	<u>Organization</u>
Joe Williams	NRC/NRR/DRPE/PD II-3
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Jack Foster	NRC/TSB
David Matherly	TVA
Tim Abney	TVA

Enclosure 1

9705020221



MAJOR LOAD SUMMARY

4kV AND 480V BOARD LOADS

NOTE:

The following plant components are available when the boards indicated are energized:

4kV SHUTDOWN BOARDS								
	A	B	C	D	3EA	3EB	3EC	3ED
Core Spray	1A, 2A	1C, 2C	1B, 2B	1D, 2D	3A	3C	3B	3D
RHR	1A, 2A	1C, 2C	1B, 2B	1D, 2D	3A	3C	3B	3D
RHRSW	A1, A2	C1, C2	B2, B3	D2, D3	A3	C3	B1	D1
RCW	1D	-	-	-	-	-	3D	-
CRD	1B	-	-	-	3B	-	-	-
480 Shdn Bd.	[*] TS1A	[*] TS1E, TS2A	[*] TS1B, TS2E	[*] TS2B	[*] TS3A	[*] TS3E	[*] TS3B	-
480 Diesel AUX. Bd.	[*] TDA	[*] TDE	-	[*] TDB	-	-	-	-
Fire Pump	A	B	C	-	-	-	-	-
SBGT	[*] A	-	-	[*] B	-	-	-	[*] C

* Not required to be tripped when restarting an RHR pump.

4kV UNIT BOARDS									
	1A	1B	1C	2A	2B	2C	3A	3B	3C
CCW Pump	1A	1B	1C	2A	2B	2C	3A	3B	3C
Condensate Pump	1A	1B	1C	2A	2B	2C	3A	3B	3C
Cond. Booster Pump	1A	1B	1C	2A	2B	2C	3A	3B	3C
RCW Pump	1A	1B	1C	2A	2B	2C	3A	3B	3C
480V Unit Bd.	1A	1B	-	2A	2B	-	3A	3B	-
480V Water Supply Bd.	-	Bus 1	-	-	Bus 2	-	-	Bus 3	-
CRD Pump	-	-	1A	-	-	2A	-	-	3A



480V SHUTDOWN BOARDS

	1A	1B	2A	2B	3A	3B
Unit Preferred MG	1	TUP1	2	TUP2	3	TUP3
I & C Transformers	A	B	A	B	A	B
Control Bay Vent Bd.	A	-	-	-	-	-
RMOV Bd. Normal FDR.	1A, 1D	1B, 1C, 1E	2A, 2D	2B, 2C, 2E	3A, 3D	3B, 3C, 3E
RMOV Bd. ALT. Fdr.	1B, 1C, 1E	1D, 1A	2B, 2C, 2E	2A, 2D	3B, 3C, 3E	3A, 3D
250V Battery Charger	1	-	2A	2B	3	4
Control and Service Air Comp	A	-	D	-	-	-
RBCCW	1A	1C, 1B	2A	2B	3A	3B
RWCU	1A	1B	2A	2B	3A	3B
RX Recirc MG Oil Standby Liquid Control	1A-1, 1B-1	1A-2, 1B-2	2A-1, 2B-1	2A-2, 2B-2	3A-1, 3B-1	3A-2, 3B-2
Fuel Pool Cooling	1A	1B	2A	2B	3A	3B
Drywell Blower	1A-1, 1B-1	1A-2, 1B-2	2A-1, 2A-2	2B-1, 2B-2	3A-1, 3A-2	3B-1, 3B-2
Cond. Demin. Bd. Emer Fdr.	-	1	-	2	-	3
Main Turbine TGOP	-	YES	-	YES	YES	-
Control Bay Chiller	A	B	-	-	A	-
RCW Booster Pump	-	-	-	2A	-	3A
Diesel Aux. Bd.	-	-	-	-	3EA	3EB
HVAC Board	-	-	-	-	-	B



	480V UNIT BOARDS					
	1A	1B	2A	2B	3A	3B
TMOV Bd.	1A	1B, 1C	2A	2B, 2C	3A	3B, 3C
TBV Bd.	1A	1B	2A	2B	3A	3B
RxBV Bd.	1A, 1B	-	2A, 2B	-	3A, 3B	-
Cond. Demin. Bd.	1	-	2	-	3	-
YARD CAB	-	1	-	2	-	3
Vacuum Pump	1A	1B	2A	2B	3A	3B
RFPT AUX. Oil Pump	1A	1B	2A	2B	3A	3B
Gen. Bus Cooling Fan	NOR FDR	ALT FDR	NOR FDR	ALT FDR	NOR FDR	ALT FDR
EHC Pump	1A	1B	2A	2B	3A	3B
Stator Clg. Pump	1A	1B	2A	2B	3A	3B
Motor Suction Pump	-	YES	-	YES	-	YES



COMMON HVAC EQUIPMENT OPERATION

Table 3

Load	KW	Source/BKR All 480V Loads	Source 2/BKR All 480V Loads
DG Exhaust Fan	5.6	Note 1	Note 2
DG Aux Bd Xfmr TDE Exh Fan	.33	DG Aux B/2D	None
DG Aux Bd Rm Exh Fan	.75	Note 1	Note 2
Bd Rm Supply Fan 1A/1B	17.07	1A (CB VB A/5D)	1B (RMOV 1B/17A)
Bd Rm Supply Fan 3A/3B	13.05	3A (CB VB B/5B)	3B (RMOV 3B/17A)
Batt & Bd Rm Exh Fan 1A/1B	4.9	1A (CB VB B/6C)	1B (CB VB A/2F)
Batt & Bd Rm Exh Fan 3A/3B	1.87	3A (CB VB B/3C)	3B (CB VB A/6F)
S/D Bd Rm Exh Fan 1A	4.74	1A (RMOV 1A/1A)	None
S/D Bd Rm Exh Fan 3A	4.63	3A (RMOV 3A/1A)	None
250V S/D Bd Batt Rm Exh Fan U1	.37	(RMOV 1A/R9A)	(RMOV 1B/R9D1)
250V S/D Bd Batt Rm Sup Fan U1	.37	(RMOV 1A/R9B)	(RMOV 1B/R9D2)
250V S/D Bd Batt RM Exh Fan U2	.37	(RMOV 2A/R9C2)	(RMOV 2B/R9D1)
250V S/D Bd Batt Rm Sup Fan U2	.37	(RMOV 2A/R9E)	(RMOV 2B/R9D2)
EL. 593 AHU 1A/1B	24.83	1A (CB VB A/R1C)	1B (CB VB B/2E)
EL. 593 AHU 3A/3B	14.92	3A (CB VB A/6D)	3B (CB VB B/R2D)
250V Batt Rm 3EB Exh Fan A/B	.37	A (DG 3A/2C1)	B (DG 3B/5C)
Main CR AHU 1A/1B	13.38	1A (CB VB A/1A)	1B (CB VB B/5A)
Unit 3 CR AHU 3A/3B	18.65	3A (CB VB A/3F)	3B (CB VB B/R2C)
Spreading Rm Sup Fan	4.57	1 (CB VB A/1C)	2 (CB VB B/3E)
Spreading Rm Exh Fan	4.98	A (CB VB A/7E)	B (CB VB B/6E)
Relay Room AHU A/B	5.6	A (CB VB A/2E)	B (CB VB B/2B)
Control Bay Chiller 1A/1B	163.5	1A (SD BD 1A/2A)	1B (SD BD 2B/5A)
CB Chiller 1A/1B Oil Pump	1.38	1A (CB VB A/6A)	1B (CB VB B/5D)
Control Bay Chiller 3A/3B	111.9	3A (SD BD 2A/7A)	3B (SD BD 3B/3D)
Chilled Water Circ Pump 1A/1B	13.05	1A (CB VB A/6C)	1B (CB VB B/5E)
Chilled Water Circ Pump 3A/3B	7.46	3A (CB VB A/5E)	3B (CB VB B/2A)
SD BD Rm 3EA & 3EB Chiller	20.33	(RMOV 3A/R9A)	(RMOV 3A/R9B1)
SD BD Rm 3EC & 3ED Chiller	20.33	(RMOV 3B/R9A)	(RMOV 3B/R9B1)
SD BD RM 3EA & 3EB CW Pump	4.7	(RMOV 3A/R9C)	(RMOV 3A/R9D)
SD BD Rm 3EC & 3ED CW Pump	4.79	(RMOV 3B/R9C)	(RMOV 3B/R9D)
SD BD Rm 3EA & 3EB AHU	4.3	(RMOV 3A/R9E)	(RMOV 3A/R9F)
SD BD Rm 3EC & 3ED AHU	4.79	(RMOV 3B/R9E)	(RMOV 3B/R9F)
Unit 1 SDBR ACU	61.51	(RMOV 1A/9A)	(RMOV 1B/13D1)
Unit 2 Board Room ACU	60.57	(RMOV 2A/1B)	(RMOV 2B/8A1)
Unit 3 Elec Board Rm ACU	66.86	(RMOV 3A/9A)	(RMOV 3B/10B)
250V Batt Charger for Unit Batt & BD	113.05	Multiple Sources	Multiple Sources
4kV SD BD Batt Charger A-D, 3EB	8	Note 3	Note 3
DG Battery Charger A-D, 3A-3D	5.6	Note 1	Note 1

Note 1 - From DG Aux Board A or 3EA according to DG involved.

Note 2 - From DG Aux Board B or 3EB according to DG involved.

Note 3 - Shutdown Board Battery Chargers are located on RMOV 1A (14C1),
RMOV 1B (17B1), RMOV 2A (5A2), RMOV 2B (4C), and DG Aux Board
3EA (4C1).



TABLE 2

BOARD	NORMAL POWER SUPPLY	ALTERNATE POWER SUPPLY
480V SD BD 1A	4kV SD BD A	4kV SD BD B
480V SD BD 1B	4kV SD BD C	4kV SD BD B
480V SD BD 2A	4kV SD BD B	4kV SD BD C
480V SD BD 2B	4kV SD BD D	4kV SD BD C
480V SD BD 3A	4kV SD BD 3EA	4kV SD BD 3EB
480V SD BD 3B	4kV SD BD 3EC	4kV SD BD 3EB
480V RMOV BD 1A	480V SD BD 1A	480V SD BD 1B
480V RMOV BD 1B	480V SD BD 1B	480V SD BD 1A
480V RMOV BD 1C	480V SD BD 1B	480V SD BD 1A
480V RMOV BD 1D	MG Feed from 480V SD BD 1A	MG Feed from 480V SD BD 1B
480V RMOV BD 1E	MG Feed from 480V SD BD 1B	MG Feed from 480V SD BD 1A
480V RMOV BD 2A	480V SD BD 2A	480V SD BD 2B
480V RMOV BD 2B	480V SD BD 2B	480V SD BD 2A
480V RMOV BD 2C	480V SD BD 2B	480V SD BD 2A
480V RMOV BD 2D	MG Feed from 480V SD BD 2A	MG Feed from 480V SD BD 2B
480V RMOV BD 2E	MG Feed from 480V SD BD 2B	MG Feed from 480V SD BD 2A
480V RMOV BD 3A	480V SD BD 3A	480V SD BD 3B
480V RMOV BD 3B	480V SD BD 3B	480V SD BD 3A
480V RMOV BD 3C	480V SD BD 3B	480V SD BD 3A
480V RMOV BD 3D	MG Feed from 480V SD BD 3A	MG Feed from 480V SD BD 3B
480V RMOV BD 3E	MG Feed from 480V SD BD 3B	MG Feed from 480V SD BD 3A
480V Diesel Aux BD A	4kV SD BD A	4kV SD BD B
480V Diesel Aux BD B	4kV SD BD D	4kV SD BD B
480V Diesel Aux BD 3EA	480V SD BD 3A	480V SD BD 3B
480V Diesel Aux BD 3EB	480V SD BD 3B	480V SD BD 3A
480V Cont. Bay Vent BD A	480V SD BD 1A	480V COMM BD 1
480V Cont. Bay Vent BD B	480V HVAC BD B	480V COMM BD 3
480V HVAC BD B	480V SD BD 3ED	480V SD BD 3B

TABLE 3

Shutdown Board	A	B	C	D	3EA	3EB	3EC	3ED
NORM FDR BKR	1614	1616	1718	1724	1334	1336	1338	1342
* ALT FDR BKR	1716	1714	1624	1618	1726	1728	1626	1628
D/G BKR	1818	1822	1812	1816	1838	1842	1832	1836
EMER FDR BKR	1824	1828	1814	1826	1844	1848	1834	1846

* NOTE:

A, B, C, and D Shutdown Board ALT FDR BKRS will be unavailable during accident conditions on Unit 2 due to CASA and CASB contacts in the breaker trip circuits



4160V LOADS

UNITS 1, 2, 3



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SWITCHYARD AND 4160V AC ELECTRICAL SYSTEM
ELECTRICAL LINEUP CHECKLIST
UNIT 0

Date _____

Panel/ Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
Control Bay - 4160V Shutdown Board A - El 621'				
1	0-BKR-211-000A/001 BKR 1612 S/D BUS 1 FROM 4KV UNIT BD 1A	CONNECTED	0	____/____
3	0-BKR-211-000A/003 BKR 1614 TO 4KV S/D BD A FROM S/D BUS 1	CONNECTED	0	____/____
4	0-BKR-211-000A/004 BKR 1824 TO 4KV S/D BD A FROM S/D BD 3EA	CONNECTED	0	____/____
5	0-BKR-211-000A/005 480V S/D BD 1A TRANSFORMER TS1A	CLOSED	0	____/____
6	CORE SPRAY PUMP 1A		1	Aligned by <u>BF OI-75</u>



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SWITCHYARD AND 4160V AC ELECTRICAL SYSTEM
ELECTRICAL LINEUP CHECKLIST
UNIT 0

Date _____

Panel/ Breaker Number	Component Description	Required Position	Unit Initials 1st/IV
Control Bay - 4160V Shutdown Board A - El 621'			
7	2-BKR-075-0005 CS PUMP 2A MOTOR BREAKER		2 Aligned by <u>2-OI-75</u>
10	0-BKR-023-0001 RHRSW PUMP A1		Aligned by <u>0-OI-23</u>
11	FIRE PUMP A		0 Aligned by <u>0-OI-26</u>
13	CONTROL ROD DRIVE HYDRAULIC FEED PUMP 1B		2 Aligned by <u>2-OI-85</u>
16	RAW COOLING WATER PUMP 1D		1 Aligned by <u>1-OI-24</u>
17	0-BKR-023-0005 RHRSW PUMP A2		0 Aligned by <u>0-OI-23</u>
18	RESIDUAL HEAT REMOVAL PUMP 1A		1 Aligned by <u>1-OI-74</u>
19	2-BKR-074-0005 RESIDUAL HEAT REMOVAL PUMP 2A		2 Aligned by <u>2-OI-74</u>
21	0-BKR-211-000A/021 480V DIESEL AUX BD XFMR TDA	CLOSED	0 ____/____
22	0-BKR-211-000A/022 BKR 1818 TO 4KV S/D BD A FROM D/G A	CONNECTED	0 ____/____
24	0-BKR-211-000A/024 BKR 1716 TO 4KV S/D BD A FROM S/D BUS 2	CONNECTED	0 ____/____



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SWITCHYARD AND 4160V AC ELECTRICAL SYSTEM
ELECTRICAL LINEUP CHECKLIST
UNIT 0

Date _____

Panel/ Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
Control Bay - 4160V Shutdown Board C - El 621'				
2	0-BKR-211-000C/002 ALT SUPPLY TO S/D BD C FROM S/D BUS 1	CONNECTED	0	____/____
4	0-BKR-211-000C/004 BKR 1812 TO 4KV S/D BOARD C FROM D/G 1C	CONNECTED	0	____/____
5	0-BKR-211-000C/005 NORM FDR FOR TRANSFORMER TS2E	CLOSED	2	____/____
6	CORE SPRAY PUMP 1B		1	Aligned by <u>BF OI-75</u>
7	2-BKR-075-0033 CS PUMP 2B MOTOR BREAKER		2	Aligned by <u>2-OI-75</u>
9	0-BKR-023-0088 RHRSW PUMP B3		0	Aligned by <u>0-OI-67</u>
10	FIRE PUMP C		0	Aligned by <u>0-OI-26</u>



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SWITCHYARD AND 4160V AC ELECTRICAL SYSTEM
ELECTRICAL LINEUP CHECKLIST
UNIT 0

Date _____

Panel/ Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
Control Bay - 4160V Shutdown Board C - El 621'				
16	0-BKR-023-0019 RHRSW PUMP B2		0	Aligned by <u>0-OI-23</u>
17	RESIDUAL HEAT REMOVAL PUMP 1B		1	Aligned by <u>1-OI-74</u>
18	2-BKR-074-0028 RESIDUAL HEAT REMOVAL PUMP 2B		2	Aligned by <u>2-OI-74</u>
20	0-BKR-211-000C/020 NORM FDR FOR TRANSFORMER TS1B	CLOSED	1	____/____
21	0-BKR-211-000C/021 BKR 1814 TO 4KV S/D BD C FROM 4KV S/D BD 3EC	CONNECTED	0	____/____
22	0-BKR-211-000C/022 BKR 1718 NORM SUPPLY TO 4KV S/D BD C FROM S/D BUS 2	CONNECTED	0	____/____
26	0-BKR-211-000C/026 BKR 1722 NORM SUPPLY TO S/D BUS 2 FROM 4KV UNIT BD 2A	CONNECTED	0	____/____



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SWITCHYARD AND 4160V AC ELECTRICAL SYSTEM
ELECTRICAL LINEUP CHECKLIST
UNIT 0

Date _____

Panel/ Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
Control Bay - 4160V Shutdown Board B - El 593'				
2	0-BKR-211-000B/002 BKR 1616 NORM SUPPLY TO 4KV S/D BD B FROM S/D BUS 1	CONNECTED	0	____/____
4	0-BKR-211-000B/004 BKR 1822 TO 4KV S/D BD B FROM DIESEL GEN B	CONNECTED	0	____/____
5	0-BKR-211-000B/005 NORM SUPPLY TO TRANSFORMER TS2A TO 480V S/D BOARD 2A	CLOSED	2	____/____
6	CORE SPRAY PUMP 1C		1	Aligned by <u>BF OI-75</u>
7	2-BKR-075-0014 CS PUMP 2C MOTOR BREAKER		2	Aligned by <u>2-OI-75</u>
10	0-BKR-023-0008 RHRSW PUMP C1		0	Aligned by <u>0-OI-23</u>
11	FIRE PUMP B		0	Aligned by <u>0-OI-26</u>



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SWITCHYARD AND 4160V AC ELECTRICAL SYSTEM
ELECTRICAL LINEUP CHECKLIST
UNIT 0

Date _____

Panel/ Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
Control Bay - 4160V Shutdown Board B - El 593'				
14	0-BKR-211-000B/014 NORM SUPPLY TO TRANSFORMERS TDE & TS1E TO 480V DIESEL AUX BD A&B	CLOSED	0	____/____
15	0-BKR-023-0012 RHRSW PUMP C2		0	Aligned by <u>0-OI-23</u>
16	RHR PUMP 1C		1	Aligned by <u>1-OI-74</u>
17	2-BKR-074-0016 RESIDUAL HEAT REMOVAL PUMP 2C		2	Aligned by <u>2-OI-74</u>
19	0-BKR-211-000B/019 BKR 1828 TO 4KV S/D BD B FROM 4KV S/D BD 3EB	CONNECTED	0	____/____
20	0-BKR-211-000B/020 BKR 1714 ALT SUPPLY TO 4KV S/D BD B FROM S/D BUS 2	CONNECTED	0	____/____
22	0-BKR-211-000B/022 BKR 1712 ALT SUPPLY TO S/D BUS 2 FROM 4KV UNIT BD 1B	CONNECTED	0	____/____



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SWITCHYARD AND 4160V AC ELECTRICAL SYSTEM
ELECTRICAL LINEUP CHECKLIST
UNIT 0

