# Table 8.3-1(a)

# SEQUENCE OF EVENTS IN THE AUTOMATIC APPLICATION OF EMERGENCY AC LOADS ON LOCA<sup>(1)</sup> AND LOOP

EVENT	TIME (sec)
Signal to start diesel	0
Diesel ready to load; start one RHR pump motor	10
Apply power to 440 V auxiliaries and MOVs	13
Start one core spray pump motor	17
Start one ESW pump motor	55
Control room chiller	177
Reactor building recirculation fan	193
<del></del>	

This sequence applies to one diesel and its associated loads. The other diesels have a similar sequence and load.

# Table 8.3-1(b)

# SEQUENCE OF EVENTS IN THE AUTOMATIC APPLICATION OF EMERGENCY AC LOADS ON LOCA WITH OFFSITE POWER AVAILABLE(1)

<u>EVENTS</u>	TIME (sec)
Start RHR pumps C & D	0
Apply power to 440 V auxiliaries and MOVs	3.5
Start RHR pumps A & B	5
Start core spray pumps A & C	10
Start core spray pumps B & D	15
Start 4 ESW pumps	55
Control room chillers	167
Reactor buildings recirculation fans	183.5
Diesel is started and remains on standby when offsite pow	er is available.

# TABLE 8.3-2 SUMMARY OF LOADING DIESEL GENERATOR AND EMERGENCY BUSES SAFEGUARD AND SELECTED NON-SAFEGUARD LOADS

(Page 1 of 2)

MAXIMUM LOADING OF ANY ONE DIESEL GENERATOR (kW)

TABLE NO.	DESCRIPTION	_	0 - 10 MIN	10 MIN - 1 HOUR	1 HOUR and LONGER
8.3 - 3	Assignment of safeguard and selected non-safeguard loads to diesel generators and emergency buses Both units in operation Unit 1 DBA; Unit 2 spurious				
	LOCA	_			
8.3 - 9	All D/G in service		2394	1910	1910
8.3 - 10	D11 D/G out-of -service		2397	2165	2165
8.3 - 11	D12 D/G out-of-service		2394	2222	2222
8.3 - 12	D13 D/G out-of-service		2394	1910	1910
8.3 - 13	D14 D/G out-of-service		2394	2190	2190
8.3 - 14	D21 D/G out-of-service		2394	2062	2062
8.3 - 15	D22 D/G out-of-service		2394	1846	1846
8.3 - 16	D23 D/G out-of-service		2394	2048	2048
8.3 - 17	D24 D/G out-of-service		2394	1824	1824

The above loadings are based on the minimum required engineered safeguard and selected non-safeguard laods for the following situation:

<sup>\*</sup> Unit 1 DBA with a spurious LOCA in Unit 2 for the 0 -10 minute period following by an emergency shutdown of Unit 2.

### TABLE 8.3-2 (Cont'd)

The case for a Unit 2 DBA is not tabulated. Due to the similarity in loading between Unit 1 and Unit 2, it has been determined that, for a Unit 2 DBA with a spurious LOCA and ESD in Unit 1, Unit 2 data on the following tables are conservative for Unit 1 and Unit 1 data are conservative for Unit 2.

All loads in the 0-10 minute period are automatically applied. Beyond 10 minutes, the major loads are manually connected or disconnected.

Nonsafeguard loads are tripped by the LOCA signal and may be manually added after the 0-10 minute period as permitted by the available capacity of the diesel generators (limited by fuel consumption) and as indicated in the table below.

The required minimum operation of ECCS pumps indicated is shown below:

		DESIGN BAS	SIS ACCIDENT	EMER	RGENCY SHUT	<u>DOWN</u>
RHR pumps CS pumps RHRSW pumps	0-10 min	10 min - 1 hr	Beyond 1 hr	0-10 min	10 min - 1 hr	Beyond 1 hr
RHR pumps	3	1	1	0	1	1
	2	2	2	0	0	0
RHRSW pumps	0	1	1	0	1	1

Any combination of three-out-of-four divisions (EDGs) is acceptable for a single failure. However, the ECCS requirements (as stated in paragraph 6.3.1.1.2), an EDG operable configuration of two-out-of-four is also acceptable.

TABLE 8.3 – 3 (PAGE 1 OF 6)

# ASSIGNMENT OF SAFEGUARD AND SELECTED NON-SAFEGUARD LOADS TO DIESEL GENERATORS AND EMERGENCY BUSES

												;	STARTUP N	MODE & OP	ERATING		
				NUMBER	OF OPERATI	NG UNITS					UNIT 1 or L		Ą	EMEF	UNIT 1 or RGENCY S	HUTDOWN	<b>1</b> (2)
ITEM	LOAD DESCRIPTION	COMMENTS	EQUIP NO.	UNIT 1	COMMON	UNIT 2	CAPACITY EACH	RATED HP EACH	OPER KW EACH	AUTO	STA AUTO	NDBY MAN	MAN	AUTO	STAN AUTO	IDBY MAN	MAN
									= 1211	110.0							
01	RHR PUMP	(9)	P202	4	0	4	1/3	1250	993	4	0	0	0	0	0	3	1
02	CORE SPRAY PUMP		P206	4	0	4	1/2	600	529	4	0	0	0	0	0	0	0
03	RHR SERVICE WATER PUMP	*	P506	0	4	0	F	700	519	0	0	0	2	0	0	0	2
04	ESW PUMP	*	P548	0	4	0	1/2	500	389	4	0	0	0	4	0	0	0
05	125V BATTERY CHARGER		D103	4 & 2	0	4 & 2	1/6	0	25 & 9	6	0	0	0	6	0	0	0
06	DRYWELL COOLER FAN		V212	16	0	16	1/8	30	20	8	8	0	0	8	8	0	0
07	DG ROOM VENT FAN		V512	8	0	8	1/2	20	15	4	4	0	0	4	4	0	0
80	RHR ROOM COOLING UNIT		V210	8	0	8	1/2	20	16	4	4	0	0	4	4	0	0
09	CORE SPRAY ROOM COOLING UNIT		V211	8	0	8	F	10	7 & 8	4	4	0	0	4	4	0	0
10	HPCI ROOM COOLING UNIT		V209	2	0	2	F	15	10	1	1	0	0	1	1	0	0
11	RCIC ROOM COOLING UNIT		V208	2	0	2	F	5	4	1	1	0	0	1	1	0	0
12	INSTRUMENT AC POWER SUPPLY		Y101	4	0	4	1/4	0	11 & 12	4	0	0	0	4	0	0	0
12	INSTRUMENT AC POWER SUPPLY		Y102	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	INSTRUMENT AC POWER SUPPLY		Y103	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	INSTRUMENT AC POWER SUPPLY		Y104	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	DG START AIR COMPRESSOR	0	K513	8	0	8	F	20	7	0	0	4	4	4	4	0	0
14	DG FUEL OIL TRANSFER PUMP		P514	4	0	4	F	1-1/2	1	0	0	0	4	0	0	0	4
15	SGTS HEATER	*	E188	0	2	0	F	0	44	2	0	0	0	2	0	0	0
16	SGTS ROOM UNIT COOLER	*	V140	0	2	0	F	1	1	1	1	0	0	1	1	0	0
17	SGTS ROOM ACCESS UNIT COOLER	*	V141	0	2	0	F	7-1/2	6	1	1	0	0	1	1	0	0
18	SGTS EXHAUST FAN	*	V163	0	2	0	F	40	32	1	0	0	0	1	0	0	0
19	RERS FAN		V213	2	0	2	F	200	151	1	1	0	0	1	1	0	0
20	HVAC DAMPER POWER		Y206	4	0	4	1/4	0	0	4	0	0	0	4	0	0	0
20	HVAC DAMPER POWER		Y207	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	HVAC DAMPER POWER		Y163	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	HVAC DAMPER POWER		Y164	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	CONTROL ROOM CHILLER	*	K112	0	2	0	F	0	329/330	1	1	0	0	1	1	0	0
22	CONTROL ROOM CHILLER WATER PP	*	P162	0	2	0	F	25	16	1	1	0	0	1	1	0	0
23	AUX PNL & COMP RM FAN COIL UNIT	*	V114	0	2	0	F	38.5	24	1	1	0	0	1	1	0	0
24	AUX PNL & COMP RM RETURN AIR UNIT	*	V120	0	2	0	F	20	16	1	1	0	0	1	1	0	0
25	CONTROL ROOM AIR COND UNIT	*	V116	0	2	0	F	40	32	1	1	0	0	1	1	0	0
26	CONTROL ROOM RETURN AIR FAN		V121	0	2	0	F	15	12	1	1	0	0	1 1	1	0	0
27	EMER SWGR & BTRY RM AIR COND UNIT		V118	0	2	0	F	15	9	1	1	0	0	1	1	0	0
28	AUX EQUIP & COMP RM AREA HTR	* ++	E193	0	2	0	F	0	52	0	0	0	0	1	1	0	0
29	CONTROL ROOM AREA HEATER	* ++	E192	0	2	0	F	0	40	0	0	0	0	1	1	0	0
30	CONT RM FRESH AIR INTAKE HTR	*	E191	0	2	0	F	0	32	0	0	0	0	0	0	0	0
31	SPRAY POND STATION HTG COIL FAN		V543	0	4	0	1/2	10	7	2	2	0	0	2	2	0	0
32	SLCS HEATERS	++	S213	1 & 1	0	1 & 1	Ė	0	8	1	0	0	1	1	0	0	1
33	CONTAINMENT H2 RECOMBINER	*	S403	2	•	2	F -	0	48	0	0	1	1	0	0	1	1
34	CONT'L RM EMER FRESH AIR SPLY FAN	*	V127	0	2	0	Ė	10	6	1	1	0	0		1	0	0
35	CONTROL ROOM CHILLER OIL PUMP		P168	0	2	0	F -	1-1/2	1	1	1	0	0	1	1	0	0
36	DG AUXILIARIES	0	G501	4	0	4	F	35KVA	14	4	0	0	0	4	0	0	0
37	DELETED																
1																	
				•			•			•				•			,

#### TABLE 8.3 – 3 (Cont'd)

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#### ASSIGNMENT OF SAFEGUARD AND SELECTED NON- SAFEGUARD LOADS TO DIESEL GENERATORS AND EMERGENCY BUSES

													STARTUP N	MODE & OP	ERATING		
				NUMBER	OF OPERATI	NG UNITS					UNIT 1 or l		A	EME	UNIT 1 or RGENCY S	HUTDOWI	N (2)
ITEM	LOAD DESCRIPTION	COMMENTS	EQUIP NO.	UNIT 1	COMMON	UNIT 2	CAPACITY EACH	RATED HP EACH	OPER KW EACH	AUTO	STA AUTO	ANDBY MAN	MAN	AUTO	STAN AUTO	IDBY MAN	MAN
37	DELETED																
38	DELETED																
39	CRD PUMP	0	P158	2	0	2	F	250	133	0	0	0	0	0	0	1	1
40	DELETED	Ü	00	_	ŭ	-	·	200	.00	·	·	·	•		· ·	•	•
41	RECW PUMP	++	P210	2	0	2	F	100	68	0	0	1	1	1	1	0	0
42	TECW	0	P103	2	0	2	F	15	11 & 12	0	0	1	1	1	1	1	0
43	INSTRUMENT AC POWER SUPPLY	0	Y105	4	0	4	1/4	0	0	0	0	0	4	4	0	0	0
43	INSTRUMENT AC POWER SUPPLY	0	Y106	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43	INSTRUMENT AC POWER SUPPLY	0	Y201	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43	INSTRUMENT AC POWER SUPPLY	0	Y202	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44	EMERGENCY LIGHTING	o!	MISC	7	6	7	0	0	0	0	0	0	13	0	0	0	13
45	TURBINE GEN BEARING LIFT PUMP	0	P109	9	0	9	1/9	5	36 & 45 (TOTAL)	0	0	0	9	9	0	0	0
46	TURBINE GEN TURNING OIL PP	0	P111	1	0	1	F	40	32	0	0	0	1	1	0	0	0
47	TURBINE GEN TURNING GEAR	0	S103	1	0	1	F	60	48	0	0	0	1	1	0	0	0
48	RFPT GEAR	0	S106	3	0	3	F	1-1/2	1	0	0	0	3	3	0	0	0
49	INSTRUMENT GAS COMPRESSOR	o (12)	K203	2	0	2	F	5	1	0	0	1	1	1	1	0	0
50	INSTRUMENT AIR COMPRESSOR	0	K101	2	0	2	F	100	33	0	0	1	1	1	1	0	0
51	DELETED																
52	OSC XFMR PNLS OOL140 & OOL141	*	X186	0	1	0	0	30	24	0	0	0	1	0	0	0	1
53	TEST ENGINEER'S WORKSHOP	*	X187	0	1	0	0	30	12	0	0	0	1	0	0	0	1
54	NORTH STACK RM ANTENNA SYS XFMR	*	X595	0	1	0	0	15	9	0	0	0	1	0	0	0	1
55	DELETED																
56	CRD REPAIR RM COOLING FAN		V904	0	1	1	0	0	0	0	0	0	0	0	0	0	0
57	125V BATTERY CHARGER	0	D113	2	0	2	1/2	0	96	0	0	0	2	2	0	0	0
58	FIRE ALARM & P/A	* +	1X5	0	0	0	0	0	12	1	0	0	0	1	0	0	0
59	FUEL POOL COOLING WATER PUMP	0	P211	3	0	3	0	50	32	0	0	1	2	0	0	1	2
60	FUEL POOL SVC WTR BSTR PUMP (7)		P212	3	0	3	0	25	19	0	0	0	0	0	0	0	0
61	INSTR. AC PWR SUPPLY (SPRAY POND)	0	Y501	0	4	0	1/4	0	1	0	0	0	0	2	2	0	0
62	SPRAY POND PP STATION HTG COIL	++ *	E701	0	4	0	1/2	0	96	0	0	0	0	2	2	0	0
63	SGTS RM VENT EXHAUST FAN	o *(13)	V131	0	2	0	0	10	7	0	0	1	1	1	1	0	0
64	SECURITY AREAS AIR COND. (11)	0*	V565	0	2	0	0	17-1/2	14	0	0	1	1	0	0	0	1
65	PIPING FILL PUMP		P256	2	0	2	0	5	3	0	0	0	2	0	0	0	0
66	DRYWELL H2O2 ANALYZER		S205	1	0	1	0	1	1	0	0	0	1	0	0	0	1
67	SUPPRESSION POOL H2O2 ANALYZER		S206	1	0	1	0	1	1	0	0	0	1	0	0	0	1
68	CHILLER PUMP-OUT COMPRESSOR	o *	K114	0	2	0	0	2	2	0	0	0	0	0	0	0	0
69	SPRAY POND SUMP PUMP	o *	P578	0	4	0	0	5	2	0	0	4	0	0	4	0	0
70	AUX EG. RM & COMP RM ELEC HUMIDFR		E743	0	2	0	0	0	43	0	0	0	0	1	0	0	0
71	CONT RM ELEC HUMIDIFIER	o *	E744	0	2	0	0	0	29	0	0	0	0	1	0	0	0
72	250V BATTERY CHARGER	0	D123	1	0	1	0	0	9	0	0	0	1	1	0	0	0
73	ALT. POWER SUPPLY TO 10X161 XFMR	0	10X161	1	0	0	0	37-1/2	30	0	0	0	0	0	0	0	0
74	STATIC INVERTER 00-D592 XFMR	o *	00-X592	0	1	0	0	37-1/2	30	0	0	0	0	0	0	0	0
75 70	TELEPHONE EQUIP POWER XFMR	0 *	X503	0	1	0	0	7-1/2	6	0	0	0	1	1	0	0	0
76	RECOMBINER HYDROGEN ANALYZER	0	P947	3	0	3	0	1	1	0	0	0	0	0	0	0	0

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TABLE 8.3 – 3 (Cont'd) (PAGE 3 OF 6)

# ASSIGNMENT OF SAFEGUARD AND SELECTED NON-SAFEGUARD LOADS TO DIESEL GENERATORS AND EMERGENCY BUSES

													STARTUP I	MODE & OF	ERATING		
				NUMBER (	OF OPERAT	ING UNITS					LINUT 4 I	INIT O DD	^	FME	UNIT 1 or		N. (0)
			EQUIP				CAPACITY	RATED HP	OPER KW		UNIT 1 or U	NDBY	А	EME	RGENCY S STAN		N (2)
ITEN	LOAD DESCRIPTION	COMMENTS	NO.	UNIT 1	COMMON	LINIT 2	EACH	EACH	EACH	AUTO	AUTO	MAN	MAN	AUTO	AUTO	MAN	MAN
	Early Decertion Herr	002.110		0	00		2.0	2.0	27.0	7.0.0	7.0.0			7.0.0	7.0.0		
77	DIESEL GENERATOR BRIDGE CRANE	О	H501	4	0	4	0	23	18	0	0	0	0	0	0	0	0
78	440V POWER RECEPTACLES	0	W508	4	0	4	0	60	48	0	0	0	0	0	0	0	0
79	SPRAY POND PUMP HOIST	o *	H511	0	2	0	0	7/12	0.5	0	0	0	0	0	0	0	0
79	SPRAY POND PUMP HOIST	o *	H513	0	0	0	0	0	0	0	0	0	0	0	0	0	0
80	TURB BLDG EQUIP CMPT EXHAUST FAN	++	V106	2	0	2	0	250	198	0	0	0	0	0	0	0	0
81	DRYWELL CHILLER COMPRESSOR	++	K111	2	0	2	0	1302	1379	0	0	0	0	0	0	0	0
82	ROD DRIVE CONTROL CABINET XFMR	0	X516	1	0	1	0	10	8	0	0	0	0	1	0	0	0
83	SLCS PUMP		P208	3	0	3	0	40	32	0	0	0	0	0	0	0	0
84	RWCU SYSTEM RECIRC PUMP	(7)	P221	3	0	3	0	125	92	0	0	0	0	0	0	0	0
85	440V POWER RECEPTACLES	0	W201	4,1 & 3	0	4,1 & 3	0	60	48	0	0	0	0	0	0	0	0
85	440V POWER RECEPTACLES	0	W202	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	440V POWER RECEPTACLES	0	W205	0	0	0	0	0	0	0	0	0	0	0	0	0	0
86	440V POWER RECEPTACLE	o *	W601	0	1	0	0	60	48	0	0	0	0	0	0	0	0
87	440V POWER RECEPTACLE	0	W206	2	0	2	0	60	48	0	0	0	0	0	0	0	0
88	ANNUNCIATOR			4	0	4	0	0	1	0	0	0	4	0	0	0	4
89	TURB GEN TURN GEAR PIGGYBACK		S195	0	0	1	0	3	2	0	0	0	1	0	0	0	1
90	RHRSW CORROSION MONITORING	+++	Y215	1	0	0	F	105	77	0	0	0	0	0	0	0	0
91	ADMIN BLDG 480V DIST PNL	0+	00B500	0	1	0	0	45	36	0	0	0	0	0	0	0	0

