

Davis-Besse Unit 1 Fire Hazard Analysis Report

DAVIS-BESSE NUCLEAR POWER STATION UNIT NO. 1

APPENDIX C-3

BREAKER/FUSE COORDINATION SUMMARY

APPENDIX C-3

CIRCUIT COORDINATION EVALUATION SUMMARY

POWER SUPPLY	CIRCUIT	COMPONENT	DESCRIPTION	COORD-INATED	NOTES
1N	1PD121A	DBC1PN	125VDC BATTERY CHARGER	YES	1
	1PD131A	DC MCC 1	DC MCC	YES	1
	1PD134A	DBC1N	125VDC BATTERY CHARGER	YES	1
1P	1PD103A	DBC1P	125VDC BATTERY CHARGER	YES	1
	1PD104A	DC MCC 1	DC MCC	YES	1
	1PD105A	DBC1PN	125VDC BATTERY CHARGER	YES	1
2N	2PD221A	DBC2PN	FDR TO BAT CHGR DBC2PN	YES	1
	2PD231A	DC MCC 2	DC MCC	YES	1
	2PD234A	DBC2N	BATTERY CHARGER DBC2N	YES	1
2P	2PD203A	DBC2P	BATTERY CHARGER DBC2P	YES	1
	2PD204A	DC MCC 2	DC MCC	YES	1
	2PD205A	DBC2PN	FDR TO BAT CHGR DBC2PN	YES	1
C1	(1PD1P05A)	AC110	LARGEST CONT PWR FUSE	YES	1
	CABLE BUS	D2	BREAKER CONT POWER ALT	ACC	1,20
C2	(APDAN07A)	VARIOUS	RECEPTACLE	YES	1
	APAC201A	P180	BACKUP SWP	YES	1
	CABLE BUS	XAC	BUS TIE XFMR AC	ACC	4,20
C3615	(1PD1P09A)	EDG	DG GOV & VLTG CNTRL (D1P)	YES	1
	(1PY105A)	EDG HVAC	VAR, LARGEST LOAD (Y2)	ACC	1,13
	(3PY305A)	EDG HVAC	VAR, LARGEST LOAD (Y2)	ACC	5,13
	(ACV1131B)	EV1131	FP DSL DAY TNK VLV (D1P)	YES	5
	(ACV1131G)	RC3007	FP DSL DAY TNK VLV (Y1)	YES	5
C3616	(2PD2P09A)	EDG	DG GOV & VLTG CNTRL (D1P)	YES	1
	(2PY205A)	EDG HVAC	VAR, LARGEST LOAD (Y2)	ACC	1,13
	(4PY405A)	EDG HVAC	VAR, LARGEST LOAD (Y2)	ACC	5,13
C3617	(1CGD102C)	EDG	DG GOV & VLTG CNTRL (D1P)	YES	1
C3618	(2CGD202C)	EDG	DG GOV & VLTG CNTRL (D1P)	YES	1
C3621	(1CGD102D)	EDG	DG GOV & VLTG CNTRL (D1P)	YES	1
C3622	(2CGD202D)	VARIOUS	RECEPTACLE	YES	1
C3628	(1CY108B)	IE INST	VAR, LARGEST LOAD USED	YES	1
C3629	(2CY208B)	IE INST	VAR, LARGEST LOAD USED	YES	1
C3630	(1CY108A)	AUX SDP	VAR, LARGEST LOAD USED	ACC	1,14
	(2CY208A)	AUX SDP	VAR, LARGEST LOAD USED	ACC	1,14
C3645	(1CY104AA)	AFWS	VAR, LARGEST LOAD (Y1A)	YES	1,9
C4602	(2CY208AB)	NI	VAR, LARGEST LOAD USED	YES	1,9
C4625	(2CY204AA)	AFWS	VAR, LARGEST LOAD (Y1A)	YES	1,9
C4808	(1CY108AB)	NI	VAR, LARGEST LOAD USED	YES	1,9
C5705	(2CY211B)	VARIOUS	RECEPTACLE	YES	7
	(2CY419A)	VARIOUS	RECEPTACLE	YES	5,18
C5706	(ACYAU49B)	VARIOUS	RECEPTACLE	ACC	6,9,18
	(BCYBU53B)	VARIOUS	RECEPTACLE	ACC	6,9,18
C5708	(1CY112C)	VARIOUS	RECEPTACLE	ACC	1,9

SYMBOLS; ACC = ACCEPTABLE

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POWER SUPPLY	CIRCUIT	COMPONENT	DESCRIPTION	COORD- INATED	NOTES
C5709	(2CY211C)	VARIOUS	RECEPTACLE	YES	1
C5715	(ACYAU32A) (BCYBU23A)	VARIOUS VARIOUS	RECEPTACLE RECEPTACLE	YES YES	6, 18 6, 18
C5716	(1CY112A) (2CY211A)	VARIOUS VARIOUS	RECEPTACLE RECEPTACLE	ACC ACC	31 31
C5717	(1CY116A) (2CY212A)	VARIOUS VARIOUS	RECEPTACLE RECEPTACLE	ACC ACC	5, 18 5, 18
C5718	(ACYAU43A) (BCYBU23B)	VARIOUS VARIOUS	RECEPTACLE RECEPTACLE	YES YES	6, 18 6, 18
C5755C	(2CD2P19A) (2CY206A)	SFAS NNI	SFAS ACTUATED SV CH 1 RCS PRESSURE	YES ACC	5 1, 9, 17
C5755D	(2CD2P19A) (2CY207A)	SFAS SFAS	SFAS ACTUATED SV CH 1 SFAS ACTUATED SV CH 1	YES ACC	7 5, 9, 17
C5755E	(2CY206A)	NI/RPS	VAR, LRGST LOAD USED NI	ACC	1, 9, 19
C5755G	2CY2A205A	IE INST	VAR, LARGEST LOAD USED	ACC	1, 9, 26
C5756D	(2CD2P18A) (4CY407A)	VARIOUS SFAS	RECEPTACLE SFAS ACTUATED SV CH 1	YES ACC	1 1, 9, 17
C5759C	(BPYBU51A)	NNI X	VAR, LARGEST LOAD USED (X)	YES	1, 28
C5760D	(APYAU26A)	NNI Y	VAR, LARGEST LOAD USED	YES	1, 28
C5761A	(1CY115B) (1CYE211A)	SFRCS SFRCS	VAR, SFRCS RLY CH 4 (D2P) VAR, SFRCS RLY CH 4 (D2P)	ACC ACC	1, 9, 17 5, 9, 17
C5762A	(1CY121A) (1PD1P11A)	SFRCS SFRCS	VAR, SFRCS RLY CH 4 (D2P) VAR, SFRCS RLY CH 4 (D2P)	ACC ACC	5, 17 5, 17
C5762C	(1CD1P18A)	SFAS	SFAS ACTUATED SV CH 1	YES	1
C5762D	(1CY107A)	SFAS	SFAS ACTUATED SV CH 1	ACC	1, 9
C5762E	(1CY106A)	NI, RPS	VAR, LARGEST LOAD USED	ACC	1, 9
C5762F	(1CY106A)	NI, RPS	VAR, LARGEST LOAD USED	ACC	1, 9
C5762G	(1PY111AA)	1E INST	VAR, LARGEST LOAD USED	ACC	1, 9
C5763A	1CY1A102A	IE INST	VAR, LARGEST LOAD USED	ACC	1, 9, 26
C5763B	1CY112B	IE INST	VAR, LARGEST LOAD USED	ACC	7, 9
C5763C	(1CD1P19A)	SFAS	SFAS ACTUATED SV CH 1	YES	1
C5763D	(1CD1P19A) (3CY307A)	SFAS SFAS	SFAS ACTUATED SV CH 1 SFAS ACTUATED SV CH 1	YES ACC	1 1, 9
C5792	(2CY221B) (2PD2P11A)	SFRCS SFRCS	VAR, SFRCS RLY CH 4 (D2P) VAR, SFRCS RLY CH 4 (D2P)	ACC ACC	5, 17 5, 17
C5792A	(2CY215B) (2CYF211A)	SFRCS SFRCS	VAR, SFRCS RLY CH 4 (D2P) VAR, SFRCS RLY CH 4 (D2P)	ACC ACC	1, 9, 17 5, 9, 17
C5798	(2CY207AA)	PAM	SG HI POINT VENT VLVS	YES	1

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POWER SUPPLY	CIRCUIT	COMPONENT	DESCRIPTION	COORD- INATED	NOTES
C5798	(2CY209AA)	PAM	SG HI POINT VENT VLVS	ACC	5,15
C5799	(1CY107AA)	PAM	SG HI POINT VENT VLVS	YES	1
	(1CY109AA)	PAM	SG HI POINT VENT VLVS	ACC	5,15
C6708	(1CY104A)	CREVS	VAR, LARGEST LOAD USED	ACC	1,12
C6709	(2CY204B)	CREVS	VAR, LARGEST LOAD USED	ACC	1,12
C6714	(1CY104B)	CREVS	VAR, LARGEST LOAD USED	ACC	1,12
C6715	(2CY204A)	CREVS	VAR, LARGEST LOAD USED	ACC	1,12
CDE-11B1	(1CY117C)	VARIOUS	RECEPTACLE	ACC	7,16
CDE-11B2	(1CY117D)	VARIOUS	RECEPTACLE	ACC	7,16
CDE-12A1	(1CD1P20A)	VARIOUS	RECEPTACLE	YES	1
CDE-12A2	(1CD1P20C)	VARIOUS	RECEPTACLE	YES	7
CDF-11A1	(2CY214C)	VARIOUS	RECEPTACLE	ACC	5
CDF-11C	(2CD2P20B)	VARIOUS	RECEPTACLE	YES	1
CDF-11D	(2CD2P20D)	VARIOUS	RECEPTACLE	YES	7
CDF12A-1	(2CD2P20A)	VARIOUS	RECEPTACLE	YES	1
D1	2PAD108A	CD	4.16KV XFER SWGR	YES	5,20
D1N	1CD1N16A	ZC6459	MDFP CONTROL VLV POSITION	YES	5
	3CD1N15A	RC3603	RELAY CABINET RC3603	YES	2
	3PD1N03A	YRF3	480VAC/125VDC RECTIFIER	ACC	26, 31
	3PD1N05A	C1	C1 CONTROL POWER (ALT)	YES	1
	3PD1N07A	E1	E1 CONTROL POWER	YES	1
	3PD1N09A	C3615	EDG1-1 PANEL (NORM)	YES	2
	3PD1N14A	C4806	CRD BKR D SHUNT TRIP CKT	YES	2
	APD1N04A	DAN	125VDC DIST PANEL	ACC	31
D1NA	1PD135A	MS106	AFPT 1 MS IN ISOL VLV	YES	1
D1P	1CD1P10A	RC3706	RELAY CABINET	YES	5
	1CD1P13A	ZC6452	AFP #1 CTRL VLV POSITION	YES	5
	1CD1P15A	PDIS5017	PDIS5017	YES	2
	1CD1P18A	C5762C	SFAS CH 1 SV's (D1P)	YES	1
	1CD1P19A	C5763D	SFAS CH.3 LOGIC PANEL	YES	1
	1CD1P20A	CDE-12A-1	AFP SUCT VLV, GOV	YES	1
	1CD1P20B	RC4604	NON SSD RELAYS	YES	7
	1CD1P20C	CDE-12A-2	DISCONNECT SWITCH	YES	7
	1CD1P21A	RC3601	RELAY CABINET RC3601	YES	5
	1CD1P21B	RC3701	RELAY CABINET RC3701	YES	5
	1CD1P21C	CDE11D	CONTROL POWER TO CDE11D	YES	5
	1CD1P21D	RC3607	RELAY CABINET RC3607	YES	5
	1CD1P23B	FIS1427C	FLOW SWITCH CCWS PUMP	YES	1
	1CD1P23C	FIS1432C	FLOW SWITCH CCWS PUMP	YES	1
	1CD1P23D	FIS1422C	FLOW SWITCH CCWS PUMP	YES	1
	1PD1P03A	YRF1	480VAC/125VDC RECTIFIER	ACC	26, 31
	1PD1P05A	C1	C1 CONTROL POWER (ALT)	YES	1
	1PD1P06A	P43-3	CCW PUMP 3	YES	1
	1PD1P07A	E1	E1 CONTROL POWER	YES	1
	1PD1P08A	P3-3	SW PUMP 3	YES	1