Date _____

Panel/ Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
Control Bay - 4160V Shutdown Board D - El 593'				
1	0-BKR-211-000D/001 BKR 1622 ALT SUPPLY TO S/D BUS 1 FROM 4KV UNIT BD 2B	CONNECTED	0	____/____
5	0-BKR-211-000D/005 BKR 1618 ALT SUPPLY TO 4KV S/D BD D FROM S/D BUS 1	CONNECTED	0	____/____
6	0-BKR-211-000D/006 BKR 1826 TO 4KV S/D BD D FROM 4KV S/D BD 3ED	CONNECTED	0	____/____
7	CORE SPRAY PUMP 1D		1	Aligned by <u>BF OI-75</u>
8	2-BKR-075-0042 CS PUMP 2D MOTOR BREAKER		2	Aligned by <u>2-OI-75</u>
10	0-BKR-023-0094 RHRSW PUMP D3		0	Aligned by <u>0-OI-67</u>
13	0-BKR-211-000D/013 NORM SUPPLY TO TRANSFORMER TDB TO 480V D/G AUX BD B	CLOSED	0	____/____



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SWITCHYARD AND 4160V AC ELECTRICAL SYSTEM
ELECTRICAL LINEUP CHECKLIST
UNIT 0

Date _____

Panel/ Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
Control Bay - 4160V Shutdown Board D - El 593'				
15	0-BKR-023-0027 RHRSW PUMP D2		0	Aligned by <u>0-OI-23</u>
16	RESIDUAL HEAT REMOVAL PUMP 1D		1	Aligned by <u>1-OI-74</u>
17	2-BKR-074-0039 RESIDUAL HEAT REMOVAL PUMP 2D		2	Aligned by <u>2-OI-74</u>
19	0-BKR-211-000D/019 NORM SUPPLY TO TRANSFORMER TS2B TO 480V S/D BD 2B	CLOSED	2	____/____
20	0-BKR-211-000D/020 BKR 1816 TO 4KV S/D BD D FROM DG 1D	CONNECTED	0	____/____
22	0-BKR-211-000D/022 BKR 1724 NORM SUPPLY TO 4KV S/D BD D FROM S/D BUS 2	CONNECTED	0	____/____



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SWITCHYARD AND 4160V AC ELECTRICAL SYSTEM
ELECTRICAL LINEUP CHECKLIST
UNIT 0

Date _____

Panel/ Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
Unit 3 Diesel Gen Bldg - 4160V Shutdown Board 3EA - El 583' (3-45E724-6)				
1	3-BKR-211-03EA/001 BKR 1844 TIE TO BKR 1824 4KV SD BD A	CONNECTED	0	____/____
4	3-BKR-211-03EA/004 BKR 1726 TIE FROM BKR 1732 4KV BUS TIE BD	CONNECTED	0	____/____
5	0-BKR-023-0085 RHRSW PUMP A3		0	Aligned by <u>0-OI-67</u>
6	3-BKR-075-0005 CS PUMP 3A MOTOR BREAKER		3	Aligned by <u>3-OI-75</u>
7	3-BKR-211-03EA/007 NORM FDR BKR 1334 TIE FROM BKR 1326 4KV UNIT BD 3A	CONNECTED	0	____/____
9	3-BKR-211-03EA/009 EMER FDR BKR 1838 FROM DIESEL GEN 3A	CONNECTED	0	____/____
10	3-BKR-211-03EA/010 NORM FDR TO 480V S/D BD 3A TRANSFORMER TS3A	CLOSED	3	____/____
11	3-BKR-085-0002 CONTROL ROD DRIVE HYDRAULIC FEED PUMP 3B		3	Aligned by <u>3-OI-85</u>
12	3-BKR-074-0005 RHR PUMP 3A		3	Aligned by <u>3-OI-74</u>

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SWITCHYARD AND 4160V AC ELECTRICAL SYSTEM
ELECTRICAL LINEUP CHECKLIST
UNIT 0

Date _____

Panel/ Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
Unit 3 Diesel Gen Bldg - 4160V Shutdown Board 3EC - El 583' (3-45E724-8)				
2	3-BKR-074-0028 RHR PUMP 3B		3	Aligned by <u>3-OI-74</u>
3	3-BKR-211-03EC/003 BKR 1626 TIE FROM BKR 1632 4KV BUS TIE BD	CONNECTED	0	____/____
6	3-BKR-211-03EC/006 BKR 1834 TIE TO S/D BD C	CONNECTED	0	____/____
7	3-BKR-211-03EC/007 NORM FDR TO 480V S/D BD 3B TRANSFORMER TS3B	CLOSED	0	____/____
8	0-BKR-023-0015 RHRSW PUMP B1		0	Aligned by <u>0-OI-23</u>
9	RAW COOLING WATER PUMP 3D		3	Aligned by <u>3-OI-24</u>
10	3-BKR-211-03EC/010 EMER FDR BKR FROM DIESEL GEN 3C	CONNECTED	0	____/____
12	3-BKR-211-03EC/012 NORM FDR BKR 1338 TIE FROM BKR 1332 4KV UNIT BD 3B	CONNECTED	0	____/____
13	3-BKR-075-0033 CS PUMP 3B MOTOR BREAKER		3	Aligned by <u>3-OI-75</u>



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SWITCHYARD AND 4160V AC ELECTRICAL SYSTEM
ELECTRICAL LINEUP CHECKLIST
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Date _____

Panel/ Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
Unit 3 Diesel Gen Bldg - 4160V Shutdown Board 3EB - El 565' (3-45E724-7)				
4	3-BKR-074-0016 RHR PUMP 3C		3	Aligned by <u>3-OI-74</u>
5	3-BKR-075-0014 CS PUMP 3C MOTOR BREAKER		3	Aligned by <u>3-OI-75</u>
6	3-BKR-211-03EB/006 BKR 1848 TIE TO BKR 1828 4KV S/D BD B	CONNECTED	0	____/____
8	3-BKR-211-03EB/008 BKR 1728 ALT FDR FROM BUS TIE BD BKR 1732 & 4KV S/D BD 3EA BKR 1726	CONNECTED	0	____/____
9	3-BKR-211-03EB/009 ALT FDR TO 480V S/D BD 3A & 3B TRANSFORMER TS3E	CLOSED	0	____/____
10	0-BKR-023-0091 RHRSW PUMP C3		0	Aligned by <u>0-OI-67</u>
11	3-BKR-211-03EB/011 EMER FDR BKR 1842 FROM DIESEL GEN 3B	CONNECTED	0	____/____
14	3-BKR-211-03EB/014 BKR 1336 NORM FDR FROM 4KV UNIT BD 3A BKR 1326 & 4KV S/D BD 3EA BKR 1334	CONNECTED	0	____/____



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SWITCHYARD AND 4160V AC ELECTRICAL SYSTEM
ELECTRICAL LINEUP CHECKLIST
UNIT 0

Date _____

Panel/ Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
Unit 3 Diesel Gen Bldg - 4160V Shutdown Board 3ED - El 565' (3-45E724-9)				
1	3-BKR-211-03ED/001 BKR 1628 TIE FROM BKR 1632 4KV BUS TIE BD VIA PNL 4, 4KV S/D BD 3EC	CONNECTED	0	____/____
4	3-BKR-211-03ED/004 BKR 1846 TIE TO BKR 1826 4KV S/D BD D	CONNECTED	0	____/____
5	3-BKR-074-0039 RHR PUMP 3D		3	Aligned by <u>3-OI-74</u>
6	0-BKR-023-0023 RHRSW PUMP D1		0	Aligned by <u>0-OI-23</u>
7	3-BKR-211-03ED/007 NORM SUPPLY TO TRANSFORMER TSG1A TO 480V STANDBY GAS TRTMT BD	CLOSED	0	____/____
8	3-BKR-211-03ED/008 NORM SUPPLY BKR 1342 TIE FROM BKR 1332 4KV UNIT BD 3B VIA PNL 11, 4KV S/D BD 3EC	CONNECTED	0	____/____
10	3-BKR-211-03ED/010 BKR 1836 EMER SUPPLY FROM DIESEL GEN 3D	CONNECTED	0	____/____
11	3-BKR-075-0042, CS PUMP 3D MOTOR BREAKER		3	Aligned by <u>3-OI-75</u>
13	3-BKR-211-03ED/13 FEEDER TO 480V HVAC BD B TRANSFORMER	CLOSED	0	____/____



UNIT 1/2 DIESEL AUX BOARDS



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480V/240V AC ELECTRICAL SYSTEM
UNIT 1/2 480V DIESEL GENERATOR AUXILIARY BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 0

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
U1/2 Diesel Generator 480V Auxiliary Board A U1/2 Diesel Gen Bldg - El 583' (0-45E732 - 1 & 2)				
1D	0-BKR-219-000A/01D NORMAL FEEDER BREAKER FROM 4KV SD BD A TRANSFORMER TDA	CLOSED	0	____/____
2A	STACK FILTER CUBICLE EXHAUST FAN A		0	ALIGNED BY 2-OI-66
2B	0-BKR-030-0074 CENTRAL DIESEL INFO EXHAUST FAN		0	ALIGNED BY 0-OI-30F
2C	DIESEL GENERATOR TRANSFORMER TDA EXHAUST FAN		0	ALIGNED BY 0-OI-30F
2D	DIESEL GENERATOR BLDG. FUEL OIL TRANSFER PUMP		0	ALIGNED BY 0-OI-18
2E1	CONTROL BAY ELEVATOR	ON	0	____/____
2F	STANDBY GAS TREATMENT BLDG 2 SUMP PUMP C		0	ALIGNED BY 0-OI-40
3A	0-BKR-086-0669A DG A RIGHT BANK AIR COMP MTR BKR		0	ALIGNED BY 0-OI-82
3B	0-BKR-030-0186 DIESEL GENERATOR A BATTERY EXH FAN		0	ALIGNED BY 0-OI-82
3C	0-BKR-044-000A/03C DIESEL GENERATOR A ROOM	HEATER	0	ALIGNED BY 0-OI-82 0-OI-57B



TITLE: 480V/240V AC ELECTRICAL SYSTEM

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UNIT 0
0-OI-57B
ATTACHMENT 3A
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480V/240V AC ELECTRICAL SYSTEM
UNIT 1/2 480V DIESEL GENERATOR AUXILIARY BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 0

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
U1/2 Diesel Generator 480V Auxiliary Board A U1/2 Diesel Gen Bldg - El 583' (0-45E732 - 1 & 2)				
3D	DIESEL GENERATOR A EXHAUST FAN A		0	ALIGNED BY 0-OI-82
3E	0-BKR-082-0001AA DSL GEN A WATER HEATER		0	ALIGNED BY 0-OI-82
3F	0-BKR-254-0000AA DSL A BAT CHGR A		0	ALIGNED BY 0-OI-82
4A	0-BKR-086-0669B DG B RIGHT BANK AIR COMP MTR BKR		0	ALIGNED BY 0-OI-82
4B	0-BKR-030-0187 DIESEL GENERATOR B BATTERY EXH FAN		0	ALIGNED BY 0-OI-82
4C	0-BKR-044-000A/04C DIESEL GENERATOR B ROOM HEATER		0	ALIGNED BY 0-OI-82
4D	0-BKR-030-0066 DIESEL GENERATOR B EXH FAN A		0	ALIGNED BY 0-OI-82
4E	0-BKR-082-0001BA DSL GEN B WATER HEATER		0	ALIGNED BY 0-OI-82
4F	0-BKR-254-0000BA DSL GEN B BAT CHGR A		0	ALIGNED BY 0-OI-82
5A	1-BKR-066-0029 SGTS/U3 DIL DUCT OFF-GAS DILUTION FAN 1A	ON	1	_____/_____ 0-OI-57B



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480V/240V AC ELECTRICAL SYSTEM
UNIT 1/2 480V DIESEL GENERATOR AUXILIARY BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 0

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
U1/2 Diesel Generator 480V Auxiliary Board A U1/2 Diesel Gen Bldg - El 583' (0-45E732 - 1 & 2)				
5C	OFF-GAS DILUTION FAN 2A		2	ALIGNED BY 2-OI-66
5E	3-BKR-066-0029 OG DILUTION AIR FAN 3A & FCV-66-30		3	ALIGNED BY 3-OI-66
6D	0-BKR-219-000A/06D EMERGENCY FEEDER BREAKER	CONNECTED AND OPEN	0	____/____
7A	0-BKR-067-000A/7A EECW HDR TRACE HTG		0	ALIGNED BY 0-OI-67 & 82
7C	STANDBY GAS TREATMENT BLDG SUMP PUMP A		0	ALIGNED BY 0-OI-40
7D	STANDBY GAS TREATMENT BLDG. HEATER A		0	ALIGNED BY 0-OI-30F
7E	GEN. PURGING CO ₂ VAPORIZER SUPERHEATER AND IMMERSION		0	ALIGNED BY 0-OI-39
7F	DIESEL GENERATOR BLDG. SUMP PUMP A		0	ALIGNED BY 0-OI-40
8A	0-BKR-086-0669C DG C RIGHT BANK AIR COMP MTR BKR		0	ALIGNED BY 0-OI-82
8B	0-BKR-030-0069 DIESEL GENERATOR C EXH FAN B		0	ALIGNED BY 0-OI-82
8C1	0-BKR-067-000A/8C1 EMERGENCY SUPPLY BREAKER FOR RHRSW & EECW TRACE HEATER A	ON	0	____/____



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480V/240V AC ELECTRICAL SYSTEM
UNIT 1/2 480V DIESEL GENERATOR AUXILIARY BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 0

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
U1/2 Diesel Generator 450V Auxiliary Board A U1/2 Diesel Gen Bldg - El 583' (0-45E732 - 1 & 2)				
8C2	PRIMARY ISOLATION BKR FEEDING COMPT. 8EL NOR FDR EVAC ALM FUSE PNL	ON	0	____/____
8D	0-BKR-023-0610 RHRSW & EECW TRACE HTR A EMER FEED .		0	ALIGNED BY 0-OI-23
8EL	0-BKR-244-000A/8EL SECONDARY BKR FEEDING NOR FDR EVAC ALM FUSE PNL FED FROM COMPT 8C2	ON	0	____/____
8ER	0-BKR-023-0613 RHRSW & EECW TRACE HTR D EMER FEED		0	ALIGNED BY 0-OI-23
8F	0-BKR-254-0000CA DSL GEN C BAT CHGR A		0	ALIGNED BY 0-OI-82
9A	0-BKR-086-0669D DG D RIGHT BANK AIR COMP MTR BKR		0	ALIGNED BY 0-OI-82
9B	0-BKR-030-0071 DIESEL GENERATOR D EXHAUST FAN B		0	ALIGNED BY 0-OI-82
9C	0-BKR-219-000A/09C FEEDER TO 480V RADWASTE BD 1 FLOOD PROTECTION	ON	0	____/____
9F	0-BKR-254-0000DA DSL GEN D BAT CHGR A		0	ALIGNED BY 0-OI-82 0-OI-57B



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480V/240V AC ELECTRICAL SYSTEM
UNIT 1/2 480V DIESEL GENERATOR AUXILIARY BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 0

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
<hr/>				
U1/2 Diesel Generator 480V Auxiliary Board A				
U1/2 Diesel Gen Bldg - El 583'				
(0-45E732 - 1 & 2)				
<hr/>				
10F1	0-BKR-067-0925A EECW STRAINER A		0	ALIGNED BY 0-OI-67
10F2	0-BKR-067-0928A EECW STRAINER D		0	ALIGNED BY 0-OI-67
11A	SGT - FILTER TRAIN A SYSTEM FAN		0	ALIGNED BY 0-OI-65
11F	SGT-FILTER TRAIN A HUMIDITY CONTROL HEATER CIRCUIT BREAKER		0	ALIGNED BY 0-OI-65
12A	0-BKR-034-0012 VACUUM PRIMING PUMP B		0	ALIGNED BY 0-OI-34
12C	0-BKR-067-0049 RHRSW PUMP C1 SPLY TO EECW FCV-67-49		0	ALIGNED BY 0-OI-67
12E	0-BKR-067-0013 EECW NORTH HDR DG/U1 DIV I SECT VLV FCV-67-13		0	ALIGNED BY 0-OI-67



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480V/240V AC ELECTRICAL SYSTEM
UNIT 1/2 480V DIESEL GENERATOR AUXILIARY BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 0

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
U1/2 Diesel Generator 480V Auxiliary Board B U1/2 Diesel Gen Bldg - El 583' (0-45E732 - 3 & 4)				
1D	0-BKR-219-000B/01D NORMAL FEEDER BREAKER FROM 4KV SHUTDOWN BD D	CLOSED	0	____/____
2A	STACK FILTER CUBICLE EXHAUST FAN B		0	ALIGNED BY 2-OI-66
2B	STACK SAMPLING ROOM HEATER		0	ALIGNED BY 0-OI-44
2C	DIESEL GEN. AUX. XFMR TDB EXHAUST FAN		0	ALIGNED BY 0-OI-30F
2D	DIESEL GEN AUX XFMR TDE EXHAUST FAN		0	ALIGNED BY 0-OI-30F
2E	0-BKR-301-000B/02E SEWAGE LIFT STATION SEWAGE TREATMENT LAGOON	ON.	0	____/____
2F1	0-BKR-043-0026 CCW DISCHARGE SAMPLING PUMPS UNITS 1, 2, & 3	ON	0	____/____
2F2	0-BKR-219-000B/2F2 POWER OUTLETS - OFF-GAS STACK DSL GEN & SGT	ON	0	____/____
3A	0-BKR-086-0668D/AC DG D LEFT BANK AIR COMP MTR BKR		0	ALIGNED BY 0-OI-82
3B	DIESEL GENERATOR D BATTERY EXHAUST FAN		0	ALIGNED BY 0-OI-82



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480V/240V AC ELECTRICAL SYSTEM
UNIT 1/2 480V DIESEL GENERATOR AUXILIARY BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 0

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
U1/2 Diesel Generator 480V Auxiliary Board B U1/2 Diesel Gen Bldg - El 583' (0-45E732 - 3 & 4)				
3C	0-BKR-044-000B/03C DIESEL GENERATOR D ROOM HEATER		0	ALIGNED BY 0-OI-82
3D	0-BKR-030-0070 DIESEL GENERATOR D EXH FAN A		0	ALIGNED BY 0-OI-82
3E	0-BKR-082-0001CA DSL GEN D WATER HEATER		0	ALIGNED BY 0-OI-82
3F	0-BKR-254-0000DB DSL GEN D BAT CHGR B		0	ALIGNED BY 0-OI-82
4A	0-BKR-086-0668C/AC DG C LEFT BANK AIR COMP MTR BKR		0	ALIGNED BY 0-OI-82
4B	0-BKR-030-0188 DIESEL GENERATOR C BATTERY EXH FAN		0	ALIGNED BY 0-OI-82
4C	0-BKR-044-000B/04C DIESEL GENERATOR C ROOM HEATER		0	ALIGNED BY 0-OI-82
4D	0-BKR-030-0068 DIESEL GEN RM C EXH FAN A		0	ALIGNED BY 0-OI-82
4E	0-BKR-082-0001DA DSL GEN C WATER HEATER		0	ALIGNED BY 0-OI-82
4F	0-BKR-254-0000CB DSL GEN C BAT CHGR B		0	ALIGNED BY 0-OI-82
5A	1-BKR-066-0031 OFF-GAS DILUTION AIR FAN 1B	ON	1	_____/____
5C	OFF-GAS DILUTION AIR FAN 2B		2	ALIGNED BY 2-OI-66



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480V/240V AC ELECTRICAL SYSTEM
UNIT 1/2 480V DIESEL GENERATOR AUXILIARY BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 0

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
U1/2 Diesel Generator 480V Auxiliary Board B U1/2 Diesel Gen Bldg - El 583' (0-45E732 - 3 & 4)				
5E	3-BKR-066-0031 OG DILUTION AIR FAN 3B & FCV-66-32		3	ALIGNED BY 3-OI-66
6D	0-BKR-219-000B/06D EMERGENCY FEEDER BREAKER FROM 480V DSL AUX BD A XFMR TDE	CONNECTED AND OPEN	0	____/____
7A	0-BKR-067-000B/7A EECW HDR TRACE HTG		0	ALIGNED BY 0-OI-67
7C	STANDBY GAS TREATMENT BLDG SUMP PUMP B		0	ALIGNED BY 0-OI-40
7D	STANDBY GAS TREATMENT BLDG HEATER B		0	ALIGNED BY 0-OI-30F
7F1	CO ₂ STORAGE TANK REFRIGERATION UNIT		0	ALIGNED BY 0-OI-39
7F2	0-BKR-247-000B/7F2 STACK LIGHTING TRANSFORMER	ON	0	____/____
8A	0-BKR-086-0668B/AC DG B LEFT BANK AIR COMP MTR BKR		0	ALIGNED BY 0-OI-82
8B	0-BKR-030-0067 DIESEL GENERATOR B EXH FAN B		0	ALIGNED BY 0-OI-82
8C	0-BKR-244-000B/08C PRIMARY ISOLATION BREAKER FEEDING COMPT 8EL	ON	0	____/____
8EL	0-BKR-244-000B/SEL SECONDARY BKR FEEDING ALT FDR TO EVAC ALM FUSE PNL FED FROM COMPT 8C	ON	0	____/____