#### LEGEND:

- \* COMMON EQUIPMENT
- o NON SAFEGUARD LOADS THAT ARE TRIPPED BY LOCA SIGNAL AND MANUALLY RESTARTED AFTER 10 MINUTES OR MORE, IF NEEDED.
- + NON SAFEGUARD LOAD NOT TRIPPED BY A LOAD SIGNAL.
- ++ NON SAFEGUARD LOADS TREATED AS SAFEGUARD LOAD BUT TRIPPED BY A LOCA SIGNAL AND CAN BE MANUALLY RESTARTED AFTER 10 MINUTES OR MORE, IF NEEDED.
- +++ NON SAFEGUARD LOAD TRIPPED BY A LOCA OR LOOP SIGNAL AND SHALL NOT BE RESTARTED UNTIL NORMAL PLANT OPERATION IS RESTORED.
- LOAD KEPT IN THE INACTIVE STATUS BY PLACING THE MCC BREAKER IN THE OPEN POSITION.
- ! EMERGENCY LIGHTING NUMBERS ARE AS FOLLOWS: 1L87\*, L10, 1L55\*, 1L85\*, X26, L16, L17, L130, 1X17\*, 1X64, L6, 1L9, L86
- (1) MOV LOADS ARE NOT INCLUDED IN THIS TABLE AND THE DIESEL GENERATOR LOADING TABLES THAT FOLLOW BECAUSE OF THEIR SMALL MAGNITUDE AND SHORT DURATION
- (2) ASSIGNMENT OF THE LOADING ON THE DIESEL GENERATORS IS SUCH THAT THE SITUATION OF A DBA ON ONE UNIT AND SPURIOUS LOCA ON THE OTHER UNIT DOES NOT PRECLUDE SAFE SHUTDOWN OF THE UNITS. A SPURIOUS LOCA IS DEFINED AS A LOCA FOR 0-10 MINUTES AND EMERGENCY SHUTDOWN FOR BEYOND 10 MINUTES.
- (7) ALTHOUGH 3 PUMPS ARE INSTALLED, ONLY ONE IS POWERED FROM THE CLASS 1E SYSTEM.
- (9) MOD P00674 REPLACED THE 2A-P202 PUMP MOTOR. THE MOTOR IS MORE EFFICIENT AND THE LOAD ASSIGNMENT FOR THE D/G AND BUS 21 IS REDUCED BY 16 kW.
- (10) DELETED.
- (11) ALTHOUGH 2 AIR CONDITIONERS ARE INSTALLED, ONLY ONE IS POWERED FROM THE CLASS 1E SYSTEM.
- (12) -ECR 04-00319 REPLACED THE MOTOR FOR 1A-K203. LOAD IS NOW 2 KW.
- (13) ECR 04-00569 REPLACED THE MOTOR FOR 0A-V131. LOAD IS NOW 7 KW.

TABLE 8.3 – 3 (Cont'd) (PAGE 4 OF 6)

# ASSIGNMENT OF SAFEGUARD AND SELECTED NON-SAFEGUARD LOADS TO DIESEL GENERATORS AND EMERGENCY BUSES

								ASSIGNI	MENT OF LOADS TO	O DIESEL GENE	RATORS AND EM	ERGENCY BUSE	S (IN kw)	
								UN	NIT 1			UNIT	2	
				NUMBER	OF OPERAT	ING UNITS	(UN	IIT 1 and UNIT 2	IN OPERATION)		(UI	NIT 1 and UNIT 2	N OPERATION)	
							D/G `	D/G	D/G	D/G	D/G `	D/G	D/G	D/G
			EQUIP				BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS
ITEM	LOAD DESCRIPTION	COMMENTS	NO.	UNIT 1	COMMON	UNIT 2	D11	D12	D13	D14	D21	D22	D23	D24
	HR PUMP	(9)	P202	4	0	4	993	993	993	993	977	993	993	993
	ORE SPRAY PUMP		P206	4	0	4	529	529	529	529	529	529	529	529
	HR SERVICE WATER PUMP	*	P506	0	4	0	519	519	0	0	519	519	0	0
	SW PUMP	•	P548	0	4 0	0 4 & 2	389	389	0	0 9	0 51	0	389	389
	25V BATTERY CHARGER		D103	4 & 2	0		51	50	9	•		51	9	9
	RYWELL COOLER FAN		V212	16	0	16	80	80	80	80 30	80	80 30	80 30	80
	G ROOM VENT FAN HR ROOM COOLING UNIT		V512 V210	8 8	0	8 8	30 32	30 32	30 32	30 32	30 32	30 32	30 32	30 32
	ORE SPRAY ROOM COOLING UNIT		V210 V211	8	0	8	32 14	32 16	32 14	32 16	32 14	32 14	32 14	32 14
	PCI ROOM COOLING UNIT		V211 V209	8 2	0	8	14 0	16 20	14 0	16 0	14 0	14 20	14 0	14 0
	CIC ROOM COOLING UNIT		V209 V208	2	0	2	8	0	0	0	8	0	0	0
	ISTRUMENT AC POWER SUPPLY		Y101	4	0	4	11	11	12	11	12	12	12	12
	ISTRUMENT AC POWER SUPPLY		Y101	0	0	0	0	0	0	0	0	0	0	0
	ISTRUMENT AC POWER SUPPLY		Y103	0	0	0	0	0	0	0	0	0	0	0
	ISTRUMENT AC POWER SUPPLY		Y104	0	0	0	0	0	0	0	0	0	0	0
	G START AIR COMPRESSOR	0	K513	8	0	8	14	14	14	14	14	14	14	14
	G FUEL OIL TRANSFER PUMP	Ü	P514	4	0	4	1 1	1	1	1	1	1	1	1
1	GTS HEATER	*	E188	0	2	0	44	44	0	0	0	0	0	0
	GTS ROOM UNIT COOLER	*	V140	0	2	0	1	1	0	0	0	0	0	0
	GTS ROOM ACCESS UNIT COOLER	*	V141	0	2	0	6	6	0	0	0	0	0	0
	GTS EXHAUST FAN	*	V163	0	2	0	32	32	0	0	0	0	0	0
	ERS FAN		V213	2	0	2	151	151	0	0	151	151	0	0
	VAC DAMPER POWER		Y206	4	0	4	4	4	16	20	2	2	0	0
20 H\	VAC DAMPER POWER		Y207	0	0	0	0	0	0	0	0	0	0	0
20 H\	VAC DAMPER POWER		Y163	0	0	0	0	0	0	0	0	0	0	0
20 H\	VAC DAMPER POWER		Y164	0	0	0	0	0	0	0	0	0	0	0
21 C	ONTROL ROOM CHILLER	*	K112	0	2	0	0	0	329/330	330	0	0	0	0
22 C0	ONTROL ROOM CHILLER WATER PP	*	P162	0	2	0	0	0	16	16	0	0	0	0
23 AL	UX PNL & COMP RM FAN COIL UNIT	*	V114	0	2	0	0	0	24	24	0	0	0	0
24 AL	UX PNL & COMP RM RETURN AIR UNIT	*	V120	0	2	0	0	0	16	16	0	0	0	0
	ONTROL ROOM AIR COND UNIT	*	V116	0	2	0	0	0	32	32	0	0	0	0
	ONTROL ROOM RETURN AIR FAN	*	V121	0	2	0	0	0	12	12	0	0	0	0
	MER SWGR & BTRY RM AIR COND UNIT	*	V118	0	2	0	0	0	9	9	0	0	0	0
	UX EQUIP & COMP RM AREA HTR	* ++	E193	0	2	0	0	0	52	52	0	0	0	0
	ONTROL ROOM AREA HEATER	* ++	E192	0	2	0	0	0	40	40	0	0	0	0
	ONT RM FRESH AIR INTAKE HTR	*	E191	0	2	0	0	0	32	32	0	0	0	0
	PRAY POND STATION HTG COIL FAN	*	V543	0	4	0	7	7	0	0	0	0	7	7
	LCS HEATERS	++	S213	1 & 1	0	1 & 1	0	0	8	8	0	0	8	8
	ONTAINMENT H2 RECOMBINER		S403	2	0	2	0	0	48	48	0	0	48	48
	ONT'L RM EMER FRESH AIR SPLY FAN	*	V127	0	2	0	0	0	6	6	0	0	0	0
	ONTROL ROOM CHILLER OIL PUMP	*	P168	0	2	0	0	0	1	1	0	0	0	0
	G AUXILIARIES	0	G501	4	0	4	14	14	14	14	14	14	14	14
37 DE	ELETED						1							
1			1				I							

(PAGE 5 OF 6)

TABLE 8.3 - 3 (Cont'd)

# ASSIGNMENT OF SAFEGUARD AND SELECTED NON-SAFEGUARD LOADS TO DIESEL GENERATORS AND EMERGENCY BUSES

								ASSIGNN	IENT OF LOADS T	O DIESEL GENER	ATORS AND EM	ERGENCY BUSE	S (IN kw)	
ITEM	LOAD DESCRIPTION	COMMENTS	EQUIP NO.	NUMBER UNIT 1	OF OPERAT		(UN D/G BUS D11	UN IIT 1 and UNIT 2 D/G BUS D12	IT 1 IN OPERATION) D/G BUS D13	D/G BUS D14	(UN D/G BUS D21	UNIT NIT 1 and UNIT 2 D/G BUS D22		D/G BUS D24
TT E.WI	EOAD BEGORII TION	OOMINEITIO	140.	ONT	COMMON	OIVIT 2	D11	DIZ	D10	D14	DZT	D22	D23	D24
37 DELE 38 DELE 39 CRD		0	P158	2	0	2	0	0	133	133	0	0	133	133
40 DELE		-		_	-	_	-	-				-		
41 REC	W PUMP	++	P210	2	0	2	0	0	68	68	0	0	68	68
42 TEC\	W PUMP	0	P103	2	0	2	11	11	0	0	12	11	0	0
	RUMENT AC POWER SUPPLY	0	Y105	4	0	4	5	10	24	14	24	24	24	24
	RUMENT AC POWER SUPPLY	0	Y106	0	0	0	0	0	0	0	0	0	0	0
	RUMENT AC POWER SUPPLY	0	Y201	0	0	0	0	0	0	0	0	0	0	0
	RUMENT AC POWER SUPPLY	0	Y202	0	0	0	0	0	0	0	0	0	0	0
1	RGENCY LIGHTING	o!	MISC	7	6	7	11	70	109	99	0	59	80	68
	BINE GEN BEARING LIFT PUMP	0	P109	9	0	9	45	0	0	0	36	0	0	0
	BINE GEN TURNING OIL PP	0	P111	1	0	1	32	0	0	0	32	0	0	0
1	BINE GEN TURNING GEAR	0	S103	1	0	1	48	0	0	0	24	0	0	0
	T GEAR	0	S106	3	0	3	2	1	0	0	2	1	0	0
	RUMENT GAS COMPRESSOR	o (12)	K203	2	0	2	1	1	0	0	1	1	0	0
	RUMENT AIR COMPRESSOR	0	K101	2	0	2	0	0	33	33	0	0	33	33
51 DELE				_							_			
	XFMR PNLS OOL140 & OOL141	*	X186	0	1	0	0	24	0	0	0	0	0	0
	T ENGINEER'S WORKSHOP	*	X187	0	1	0	0	12	0	0	0	0	0	0
	TH STACK RM ANTENNA SYS XFMR	*	X595	0	1	0	0	9	0	0	0	0	0	0
55 DELE			\ (00.4		_			•	•	•	l ,	•	•	•
	REPAIR RM COOLING FAN		V904	0	1	1	0	0	0	0	0	0	0	0
	/ BATTERY CHARGER	0	D113	2	0	2	0	0	0	96	0	0	0	96
	ALARM & P/A	*+	1X5	0	0	0 3	0	0	0	12	0	0	0	0
1	L POOL COOLING WATER PUMP	0	P211	3 3	0	3	32	32 0	0	32 0	32	32 0	0	32 0
1	L POOL SVC WTR BSTR PUMP (7)	•	P212 Y501	0	4	0	19 1	1	0	0	19 0	0	0 8	0 8
	R. AC PWR SUPPLY (SPRAY POND)  AY POND PP STATION HTG COIL	0 ++ *	E701	0	4	0	96	96	0	0	0	0	8 96	8 96
1	S RM VENT EXHAUST FAN	o *(13)	V131	0	2	0	96 7	96 7	0	0	0	0	96	96
	URITY AREAS AIR COND. (11)	0*(13)	V131 V565	0	2	0	0	0	14	0	0	0	0	0
	NG FILL PUMP	U	P256	2	0	2	3	3	0	0	3	3	0	0
	WELL H2O2 ANALYZER		S205	1	0	1	0	0	0	1	0	0	0	1
	PRESSION POOL H2O2 ANALYZER		S205 S206	1	0	1	0	0	1	0	0	0	1	0
	LER PUMP-OUT COMPRESSOR	0 *	K114	0	2	0	0	0	2	2	0	0	0	0
•	AY POND SUMP PUMP	0 *	P578	0	4	0	2	2	0	0	0	0	2	2
	EG. RM & COMP RM ELEC HUMIDFR	0 *	E743	0	2	0	43	43	0	0	o o	0	0	0
	T RM ELEC HUMIDIFIER	o *	E744	0	2	0	29	29	0	0	0	0	0	0
	BATTERY CHARGER	0	D123	1	0	1	0	9	0	0	0	9	0	0
	POWER SUPPLY TO 10X161 XFMR	0	10X161	1	0	0	30	0	0	0	0	0	0	0
	TIC INVERTER 00-D592 XFMR	0 *	00-X592	0	1	0	0	0	0	0	30	0	0	0
75 TELE	EPHONE EQUIP POWER XFMR	0 *	X503	0	1	0	6	0	0	0	0	0	0	0
	OMBINER HYDROGEN ANALYZER	0	P947	3	0	3	1	2	0	0	1	2	0	0
							1							

TABLE 8.3 – 3 (Cont'd) (PAGE 6 OF 6)

# ASSIGNMENT OF SAFEGUARD AND SELECTED NON-SAFEGUARD LOADS TO DIESEL GENERATORS AND EMERGENCY BUSES

								ASSIGNM	IENT OF LOADS T	TO DIESEL GENER	ATORS AND EM	IERGENCY BUSE	S (IN kw)	
				NUMBER	OF OPERA	TING UNITS	(UN	UN IIT 1 and UNIT 2	IT 1		(UI	UNIT NIT 1 and UNIT 2		
							D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G
1			EQUIP				BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS
ITE	M LOAD DESCRIPTION	COMMENTS	NO.	UNIT 1	COMMON	UNIT 2	D11	D12	D13	D14	D21	D22	D23	D24
77	DIESEL GENERATOR BRIDGE CRANE	0	H501	4	0	4	18	18	18	18	18	18	18	18
78	440V POWER RECEPTACLES	0	W508	4	0	4	48	48	48	48	48	48	48	48
79	SPRAY POND PUMP HOIST	o *	H511	0	2	0	0.5	0	0	0	0	0	0	0.5
79	SPRAY POND PUMP HOIST	o *	H513	0	0	0	0	0	0	0	0	0	0	0
80	TURB BLDG EQUIP CMPT EXHAUST FAN	++	V106	2	0	2	197	198	0	0	198	198	0	0
81	DRYWELL CHILLER COMPRESSOR	++	K111	2	0	2	0	0	1379	1379	0	0	1379	1379
82	ROD DRIVE CONTROL CABINET XFMR	0	X516	1	0	1	0	8	0	0	0	8	0	0
83	SLCS PUMP		P208	3	0	3	32	32	32	0	32	32	32	0
84	RWCU SYSTEM RECIRC PUMP	(7)	P221	3	0	3	0	0	92	0	0	0	92	0
85	440V POWER RECEPTACLES	0	W201	4,1 & 3	0	4,1 & 3	0	0	0	144	0	0	0	144
85	440V POWER RECEPTACLES	0	W202	0	0	0	0	0	0	0	0	0	0	0
85	440V POWER RECEPTACLES	0	W205	0	0	0	0	0	0	0	0	0	0	0
86	440V POWER RECEPTACLE/SP RECIRC	o *	W601	0	1	0	0	0	0	0	0	0	0	48
87	440V POWER RECEPTACLE	0	W206	2	0	2	0	48	0	0	0	48	0	0
88	ANNUNCIATOR			4	0	4	1	1	1	1	1	1	1	1
89	TURB GEN TURN GEAR PIGGYBACK		S195	0	0	1	0	0	0	0	2	0	0	0
90	RHRSW CORROSION MONITORING	+++	Y215	1	0	0	0	77	0	0	0	0	0	0
91	ADMIN BLDG 480V DISTR PNL	0+	00B500	0	1	0	0	0	36	0	0	0	0	0