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POWER SUPPLY	CIRCUIT	COMPONENT	DESCRIPTION	COORD-INATED	NOTES
D1P	1PD1P09A	C3615	EDG1-1 PANEL (NORM)	YES	1
	1PD1P11A	C5762A	SFRCS CH.3 RELAYS	YES	1
	1PD1P12A	RC4801	RELAY CABINET RC4801	YES	1
	1PD1P14A	C4603	CRD BKR B SHUNT TRIP CKT	YES	2
	ACD1P24A	SS815	AFPT 1 SPEED MON C2735	YES	6
	APD1P04A	DAP	125V DC DIST PANEL	ACC	31
D1PA	1PD107A	AF3870	AFWP 1 DISCHARGE TO SG1	YES	1
D2	(BPDBN07A)	VARIOUS	RECEPTACLE	YES	1
	BPAD210H	P241	MTR DRIVEN FEED PUMP	ACC	1,20
	BPAD2DF7A	F7	SUBSTATION F7	ACC	1,20
D2N	2PD2N17A	RC4606	DC CONT PWR TO PORV	YES	1
	4CD2N15A	RC3604	RELAY CABINET RC3604	YES	6
	4PD2N03A	YRF4	480VAC/125VDC RECTIFIER	ACC	26, 31
	4PD2N05A	D1	D1 CONTROL POWER	YES	1
	4PD2N07A	F1	F1 CONTROL POWER	YES	1
	4PD2N09A	C3616	EDG1-2 PANEL LIGHTS	YES	2
	4PD2N14A	C4612	CRD BKR C SHUNT TRIP CKT	YES	6
	BPD2N04A	DBN	125VDC DIST PANEL	ACC	31
D2P	2CD2P10A	ZC6460	MDFP CTRL VLV ZC6460	YES	6
	2CD2P13A	ZC6451	AFP #2 CTRL VLV ZC6451	YES	5
	2CD2P15A	PDIS5018	PDIS5018	YES	2
	2CD2P18A	C5756D	SFAS CH 4 LOGIC PANEL	YES	1
	2CD2P19A	C5755C	SFAS POWERED SV	YES	1
	2CD2P20A	CDF-12A-1	CONT PWR AFWP GOV	YES	1
	2CD2P20B	CDF-11C	CONT PWR SW1383	YES	1
	2CD2P20C	RC4605	NON SSD RELAYS	YES	7
	2CD2P20D	CDF-11D	NON SSD CONT PWR	YES	7
	2CD2P21A	RC3702	RELAY CABINET	YES	5
	2CD2P21B	RC3602	RELAY CABINET RC3602	YES	5
	2CD2P21C	RC3608	RELAY CABINET RC3608	YES	5
	2CD2P23A	FISI1422D	FLOW SWITCH CCWS PUMP	YES	1
	2CD2P23B	FISI1427D	FLOW SWITCH CCWS PUMP	YES	1
	2PD2P03A	YRF2	480VAC/125VDC RECTIFIER	ACC	26, 31
	2PD2P05A	D1	D1 CONTROL POWER	YES	1
	2PD2P06A	P43-3	CCW PUMP 3	YES	1
	2PD2P07A	F1	F1 CONTROL POWER	YES	1
	2PD2P08A	P3-3	SW PUMP 3	YES	1
	2PD2P09A	C3616	EDG1-2 PANEL LIGHTS	YES	1
	2PD2P11A	C5792	SFRCS CH 4 RELAYS	YES	1
	2PD2P12A	RC4606	DC CONT PWR TO PORV	YES	5
	2PD2P14A	C4606	CRD BKR A SHUNT TRIP CKT	YES	5
	BCD2P24A	C2736	AFPT 2 SPEED MON	YES	2
	BPD2P04A	DBP	125VDC DIST PANEL	ACC	31
DAN	ACDAN19A	C4603	CRD BKR B SHUNT TRIP CKT	YES	6
	ACDAN20A	XAC	BUS TIE XFMR AC	YES	5
	ACDAN21A	C1701	MISC WASTE EVAPORATOR PNL	YES	6
	ACDAN23A	C2701	BORIC ACID EVAPORATOR PNL	YES	6
	ACDAN25A	C3625	DG1-1 DC OIL PMP CTRL BOX	YES	6
	APDAN01A	C5750A	ALT GEN XFMR CABINET	YES	6
	APDAN02A	HA01	13.8KV SWGR A DC CTRL	YES	5
	APDAN02B	HAAC	13.8KV SWGR A DC CTRL	YES	5
	APDAN03A	E6	480VAC USS DC CTRL	YES	6
	APDAN04A	E2	480VAC USS DC CTRL	YES	6
	APDAN05A	E3	480VAC USS DC CTRL (ALT)	YES	6
	APDAN06A	E4	480VAC USS DC CTRL	YES	6
	APDAN07A	C2	4.16KV AC SWGR	YES	1
	APDAN24A	RC4802	CONT PWR (TO MUTK, SG DRN	YES	5

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POWER SUPPLY	CIRCUIT	COMPONENT	DESCRIPTION	COORD- INATED	NOTES
DAP	ACDAP19A	RC4601	RCS COOL CABINET	YES	6
	ACDAP21A	C3318	FIRE PROTECTION EQUIP	YES	6
	ACDAP21B	C3318	FIRE PROTECTION EQUIP	YES	6
	ACDAP22A	C5762Z	SFRCS NON-ESS SV	YES	6
	ACDAP23A	X01	START UP XFMR 1	YES	6
	ACDAP24A	X11	AUX XFMR 11	YES	6
	ACDAP25A	C3305	GEN ISO PHASE BUS ANNUN	YES	6
	ACDAP26A	RC3717	RELAY CABINET	YES	6
	ACDAP26B	RC2825	RELAY CABINET	YES	6
	ACDAP27A	RC3003	RELAY CABINET	YES	6
	ACDAP27B	RC3001	RELAY CABINET	YES	6
	ACDAP28A	RC3715	RELAY CABINET	YES	6
	ACDAP28B	RC1760	RELAY CABINET	YES	6
	ACDAP29A	RC4311	RELAY CABINET	YES	6
	ACDAP29B	RC2404	RELAY CABINET	YES	6
	ACDAP29C	RC3005	RELAY CABINET	YES	6
	ACDAP30A	C3304	AUX BOILER CTRL PANEL	YES	6
	ACDAP32A	BCE5	LTD DIST CENTER E5 BRKR	YES	6
	ACDAP33A	C3610	RELAY CABINET	YES	6
	ACDAP33B	C3617	RELAY CABINET	YES	6
	APDAP01A	C5750A	ALT GEN XFMR CABINET	YES	6
	APDAP02A	HA01	13.8KV SWGR A DC CTRL	YES	1
	APDAP02B	HAAC	13.8KV SWGR A DC CTRL	YES	6
	APDAP03A	E6	480VAC USS DC CTRL	YES	6
	APDAP04A	E2	480VAC USS DC CTRL	YES	6
	APDAP05A	E3	480VAC USS DC CTRL (ALT)	YES	6
	APDAP06A	E4	480VAC USS DC CTRL	YES	6
	APDAP07A	C2	4.16KV AC SWGR	YES	1
	APDAP08A	D3602	FUSE PANEL D3602	YES	6
DBN	BCDBN19A	C4606	CRD BKR A SHUNT TRIP CKT	YES	6
	BCDBN20A	XBD	BUS TIE XFMR BD	YES	6
	BCDBN21A	C2702	MISC WASTE EVAPORATOR PNL	YES	6
	BCDBN23A			YES	6
	BCDBN25A	C3626	DG 1-2 OIL PMP CTRL BOX	YES	6
	BPDBN01A	C5750B	ALT GEN XFMR CABINET	YES	6
	BPDBN02A	HB01	13.8KV SWGR A DC CTRL	YES	6
	BPDBN02B	HB14	13.8KV SWGR A DC CTRL	YES	6
	BPDBN04A	F2	480VAC USS DC CTRL	YES	6
	BPDBN05A	F3	480VAC USS DC CTRL	YES	6
	BPDBN07A	D2	BREAKER CONT POWER ALT	YES	1
	BPDBN11A	F7	SUBSTATION F7	YES	1
	BPDBN24A	RC4804	RELAY CABINET	YES	5
DBP	BCDBP09A	C6720	AVV POSITION INDICATION	YES	6
	BCDBP16A	C5792Z	SFRCS NON ESS SV	YES	6
	BCDBP17A	C4301	GEN VOLT REG CABINET	YES	6
	BCDBP18A	JT5302	GEN FIELD BRKR JT5302	YES	6
	BCDBP19A	C3303	GEN COOL SYS CABINET	YES	6
	BCDBP20A	C3611	RELAY CABINET C3611	YES	6
	BCDBP20B	C3618	RELAY CABINET C3618	YES	6
	BCDBP21A	RC4602	RCS PRZR HEATERS CABINET	YES	6
	BCDBP22A	C5105	COMB BUT VLV STN CABINET	YES	6
	BCDBP23A	C5757B	EHC SYSTEM CABINET	YES	6
	BCDBP24A	C1708	PROCESS SAMPLE PANEL	YES	6
	BCDBP25A	JT5302	GEN FIELD BRKR JT5302	YES	6
	BCDBP27A	X02	START-UP XFMR 02	YES	6
	BCDBP28A	X1	MAIN XFMR 1	YES	6
	BCDBP29A	RC3718	RELAY CABINET	YES	6
	BCDBP29B	RC2826	RELAY CABINET	YES	6
	BCDBP30A	RC3716	RELAY CABINET	YES	5
	BCDBP30B	RC1761	RELAY CABINET	YES	5