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'480V/240V AC ELECTRICAL SYSTEM
UNIT 1/2 480V DIESEL GENERATOR AUXILIARY BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 0

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
U1/2 Diesel Generator 480V Auxiliary Board B U1/2 Diesel Gen Bldg - El 583' (0-45E732 - 3 & 4)				
8ER	0-BKR-067-0008/8E EMERGENCY SUPPLY BREAKER FOR RHRSW & EECW TRACE HEATER B & C		0	ALIGNED BY 0-OI-67
8F	0-BKR-254-0000BB DSL GEN B BAT CHGE B		0	ALIGNED BY 0-OI-82
9A	0-BKR-086-0668A/AC DG A LEFT BANK AIR COMP MTR BKR		0	ALIGNED BY 0-OI-82
9B	0-BKR-030-0065 DIESEL GENERATOR A EXH FAN B		0	ALIGNED BY 0-OI-82
9C	0-BKR-219-000B/09C FEEDER TO RADWASTE BD 2 FLOOD PROTECTION	ON	0	____/____
9F	0-BKR-254-0000AB DSL GEN A BAT CHGR B		0	ALIGNED BY 0-OI-82
10F1	0-BKR-067-0926A EECW STRAINER B		0	ALIGNED BY 0-OI-67
10F2	0-BKR-067-0927A EECW STRAINER C		0	ALIGNED BY 0-OI-67

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480V/240V AC ELECTRICAL SYSTEM
UNIT 1/2 480V DIESEL GENERATOR AUXILIARY BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 0

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
U1/2 Diesel Generator 480V Auxiliary Board B U1/2 Diesel Gen Bldg - El 583' (0-45E732 - 3 & 4)				
11A	SGT FILTER TRAIN B SYSTEM FAN		0	ALIGNED BY 0-OI-65
11F	SGT-FILTER TRAIN B HUMIDITY CONTROL NEATER CIRCUIT BREAKER		0	ALIGNED BY 0-OI-65
12A	DIESEL GENERATOR BUILDING SUMP PUMP B		0	ALIGNED BY 0-OI-40
12B	OFF-GAS STACK HOIST	ON	0	____/____
12C	0-BKR-067-0048 RHRSW PUMP, D1 SPLY TO EECW FCV-67-48		0	ALIGNED BY 0-OI-67
12E	0-BKR-067-0014 EECW SOUTH HDR DG/U1 DIV I SECT VLV FCV-67-14		0	ALIGNED BY 0-OI-67



UNIT 3 DIESEL AUX BOARDS



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480V/240V AC ELECTRICAL SYSTEM
UNIT 3 480V DIESEL GENERATOR AUXILIARY BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 3

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
U-3 Diesel Generator 480V Auxiliary Board 3EA Unit 3 Diesel Gen Bldg - El 583.5' (3-45E732 - 5)				
1D	3-BKR-219-03EA/01D NORMAL SUPPLY BREAKER FROM 480V SD BD 3A	CLOSED	3	____/____
2A	DIESEL GEN BLDG SUMP PUMP 3A		0	ALIGNED BY 0-OI-40
2B1	3-BKR-082-0001AA DSL GEN 3A WATER HEATER		3	ALIGNED BY 3-OI-82
2B2	REST ROOM HEATER		3	ALIGNED BY 0-OI-44
2C1	3-BKR-030-0246 BAT RM 3EB EXH FAN A		3	ALIGNED BY 0-OI-30F
2E1	3-BKR-254-0000AA DSL GEN 3A BAT CHGR A		3	ALIGNED BY 3-OI-82
2E2	3-BKR-254-0000BA DSL GEN 3B BAT CHGR A		3	ALIGNED BY 3-OI-82
3A	3-BKR-030-0243 DSL AUX BD 3EA RM EXH FAN		3	ALIGNED BY 0-OI-30F
3B	3-BKR-030-0239 DG 3B BAT EXHAUST FAN		3	ALIGNED BY 3-OI-82

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480V/240V AC ELECTRICAL SYSTEM
UNIT 3 480V DIESEL GENERATOR AUXILIARY BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 3

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
U-3 Diesel Generator 480V Auxiliary Board 3EA Unit 3 Diesel Gen Bldg - El 583.5' (3-45E732 - 5)				
3C	3-BKR-030-0238 DG 3A BAT EXHAUST FAN		3	ALIGNED BY 3-OI-82
3D	3-BKR-067-0074A EECW HDR TRACE HTRS		3	ALIGNED BY 0-OI-67
4A	3-BKR-030-0242 MISC EQUIPMENT RM EXH FAN		3	ALIGNED BY 0-OI-30F
4B1	3-BKR-044-0200 DIESEL GENERATOR 3A ROOM HEATER BKR		3	ALIGNED BY 3-OI-82
4B2	3-BKR-044-0201 DIESEL GENERATOR 3B ROOM HEATER BKR		3	ALIGNED BY 3-OI-82
4C1	BATTERY CHARGER SB-3EB		0	ALIGNED BY 0-OI-57D
4D	3-BKR-219-03EA/4D SHUNT TRIP ON CIRCUIT CONTROL POWER		3	____/____
5A	DIESEL GEN BLDG FUEL OIL TRANSFER PUMP		0	ALIGNED BY 0-OI-18
5B1	3-BKR-082-00018A DSL GEN 3B WATER HEATER		3	ALIGNED BY 3-OI-82
5E	3-BKR-030-0230 DG 3A EXH FAN A		3	ALIGNED BY 3-OI-82



TITLE: 480V/240V AC ELECTRICAL SYSTEM

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(Page 5 of 8)480V/240V AC ELECTRICAL SYSTEM
UNIT 3 480V DIESEL GENERATOR AUXILIARY BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 3

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
U-3 Diesel Generator 480V Auxiliary Board 3EA Unit 3 Diesel Gen Bldg - El 583.5' (3-45E732 - 5)				
6A	3-BKR-030-0232 DIESEL GEN 3B EXH FAN A		3	ALIGNED BY 3-OI-82
6C	3-BKR-030-0235 DG 3C EXH FAN B		3	ALIGNED BY 3-OI-82
6E	3-BKR-030-0237 DG 3D EXH FAN B		3	ALIGNED BY 3-OI-82
7A	3-BKR-086-0669A DG 3A LEFT BANK AIR COMP MTR BKR		3	ALIGNED BY 3-OI-82
7B	3-BKR-086-0669B DG 3B LEFT BANK AIR COMP MTR BKR		3	ALIGNED BY 3-OI-82
7C	3-BKR-086-0669C DG 3C LEFT BANK AIR COMP MTR BKR		3	ALIGNED BY 3-OI-82
7D	3-BKR-086-0669D DG 3D LEFT BANK AIR COMP MTR BKR		3	ALIGNED BY 3-OI-82
7E1	3-BKR-254-0000CA DSL GEN 3C BAT CHGR A		3	ALIGNED BY 3-OI-82
7E2	3-BKR-254-0000DA DSL GEN 3D BAT CHGR A		3	ALIGNED BY 3-OI-82
8D	3-BKR-219-03EA/08D ALTERNATE SUPPLY BREAKER FM 480V SD BD 3B	CONNECTED AND OPEN	3	____/____

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480V/240V AC ELECTRICAL SYSTEM
UNIT 3 480V DIESEL GENERATOR AUXILIARY BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 3

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
U-3 Diesel Generator 480V Auxiliary Board 3EB Unit 3 Diesel Gen Bldg - El 583.5' (3-45E732 - 6)				
1D	3-BKR-219-03EB/01D NORMAL SUPPLY BREAKER FROM 480V SD BD 3B	CLOSED	3	____/____
2A	DIESEL GENERATOR BLDG SUMP PUMP 3B		0	ALIGNED BY 0-OI-40
2B	3-BKR-082-0001CA DSL GEN 3C WATER HEATER		3	ALIGNED BY 3-OI-82
2C1	DIESEL AUXILIARY BOARD 3EA ROOM HEATER		0	ALIGNED BY 0-OI-30F
2E1	3-BKR-254-0000BB DSL GEN 3B BAT CHGR B		3	ALIGNED BY 3-OI-82
2E2	3-BKR-254-0000AB DSL GEN 3A BAT CHGR B		3	ALIGNED BY 3-OI-82
3A	3-BKR-030-0244 DSL AUX BD 3EB RM EXH FAN		3	ALIGNED BY 0-OI-30F
3B	3-BKR-030-0241 DG 3D BAT EXHAUST FAN		3	ALIGNED BY 3-OI-82
3C	3-BKR-030-0240 DG 3C BAT EXHAUST FAN		3	ALIGNED BY 3-OI-82
3D	3-BKR-067-0074C EECW HDR TRACE HTRS		3	ALIGNED BY 0-OI-67
4B1	3-BKR-044-0202 DIESEL GENERATOR 3D ROOM HEATER BKR		3	ALIGNED BY 3-OI-82



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480V/240V AC ELECTRICAL SYSTEM
UNIT 3 480V DIESEL GENERATOR AUXILIARY BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 3

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
U-3 Diesel Generator 480V Auxiliary Board 3EB Unit 3 Diesel Gen Bldg - El 583.5' (3-45E732 - 6)				
4B2	3-BKR-044-0203 DIESEL GENERATOR 3C ROOM HEATER BKR		3	ALIGNED BY 3-OI-82
4C1	3-BKR-039-0034 CO ₂ STORAGE TANK REFRIG UNIT		0	ALIGNED BY 0-OI-39
4D	3-BKR-219-03EB/4D SHUNT TRIP CIRCUIT CONTROL POWER	ON	3	____/____
5B1	3-BKR-082-0001DA DSL GEN 3D WATER HEATER		3	ALIGNED BY 3-OI-82
5C	3-BKR-030-0247 BAT RM 3EB EXH FAN B		3	ALIGNED BY 0-OI-30F
5E	3-BKR-030-0236 DG 3D EXH FAN A		3	ALIGNED BY 3-OI-82
6A	3-BKR-030-0234 DG 3C EXH FAN A		3	ALIGNED BY 3-OI-82
6C	3-BKR-030-0233 DG 3B EXH FAN B		3	ALIGNED BY 3-OI-82
6E	3-BKR-030-0231 DG 3A EXH FAN B		3	ALIGNED BY 3-OI-82
7A	3-BKR-086-0668B/AC DG 3B RIGHT BANK AIR COMP MTR BKR		3	ALIGNED BY 3-OI-82
7B	3-BKR-086-0668C/AC DG 3C RIGHT BANK AIR COMP MTR BKR		3	ALIGNED BY 3-OI-82
7C	3-BKR-086-0668D/AC DG 3D RIGHT BANK AIR COMP MTR BKR		3	ALIGNED BY 3-OI-82



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480V/240V AC ELECTRICAL SYSTEM
UNIT 3 480V DIESEL GENERATOR AUXILIARY BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 3

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
U-3 Diesel Generator 480V Auxiliary Board 3EB Unit 3 Diesel Gen Bldg - El 583.5' (3-45E732 - 6)				
7D	3-BKR-086-0668A/AC DG 3A RIGHT BANK AIR COMP MTR BKR		3	ALIGNED BY 3-OI-82
7E1	3-BKR-254-0000DB DSL GEN 3D BAT CHGR B		3	ALIGNED BY 3-OI-82
7E2	3-BKR-254-0000CB DSL GEN 3C BAT CHGR B		3	ALIGNED BY 3-OI-82
7F	3-BKR-219-03EB/07F U3 DIESEL GENERATOR BLDG POWER RECEPTICALS	ON	3	____/____
8D	3-BKR-219-03EB/08D ALTERNATE SUPPLY BREAKER FROM 480V SD BD 3A	CONNECTED AND OPEN	3	____/____

UNIT 1 480 V AC BOARDS



TITLE: 480V/240V AC ELECTRICAL SYSTEM

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480V/240V AC ELECTRICAL SYSTEM
UNIT 1 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 1

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Shutdown Board 1A				
Control Bay - Div I - Electrical Board Room 1A, El 621'				
(1-45E749 - 1)				
1C	NORMAL FEEDER BREAKER FROM XFMR TS1A	CLOSED	0	____/____
2A	CONTROL BAY WATER CHILLER A		0	ALIGNED BY 0-OI-31
2B	NORMAL FEEDER BREAKER FOR CONTROL BAY VENT BOARD A	CLOSED	0	____/____
2C	DRYWELL BLOWER 1A-1		1	ALIGNED BY 1-OI-70
2D	DRYWELL BLOWER 1B-1		1	(2) ALIGNED BY 1-OI-70
3A	NORMAL FEEDER 480V REACTOR MOV BD 1A	CLOSED	0	____/____
3B	EMERGENCY FEEDER 480V REACTOR MOV BOARD 1B	CLOSED	0	____/____
3C	EMERGENCY FEEDER 480V REACTOR MOV BOARD 1C	CLOSED	0	____/____
3D	INSTRUMENT AND CONTROL BUS A TRANSFORMER T1C1A	CLOSED	0	____/____
5A	CONTROL AND SERVICE AIR COMPRESSOR A		0	ALIGNED BY 0-OI-32
5B	MG SET 1DN NORMAL FEEDER FOR 480V REACTOR MOV BOARD 1D	CLOSED/ CONNECTED (1)	1	____/____

- (1) Closed if MG set in service, circle position selected.
(2) This breaker shall remain OPEN per DCN T37517A.

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480V/240V AC ELECTRICAL SYSTEM
UNIT 1 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 1

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Shutdown Board 1A Control Bay - Div I - Electrical Board Room 1A, El 621' (1-45E749 - 1)				
5C	RECIRCULATION MG SET OIL PUMP 1A-1		1	ALIGNED BY OI-68
5D	RECIRCULATION MG SET OIL PUMP 1B-1		1	ALIGNED BY OI-68
6A	MG SET 1EA EMERGENCY FEEDER FOR 480V REACTOR MOV BD 1E	CLOSED/ CONNECTED(1)	1	____/____
6B	CLOSED COOLING WATER PUMP 1A		1	ALIGNED BY 1-OI-70
6C	REACTOR WATER CLEANUP RECIRC PUMP 1A		1	ALIGNED BY 1-OI-69
6D	1-BKR-248-0001A/6D 250V BATTERY CHARGER 1		0	ALIGNED BY 0-OI-57D
7B	STANDBY LIQUID CONTROL PUMP 1A		1	ALIGNED BY 1-OI-63
7C	FUEL POOL COOLING PUMP 1A		1	ALIGNED BY 1-OI-78
7D	UNIT PREFERRED MG SET 1	CLOSED	1	____/____
8C	EMERGENCY FEEDER BREAKER FROM XFMR TS1E	CONNECTED AND OPEN	0	____/____

(1) Closed if MG set in service, circle position selected.



TITLE: 480V/240V AC ELECTRICAL SYSTEM

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480V/240V AC ELECTRICAL SYSTEM
UNIT 1 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 1

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
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480V Shutdown Board 1B
Control Bay - Div II - Electrical Board Room 1B, El 621'
(1-45E749 - 2)

1C	NORMAL FEEDER BREAKER FROM XFMR TS1B	CLOSED	0	___/___
2B	EMERGENCY FEEDER 480V CONDENSATE DEMINERALIZER BOARD 1	CLOSED	1	___/___
2C	DRYWELL BLOWER 1A-2		1	(2) ALIGNED BY 1-OI-70
2D	DRYWELL BLOWER 1B-2		1	(2) ALIGNED BY 1-OI-70
3A	EMERGENCY FEEDER 480V REACTOR MOV BOARD 1A	CLOSED	0	___/___
3B	NORMAL FEEDER 480V REACTOR MOV BOARD 1B	CLOSED	0	___/___
3C	NORMAL FEEDER 480V REACTOR MOV BOARD 1C	CLOSED	0	___/___
3D	INSTRUMENT AND CONTROL BUS B TRANSFORMER T1C1B UNIT PREFERRED TRANSFORMER TUP1	CLOSED	0	___/___
5A	MG SET 1DA EMERGENCY FEEDER FOR 480V REACTOR MOV 'BD 1D	CLOSED/ CONNECTED(1)	1	___/___

(1) Closed if MG set in service, circle position selected.

(2) This breaker shall remain OPEN per DCN T37517A.

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TITLE: 480V/240V AC ELECTRICAL SYSTEM

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480V/240V AC ELECTRICAL SYSTEM
UNIT 1 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 1

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
<p>480V Shutdown Board 1B Control Bay - Div II - Electrical Board Room 1B, El 621' (1-45E749 - 2)</p>				
5C	RECIRCULATION MG SET OIL PUMP 1A-2		1	ALIGNED BY OI-68
5D	RECIRCULATION MG SET OIL PUMP 1B-2		1	ALIGNED BY OI-68
6A	CLOSED COOLING WATER PUMP 1C		0	ALIGNED BY 2-OI-70
6B	CLOSED COOLING WATER PUMP 1B		1	ALIGNED BY 1-OI-70
6C	REACTOR WATER CLEANUP RECIRC PUMP 1B		1	ALIGNED BY 1-OI-69
6D	MG SET 1EN NORMAL FEEDER FOR 480V REACTOR MOV BD 1E	CLOSED/ CONNECTED(1)	1	____/____
7A	1-BKR-047-0011 TURNING GEAR OIL PUMP		1	ALIGNED BY OI-47B
7B	STANDBY LIQUID CONTROL PUMP 1B		1	ALIGNED BY 1-OI-63
7C	FUEL POOL COOLING PUMP 1B		1	ALIGNED BY 1-OI-78
8C	EMERGENCY FEEDER BREAKER FROM XFMR TS1E	CONNECTED AND OPEN	0	____/____

(1) Closed if MG set in service, circle position selected.