#### LEGEND:

- \* COMMON EQUIPMENT
- o NON SAFEGUARD LOADS THAT ARE TRIPPED BY LOCA SIGNAL AND MANUALLY RESTARTED AFTER 10 MINUTES OR MORE, IF NEEDED.
- + NON SAFEGUARD LOAD NOT TRIPPED BY A LOAD SIGNAL.
- ++ NON SAFEGUARD LOADS TREATED AS SAFEGUARD LOAD BUT TRIPPED BY A LOCA SIGNAL AND CAN BE MANUALLY RESTARTED AFTER 10 MINUTES OR MORE, IF
- +++ NON SAFEGUARD LOAD TRIPPED BY A LOCA OR LOOP SIGNAL AND SHALL NOT BE RESTARTED UNTIL NORMAL PLANT OPERATION IS RESTORED. LOAD KEPT IN THE INACTIVE STATUS BY PLACING THE MCC BREAKER IN THE OPEN POSITION.
- ! EMERGENCY LIGHTING NUMBERS ARE AS FOLLOWS: 1L87\*, L10, 1L55\*, 1L85\*, X26, L16, L17, L130, 1X17\*, 1X64, L6, 1L9\*, L86
- (1) MOV LOADS ARE NOT INCLUDED IN THIS TABLE AND THE DIESEL GENERATOR LOADING TABLES THAT FOLLOW BECAUSE OF THEIR SMALL MAGNITUDE AND SHORT DURATION
- (2) ASSIGNMENT OF THE LOADING ON THE DIESEL GENERATORS IS SUCH THAT THE SITUATION OF A DBA ON ONE UNIT AND SPURIOUS LOCA ON THE OTHER UNIT DOES NOT PRECLUDE SAFE SHUTDOWN OF THE UNITS. A SPURIOUS LOCA IS DEFINED AS A LOCA FOR 0-10 MINUTES AND EMERGENCY SHUTDOWN FOR BEYOND 10 MINUTES.
- (7) ALTHOUGH 3 PUMPS ARE INSTALLED, ONLY ONE IS POWERED FROM THE CLASS 1E SYSTEM.
- (9) MOD P00674 REPLACED THE 2A-P202 PUMP MOTOR. THE MOTOR IS MORE EFFICIENT AND THE LOAD ASSIGNMENT FOR THE D/G AND BUS 21 IS REDUCED BY 16 kW.
- (10) DELETED.
- (11) ALTHOUGH 2 AIR CONDITIONERS ARE INSTALLED, ONLY ONE IS POWERED FROM THE CLASS 1E SYSTEM.
- (12)-ECR 04-00319 REPLACED THE MOTOR FOR 1A-K203. LOAD IS NOW 2 KW.
- (13)-ECR 04-00569 REPLACED THE MOTOR FOR 0A-V131. LOAD IS NOW 7 KW.

Tables 8.3-4 through 8.3-8

Tables 8.3-4 through 8.3-8 (Deleted)

Table 8.3-9

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# DIESEL GENERATOR AND EMERGENCY BUS LOADING WITH UNITS 1 & 2 IN OPERATION ALL DIESEL GENERATORS IN SERVICE

UNIT 1 DESIGN BASIS ACCIDENT; UNIT 2 SPURIOUS LOCA (7)

					0 -	TUIV	IINUTE	:5					10 -	60 N	<u> INUTI</u>	5			L	1	HOU	JH AN	D LON	VGEH		
				UNI	T 1			UNIT	2			UNI	T 1			UNI	T 2			UNI	Γ1			UNI	Τ2	
			D/G	D/G	D/G	D/G	D/G	D/G I	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G
		EQUIP	BUS	BUS	BUS	BUS	BUS	BUS E	BUS	BUS	BUS	BUS	BUS I	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS:	BUS	BUS
TEM	LOAD DESCRIPTION	NO	D11	D12	D13	D14	D21	D22 I	D23	D24	D11	D12	D13	D14	D21	D22	D23	D24	D11	D12	D13	D14	D21	D22	D23	D24
1	RHR PUMP	P202	993	993	993	993	977	993	993	993	0	993	0	993	0	993	0	0	0	993	0	993	0	993	0	0
2	CORE SPRAY PUMP	P206	529	529	529	529	529	529	529	529	529	0	529	0	0	0	0	0	529	0:	529	0	0	0	0	0
3	RHR SERVICE WATER PUMP	P506	0	0	0	0	0	0	0	0	0	519	0	0	0	519	0	0	0	519	0	0	0	519	0	0
4	ESW PUMP	P548	389	389	0	0	0	0	389	389	0	0	0	0	0	0	389	389	0	0	0	0	0	0	389	389
5	125V BATTERY CHARGER	D103	51	50	9	9	51	51.	9	9	51	50	9	9	51	51	9	9	51	50	9	9	51	51	9	9
6	DRYWELL COOLER FAN	V212	80	80	0	0	80	80	0	0	80	80-	0	0	80	80	0	0	80	80	0	0	80	80	0	0
7	DG ROOM VENT FAN	V512	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
8	RHR ROOM COOLING UNIT	V210	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16:	16	16	16	16	16	16
9	CORE SPRAY ROOM COOLING UNIT	V211	7	8	7	8	7	7	7	7	7	8	7	8	7	7	7	7	7	8	7	8	7	7	7	7
10	HPCI ROOM COOLING UNIT	V209	0	10	0	0	0	10	0	0	0	10	0	0	0	10	0	0	0	10	0	0	0	10	0	0
11	RCIC ROOM COOLING UNIT	V208	8	0	0	0	8	0	0	0	8	0	0	0	8	0	0	0	8	0	0	0	8	0	0	0
12	INSTRUMENT AC POWER SUPPLY	Y101	11	11	12	11	12	12	12	12	11	11	12	11	12	12	12	12	11	11	12	11	12	12	12	12
12	INSTRUMENT AC POWER SUPPLY	Y102								- 1												1				1
12	INSTRUMENT AC POWER SUPPLY	Y103								1																
12	INSTRUMENT AC POWER SUPPLY	Y104								- 1																- 1
13	DG START AIR COMPRESSOR	K513	0	0	0	0	0	0	0	0	7	7.	7	7	7	7	7	7	7	7	7	7	7	7	7	7
14	DG FUEL OIL TRANSFER PUMP	P514	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	SGTS HEATER	E188	44	0	0	0	0	0	0	0	44	0	0	0	0	0	0	0	44	0	0	o	0	0:	0	o
16	SGTS ROOM UNIT COOLER	V140	1	0	0	0	0	0	0	0	1	0-	0	0	0	0	0	0	1	0	0	o	0	0	0	o
17	SGTS ROOM ACCESS UNIT COOLER	V141	6	0	0	0	0	0	. 0	0	6	0	0	0	0	0	0	0	6	0.	0	0	0	0	0	o
18	SGTS EXHAUST FAN	V163	32	0	0	0	0	0	0	o	32	0	0	0	0	0	0	0	32	0	0	0	0	0	0	0
19	RERS FAN	V213	151	0	0	0	151	0	0	0	151	0	0	0	151	0	0	0	151	0	0	0	151	0	0	0
20	HVAC DAMPER POWER	Y163	4	4	16	20	2	2	22	2	4	4	16	20	2	2	22	2	4	4	16	20	2	2	22	2
20	HVAC DAMPER POWER	Y164								- 1				ı								-				
	HVAC DAMPER POWER	Y206	ĺ							1				- 1				1				- 1				-
20	HVAC DAMPER POWER	Y207																								1
	CONTROL ROOM CHILLER	K112	0	0	329	0	0	0	0	0	0	0	329	0	0	0	0	0	0	0	329	0	0	0	0	0
22	CONTROL ROOM CHILLER WATER PUMP	P162	0	0	16	O	0	0	0	0	0	0	16	0	0	0	0	0	0	0	16	o	0	0	0	o
	AUX PNL & COMP RM FAN COIL UNIT	V114	0	0	24	0	0	0	0	o	0	0-	24	0	0	0	0	0	0	0	24	0	0	0	0	o
	AUX PNL & COMP RM RETURN AIR UNIT	V120	0	0	16	0	0	0	0	ol	0	0.	16	o	0	0	0	o	0	0	16	o	0	0	0	ol
25	CONTROL ROOM AIR COND UNIT	V116	0	0	32	0	0	0	0	o	0	0	32	o	0	0	0	o	0	0	32	ol	0	0	0	0
	CONTROL ROOM RETURN AIR FAN	V121	0	0	12	0	0	0	0	o	0	0	12	o	0	0	0	o	0	0	12	o	0	0-	0	0
	EMER SWGR & BTRY RM AIR COND UNIT	V118	0	0	9	0	0	0	0	o	0	0	9	0	0	0	0	o	0	0	9	ol	0	0	0	ol
	AUX EQUIP & COMP RM AREA HTR (11)	E193	0	Ō	0	ō	0	0.	0	o	0	0-	52	o	0	0	0	Ó	0	0	52	ol	0	ō	0	o
	CONTROL ROOM AREA HEATER (11)	E192	0	0	0	o	0	0	0	ol	0	0	40	o	0	0	0	o	0	0	40	o	0	0:	0	ol
	CONTROL RM FRESH AIR INTAKE HTR (11)	E191	0	0	32	0	0	0	0	ol	0	0	0	ol	0	0	0	0	0	0	0	o	0	0	0	ol
	SPRAY POND STA. HTG COIL FAN (11)	V543	7	7	0	o	0	0	0	O	7	7	0	ol	0	0	0	ol	7	7	0	Ol-	0	0.	0	O
	SLCS HEATERS	S213	0	0	8	n	0	0.	8	ol	0	0	8	a	0	0	8	O	0	0	8	d	0	0	8	a
	CONTAINMENT H2 RECOMBINER	S403	0	0	0	o	0	0	0	ol	0	0-	48	ol	0	0	48	a	0	0	48	al	0	0	48	ol

### Table 8.3-9 (continued)

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#### PAGE: 2 of 3

# DIESEL GENERATOR AND EMERGENCY BUS LOADING WITH UNITS 1 & 2 IN OPERATION ALL DIESEL GENERATORS IN SERVICE

UNIT 1 DESIGN BASIS ACCIDENT; UNIT 2 SPURIOUS LOCA (7)

					0 -	10 M	INUTI	ES					10 -	60 N	MUT	ES				1	HOU	R AN	D LON	IGER		
				UNI				UNIT	2			UNI	T 1			UNI				UNIT				UNI	Т2	
		T	D/G	D/G	D/G	D/G	D/G	D/G D	)/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G I	D/G	D/G	D/G	D/G	D/G	D/G
1		EQUIP	BUS E	3US	BUS	BUS	BUS	BUS B	US E	BUS	BUS I	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS E	BUS	BUS	BUS I	BUS	BUS	BUS
ITEM	LOAD DESCRIPTION	NO	D11	D12	D13	D14	D21	D22 D	23	D24	D11	D12	D13	D14	D21	D22	D23	D24	D11	D12 [	013	D14	D21	D22	D23	D24
34	CONTROL ROOM FRESH AIR SUPPLY FAN	V127	0	0	6	0	0	0	0	0	0	0:	6	0	0	0.	0	0	0	0:	6	0	. 0	0	-	_
35	CONTROL ROOM CHILLER OIL PUMP	P168	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	-	
36	DG AUXILIARIES	G501	0	0	0	0	0	0.	0	0	14	14	14	14	14	14	14	14	14	14.	14	14	14	14	14	14
37	DELETED					ı				- 1																
37	DELETED																					- 1				
38	DELETED									- 1																
1	CRD PUMP	P158	0	0	0	0	0	0	0	0	0	O:	0	0	0	0	0	0	0	0	0	o	0	0	0	C
40	DELETED									1												_]				
	RECW PUMP	P210	0	0	0	0	0	0	0	0	0	0	68	0	0	0	68	0	0	0	68	0	0	0	68	
42	TECW PUMP	P103	0	0	0	0	0	0	0	0	11	11	0	0	12	11	0	0	11	11	0	0	12	11	0	
	INSTRUMENT AC POWER SUPPLY	Y105	0	0	0	0	0	0;	0	0	5	10	24	14	24	24	24	24	5	10.	24	14	24	24	24	24
	INSTRUMENT AC POWER SUPPLY	Y106																								
	INSTRUMENT AC POWER SUPPLY	Y201																								
43	INSTRUMENT AC POWER SUPPLY	Y202								- 1								1				- 1				
44	EMERGENCY LIGHTING	MISC	0	0	0	0	0	0	0	0	11	70	108	99	0	59	80	68	11		108	99	0	59	80	
ı	TURBINE GEN BEARING LIFT PUMP	P109	0	0	0	0	0	0	0	0	45	0	0	0	36	0	0	0	45	0	0	0	36	0	0	-
46	TURBINE GEN TURNING GEAR OIL PUMP	P111	0	0	0	0	0	0_	0	0	32	0:	0	0	32	0	0	0	32	0	0	q	32	0	0	C
l .	TURBINE GEN TURNING GEAR	S103	0	0	0	0	0	0	0	0	48	0	0	0	24	0	0	0	48	0	0	0	24	0	0	C
48	RFPT TURNING GEAR	S106	0	0	0	0	0	0	0	0	2	1	0	o	2	1	0	0	2	1	0	0	2	1	0	C
49	INSTRUMENT GAS COMPRESSOR	K203	0	0	0	0	0	0	0	0	2	0.	0	0	1	0	0	0	2	0	0	이	1	0	0	C
50	INSTRUMENT AIR COMPRESSOR	K101	0	0	0	0	0	0	0	0	0	0.	33	0	0	0	33	이	0	0	33	0	0	0	33	(
51																		- 1				- 1				
52	OSC XFMR PNLS 00L140 & 00L141	X186	0	0	0	0	0	0	0	0	0	0.	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	TEST ENGINEER'S WORKSHOP	X187	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ା	0	0.	0	€
-	NORTH STACK RM ANTENNA SYS XFMR	X595	0	0	0	0	0	0.	0	0	0	9	0	0	0	0	0	0	0	9	0	O	0	0	0	C
55										- 1																
1 -	CRD REPAIR RM COOLING FAN	V904	0	0	0	0	0	0.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	C
	125V BATTERY CHARGER	D113	0	0	0	0	0	0	0	0	0	0	0	96	0	0	0	96	0	0	0	96	0	0	0	96
	FIRE ALARM & P/A	1X5	0	0	0	12	0	0.	0	0	0	0	0	12	0	0	0	0	0	0	0	12	0	0	0	0
	FUEL POOL COOLING WATER PUMP	P211	0	0	0	O	0	0	0	0	32	0	0	0	32	32	0	0	32	0	0	0	32	32	0	C
	FUEL POOL SVC WATER BOOSTER PUMP	P212	0	0	0	0	0	0;	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	C
	INSTR. AC PWR SUPPLY (SPRAY POND)	Y501	1	1	0	0	0	0	8	8	1	1.	0	0	0	0	8	8	1	1	0	0	0	0.	8	8
1	SPRAY POND PP STA. HTG COIL (6,11)	E701	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0
	SGTS RM VENT EXHAUST FAN	V131	0	0	0	0	0	0:	0	0	7	0	0	0	0	0	0	0	7	0	0	o	0	0	0	C
3	SECURITY AREAS AIR COND.	V565	0	0	0	0	0	0	0	o	0	0	14	0	0	0	0	0	0	0.	14	0	0	0	0	0
1 "	PIPING FILL PUMP	P256	0	0	0	0	0	0	0	0	3	3	0	o	3	3	0	0	3	3	0	0	3	3	0	0
	DRYWELL H2O2 ANALYZER	S205	0	0	0	1	0	0	Ö	0	0	0	0	Accounts	0	0	0	0	0	0	0	1	0	0	0	C
	SUPPRESSION POOL H2O2 ANALYZER	S206	0	0	1	0	0	0	0	0	0	0	1	9	0	0	0	0	0	0	1	0	0	0	0	0
68	CHILLER PUMP-OUT COMPRESSOR	K114	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0:	0	0

#### Table 8.3-9 (continued)

#### CALC 6380E.07

PAGE: 3 of 3

# DIESEL GENERATOR AND EMERGENCY BUS LOADING WITH UNITS 1 & 2 IN OPERATION ALL DIESEL GENERATORS IN SERVICE

UNIT 1 DESIGN BASIS ACCIDENT; UNIT 2 SPURIOUS LOCA (7)