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POWER SUPPLY	CIRCUIT	COMPONENT	DESCRIPTION	COORD- INATED	NOTES
DBP	BCDEBP31A	RC4410	RELAY CABINET	YES	6
	BCDEBP31B	RC3004	RELAY CABINET	YES	6
	BCDEBP31C	RC3002	RELAY CABINET	YES	6
	BCDEBP32A	C3318	FIRE PROTECTION EQUIP	YES	6
	BCDEBP32B	C3318	FIRE PROTECTION EQUIP	YES	6
	BCDEBP33A	RC4401	RELAY CABINET	YES	6
	BCDEBP33B	RC2304	RELAY CABINET	YES	6
	BCDEBP34A	C5760C	ELEC METER & XDUCER CAB	YES	6
	BPDEBP01A	C5750B	ALT GEN XFMR CABINET	YES	6
	BPDEBP02A	HB01	13.8KV SWGR A DC CTRL	YES	6
	BPDEBP02B	HB14	13.8KV SWGR A DC CTRL	YES	6
	BPDEBP04A	F2	480VAC USS DC CTRL	YES	6
	BPDEBP05A	F3	480VAC USS DC CTRL	YES	6
	BPDEBP07A	D2	BREAKER CONT POWER ALT	YES	1
	BPDEBP08A	D3603	FUSE PANEL D3603	YES	6
	BPDEBP11A	F7	SUBSTATION F7	YES	5
DC MCC 1	1PD101A	D1P	125V DC DIST PANEL	ACC	31
	1PD106A	P197-2	HPI PUMP 1 DC LO PUMP	YES	1
	1PD128A	D1PA	125V DC MCC	YES	1
	1PD132A	D1N	125V DC DIST PANEL	ACC	31
	1PD145A	D1NA	125V DC MCC	YES	1
	APD111A	D37E1	EMER LTG XFR SW 1	YES	6
	APD112A	D57E1	EMER LTG XFR SW 3	YES	6
	APD113A	MP0724	RCP BACKUP OIL LIFT PMP	YES	6
	APD114A	MP0721	RCP BACKUP OIL LIFT PMP	YES	6
	APD115A	MP0281	MFPT 1 EMERG BRG OIL PMP	YES	6
	APD116A	YVA	125V DC INVERTER	ACC	31
	APD117A	P-371C	MUP1 AUX LUBE OIL PUMP	YES	1
	APD118A	MP0210	TG EMER BRG OIL PUMP	YES	30
DC MCC 2	2PD202A	D2P	125V DC DIST PANEL	ACC	31
	2PD206A	P198-2	HPI PMP 2 DC LUBE OIL PMP	YES	1
	2PD233A	D2N	125V DC DIST PANEL	ACC	31
	BPD211A	D41E1	EMER LTG XFR SW 2	YES	6
	BPD212A	D49E1	EMER LTG XFR SW 4	YES	6
	BPD213A	MP0723	RCP BACKUP OIL LIFT PMP	YES	6
	BPD214A	MP0722	RCP BACKUP OIL LIFT PMP	YES	6
	BPD215A	MP0282	MFPT 2 EMERG BRG OIL PMP	YES	6
	BPD216A	YVB	125V DC INVERTER	ACC	31
	BPD217A	P-372C	MUP2 AUX LUBE OIL PUMP	YES	1
	BPD218A	MP0230	T-G H2 EMERG SEAL OIL PMP	YES	6
E1	1PBE105A	E15	480VAC MCC	YES	1
	1PBE106A	E12A	480VAC MCC	YES	1
	1PBE107A	E11A	480VAC MCC	YES	1
	1PBE109A	E12B	480V AC MCC	YES	1
	1PBE110A	E14	480VAC MCC	YES	1
	1PBE111A	P56-1	CS PUMP 1	YES	1
	1PBE118A	E16A	480VAC MCC	YES	1
E11A	1PBE1101A	E11C	AUTO BKR REMOVED	YES	1,8
	1PBE1102A	MC0621	H2 DILUTION SYS BLOWER 1	YES	6
	1PBE1103A	HP02C	HPI 1 DISCH ISO VLV	YES	1
	1PBE1104A	MV5439	ECCS RM 105 HVAC ISO VLV	YES	6
	1PBE1105A	HP02D	HPI 1 DISCH ISO VLV	YES	1
	1PBE1106A	DH01B	LPI LINE 1 VLV	YES	1
	1PBE1107A	MV5440	ECCS RM 105 HVAC ISO VLV	YES	6
	1PBE1112A	DH09B	CTMT SUMP ISO VLV B	N/A	5
	1PBE1113A	MV5090	CTMT H2 DLTN LINE 1 VLV	YES	6
	1PBE1115A	MP891A	ECCS SUMP PUMP 1A	YES	6
	1PBE1116A	MP891B	ECCS SUMP PUMP 1B	YES	6

SYMBOLS; ACC = ACCEPTABLE

APPENDIX C-3

CIRCUIT COORDINATION EVALUATION SUMMARY

POWER SUPPLY	CIRCUIT	COMPONENT	DESCRIPTION	COORD- INATED	NOTES
E11A	1PBE1117A	MP893A	ECCS SUMP PUMP 3A	YES	6
	1PBE1118A	MP893B	ECCS SUMP PUMP 3B	YES	6
	1PBE1120A	E11B	480VAC MCC	YES	1
	1PBE1121A	DH2733	DH PUMP 1 BWST SUCT VLV	YES	1
	1PBE1123A	MV2001	CTMT ISO VALVE PENET 72A	YES	6
	1PBE1124A	MV2003	CTMT ISO VALVE PENET 74A	YES	6
	1PBE1129A	MVRC10	PRZR SPRAY LINE ISO VLV	YES	6
	1PBE1132A	E11D	AUTO BKR REMOVED	YES	1, 8
	1PBE1157A	DH07B	BWST ISO VLV B	YES	1
	1PBE1170A	MV5038	CTMT H2 DILUT OUT ISO VLV	YES	6
	APBE1109A	MVMU40	DEMIN WTR STOP VLV	YES	6
	APBE1125A	MVMU12A	MU FILTER 1 IN VLV	YES	6
E11B	1PBE1108A	MV2012A	CTMT NORM SUMP ISO VLV	NO	6, 21
	1PBE1155A	DH2735	PRZR SPRAY LINE ISO VLV	NO	1, 21
	1PBE1158A	MV1567A	CC IN ISO VLV 1 TO CRD	NO	6, 21
	1PBE1162A	CF01B	CORE FLOOD TK 1 ISO VLV	NO	1, 21
	1PBE1163A	MVCF02B	CF TANK 1 SAMPLE VALVE	NO	6, 21
	1PBE1165A	MVCF05B	CF TANK 1 VENT VALVE	NO	6, 21
	1PBE1169A	MC0561	CTMT RECIRCULATIN FAN 1	NO	6, 21
	1PBE1171A	MU02A	LETDOWN CLR OUT VLV	NO	1, 21
	1PBE1172A	MU02B	LETDOWN CLR IN VLV	NO	1, 21
	1PBE1173A	CC1407A	CC OUT ISO VLV	NO	1, 21
	1PBE1174A	MU59A	RCP 2-1 SEAL RET LINE VLV	NO	1, 21
	1PBE1175A	MU59B	RCP 2-2 SEAL RET LINE VLV	NO	1, 21
	1PBE1176A	CC1411A	CC IN ISO VLV	NO	1, 21
	1PBE1177A	MU59C	RCP 1-1 SEAL RET LINE VLV	NO	1, 21
	1PBE1178A	MU59D	RCP 1-2 SEAL RET LINE VLV	NO	1, 21
	1PBE1180B	XYE2A	INCOMING XFER YE2	NO	1, 21
	1PBE1181A	MV0240A	RC PRZR SMPL VLV 1	NO	6, 21
	1PBE1183A	DH12	DH NORM SUCT LINE VLV	NO	1, 21
E11C	1PBE1137A	MV5070	CTMT VACM RELIEF VLV	YES	6
	1PBE1138A	MV5071	CTMT VACM RELIEF VLV	YES	6
	1PBE1139A	MV5072	CTMT VACM RELIEF VLV	YES	6
	1PBE1140A	MV5073	CTMT VACM RELIEF VLV	YES	6
	1PBE1141A	MV5074	CTMT VACM RELIEF VLV	YES	6
	1PBE1142A	SW1366	CAC 1 IN ISO VLV	YES	1
	1PBE1144A	MV5261A	CTRM EMER VENT FN IN VLV	YES	6
	1PBE1150A	E11E	480V AC MCC FEEDER	YES	1
	1PBE1154A	C75-1	CCW PMP RM VENT FAN 1	YES	6
	1PBE1156A	CS1530	CTMT SPRAY ISO VLV	YES	1
	1PBE1159A	MV0612	MN FW 1 ISO VLV	YES	6
	APBE1167A	BSWX79D3	CTMT LIGHTING DISC SWITCH	YES	6
	APBE1168A	X39D1	CONTAINMENT LIGHTING XFMR	YES	6
	APBE1186A	NC3801	H2 RECOMBINATION STARTER	YES	6
	APBE1186B	NC3802	H2 RECOMBINATION STATION	YES	6
	APBE1186C	C3830	CONT PANEL C3830	YES	6
E11D	1PBE1126A	DH1517	DH NORM SUCT LINE 1 VLV	YES	1
	1PBE1127D	MU6405	RC MU PUMP SUCT VLV	YES	1
	1PBE1133A	MV5067	CTMT H2 PURGE FN 1 IN VLV	YES	6
	1PBE1147F	DH6409	MUP DISCH X-CONN VLV	YES	1
	1PBE1161A	CC2645	CC RETURN HDR 1 VLV	YES	1
	1PBE1190A	DBC1PN	125VDC BATTERY CHARGER	YES	1
	1PBE1194E	MU6421	MU CTMT ISO VLV	YES	1
	1PBE1195A	MV0831	DHR CLR 1 OUT XOVER	YES	6
	1PBE1197A	MRE5327	CTRM VENT SYS VACM PMP 1	YES	6
	1PBE1199A	MV1328	CC CRD BOOST PMP SUCT VLV	YES	6
	APBE1185A	MP0381	BA PUMP 1	YES	6
	APBE1188A	WET711	BA ADD TANK 1 HEATER 1	YES	6
	APBE1189A	WET712	BA ADD TANK 1 HEATER 2	YES	6