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TITLE: 480V/240V AC ELECTRICAL SYSTEM

UNIT 0

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480V/240V AC ELECTRICAL SYSTEM
UNIT 1 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 1

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 1A Control Bay - Electric Board Room 1A - El 621', R-1R (1-45E751 -1 & 2)				
1A	SHUTDOWN BOARD ROOMS EXHAUST FAN 1A		0	ALIGNED BY 0-OI-31
1B1	PRIMARY ISOLATION BKR FEEDING COMPT 7A TO XFR SW ALT FDR FOR SCBA AIR COMP	ON	0	____/____
1B2	PRIMARY ISOLATION BKR FEEDING COMPT 2B TURB BLDG EMER LTG XFMR	ON	0	____/____
1D	TURBINE BEARING LIFT PUMPS ASSEMBLY A		1	ALIGNED BY OI-47B
2B	SECONDARY BKR FEEDING TURB BLDG EMER LTG XFMR FED FROM COMPT 1B2	ON	0	____/____
2C	RHR OUTBOARD VALVE FCV-74-52		1	ALIGNED BY 1-OI-74
3D	NORMAL SUPPLY BREAKER 52-N	CLOSED	0	____/____
4A	RHR PUMP 1A COOLER FAN		1	ALIGNED BY 1-OI-74
4B	RHR PUMP 1A SUCTION VALVE FCV-74-1		1	ALIGNED BY 1-OI-74
4D	RHR HEAT EXCHANGER A SERV WATER DISCHARGE VALVE FCV-23-34		1	ALIGNED BY 0-OI-23
4E	SPARE			

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480V/240V AC ELECTRICAL SYSTEM
UNIT 1 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 1

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
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480V Reactor MOV Board 1A
Control Bay - Electric Board Room 1A - El 621', R-1R
(1-45E751 - 1 & 2)

5A	DRYWELL EQUIPMENT DRAIN SUMP PUMP 1A		1	ALIGNED BY 0-OI-77A
5B	RHR PUMP 1C SUCTION VALVE FCV-74-12		1	ALIGNED BY 1-OI-74
5D	RHR HEAT EXCHANGER C SERV WATER DISCHARGE VALVE FCV-23-40		1	ALIGNED BY 0-OI-23
5E	SPARE			
6A	CORE SPRAY NW ROOM COOLER FAN		1	ALIGNED BY OI-75
6B	RHR CONTAINMENT SPRAY VALVE FCV-74-60		1	ALIGNED BY 1-OI-74
6C	RHR SHUTDOWN COOLING SUCTION VALVE FCV-74-2		1	ALIGNED BY 1-OI-74
6E	RHR DISCHARGE TO MAIN CONDENSER VALVE FCV-74-62		1	ALIGNED BY 1-OI-74
7A	SECONDARY BKR FEEDING XFR SW ALT FDR FOR SCBA AIR COMP FED FROM COMPT 1B1	ON	0	____/____
7B	RHR CONTAINMENT SPRAY VALVE FCV-74-61		1	ALIGNED BY 1-OI-74
7C	RHR SHUTDOWN COOLING SUCTION VALVE FCV-74-13		1	ALIGNED BY 1-OI-74
7E	RHR SYSTEM 1 FLUSH VALVE FCV-74-104		1	ALIGNED BY 1-OI-74



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480V/240V AC ELECTRICAL SYSTEM
UNIT 1 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 1

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
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480V Reactor MOV Board 1A
Control Bay - Electric Board Room 1A - El 621', R-1R
(1-45E751 - 1 & 2)

8A	SPARE			
8B	DRYWELL FLOOR DRAIN SUMP PUMP 1A		1	ALIGNED BY 0-OI-77B
8C	RHR SHUTDOWN COOLING SUCTION ISOLATION VALVE FCV-74-48		1	ALIGNED BY 1-OI-74
8E	PIGGY BACK MOTOR MAIN TURB TURNING GEAR		1	ALIGNED BY OI-47
9A	1-BKR-031-7205 SHUTDOWN BOARD ROOM ACU/1A		0	ALIGNED BY 0-OI-31
9B1	PRIMARY CONTAINMENT PURGE AIR FILTER		1	ALIGNED BY OI-64
9B2	FUEL POOL FILTER DEMIN OUTBOARD ISOLATION VALVE FCV-78-64		1	ALIGNED BY 1-OI-78
9D	FUEL POOL FILTER DEMIN BYPASS VALVE FCV-78-65		1	ALIGNED BY 1-OI-78
9E	FUEL POOL FILTER DEMIN OUTBOARD ISOLATION VALVE FCV-75-67		1	ALIGNED BY 1-OI-78
10A	MAIN TURBINE TURNING GEAR TGM		1	ALIGNED BY OI-47
11A	SECONDARY BREAKER FEEDING RWCU DEMIN HOLDING PUMP 1A FED FROM COMPT 13D		1	ALIGNED BY 1-OI-69
11B	CORE SPRAY PUMP 1A SUCTION VALVE FCV-75-2		1	ALIGNED BY OI-75

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480V/240V AC ELECTRICAL SYSTEM
UNIT 1 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 1

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 1A Control Bay - Electric Board Room 1A - El 621', R-1R (1-45E751 - 1 & 2)				
11C	0-BKR-023-0081A RHRSW COMPT A SUMP PUMP A		0	ALIGNED BY 1-OI-23
11D	0-BKR-023-0083A RHRSW COMPT C SUMP PUMP A		0	ALIGNED BY 1-OI-23
11E	RHR PRESSURE SUPPRESSION CHAMBER ISOLATION VALVE FCV-74-57		1	ALIGNED BY 1-OI-74
12A	STANDBY LIQUID CONTROL TRACE HEATING NORMAL CKT & PUMP 1A MOTOR HEATER		1	ALIGNED BY 1-OI-63
12B	CORE SPRAY PUMP 1C SUCTION VALVE FCV-75-11		1	ALIGNED BY OI-75
12C	0-BKR-067-0017 EECW NORTH HDR SECT VLV FCV-67-17		0	ALIGNED BY 0-OI-67
12E	RHR PRESSURE SUPPRESSION CHAMBER SPRAY VALVE FCV-74-58		1	ALIGNED BY 1-OI-74
13A	PRIMARY ISOLATION BKR FEEDING COMPT 18C RPS MG SET 1A		1	ALIGNED BY 1-OI-99
13B	CORE SPRAY OUTBOARD VALVE FCV-75-23		1	ALIGNED BY OI-75
13C	DRYWELL CONTROL AIR COMPRESSOR .1A & DRYER 1A		1	ALIGNED BY 1-OI-32A



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480V/240V AC ELECTRICAL SYSTEM
UNIT 1 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 1

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 1A Control Bay - Electric Board Room 1A - El 621', R-1R (1-45E751 - 1 & 2)				
13D	PRIMARY ISOLATION BKR FEEDING COMPT 11A RWCU DEMIN HOLDING PUMP 1A		1	ALIGNED BY 1-OI-69
13E	FUEL POOL MAKEUP FROM RHR OUTBOARD VALVE FCV-78-62		1	ALIGNED BY 1-OI-78
14A	RHR PUMP 1C COOLER FAN		1	ALIGNED BY 1-OI-74
14B	CORE SPRAY INBOARD VALVE FCV-75-25		1	ALIGNED BY OI-75
14C	0-BKR-031-7214 CREVS FILTRATION UNIT A		1	ALIGNED BY 0-OI-31
14D	AUXILIARY PRESSURIZATION FAN A		1	ALIGNED BY 0-OI-31
14E	CORE SPRAY SYSTEM 1 MIN FLOW BYPASS VALVE FCV-75-9		1	ALIGNED BY OI-75
15D	EMERGENCY SUPPLY BREAKER 52-E	CONNECTED AND OPEN	0	_____/____
16A	CORE SPRAY TEST VALVE FCV-75-22		1	ALIGNED BY OI-75
16B	REACTOR BUILDING EMERG LIGHTING TRANS	ON	1	_____/____
16C1	BATTERY CHARGER SB-A		0	ALIGNED BY 0-OI-57D
16E	REACTOR WATER CLEAN-UP SYSTEM ISOLATION VALVE FCV-69-1		1	ALIGNED BY 1-OI-69



TITLE: 480V/240V AC ELECTRICAL SYSTEM

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UNIT 0

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480V/240V AC ELECTRICAL SYSTEM
UNIT 1 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 1

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 1A Control Bay - Electric Board Room 1A - El 621', R-1R (1-45E751 - 1 & 2)				
17A	DRYWELL BLOWER 1A-3		1	ALIGNED BY 1-OI-70
17C	MAIN STEAM LINE DRAIN VALVE FCV-1-55		1	ALIGNED BY OI-1
17E	HPCI STEAM SUPPLY LINE ISOLATION VALVE FCV-73-2		1	ALIGNED BY OI-73
18A	DRYWELL BLOWER 1B-3		1	ALIGNED BY 1-OI-70
18C	SECONDARY BKR FEEDING RPS MG SET 1A FED FROM COMPT 13A		1	ALIGNED BY 1-OI-99
18E	RAW SERVICE WATER HEAD TANK ISOLATION VALVE FCV-25-70		0	ALIGNED BY 0-OI-25

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TITLE: 480V/240V AC ELECTRICAL SYSTEM

UNIT 0
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480V/240V AC ELECTRICAL SYSTEM
UNIT 1 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 1

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 1A Control Bay - Electric Board Room 1A - El 621', R-1R (1-45E751 - 1 & 2)				
18A	DRYWELL BLOWER 1B-3		1	(2) ALIGNED BY 1-OI-70
R9A	250V SHUTDOWN BD BATTERY ROOM EXHAUST FAN 1A		0	ALIGNED BY 0-OI-31
R9B	250V SHUTDOWN BD BATTERY ROOM SUPPLY FAN 1A		0	ALIGNED BY 0-OI-31
R9D1	250V SHUTDOWN BD BATTERY ROOM DUCT HEATER		0	ALIGNED BY 0-OI-31
R9D2	RCIC/HPCI TURBINE EXHAUST VACUUM RELIEF VALVE FCV-71-59		1	ALIGNED BY 1-OI-71
R10F	PRIMARY CONTAINMENT ATMOSPHERIC MON SYS ANALYZER SAMPLE RETURN PUMP		1	ALIGNED BY OI-76

(2) This breaker shall remain OPEN per DCN T37517A.

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TITLE: 480V/240V AC ELECTRICAL SYSTEM

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UNIT 0
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480V/240V AC ELECTRICAL SYSTEM
UNIT 1 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 1

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 1B Control Bay - Electric Board Room 1B - El 593', R-1R (1-45E751 - 3 & 4)				
1A	DRYWELL FLOOR DRAIN SUMP PUMP 1B		1	ALIGNED BY 0-OI-77B
1B	REACTOR BLDG FLOOR DRAIN SUMP PUMP 1B		1	ALIGNED BY 0-OI-77B
1C	1-BKR-074-0098 RHR PUMP B SUCTION CROSSTIE VALVE FCV-74-98 (MO-10-180)		1	ALIGNED BY 1-OI-74
1E	CORE SPRAY TEST VALVE FCV-75-50 (MO-14-26B)		1	ALIGNED BY OI-75
2D	NORMAL SUPPLY BREAKER	CLOSED	0	____/____
3A	RHR OUTBOARD VALVE FCV-74-66 (MO 10-154B)		1	ALIGNED BY 1-OI-74
3F	RHR SW COMPT A SUMP PUMP B		0	ALIGNED BY 0-OI-23
4A	DRYWELL BLOWER 1A-4		1	(2) ALIGNED BY 1-OI-70
4C	RHR PUMP 1B SUCTION VALVE FCV-74-24 (MO 10-13B)		1	ALIGNED BY 1-OI-74
4E	CORE SPRAY SYSTEM 2 MINIMUM FLOW BYPASS VALVE FCV-75-37 (MO 14-68B)		1	ALIGNED BY OI-75
5A	SECONDARY BKR FEEDING CCW SECT VLV FCV-70-48 FED FROM COMPT 13C2		1	ALIGNED BY 1-OI-70

(2) This breaker shall remain OPEN per DCN T37517A.

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TITLE: 480V/240V AC ELECTRICAL SYSTEM

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UNIT 0
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480V/240V AC ELECTRICAL SYSTEM
UNIT 1 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 1

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
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480V Reactor MOV Board 1B
Control Bay - Electric Board Room 1B - El 593', R-1R
(1-45E751 - 3 & 4)

5C2	RHR PUMP 1D SUCTION VALVE FCV-74-35 (MO 10-13D)		1	ALIGNED BY 1-OI-74
5E	CORE SPRAY PUMP 1B SUCTION VALVE FCV-75-30 (MO 14-7B)		1	(2) ALIGNED BY OI-75
6A	CLOSED COOLING WATER ISOL VALVE FCV-70-47 (MO 50-87)		1	(2) ALIGNED BY 1-OI-70
6C1	ANNUNCIATOR BATTERY CHARGER 1A		0	ALIGNED BY 0-OI-57D
6C2	RHR SHUTDOWN COOLING SUCTION VALVE FCV-74-25 (MO 10-15B)		1	ALIGNED BY 1-OI-74
6E	CORE SPRAY PUMP 1D SUCTION VALVE FCV-75-39 (MO 14-7D)		1	ALIGNED BY OI-75
7A	SECONDARY BKR FEEDING PRESS SUPPR CHBR WTR PMP 1B FED FROM COMPT 13C3		1	ALIGNED BY OI-75
7B	RHR PUMP 1B COOLER FAN		1	ALIGNED BY 1-OI-74
7C	RHR SHUTDOWN COOLING SUCTION VALVE FCV-74-36 (MO 10-15D)		1	ALIGNED BY 1-OI-74
7E	CORE SPRAY INBOARD VALVE FCV-75-53 (MO 14-12B)		1	ALIGNED BY OI-75
8A	HPCI BYPASS VALVE FCV-73-81		1	ALIGNED BY OI-73

(2) This breaker shall remain OPEN per DCN T37517A.

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UNIT 1 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 1

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 1B Control Bay - Electric Board Room 1B - El 593', R-1R (1-45E751 - 3 & 4)				
8B	CORE SPRAY NE ROOM COOLER FAN		1	ALIGNED BY OI-75
8C	RHR DISCHARGE TIE VALVE FCV-74-46 (MO 10-20)		1	ALIGNED BY 1-OI-74
8E	CORE SPRAY OUTBOARD VALVE FCV-75-51 (MO 51-17B)		1	ALIGNED BY OI-75
9A	FUEL POOL MAKEUP FROM RHR THROTTLING INBOARD VALVE FCV-78-61		1	ALIGNED BY 1-OI-78
9B	FUEL POOL FILTER DEMIN INBOARD ISOLATION VALVE FCV-78-63		1	ALIGNED BY 1-OI-78
9D	FUEL POOL FILTER DEMIN BYPASS VALVE FCV-78-66		1	ALIGNED BY 1-OI-78
9E	FUEL POOL FILTER DEMIN INBOARD ISOLATION VALVE FCV-78-68		1	ALIGNED BY 1-OI-78
10C	RHR CONTAINMENT SPRAY VALVE FCV-74-74 (MO 10-26B)		1	ALIGNED BY 1-OI-74
10E	RHR CONTAINMENT SPRAY VALVE FCV-74-75 (MO 10-31B)		1	ALIGNED BY 1-OI-74
11A	DRYWELL CONTROL AIR COMPRESSOR 1B & DRYER 1B		1	ALIGNED BY 1-OI-32A
11B1	1-BKR-268-01B/11B1 SPARE			
11B2	1-BKR-268-01B/11B2 SPARE			
11C	RHR PSC ISOLATION VALVE FCV-74-71 (MO-10-39B)		1	ALIGNED BY 1-OI-74



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UNIT 1 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 1

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
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480V Reactor MOV Board 1B
Control Bay - Electric Board Room 1B - El 593', R-1R
(1-45E751 - 3 & 4)

11E	RHR PSC SPRAY VALVE FCV-74-72 (MO 10-38B)			1 ALIGNED BY 1-OI-74
12B	RHR PUMP 1D COOLER FAN		1	ALIGNED BY 1-OI-74
12E	RHR DISCHARGE TO RADWASTE VALVE FCV-74-63 (MO 10-57)		1	ALIGNED BY 1-OI-74
13A	RCIC STEAM SUPPLY ISOLATION VALVE FCV-71-2 (MO 13-15)		1	ALIGNED BY 1-OI-71
13C1	REACTOR BLDG EMERG LTG XFMR 1Ø 480 TO 520 - 236/118V	ON	1	____/____
13C2	PRIMARY ISOLATION BKR FEEDING COMPT 5A CCW SECT VLV FCV-70-48		1	ALIGNED BY 1-OI-70
13C3	PRIMARY ISOLATION BKR FEEDING COMPT 7A PRESS SUPPR CHBR WTR PMP 1B		1	ALIGNED BY OI-75
13D1	1-BKR-031-7206 SHUTDOWN BOARDROOM ACU/1B		0	ALIGNED BY 0-OI-31
13E	RHR SYSTEM II FLUSH VALVE FCV-74-106 (MO-106)		1	ALIGNED BY 1-OI-74

0-OI-57B



TITLE: 480V/240V AC ELECTRICAL SYSTEM

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UNIT 0
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ATTACHMENT 3D
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480V/240V AC ELECTRICAL SYSTEM
UNIT 1 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 1

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 1B Control Bay - Electric Board Room 1B - El 593', R-1R (1-45E751 - 3 & 4)				
14A	0-BKR-067-0018 EECW SOUTH HDR SECT VLV FCV-67-18		0	ALIGNED BY 0-OI-67
14C1	REACTOR PROTECTION SYS MG SET 1B		1	ALIGNED BY 1-OI-99
14C2	RHR HEAT EXCHANGER B SERVICE WTR DISCHARGE VALVE FCV-23-46 (MO 10-89B)		1	ALIGNED BY 0-OI-23
15A	DRYWELL BLOWER 1B-4		1	(2) ALIGNED BY 1-OI-70
15C	RHR HEAT EXCHANGER D SERVICE WTR DISCHARGE VALVE FCV-23-52 (MO 10-89D)		1	ALIGNED BY 0-OI-23
15E	0-BKR-023-0083B RHRSW COMPT C SUMP PUMP B		0	ALIGNED BY 0-OI-23
16D	EMERGENCY SUPPLY BREAKER	CONNECTED AND OPEN	1	____/____

(2) This breaker shall remain OPEN per DCN T37517A.

0-OI-57B



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480V/240V AC ELECTRICAL SYSTEM
UNIT 1 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 1

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
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480V Reactor MOV Board 1B
Control Bay - Electric Board Room 1B - El 593', R-1R
(1-45E751 - 3 & 4)

17A	BOARD ROOMS EMERGENCY SUPPLY FAN 1B		0	ALIGNED BY 0-OI-31
17B1	BATTERY CHARGER SB-C		0	ALIGNED BY 0-OI-57D
17B2	STANDBY LIQUID CONTROL TRACE HEATING ALT CIRCUIT & PUMP 1B MOTOR HEATER		1	ALIGNED BY 1-OI-63
17C	1-BKR-023-0057 STANDBY COOLANT VALVE (MO 10-169)		1	ALIGNED BY 0-OI-23 AND 1-OI-74
17E	REACTOR WATER CLEANUP SYSTEM ISOLATION VALVE FCV-69-12 (MO 12-68)		1	ALIGNED BY 1-OI-69
18A	DRYWELL EQUIPMENT DRAIN SUMP PUMP 1B		1	ALIGNED BY 0-OI-77A
18B	REACTOR BLDG EQUIPMENT DRAIN SUMP PUMP 1B		1	ALIGNED BY 0-OI-77A
18D	REACTOR WATER CLEANUP DEMINERALIZER HOLDING PUMP 1B		1	ALIGNED BY 1-OI-69
18E1	1-BKR-268-01B/18E1 SPARE			
18E2	TURBINE BEARING LIFT PUMPS ASSEMBLY B		1	ALIGNED BY OI-47B

TITLE: 480V/240V AC ELECTRICAL SYSTEM

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UNIT 0
0-OI-57B
ATTACHMENT 3D
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480V/240V AC ELECTRICAL SYSTEM
UNIT 1 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 1

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 1B Control Bay - Electric Board Room 1B - El 593', R-1R (1-45E751 - 3 & 4)				
19A	2-BKR-074-0100 RHR HEAT EXCHANGER DISCHARGE CROSSTIE VALVE FCV-74-100 (MO 10-171)		2	ALIGNED BY 2-OI-74
19C	1-BKR-074-0101 RHR HEAT EXCHANGER B & D DISCHARGE CROSSTIE VALVE FCV-74-101		1	ALIGNED BY 1-OI-74
19E	2-BKR-074-0096 RHR PUMP A SUCTION CROSSTIE VALVE FCV-74-96		2	ALIGNED BY 2-OI-74
R9A	SECONDARY BKR FEEDING 250V SD BD BAT RM EXH FAN 1B FED FROM COMPT R9D1		0	ALIGNED BY 0-OI-31
R9B	SECONDARY BKR FEEDING 250V SD BD BAT RM SUPPLY FAN 1B FED FROM COMPT R9D2		0	ALIGNED BY 0-OI-31
R9D1	PRIMARY ISOLATION BKR FEEDING COMPT R9A 250V SD BAT RM EXH FAN 1B		0	ALIGNED BY 0-OI-31
R9D2	PRIMARY ISOLATION BKR FEEDING COMPT R9B 250V SD BAT RM SUPPLY FAN 1B		0	ALIGNED BY 0-OI-31
R10F	PRI CONTAINMENT ATMOSPHERIC MONITOR SYSTEM ANALYZER SAMPLE RETURN PUMP		1	ALIGNED BY OI-76

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TITLE: 480V/240V AC ELECTRICAL SYSTEM

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UNIT 0
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ATTACHMENT 3D
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480V/240V AC ELECTRICAL SYSTEM
UNIT 1 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 1

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 1C Reactor Bldg - El 565', R-2T (1-45E751 - 5 & 6)				
1A	DRYWELL BLOWER 1A-5		1	ALIGNED BY 1-OI-70
1C	EQUIPMENT HANDLING PLATFORM OUTLETS	OFF/ON (2)	1	____/____
1D	RECIRCULATION M-G SET OIL PUMP 1B-3		1	ALIGNED BY OI-68
2D	EMERGENCY FDR BKR	CONNECTED AND OPEN	1	____/____
3A	CONTAINMENT ATMOSPHERE DILUTION SYSTEM A HEATER		0	ALIGNED BY 2-OI-84
3B	CRD DRIVE WATER TRANSFER VALVE FCV-85-8A		1	ALIGNED BY OI-85
3C	CRD RETURN LINE ISOLATION VALVE FCV-85-50		1	ALIGNED BY OI-85
3E	CRD WATER PRESSURE CONTROL VALVE PCV-85-23		1	ALIGNED BY OI-85
4A	RBCCW SEAL WATER COLLECTION AND TRANSFER PUMP		1	ALIGNED BY 1-OI-70
4B	REACTOR BUILDING EQUIPMENT DRAIN SUMP PUMP 1A		1	ALIGNED BY 0-OI-77A
4E	CRD COOLING WATER PRESS CONT VALVE PCV-85-27		1	ALIGNED BY OI-85

(2) This breaker shall remain OPEN per DCN T37517A.