					0 -	10 N	INUTE	ES					10 -	60 N	MINUTE	ES					HOL	JR AN	D LO	VGER	-	
				UN	IT 1			UNIT	2			UNIT	1			UNI	Τ2			UNI	T 1			UNI	T 2	
1		1	D/G	D/G	D/G	D/G	D/G	D/G D	)/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G
		EQUIP	BUS	BUS	BUS	BUS	BUS	BUS E	BUS	BUS	BUS B	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS I	BUS
ITEM	LOAD DESCRIPTION	NO	D11	D12	D13	D14	D21	D22 [	023	D24	D11	D12	D13	D14	D21	D22	D23	D24	D11	D12	D13	D14	D21	D22	D23	D24
69	SPRAY POND SUMP PUMP	P578	0	C	0	0	0	0.	0	0	2	2	0	0	0	0	2	2	2	2	0	0	0	0.	2	2
70	AUX EG. RM & COMP RM ELE. HUMID (11)	E743	0	C	0	0	0	0	0	0	43	0	0	0	0	0	0	0	43	0	0	0	0	0	0	0
71	CONTROL RM ELEC HUMIDIFIER (11)	E744	0	0	0	0	0	0	0	0	29	0	0	0	0	0	0	0	29	0	0	0	0	0	0	0
72	250V BATTERY CHARGER	D123	0	0	0	0	0	9	0	0	0	9	0	0	0	9	0	0	0	9	0	0	0	9	0	o
73	ALT POWER SUPPLY TO 10X161 XFMR	10X161	0	C	0	0	0	0.	0	0	0	0-	0	0	0	0	0	0	0	0	0	0	0	0	0	o
74	PNL 00-Y500 MAINT PWR SUPPLY VIA XFMR	00-X500	0	0	0	0	0	0	0	0	0	Ö	0	0	20	0	0	0	0	O.	0	0	20	0	0	0
75	TELEPHONE EQUIP POWER XFMR	X503	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	6	0	0	0	0	0-	0	0
76	RECOMBINER HYDROGEN ANALYZER	P947	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0-	0	0	0	0	0	0
77	DIESEL GENERATOR BRIDGE CRANE	H501	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
78	440V POWER RECEPTACLE	W508	0	0	0	0	0	0.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79	SPRAY POND PUMP HOIST	H511	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79	SPRAY POND PUMP HOIST	H513								- 1												- 1				- 1
80	TURB BLDG EQUIP COMPT EXHAUST FAN	V106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81	DRYWELL CHILLER COMPRESSOR	K111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
82	ROD DRIVE CONROL CABINET XFMR	X516	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83	SLCS PUMP	P208	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.	0	0
84	RWCU SYSTEM RECIRC PUMP	P221	0	0	0	0	0	0:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	440V POWER RECEPTACLES	W201	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	440V POWER RECEPTACLES	W202								- 1																
85	440V POWER RECEPTACLES	W205	l																							
86	440V POWER RECEPTACLES / SP RECIRC	W601	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
87	440V POWER RECEPTACLES	W206	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88	MCC ANNUNCIATORS		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	- 1
89	TURB GEN TURNING GEAR PIGGYBCK MTR	S195	0	0	0	0	0	0.	0	0	0	0	0	0	2	0	0	0	0	0:	0	0	2	0.	0	- 0
90	RHRSW CORROSION MONITORING	Y215	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
91	ADMIN BLDG 480V DISTR PNL	00B500	0	0	0	0	0	0.	0	0	0	0	66	0	0	0	0	0	0	0	66	0	0	0	0	0
	4kv BUS SUBTOTAL (kw)		2361	2130	2099	1630	1865	1741 2	024	1996	1278 1	867 1	549	1330	569	1882	777	685	1278	1867	1549	1330	569	1882	777	685

#### LEGEND

- (6) THE SPRAY POND PUMP STATION HEATING COILS ARE TRIPPED BY A LOCA SIGNAL.
- ASSIGNMENT OF THE LOADING ON THE DIESEL GENERATORS IS SUCH THAT THE SITUATION OF A DBA ON ONE UNIT AND SPURIOUS LOCA ON THE OTHER UNIT DOES NOT PRECLUDE SAFE SHUTDOWN OF THE UNITS. A SPURIOUS LOCA IS DEFINED AS A LOCA FOR 0-10 MINUTES AND EMERGENCY SHUTDOWN FOR BEYOND 10 MINUTES.
- (11) HEATING LOADS AND COOLING LOADS ARE NOT COINCIDENT. THE COINCIDENT COOLING LOAD IS LARGER THAN THE COINCIDENT HEATING LOAD, THEREFORE, THE COOLING LOADS ARE SHOWN ENERGIZED.

Table 8.3-10

#### CALC 6380E.07

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# DIESEL GENERATOR AND EMERGENCY BUS LOADING WITH UNITS 1 & 2 IN OPERATION D11 DIESEL GENERATOR OUT OF SERVICE

UNIT 1 DESIGN BASIS ACCIDENT; UNIT 2 SPURIOUS LOCA (7)

2 C 3 R		<del></del>		UNI	т. т																	JR AN				
1 R 2 C 3 R		T	4	ON	11			UNIT	2			UNIT	Γ1			UNI	T 2			UNIT	1			UNI	T 2	
1 R 2 C 3 R		1	D/G	D/G	D/G	D/G	D/G	D/G [	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G I	D/G	D/G	D/G	D/G	D/G	D/G
1 R 2 C 3 R		EQUIP	BUS	BUS	BUS	BUS	BUS	BUS E	BUS I	BUS	BUS	BUS	BUS E	BUS	BUS I	BUS	BUS E	3US I	BUS	BUS E	BUS	BUS	BUS	BUS	BUS	BUS
2 C 3 R	LOAD DESCRIPTION	NO	D11	D12	D13	D14	D21	D22 [	023	D24	D11	D12	D13 I	D14	D21	D22	D23 I	D24	D11	D12 I	013	D14	D21	D22	D23	D24
3 R	RHR PUMP	P202	0	993	993	993	977	993	993	993	0	993	0	993	0	993	0	0	0	993	0	993	0	993	0	0
	CORE SPRAY PUMP	P206	0	529	529	529	529	529	529	529	0	529	0	529	0	0	0	0	0	529	0	529	0	0	0	0
4 E	RHR SERVICE WATER PUMP	P506	0	0	0	0	0	0:	0	0	0	0.	0	0	519	519	0	0	0	0	0	0	519	519	0	0
	SW PUMP	P548	0	389	0	0	0	0	389	389	0	0	0	0	0	0	389	389	0	0	0	0	0	0	389	389
5 12	25V BATTERY CHARGER	D103	0	50	9	9	51	51	9	9	0	50	9	9	51	51	9	9	0	50	9	9	51	51	9	9
6 D	RYWELL COOLER FAN	V212	0	80	80	0	80	80	0	0	0	0	80	80	80	80	0	0	0	0	80	80	80	80	0	0
7 D	OG ROOM VENT FAN	V512	0	30	30	30	30	30	30	30	0	30	30	30	30	30	30	30	0	30	30	30	30	30:	30	30
8 R	RHR ROOM COOLING UNIT	V210	0	16	16	16	16	16	16	16	0	16	16	16	16	16	16	16	0	16	16	16	16	16	16	16
9 C	ORE SPRAY ROOM COOLING UNIT	V211	0	8	7	8	7	7	7	7	0	8	7	8	7	7	7	7	0	8	7	8	7	7	7	7
10 H	IPCI ROOM COOLING UNIT	V209	0	10	0	0	0	10	0	0	0	10	0	0	0	10	0	0	0	10	0	o	0	10	0	0
11 R	ICIC ROOM COOLING UNIT	V208	0	0	0	0	8	0	0	0	0	0.	0	0	8	0	0	0	0	0	0	0	8	0	0	0
12 IN	NSTRUMENT AC POWER SUPPLY	Y101	0	11	12	11	12	12	12	12	0	11	12	11	12	12	12	12	0	11	12	11	12	12	12	12
12 IN	NSTRUMENT AC POWER SUPPLY	Y102	l			- 1				- 1								- 1				- 1				
12 IN	NSTRUMENT AC POWER SUPPLY	Y103	l							l				1												
12 IN	NSTRUMENT AC POWER SUPPLY	Y104	1			- 1								- 1												
13 D	G START AIR COMPRESSOR	K513	0	0	0	0	0	0	0	0	0	7	7	7	7	7	7	7	0	7	7	7	7	7	7	7
14 D	G FUEL OIL TRANSFER PUMP	P514	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15 S	GTS HEATER	E188	0	44	0	0	0	0	0	0	0	44	0	0	0	0	0	0	0	44	0	0	0	0	0	0
16 S	GTS ROOM UNIT COOLER	V140	0	1	0	0	0	0:	0	0	0	1.	0	0	0	0	0	0	0	1	0	o	0	0	0	0
17 S	GTS ROOM ACCESS UNIT COOLER	V141	0	6	0	0	0	0	0	0	0	6	0	o	0	0	0	0	0	6	0	o	0	0	0	0
18 S	GTS EXHAUST FAN	V163	0	32	0	0	0	0	0	0	0	32	0	o	0	0	0	0	0	32	0	o	0	0	0	0
19 R	RERS FAN	V213	0	151	0	0	151	0	0	0	0	151	0	o	151	0	0	0	0	151	0	o	151	0	0	0
20 H	IVAC DAMPER POWER	Y163	0	4	16	20	2	2	22	2	0	4	16	20	2	2	22	2	0	4:	16	20	2	2	22	2
20 H	IVAC DAMPER POWER	Y164								- 1				- 1								- 1				
20 H	IVAC DAMPER POWER	Y206	l			l								l				- [				- 1				
20 H	IVAC DAMPER POWER	Y207								1				- 1								- 1				
21 C	CONTROL ROOM CHILLER	K112	0	0	329	0	0	0	0	0	0	0	329	o	0	0	0	0	0	0	329	0	0	0	0	0
22 C	ONTROL ROOM CHILLER WATER PUMP	P162	0	0	16	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0	16	o	0	0	0	0
23 Al	UX PNL & COMP RM FAN COIL UNIT	V114	0	0	24	0	0	0:	0	0	0	0	24	0	0	0	0	0	O	0	24	0	0	0-	0	0
24 A	UX PNL & COMP RM RETURN AIR UNIT	V120	0	0	16	0	0	0	0	o	0	0	16	o	0	0	0	0	0	0	16	0	0	0.	0	0
25 C	ONTROL ROOM AIR COND UNIT	V116	0	0	32	0	0	0	0	o	0	0.	32	o	0	0	0	0	0	0:	32	o	0	0	0	0
26 C	ONTROL ROOM RETURN AIR FAN	V121	0	0	12	ol	0	0	0	o	0	0:	12	0	0	0	0	0	0	0	12	o	0	0	0	0
27 E	MER SWGR & BTRY RM AIR COND UNIT	V118	0	0	9	o	0	0:	0	ol	0	0	9	o	0	0	0	o	0	0:	9	o	0	0-	0	0
	UX EQUIP & COMP RM AREA HTR (11)	E193	0	0	0	0	0	0	0	o	0	0	52	o	0	0	0	0	0	0	52	o	0	0	0	o
	ONTROL ROOM AREA HEATER (11)	E192	0	0	0	ol	0	0	0	o	0	0	40	o	0	0	0	0	0	0:	40	ol	0	0	0	o
	ONTROL RM FRESH AIR INTAKE HTR (11)	E191	0	0	32	ol	0	0	0	0	0	0	0	ol	0	0	0	0	0	0	0	o	0	0	0	0
	PRAY POND STA, HTG COIL FAN (11)	V543	0	7	0	ol	0	0	0	0	0	7	0	ol	0	0	0	o	0	7	0	ol	0	0	0	ol
	LCS HEATERS	S213	0	0	8	ol	0	0	8	o	0	0	8	ol	0	0	8	ol	0	0	8	ol	0	0	8	ol
	ONTAINMENT H2 RECOMBINER	S403	0	0	0	ol	0	0:	0	ol	0	0	48	ol	0	0	48	o	0	0:	48	ol	0	0	48	ol

### Table 8.3-10 (continued)

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# DIESEL GENERATOR AND EMERGENCY BUS LOADING WITH UNITS 1 & 2 IN OPERATION D11 DIESEL GENERATOR OUT OF SERVICE

### UNIT 1 DESIGN BASIS ACCIDENT; UNIT 2 SPURIOUS LOCA (7)

					0 -	10 M	INUTI	ES					10	- 60 M	IINUT	ES				1	HOL	IR AN	D LON	IGER		
				UNI				UNI	Τ2		l	UNI				UNI	T 2			UNIT				UNI		***************************************
		T	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G ·	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G I	D/G	D/G	D/G	D/G	D/G	D/G
		EQUIP	BUS	BUS	BUS	BUS	BUS	BUS	BUS I	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS E	BUS	BUS	BUS	BUS	BUS	BUS
ITEM	LOAD DESCRIPTION	NO	D11	D12	D13	D14	D21	D22	D23	D24	D11	D12	D13	D14	D21	D22	D23	D24	D11	D12 I	213	D14	D21	D22	D23	D24
34	CONTROL ROOM FRESH AIR SUPPLY FAN	V127	0	0	6	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	6	0	0	0	0	) (
35	CONTROL ROOM CHILLER OIL PUMP	P168	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	O,	1	0	0	0	0	) C
36	DG AUXILIARIES	G501	0	0	0	0	0	0	0	0	0	14:	14	14	14	14	14	14	0	14	14	14	14	14	14	14
37	DELETED		1											ı				1								
37	DELETED																									
38	DELETED																	1								
39	CRD PUMP	P158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	. (
40	DELETED													- 1				- 1								
41	RECW PUMP	P210	0	0	0	0	0	0	0	0	0	0	68	0	0	0	68	0	0	O.	68	0	0	0	68	
42	TECW PUMP	P103	0	0	0	0	0	0	0	0	0	11	0	0	12	11	0	0	0	11	0	0	12	11	0	
43	INSTRUMENT AC POWER SUPPLY	Y105	0	0	0	0	0	0	0	0	0	10	24	14	24	24	24	24	0	10	24	14	24	24	24	24
43	INSTRUMENT AC POWER SUPPLY	Y106																								
43	INSTRUMENT AC POWER SUPPLY	Y201																								
43	INSTRUMENT AC POWER SUPPLY	Y202												1				1				1				
44	EMERGENCY LIGHTING	MISC	0	0	0	0	0	0	0	0	0	70	108	99	0	59	80	68	0	70	108	99	0	59	80	68
45	TURBINE GEN BEARING LIFT PUMP	P109	0	0	0	0	0	0	0	0	0	0	0	0	36	0	0	0	0	0	0	0	36	0-	0	C
46	TURBINE GEN TURNING GEAR OIL PUMP	P111	0	0	0	0	0	0	0	0	0	0	0	0	32	0	0	0	0	0.	0	0	32	0	0	C
47	TURBINE GEN TURNING GEAR	S103	0	0	0	0	0	0:	0	0	0	0	0	o	24	0	0	0	0	0	0	0	24	0-	0	C
48	RFPT TURNING GEAR	S106	0	0	0	0	0	0	0	0	0	1	0	o	2	1	0	0	0	1	0	0	2	1	0	C
49	INSTRUMENT GAS COMPRESSOR	K203	0	0	0	0	0	0	0	0	0	0.	0	0	1	0	0	0	0	0	0	0	1	0	0	0
50	INSTRUMENT AIR COMPRESSOR	K101	0	0	0	0	0	0	0	0	0	0	33	0	0	0	33	0	0	0:	33	0	0	0	33	0
51																		- 1								
52	OSC XFMR PNLS 00L140 & 00L141	X186	0	0	0	0	0	0.	0	0	0	0'	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53	TEST ENGINEER'S WORKSHOP	X187	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54	NORTH STACK RM ANTENNA SYS XFMR	X595	0	0	0	0	0	0:	0	0	0	9	0	0	0	0	0	0	0	9	0	0	0	0.	0	0
55						- 1				- 1				- 1				- 1								
56	CRD REPAIR RM COOLING FAN	V904	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.	0	0
57	125V BATTERY CHARGER	D113	0	0	0	0	0	0.	0	0	0	0-	0	96	0	0	0	96	0	0	0	96	0	0	0	96
58	FIRE ALARM & P/A	1X5	0	0	0	12	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	12	0	0	0	0
59	FUEL POOL COOLING WATER PUMP	P211	0	0	0	0	0	0	0	0	0	32	0	0	32	32	0	0	0	32	0	0	32	32	0	0
60	FUEL POOL SVC WATER BOOSTER PUMP	P212	0	0	0	0	0	0:	0	0	0	0	0	0	0	0	0	0	0	0-	0	0	0	0	0	0
61	INSTR. AC PWR SUPPLY (SPRAY POND)	Y501	0	1	0	0	0	0	8	8	0	1	0	0	0	0	8	8	0	4	0	0	0	0.	8	8
62	SPRAY POND PP STA. HTG COIL (6,11)	E701	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0;	0	0	0	0	0	0
63	SGTS RM VENT EXHAUST FAN	V131	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.	0	0
64	SECURITY AREAS AIR COND.	V565	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	14	0	0	0	0	0
65	PIPING FILL PUMP	P256	0	0	0	0	0	0:	0	0	0	3	0	0	3	3	0	0	0	3	0	0	3	3	0	0
66	DRYWELL H2O2 ANALYZER	S205	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0:	0	1	0	0	0	0
67	SUPPRESSION POOL H2O2 ANALYZER	S206	0	0	1	o	0	0	0	ol	0	0.	1	0	0	0	0	0	0	0	1	o	0	0-	0	0
68	CHILLER PUMP-OUT COMPRESSOR	K114	0	0	0	ol	0	0:	0	ol	0	0	2	O	0	0	0	ol	0	0:	2	0	0	0	0	o

#### Table 8.3-10 (continued)

#### CALC 6380E.07

PAGE: 3 of 3

# DIESEL GENERATOR AND EMERGENCY BUS LOADING WITH UNITS 1 & 2 IN OPERATION D11 DIESEL GENERATOR OUT OF SERVICE

UNIT 1 DESIGN BASIS ACCIDENT; UNIT 2 SPURIOUS LOCA (7)