SYMBOLS; ACC = ACCEPTABLE

APPENDIX C-3

CIRCUIT COORDINATION EVALUATION SUMMARY

POWER SUPPLY	CIRCUIT	COMPONENT	DESCRIPTION	COORD- INATED	NOTES
E11D	APBE1191A	P-371B	MUP 1 MAIN LO PUMP	YES	1
	APBE1192A	P-371D	MUP 1 AUX GEAR LO PUMP	YES	1
E11E	1PBE1145A	MV0645B	CTMT ISO VLV PENT 73	NO	6,21
	1PBE1146A	AF3869	AFWP 1 DISCH TO SG2	NO	1,21
	1PBE1148A	MV4906	CTRM STANDBY COND 1 DMPR	NO	6,21
	1PBE1160A	AF608	AFW TO SG1 ISO VLV	NO	1,21
	1PBE1187A	DH64	LPI/HPI CROSS-TIE VLV	NO	1,21
E12A	1PBE1201A	MS0611	CTRM STANDBY COND 1 FAN	YES	6
	1PBE1202A	E12C	480VAC MCC	YES	1
	1PBE1207A	EF12D	480VAC MCC	YES	1
	1PBE1208E	HV5597	BATT RM 429B ATM DMPR	YES	1
	1PBE1209A	C21-1	CTRM EVS FAN 1	YES	1
	1PBE1213A	WMB1	Power Circuit(WMB1)	YES	5
	1PBE1214A	WMB2	Power Circuit(WMB2)	YES	5
	1PBE1215A	WMB3	Power Circuit(WMB3)	YES	5
	1PBE1216A	S33-1	CTRM EMERG A/C UNIT 1	YES	1
	1PBE1217A	C71-1	LV SWGR RM VENT FAN 1	YES	1
	1PBE1218A	SW1382	AFP 1 SUCT VLV FROM SW	YES	1
	1PBE1219A	MC0301	EMER VENT FAN 1	YES	6
	1PBE1220A	YRF1	480VAC/125VDC RECTIFIER	YES	6,26
	1PBE1221A	YRF3	480VAC/125VDC RECTIFIER	YES	6,26
	1PBE1222A	C73-1	AFP RM VENT FAN 1	YES	1
	1PBE1223A	WMB1,2,3	Power Circuit (WMB1,2,3)	YES	5,25
	1PBE1226A	CC5095	CC HDR 1 IN ISO VLV	YES	1
	1PBE1227A	CC5097	CC HDR 1 RETURN ISO VLV	YES	1
	1PBE1232A	SW2927	CTRM EVS COND UNIT IN VLV	YES	1
	1PBE1233A	DBC1P	125VDC BATTERY CHARGER	YES	1
	1PBE1234A	E12E	480VAC MCC	YES	1
	1PBE1235A	DBC1N	125VDC BATTERY CHARGER	YES	1
	1PBE1237A	MC5017	EMER VENT DISCH FAN DMPR	YES	6
	1PBE1238A	MC5056	CROSS-TIE DUCT WORK DMPR	YES	6
	1PBE1239A	MC5024	FUEL HAND AREA BYPASS VLV	YES	6
	1PBE1240A	HV5305A	LV SWGR RM 429 DAMPER	YES	1
	1PBE1241A	HV5305B	LV SWGR RM 429 DAMPER	YES	1
E12B	1PBE1255A	C25-1	EDG RM 1 VENT FAN 1	YES	1
	1PBE1256A	C25-2	EDG RM 1 VENT FAN 2	YES	1
	1PBE1258A	C3621	EMER DG 1 IMMERSION HTR	YES	6
	1PBE1259A	YE1	FDR TO 120V AC MCC	YES	1
	1PBE1261A	MP1471	EMER DG 1 SOAK PUMP	YES	6
	1PBE1271A	MS106A	AFPT 1 MS IN X-CONN	YES	1
	1PBE1273A	E12F	480VAC MCC	YES	1
	1PBE1285A	C078-1	BATT RM VENT FAN 1	YES	1
	APBE1257A	MP0081	DO XFER PUMP 1	YES	1
	APBE1267A	MP1591	FUEL OIL BOOSTER PUMP 1	YES	1
	APBE1268A	MP173A	DO STRG TK AREA SUMP PMP	YES	6
	APBE1269A	WE1091	DO PMP HSE ELEC UNIT HTR	YES	6
	APBE1270A	X3021	LTG XFMR DO PMP HOUSE	YES	6
	APBE1289A	MP1473	EDG 1 AC LUBE OIL PUMP	YES	6
E12C	1PBE1205A	C99-2	SW PMP RM EXH FAN 2	YES	1
	1PBE1210A	E12D	480VAC MCC	YES	1
	1PBE1212A	C99-1	SW PMP RM EXH FAN 1	YES	1
	1PBE1274A	MF0151	SW PUMP STRNR 1	YES	6
	1PBE1275A	MV1379	SW PUMP STRNR DRAIN VALVE	YES	6
	1PBE1277A	SW1399	SW ISO VALVE TO CLNG WTR	YES	1
	1PBE1280A	EF12C	480VAC MCC	YES	6
	1PBE1281A	SW2929	SW TO INT STRU VLV	YES	1
	1PBE1282A	SW2931	SW TO CLG TOWER MU VLV	YES	1
E12D	APBE1203A	MC0100	TRAVELING SCREEN AREA VNT	YES	1

SYMBOLS; ACC = ACCEPTABLE

APPENDIX C-3

CIRCUIT COORDINATION EVALUATION SUMMARY

POWER SUPPLY	CIRCUIT	COMPONENT	DESCRIPTION	COORD- INATED	NOTES
E12D	APBE1204A	MF15401	BACKUP SW PUMP STRAINER	YES	6
	APBE1206A	MV4690	SW BACKUP PMP DRN VALVE	YES	6
E12E	1PBE1286A	HP32	HPI PMP1 RECIRC VLV	NO	1,21
	1PBE1292A	C31-4	ECCS RM 105 CLR FAN 4	NO	6,21
	1PBE1293A	C31-5	ECCS RM 105 CLR FAN 5	NO	6,21
	1PBE1294H	MS611	MV0611 PWR CKT	NO	6,21
	1PBE1295F	MU6419	MU DISCH VLV	NO	1,21
	1PBE1296A	P197-1	HPI PMP1 AC LO PMP	NO	1,21
E12F	1PBE1298A	P195-1	EDG FUEL OIL TRANSFER PUM	NO	1,21
	APBE1299A	MC0111	EMER DG AIR COMPSR 1	YES	6
E14	1PBE1401A	C1-1	CAC FAN 1 LRGST LOAD USED	YES	1
E15	1PBE105A	C1-3	CACS FAN 3 LRGST LOAD	YES	1
E16A	1PBE1609A	E16B	INCMG CIRC BKR E16B	YES	1
	1PBE1611A	X5301	480-120V 1.5KVA XFMR	YES	6
	1PBE1616A	XY1	FEEDER CVTXY1 (86-0272)	YES	1
	1PBE1617A	XY3	FEEDER CVTXY3	YES	1
	APBE1615A	BSW220X	E883/2 SECURITY	YES	1
E16B	1PBE1602A	RC11	PORV BLOCK VLV	NO	1,21
	1PBE1613A	X3802	480V-120V 1.5KVA XFMR	NO	6,21
EDG-1	1PAC101A	C1	C1 CONTROL POWER (ALT)	YES	1,20
EDG-2	2PAD101A	D1	D1 CONTROL POWER	YES	1,20
EF12C	3PBEF124A	MF0153	SW PMP STRNR 3	NO	6,21
	3PBEF125A	SW1381	SW PMP STRNR 3 DRN VLV	NO	6,21
	CPBEF123A	MP0060	JOCKEY FIRE PUMP	YES	6
F1	2PBF105A	F15	480VAC MCC	YES	1
	2PBF107A	F12B	480V AC MCC	YES	1
	2PBF110A	F14	480VAC MCC	YES	1
	2PBF111A	P56-2	CS PUMP 2	YES	1
	2PBF114A	F12A	480VAC MCC	YES	1
	2PBF115A	F11A	480VAC MCC	YES	1
	2PBF118A	F16A	480VAC MCC	YES	1
	BPBF113A	F13	480V AC MCC	YES	6
F11A	2PBF1101B	XYF2A	FDR TO 240V AC MCC	YES	1
	2PBF1102A	MRE5328	CTRM VENT SYS VACM PMP 2	YES	6
	2PBF1103A	MV4907	CTRM STANDBY COND UNIT	YES	6
	2PBF1106A	CC5096	CC HDR 2 IN ISO VLV	YES	1
	2PBF1108E	MU6422	MU CTMT ISO VLV	YES	1
	2PBF1109A	MC0622	H2 DILUTION SYS BLWR 2	YES	6
	2PBF1110A	MV5065	CTMT H2 PURGE LINE 2 VLV	YES	6
	2PBF1111A	MS603	SG 2 DRAIN LINE ISO VLV	YES	6
	2PBF1112A	C75-2	CCW PMP RM VENT FAN 2	YES	6
	2PBF1118A	AF599	AFW TO SG2 ISO VLV	YES	1
	2PBF1119A	CC5098	CC HDR 2 RETURN ISO VLV	YES	1
	2PBF1120A	CF01A	CF TK2 ISO VALVE	YES	1
	2PBF1121A	MVCF02A	CF TANK 2 SAMPLE VALVE	YES	6
	2PBF1123A	MVCF05A	CF TANK 2 VENT VALVE	YES	6
	2PBF1124A	MS107	AFPT 2 MS IN ISO VLV	YES	1
	2PBF1125A	MV2736	PRZR SPRAY LINE ISO VLV	YES	6
	2PBF1126A	RC239A	PZR VAPOR SPACE SMPL LINE	YES	1
	2PBF1127A	RC239B	PZR LIQUID SAMPLE VALVE	YES	1
	2PBF1128A	MV0240B	RC PRZR SAMPLE VLV 2	YES	6

SYMBOLS; ACC = ACCEPTABLE

APPENDIX C-3

CIRCUIT COORDINATION EVALUATION SUMMARY

POWER SUPPLY	CIRCUIT	COMPONENT	DESCRIPTION	COORD- INATED	NOTES
F11A	2PBF1130A	DH11	DH NORM SUCT LINE VLV	YES	1
	2PBF1131A	S33-2	CTRM EMERG A/C UNIT 2	YES	1
	2PBF1132A	SW2928	CTRM EVS COND UNIT IN VLV	YES	1
	2PBF1133A	MV1338	CC CRD BOOST PMP SUCT VLV	YES	6
	2PBF1137A	F11B	FEEDER TO MCC F11B	YES	1
	2PBF1140A	MV2000	CTMT ISO VALVE PENET 71A	YES	6
	2PBF1143A	F11C	AUTO BKR REMOVED	YES	1, 8
	2PBF1144A	MV2002	CTMT ISO VALVE PENET 73A	YES	6
	2PBF1146A	F11D	FEEDER TO MCC F11D	YES	1
	2PBF1149A	C21-2	CTRM EVS FAN 2	YES	1
	2PBF1180A	MV5075	CTMT VACUUM RELIEF VALVE	YES	6
	2PBF1181A	MV5076	CTMT VACUUM RELIEF VALVE	YES	6
	2PBF1182A	MV5077	CTMT VACUUM RELIEF VALVE	YES	6
	2PBF1183A	MV5078	CTMT VACUUM RELIEF VALVE	YES	6
	2PBF1184A	MV5079	CONTROL VACUUM RELIEF VLV	YES	6
	2PBF1189A	F11E	FEEDER TO MCC F11E	YES	1
	BPBF1113A	MC0562	CTMT RECIRC FAN 2	YES	6
	BPBF1114A	X49D1	CTMT LTG XFMR	YES	6
	BPBF1115A	BSWX79D1	CTMT LTG DISC SWCH	YES	6
	BPBF1116A	X57D1	CTRM & AUX BLDG LTG XFMR	YES	6
F11B	2PBF1138A	MV2012B	CTMT NORM SUMP ISO VLV	NO	6, 21
	2PBF1147A	CS1531	CS PUMP OUT VLV	NO	1, 21
	2PBF1148A	DH07A	BWST OUT VLV	NO	1, 21
	2PBF1158A	CC1407B	CC OUT ISO VLV	NO	1, 21
	2PBF1159A	CC1411B	CC IN ISO VLV	NO	1, 21
	2PBF1160A	MV0624B	CTMT ISO VALVE PENET 72	NO	6, 21
	2PBF1176A	MV1567B	CC IN ISO VALVE 2 TO CRD	NO	6, 21
	2PBF1186A	MV5262	CTRM EMER VNT FN 2 IN VLV	NO	6, 21
	2PBF1188A	MS107A	SG 1 TO AFPT 2	NO	1, 21
F11C	2CBF1141B	HP02B	HP INJECT VLV	YES	1
	2PBF1129A	DH1518	DH NORM SUCTION VLV	YES	1
	2PBF1134A	DH2734	DH BWST SUCTION VLV	YES	1
	2PBF1136A	DH01A	LP INJECT VLV	YES	1
	2PBF1139A	HP02A	HP INJECT VLV	YES	1
	2PBF1151A	MV5037	CTMT H2 DILUT OUT ISO VLV	YES	6
	2PBF1177A	SW1383	AFP 2 SUCTION VLV	YES	1
	BPBF1167A	P-372B	MUP MN OIL PUMP	YES	1
	BPBF1168A	P-372D	MUP AUX LUBE OIL PUMP	YES	1
F11D	2PBF1117A	MV0601	MN FW 2 ISOLATION VALVE	YES	6
	2PBF1142A	DH09A	CTMT EMERG SUMP VLV	N/A	5, 11
	2PBF1145A	WF60	H2 DILUT FLT HTR	YES	6
	2PBF1153A	MP892A	ECCS SUMP PUMP 2A	YES	6
	2PBF1154A	MP892B	ECCS SUMP PUMP 2B	YES	6
	2PBF1157A	C31-3	ECCS RM 113 CLR FAN 3	YES	6
	2PBF1161A	CC2649	CC RETURN HDR 2 VLV	NO	1, 21
	2PBF1164A	MV5068	CTMT H2 PURGE FN 2 IN VLV	NO	6, 21
	2PBF1178A	MV5441	ECCS RM 115 HVAC ISO VLV	NO	6, 21
	2PBF1179A	MV5442	ECCS RM 115 HVAC ISO VLV	NO	6, 21
	2PBF1185A	MV0830	DHR CLR 2 OUT XOVER	NO	6, 21
	2PBF1187A	DBC2PN	FDR TO BAT CHGR DBC2PN	NO	1, 21
	BPBF1107A	MVMU12B	MU FLT 2 IN VLV	YES	6
	BPBF1169A	MP0382	BA PUMP 2	YES	6
	BPBF1171A	WET721	BA ADD TANK 2 HEATER 1	YES	6
	BPBF1172A	WET722	BA ADD TANK 2 HEATER 2	YES	6
F11E	2PBF1192A	C31-1	ECCS RM 115 CLR FAN 1	NO	6, 21
	2PBF1193A	C31-2	ECCS RM 115 CLR FAN 2	NO	6, 21
	2PBF1194A	HP31	HPI PMP 2 RECIRC VLV	NO	1, 21
	2PBF1195A	DH63	LPI/HPI CROSS-TIE VLV	NO	1, 21