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480V/240V AC ELECTRICAL SYSTEM
UNIT 1 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 1

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 1C Reactor Bldg - El 565', R-2T (1-45E751 - 5 & 6)				
5B	BUS HT EXCH ALT CIR & HYD. COOL W SHUTOFF MOV FCV-24-25		1	ALIGNED BY 1-OI-24
5C	CLOSED COOLING WATER SPARE PUMP SUCTION VALVE A FCV-70-13		0	ALIGNED BY 2-OI-70
5E	CRD PUMP SUCTION SHUTOFF VALVE FCV-85-56		1	ALIGNED BY OI-85
6B	STATOR LIQUID COOLING W SHUTOFF MOV FCV-24-41		1	ALIGNED BY 1-OI-24
6C	CLOSED COOLING WATER SPARE PUMP DISCH. VALVE A FCV-70-14		0	ALIGNED BY 2-OI-70
6E	MAIN STEAM LINE DRAIN VALVE FCV-1-58		1	ALIGNED BY OI-1
7A	REAC. BLDG. FLOOR DR SUMP PUMP 1A		1	ALIGNED BY 0-OI-77A
7B	PRECOOL LIQ COOLING W. SHUTOFF MOV FCV-24-57		1	ALIGNED BY 1-OI-24
7C	REAC W. CLEAN-UP BLOWDOWN VALVE FCV-69-16		1	ALIGNED BY 1-OI-69
7E	RWCU FILTER AND DEMIN SYSTEM BYPASS VALVE FCV-69-8		1	ALIGNED BY 1-OI-69

TITLE: 480V/240V AC ELECTRICAL SYSTEM

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UNIT 0
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ATTACHMENT 3D
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480V/240V AC ELECTRICAL SYSTEM
UNIT-1 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 1

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 1C Reactor Bldg - El 565', R-2T (1-45E751 - 5 & 6)				
8B	TURBINE OIL & EHC FLUID COOL W. SHUTOFF MOV FCV-24-65		1	ALIGNED BY 1-OI-24
8C	REAC W. CLEAN-UP DR. TO RADWASTE V. FCV-69-17		1	ALIGNED BY 1-OI-69
8E	REAC W. CLEAN-UP RESTRICTING ORF BYP FCV-69-14		1	ALIGNED BY 1-OI-69
9B	MAIN STEAM LINE DRAIN VALVE FCV-1-57		1	ALIGNED BY OI-1
9E	MAIN ST. LINE DRAIN TO COND INLET VALVE FCV-1-59		1	ALIGNED BY OI-1
10D	NORMAL FEEDER BREAKER	CLOSED	1	____/____
11A	DRYWELL BLOWER 1B-5		1	(2) ALIGNED BY 1-OI-70
11C	PSC WATER HEAD TANK PUMP 1A		1	ALIGNED BY OI-75
R6B	RECIRC HDR EQ FCV-68-33		1	ALIGNED BY OI-68
R6E	RECIRC PUMP 1B SUCTION VALVE FCV-68-77		1	(2) ALIGNED BY OI-68
R7B	EMER MAINT FEED TO 480V REAC MOV BD 1D (TEMPORARY)	CONNECTED AND OPEN	1	____/____

(2) This breaker shall remain OPEN per DCN T37517A.

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480V/240V AC ELECTRICAL SYSTEM
UNIT-1 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 1

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 1C Reactor Bldg - El 565', R-2T (1-45E751 - 5 & 6)				
R8A	1-BKR-068-0001 RECIRCULATION PUMP 1A SUCTION VALVE FCV-68-1		1	ALIGNED BY OI-68
RSE	RECIRCULATION HEADER EQUALIZER VALVE FCV-68-35		1	ALIGNED BY OI-68
R9B	EMER MAINT FEED TO 480V REAC MOV BD 1E (TEMPORARY)	CONNECTED AND OPEN	1	____/____

480V Reactor MOV Board 1D
Reactor Bldg - El 593', R-T4
(1-45E751 - 7)

1D	NORMAL SUPPLY BREAKER	CLOSED	1	____/____
2C	RHR INBOARD VALVE (FCV-74-53)		1	ALIGNED BY 1-OI-74
3E	RECIRCULATION PUMP 1B DISCH VALVE FCV-68-79		1	ALIGNED BY OI-68
4D	EMERGENCY SUPPLY BREAKER	CONNECTED AND OPEN	1	____/____
5A	TEMPORARY EMER MAINT FEEDER BREAKER	CONNECTED AND OPEN	1	____/____
5C	RHR TEST VALVE FCV-74-59		1	ALIGNED BY 1-OI-74
5E	RHR PUMPS A & C MIN FLOW BYP. V. FCV-74-7		1	ALIGNED BY 1-OI-74



TITLE: 480V/240V AC ELECTRICAL SYSTEM

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480V/240V AC ELECTRICAL SYSTEM
UNIT 1 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 1

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 1E Reactor Bldg - El 621', R-S3 (1-45E751-10)				
1D	NORMAL SUPPLY CIRCUIT MAIN CIRCUIT BREAKER	CLOSED	1	____/____
2C	RHR INBOARD VALVE (FCV-74-67)		1	(2) ALIGNED BY 1-OI-74
3E	RECIRCULATION PUMP 1A DISCH. VALVE (FCV-68-3)		1	(2) ALIGNED BY OI-68
4A	TEMPORARY EMER MAINT FEEDER BREAKER	CONNECTED AND OPEN	1	____/____
4C	RHR TEST VALVE (FCV-74-73)		1	ALIGNED BY 1-OI-74
4E	RHR PUMPS B & D MIN. FLOW BYP V (FCV-74-30)		1	ALIGNED BY 1-OI-74
5D	EMERGENCY SUPPLY CIRCUIT MAIN CIRCUIT BREAKER	CONNECTED AND OPEN	1	____/____

(2) This breaker shall remain OPEN per DCN T37517A.



UNIT 2 480V AC BOARDS



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480V/240V AC ELECTRICAL SYSTEM
UNIT 2 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 2

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
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480V Shutdown Board Transformer TS2A and TS2B
Reactor Building - El 621'
(2-45E749 - 3 & 4)

TS2A FAN SELECTOR SWITCH	AUTO	2	____/____
TS2A CONTROL POWER SELECTOR SWITCH	ON	2	____/____
TS2B FAN SELECTOR SWITCH	AUTO	2	____/____
TS2B CONTROL POWER SELECTOR SWITCH	ON	2	____/____



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480V/240V AC ELECTRICAL SYSTEM
UNIT 2 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 2

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Shutdown Board 2A Control Bay - Div I, Electric Board Room 2A - E1 621' (2-45E749 - 3)				
1C	NORMAL FEEDER BREAKER FROM XFMR TS2A	CLOSED	0	___/___
2B	INSTRUMENT & CONTROL BUS A TRANSFORMER T1C2A	CLOSED	0	___/___
2C	DRYWELL BLOWER 2A-1		2	ALIGNED BY 2-OI-70
2D	DRYWELL BLOWER 2A-2		2	ALIGNED BY 2-OI-70
3A	NORMAL FEEDER 480V REACTOR MOV BOARD 2A	CLOSED	0	___/___
3B	EMERGENCY FEEDER 480V REACTOR MOV BOARD 2B	OPEN (2)	0	___/___
3C	EMERGENCY FEEDER 480V REACTOR MOV BOARD 2C	OPEN (2)	0	___/___
5A	CONTROL & SERVICE AIR COMPRESSOR D		0	ALIGNED BY 0-OI-32
5B	2-BKR-231-0002A/5B MG SET 2DN NORM FEEDER FOR 480V RMOV BD 2D	CLOSED/ CONNECTED (1)	2	___/___
5C	RECIRCULATION MG SET OIL PUMP 2A-1		2	ALIGNED BY 2-OI-68
5D	RECIRCULATION MG SET OIL PUMP 2B-1		2	ALIGNED BY 2-OI-68

(1) Closed if MG set in service, circle position selected.

(2) This breaker shall remain OPEN for Appendix R requirements DCN T37517.

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480V/240V AC ELECTRICAL SYSTEM
UNIT 2 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 2

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials - 1st/IV
<hr/>				
480V Shutdown Board 2A Control Bay - Div I, Electric Board Room 2A - El 621' (2-45E749 - 3)				
<hr/>				
6A	MG SET 2EA EMERGENCY FEEDER FOR 480V REACTOR MOV BD 2E	CLOSED/ CONNECTED(1)	2	____/____
6B	CLOSED COOLING WATER PUMP 2A		2	ALIGNED BY 2-OI-70
6C	REACTOR WATER CLEANUP RECIRCULATING PUMP 2A		2	ALIGNED BY 2-OI-69
6D	2-BKR-248-0002A/6D 250V BATTERY CHARGER 2A		0	ALIGNED BY 0-OI-57D
7A	3-BKR-031-1943A CONTROL BAY WATER CHILLER 3A		0	ALIGNED BY 0-OI-31
7B	2-BKR-063-0006A 2A SLC PUMP MOTOR BREAKER		2	ALIGNED BY 2-OI-63
7C	FUEL POOL COOLING PUMP 2A		2	ALIGNED BY 2-OI-78
7D	UNIT PREFERRED MG SET 2	CLOSED	2	____/____
8C	EMERGENCY FEEDER BREAKER FROM XFMR TS2E	CONNECTED AND OPEN	0	____/____

(1) Closed if MG set in service, circle position selected.

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480V/240V AC ELECTRICAL SYSTEM
UNIT 2 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 2

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Shutdown Board 2B Control Bay - Div II, Electric Board Room 2B - El 621' (2-45E749 - 4)				
1C	NORMAL FEEDER BREAKER FROM XFMR TS2B	CLOSED	0	____/____
2A	MG SET 2EN NORMAL FEEDER FOR 480V REACTOR MOV BD 2E	CLOSED/ CONNECTED(1)	2	____/____
2B	EMERGENCY FEEDER 480V CONDENSATE DEMINERALIZER BOARD 2	CLOSED	2	____/____
2C	DRYWELL BLOWER 2B-1		2	ALIGNED BY 2-OI-70
2D	DRYWELL BLOWER 2B-2		2	ALIGNED BY 2-OI-70
3A	EMERGENCY FEEDER 480V REACTOR MOV BOARD 2A	OPEN(2)	0	____/____
3B	NORMAL FEEDER 480V REACTOR MOV BOARD 2B	CLOSED	0	____/____
3C	NORMAL FEEDER 480V REACTOR MOV BOARD 2C	CLOSED	0	____/____
5A	CONTROL BAY WATER CHILLER B		0	ALIGNED BY 0-OI-31
5B	INSTRUMENT AND CONTROL BUS B TRANSFORMER TIC 2B	CLOSED	0	____/____
5C	RECIRCULATION MG SET OIL PUMP 2A-2		2	ALIGNED BY 2-OI-68

(1) Closed if MG set in service, circle position selected.

(2) This breaker shall remain OPEN for Appendix R requirements DCN T37517.



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480V/240V AC ELECTRICAL SYSTEM
UNIT 2 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 2

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
<hr/>				
480V Shutdown Board 2B				
Control Bay - Div II, Electric Board Room 2B - El 621'				
(2-45E749 - 4)				
<hr/>				
5D	RECIRCULATION MG SET OIL PUMP 2B-2		2	ALIGNED BY 2-OI-68
6A	RAW COOLING WATER BOOSTER PUMP 2A		2	ALIGNED BY 2-OI-24
6B	CLOSED COOLING WATER PUMP 2B		2	ALIGNED BY 2-OI-70
6C	REACTOR WATER CLEANUP RECIRCULATION PUMP 2B		2	ALIGNED BY 2-OI-69
6D	2-BKR-248-0002B/6D 250V BATTERY CHARGER 2B		0	ALIGNED BY 0-OI-57D
7A	MAIN TURBINE TURNING GEAR OIL PUMP		2	ALIGNED BY 2-OI-47B
7B	2-BKR-063-0006B 2B SLC PUMP MOTOR BREAKER		2	ALIGNED BY 2-OI-63
7C	FUEL POOL COOLING PUMP 2B		2	ALIGNED BY 2-OI-78
7D	MG SET 2DA EMERGENCY FEEDER FOR 480V REACTOR MOV BD 2D	CLOSED/ CONNECTED(1)	2	____/____
8C	EMERGENCY FEEDER BREAKER FROM XFMR TS2E	CONNECTED AND OPEN	0	____/____

(1) Closed if MG set in service, circle position selected.



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480V/240V AC ELECTRICAL SYSTEM
UNIT 2 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 2

				Date _____
Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 2A Control Bay - Div I, Electric Board Room 2A - El 621', R-14R (2-45E751 - 1 & 2)				
1A	SHUTDOWN BOARD ROOMS EXHAUST FAN 2A		0	ALIGNED BY 0-OI-31
1B	2-BKR-031-7205 SD BD RM ACU/A EL 604 SD BD RM C & D		0	ALIGNED BY 0-OI-31
1D	SECONDARY BKR FEEDING TURB BRG LIFT PUMPS ASSY A FED FROM COMPT 19C4		2	ALIGNED BY 2-OI-47B
2B	2-BKR-074-0052 RHR OUTBOARD VALVE FCV-74-52		2	ALIGNED BY 2-OI-74
3D	2-BKR-268-002A/03D NORMAL FEEDER BREAKER FROM 480V SHUTDOWN BOARD 2A	CLOSED	0	____/____
4A	2-BKR-064-0068 RHR PUMP 2A COOLER FAN		2	ALIGNED BY 2-OI-74
4B	FUEL POOL MAKE UP FROM RHR OUTBOARD VALVE (FCV-78-62)		2	ALIGNED BY 2-OI-78
4C	2-BKR-074-0001 RHR PUMP 2A SUCTION VALVE FCV-74-1		2	ALIGNED BY 2-OI-74
4E	DRYWELL EQUIPMENT DRAIN SUMP PUMP 2A		2	ALIGNED BY 0-OI-77A
5A2	BATTERY CHARGER SB-B		0	ALIGNED BY 0-OI-57D
5B	RHR LOOP I MODE SELECTOR SWITCH FOR 2-FCV-74-1, 12 AND 48		2	ALIGNED BY 2-OI-74



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480V/240V AC ELECTRICAL SYSTEM
UNIT 2 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 2

				Date _____
Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 2A Control Bay - Div I, Electric Board Room 2A - El 621', R-14R (2-45E751 - 1 & 2)				
5C	2-BKR-074-0012 RHR PUMP 2C SUCTION VALVE FCV-74-12		2	ALIGNED BY 2-OI-74
5E	DRYWELL FLOOR DRAIN SUMP PUMP 2A		2	ALIGNED BY 0-OI-77B
6A	2-BKR-064-0072 CORE SPRAY NW ROOM COOLER FAN		2	ALIGNED BY 2-OI-75
6C	2-BKR-074-0002 RHR SHUTDOWN COOLING SUCTION VALVE FCV-74-2		2	ALIGNED BY 2-OI-74
6E	2-BKR-074-0062B SECONDARY BKR FEEDING RHR DISCH TO MAIN CNDR VLV FCV-64-62 FED FROM COMPT 19C3		2	ALIGNED BY 2-OI-74
7A	SECONDARY BKR FEEDING TURBINE BLDG EMER LTG XFMR FED FROM COMPT 19C1	ON	0	____/____
7B	DRYWELL CONTROL AIR COMPRESSOR 2A AND DRYER 2A		2	ALIGNED BY 2-OI-32A
7C	2-BKR-074-0013 RHR SHUTDOWN COOLING SUCTION VALVE FCV-74-13		2	ALIGNED BY 2-OI-74
7E	2-BKR-074-0104 RESIDUAL HEAT REMOVAL SYSTEM I FLUSH VALVE FCV-74-104		2	ALIGNED BY 2-OI-74
8C	2-BKR-074-0048 RHR SHUTDOWN COOLING SUCTION ISOLATION VALVE FCV-74-48		2	ALIGNED BY 2-OI-74
8E	PIGGY BACK MOTOR MAIN TURBINE TURNING GEAR		2	ALIGNED BY 2-OI-47



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480V/240V AC ELECTRICAL SYSTEM
UNIT 2 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 2

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
<hr/>				
480V Reactor MOV Board 2A Control Bay -Div I, Electric Board Room 2A - El 621', R-14R (2-45E751 - 1 & 2)				
<hr/>				
9A	2-BKR-047-0010A PRIMARY ISOLATION BKR FEEDING COMPT 10A MAIN TURB TURNING GEAR MOTOR		2	ALIGNED BY 2-OI-47
9B1	2-BKR-064-0131 PRIMARY CONTAINMENT PURGE AIR FILTER FAN		2	ALIGNED BY 2-OI-64
9B2	FUEL POOL FILTER DEMIN OUTBOARD ISOLATION VALVE (FCV-78-64)		2	ALIGNED BY 2-OI-78
9D	FUEL POOL FILTER DEMIN BYPASS VALVE (FCV-78-65)		2	ALIGNED BY 2-OI-78
9E	FUEL POOL FILTER DEMIN OUTBOARD ISOLATION VALVE (FCV-78-67)		2	ALIGNED BY 2-OI-78
10A	SECONDARY BKR FEEDING MAIN TURB TURNING GEAR MOTOR FED FROM COMPT 9A		2	ALIGNED BY 2-OI-47
11A	REACTOR WATER CLEANUP DEMIN HOLDING PUMP 2A		2	ALIGNED BY 2-OI-69
11B	2-BKR-075-0002 CS PUMP 2A SUPPR POOL SUCT VALVE BREAKER (GE-14-7A)		2	ALIGNED BY 2-OI-75
11C	2-BKR-074-0057 RHR PSC ISOLATION VALVE FCV-74-57		2	ALIGNED BY 2-OI-74
11E	2-BKR-074-0061 RHR CONTAINMENT SPRAY VALVE FCV-74-61		2	ALIGNED BY 2-OI-74



2. 3. 4.

5. 6. 7.