					0 - 10	MIN	VUTE	S					10	- 60 N	INUT	ES			Γ		1 HOL	JR AN	ID LOI	VGEF	}	
				UNI	1	$\top$		UNIT	2			UNI				UNI	Т2			UN					IT 2	
		1	D/G	D/G	D/G D/	GI	D/G	D/G [	)/G [	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G
		EQUIP	BUS	BUS I	BUS BU	SE	BUS I	BUS B	US E	3US	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS I	BUS	BUS	BUS	BUS	BUS	BUS	BUS
ITEM	LOAD DESCRIPTION	NO	D11	D12	D13 D1	4 [	D21_	D22 [	23 [	D24	D11	D12	D13	D14	D21	D22	D23	D24	D11	D12	D13	D14	D21	D22	D23	D24
69	SPRAY POND SUMP PUMP	P578	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	2	0	0	0	0	2	2
70	AUX EG. RM & COMP RM ELE. HUMID (11)	E743	0	0	0	0	0	0	0	0	0	43	0	0	0	0	0	0	0	43	0	0	0	0	0	o
71	CONTROL RM ELEC HUMIDIFIER (11)	E744	0	0	0	0	0	0	0	0	0	29	0	0	0	0	0	0	0	29	0	0	0	0	0	0
72	250V BATTERY CHARGER	D123	0	0	0	0	0	9	0	0	0	9	0	0	0	9	0	0	0	9	0	0	0	9	. 0	0
73	ALT POWER SUPPLY TO 10X161 XFMR	10X161	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	. 0	0
74	PNL 00-Y500 MAINT PWR SUPPLY VIA XFMR	00-X500	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	20	0	0	0
75	TELEPHONE EQUIP POWER XFMR	X503	0	0	0	0	0	0	0	0	0	0.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
76	RECOMBINER HYDROGEN ANALYZER	P947	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	DIESEL GENERATOR BRIDGE CRANE	H501	0	0	0	0	0	0.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
78	440V POWER RECEPTACLE	W508	0	0	0	0	0	O	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79	SPRAY POND PUMP HOIST	H511	0	0	0	0	0	0	0	0	0	0.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79	SPRAY POND PUMP HOIST	H513																	l							
80	TURB BLDG EQUIP COMPT EXHAUST FAN	V106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	. 0	0	0	0	. 0	0
81	DRYWELL CHILLER COMPRESSOR	K111	0	0	0	0	0	0.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
82	ROD DRIVE CONROL CABINET XFMR	X516	0	0	0	0	0	O:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	o
83	SLCS PUMP	P208	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
84	RWCU SYSTEM RECIRC PUMP	P221	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	440V POWER RECEPTACLES	W201	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	440V POWER RECEPTACLES	W202								ı																
85	440V POWER RECEPTACLES	W205	1																							1
86	440V POWER RECEPTACLES / SP RECIRC	W601	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
87	440V POWER RECEPTACLES	W206	0	0	0	0	0	0.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88	MCC ANNUNCIATORS		0	1	1	1	1	1.	1	1	0	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1
89	TURB GEN TURNING GEAR PIGGYBCK MTR	S195	0	0	0	0	0	0	0	0	0	0:	0	0	2	0	0	0	0	0	0	0	2	0	0	o
90	RHRSW CORROSION MONITORING	Y215	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
91	ADMIN BLDG 480V DISTR PNL	00B500	0	0	Ö	0	0	0	0	0	0	0:	66	0	0	0	0	0	0	0	66	0	0	0	0	0
	4kv BUS SUBTOTAL (kw)		0	2364.2	179 163	30 1	865 1	1741 2	24 1	996	0	2135	1100	1939	1088	1882	777	685	0.2	135	1100	1939	1088	1882	777	685

#### LEGEND

- (6) THE SPRAY POND PUMP STATION HEATING COILS ARE TRIPPED BY A LOCA SIGNAL.
- (7) ASSIGNMENT OF THE LOADING ON THE DIESEL GENERATORS IS SUCH THAT THE SITUATION OF A DBA ON ONE UNIT AND SPURIOUS LOCA ON THE OTHER UNIT DOES NOT PRECLUDE SAFE SHUTDOWN OF THE UNITS. A SPURIOUS LOCA IS DEFINED AS A LOCA FOR 0-10 MINUTES AND EMERGENCY SHUTDOWN FOR BEYOND 10 MINUTES.
- (11) HEATING LOADS AND COOLING LOADS ARE NOT COINCIDENT. THE COINCIDENT COOLING LOAD IS LARGER THAN THE COINCIDENT HEATING LOAD, THEREFORE, THE COOLING LOADS ARE SHOWN ENERGIZED.

Table 8.3-11

#### CALC 6380E.07

#### PAGE: 1 of 3

# DIESEL GENERATOR AND EMERGENCY BUS LOADING WITH UNITS 1 & 2 IN OPERATION

#### D12 DIESEL GENERATOR OUT OF SERVICE

UNIT 1 DESIGN BASIS ACCIDENT; UNIT 2 SPURIOUS LOCA (7)

			L		0 -	10 M	INUTE	S					10 -	- 60 N	MINUT	ES				1 H	OUR	AND L	ONGE	R	
				UNI	T 1			UNI	T 2			UNI			<u> </u>	UNI	Τ2			UNIT 1	-	T	U	VIT 2	************
		T	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G D/	G D/	G D/C	D/G	D/G	D/G
		EQUIP	BUS	BUS	BUS	BUS	BUS	BUS I	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS BU	S BL	SBU	S BUS	BUS	BUS
ITEM	LOAD DESCRIPTION	NO						D22												D12 D1				D23	
1	RHR PUMP	P202	993	0	993	993	977	993	993	993	993	0	0	993	0	993	0	0	993	0	0 9	93	0 99	3: 0	) 0
2	CORE SPRAY PUMP	P206	529	0	529	529	529	529	529	529	529	0	529	0	0	0	0	0	529	0 5	29	o	0 (	o o	) 0
3	RHR SERVICE WATER PUMP	P506	0	0	0	0	0	0	0	0	0	0	0	0	519	519	0	0	0	0	0	0 51	9 519	9 0	0
4	ESW PUMP	P548	389	0	0	0	0	0	389	389	0	0	0	0	0	0	389	389	0	0	0	o	0	389	389
5	125V BATTERY CHARGER	D103	51	0	9	9	51	51	9	9	51	0	9	9	51	51	9	9	51	Ö	9	9 5	1 5	1 9	9
6	DRYWELL COOLER FAN	V212	80	0	0	80	80	80	0	0	0	0-	80	80	80	80	0	0	0	0:	30	30 8	0 8	0	0
7	DG ROOM VENT FAN	V512	30	0	30	30	30	30	30	30	30	0.	30	30	30	30	30	30	30	0	30	30 a	0 30	30	30
8	RHR ROOM COOLING UNIT	V210	16	0	16	16	16	16	16	16	16	0	16	16	16	16	16	16	16	0.	16	16 1	6 16	3 16	16
9	CORE SPRAY ROOM COOLING UNIT	V211	7	0	7	8	7	7	7	7	7	0	7	8	7	7	7	7	7	0	7	8	7	7	7
10	HPCI ROOM COOLING UNIT	V209	0	0	0	0	0	10	0	0	0	0.	0	0	0	10	0	0	0	0	0	ol	0 10	0	0
11	RCIC ROOM COOLING UNIT	V208	8	0	0	0	8	0	0	0	8	0	0	0	8	0	0	o	8	0	0	o	8 (	) 0	0
12	INSTRUMENT AC POWER SUPPLY	Y101	11	0	12	11	12	12	12	12	11	0	12	11	12	12	12	12	11	0	12	1 1	2 12	. 12	12
12	INSTRUMENT AC POWER SUPPLY	Y102																				1			
12	INSTRUMENT AC POWER SUPPLY	Y103	1			- 1				1								- 1							
12	INSTRUMENT AC POWER SUPPLY	Y104	1			- 1				1				1				1				1			
13	DG START AIR COMPRESSOR	K513	0	0	0	0	0	0	0	0	7	0	7	7	7	7	7	7	7	0	7	7	7 7	7	7
14	DG FUEL OIL TRANSFER PUMP	P514	0	0	0	0	0	0	0	0	0	0-	0	o	0	0	0	0	0	0	0	o	0 (	0	0
15	SGTS HEATER	E188	44	0	0	0	0	0	0	0	44	0	0	0	0	0	0	0	44	0	0	o	0 (	) 0	0
16	SGTS ROOM UNIT COOLER	V140	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	o	1	0	0	o	0 0	0	0
17	SGTS ROOM ACCESS UNIT COOLER	V141	6	0	0	0	0	0	0	0	6	0	0	0	0	0	0	o	6	0	0	ol	0 0	0	0
18	SGTS EXHAUST FAN	V163	32	0	0	o	0	0	0	0	32	0-	0	0	0	0	0	0	32	0	0	0	0 0	) 0	0
19	RERS FAN	V213	151	0	0	o	151	0	0	o	151	0	0	o	151	0	0	o	151	0	0	0 15	1 (	0	- 0
20	HVAC DAMPER POWER	Y163	4	0	16	20	2	2.	22	2	4	0	16	20	2	2	22	2	4	0 .	6 2	1	2 2	22	2
20	HVAC DAMPER POWER	Y164								- 1															
20	HVAC DAMPER POWER	Y206				- 1								- 1				- 1							
20	HVAC DAMPER POWER	Y207				- 1				- 1								- 1							1
21	CONTROL ROOM CHILLER	K112	0	0	329	0	0	0	0	0	0	0	329	0	0	0	0	0	0	0 32	9	ol i	0 0	0	0
22	CONTROL ROOM CHILLER WATER PUMP	P162	0	0	16	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0 1	6	0	0 0	0	o
23	AUX PNL & COMP RM FAN COIL UNIT	V114	0	0	24	0	0	0:	0	o	0	0	24	o	0	0	0	0	0	0 2	4	0	) (	0	o
24	AUX PNL & COMP RM RETURN AIR UNIT	V120	0	0	16	0	0	0	0	0	0	0-	16	o	0	0	0	0	0	0 1	6	0	0 0	0	0
25	CONTROL ROOM AIR COND UNIT	V116	0	0	32	o	0	0	0	0	0	0	32	ol	0	0	0	0	0	0: 3	12	o i	0 0	0	0
26	CONTROL ROOM RETURN AIR FAN	V121	0	0	12	0	0	0-	0	o	0	0	12	o	0	0	0	o	0		2	ol (			o
27	EMER SWGR & BTRY RM AIR COND UNIT	V118	0	0	9	0	0	0	0	0	0	0	9	o	0	0	0	o	0	0.	9	0	-		o
28	AUX EQUIP & COMP RM AREA HTR (11)	E193	0	0	0	0	0	0	0	0	0	0	52	0	0	0	0	o	0	0: 5	2	ol (	-	-	ol
29	CONTROL ROOM AREA HEATER (11)	E192	0	0	0	0	0	0	0	o	0	0	40	o	Ö	0	0	o	0		0	0 (	-		o
30	CONTROL RM FRESH AIR INTAKE HTR (11)	E191	0	0	32	o	0	0	0	o	0	0.	0	ol	0	0	0	ol	0		0	ol (			()
31	SPRAY POND STA. HTG COIL FAN (11)	V543	7	0	0	ol	0	0	0	o	7	0	0	ol	0	0	0	ol	7	0	0	ol (			a
	SLCS HEATERS	S213	0	0	8	o	0	0	8	ol	0	0.	8	ol	0	0	8	ol	0	0	8	ol (			a
33	CONTAINMENT H2 RECOMBINER	S403	0	0	0	o	0	0	0	o	0	0	48	o	0	0	48	ol	0	-	8	ol (		48	o

### Table 8.3-11 (continued)

#### CALC 6380E.07

PAGE: 2 of 3

# DIESEL GENERATOR AND EMERGENCY BUS LOADING WITH UNITS 1 & 2 IN OPERATION D12 DIESEL GENERATOR OUT OF SERVICE

UNIT 1 DESIGN BASIS ACCIDENT; UNIT 2 SPURIOUS LOCA (7)

					0 -	10 M	INUTI	ES					10 -	60 N	INUT	ES			***********	1	HOL	JR AN	D LON	IGER	1	
				UNI	T 1			UNIT	2			UNI	T 1			UNI	Т2			UNIT	1			UNI	IT 2	
	I The state of the		D/G	D/G	D/G	D/G	D/G	D/G [	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G I	D/G	D/G	D/G I	D/G	D/G	D/G	D/G	D/G	D/G
		EQUIP	BUS !	BUS	BUS	BUS	BUS	BUS E	BUS E	3US	BUS	BUS	BUS	BUS	BUS	BUS	BUS E	3US	BUS	BUS E	SUS	BUS	BUS	BUS	BUS	BUS
ITEM	LOAD DESCRIPTION	NO	D11	D12	D13	D14	D21	D22 [	023	D24	D11	D12	D13	D14	D21	D22	D23 I	D24	D11	D12 [	)13	D14	D21	D22	D23	D24
34	CONTROL ROOM FRESH AIR SUPPLY FAN	V127	0	0	6	0	0	0:	0	0	0	0	6	0	0	0	0	0	0	0	6	0	0	0	0	0
35	CONTROL ROOM CHILLER OIL PUMP	P168	0	0	1	0	0	0	0	0	0	0:	1	0	0	0	0	0	0	0	1	0	0	0	0	0
36	DG AUXILIARIES	G501	0	0	0	0	0	0	0	0	14	0:	14	14	14	14	14	14	14	0:	14	14	14	14	14	14
37	DELETED																	ı								
37	DELETED																	- 1								
38	DELETED					- 1									l			- 1								
39	CRD PUMP	P158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	DELETED																	I								
41	RECW PUMP	P210	0	0	0	0	0	0	0	0	0	0	68	0	0	0	68	0	0	0	68	0	0	0.	68	0
42	TECW PUMP	P103	0	0	0	0	0	0	0	0	11	0	0	0	12	11	0	0	11	0	0	0	12	11	0	0
43	INSTRUMENT AC POWER SUPPLY	Y105	0	0	0	0	0	0;	0	0	5	0	24	14	24	24	24	24	5	0:	24	14	24	24	24	24
43	INSTRUMENT AC POWER SUPPLY	Y106								- 1					1			- 1				- 1				- 1
43	INSTRUMENT AC POWER SUPPLY	Y201				ı												- 1								
43	INSTRUMENT AC POWER SUPPLY	Y202																								
44	EMERGENCY LIGHTING	MISC	0	0	0	0	0	0	0	0	11	0.	108	99	0	59	80	68	11	0,	108	99	0	59	80	68
45	TURBINE GEN BEARING LIFT PUMP	P109	0	0	0	0	0	0	0	0	45	0	0	0	36	0	0	0	45	0	0	0	36	0	0	0
46	TURBINE GEN TURNING GEAR OIL PUMP	P111	0	0	0	0	0	0:	0	0	32	0	0	0	32	0	0	0	32	0	0	0	32	0	0	0
47	TURBINE GEN TURNING GEAR	S103	0	0	0	0	0	0	0	0	48	0	0	0	24	0	0	0	48	0	0	0	24	0	0	0
48	RFPT TURNING GEAR	S106	0	0	0	0	0	0	0	0	2	0	0	0	2	1	0	0	2	0	0	0	2	1	0	0
49	INSTRUMENT GAS COMPRESSOR	K203	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	2	0	0	0	1	0.	0	0
50	INSTRUMENT AIR COMPRESSOR	K101	0	0	0	0	0	0	0	0	0	0.	33	0	0	0	33	0	0	0	33	0	0	0	33	0
51						1												- 1				- 1				- 1
52	OSC XFMR PNLS 00L140 & 00L141	X186	0	0	0	0	0	0	0	o	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53	TEST ENGINEER'S WORKSHOP	X187	0	0	0	0	0	0	0	0	0	0.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54	NORTH STACK RM ANTENNA SYS XFMR	X595	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0-	0	0	0	0.	0	0
55						ı				- 1								- 1								
56	CRD REPAIR RM COOLING FAN	V904	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.	0	0
57	125V BATTERY CHARGER	D113	0	0	0	0	0	0	0	0	0	0	0	96	0	0	0	96	0	0:	0	96	0	0	0	96
58	FIRE ALARM & P/A	1X5	0	0	0	12	0	0	0	0	0	0.	0	12	0	0	0	0	0	0	0	12	0	0	0	0
59	FUEL POOL COOLING WATER PUMP	P211	0	0	0	0	0	0	0	0	32	0	0	0	32	0	0	0	32	0	0	0	32	0	0	0
60	FUEL POOL SVC WATER BOOSTER PUMP	P212	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61	INSTR. AC PWR SUPPLY (SPRAY POND)	Y501	1	0	0	0	0	0:	8	8	1	0:	0	0	0	0	8	8	1	O:	0	0	0	0.	8	8
62	SPRAY POND PP STA. HTG COIL (6,11)	E701	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0-	0	0	0	0	0	0
63	SGTS RM VENT EXHAUST FAN	V131	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	7	0	0	9	0	0	0	0
64	SECURITY AREAS AIR COND.	V565	0	0	0	0	0	0-	0	0	0	0	14	Ö	0	0	0	0	0	0	14	0	0	0	0	0
65	PIPING FILL PUMP	P256	0	0	0	0	0	0	0	0	3	0	0	0	3	3	0	0	3	0:	0	0	3	3	0	0
66	DRYWELL H2O2 ANALYZER	S205	0	0	0	1	0	0-	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0-	0	0
67	SUPPRESSION POOL H2O2 ANALYZER	S206	0	0	1	ol	0	0	G	이	0	0:	1	0	0	0	0	O	0	0	1	o	0	Ö	0	0
68	CHILLER PUMP-OUT COMPRESSOR	K114	0	0	0	0	0	0	0	o	0	0	2	0	0	0	0	0	0	0	2	o	0	0:	0	0

#### Table 8.3-11 (continued)

#### CALC 6380E.07

PAGE: 3 of 3

# DIESEL GENERATOR AND EMERGENCY BUS LOADING WITH UNITS 1 & 2 IN OPERATION D12 DIESEL GENERATOR OUT OF SERVICE

UNIT 1 DESIGN BASIS ACCIDENT; UNIT 2 SPURIOUS LOCA (7)