SYMBOLS; ACC = ACCEPTABLE

APPENDIX C-3

CIRCUIT COORDINATION EVALUATION SUMMARY

POWER SUPPLY	CIRCUIT	COMPONENT	DESCRIPTION	COORD- INATED	NOTES
F11E	BPBF1196A	F11F	480VAC MCC F11F	YES	6
F12A	2PBF1201A	AF3871	AFWP 2 DISCH TO SG1	YES	1
	2PBF1202A	F12C	AUTO BKR REMOVED	YES	1,8
	2PBF1203A	MC0302	EMER VENT FAN 2	YES	6
	2PBF1204A	C133	LV SWGR RM VENT FAN 2	YES	1
	2PBF1205A	C73-2	AFP RM VENT FAN 2	YES	1
	2PBF1208F	MU6408	MU CROSS CONNECT ISO VLV	YES	1
	2PBF1209A	DBC2P	BATTERY CHARGER DBC2P	YES	1
	2PBF1210A	HV5598	BATT RM 428A ATM DMPR	YES	1
	2PBF1212A	DBC2N	BATTERY CHARGER DBC2N	YES	1
	2PBF1213A	WLB11	Power Circuit (WLB11)	YES	5
	2PBF1214A	WLB12	Power Circuit (WLB12)	YES	5
	2PBF1215A	WLB13	Power Circuit (WLB13)	YES	5
	2PBF1217A	WLB11,2,3	PWR CKT PZR HTR	YES	5,25
	2PBF1218A	MC5018	EMER VNT FAN DISCH DMPR 2	YES	6
	2PBF1220A	YRF2	480VAC/125VDC RECTIFIER	YES	6
	2PBF1221A	YRF4	480VAC/125VDC RECTIFIER	YES	6
	2PBF1223A	SW1367	CAC 2 IN ISO VLV	YES	1
	2PBF1224A	SW1368	CAC 3 IN ISO VLV	YES	1
	2PBF1225A	MC5057	CROSS TIE DUCT WORK DMPR	YES	6
	2PBF1226A	MV5025	FUEL HAND AREA BYPASS VLV	YES	6
	2PBF1227A	CC1409	LTDWN CLR 1 CC WTR IN VLV	YES	1
	2PBF1228A	CC1410	LTDWN CLR 2 CC WTR IN VLV	YES	1
	2PBF1229A	MS0612	CTRM STANDBY COND 2 FAN	YES	6
	2PBF1230A	P195-2	EDG FUEL OIL TRANSFER PUM	YES	1
	2PBF1231A	P198-1	HPI PMP 2 AC LO PMP	YES	1
	2PBF1237A	MU01A	LETDOWN CLR 1 IN VLV	YES	1
	2PBF1238A	MU01B	LETDOWN CLR 2 IN VLV	YES	1
	2PBF1239A	HV5314A	LV SWGR RM 428 DAMPER	YES	1
	2PBF1285J	RC200	PZR SMPL CTMT VNT HDR VLV	YES	1
F12B	2PBF1255A	C25-3	EDG RM 2 VENT FAN 3	YES	1
	2PBF1256A	C25-4	EDG RM 2 VENT FAN 4	YES	1
	2PBF1258A	C3622	EMER DG 2 IMMERSION HTR	YES	6
	2PBF1259A	C78-2	BATT RM VENT FAN 2	YES	1
	2PBF1260A	MVRC02	PRZR 1 SPRAY LINE VLV	YES	6
	2PBF1261A	MP1472	EMER DG 2 SOAK PUMP	YES	6
	2PBF1262A	AF3872	AFWP 2 DISCH TO SG2	YES	1
	2PBF1270A	YF1	FEEDER TO 120V AC MCC	YES	1
	BPBF1257A	MP0082	DO XFER PUMP 2	YES	6
	BPBF1263A	MC0112	EMER DG AIR COMPSR 2	YES	6
	BPBF1267A	MP1592	FUEL OIL BOOSTER PUMP 2	YES	6
	BPBF1268A	MP173B	DO STRG TK AREA SUMP PMP	YES	6
	BPBF1269A	WE1092	DO PMP HSE ELEC UNIT HTR	YES	6
	BPBF1289A	MP1474	EDG 2 AC LUBE OIL PUMP	YES	6
F12C	2PBF1274A	MF0152	SW PUMP STRNR 2	YES	6
	2PBF1275A	SW1380	SWP 2 STRN DRN VLV	YES	6
	2PBF1277A	SW1395	TPCW HX IN HEADER ISO VLV	YES	1
	2PBF1278A	F12D	FDR BKR TO MCC F12D	YES	1
	2PBF1280A	EF12C	480VAC MCC	YES	6
	2PBF1281A	SW2930	SW TO INT FOREBAY VLV	YES	1
	2PBF1282A	SW2932	SW TO COLLECT BASIN VLV	YES	1
F12D	2PBF1211A	C99-3	SW PMP RM EXH FAN 3	NO	1,21
	2PBF1236A	C99-4	SW PMP RM EXH FAN 4	NO	1,21
F15	2PBF105A	C1-3	CACS FAN 3 LRGST LOAD	YES	1
F16A	2PBF1616F	MU6420	MU32 BYPASS VLV	YES	1
	2PBF1617D	MU3971	RC MU PUMP SUCT VLV	YES	1

SYMBOLS; ACC = ACCEPTABLE

APPENDIX C-3

CIRCUIT COORDINATION EVALUATION SUMMARY

POWER SUPPLY	CIRCUIT	COMPONENT	DESCRIPTION	COORD- INATED	NOTES
F16A	2PBF1620A	F16B	480VAC MCC	YES	6
	2PBF1622A	X5302	480-120V 1.5KVA XFMR	YES	6
	2PBF1624A	XY2	FEEDER CVTXY2 (86-0272)	YES	1
	2PBF1625A	XY4	FEEDER CVTXY4 (86-0272)	YES	1
F7	BPBF703A	MC1390	INST AIR COMP	YES	6,27
	BPBF705A	F13	480V AC MCC	YES	6
	BPBF707A	F71	480V AC MCC	YES	1,27
F71	BPBF7105A	C3410	EIAC CLOSED COOLING LOOP	YES	6
	BPBF7114A	P242-1	MDFP AUX LUBE OIL PUMP	YES	1
	BPBF7117A	Y3401	DIST PANEL Y3401	NO	6,22
	BPBF7118A	5405B	ROOM AIR COND ROOM 334B	YES	6
RC3702	(2CY214A)	VARIOUS	RECEPTACLE	ACC	7,16
RC3704	(1CY117A)	VARIOUS	RECEPTACLE	ACC	7,16
RC3706	(1CY117B)	VARIOUS	RECEPTACLE	ACC	7,16
RC4604	(1CD1P20B)	VARIOUS	RECEPTACLE	YES	7
RC4605	(2CD2P20C)	VARIOUS	RECEPTACLE	YES	7
RC4606	2CVRC2J	RC2A	RC2A PORV (2PD2N17A)	ACC	1,29
RC4801	(1PD1P12A)	VARIOUS	RECEPTACLE	YES	1
Y1	1CY103A	C5762B	PROCESS & RAD MON CABINET	YES	2,26
	1CY104A	C6708	CTRM EMERGENCY HVAC CONTR	YES	1,26
	1CY104B	C6714	CTRM EMERGENCY HVAC CONTR	YES	1,26
	1CY106A	C5762E	RPS-1 CABINET NI-NI2	YES	1,9,26
	1CY107A	C5762D	SFAS CH.1 LOGIC PANEL	YES	1,9,26
	1CY108A	C3630	CONT POWER TO AUX SD PANE	YES	1,3,26
	1CY108B	C3628	CONT POWER ESS METER HPI	YES	1,26
	1CY110A	D1	D1 CONTROL POWER	YES	2,26
	1CY110B	RC4604	NON SSD RELAYS	YES	2,26
	1CY112A	C5716	CTRM IND LTS HPI FLOW	YES	1,26
	1CY112B	C5763B	POST ACC MON	YES	7,26
	1CY112C	C5708	MAIN CTRL BOARD	YES	1,26
	1CY113A	CFP03Q	BWST INST HEAT TRACING	YES	6,26
	1CY114A	RC3701	RELAY CABINET RC3701	YES	5,26
	1CY115B	C5761A	SFRCS CH.1 LOGIC PANEL	YES	1,9,26
	1CY116A	C5717	CONT POWER SV IND LIGHTS	YES	5,26
	1CY117A	RC3704	NON SSD RELAYS	YES	7,26
	1CY117B	RC3706	RELAY CABINET	YES	7,26
	1CY117C	CDE-11B-1	NON SSD CONT PWR	YES	7,26
	1CY117D	CDE-11B-2	CONT POWER DH12 INTLK	YES	5,26
	1CY118A	PDY5000B	PDY5000B	YES	2,26
	1CY118B	PDY5000C	PDY5000C	YES	2,26
	1CY118C	TY5443	TY5443	YES	2,26
	1CY118D	C5784A	ARTS CABINET C5784A	YES	2,26
	1CY119A	C3801	CTMT HYDROGEN SYS PANEL	YES	6,26
	1CY120A	RC3607	RELAY CABINET RC3607	YES	2,26
	1CY120B	RC3601	RELAY CABINET RC3601	YES	2,26
	1CY120C	RC3605	RELAY CABINET RC3605	YES	2,26
	1CY120D	YL1	YL1	YES	2,26
	1CY121A	C5762A	SFRCS CH.3 RELAYS	YES	1,9
	1CY122A	CFPP10Q	F/P PANEL CFPP10Q	YES	6,26
	1CY122B	CFPP17Q	F/P PANEL	YES	6,26
	1PY105A	C3615	EDG1-1 PANEL (NORM)	YES	1,26
	ACY1VMA	EI6277	REMOTE VOLTMETER AT C5715	YES	6,26