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480V/240V AC ELECTRICAL SYSTEM
UNIT 2 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 2

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 2A Control Bay - Div I, Electric Board Room 2A - E1 621', R-14R (2-45E751 - 1 & 2)				
12A	2-BKR-063-0005A 2A SLC PUMP MOTOR HEATER & SUCTION LINE TRACE HEATER BREAKER		2	ALIGNED BY 2-OI-63
12B	2-BKR-075-0011 CORE SPRAY PUMP 2C SUCTION VALVE FCV-75-11		2	ALIGNED BY 2-OI-75
12C	0-BKR-067-067-0021 EECW NORTH HDR UNIT 2 SECT VLV FCV-67-21		0	ALIGNED BY 0-OI-67
12E	2-BKR-074-0058 RHR PSC SPRAY VALVE FCV-74-58		2	ALIGNED BY 2-OI-74
13A	2-BKR-099-0002A REACTOR PROTECTION SYSTEM MG SET 2A		2	ALIGNED BY 2-OI-99
13B	2-BKR-075-0023 CS SYSTEM I OUTBD INJ VALVE BREAKER (GE-14-11A)		2	ALIGNED BY 2-OI-75
13C	2-BKR-074-0060 RHR CONTAINMENT SPRAY VALVE FCV-74-60		2	ALIGNED BY 2-OI-74
14A	2-BKR-064-0070 RHR PUMP 2C COOLER FAN		2	ALIGNED BY 2-OI-74
14B	2-BKR-075-0025 CORE SPRAY I INBOARD VALVE FCV-75-25		2	ALIGNED BY 2-OI-75
14E	2-BKR-075-0009 CS SYSTEM I MIN FLOW VALVE BREAKER (GE-14-68A)		2	ALIGNED BY 2-OI-75
15D	2-BKR-268-002A/15D EMERGENCY FEEDER BREAKER FROM 480V SHUTDOWN BOARD 2B	CONNECTED AND OPEN	0	____/____

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480V/240V AC ELECTRICAL SYSTEM
UNIT 2 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 2

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 2A Control Bay - Div I, Electric Board Room 2A - El 621', R-14R (2-45E751 - 1 & 2)				
16A	MAIN STEAM LINE DRAIN VALVE (FCV-1-55)		2	ALIGNED BY 2-OI-1
16C1	SECONDARY BKR FEEDING REAC BLDG EMERG LTG XFMR FED FROM COMPT 19C2	ON	2	____/____
16E	REACTOR WATER CLEANUP SYSTEM ISOLATION VALVE (FCV-69-1)		2	ALIGNED BY 2-OI-69
17A	DRYWELL BLOWER 2A-3		2	ALIGNED BY 2-OI-70
17C	2-BKR-023-0034 RHR HEAT EXCHANGER 2A SERVICE WATER DISCHARGE VALVE (FCV-23-34)		2	ALIGNED BY 0-OI-23
17E	HPCI STEAM SUPPLY LINE ISOLATION VALVE (FCV-73-2)		2	ALIGNED BY 2-OI-73
18A	DRYWELL BLOWER 2A-4		2	ALIGNED BY 2-OI-70
18C	2-BKR-023-0040 RHR HEAT EXCHANGER 2C SERVICE WATER DISCHARGE VALVE (FCV-23-40)		2	ALIGNED BY 0-OI-23
18E	2-BKR-075-0022 CS SYSTEM I TEST VALVE BREAKER (GE-14-26A)		2	ALIGNED BY 2-OI-75
19A	2-BKR-071-0059 RCIC TURB EXH SUPPR CHBR VAC RELIEF VALVE BREAKER		2	ALIGNED BY 2-OI-71
19C1	PRIMARY ISOLATION BKR FEEDING COMPT 7A TURB BLDG EMERG LTG XFMR	ON	0	____/____



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480V/240V AC ELECTRICAL SYSTEM
UNIT 2 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 2

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
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480V Reactor MOV Board 2A
Control Bay - Dtv I, Electric Board Room 2A - El 621', R-14R
(2-45E751 - 1 & 2)

19C2	PRIMARY ISOLATION BKR FEEDING COMPT 16C1 REAC BLDG EMER LTG XFMR	ON	2	_____/____
19C3	2-BKR-074-0062 PRIMARY ISOLATION BREAKER FOR RHR DISCH TO MAIN CNDR FCV-74-62		2	ALIGNED BY 2-OI-74
19C4	PRIMARY ISOLATION BKR FEEDING COMPT 1D TURB BRG LIFT PUMPS ASSY A		2	ALIGNED BY 2-OI-47B
19C5	2-BKR-074-0059 RHR SYSTEM I TEST VLV 2-FCV-074-0059		2	ALIGNED BY 2-OI-74
R9A	0-BKR-023-0082A RHRSW COMPT B SUMP PUMP A		0	ALIGNED BY 0-OI-23
R9B	0-BKR-023-0084A RHRSW COMPT D SUMP PUMP A		0	ALIGNED BY 0-OI-23
R9C1	250V SHTDN BD BATTERY ROOM DUCT HEATER		0	ALIGNED BY 0-OI-31
R9C2	2-BKR-031-0163A 250V SD BD BATTERY ROOM EXHAUST FAN 2A		0	ALIGNED BY 0-OI-31
R9E	250V SHTDN BD BATTERY ROOM SUPPLY FAN 2A		0	ALIGNED BY 0-OI-31
R10F	2-BKR-076-0049 PRI CONTAINMENT ATMOSPHERIC MON SYS ANALYZER SAMPLE RETURN PUMP		2	ALIGNED BY 2-OI-76



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480V/240V AC ELECTRICAL SYSTEM
UNIT 2 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 2

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 2B Control Bay -Div II, Electric Board Room 2B - El 593', R-14R (2-45E751 - 3 & 4)				
1A	DRYWELL FLOOR DRAIN SUMP PUMP 2B		2	ALIGNED BY 0-OI-77B
1B	REACTOR BLDG FLOOR DRAIN SUMP PUMP 2B		2	ALIGNED BY 0-OI-77B
1C	2-BKR-071-0002 RCIC STM LINE INBD ISOL VALVE BREAKER (GE-13-15)		2	ALIGNED BY 2-OI-71
1E	2-BKR-075-0050 CS SYSTEM II TEST VALVE BREAKER (GE-14-26B)		2	ALIGNED BY 2-OI-75
2D	2-BKR-268-002B/02D NORMAL FEEDER BREAKER FROM 480V SHUTDOWN BD 2B	CLOSED	0	____/____
3A	2-BKR-074-0066 RHR OUTBOARD VALVE FCV-74-66		2	ALIGNED BY 2-OI-74
3E	2-BKR-075-0039 CS PUMP 2D SUPPR POOL SUCT VALVE BREAKER (GE-11-7D)		2	ALIGNED BY 2-OI-75
4A	DRYWELL BLOWER 2B-3		2	ALIGNED BY 2-OI-70
4C	BATTERY CHARGER SB-D		0	ALIGNED BY 0-OI-57D
4D	2-BKR-075-0030 CS PUMP 2B SUPPR POOL SUCT VALVE BREAKER (GE-14-7B)		2	ALIGNED BY 2-OI-75
4E	2-BKR-075-0037 CS SYSTEM II MIN FLOW VALVE BREAKER (GE-14-68B)		2	ALIGNED BY 2-OI-75

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480V/240V AC ELECTRICAL SYSTEM
UNIT 2 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 2

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 2B Control Bay - Div II, Electric Board Room 2B - El 593', R-14R (2-45E751 - 3 & 4)				
5A,	2-BKR-070-0048 CLOSED COOLING WATER SECTIONALIZING VALVE FCV-70-48		2	ALIGNED BY 2-OI-70
5C1	2-BKR-252-002B/5C1 UNIT PREFERRED AC REGULATING TRANSFORMER TUP-2	ON	2	_____/____
5E	2-BKR-074-0024 RHR PUMP 2B SUCTION VALVE FCV-74-24		2	ALIGNED BY 2-OI-74
6A	2-BKR-070-0047 CLOSED COOLING WATER ISOLATION VALVE FCV-70-47		2	ALIGNED BY 2-OI-70
6C1	2-BKR-251-002B/6C1 ANNUNCIATOR BATTERY CHARGER SPARE		0	ALIGNED BY 0-OI-57D
6C2	2-BKR-074-0025 RHR SHUTDOWN COOLING SUCTION VALVE FCV-74-25		2	ALIGNED BY 2-OI-74
6E	2-BKR-074-0035 RHR PUMP 2D SUCTION VALVE FCV-74-35		2	ALIGNED BY 2-OI-74

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480V/240V AC ELECTRICAL SYSTEM
UNIT 2 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 2

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 2B Control Bay - Div II, Electric Board Room 2B - El 593', R-14R (2-45E751 - 3 & 4)				
7A	2-BKR-074-0063 RHR DISCHARGE TO RADWASTE VALVE FCV-74-63		2	ALIGNED BY 2-OI-74
7B	2-BKR-064-0069 RHR PUMP 2B COOLER FAN		2	ALIGNED BY 2-OI-74
7C	2-BKR-074-0036 RHR SHUTDOWN COOLING SUCTION VALVE FCV-74-36		2	ALIGNED BY 2-OI-74
7E	2-BKR-023-0046 RHR HEAT EXCHANGER 2B SERVICE WATER DISCHARGE VALVE (FCV-23-46)		2	ALIGNED BY 0-OI-23



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UNIT 2 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 2

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
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480V Reactor MOV Board 2B
Control Bay - Div II, Electric Board Room 2B - El 593', R-14R
(2-45E751 - 3 & 4)

8A1	SDBR ACU/B EL 604.0 SDBR C&D		0	ALIGNED BY 0-OI-31
8A2	PRIMARY ISOLATION BKR FEEDING COMPT 11b RWCU DEMIN HOLDING PMP 2B		2	ALIGNED BY 2-OI-69
8B	2-BKR-064-0073 CORE SPRAY NE ROOM COOLER FAN		2	ALIGNED BY 2-OI-75
8C	2-BKR-074-0046 RHR DISCHARGE TIE VALVE FCV-74-46		2	ALIGNED BY 2-OI-74
8E	2-BKR-023-0052 RHR HEAT EXCHANGER 2D SERVICE WATER DISCHARGE VALVE (FCV-23-52)		2	ALIGNED BY 0-OI-23
9A	2-BKR-063-005B 2B SLC PUMP MOTOR HEATER & SUCTION LINE TRACE HEATER BREAKER		2	ALIGNED BY 2-OI-63
9B2	FUEL POOL FILTER DEMIN INBOARD ISOLATION VALVE (FCV-78-63)		2	ALIGNED BY 2-OI-78
9D	FUEL POOL FILTER DEMIN BYPASS VALVE (FCV-78-66)		2	ALIGNED BY 2-OI-78
9E	FUEL POOL FILTER DEMIN INBOARD ISOLATION VALVE (FCV-78-68)		2	ALIGNED BY 2-OI-78
10B	FUTURE			



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UNIT 2 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 2

			Date	
Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 2B Control Bay - Div II, Electric Board Room 2B - El 593', R-14R (3-45E751 - 3 & 4)				
10C	0-BKR-023-0082B RHRSW PUMP COMPT B SUMP PUMP B		0	ALIGNED BY 0-OI-23
10D	0-BKR-023-0084B RHRSW PUMP COMPT D SUMP PUMP B		0	ALIGNED BY 0-OI-23
10E	2-BKR-074-0075 RHR CONTAINMENT SPRAY VALVE FCV-74-75		2	ALIGNED BY 2-OI-74
11A	DRYWELL CONTROL AIR COMPRESSOR 2B & DRYER 2B		2	ALIGNED BY 2-OI-32A
11B	SECONDARY BKR FEEDING RWCU DEMIN HOLDING PMP 2B FED FROM COMPT 8A2		2	ALIGNED BY 2-OI-69
11C	RHR LOOP II MODE SELECTOR SWITCH FOR 2-FCV-74-24 & 35		2	ALIGNED BY 2-OI-74
11D	2-BKR-075-0076 PSC WATER HEAD TANK PUMP 2B MOTOR BREAKER		2	ALIGNED BY 2-OI-75
11E	2-BKR-074-0074 RHR PSC SPRAY VALVE FCV-74-72		2	ALIGNED BY 2-OI-74
12A	2-BKR-074-0106 RHR SYSTEM II FLUSH VALVE FCV-74-106		2	ALIGNED BY 2-OI-74
12B	2BKR-064-0071 RHR PUMP 2D COOLER FAN		2	ALIGNED BY 2-OI-74
13A	HPCI TURBINE EXHAUST RELIEF VALVE (FCV-73-64)		2	ALIGNED BY 2-OI-73
13C1	REACTOR BLDG EMERG LTG XFMR	ON	1	____/____
13C2	2-BKR-074-0073 RHR SYSTEM II TEST VLV FCV-74-73		2	ALIGNED BY 2-OI-74



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 480V/240V AC ELECTRICAL SYSTEM
 UNIT 2 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
 ELECTRICAL LINEUP CHECKLIST
 UNIT 2

				Date
Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 2B Control Bay - Div II, Electric Board Room 2B - El 593', R-14R (2-45E751 - 3 & 4)				
13E	2-BKR-074-0071 RHR PSC ISOLATION VALVE FCV-74-71		2	ALIGNED BY 2-OI-74
14A	0-BKR-067-0022 EECW SOUTH HDR UNIT 2 SECT VLV FCV-67-22		0	ALIGNED BY 0-OI-67
14C1	2-BKR-099-0002B ALIGNED BY REACTOR PROTECTION SYSTEM MG SET2B		2	2-OI-99
14D	2-BKR-078-0061 FUEL POOL MAKEUP FROM RHR INBOARD VALVE FCV-78-61		2	ALIGNED BY 2-OI-78
14E	2-BKR-074-0074 RHR CONTAINMENT SPRAY VALVE FCV-74-74		2	ALIGNED BY 2-OI-74
15A	DRYWELL BLOWER 2B-4		2	ALIGNED BY 2-OI-70
15C	0-BKR-076-0011 CONTAINMENT INERTING SYSTEM MAKEUP VAPORIZER POWER OUTLETS & VACUUM PUMP		2	ALIGNED BY 2-OI-76
15D	2-BKR-075-0051 CS SYSTEM II OUTBD INJ VALVE BREAKER (GE-14-11B)		2	ALIGNED BY 2-OI-75
15E	2-BKR-075-0053 CORE SPRAY II INBD VALVE FCV-75-53		2	ALIGNED BY 2-OI-75
16D	2-BKR-268-002B/16D EMERGENCY FEEDER BREAKER FROM 480V SHUTDOWN BD 2A	CONNECTED AND OPEN	2	____/____
17A	0-BKR-268-002B/17A SPARE			

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UNIT 2 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 2

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 2B Control Bay - Div II, Electric Board Room 2B - El 593', R-14R (2-45E751 - 3 & 4)				
17B	REACTOR WATER CLEANUP SYSTEM ISOLATION VALVE (FCV-69-12)		2	ALIGNED BY 2-OI-69
17D	2-BKR-074-0098 RHR PUMP B SUCTION CROSSTIE VALVE FCV-74-98		2	ALIGNED BY 2-OI-74
17E	1-BKR-074-0099 RHR PUMP D SUCTION CROSSTIE VALVE FCV-74-99		1	ALIGNED BY 1-OI-74
18A	DRYWELL EQUIPMENT DRAIN SUMP PUMP 2B		2	ALIGNED BY 0-OI-77A
18B	REACTOR BLDG EQUIPMENT DRAIN SUMP PUMP 2B		2	ALIGNED BY 2-OI-77A
18D	HPCI BYPASS VALVE (FCV-73-81)		2	ALIGNED BY 2-OI-73
18E	TURBINE BEARING ASSY B LIFT PUMPS 7&10 (2B1) AND 8&9 (2B2)		2	ALIGNED BY 2-OI-47B
19A	3-BKR-074-0096 RHR PUMP A SUCTION XTIE (TO U-2) VLV FCV-74-96 (M010-182)		3	ALIGNED BY 3-OI-74
19C	2-BKR-074-0097 RHR PUMP C SUCTION CROSSTIE VALVE FCV-74-97		2	ALIGNED BY 2-OI-74

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UNIT 2 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 2

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
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480V Reactor MOV Board 2B
Control Bay - Div II, Electric Board Room 2B - El 593', R-14R
(2-45E751 - 3 & 4)

R9A	SECONDARY BKR FEEDING 250V SD BD BAT RM EXH FAN 2B FED FROM COMPT R9D1		0	ALIGNED BY 0-OI-31
R9B	2-BKR-031-0164BB SECONDARY BKR FEEDING 250V SD BD BAT RM SUPPLY FAN 2B FED FROM COMPT R9D2		0	ALIGNED BY 0-OI-31
R9D1	PRIMARY ISOLATION BKR FEEDING COMPT R9A 250V SD BD BAT RM EXH FAN 2B		0	ALIGNED BY 0-OI-31
R9D2	PRIMARY ISOLATION BKR FEEDING COMPT R9B 250V SD BD BAT RM SUPPLY FAN 2B		0	ALIGNED BY 0-OI-31
R10F	2-BKR-076-0059 CTMT ATM MON SYS ANALYZER SAMPLE RETURN PUMP		2	ALIGNED BY 2-OI-76



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UNIT 2 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 2

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 2C Reactor Bldg - El 565', R-13T (2-45E751 - 5 & 6)				
1A	DRYWELL BLOWER 2A-5		2	ALIGNED BY 2-OI-70
1C	2-BKR-111-002C/01C CRD TEST HOIST EQUIPMENT HANDLING PLATFORM OUTLETS	OFF(2)	2	____/____
1D	RECIRCULATION MG SET OIL PUMP 2A-3		2	ALIGNED BY 2-OI-68
2D	2-BKR-268-002C/02D EMERGENCY FEEDER BREAKER FROM 480V SHUTDOWN BD 2A	CONNECTED AND OPEN	2	____/____
3C	CRD RETURN LINE ISOLATION VALVE (FCV-85-50)		2	ALIGNED BY 2-OI-85
3E	CRD WATER PRESSURE CONTROL VALVE (PCV-85-23)		2	ALIGNED BY 2-OI-85
4A	RBCCW PUMP SEAL WATER COLLECTION AND TRANSFER PUMP		2	ALIGNED BY 2-OI-70
4B	REACTOR BLDG EQUIP DRAIN SUMP PUMP 2A		2	ALIGNED BY 0-OI-77A
4E	CRD COOLING WATER PRESSURE CONTROL VALVE (PCV-85-27)		2	ALIGNED BY 2-OI-85
5B	BUS HT EXC ALTERNATER CLR & H2 CLG WTR SHUTOFF MOV (FCV-24-25)		2	ALIGNED BY 2-OI-24
5C	CLOSED COOLING WATER SPARE PUMP SUCTION VALVE B (FCV-70-67)		0	ALIGNED BY 2-OI-70

(2) This breaker shall not be CLOSED unless Unit 2 is in cold shutdown (DCN T37517A).