					0	- 10 N	INUT	ES					10 -	60 N	IINUT	ES		**********		1	HOU	R AN	D LO	VGER		
				UN	IIT 1			UNI	T 2			UNI	Γ1			UNI	Γ2			UNI	T 1			UNI	T 2	
			D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G (	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G D	/G	D/G	D/G	D/G	D/G	D/G	D/G
		EQUIP	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS E	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS B	US I	BUS	BUS	BUS	BUS:	BUS	BUS
ITEM	LOAD DESCRIPTION	NO	D11	D12	D13	D14	D21	D22	D23	D24	D11 [	)12	D13	D14	D21	D22	D23	D24	D11 D	12	D13	D14	D21	D22	D23	D24
69	SPRAY POND SUMP PUMP	P578	0	C	) (	) (	0	0:	0	0	2	0	0	0	0	0	2	2	2	0:	0	0	0	0	2	2
70	AUX EG. RM & COMP RM ELE. HUMID (11)	E743	0	0	) (	) (	0	0.	0	0	43	0	0	0	0	0	0	0	43	0	0	0	0	0	0	0
71	CONTROL RM ELEC HUMIDIFIER (11)	E744	0	C	) (	) (	0	0,	0	0	29	0	0	0	0	0	0	0	29	0	0	0	0	0	0	0
72	250V BATTERY CHARGER	D123	0	C	) (	) (	0	9	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	9	0	0
73	ALT POWER SUPPLY TO 10X161 XFMR	10X161	0	C	) (	) (	0	0.	0	0	0	0	0	0	0	0	0	0	0	0:	0	0	0	0	0	0
74	PNL 00-Y500 MAINT PWR SUPPLY VIA XFMR	00-X500	0	0	) (	) (	0	0.	0	0	0	0	0	0	20	0	0	0	0	0	0	0	20	0.	0	0
75	TELEPHONE EQUIP POWER XFMR	X503	0	(	) (	) (	0	0	0	0	6	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0
76	RECOMBINER HYDROGEN ANALYZER	P947	0	C	) (	) (	0	0.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	DIESEL GENERATOR BRIDGE CRANE	H501	0	0	) (	) (	0	0	0	0	0	0	0	0	0	0	0	0	0	0,	0	0	0	0.	0	0
78	440V POWER RECEPTACLE	W508	0	C	) (	) (	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79	SPRAY POND PUMP HOIST	H511	0	C	) (	) (	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79	SPRAY POND PUMP HOIST	H513												- 1								- 1				
80	TURB BLDG EQUIP COMPT EXHAUST FAN	V106	0	C	) (	) (	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81	DRYWELL CHILLER COMPRESSOR	K111	0	0	) (	) (	0	0	0	0	0	0	0	0	0	0	0	0	0	0:	0	0	0	0	0	0
82	ROD DRIVE CONROL CABINET XFMR	X516	0	C	) (	) (	0	0.	0	0	0	0.	0	0	0	0	0	0	0	0	0	0	0	0	0	o
83	SLCS PUMP	P208	0	C	) (	) (	0	0:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
84	RWCU SYSTEM RECIRC PUMP	P221	0	C	) (	) (	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	440V POWER RECEPTACLES	W201	0	0	) (	) (	0	0:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	440V POWER RECEPTACLES	W202					1							- 1								- 1				
85	440V POWER RECEPTACLES	W205	1																							- 1
86	440V POWER RECEPTACLES / SP RECIRC	W601	0	0	) (	) (	0	0-	0	0	0	0	0	0	0	0	0	0	0	0.	0	0	0	0	0	0
87	440V POWER RECEPTACLES	W206	0	0	) (	) (	0	0.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88	MCC ANNUNCIATORS		1	Ü	,	1	1	1	1	1	1	0.	1	1	1	1	1	1	1	0	1	- 1	1	1	1	1
89	TURB GEN TURNING GEAR PIGGYBCK MTR	S195	0	Ø	) (	) (	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	o
90	RHRSW CORROSION MONITORING	Y215	0	0	) (	) (	0	0:	0	0	0	0	0	0	0	0	0	0	0	0	0	O	0	0	0	0
91	ADMIN BLDG 480V DISTR PNL	00B500	0	0	) (	) (	0	0.	0	0	0	0	66	0	0	0	0	0	0	0	66	0	0	0	0	0
	4kv BUS SUBTOTAL (kw)	***************	2361	0	2099	1710	1865	1741	2024	1996	2191	0 .	629	1410	1088	1850	777	685	2191	0 1	1629	1410	1088	1850	777	685

#### LEGEND

- (6) THE SPRAY POND PUMP STATION HEATING COILS ARE TRIPPED BY A LOCA SIGNAL.
- (7) ASSIGNMENT OF THE LOADING ON THE DIESEL GENERATORS IS SUCH THAT THE SITUATION OF A DBA ON ONE UNIT AND SPURIOUS LOCA ON THE OTHER UNIT DOES NOT PRECLUDE SAFE SHUTDOWN OF THE UNITS. A SPURIOUS LOCA IS DEFINED AS A LOCA FOR 0-10 MINUTES AND EMERGENCY SHUTDOWN FOR BEYOND 10 MINUTES.
- (11) HEATING LOADS AND COOLING LOADS ARE NOT COINCIDENT. THE COINCIDENT COOLING LOAD IS LARGER THAN THE COINCIDENT HEATING LOAD, THEREFORE, THE COOLING LOADS ARE SHOWN ENERGIZED.

Table 8.3-12

#### CALC 6380E.07

PAGE: 1 of 3

# DIESEL GENERATOR AND EMERGENCY BUS LOADING WITH UNITS 1 & 2 IN OPERATION D13 DIESEL GENERATOR OUT OF SERVICE

UNIT 1 DESIGN BASIS ACCIDENT; UNIT 2 SPURIOUS LOCA (7)

					0 -	10 M	INUTE	ES					10 -	60 N	INUT	ES				1 H	OUI	R AN	D LON	IGER	l	$\neg$
				UNI	T 1			UNIT	2			UNI	T 1			UNI	T 2			UNIT 1		T		UNI	Т2	
			D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G -	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G D/	G	D/G	D/G	D/G	D/G	D/G
		EQUIP	BUS	BUS	BUS	BUS	BUS	BUS	3US	BUS	BUS I	BUS	BUS I	BUS	BUS	BUS	BUS	BUS	BUS	BUS BU	IS E	BUS	BUS	BUS	BUS	BUS
ITEM	LOAD DESCRIPTION	NO	D11	D12	D13	D14	D21	D22 I	D23	D24	D11	D12	D13	D14	D21	D22	D23	D24	D11	D12 D1	3	D14	D21	D22	D23	D24
1	RHR PUMP	P202	993	993	0	993	977	993	993	993	993	993	0	0	0	993	0	0	993	993	0	0	0	993	0	0
2	CORE SPRAY PUMP	P206	529	529	0	529	529	529	529	529	0	529	0	529	0	0	0	0	0	529	0	529	0	0	0	0
3	RHR SERVICE WATER PUMP	P506	0	0	0	0	0	O.	0	0	0	0:	0	0	519	519	0	0	0	0	0	0	519	519	0	0
4	ESW PUMP	P548	389	389	0	0	0	0	389	389	0	0	0	0	0	0	389	389	0	0:	0	0	0	0	389	389
5	125V BATTERY CHARGER	D103	51	50	0	9	51	51	9	9	51	50	0	9	51	51	9	9	51	50:	0	9	51	51	9	9
6	DRYWELL COOLER FAN	V212	80	80	0	0	80	80-	0	0	80	0:	0	80	80	80	0	0	80	0	0	80	80	80	0	0
7	DG ROOM VENT FAN	V512	30	30	0	30	30	30	30	30	30	30	0	30	30	30	30	30	30	30	0	30	30	30	30	30
8	RHR ROOM COOLING UNIT	V210	16	16	0	16	16	16	16	16	16	16	0	16	16	16	16	16	16	16	0	16	16	16	16	16
9	CORE SPRAY ROOM COOLING UNIT	V211	7	8	0	8	7	7	7	7	7	8	0	8	7	7	7	7	7	8	0	8	7	7	7	7
10	HPCI ROOM COOLING UNIT	V209	0	10	0	0	0	10	0	0	0	10	0	0	0	10	0	0	0	10	0	0	0	10	0	0
11	RCIC ROOM COOLING UNIT	V208	8	0	0	0	8	0.	0	0	8	0	0	0	8	0	0	0	8	0	0	0	8	0	0	0
12	INSTRUMENT AC POWER SUPPLY	Y101	11	11	0	11	12	12	12	12	11	11	0	11	12	12	12	12	11	11	0	11	12	12	12	12
12	INSTRUMENT AC POWER SUPPLY	Y102	l																							
12	INSTRUMENT AC POWER SUPPLY	Y103																- 1				- 1				
12	INSTRUMENT AC POWER SUPPLY	Y104	]			1				1								1				1				
13	DG START AIR COMPRESSOR	K513	0	0	0	0	0	0.	0	0	7	7	0	7	7	7	7	7	7	7	0	7	7	7	7	7
14	DG FUEL OIL TRANSFER PUMP	P514	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	SGTS HEATER	E188	44	0	0	0	0	0	0	0	44	0	0	0	0	0	0	0	44	0	0	0	0	0	0	0
16	SGTS ROOM UNIT COOLER	V140	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
17	SGTS ROOM ACCESS UNIT COOLER	V141	- 6	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0
18	SGTS EXHAUST FAN	V163	32	0	0	0	0	0	0	0	32	0:	0	0	0	0	0	0	32	0	0	0	0	0	0	0
19	RERS FAN	V213	151	0	0	0	151	0	0	0	151	0	0	0	151	0	0	0	151	0	0	0	151	0	0	0
20	HVAC DAMPER POWER	Y163	4	4	0	20	2	2	22	2	4	4	0	20	2	2	22	2	4	4	0	20	2	2	22	2
20	HVAC DAMPER POWER	Y164	l							-																
20	HVAC DAMPER POWER	Y206				1																				
20	HVAC DAMPER POWER	Y207								- 1								- 1								
21	CONTROL ROOM CHILLER	K112	0	0	0	330	0	0	0	0	0	0	0	330	0	0	0	0	0	0-	0	330	0	0	0	0
22	CONTROL ROOM CHILLER WATER PUMP	P162	0	0	0	20	0	0.	0	0	0	0	0	20	0	0	0	0	0	0	0	20	0	0	0	0
23	AUX PNL & COMP RM FAN COIL UNIT	V114	0	0	0	24	0	0.	0	0	0	0.	0	24	0	0	0	0	0	0	0	24	0	0	0	0
24	AUX PNL & COMP RM RETURN AIR UNIT	V120	0	0	0	16	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0	16	0	0	0	0
25	CONTROL ROOM AIR COND UNIT	V116	0	0	0	32	0	0.	0	0	0	0	0	32	0	0	0	0	0	0	0	32	0	0	0	0
26	CONTROL ROOM RETURN AIR FAN	V121	0	0	0	12	0	0:	0	0	0	0	0	12	0	0	0	o	0	0	0	12	0	0	0	0
27	EMER SWGR & BTRY RM AIR COND UNIT	V118	0	0	0	9	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	9	0	0	0	0
28	AUX EQUIP & COMP RM AREA HTR (11)	E193	0	0	0	0	0	0	0	0	0	0:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	CONTROL ROOM AREA HEATER (11)	E192	0	0	0	0	0	0-	0	o	0	0:	0	o	0	0	0	0	0	0:	0	0	0	0	0	0
30	CONTROL RM FRESH AIR INTAKE HTR (11)	E191	0	0	0	32	0	0-	0	0	0	0	0	32	0	0	0	o	0	0	0	32	0	0	0	O
31	SPRAY POND STA. HTG COIL FAN (11)	V543	7	7	0	0	0	0:	0	0	7	7	0	o	0	0	0	o	7	7	0	o	0	0	0	o
32	SLCS HEATERS	S213	0	0	0	0	0	0:	8	O	0	0	0	ol	0	0	8	ol	0	0:	0	o	0	0	8	ol
33	CONTAINMENT H2 RECOMBINER	S403	0	0	0	o	0	0.	0	0	0	0	0	0	0	0	48	ol	0	0	0	o	0	0	48	O
										-																

### Table 8.3-12 (continued)

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PAGE: 2 of 3

# DIESEL GENERATOR AND EMERGENCY BUS LOADING WITH UNITS 1 & 2 IN OPERATION D13 DIESEL GENERATOR OUT OF SERVICE

UNIT 1 DESIGN BASIS ACCIDENT; UNIT 2 SPURIOUS LOCA (7)

					0 -	10 M	INUT	S					10	- 60 M	INUT	ES .				1	HOU	IR AN	ID LON	IGER	}	***************************************
				UNI	T 1			UNIT	2			UNIT	1_			UNI	Τ2			UNIT				UNI		
								D/G												D/G I						
		EQUIP	BUS	BUS	BUS															BUS E						
ITEM	LOAD DESCRIPTION	NO	D11	D12	D13	D14	D21	D22 I	D23 [	024	D11	D12	D13	D14	D21	D22	D23	D24	D11	D12 I	013	D14	D21	D22	D23	D24
	CONTROL ROOM FRESH AIR SUPPLY FAN	V127	0	0	0	8	0	0.	0	0	0	0	0	8	0	0	0	0	0	0-	0	8	0	0	0	)
	CONTROL ROOM CHILLER OIL PUMP	P168	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0.	0	- 1	0	0.	- 0	)
	DG AUXILIARIES	G501	0	0	0	0	0	0	0	0	14	14	0	14	14	14	14	14	14	14	0	14	14	14	14	- 1
37	DELETED																									
	DELETED																									
	DELETED									- 1				- 1								-				
	CRD PUMP	P158	0	0	0	0	0	0:	0	0	0	0	0	이	0	0	0	0	0	0.	0	0	0	0	0	
	DELETED		l							- 1				- 1												
	RECW PUMP	P210	0	0	0	0	0	0;	0	0	0	0	0		0	0	68	0	0	0	0	68		0	68	
	TECW PUMP	P103	0	0	0	0	0	0.	0	0	11	11	0	0	12	11	0	0	11	11	0	0	12	11	0	
-	INSTRUMENT AC POWER SUPPLY	Y105	0	0	0	0	0	0	0	0	5	10	0	14	24	24	24	24	5	10	0	14	24	24	24	2
43	INSTRUMENT AC POWER SUPPLY	Y106				- 1				- 1				- 1								- 1				
43	INSTRUMENT AC POWER SUPPLY	Y201								- 1								- 1								
43	INSTRUMENT AC POWER SUPPLY	Y202																- 1				ı				
44	EMERGENCY LIGHTING	MISC	0	0	0	0	0	0,	0	0	11	70	0	99	0	59	80	68	11	70	0	99	0	59	80	6
45	TURBINE GEN BEARING LIFT PUMP	P109	0	0	0	0	0	0:	0	0	45	0	0	0	36	0	0	0	45	0	0	0	36	0:	0	
46	TURBINE GEN TURNING GEAR OIL PUMP	P111	0	0	0	0	0	0	0	0	32	0	0	0	32	0	0	0	32	0	0	0	32	0	0	
47	TURBINE GEN TURNING GEAR	S103	0	0	0	0	0	0	0	0	48	0	0	0	24	0	0	0	48	0	0	0	24	0	0	(
48	RFPT TURNING GEAR	S106	0	0	0	0	0	0;	0	0	2	1	0	0	2	1	0	0	2	1	0	0	2	1.	0	
49	INSTRUMENT GAS COMPRESSOR	K203	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	2	0	0	0	1	0	0	
50	INSTRUMENT AIR COMPRESSOR	K101	0	0	0	0	0	0:	0	0	0	0:	0	0	0	0	33	0	0	0:	0	0	0	0:	33	
51										- 1				- 1				ı								
52	OSC XFMR PNLS 00L140 & 00L141	X186	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(
53	TEST ENGINEER'S WORKSHOP	X187	0	0	0	0	0	0	0	0	0	0	0	0	0	0.	0	0	0	0	0	0	0	0.	0	
54	NORTH STACK RM ANTENNA SYS XFMR	X595	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	9.	0	0	0	0	0	
55										- 1																
56	CRD REPAIR RM COOLING FAN	V904	0	0	0	0	0	0-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0-	0	(
57	125V BATTERY CHARGER	D113	0	0	0	0	0	0	0	0	0	0.	0	96	0	0	0	96	0	0	0	96	0	0	0	96
58	FIRE ALARM & P/A	1X5	0	0	0	12	0	0	0	0	0	0	0	12	0	0	0	0	0	0:	0	12	0	0-	0	(
59	FUEL POOL COOLING WATER PUMP	P211	0	0	0	0	0	0.	0	0	0	32	0	0	0	32	0	0	0	32	0	0	0	32	0	(
60	FUEL POOL SVC WATER BOOSTER PUMP	P212	0	0	0	0	0	0-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(
61	INSTR. AC PWR SUPPLY (SPRAY POND)	Y501	1	1	0	0	0	0	8	8	1	1	0	0	0	0	8	8	1	1.	0	0	0	0	8	
62	SPRAY POND PP STA. HTG COIL (6,11)	E701	0	0	0	0	0	0:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(
63	SGTS RM VENT EXHAUST FAN	V131	0	0	0	0	0	0.	0	0	7	0.	0	0	0	0	0	0	7	0:	0	0	0	0	0	6
64	SECURITY AREAS AIR COND.	V565	0	0	0	o	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(
65	PIPING FILL PUMP	P256	0	0	0	o	0	0:	0	0	3	3	0	0	3	3	0	0	3	3	0	0	3	3.	0	(
66	DRYWELL H2O2 ANALYZER	S205	0	0	0	448	0	0	0	0	0	0	0	1	0	0	0	0	0	0-	0	1	0	0.	0	(
67	SUPPRESSION POOL H202 ANALYZER	S206	0	0	0	o	0	0	0	0	0	0:	0	o	0	0	0	0	0	0	0	ol	0	0	0	(
68	CHILLER PUMP-OUT COMPRESSOR	K114	0	0	0	ol	0	0	0	0	0	0.	0	o	0	0	0	ol	0	0	0	ol	0	0.	0	(