SYMBOLS; ACC = ACCEPTABLE

APPENDIX C-3

CIRCUIT COORDINATION EVALUATION SUMMARY

POWER SUPPLY	CIRCUIT	COMPONENT	DESCRIPTION	COORD- INATED	NOTES
Y1A	1CY103AA	L1T4618	CTMT NOR SUMP LVL	YES	2,26
	1CY104AA	C3645	CONT POWER TO AUX FW CONT	YES	1,26
	1CY107AA	C5799	POST ACCIDENT MONITORING	YES	1,26
	1CY108AA	NY5874B	NEUTRON FLUX MONITORING C	YES	1,26
	1CY108AB	C4808	NEUTRON FLUX MON CAB	YES	5,26
	1CY109AA	C5799	POST ACCIDENT MONITORING	YES	1,26
	1CY115AA	C5763B	POST ACC MON	YES	2,26
	1CY1A105A	C5763A	POST ACCIDENT MONITORING	YES	1,9,26
	1PY111AA	C5762G	SAFETY GRADE INST CAB	YES	2,26
	1PY112AA	C5603	VENT STACK RAD MON	YES	2,26
	1PY113AA	RC4801	RELAY CABINET RC4801	YES	2,26
	1PY114AA	RE4597AA	CTMT NORM RNG RAD MON	YES	2,26
	1PY117AA	RE4598AA	STA VENT EFF HI RAD MON	YES	2,26
	1PY118AA	RIC4598AA-2	STA EFF RAD MON LOC DISP	YES	2,26
	1PY121AA	RE4598AB	STA VENT EFF HI RAD MON	YES	2,26
	ACY1AVMA	EI6277	REMOTE VOLTMETER AT C5715	YES	2,26
Y2	2CY203A	C5755B	PROCESS & RAD MON CABINET	YES	2,26
	2CY204A	C6715	CTRM EMERGENCY HVAC CONTR	YES	1,2,26
	2CY204B	C6709	CTRM EMERGENCY HVAC CONTR	YES	1,2,26
	2CY206A	C5755E	RPS-2 CABINET NI	YES	1,9,26
	2CY207A	C5755D	SFAS CH.2 LOGIC PANEL	YES	1,9,26
	2CY208A	C3630	CONT POWER TO AUX SD PANE	YES	1,3,26
	2CY208B	C3629	CONT POWER ESS METER HPI	YES	1,26
	2CY210A	D2	BREAKER CONT POWER ALT	YES	6,26
	2CY211A	C5716	CTRM IND LTS HPI FLOW	YES	1,26
	2CY211B	C5705	CONT POWER IND LTS	YES	7,26
	2CY211C	C5709	CTRM IND LIGHTS, DIXSONS	YES	1,26
	2CY212A	C5717	CONT POWER SV IND LIGHTS	YES	5,26
	2CY212B	C5755A	IND LIGHTS	YES	7,26
	2CY214A	RC3702	RELAY CABINET	YES	5,26
	2CY214B	RC4605	NON SSD RELAYS	YES	5,26
	2CY214C	CDF-11A-1	CONTROL DISCONNECT TRANSF	YES	5,26
	2CY215B	C5792A	SFRCS CH.2 LOGIC PANEL	YES	1,9,26
	2CY216A	RC3705	RELAY CABINET	YES	5,26
	2CY216B	RC3703	NON SSD RELAYS	YES	5,26
	2CY216C	WF60	H2 DILUT FLT HTR	YES	5,26
	2CY217A	PDY5014B	FDPY5014B	YES	2,26
	2CY217B	PDY5014C	FDPY5014C	YES	2,26
	2CY217C	FTY5444	FTY5444	YES	2,26
	2CY217D	C5784B	ARTS CABINET C5784B	YES	2,26
	2CY218A	C3801	CTMT HYDROGEN SYS PANEL	YES	2,26
	2CY219A	RC3608	RELAY CABINET RC3608	YES	2,26
	2CY219B	RC3602	RELAY CABINET RC3602	YES	2,26
	2CY219C	RC3606	RELAY CABINET RC3606	YES	2,26
	2CY219D	YL2	ESSENTIAL LTG ROOM 323	YES	2,26
	2CY220A	CFP04Q	BWST INSTR HEAT TRACING	YES	6,26
	2CY221B	C5792	SFRCS CH 4 RELAYS	YES	1,9,26
	2CY222A	CFPP11Q	F/P PANEL CFPP11Q	YES	6,26
	2CY222B	CFPP18Q	F/P PANEL CFPP18Q	YES	2,26
	2PY205A	C3616	EDG1-2 PANEL LIGHTS	YES	1,26
	BCY2VMA	EI6282	REMOTE VOLTMETER AT C5715	YES	6,26
Y2A	2CY203AA	LIT4617	CTMT SUMP LEVEL	YES	5,26
	2CY204AA	C4625	CONT PWR AUX FW CONT PNL	YES	1,16
	2CY207AA	C5798	POST ACCIDENT MONITORING	YES	1,26
	2CY208AA	NY5875B	NEUTRON FLUX MON	YES	1,26
	2CY208AB	C4602	NEUTRON FLUX MON	YES	1,26
	2CY209AA	C5798	POST ACCIDENT MONITORING	YES	5,26
	2CY215AA	C5755A	IND LIGHTS	YES	6,26
	2CY2A205A	C5755G	POST ACCIDENT MONITORING	YES	1,9,26
	2PY211AA	C5755H	SAFETY GRADE INSTR CAB	YES	6,26

SYMBOLS; ACC = ACCEPTABLE

APPENDIX C-3

CIRCUIT COORDINATION EVALUATION SUMMARY

POWER SUPPLY	CIRCUIT	COMPONENT	DESCRIPTION	COORD- INATED	NOTES
Y2A	2PY212AA	C5603A	VENT STACK RAD MON	YES	6,26
	2PY213AA	RC4606	DC CONT PWR TO PORV	YES	6,26
	2PY217AA	RE4598BA	STA VENT RAD MON (JT5353)	YES	6,26
	2PY218AA	RIC4598BA-2	STA EFF RAD MON (LOC DSP)	YES	6,26
	2PY219AA	RE4597BA	CTMT NORM RNG RAD MON	YES	6,26
	2PY221AA	RE4598BB	STA VENT RAD MON ACC RNG	YES	6,26
Y3	3CY307A	C5763D	SFAS CH.3 LOGIC PANEL	YES	1,26
	3CY308A	C5763F	RPS-3 CABINET	YES	6,26
	3CY309A	RC3603	RELAY CABINET RC3603	YES	5,26
	3CY310A	CFP05Q	BWST HEAT TRACING	YES	6,26
	3CY312A	C5784C	ARTS CABINET	YES	6,26
	3CY313A	C5760A	CTRM CABINET	YES	2,26
	3PY305A	C3615	EDG1-1 PANEL (NORM)	YES	5,26
	ACY3VMA	EI6281	REMOTE VOLTMETER AT C5715	YES	6,26
Y4	2CY419A	C5705	CONT POWER IND LTS	YES	5,9,26
	4CY407A	C5756D	SFAS CH 4 LOGIC PANEL	YES	1,26
	4CY408A	C5756F	RPS-4 CABINET	YES	6,26
	4CY409A	C5764A	SEISMIC RECORDING SYS	YES	6,26
	4CY410A	RC3604	RELAY CABINET RC3604	YES	6,26
	4CY411A	CFP06Q	BWST HEAT TRACE CABINET	YES	6,26
	4CY412A	C5784D	ARTS CABINET C5784D	YES	6,26
	4CY414A	C5756G	CTRM CABINET	YES	2,26
	4PY405A	C3616	EDG1-2 PANEL LIGHTS	YES	5,26
	BCY4VMA	EI6278	REMOTE VOLTMETER AT C5715	YES	6,26
YAU	ACYAU10A	JT5707	JUNCTION BOX, C5767A	YES	6
	ACYAU13A	C5754K	EPF MULTIPLEXER CABINET	YES	6
	ACYAU14B	JT5708	JUNCTION BOX	YES	6
	ACYAU20A	C4603	CRD BKR B SHUNT TRIP CKT	YES	6
	ACYAU22A	C1702	PANEL	YES	6
	ACYAU24A	C4101	H2 DETECTOR CABINET	YES	6
	ACYAU27B	C5757D	MFPT 1-1 CTRL	YES	6
	ACYAU28A	C5764D	ENVIRONMENTAL MONITOR SYS	YES	6
	ACYAU29A	R3004	RACK	YES	6
	ACYAU29B	R3002	RACK	YES	6
	ACYAU29C	R3003	RACK	YES	6
	ACYAU29E	NAIT6859	RACK	YES	6
	ACYAU29F	R2022	RACK	YES	6
	ACYAU30A	C5765E	PROCESS & RADIATION MON	YES	6
	ACYAU32A	C5715	DC & INSTR AIR BKR IND	YES	6
	ACYAU33A	C6710-12	MOTOROLA TRANSCEIVERS	YES	6
	ACYAU34A	C3002	DIESEL FIRE PUMP CTRL	YES	6
	ACYAU35A	RC3717	RELAY CABINET	YES	6
	ACYAU35B	RC3715	RELAY CABINET	YES	5
	ACYAU35C	RC1760	RELAY CABINET	YES	6
	ACYAU36A	RC3005	RELAY CABINET	YES	6
	ACYAU36B	RC3003	RELAY CABINET	YES	6
	ACYAU36C	RC3001	RELAY CABINET	YES	6
	ACYAU37A	RC4311	RELAY CABINET	YES	6
	ACYAU38A	C3610	RELAY CABINET	YES	6
	ACYAU39A	C5722	MAIN CTRL PANEL	YES	6
	ACYAU40A	RC2404	RELAY CABINET	YES	6
	ACYAU40B	R2204	LOCAL ANNUNCIATOR	YES	6
	ACYAU41A	RC2825	RELAY CABINET	YES	6
	ACYAU41B	R1801	RACK	YES	6
	ACYAU42A	JT4722	FIRE PROTECTION (C5401)	YES	6
	ACYAU43A	C5718	MAIN CTRL BOARD	YES	6
	ACYAU44A	C5721	FEEDWATER PANEL	YES	6
	ACYAU45A	ZETRON	RECEPTACLE	YES	6
	ACYAU46A	C5765F	PROCESS & RADIATION MON	YES	6