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480V/240V AC ELECTRICAL SYSTEM
UNIT 2 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 2

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
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480V Reactor MOV Board 2C
Reactor Bldg - El 565', R-13T
(2-45E751 - 5 & 6)

5E	CRD PUMP 1A SUCTION ISOLATION SHUTOFF VALVE FCV-85-56		2	ALIGNED BY 2-OI-85
6B	STATOR LIQUID COOLING WATER SHUTOFF VALVE FCV-24-41		2	ALIGNED BY 2-OI-24
6C	CLOSED COOLING WATER SPARE PUMP DISCHARGE VALVE A (FCV-70-68)		0	ALIGNED BY 2-OI-70
6E	2-BKR-001-0058 MAIN STEAM LINE DRAIN VALVE FCV-1-58 (MO 2-79)		2	ALIGNED BY 2-OI-1
7A	REACTOR BLDG FLOOR DRAIN SUMP PUMP 2A		2	ALIGNED BY 0-OI-77B
7B	PRECOOLER LIQUID CLG SHUTOFF VALVE FCV-24-57		2	ALIGNED BY 2-OI-24
7C	REACTOR WATER CLEANUP BLOWDOWN VALVE (FCV-69-16)		2	ALIGNED BY 2-OI-69
7E	REACTOR WTR CLEANUP FLT & DEMIN SYSTEM BYPASS VLV (FCV-69-8)		2	ALIGNED BY 2-OI-69
8B	TURBINE OIL & EHC FLUID CLG WTR SHUTOFF VLV FCV-24-65		2	ALIGNED BY 2-OI-24
8C	REACTOR WATER CLEANUP DRAIN TO RADWASTE VALVE (FCV-69-17)		2	ALIGNED BY 2-OI-69
8E	REACTOR WATER CLEANUP RESTRICTING ORF BYPASS VALVE (PCV-69-14)		2	ALIGNED BY 2-OI-69 0-OI-57B



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 UNIT 2 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
 ELECTRICAL LINEUP CHECKLIST
 UNIT 2

				Date _____
Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 2C Reactor Bldg - El 565', R-13T (2-45E751 - 5 & 6)				
9B	2-BKR-001-0057 MAIN STEAM LINE DRAIN VALVE FCV-1-57 (MO 2-78)		2	ALIGNED BY 2-OI-1
9E	2-BKR-001-0059 MAIN STEAM LINE DRAIN VALVE CONDENSER INLET FCV-1-59		2	ALIGNED BY 2-OI-1
10D	2-BKR-268-002C/10D NORMAL FEEDER BREAKER FROM 480V SHUTDOWN BD 2B	CLOSED	2	____/____
11A	DRYWELL BLOWER 2B-5		2	ALIGNED BY 2-OI-70
11C	CRD DRIVE WATER TRANSFER VALVE (FCV-85-8B)		2	ALIGNED BY 2-OI-85
R6A	RECIRCULATION HEADER EQUALIZER VALVE (FCV-68-33)		2	ALIGNED BY 2-OI-68
R6E	RECIRCULATION PUMP 2B SUCTION VALVE (FCV-68-77)		2	ALIGNED BY 2-OI-68
R7B	2-BKR-268-002C/R7B TEMP EMER MAINTENANCE FEED TO 480V RMOV BD 2D	OFF	2	____/____
R8B	RECIRCULATION PUMP 2A SUCTION VALVE (FCV-68-1)		2	ALIGNED BY 2-OI-68
R8E	RECIRCULATION HEADER EQUALIZER VALVE (FCV-68-35)		2	ALIGNED BY 2-OI-68
R9B	2-BKR-268-002C/R9B TEMP EMER MAINTENANCE FEED TO 480V RMOV BD 2E	OFF	2	____/____
R11A	2-BKR-075-0075 PSC WATER HEAD TANK PUMP 2A MOTOR BREAKER		2	ALIGNED BY 2-OI-75

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UNIT 2 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 2

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 2D, Div - I Reactor Bldg - El 593', R-T11 (2-45E751 - 8)				
1D	2-BKR-268-002D/01D NORMAL FEEDER BREAKER FROM MG SET 2DN	CLOSED	2	____/____
2C	2-BKR-074-0053 RHR SYS I INBD INJECTION VLV FCV-74-53		2	ALIGNED BY 2-OI-74
3E	RECIRCULATION PUMP 2B DISCHARGE VALVE (FCV-68-79)		2	ALIGNED BY 2-OI-68
4D	2-BKR-268-002D/04D EMERGENCY SUPPLY BREAKER FROM MG SET 2DA	CONNECTED AND OPEN	2	____/____
5A	2-BKR-268-002D/05A EMER MAINTENANCE FEED FOR 480V RMOV BD 2D	OFF	2	____/____
5C	FUTURE			
5E	2-BKR-074-0007 RHR SYSTEM I MINIMUM FLOW VLV		2	ALIGNED BY 2-OI-74

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UNIT 2 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 2

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 2E, Div - II Reactor Bldg - E1 621', R-U8 (2-45E751 - 11)				
1D	2-BKR-268-002E/01D NORMAL SUPPLY BREAKER FROM MG SET 2EN	CLOSED	2	____/____
2C	2-BKR-074-0067 RHR SYS II INBD INJECTION VLV FCV-74-67		2	ALIGNED BY 2-OI-74
3E	RECIRCULATION PUMP 2A DISCHARGE VALVE (FCV-68-3)		2	ALIGNED BY 2-OI-68
4A	2-BKR-268-002E/04A EMER MAINTENANCE FEED FOR 480V RMOV BD 2E	OFF	2	____/____
4C	2-BKR-26B-0002E/4C SPARE			
4E	2-BKR-074-0030 RHR SYS II MINIMUM FLOW VLV		2	ALIGNED BY 2-OI-74
5D	2-BKR-268-002E/05D EMERGENCY SUPPLY BREAKER FROM MG SET 2EA	CONNECTED AND OPEN	2	____/____



UNIT 3 480V AC BOARDS

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480V/240V AC ELECTRICAL SYSTEM
UNIT 3 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 3

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Shutdown Bd 3A Control Bay - Div I - El 621', R-20R (3-45E749 - 5)				
1C	NORMAL FEEDER FROM 4KV S/D BD 3EA	CLOSED	0	___/___
2B	3-BKR-231-0003A/2B INSTRUMENT & CONTROL BUS A TRANSFORMER TIC 3A	CLOSED	0	___/___
2C	3-BKR-070-0081 DRYWELL BLOWER 3A-1		3	ALIGNED BY 3-OI-70
2D	3-BKR-070-0082 DRYWELL BLOWER 3A-2		3	ALIGNED BY 3-OI-70
3A	NORMAL FEEDER 480V REAC MOV BD 3A	CLOSED	0	___/___
3B	EMERGENCY FEEDER 480V REAC MOV BD 3B	OPEN (2)	0	___/___
3C	EMERGENCY FEEDER 480V REAC MOV BD 3C	OPEN (2)	0	___/___
5A	NORMAL FEEDER 480V DIESEL AUXILIARY BOARD 3EA EMERGENCY FEEDER 480V DIESEL AUX BOARD 3EB	CLOSED	0	___/___
5B	MG SET 3DN FOR NORM FDR 480V REAC MOV BD 3D	CLOSED/(1) CONNECTED	3	___/___

(1) Closed if MG set in service, circle position selected.

(2) This breaker shall remain OPEN for Appendix R requirements DCN T37517.



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480V/240V AC ELECTRICAL SYSTEM
UNIT 3 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 3

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Shutdown Bd 3A Control Bay - Div I - El 621', R-20R (45N749 - 5)				
5C	3-BKR-096-0017 RECIRCULATION MG SET OIL PUMP 3A-1		3	ALIGNED BY 3-OI-68
5D	3-BKR-098-0018 RECIRCULATION MG SET OIL PUMP 3B-1		3	ALIGNED BY 3-OI-68
6A	3-BKR-047-0011 TURNING GEAR OIL PUMP		3	ALIGNED BY 3-OI-47B
6B	3-BKR-070-0005 CLOSED COOLING WATER PUMP 3A		3	ALIGNED BY 3-OI-70
6C	3-BKR-069-0004A RWCU RECIRCULATION PUMP 3A		3	ALIGNED BY 3-OI-69
6D	3-BKR-248-0003A/6D 250V BATTERY CHARGER 3		0	ALIGNED BY 0-OI-57D
7A	MG SET 3EA FOR EMERG FDR 480V REAC MOV BD 3E	CLOSED/ CONNECTED (1)	3	____/____
7B	3-BKR-063-0006A 3A SLC PUMP MOTOR BREAKER		3	ALIGNED BY 3-OI-63
7C	3-BKR-078-0010 FUEL POOL COOLING PUMP 3A		3	ALIGNED BY 3-OI-78
7D	UNIT PREFERRED MG SET 3	CLOSED	3	____/____
8C	EMERGENCY FEEDER FROM 4KV S/D BD 3EB	CONNECTED AND OPEN	0	____/____

(1) Closed, if MG set in service, circle position selected.

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UNIT 3 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 3

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Shutdown Bd 3B Control Bay - Div II - El 621', R-21R (3-45E749 - 6)				
1C	NORMAL FEEDER FROM 4KV SD BD 3EC	CLOSED	0	___/___
2A	MG SET 3EN FOR NORM FDR 480V REAC MOV BD 3E	CLOSED CONNECTED(1)	3	___/___
2B	EMERGENCY FEEDER 480V COND DEMIN BD 3	CLOSED	3	___/___
2C	3-BKR-070-0086 DRYWELL BLOWER 3B-1		3	ALIGNED BY 3-OI-70
2D	3-BKR-070-0087 DRYWELL BLOWER 3B-2		3	ALIGNED BY 3-OI-70
3A	EMERGENCY FEEDER 480V REAC MOV BD 3A	OPEN(2)	0	___/___
3B	3-BKR-231-0003B/3B NORMAL FEEDER 480V REAC MOV BD 3B	CLOSED	0	___/___
3C	3-BKR-231-0003B/3C NORMAL FEEDER 480V REAC MOV BD 3C	CLOSED	0	___/___
5A	3-BKR-231-003B/5A NOR FDR 480V DIESEL AUX BD 3EB EMER FDR 480V DIESEL AUX BD 3EA	CLOSED	0	___/___
5B	3-BKR-231-0003B/5B INSTRUMENT AND CONTROL BUS B TRANSFORMER TIC3B	CLOSED	3	___/___

(1) Close if MG set in service, circle position selected.

(2) This breaker shall remain OPEN for Appendix R requirements DCN T37517.



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480V/240V AC ELECTRICAL SYSTEM
UNIT 3 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 3

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Shutdown Bd 3B Control Bay - Div II - El 621', R-21R (3-45E749 - 6)				
5C	3-BKR-096-0019 RECIRCULATION MG SET OIL PUMP 3A-2			ALIGNED BY 3 3-OI-68
5D	3-BKR-096-0020 RECIRCULATION MG SET OIL PUMP 3B-2			ALIGNED BY 3 3-OI-68
6A	RAW COOLING WATER BOOSTER PUMP 3A		3	ALIGNED BY 3-OI-24
6B	3-BKR-070-0008 CLOSED COOLING WATER PUMP 3B		3	ALIGNED BY 3-OI-70
6C	3-BKR-069-0004B RWC RECIRCULATION PUMP 3B		3	ALIGNED BY 3-OI-69
6D	3-BKR-248-0003B/6D 250V BATTERY CHARGER 4		0	ALIGNED BY 0-OI-57D
7A	MG SET 3DA FOR EMER FDR 480V REAC MOV BD 3D	CLOSED/ CONNECTED(1)	3	____/____
7B	3-BKR-063-0006B 3B SLC PUMP MOTOR BREAKER		3	ALIGNED BY 3-OI-63
7C	3-BKR-078-0015 FUEL POOL COOLING PUMP 3B		3	ALIGNED BY 3-OI-78
7D	3-BKR-231-0003B/7D ALTERNATE FEEDER 480V HVAC BD B	OPEN(2)	0	____/____
8C	EMERGENCY FEEDER FROM XFMR TS3E	CONNECTED AND OPEN	0	____/____

(1) Closed if MG set in service, circle position selected.

(2) This breaker shall remain OPEN for Appendix R requirements DCN T37517.



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480V/240V AC ELECTRICAL SYSTEM
UNIT 3 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 3

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Shutdown MOV Bd 3A Control Bay - El 621', R-21Q (3-45E751 - 1 & 2)				
1A	SHUTDOWN BOARD ROOM EXHAUST FAN 3A		0	ALIGNED BY 0-OI-31
1D	3-BKR-047-0003A/1D TURB BRG LIFT PMPS 3&4, 2&5, 1&6		3	ALIGNED BY 3-OI-47B
2B	RHR OUTBOARD VALVE FCV-74-52 (M0 10-154A)		3	ALIGNED BY 3-OI-74
3D	NORMAL SUPPLY BREAKER	CLOSED	0	____/____
4A	3-BKR-064-0068 RHR PUMP 3A COOLER FAN		3	ALIGNED BY 3-OI-74
4B	3-BKR-078-0062 FUEL POOL MAKEUP FROM RHR OUTBD VLV FCV-78-62		3	ALIGNED BY 3-OI-78
4C	3-BKR-074-0001 RHR PUMP 3A SUCTION VALVE FCV-74-1 (M010-13A)		3	ALIGNED BY 3-OI-74
4E	DRYWELL EQUIPMENT DRAIN SUMP PUMP 3A		3	ALIGNED BY 0-OI-77A
5B	3-BKR-078-0067 FUEL POOL FILTER DEMIN OUTLET ISOL VLV FCV-78-67		3	ALIGNED BY 3-OI-78
5C	3-BKR-074-0012 RHR PUMP 3C SUCTION VALVE FCV-74-12 (M010-13C)		3	ALIGNED BY 3-OI-74
5E	DRYWELL FLOOR DRAIN SUMP PUMP 3A		3	ALIGNED BY 0-OI-77B

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UNIT 3 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 3

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 3A Control Bay - El 621', R-21Q (3-45E751 - 1 & 2)				
6A	3-BKR-064-0072 CORE SPRAY NW ROOM COOLER FAN		3	ALIGNED BY 3-OI-75
6B1	3-BKR-047-003A/6B1 PRIMARY ISOL BKR FEEDING COMPT 1D TURB BRG LIFT PUMPS ASSY A		3	ALIGNED BY 3-OI-47B
6C	3-BKR-074-0002 RHR SHUTDOWN COOLING SUCTION VALVE FCV-74-2 (M010-15A)		3	ALIGNED BY 3-OI-74
6E	3-BKR-074-0062 RHR DISCHARGE TO MAIN CONDENSER VALVE FCV-74-62 (M010-66)		3	ALIGNED BY 3-OI-74
7A	3-BKR-247-LS-359 TURBINE BLDG EMER LTG XFMR 1 PHASE 480 TO 520 - 236/118V	ON	0	____/____
7B	3-BKR-032-0064 DW CONT AIR COMPRESSOR 3A & DRYER 3A		3	ALIGNED BY 3-OI-32A
7C	3-BKR-074-0013 RHR SHUTDOWN COOLING SUCTION VALVE FCV-74-13 (M010-15C)		3	ALIGNED BY 3-OI-74
7E	3-BKR-074-0104 RHR SYSTEM I FLUSH VALVE FCV-74-104 (M010-104)		3	ALIGNED BY 3-OI-74



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480V/240V AC ELECTRICAL SYSTEM
UNIT 3 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 3

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 3A Control Bay - El 621', R-21Q (3-45E751 - 1 & 2)				
8A	PRIMARY ISOLATION BKR FEEDING COMPT 10A MAIN TURB TURNING GEAR MOTOR		3	ALIGNED BY 3-OI-47
8C	3-BKR-074-0048 RHR SHUTDOWN COOLING SUCT ISOL VLV FCV-74-48 (M010-18)		3	ALIGNED BY 3-OI-74
8E	PIGGY BACK MOTOR MAIN TURB TURNING GEAR		3	ALIGNED BY 3-OI-47
9A	3-BKR-031-7205 SHUTDOWN BD ROOM ACU/3A		0	ALIGNED BY 0-OI-31
9B	3-BKR-078-0065 FUEL POOL FILTER DEMIN BYPASS VLV B FCV-78-65		3	ALIGNED BY 3-OI-78
9C	3-BKR-078-0064 FUEL POOL FILTER DEMIN OUTBD ISOL VLV FCV-78-64		3	ALIGNED BY 3-OI-78
9E1	3-BKR-064-0131 PRIMARY CONTAINMENT PURGE AIR FILTER FAN		3	ALIGNED BY 3-OI-64



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480V/240V AC ELECTRICAL SYSTEM
UNIT 3 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 3

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
<hr/>				
480V Reactor MOV Board 3A Control Bay - El 621', R-21Q (3-45E751 - 1 & 2)				
<hr/>				
10A	3-BKR-047-0010 MAIN TURB TURN GEAR		3	ALIGNED BY 3-OI-47
11A	3-BKR-069-0035 RWCU DEMIN HOLDING PUMP 3A		3	ALIGNED BY 3-OI-69
11B	3-BKR-075-0002 CS PUMP 3A SUPPR POOL SUCT VALVE BREAKER (GE-14-7A)		3	ALIGNED BY 3-OI-75
11C	3-BKR-074-0057 RHR PSC ISOLATION VALVE FCV-74-57 (M010-39A)		3	ALIGNED BY 3-OI-74
11E	3-BKR-074-0061 RHR CONTAINMENT SPRAY VALVE FCV-74-61 (M010-31A)		3	ALIGNED BY 3-OI-74
12A	3-BKR-063-0005A SLC PUMP 3A TRACE HEAT AND MOTOR HEATER		3	ALIGNED BY 3-OI-63
12B	3-BKR-075-0011 CS PUMP 3C SUPPR POOL SUCT VALVE BREAKER (GE-14-7C)		3	ALIGNED BY 3-OI-75
12C	3-BKR-074-0059 RHR SYSTEM I TEST VLV FCV-74-59 (M010-34A)		3	ALIGNED BY 3-OI-74
12E	3-BKR-074-0058 RHR PSC SPRAY VALVE FCV-74-58 (M010-38A)		3	ALIGNED BY 3-OI-74



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UNIT 3 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 3

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
<hr/>				
480V Reactor MOV Board 3A Control Bay - El 621', R-21Q (3-45E751 - 1 & 2)				
<hr/>				
13A	3-BKR-099-0003A PRI ISOL BREAKER FEEDING COMPT 13E RPS MG SET 3A		3	ALIGNED BY 3-OI-99
13B	3-BKR-075-0023 CS SYSTEM I OUTBD INJ VALVE BREAKER (GE-14-11A)		3	ALIGNED BY 3-OI-75
13C	3-BKR-074-0060 RHR CONTAINMENT SPRAY VALVE FCV-74-60 (M010-26A)		3	ALIGNED BY 3-OI-74
13E	3-BKR-099-0003AA SEC BREAKER FEEDING RPS MG SET 3A FROM COMPT 13A		3	ALIGNED BY 3-OI-99
14A	3-BKR-064-0070 RHR PUMP 3C COOLER FAN		3	ALIGNED BY 3-OI-74
14B	3-BKR-075-0025 CS SYSTEM I INBD INJ VALVE BREAKER (GE-14-12A)		3	ALIGNED BY 3-OI-75
14C	0-BKR-067-0025 EECW NORTH HDR UNIT 3 SECT VLV FCV-67-25		3	ALIGNED BY 0-OI-67
14E	3-BKR-075-0009 CS SYSTEM I MIN FLOW VALVE BREAKER (GE-14-68A)		3	ALIGNED BY 3-OI-75



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480V/240V AC ELECTRICAL SYSTEM
UNIT 3 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 3

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
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480V Reactor MOV Board 3A
Control Bay - El 621', R-21Q
(3-45E751 - 1 & 2)

15D	EMERGENCY SUPPLY BKR	CONNECTED AND OPEN	0	____/____
16A	3-BKR-001-0055 MAIN STEAM LINE DRAIN VALVE FCV-1-55 (MO 2-74)		3	ALIGNED BY 3-OI-1
16C1	3-BKR-247-LS-304 REACTOR BLDG EMER LTG XFMR 480 TO 520 - 236/118V	ON	3	____/____
16E	3-BKR-069-0001 RWCU SYSTEM ISOL FCV-69-1		3	ALIGNED BY 3-OI-69
17A	3-BKR-070-0083 DRYWELL BLOWER 3A-3		3	ALIGNED BY 3-OI-70
17C	3-BKR-023-0034 RHR HEAT EXCHANGER A SERVICE WATER DISCHARGE VALVE FCV-23-34 (MO 10 89A)		3	ALIGNED BY 0-OI-23
17E	3-BKR-073-0002 HPCI STEAM SPLY LINE ISOL VALVE FCV-73-2		3	ALIGNED BY 3-OI-73



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480V/240V AC ELECTRICAL SYSTEM
UNIT 3 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 3

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 3A Control Bay - El 621', R-21Q (3-45E751 - 1 & 2)				
18A	3-BKR-070-0084 DRYWELL BLOWER 3A-4		3	ALIGNED BY 3-OI-70
18C	3-BKR-023-0040 RHR HX 3C SERVICE WTR DISCH FCV-23-40		3	ALIGNED BY 0-OI-23
18E	3-BKR-075-0022 CS SYSTEM I TEST VALVE BREAKER (GE-14-26A)		3	ALIGNED BY 3-OI-75
19A	3-BKR-071-0059 RCIC TURB EXH SUPPR CHBR VAC RELIEF VALVE BREAKER		3	ALIGNED BY 3-OI-71
R9A	3-BKR-031-0623 SDBR CHILLER 3A-1		3	ALIGNED BY 0-OI-31
R9B1	3-BKR-031-0635 SDBR CHILLER 3B-1		0	ALIGNED BY 0-OI-31
R9B2	DIVISION I DUCT HEATERS SHUTDOWN BOARD ROOMS UNIT 3		0	ALIGNED BY 0-OI-31
R9C	CHILLED WATER CIRC PUMP 3A-1 SHUTDOWN BOARD ROOMS UNIT 3		0	ALIGNED BY 0-OI-31
R9D	CHILLED WATER CIRC PUMP 3B-1 SHUTDOWN BOARD ROOMS UNIT 3		0	ALIGNED BY 0-OI-31
R9E	AIR HANDLING UNIT 3A-1 SHUTDOWN BOARD ROOMS UNIT 3		0	ALIGNED BY 0-OI-31
R9F	AIR HANDLING UNIT 3B-1 SHUTDOWN BOARD ROOMS UNIT 3		0	ALIGNED BY 0-OI-31
R10F	3-BKR-076-0049 PRI CONTAINMENT ATMOSPHERIC MONITOR SYSTEM ANALYZER SAMPLE RETURN PUMP		3	ALIGNED BY 3-OI-76