#### Table 8.3-12 (continued)

#### CALC 6380E.07

PAGE: 3 of 3

# DIESEL GENERATOR AND EMERGENCY BUS LOADING WITH UNITS 1 & 2 IN OPERATION D13 DIESEL GENERATOR OUT OF SERVICE

UNIT 1 DESIGN BASIS ACCIDENT; UNIT 2 SPURIOUS LOCA (7)

					0 - 1	0 M	INUTE	S					10 -	60 N	INUT	ES			I		1 HOL	JR AN	D LO	VGEF	₹	
				UNIT	1			UNIT	2			UNIT	1			UNI	IT 2			UN	IT 1			UN	IT 2	
			D/G	D/G	D/G E	)/G	D/G	D/G D	)/G [	D/G	D/G [	)/G [	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G
		EQUIP	BUS	BUS I	BUS B	US	BUS	BUS B	US E	BUS	BUS E	BUS E	BUS I	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS
ITEM	LOAD DESCRIPTION	NO	D11	D12	D13 E	)14	D21	D22 D	23 [	D24	D11 [	)12 [	213	D14	D21	D22	D23	D24	D11	D12	D13	D14	D21	D22	D23	D24
69	SPRAY POND SUMP PUMP	P578	0	0	0	0	0	0	0	0	2	2:	0	0	0	0	2	2	2	2	0	0	0	0	2	2
70	AUX EG. RM & COMP RM ELE. HUMID (11)	E743	0	0	0	0	0	0	0	0	43	0	0	0	0	0	0	0	43	0	0	0	0	0	0	0
71	CONTROL RM ELEC HUMIDIFIER (11)	E744	0	0	0	0	0	0	0	0	29	0	0	0	0	0	0	0	29	0	0	0	0	0	0	o
72	250V BATTERY CHARGER	D123	0	0	0	0	0	9	0	0	0	9	0	0	0	9	0	0	0	9	0	0	0	9	0	0
73	ALT POWER SUPPLY TO 10X161 XFMR	10X161	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
74	PNL 00-Y500 MAINT PWR SUPPLY VIA XFMR	00-X500	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	20	0	. 0	0
75	TELEPHONE EQUIP POWER XFMR	:X503	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0
76	RECOMBINER HYDROGEN ANALYZER	P947	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	DIESEL GENERATOR BRIDGE CRANE	H501	0	0	0	0	0	0.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
78	440V POWER RECEPTACLE	W508	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79	SPRAY POND PUMP HOIST	H511	0	0	0	0	0	0-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79	SPRAY POND PUMP HOIST	H513				- 1				- 1																- 1
80	TURB BLDG EQUIP COMPT EXHAUST FAN	V106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81	DRYWELL CHILLER COMPRESSOR	K111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
82	ROD DRIVE CONROL CABINET XFMR	X516	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83	SLCS PUMP	P208	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
84	RWCU SYSTEM RECIRC PUMP	P221	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	440V POWER RECEPTACLES	W201	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	440V POWER RECEPTACLES	W202								- 1																- 1
85	440V POWER RECEPTACLES	W205								- 1																- 1
86	440V POWER RECEPTACLES / SP RECIRC	W601	0	0	0	0	0	0,	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
87	440V POWER RECEPTACLES	W206	0	0	0	0	0	0	0	0	0	0:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88	MCC ANNUNCIATORS		1	1	0	1	1	1	1	- 1	1	1	0	- 1	1	1	1	1	4	1	0	- 1	1	1:	1	- 1
89	TURB GEN TURNING GEAR PIGGYBCK MTR	S195	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0
90	RHRSW CORROSION MONITORING	Y215	0	0	0	0	0	0	0	0	0	0:	0	0	0	0	0	0	0	0	0	o	0	0	0	o
91	ADMIN BLDG 480V DISTR PNL	00B500	0	0	0	0	0	0:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	kv BUS SUBTOTAL (kw)		2361	2130	0.2	113	1865	1741 20	24 1	996	1710 1	829	0 1	498	1056	1882	777	685	1710	829	0	1498	1056	1882	777	685

#### LEGEND

- (6) THE SPRAY POND PUMP STATION HEATING COILS ARE TRIPPED BY A LOCA SIGNAL.
- ASSIGNMENT OF THE LOADING ON THE DIESEL GENERATORS IS SUCH THAT THE SITUATION OF A DBA ON ONE UNIT AND SPURIOUS LOCA ON THE OTHER UNIT DOES NOT PRECLUDE SAFE SHUTDOWN OF THE UNITS. A SPURIOUS LOCA IS DEFINED AS A LOCA FOR 0-10 MINUTES AND EMERGENCY SHUTDOWN FOR BEYOND 10 MINUTES.
- (11) HEATING LOADS AND COOLING LOADS ARE NOT COINCIDENT. THE COINCIDENT COOLING LOAD IS LARGER THAN THE COINCIDENT HEATING LOAD, THEREFORE, THE COOLING LOADS ARE SHOWN ENERGIZED.

 CALC 6380E.07
 As-Built Calculations Used
 LGS
 REV 12

Table 8.3-13

#### CALC 6380E.07

#### PAGE: 1 of 3

# DIESEL GENERATOR AND EMERGENCY BUS LOADING WITH UNITS 1 & 2 IN OPERATION D14 DIESEL GENERATOR OUT OF SERVICE

UNIT 1 DESIGN BASIS ACCIDENT; UNIT 2 SPURIOUS LOCA (7)

				,	0 -	10 M	INUTE	S					10 -	60 N	INUT	ES				1	HOU	IR AN	D LON	IGER		
				UNI				UNIT	2			UNI			Γ	UNI	T 2			UNIT	*******			UNI		-
		T	D/G	D/G	D/G	D/G	D/G	D/G I	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G I	)/G	D/G	D/G	D/G	D/G	D/G
		EQUIP	BUS	BUS	BUS	BUS	BUS	BUS E	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS I	3US	BUS	BUS E	SUS	BUS	BUS	BUS	BUS	BUS
ITEM	LOAD DESCRIPTION	NO	D11	D12	D13	D14	D21	D22 I	D23	D24	D11	D12	D13	D14	D21	D22	D23	D24	D11	D12 [	13	D14	D21	D22	D23	D24
1	RHR PUMP	P202	993	993	993	0	977	993	993	993	993	993	0	0	0	993	0	0	993	993	0	0	0	993	0	
2	CORE SPRAY PUMP	P206	529	529	529	0	529	529	529	529	529	0	529	0	0	0	0	0	529	0	529	0	0	0	0	
3	RHR SERVICE WATER PUMP	P506	0	0	0	0	0	0	0	0	0	519	0	0	519	0	0	0	0	519	0	0	519	0	0	
4	ESW PUMP	P548	389	389	0	0	0	0	389	389	0	0	0	0	0	0	389	389	0	0	0	0	0	0:	389	38
5	125V BATTERY CHARGER	D103	51	50	9	0	51	51	9	9	51	50	9	0	51	51	9	9	51	50	9	0	51	51	9	
6	DRYWELL COOLER FAN	V212	80	80	0	0	80	80	0	0	0	80	80	0	80	80	0	0	0	80:	80	0	80	80	0	
7	DG ROOM VENT FAN	V512	30	30	30	0	30	30	30	30	30	30	30	0	30	30	30	30	30	30	30	0	30	30	30	3
8	RHR ROOM COOLING UNIT	V210	16	16	16	0	16	16.	16	16	16	16	16	0	16	16	16	16	16	16	16	0	16	16	16	1
9	CORE SPRAY ROOM COOLING UNIT	V211	7	8	7	0	7	7	7	7	7	8	7	0	7	7	7	7	7	8	7	0	7	7.	7	
10	HPCI ROOM COOLING UNIT	V209	0	10	0	0	0	10:	0	0	0	10	0	0	0	10	0	0	0	10:	0	0	0	10	0	
11	RCIC ROOM COOLING UNIT	V208	8	0	0	0	8	0	0	0	8	0	0	0	8	0	0	0	8	0:	0	0	8	0	0	
12	INSTRUMENT AC POWER SUPPLY	Y101	11	11	12	0	12	12	12	12	11	11	12	0	12	12	12	12	11	11	12	0	12	12	12	1
12	INSTRUMENT AC POWER SUPPLY	Y102	1																							
12	INSTRUMENT AC POWER SUPPLY	Y103																								
12	INSTRUMENT AC POWER SUPPLY	Y104				- 1				-								- 1								
13	DG START AIR COMPRESSOR	K513	0	0	0	0	0	0	0	0	7	7	7	0	7	7	7	7	7	7	7	0	7	7	7	
14	DG FUEL OIL TRANSFER PUMP	P514	0	0	0	0	0	0	0	0	0	0.	0	0	0	0	0	0	0	0	0	0	0	0	0	
15	SGTS HEATER	E188	44	0	0	0	0	0	0	0	44	0	0	0	0	0	0	0	44	0	0	0	0	0	0	
16	SGTS ROOM UNIT COOLER	V140	1	0	0	0	0	0	0	0	1	0:	0	О	0	0	0	o	1	0	0	0	0	0	0	1
17	SGTS ROOM ACCESS UNIT COOLER	V141	6	0	0	0	0	0	0	o	6	0	0	o	0	0	0	0	6	0	0	0	0	0	0	
18	SGTS EXHAUST FAN	V163	32	0	0	0	0	0	0	0	32	0	0	o	0	0	0	ol	32	0	0	0	0	0	0	
	RERS FAN	V213	151	0	0	o	151	0	0	0	151	0	0	o	151	0	0	o	151	0:	0	0	151	0	0	
1	HVAC DAMPER POWER	Y163	4	4	16	o	2	2	22	2	4	4	16	0	2	2	22	2	4	4:	16	0	2	2	22	
1	HVAC DAMPER POWER	Y164				-1												- 1								
	HVAC DAMPER POWER	Y206																- 1								
1	HVAC DAMPER POWER	Y207																- 1								
1	CONTROL ROOM CHILLER	K112	0	0	329	o	0	0	0	0	0	0	329	0	0	0	0	o	0	0.	329	o	0	0	0	
3	CONTROL ROOM CHILLER WATER PUMP	P162	0	0	16	0	0	0	0	ol	0	0	16	O	0	0	Ö	0	0	0	16	o	0	0	0	i
ì	AUX PNL & COMP RM FAN COIL UNIT	V114	o	0		0	0	0	0	ol	0	0	24	o	0	0	0	o	0	0:	24	0	0	0	0	1
	AUX PNL & COMP RM RETURN AIR UNIT	V120	ő	0	16	ol	0	0	0	0	0	0:	16	ol	0	0	Ō	ol	0	0:	16	0	0	0	0	
	CONTROL ROOM AIR COND UNIT	V116	0	0	32	ď	0	0:	0	n	0	0	32	0	0	0	0	o	0	0:	32	ol	0	0	0	
	CONTROL ROOM RETURN AIR FAN	V121	0	0	12	ď	0	0	ő	ő	0	Õ	12	ol	0	0	0	o	0	0	12	ol	0	0	0	
3	EMER SWGR & BTRY RM AIR COND UNIT	V118	0	0	9	n	0	0:	0	ő	0	0	9	ől	0	0	0	o	0	0	9	ol	0	0:	0	
į	AUX EQUIP & COMP RM AREA HTR (11)	E193	ő	0	0	0	0	0.	0	o	0	0	52	ő	0	0	0	ŏ	0	0	52	o	0	0	0	
1	CONTROL ROOM AREA HEATER (11)	E192	0	ő	0	ď	0	0	0	d	0	0	40	al	0	0	0	ol	0	0	40	ol	0	0-	0	
i .	CONTROL RM FRESH AIR INTAKE HTR (11)	E191	ő	0	32	0	0	0-	0	ď	0	0	0	ď	0	0	0	ol	0	0.	0	n	0	0:	0	
	SPRAY POND STA. HTG COIL FAN (11)	V543	7	7	0	ď	0	0.	0	ď	7	7	0	ď	0	0	0	ol	7	7	0	o	0	0	0	
ł.	SLCS HEATERS	S213	0	0	8		0	0	8	Ä	Ö	o:	8	d	0	0	8	ď	Ó	ó	8	ď	0	n	8	
	CONTAINMENT H2 RECOMBINER	S403	0	0	0	d	0	0	n	n	0	0	48	O.	0	0	48	d	0	n:	48	d	0	0	48	ì
33	OUNTAINMENT US DECOMBINED	5403	1 0	U	J	Ų	U	0	U	Ų	U	J	40	O.	0	U	40	V	U	U-	~~	d	V	0	~0	

### Table 8.3-13 (continued)

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# DIESEL GENERATOR AND EMERGENCY BUS LOADING WITH UNITS 1 & 2 IN OPERATION D14 DIESEL GENERATOR OUT OF SERVICE

UNIT 1 DESIGN BASIS ACCIDENT; UNIT 2 SPURIOUS LOCA (7)

					0 -	10 N	MINUTE	S					10 - 6	30 N	INUTE	S				1	HOL	IR AN	ID LON	IGER		
				UN	IT 1			UNIT	2			UNI	Γ1			UNI	Γ2			UNI	1			UNI	Τ2	
		1					D/G																			
		EQUIP	BUS	BUS	BUS	BUS	BUS	BUS E	BUS I	BUS	BUS	BUS	BUS B	US	BUS	BUS	BUS E	BUS	BUS	BUS I	3US	BUS	BUS	BUS	BUS	BUS
ITEM	LOAD DESCRIPTION	NO	D11	D12	D13	D14	D21	D22 [	D23	D24	D11	D12	D13 D	14	D21	D22	D23 I	D24	D11	D12	D13	D14	D21	D22	D23	D24
34	CONTROL ROOM FRESH AIR SUPPLY FAN	V127	0	0	6	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	6	0	0	0	0	0
35	CONTROL ROOM CHILLER OIL PUMP	P168	0	0	1	(	0 (	0	0	0	0	0	1	0	0	0	0	0	0	0:	1	0	0	0	0	C
36	DG AUXILIARIES	G501	0	0	0	0	0	0	0	0	14	14	14	0	14	14	14	14	14	14	14	0	14	14	14	14
37	DELETED						l																			
37	DELETED																									
38	DELETED		I				1			1								- 1								
39	CRD PUMP	P158	0	0	0	C	0	oʻ	0	0	0	0	0	0	0	0	0	0	0	0.	0	0	0	0	0	(
40	DELETED		1				1			- 1				-				- 1								
41	RECW PUMP	P210	0	0	0	C	0	0.	0	0	0	0:	68	0	0	0	68	0	0	0	68	0	0	0	68	(
42	TECW PUMP	P103	0	0	0	C	0	0	0	0	11	11	0	0	12	11	0	0	11	11:	0	0	12	11	0	(
43	INSTRUMENT AC POWER SUPPLY	Y105	0	0	0	C	0	0	0	0	5	10	24	0	24	24	24	24	5	10	24	0	24	24	24	24
43	INSTRUMENT AC POWER SUPPLY	Y106					l											- 1								
43	INSTRUMENT AC POWER SUPPLY	Y201	l				1																			
43	INSTRUMENT AC POWER SUPPLY	Y202	l				1																			
44	EMERGENCY LIGHTING	MISC	0	0	0	0	0	0-	0	0	11	70	108	0	0	59	80	68	11	70	108	0	0	59	80	68
45	TURBINE GEN BEARING LIFT PUMP	P109	0	0	0	C	0	0.	0	0	45	0	0	0	36	0	0	0	45	O.	0	0	36	0	0	(
46	TURBINE GEN TURNING GEAR OIL PUMP	P111	o	0	0	Ċ	0	Ö	0	o	32	ō	ō	0	32	ō	0	ol	32	0	0	ō	32	0:	0	Ċ
47	TURBINE GEN TURNING GEAR	S103	0	0	0	C	0	0	0	0	48	0	0	0	24	0	0	0	48	0	0	0	24	0	0	0
48	REPT TURNING GEAR	S106	0	0	0	Ö	0	0.	0	ō	2	1.	0	0	2	1	0	0	2	1	0	n	2	1	0	O
49	INSTRUMENT GAS COMPRESSOR	K203	0	0		0	0	0	0	0	2	0	0	0	1	Ó	0	0	2	Ó	0	o	1	ó	0	_
50	INSTRUMENT AIR COMPRESSOR	K101	0	0	0	0	0	0	0	n	0	0	33	0	n	0	33	n	0	0	33	o	0	0	33	Č
51			1	_			1			1							-	1				Ĭ		-	-	
52	OSC XFMR PNLS 00L140 & 00L141	X186	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	o	0	0	0	C
53	TEST ENGINEER'S WORKSHOP	X187	0	0	_	0	0	0	0	n	0	0	0	ŏ	n	0	0	o	0	0	0	ň	0	0	0	_
54	NORTH STACK RM ANTENNA SYS XFMR	X595	0	0	_	0	0	0	0	ď	0	9	0	ő	0	0	0	0	0	9	0	ď	0	0:	0	_
55	NOTHI STACKTIM ANTENNA OTO AT MAT	7,000	Ŭ				ľ			ĭ			v	Ĭ	0			Ĭ	Ü	0		1	•			
56	CRD REPAIR RM COOLING FAN	V904	0	0	0	0	0	0	0	o	0	0	0	0	0	0	0	ol	0	0.	0	0	0	0	0	0
57	125V BATTERY CHARGER	D113	ő	0	-	0	la	0:	0	ol	0	0	0	0	o.	0	0	96	0	0	0	o	0	0	0	96
58	FIRE ALARM & P/A	1X5	0	0	_	ď	0	0.	0	0	0	0	0	0	0	0	0	0	0	0	0	o	0	0	0	
59	FUEL POOL COOLING WATER PUMP	P211	0	0	-	0	Ö	0	0	0	0	32	0	ď	32	32	0	ŏ	ō	32	0	ŏ	32	32	0	0
	FUEL POOL SVC WATER BOOSTER PUMP	P212	0	0	0	0	1 0	0:	0	ď	0	0:	0	n	0	0	0	o	ő	0	0	0	0.0	0	0	0
	INSTR. AC PWR SUPPLY (SPRAY POND)	Y501	1	1	0	0	lő	0	8	a	1	1	0	ŏ	0	n	8	8	1	1	0	ď	0	0	8	8
62	SPRAY POND PP STA, HTG COIL (6,11)	E701	0	0		n	0	0.	0	0	'n	0	0	0	0	0	0	٦	0	0:	0	0	0	0	0	0
63	SGTS RM VENT EXHAUST FAN	V131	ő	0	0	0	lő	0.	0	ď	7	0.	0	٨	0	0	0	0	7	0	0	0	0	0	0	0
64	SECURITY AREAS AIR COND.	V565	0	0	0	n	0	0	0	ď	ó	0	14	ď	0	0	0	d	ó	0.	14	ď	0	0	0	0
65	PIPING FILL PUMP	P256	0	0	0	n	ŏ	0.	0	ď	3	3	0	ď	3	3	0	ď	3	3	0	ď	3	3.	0	0
66	DRYWELL H2O2 ANALYZER	S205	0	0	0	0	0	0	0	0	0	0	0	ď	0	0	0	7	0	0	0	ď	0	0	0	
67	SUPPRESSION POOL H202 ANALYZER	S205 S206	0	0	0	0	1 0	0	0	A	0	0	1	Ä	0	0	0		0	0	1	0	0	0	0	r
68	CHILLER PUMP-OUT COMPRESSOR	S200 K114	0	0	0	0	1 0	0	0	0	0	0	2	2	0	0	0		0	0	2	Z	0	0	n.	0
00	UNILLEN FUNIT-OUT COMPRESSOR	FX 1 1**	1 0	U	U	U	ş U	U	U	OĮ.	U	U	2	Οį	U	U	0	O	U	U	2	Uş	U	U	U	Ų
041.0	- canar at	*	0.440	. 5															100				**********			3/40