SYMBOLS; ACC = ACCEPTABLE

APPENDIX C-3

CIRCUIT COORDINATION EVALUATION SUMMARY

POWER SUPPLY	CIRCUIT	COMPONENT	DESCRIPTION	COORD-INATED	NOTES
YAU	ACYAU46B	C5781	PROCESS & RADIATION MON	YES	6
	ACYAU47A	C5719	MAIN CTRL BOARD	YES	6
	ACYAU48A	VARIOUS	RECEPTACLE	YES	6
	ACYAU48B	YATS5701	COMPUTER EQUIP. ATS	YES	6
	ACYAU49A	C5708	MAIN CTRL BOARD	YES	6
	ACYAU49B	C5706	MAIN CONTROL BOARD	YES	6
	ACYAU50A	C5772C	PLANT PROCESS COMPUTER	YES	6
	ACYAU50B	C5772F	PLANT PROCESS COMPUTER	YES	6
	ACYAU52A	C5751C	LIOP 2 FANS	YES	6
	ACYAU53A	C5720	MAIN CTRL BOARD	YES	6
	APYAU02A	Y4501	FUSE PANEL Y4501	YES	6
	APYAU04A	C5765A	PROCESS & RADIATION MON	YES	6
	APYAU05A	Y3601	FUSE PANEL Y3601	YES	6
	APYAU07A	YATS4601-	COMP. MULTIPLEXOR ATS	YES	6
	APYAU09A	C5758A	BUFFER CABINET	YES	6
	APYAU11A	U500	MAIN COMMUNICATION BOX	YES	6
	APYAU12A	C5758C	MISC ELECTRONIC CTRL CAB	YES	6
	APYAU15A	C5758B	DIAGNOSTIC CABINET	YES	6
	APYAU16A	VARIOUS^	RECPT. COMP. RM PRINTERS	YES	6
	APYAU17A	C5772B	PLANT PROC. COMPUTER	YES	6
	APYAU18A	C5772A	PLANT PROC. COMP., C5770A	YES	6
	APYAU26A	C5760D	CONT POWER NNIY	YES	1
YBU	BCYBU19A	C1702	PANEL	YES	6
	BCYBU20A	C4301	GEN VOLT REG CABINET	YES	6
	BCYBU21A	C3303	GEN COOL SYS CABINET	YES	6
	BCYBU23A	C5715	DC & INSTR AIR BKR IND	YES	6
	BCYBU23B	C5718	MAIN CTRL BOARD	YES	6
	BCYBU24A	C4801X	CRD PIP 0% LIGHTS	YES	6
	BCYBU26A	C5764B,C	VIBRATION MON 2Y8900A,B	YES	6
	BCYBU27A	C4606	CRD BKR A SHUNT TRIP CKT	YES	6
	BCYBU29A	C5754K'	RECPT. PLANT COMP. ROOM	YES	6
	BCYBU30A	C5301	CROSS WATT HR METER CAB	YES	6
	BCYBU31A	C5720	MAIN CTRL BOARD	YES	6
	BCYBU31B	C5719-	PLANT PROC. COMP., C5767B	YES	6
	BCYBU33A	C5757C	TURBINE INSTR CABINET	YES	6
	BCYBU35A	C5757D	MFPT 1-1 CTRL	YES	6
	BCYBU36A	C3404	STATION AIR COMPRESSOR 2	YES	6
	BCYBU37A	RC4410	RELAY CABINET	YES	6
	BCYBU37B	RC4401	RELAY CABINET	YES	6
	BCYBU37C	RC2304	RELAY CABINET	YES	6
	BCYBU37D	FLI3709	FLOW INDICATOR	YES	6
	BCYBU38A	C5754H	LOAD FREQ CTRL	YES	6
	BCYBU39A	C5723	DIGITAL FREQ IND	YES	6
	BCYBU41A	RC1761	RELAY CABINET	YES	5
	BCYBU42A	RC3006	RELAY CABINET	YES	6
	BCYBU42B	RC3004	RELAY CABINET	YES	6
	BCYBU42C	RC3002	RELAY CABINET	YES	6
	BCYBU43A	RC3718	RELAY CABINET	YES	5
	BCYBU43B	RC3716	RELAY CABINET	YES	5
	BCYBU44A	C3611	RELAY CABINET C3611	YES	6
	BCYBU45A	C5722	MAIN CTRL PANEL	YES	6
	BCYBU47A	RC2826	RELAY CABINET	YES	6
	BCYBU48A	C5764B	VIBRATION ACOUSTIC MON	YES	6
	BCYBU48B	C5786	CABINET	YES	6
	BCYBU49A	C5721	FEEDWATER PANEL	YES	6
	BCYBU50A	C5761B	ICS Y BUS FEED (ALT)	YES	6
	BCYBU52A	C5754F	STATION ANNUNCIATOR	YES	6
	BCYBU52B	JT5712	COMM DATA TRANSMISSION	YES	6
	BCYBU53A	C5708	MAIN CTRL BOARD	YES	6
	BCYBU53B	C5706	MAIN CONTROL BOARD	YES	6
	BPYBU02A	C5765C	PROCESS & RADIATION MON	YES	6

SYMBOLS; ACC = ACCEPTABLE

APPENDIX C-3

CIRCUIT COORDINATION EVALUATION SUMMARY

POWER SUPPLY	CIRCUIT	COMPONENT	DESCRIPTION	COORD- INATED	NOTES
YBU	BPYBU03A	Y4502	FUSE PANEL Y4502	YES	6
	BPYBU05A	Y3602	PANEL Y3602	YES	6
	BPYBU08A	C5757B	EHC SYSTEM CABINET	YES	6
	BPYBU09A	C5758F	MISC ELECTRONIC CTRL CAB	YES	6
	BPYBU10A	YATS4601	COMPUTER RAIP	YES	6
	BPYBU11A	U500	MAIN COMMUNICATION BOX	YES	6
	BPYBU12A	C5772G-	PLANT PROC. COMP., C5770B	YES	6
	BPYBU14A	C5772D, E	PLANT PROCESS COMPUTER	YES	6
	BPYBU17A	C5751	COMPUTER LIOP 2	YES	6
	BPYBU18A	C5751	COMPUTER LIOP 2	YES	6
	BPYBU51A	C5759C	INST POWER NNI-X BUS (ALT)	YES	1
YE1	1PYE101A	HV5329A	EDG RM 1 DAMPER	YES	1, 24
	1PYE102A	HV5329B	EDG RM 1 DAMPER	YES	1, 24
	1PYE103A	HV5329C	EDG RM 1 DAMPER	YES	1, 24
	1PYE104A	HV5305	LV SWGR RM FAN 1 DAMPER	YES	1, 24
YE2	1CYE211A	C5761A	SFRCS CH.1 LOGIC PANEL	NO	1, 9, 24
	1PYE201A	MV5011A	CTMT AIR SMPL ISO VLV	NO	6, 24
	1PYE202A	MV5011B	CTMT AIR SMPL ISO VLV	NO	6, 24
	1PYE203A	MV5011C	CTMT AIR SMPL ISO VLV	NO	6, 24
	1PYE204A	MV5011D	CTMT AIR SMPL ISO VLV	NO	6, 24
	1PYE205A	MV5011E	CTMT AIR SMPL RET ISO VLV	NO	6, 24
	1PYE206A	MC5000A	EMER VNT SYS MOD DMPR 1	NO	6, 24
	1PYE207A	MC5000B	EMER VNT SYS MOD DMPR 2	NO	6, 24
	1PYE209A	HV5443A	CCWP RM FAN 1 BYPASS DMPR	NO	6, 24
	1PYE210A	HV5443B	CCWP RM FAN 1 IN DMPR	NO	6, 24
	1PYE212A	HV5443C	CCWP RM OA LOUVER 1	NO	6, 24
YF1	2PYF101A	HV5336A	EDG RM 2 DAMPER	YES	1, 24
	2PYF102A	HV5336B	EDG RM 2 DAMPER	YES	1, 24
	2PYF103A	HV5336C	EDG RM 2 DAMPER	YES	1, 24
	2PYF104A	HV5314	LV SWGR RM FAN 2 DAMPER	YES	1, 24
YF2	2CYF211A	C5792A	SFRCS CH.2 LOGIC PANEL	NO	1, 9, 24
	2PYF201A	MV5010A	CTMT AIR SMPL ISO VLV	NO	6, 24
	2PYF202A	MV5010B	CTMT AIR SMPL ISO VLV	NO	6, 24
	2PYF203A	MV5010C	CTMT AIR SMPL ISO VLV	NO	6, 24
	2PYF204A	MV5010D	CTMT AIR SMPL ISO VLV	NO	6, 24
	2PYF205A	MV5010E	CTMT AIR SMPL ISO VLV	NO	6, 24
	2PYF206A	MC5014A	EMER VNT SYS MOD DMPR 3	NO	6, 24
	2PYF207A	MC5014B	EMER VNT SYS MOD DMPR 4	NO	6, 24
	2PYF209A	HV5444A	CCWP RM FAN 2 BYPASS DMPR	NO	6, 24
	2PYF210A	HV5444B	CCWP RM FAN 2 IN DMPR	NO	6, 24
	2PYF212A	HV5444C	CCWP RM OA LOUVER 2	NO	5, 24

SYMBOLS; ACC = ACCEPTABLE

NOTES FOR APPENDIX C-3

1. Component is required for Safe Shutdown. The values represent the fuse size or frame size/long-time delay pickup setting of the trip device. See notes on Drawing E-4 for typical applications of power sensor (type PS1-A) overcurrent trip devices on bus incoming and tie breakers. Type SST overcurrent trip devices with internal ground fault protection are provided on certain feeder breakers.
2. Within a family of protective devices, the most limiting are the highest 116 rated load (downstream) device and the lowest rated supply (upstream) device. Less limiting devices are bounded by these devices, and therefore the less limiting devices are normally not evaluated directly.
3. Process rack, relay and control cabinet loads are individually fused and coordinated with the incoming breaker/fuse. Where the cabinet provides power for solenoids, individual coordinated fuses serve each branch circuit. Fuse sized and types were taken from the design and vendor drawings and the fuse list. Where a specific type was not listed or verified by walkdown, the most conservative type of those stocked by Davis-Besse for the application was assumed.
4. Procedures require stripping loads prior to backfeed, therefore, associated circuits will be verified to be tripped/disconnected prior to energizing the backfeed path.
5. See Fire Hazard Analysis Report (FHAR Appendix A Note 5; this component acts as a power supply and the connected load cables are routed to evaluate spurious actuation due to hot shorts, however, coordination of the individual loads is not required since power to this component is not needed for Safe Shutdown.
6. Evaluated for associated circuit coordination.
7. This power supply is "Daisy-chained" with a Safe Shutdown component. Therefore, coordination is required to ensure operability of the Safe Shutdown component. For example, a typical circuit feeds three panels off a 10-amp fuse. Only one is considered Safe Shutdown, but all three cables are associated with the safe Shutdown component and routed in FHAR Appendix B. The largest fuse on the other two non-Safe Shutdown relay cabinets is evaluated to ensure that a short there blows the fuse at the non-Safe Shutdown panel instead of the 10-amp fuse.
8. GENERAL NOTE: Due to implementation of FCR 85-0063, the 480V level has been adequately coordinated for Safe Shutdown; see the "480V Breaker Coordination to Meet Common Power Source Criteria of Appendix R (Calculation C-EE-013.10-001). Cables associated with breakers that will have the automatic trip function removed are listed in Appendix C-3 are protected by the upstream breakers.