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480V/240V AC ELECTRICAL SYSTEM
UNIT 3 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 3

				Date
Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
<hr/> <p>480V Reactor MOV Board 3B Control Bay - El 593', R-20P (3-45E751 - 3 & 4)</p> <hr/>				
1A	DRYWELL FLOOR DRAIN SUMP PUMP 3B		3	ALIGNED BY 0-OI-77B
1B	REACTOR BLDG FLOOR DRAIN SUMP PUMP 3B		3	ALIGNED BY 0-OI-77B
1C	3-BKR-071-0002 RCIC STM LINE INBD ISOL VALVE BREAKER (GE-13-15)		3	ALIGNED BY 3-OI-71
1E	3-BKR-075-0050 CS SYSTEM II TEST VALVE BREAKER (GE-14-26B)		3	ALIGNED BY 3-OI-75
2D	NORMAL SUPPLY BREAKER	CLOSED	0	____/____
3A	3-BKR-074-0066 RHR OUTBOARD VALVE FCV-74-66 (M010-154B)		3	ALIGNED BY 3-OI-74
3E	3-BKR-075-0039 CS PUMP 3D SUPPR POOL SUCTION VALVE BREAKER (GE-14-7D)		3	ALIGNED BY 3-OI-75
4A	3-BKR-070-0088 DRYWELL BLOWER 3B-3		3	ALIGNED BY 3-OI-70
4C	CONTAINMENT ATMOSPHERIC DILUTION SYSTEM B HEATER		3	ALIGNED BY 2-OI-84
4D	3-BKR-075-0030 CS PUMP 3B SUPPR POOL SUCTION VALVE BREAKER (GE-14-7B)		3	ALIGNED BY 3-OI-75
4E	3-BKR-075-0037 CS SYSTEM II MIN FLOW VALVE BREAKER (GE-14-68B)		3	ALIGNED BY 3-OI-75
5A	3-BKR-070-0048 CLOSED COOLING WTR SECTIONALIZING VLV FCV-70-48		3	ALIGNED BY 3-OI-70



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480V/240V AC ELECTRICAL SYSTEM
UNIT 3 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 3

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
<hr/>				
480V Reactor MOV Board 3B Control Bay - El 593', R-20P (3-45E751 - 3 & 4)				
<hr/>				
5C1	RPS ALTERNATE POWER TRANSFORMER TRP-3		3	ALIGNED BY 3-OI-99
5C2	2-BKR-023-0057 UNITS 2 & 3 STANDBY COOLANT VALVE FCV-23-57 (MO 10-169)		3	ALIGNED BY 0-OI-23
5E	3-BKR-074-0024 RHR PUMP 3B SUCTION VALVE FCV-74-24 (M010-13B)		3	ALIGNED BY 3-OI-74
6A	3-BKR-070-0047 CLOSED COOLING WATER ISOLATION VALVE FCV-70-47		3	ALIGNED BY 3-OI-70
6C1	0-BKR-268-003B/6C1 ANNUNCIATOR BATTERY CHARGER B		0	ALIGNED BY 0-OI-57D
6C2	3-BKR-074-0025 RHR SHUTDOWN COOLING SUCTION VALVE FCV-74-25 (M010-15B)		3	ALIGNED BY 3-OI-74
6E	3-BKR-074-0035 RHR PUMP 3D SUCTION VALVE FCV-74-35 (M010-13D)		3	ALIGNED BY 3-OI-74
7A	3-BKR-074-0063 RHR DISCHARGE TO RADWASTE VALVE FCV-74-63 (M010-57)		3	ALIGNED BY 3-OI-74
7B	3-BKR-064-0069 RHR PUMP 3B COOLER FAN		3	ALIGNED BY 3-OI-74
7C	3-BKR-074-0036 RHR SHUTDOWN COOLING SUCTION VALVE FCV-74-36 (M010-15D)		3	ALIGNED BY 3-OI-74
7E	3-BKR-023-0046 RHR HX 3B SERVICE WTR DISCH FCV-23-46		3	ALIGNED BY 0-OI-23



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UNIT 0
0-OI-57B
ATTACHMENT 3F
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480V/240V AC ELECTRICAL SYSTEM
UNIT 3 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 3

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 3B Control Bay - El 599', R-20P (3-45E751 - 3 & 4)				
8B	3-BKR-064-0073 CORE SPRAY NE ROOM COOLER FAN		3	ALIGNED BY 3-OI-75
8C	3-BKR-074-0046 RHR DISCHARGE TIE VALVE FCV-74-46 (M010-20)		3	ALIGNED BY 3-OI-74
8E	3-BKR-023-0052 RHR HX 3D SERVICE WTR DISCH FCV-23-52		3	ALIGNED BY 0-OI-23
9A	3-BKR-063-0005B SLC PUMP 3B TRACE HEAT AND MOTOR HEATER		3	ALIGNED BY 3-OI-63
9B1	3-HS-074-0024C RHR VLV 3-FCV-74-24 APP R CONT CIRCUIT DISABLE HS		3	ALIGNED BY 3-OI-74
9B2	3-BKR-078-0063 FUEL POOL FILTER DEMIN INBD ISOL VLV FCV-78-63		3	ALIGNED BY 3-OI-78
9D	3-BKR-078-0066 FUEL POOL FILTER DEMIN BYPASS VLV A FCV-78-66		3	ALIGNED BY 3-OI-78
9E	3-BKR-078-0068 FUEL POOL FILTER DEMIN INBD ISOL VLV FCV-78-68		3	ALIGNED BY 3-OI-78

0-OI-57B



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UNIT 3

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
<hr/>				
480V Reactor MOV Board 3B Control Bay - El 599', R-20P (3-45E751 - 3 & 4)				
<hr/>				
10A	3-BKR-073-0081 HPCI STM LINE WARM UP VLV FCV-73-81		3	ALIGNED BY 3-OI-73
10B	3-BKR-031-7206 SHUTDOWN BD RM ACU/3B		0	ALIGNED BY 0-OI-31
10C	3-BKR-074-0073 RHR SYSTEM II TEST VLV FCV-74-73 (M010-34B)		ON	____/____
10E	3-BKR-074-0075 RHR CONTAINMENT SPRAY VALVE FCV-74-75 (MO-10-31B)		3	ALIGNED BY 3-OI-74
11A	3-BKR-032-0067 DW CONT AIR COMPRESSOR 3B & DRYER 3B		3	ALIGNED BY 3-OI-32A



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UNIT 3 480V SHUTDOWN BOARDS AND REACTOR MOV BOARDS
ELECTRICAL LINEUP CHECKLIST
UNIT 3

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 3B Control Bay - El 599', R-20P (3-45E751 - 3 & 4)				
11B	3-BKE-069-0060 SEC BKR FD RWCU DEMIN HLD PMP 3B FROM CMPT 11C		3	ALIGNED BY 3-OI-69
11C	3-BKR-069-0060/A PRI ISOL BKR FD CMPT 11B RWCU DEMIN HLD PMP 3B		3	ALIGNED BY 3-OI-69
11D	3-BKR-075-0076 PSC WATER HEAD TANK PUMP 3B MOTOR BREAKER		3	ALIGNED BY 3-OI-75
11E	3-BKR-074-0072 RHR PSC SPRAY VALVE FCV-74-72 (M010-38B)		3	ALIGNED BY 3-OI-74
12A	3-BKR-074-0106 RHR SYSTEM II FLUSH VALVE FCV-74-106 (M010-106)		3	ALIGNED BY 3-OI-74
12B	3-BKR-064-0071 RHR PUMP 3D COOLER FAN		3	ALIGNED BY 3-OI-74
13A	3-BKR-073-0064 HPCI TURB EXHAUST VACUUM RELIEF FCV-73-64		3	ALIGNED BY 3-OI-73
13C1	3-BKR-247-LS-300 REACTOR BLDG EMER LTG XFMR 1 PHASE 480 TO 520 - 263/118V	ON	3	_____/____
13C2	0-BKR-031-7213 CREVS FILTRATION UNIT B		0	ALIGNED BY 0-OI-31
13D	3-BKR-078-0061 FUEL POOL MAKEUP FROM RHR INBD VLV FCV-78-61		3	ALIGNED BY 3-OI-78
13E	3-BKR-074-0071 RHR PSC ISOLATION VALVE FCV-74-71 (M010-39B)		3	ALIGNED BY 3-OI-74

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ELECTRICAL LINEUP CHECKLIST
UNIT 3

Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 3B Control Bay - El 593', R-20P. (3-45E751 - 3 & 4)				
14A	0-BKR-067-0026 EECW SOUTH HDR UNIT 3 SECT VLV FCV-67-26			0 ALIGNED BY 0-OI-67
14C1	3-BKR-099-0003B PRI ISOL BREAKER FEEDING COMPT 14C2 RPS MG SET 3B			3 ALIGNED BY 3-OI-99
14C2	3-BKR-099-0003BA SECON BREAKER FEEDING RPS MG SET 3B FROM COMPT 14C1			3 ALIGNED BY 3-OI-99
15A	3-BKR-070-0089 DRYWELL BLOWER 3B-4			3 ALIGNED BY 3-OI-70
15D	3-BKR-075-0051 CS SYSTEM II OUTBD INJ VALVE BREAKER (GE-14-11B)			3 ALIGNED BY 3-OI-75
15E	3-BKR-075-0053 CS SYSTEM II INBD INJ VALVE BREAKER (GE-14-12B)			3 ALIGNED BY 3-OI-75
16D	EMERGENCY SUPPLY BREAKER		CONNECTED AND OPEN	3 _____/_____
17A	BD ROOMS EMERGENCY SUPPLY FAN 3B			0 ALIGNED BY 0-OI-31
17B	3-BKR-069-0012 RWCU ISOLATION VALVE FCV-69-12			3 ALIGNED BY 3-OI-69
17D	3-BKR-268-003B/17D UNIT PREFERRED TRANSFORMER TUP3		ON	3 _____/_____
17E	2-BKR-074-0099 RHR PUMP 2D SUCTION CROSSTIE VALVE FCV-74-99 (M010-181)			2 ALIGNED BY 2-OI-74

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Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
<hr/>				
480V Reactor MOV Board 3B				
Control Bay - El 599', R-20P				
(3-45E751 - 3 & 4)				
<hr/>				
18A	DRYWELL EQUIPMENT DRAIN SUMP PUMP 3B		3	ALIGNED BY 0-OI-77A
18B	REACTOR BUILDING EQUIPMENT DRAIN SUMP PUMP 3B		3	ALIGNED BY 0-OI-77A
18D	3-BKR-074-0074 RHR CONTAINMENT SPRAY VALVE FCV-74-74 (M010-26B)		3	ALIGNED BY 3-OI-74
1BE	3-BKR-047-003B/18E TURB BRG LIFT PUMPS 7&10, 8&9		3	ALIGNED BY 3-OI-47B
19A	3-BKR-074-0100 RHR HTX A-C DISCH XTIE (TO U-2) VLV FCV-74-100 (M010-171)		3	ALIGNED BY 3-OI-74
19C	3-BKR-074-0097 RHR PUMP C SUCTION XTIE (TO U-2) VALVE FCV-74-97 (M010-183)		3	ALIGNED BY 3-OI-74
19E	2-BKR-074-0101 RHR HEAT EXCHANGER B & D DISCHARGE CROSSTIE VALVE FCV-74-101 (MO 10-170)		2	ALIGNED BY 2-OI-74
R9A	3-BKR-031-0651 SDBR CHILLER 3A-2		0	ALIGNED BY 0-OI-31
R9B1	3-BKR-031-0667 SDBR CHILLER 3B-2		0	ALIGNED BY 0-OI-31
R9B2	DIVISION II DUCT HEATER SHUTDOWN BOARD ROOM U-3		0	ALIGNED BY 0-OI-31
R9C	CHILLED WATER CIRCULATION PUMP 3A-2 SHUTDOWN BOARD ROOM U-3		0	ALIGNED BY 0-OI-31



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Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
<hr/> 480V Reactor MOV Board 3B Control Bay - El 599', R-20P (3-45E751 - 3 & 4) <hr/>				
R9D	CHILLED WATER CIRCULATION PUMP 3B-2 SHUTDOWN BOARD ROOM U-3		0	ALIGNED BY 0-OI-31
R9E	AIR HANDLING UNIT 3A-2 SHUTDOWN BOARD ROOM U-3		0	ALIGNED BY 0-OI-31
R9F	AIR HANDLING UNIT 3B-2 SHUTDOWN BOARD ROOM U-3		0	ALIGNED BY 0-OI-31
R10F	3-BKR-076-0104D PRI CNTMT ATM MON SYS ANLZR SMPL RET PMP 3B		3	ALIGNED BY 3-OI-76

480V Reactor MOV Board 3C
Reactor Building - El 565', R-20S
(3-45E751 - 5 & 6)

1A	3-BKR-070-0085 DRYWELL BLOWER 3A-5		3	ALIGNED BY 3-OI-70
1C	CRD TEST HOIST EQUIPMENT HANDLING PLATFORM OUTLETS	OFF (2)	3	____/____
1D	3-BKR-096-0021 RECIRCULATION MG SET OIL PUMP 3A-3			ALIGNED BY 3-OI-68
2D	EMERGENCY SUPPLY BREAKER	OFF	3	____/____
3C	CRD RETURN LINE ISOLATION MOV FCV-85-50 (MO-3-109)		3	ALIGNED BY 3-OI-85

(2) This breaker shall not be closed unless Unit 3 is in cold shutdown
(DCN T37517A).



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Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 3C Reactor Building - El 565', R-20S (3-45E751 - 5 & 6)				
3E	CRD WATER PRESSURE CONTROL VALVE PCV-85-23 (MO-3-20)		3	ALIGNED BY 3-OI-85
4A	3-BKR-070-0091 RBCCW PUMP SEAL LEAKAGE TRANSFER PUMP		3	ALIGNED BY 3-OI-70
4B	REACTOR BUILDING EQUIPMENT DRAIN SUMP PUMP 3A		3	ALIGNED BY 0-OI-77A
4E	3-BKR-085-0027 CRD COOLING WATER PRESSURE CONTROL VALVE PCV-85-27 (MO-3-22)		3	ALIGNED BY 3-OI-85
5B	3-BKR-024-0025 BUS HTX ALTERNATOR COOLER AND HYDROGEN CW SHUTOFF MOV FCV-24-25		3	ALIGNED BY 3-OI-24
5C	CLOSED COOLING WATER SPARE PUMP SUCTION VALVE FCV-70-69		0	ALIGNED BY 2-OI-70
5E	CRD PUMP SUCTION SHUTOFF VALVE FCV-85-56		3	ALIGNED BY 3-OI-85
6B	STATOR LIQUID COOLING WATER SHUTOFF MOV FCV-24-41		3	ALIGNED BY 3-OI-24
6C	CLOSED COOLING WATER SPARE PUMP DISCHARGE VALVE A FCV-70-70		0	ALIGNED BY 2-OI-70
6E	3-BKR-001-0058 MAIN STEAM LINE DRAIN VALVE FCV-1-58 (MO-2-79)		3	ALIGNED BY 3-OI-1

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Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
<hr/>				
480V Reactor MOV Board 3C Reactor Building - El 565', R-20S (3-45E751 - 5 & 6)				
<hr/>				
7A	REACTOR BLDG FLOOR DRAIN SUMP PUMP 3A		0	ALIGNED BY 0-OI-77B
7B	3-BKR-024-0057 PRECOOLER LIQ COOL WTR SHUTOFF MOV FCV-24-57		3	ALIGNED BY 3-OI-24
7C	3-BKR-069-0016 RWCU BLOWDOWN VLV FCV-69-16		3	ALIGNED BY 3-OI-69
7E	3-BKR-069-0008 RWCU DEMIN SYS BYPASS VLV FCV-69-8		3	ALIGNED BY 3-OI-69
8B	TURBINE OIL & EHC FLUID COOLING WATER SHUTOFF MOV FCV-24-65		3	ALIGNED BY 3-OI-24
8C	3-BKR-069-0017 RWCU DRAIN TO RADWASTE FCV-69-17		3	ALIGNED BY 3-OI-69
SE	3-BKR-069-0014 RWCU RESTRICTING ORIFICE BYPASS VLV PCV-69-14		3	ALIGNED BY 3-OI-69
9B	3-BKR-001-0057 MAIN STEAM LINE DRAIN VALVE FCV-1-57 (MO2-78)		3	ALIGNED BY 3-OI-1

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Date _____

Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 3C Reactor Building - El 565', R-20S (3-45E751 - 5 & 6)				
9E	3-BKR-001-0059 MAIN STEAM LINE DRAIN VALVE CONDENSER INLET FCV-1-59		3	ALIGNED BY 3-OI-1
10D	NORMAL SUPPLY BREAKER	CLOSED	3	____/____
11A	3-BKR-070-0090 DRYWELL BLOWER 3B-5		3	ALIGNED BY 3-OI-70
R6E	3-BKR-068-0077 RECIRCULATION PUMP 3B SUCTION VALVE (FCV-68-77)		3	ALIGNED BY 3-OI-68
R7B	TEMPORARY EMERGENCY MAINTENANCE FEED TO 480V REACTOR MOV BD 3D	OFF	3	____/____
R8B	3-BKR-068-0001 RECIRCULATION PUMP 3A SUCTION VALVE (FCV-68-1)		3	ALIGNED BY 3-OI-68
R9B	TEMPORARY EMERGENCY MAINTENANCE FEED TO 480V REACTOR MOV BD 3E	OFF	3	____/____
R11A	3-BKR-075-0075 PSC WATER HEAD TANK PUMP 3A MOTOR BREAKER		3	ALIGNED BY 3-OI-75
R11B	3-BKR-030-0245 SD BD ROOMS EXH FAN		0	ALIGNED BY 0-OI-31



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Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 3D Reactor Building - El 593', R-U18 (3-45E751 - 9)				
1D	NORMAL SUPPLY CIRCUIT MAIN CIRCUIT BREAKER	CLOSED	3	____/____
2C	3-BKR-074-0053 RHR SYSTEM I INBD INJECTION VLV FCV-74-53 (M010-25A)		3	ALIGNED BY 3-OI-74
3C	TEMPORARY EMER MAINT FEEDER BREAKER	OFF	3	____/____
3E	3-BKR-068-0079 RECIRCULATION PUMP 3B DISCHARGE VALVE (FCV-68-79)		3	ALIGNED BY 3-OI-68
4E	3-BKR-074-0007 RHR SYSTEM I MINIMUM FLOW VLV FCV-74-7 (M010-16A)		3	ALIGNED BY 3-OI-74
5D	EMERGENCY SUPPLY CIRCUIT MAIN CIRCUIT BREAKER	CONNECTED AND OPEN	3	____/____

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Breaker Number	Component Description	Required Position	Unit	Initials 1st/IV
480V Reactor MOV Board 3E Reactor Building - El 621', R-S19 (3-45E751 - 12)				
1D	NORMAL SUPPLY CIRCUIT MAIN CIRCUIT BREAKER FROM 480V SHTDN BD 3B COMPT 2A	CLOSED	3	____/____
2C	3-BKR-074-0067 RHR SYSTEM II INBD INJECTION VLV FCV-74-67 (M010-258)		3	ALIGNED BY 3-OI-74
3C	TEMPORARY EMER MAINT FEEDER BREAKER	OFF	3	____/____
3E	3-BKR-068-0003 RECIRCULATION PUMP 3A DISCH VALVE (FCV-68-3)		3	ALIGNED BY 3-OI-68
4E	3-BKR-074-0030 RHR SYSTEM II MINIMUM FLOW VLV FCV-74-30 (M010-16B)		3	ALIGNED BY 3-OI-74
5D	EMERGENCY SUPPLY CIRCUIT MAIN CIRCUIT BREAKER FROM 480V SHTDN BD 3A COMPT 7A	CONNECTED AND OPEN	3	____/____