A fault in the feeder to the Jockey Fire Pump (MP0060) due to a fire in Area BH will trip BE1280 considering the cable length to the fault; this provides adequate coordination.

"Yes" indicates adequate coordination for Appendix R. "No" indicates that the Safe Shutdown Analysis assumes loss of the power source. "ACC" means that a lack of coordination is acceptable and is considered in the Safe Shutdown Analysis. An entry of

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NA in the Load column indicates that a single fuse is provided for the entire scheme listed.

9. Unbuffered AC does not leave this cabinet; therefore, coordination is not required beyond the feeder breaker.
10. Number not used.
11. Containment Emergency Sump Valve is depowered for Safe Shutdown.
12. Circuits 1CY104A & B (2CY204A & B) provide 120V AC control power to the Control Room Emergency Ventilation System Panels C6708 & C6714 (C6715 & C6709) from panels Y1 (Y2).

A review of E-801, Rev. 12, E-60B, Sht 37, Rev. 3, E-60B, Sht 34, Rev. 3, and Vendor Drawings 7749-M-410-550-7, 7749-M-551-7 and 7749-M-410-281-10 shows that all circuits powered from Y1 and Y2 are Safe Shutdown cables except for 1LV4906A(2LV4907) which are buffered low level instrument cables. A short circuit or induced voltage on the low level instrument cables will not affect Safe Shutdown.

The power serves redundant equipment in Fire Area HH and control circuits routed in common areas DD and FF; otherwise, redundant Trains of CREVS are not routed in the same fire area. A lack of coordination within a Train due to a fire in the above specific areas could result in a loss of CREVS, but this is already assumed in the analysis. The fuses at Y1, Y2 are adequately coordinated with the incoming fuse.

Therefore, there are no associated circuits of concern and the lack of coordination does not affect Safe Shutdown.

13. Y1(Y2) and alternate feeds Y3(Y4) supply control power to the respective emergency diesel generator cabinets as follows:

C3615	E-559 Sht 1, Rev 10	C3616	E-560 Sht 1, Rev 9
	E-559 Sht 2, Rev 9		E-560 Sht 2, Rev 11
C3617	E-559 Sht 3, Rev 13	C3618	E-560 Sht 3, Rev 13
C3621	E-559 Sht 4, Rev 13	C3622	E-560 Sht 4, Rev 13

Y1 & Y4 are used as the control power sources due to coordination concerns.

To evaluate the circuits associated with the diesels, the conservative approach was taken to review all cables to and from the cabinets as shown on the above wiring diagrams.

- a. Safe Shutdown cables have been evaluated separately.
- b. Cables that interconnect the above cabinets are all local to the respective diesel (same fire area) and, therefore, could not become an associated circuit of concern (e.g. Scheme GD107 and 111).

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- c. The Day Tank level instrument is separately powered from C5758C (M-324-41-18 Sht. 2) and is not an associated circuit of concern. Channel B is similar.
- d. Circuits with Channel A or B designators are not powered from Y1 or Y2 [annunciator circuits, computer inputs to Drawing E-724, isolated relay contacts (e.g. E-64B Sht. 1B, Rev. 8)].
- e. Cables ACV1131B and G (EL4B SW 11B, Rev. E) are powered from Y1 and the cable is routed to the intake structure however the 2 amp fuse adequately coordinates the whole scheme with the upstream fuse of the same type and does not jeopardize safe shutdown circuits (E50B Sht. 16, Rev. 5).
- f. Diesel sequence schemes SXSEQ 1-4 are powered from a different ACC supply at relay cabinets (E64B Sht. 18, Rev. 2), SFSEQ 1-4 are powered from SFAS (E64B Sht. 17, Rev. 5) and are not considered Safe Shutdown for Appendix R.
- g. Diesel warning light Schemes BWLDG 1 and 2 are powered from Relay Cabinets (Ch. A, B) (E-64B Sht. 19, Rev. 0), not Y1/Y2.
- h. SFAS Remote Position Switch Monitoring SFC11 (E760) is not powered from Y1/Y2.

Each circuit feeds the cabinets for a single diesel generator. Circuits stay in the fire are associated with the respective diesel generator (e.g. 6A feed to relays) except for separately fused (2A) indicating lights which are adequately coordinated. By the above process of elimination, there are no associated circuits of concern and a lack of coordination does not affect Safe Shutdown.

- 14. The circuit feeds the Remote Shutdown Panel (C3630). Individual power supplies buffer (isolate) those low level instrument cables that leave the area. The fuses are only subject to fire-induced fault current if the fire occurs in Fire Area R. Safe Shutdown is possible without these circuits. See Drawing 7749-M-544-6-10. (For transfer of DC circuits see E-45B Sht. 11B, Rev. 15). Therefore, these are not associated circuits of concern.
- 15. The circuit feeds the SG high point vent valves (AC), position indication and alarm relays. Power is not required for Safe Shutdown. A blown fuse will not prevent Safe Shutdown (See E-1009, Rev. 4, E-1010, Rev. 4, E-1050 Shts. 1 and 2, Rev. 1, E-1051 Shts. 1 and 2, Rev. 1, and E-52B Sht. 71B, Rev. 1). Therefore, these are not considered circuits of concern.
- 16. CDF-11A-1 provides status indicating lights for CF01B and RC3704 provides control power to CCWS surge Tank Level Relay LR3757. Power to these components is not needed for Safe Shutdown although the power cables are individually evaluated in each area analysis. RC3706 is a spare circuit. CDE-11B-2 provides control power for normally de-energized DH12 Interlock (E52B/24D, Rev. 8). RC3702 provides power for

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the SG level set, and diesel sequence schemes, neither of which is required for Safe Shutdown.

CDF-11A-1 and CDF-11A-2 share a common power source, however, power is not required for Safe Shutdown. The Circuit 1CY117B for RC3706 is a spare and therefore, is acceptable. CDF-11A-1 provides indication for CF01A which is not needed for Safe Shutdown and CDF-11A-2 is similarly fused and no longer provides indication for the M.S. Isolation Valves FV101D and E. Therefore, these are not considered associated circuits of concern.

17. Power to SFRCS Cabinets C5762A and C5792 is not required for Safe Shutdown. Any failure mode of logic or relays is acceptable for the Appendix R Safe Shutdown Evaluation. See also Note 18 for indicating lights. Therefore, these are not associated circuits of concern. With a Loss Of Offsite Power (LOOP), Buses YE2 and YF2 will be without power for approximately 10 seconds until the EDG is loaded and during this time SFRCS logic channels 3 and 4 will be tripped. See System Description SD-010 Rev. 0, Section 2.7 for a discussion of logic and solenoid power sources and distribution. Either the incoming circuit breaker or the breaker feeding the loads provides acceptable coordination.
18. Power to the Main Control Room and local indicating lights is individually fused and is not required for Safe Shutdown. Physical positions and component operation can be verified if necessary (E-576 Sht. 6, Rev. 16, E-568 Sht. 7, Rev. 18). The Dixon Flow Meters on the main control console use this common power source; the largest 2-Amp A2Y, A6Y and the faster ATM load fuses are adequately coordinated with the incoming A25X10 fuse. Therefore, there are no associated circuits of concern.
19. This circuit feeds a single system (NI/RPS) in the Control Room. Within C5755E, a 5-amp fuse feeds RY indicators including the source range channels NI-NI1 and 2 (M-563-317, M-536-37-5). In addition, this power source feeds the power supplies for the source range and power range detectors and the RPS inputs: (7749-M-536-12-12)

Reactor Building Pressure

Reactor Trip

Reactor Pressure

Linear Bridge

The NI Source Range Cables (E-730/Sh. 3, Rev. 4, E-731/Sh. 3, Rev. 4) are routed into Containment and are evaluated for Safe Shutdown capability on an area by area basis. Other cables that leave the Control Room are assumed to be low level instrument cables, buffered by their power supplies, independent of the NI needed for Safe Shutdown. Based on system and area analysis these circuits are acceptable from an Appendix R standpoint.

20. A review of the 4kV breaker settings has been performed for the Safe Shutdown electric plant configuration. See the electrical calculation for the individual feeder. The

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accredited Train cables have been shown to be free of fire damage and are, therefore, not a coordination concern.

21. Electrical coordination may be lost due to a fire-induced fault in this cable. No credit is taken for the availability of the MCC if there is inadequate separation or protection.
22. A review of coordination of the loads on MCC F71 has shown that one non-Safe Shutdown Load, Y3401 (50-amps) may not coordinate with the incoming 600-amp molded-case circuit breaker. This MCC is needed only for fire in Area EE (Aux Bldg. Fan Alley) and Y3401 serves loads in the Turbine Building, therefore, these are not associated circuits of concern.
23. Cable 2CV&432E serves a single sample valve in the same fire area as the Power Supply RC4607 and either 3-amp fuse provides adequate circuit protection.
24. YE2(YF2) molded-case circuit breakers do not coordinate with the incoming circuit breaker. The only Safe Shutdown loads off these MCCs are SFRCS. Loss of this power to the failsafe system is conservatively assumed. The coordination of YE1(YF1) partly relies on length of cables 1PYE104A and 2PYF104A attenuating the fault current.
25. The delay band is adjusted to the maximum end the breakers are coordinated.
26. Calculations have shown that Y1, Y1A, Y2, Y2A, Y3 and Y4 are coordinated with only the CVT source fed from E16A and F16A. The lack of coordination with the normal sources (YRF1, YRF2, YRF3 and 4), is not a Safe Shutdown concern since the automatic transfer to the accredited source will occur when the current transformer senses approximately 120% overcurrent in the feeder to the panels. The current limiting fuses on these panels are effective in reducing the peak let-through current to levels which do not trip breakers in the accredited path.
27. Coordination for F7 is given in Calculation C-EE-005.01-21 and for the bustie to F7 in Calculation C-EE-004.01-034, ground fault may result in tripping of F71; however, the motor-driven feed pump is only accredited for Safe Shutdown in Area EE and the cable is not routed in Area EE.
28. A number of components and modules in the NNI cabinets and a number of field mounted components external to the NNI cabinets require 120 V AC rather than ± 24 V DC for their operation. All of the components and modules which require 120 V AC power for their operation receive their power from the AC fuse panels in both the NNI "X" and NNI "Y" cabinets. The largest load fuse size is a Bus GLD 5 per field walkdown which is adequately coordinated with the incoming A2Y15 distribution fuse within the NNI "X" and "Y" cabinets.
29. This circuit serves a single circuit scheme and a failure in any cable is evaluated to result in the loss of only the one component (RC2A as shown in DCN-E52B/13-535). Therefore, the coordination is acceptable.
30. Coordination for the disconnect device for the Turbine Generator Emergency Bearing Oil Pump (D118) is given in Calculation C-EE-002.01-011. The disconnect device is a

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magnetic breaker only Westinghouse type HKA breaker rated at 225/70A (225A frame 70A rated breaker). The thermal trip is not installed and the magnetic trip (350A to 700A) is set at 455A in accordance with Relay Setting Manual sheet 1-30-201. With the breaker set at 455A the breaker is coordinated with the upstream 500-amp fuse.

31. As discussed in Attachment 10 of Calculation C-EE-002.01-011 (Ref. 2.6.E), the loads associated with the power supplies have been evaluated to be lost due to the fire (e.g. D1P and D1N are both in the same fire area as their power supply DC MCC 1 and thus no credit is taken for these for a fire in this fire area.