#### Table 8.3-13 (continued)

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# DIESEL GENERATOR AND EMERGENCY BUS LOADING WITH UNITS 1 & 2 IN OPERATION D14 DIESEL GENERATOR OUT OF SERVICE

UNIT 1 DESIGN BASIS ACCIDENT; UNIT 2 SPURIOUS LOCA (7)

					0 -	10 M	INUTE	S			**********	********	10 -	- 60 N	IINUT	ES		***************************************			1 HO	JR AN	ID LO	NGEF	}	
				UNI	Γ1			UNIT	2			UNI	Γ1			UNI	T 2			UN	IT 1			UN	IT 2	
			D/G	D/G	D/G	D/G	D/G	D/G D	)/G [	D/G	D/G I	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G
		EQUIP	BUS	BUS	BUS I	3US	BUS	BUS B	US E	3US	BUS E	SUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS I	BUS	BUS	BUS	BUS	BUS	BUS	BUS
ITEM	LOAD DESCRIPTION	NO	D11	D12	D13	D14	D21	D22 D	23 [	D24	D11 I	)12	D13	D14	D21	D22	D23	D24	D11	D12	D13	D14	D21	D22	D23	D24
69	SPRAY POND SUMP PUMP	P578	0	O.	0	0	0	0	0	0	2	2	0	0	0	0	2	2	2	2	0	0	0	0	2	2
70	AUX EG. RM & COMP RM ELE. HUMID (11)	E743	0	0:	0	0	0	0	0	0	43	0	0	0	Ö	0	0	0	43	0	0	0	0	0	0	0
71	CONTROL RM ELEC HUMIDIFIER (11)	E744	0	0	0	0	0	0	0	0	29	0	0	0	0	0	0	0	29	0	0	0	0	0	0	o
72	250V BATTERY CHARGER	D123	0	0	0	0	0	9	0	O	0	9	0	0	0	9	0	0	0	9	0	0	0	9	0	0
73	ALT POWER SUPPLY TO 10X161 XFMR	10X161	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	o
74	PNL 00-Y500 MAINT PWR SUPPLY VIA XFMR	00-X500	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	20	0	0	o
75	TELEPHONE EQUIP POWER XFMR	X503	0	0	0	0	0	0	0	0	6	O;	0	0	0	0	0	0	6	0	0	0	0	0	0	0
76	RECOMBINER HYDROGEN ANALYZER	P947	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Ö	0	0
77	DIESEL GENERATOR BRIDGE CRANE	H501	0	0.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
78	440V POWER RECEPTACLE	W508	0	0	0	0	0	0	0	o	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79	SPRAY POND PUMP HOIST	H511	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79	SPRAY POND PUMP HOIST	H513						1											l							- 1
80	TURB BLDG EQUIP COMPT EXHAUST FAN	V106	0	0:	0	o	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81	DRYWELL CHILLER COMPRESSOR	K111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	o
82	ROD DRIVE CONROL CABINET XFMR	X516	0	0	0	o	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ol
83	SLCS PUMP	P208	0	0;	0	o	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	o
84	RWCU SYSTEM RECIRC PUMP	P221	0	0:	0	0	0	O	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	o
85	440V POWER RECEPTACLES	W201	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	440V POWER RECEPTACLES	W202						1		- 1										1						
85	440V POWER RECEPTACLES	W205										3		- 1												- 1
86	440V POWER RECEPTACLES / SP RECIRC	W601	0	0.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ol
87	440V POWER RECEPTACLES	W206	0	0	0	0	0	0	0	0	0	0	0	o	0	0.	0	0	0	0	0	0	0	0	0	ol
88	MCC ANNUNCIATORS	Ī	1	1	1	0	1	1	1	1	1	1	1	0	1	1.	1	1	1	1	1	o	1	1:	1	- 1
89	TURB GEN TURNING GEAR PIGGYBCK MTR	S195	0	0	0	o	0	0	0	o	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0
90	RHRSW CORROSION MONITORING	Y215	0	0	0	o	0	0	0	o	0	0	0	o	0	0	0	0	0	0	0	o	0	0	0	o
91	ADMIN BLDG 480V DISTR PNL	00B500	0	0	0	0	0	0	0	0	0	0	66	0	0	0	0	0	0	0	66	0	0	0	0	0
	4kv BUS SUBTOTAL (kw)		2361	2130	2098	0	1865	741 20	)24 1	996	2159 1	899 1	629	0	1088	1363	777	685	2159 1	899	1629	0	1088	1363	777	685

#### LEGEND

- (6) THE SPRAY POND PUMP STATION HEATING COILS ARE TRIPPED BY A LOCA SIGNAL.
- ASSIGNMENT OF THE LOADING ON THE DIESEL GENERATORS IS SUCH THAT THE SITUATION OF A DBA ON ONE UNIT AND SPURIOUS LOCA ON THE OTHER UNIT DOES NOT PRECLUDE SAFE SHUTDOWN OF THE UNITS. A SPURIOUS LOCA IS DEFINED AS A LOCA FOR 0-10 MINUTES AND EMERGENCY SHUTDOWN FOR BEYOND 10 MINUTES.
- (11) HEATING LOADS AND COOLING LOADS ARE NOT COINCIDENT. THE COINCIDENT COOLING LOAD IS LARGER THAN THE COINCIDENT HEATING LOAD, THEREFORE, THE COOLING LOADS ARE SHOWN ENERGIZED.

Table 8.3-14

#### CALC 6380E.07 PAGE: 1 of 3

# DIESEL GENERATOR AND EMERGENCY BUS LOADING WITH UNITS 1 & 2 IN OPERATION D21 DIESEL GENERATOR OUT OF SERVICE

UNIT 1 DESIGN BASIS ACCIDENT; UNIT 2 SPURIOUS LOCA (7)

					0 -	10 N	INUTE	S					10 -	- 60 N	AINUT	ES				1	HOL	JR AN	D LO	VGEF	₹	
			T	UNI	IT 1		Г	UNIT	12			UNI	T 1		Π	UN	IT 2			UNIT	1	-		UN	IT 2	
		T	D/G	D/G	D/G	D/G	D/G	D/G:	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G .	D/G	D/G	D/G	D/G	D/G	D/G
		EQUIP	BUS	BUS	BUS	BUS	BUS	BUS E	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS E	BUS	BUS	BUS I	BUS	BUS	BUS	BUS	BUS	BUS
ITEM	LOAD DESCRIPTION	NO						D22												D12						
1	RHR PUMP	P202	993	993	993	993	0	993	993	993	0	993	0	993	0	993	0	0	0	993	0	993	0	993	0	0
2	CORE SPRAY PUMP	P206	529	529	529	529	0	529	529	529	529	0	529	0	0	0	0	0	529	0	529	0	0	0	0	0
3	RHR SERVICE WATER PUMP	P506	0	0	0	0	0	0	0	0	519	0	0	0	0	519	0	0	519	0	0	0	0	519	0	0
4	ESW PUMP	P548	389	389	0	0	0	0	389	389	0	0	0	0	0	0	389	389	0	0	0	0	0	0	389	389
5	125V BATTERY CHARGER	D103	51	50	9	9	0	51	9	9	51	50	9	9	0	51	9	9	51	50	9	9	0	51	9	9
6	DRYWELL COOLER FAN	V212	80	80	0	0	0	80	80	0	0	0	80	80	0	80	80	0	0	0:	80	80	0	80	80	0
7	DG ROOM VENT FAN	V512	30	30	30	30	0	30	30	30	30	30	30	30	0	30	30	30	30	30	30	30	0	30	30	30
8	RHR ROOM COOLING UNIT	V210	16	16	16	16	0	16	16	16	16	16	16	16	0	16	16	16	16	16	16	16	0	16	16	16
9	CORE SPRAY ROOM COOLING UNIT	V211	7	8	7	8	0	7	7	7	7	8	7	8	0	7	7	7	7	8	7	8	0	7		7
10	HPCI ROOM COOLING UNIT	V209	0	10	0	0	0	10	0	0	0	10	0	0	0	10	0	0	0	10	0	o	0	10	0	0
11	RCIC ROOM COOLING UNIT	V208	8	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	8	0:	0	o	0	0	0	0
12	INSTRUMENT AC POWER SUPPLY	Y101	11	11	12	11	0	12	12	12	11	11	12	11	0	12	12	12	11	11-	12	11	0	12	12	12
12	INSTRUMENT AC POWER SUPPLY	Y102	l															- 1								
12	INSTRUMENT AC POWER SUPPLY	Y103	l							- 1																
12	INSTRUMENT AC POWER SUPPLY	Y104																- 1								
13	DG START AIR COMPRESSOR	K513	0	0	0	0	0	0	0	0	7	7.	7	7	0	7	7	7	7	7	7	7	0	7	7	7
14	DG FUEL OIL TRANSFER PUMP	P514	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	SGTS HEATER	E188	44	0	0	0	0	0	0	0	44	0	0	0	0	0	0	o	44	0	0	ol	0	0	0	0
16	SGTS ROOM UNIT COOLER	V140	1	0	0	0	ō	Ö	0	0	1	0	0	0	0	0	0	ō	1	0	0	Õ	0	0	Õ	Õ
17	SGTS ROOM ACCESS UNIT COOLER	V141	6	0	0	0	0	0	0	o	6	0	0	0	0	0	0	ol	6	0	0	o	0	0	0	0
18	SGTS EXHAUST FAN	V163	32	0	0	0	0	0	0	0	32	Ü.	0	0	0	0	0	0	32	0	0	0	0	0	0	0
19	RERS FAN	V213	151	0	0	0	0	151	0	0	151	0	0	0	0	151	0	o	151	0	0	0	0	151	0	0
20	HVAC DAMPER POWER	Y163	4	4	16	20	0	2	22	2	4	4	16	20	0	2	22	2	4	4	16	20	0	2	22	2
20	HVAC DAMPER POWER	Y164								٦						_		٦						-		
20	HVAC DAMPER POWER	Y206	l															- 1								
20	HVAC DAMPER POWER	Y207	l							- 1								- 1				1				
21	CONTROL ROOM CHILLER	K112	0	0	329	0	0	0	0	0	0	0	329	0	0	0	0	o	0	0	329	0	0	0	0	ο
22	CONTROL ROOM CHILLER WATER PUMP	P162	0	0	16	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0	16	0	0	0	0	0
23	AUX PNL & COMP RM FAN COIL UNIT	V114	0	0	24	0	0	0:	0	0	0	0	24	o	0	0	0	0	0	ō	24	0	0	0	0	0
24	AUX PNL & COMP RM RETURN AIR UNIT	V120	0	0	16	0	0	0	0	o	0	0	16	0	0	0	0	o	0	Ö	16	0	0	0	0	0
25	CONTROL ROOM AIR COND UNIT	V116	0	0	32	0	0	0	0	o	0	0	32	Õ	0	0	0	0	0	0	32	ō	0	n	ő	0
26	CONTROL ROOM RETURN AIR FAN	V121	0	0	12	ō	0	0:	0	ň	ő	0.	12	ŏ	0	0	0	0	0	0.	12	ŏ	0	0	0	0
27	EMER SWGR & BTRY RM AIR COND UNIT	V118	0	0	9	n	0	0	0	0	n	0	9	0	n	0.	0	0	0	0	9	ď	0	0	0	n
28	AUX EQUIP & COMP RM AREA HTR (11)	E193	0	0	0	0	ő	0	0	0	0	0-	52	O	ő	0	0	0	0	0	52	o	0	0.	0	0
29	CONTROL ROOM AREA HEATER (11)	E192	0	0	0	0	ő	0	0	ŏ	0	0	40	0	0	0	0	0	0	0:	40	n	0	0:	0	0
30	CONTROL RM FRESH AIR INTAKE HTR (11)	E191	0	0	32	0	0	0	ő	ď	0	0	0	n	0	0	0	ď	0	0	0	ď	0	0	0	0
31	SPRAY POND STA. HTG COIL FAN (11)	V543	7	7	0	0	0	0	0	ď	7	7	0	ď	0	0	0	o	7	7	n	a	0	0	0	0
32	SLCS HEATERS	S213	Ó	Ó	8	0	0	0	8	d	Ó	oʻ	8	0	0	0	8	d	Ó	o.	8	d	0	0	8	0
33	CONTAINMENT H2 RECOMBINER	S403	0	0	0	n	0	0	0	ď	0	0	48	ď	0	0	48	ď	0	0	48	ol ol	0	0	48	d
, 50	OCTATION STREET THE THEORY OF THE TELEFORM	0.000				O <sub>1</sub>		0		- 4			70	J			-10	- Vi	J	0	70	VI.	J	0	70	ol

### Table 8.3-14 (continued)

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#### PAGE: 2 of 3

# DIESEL GENERATOR AND EMERGENCY BUS LOADING WITH UNITS 1 & 2 IN OPERATION D21 DIESEL GENERATOR OUT OF SERVICE

UNIT 1 DESIGN BASIS ACCIDENT; UNIT 2 SPURIOUS LOCA (7)

					0 -	10 M	NUTE	S					10	- 60 N	INUT	ES			Γ	1	HOU	IR AN	ID LON	IGER		
				UNI				UNIT				UNI				UNI				UNIT				UNI	T 2	
			D/G	D/G	D/G	D/G	D/G	D/G	D/G I	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G
		EQUIP	BUS E	3US	BUS	BUS	BUS	BUS: E	BUS E	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS I	3US	BUS	BUS	BUS	BUS	BUS
ITEM	LOAD DESCRIPTION	NO	D11 I	012	D13	D14	D21	D22 I	D23 I	D24	D11	D12	D13	D14	D21	D22	D23	D24	D11	D12	D13	D14	D21	D22	D23	D24
34	CONTROL ROOM FRESH AIR SUPPLY FAN	V127	0	0	6	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0.	6	0	0	0	0	(
35	CONTROL ROOM CHILLER OIL PUMP	P168	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	(
36	DG AUXILIARIES	G501	0	0	0	0	0	0	0	0	14	14	14	14	0	14	14	14	14	14	14	14	0	14	14	14
37	DELETED																	- 1				- 1				
37	DELETED													- 1												
38	DELETED					- 1																- 1				
39	CRD PUMP	P158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.	0	o	0	0	0	-
40	DELETED									- 1				- 1								- 1				
41	RECW PUMP	P210	0	0	0	0	0	0	0	0	0	0:	68	0	0	0	68	o	0	0:	68	0	0	0	68	(
42	TECW PUMP	P103	0	0	0	0	0	0.	0	0	11	11	0	0	0	11	0	o	11	11	0	o	0	11	0	(
43	INSTRUMENT AC POWER SUPPLY	Y105	0	0	0	0	0	0	0	0	5	10	24	14	0	24	24	24	5	10	24	14	0	24	24	24
43	INSTRUMENT AC POWER SUPPLY	Y106				- 1								- 1												-
43	INSTRUMENT AC POWER SUPPLY	Y201				- 1				- 1				- 1				- 1				- 1				
43	INSTRUMENT AC POWER SUPPLY	Y202				- 1				- 1				- 1				- 1								
44	EMERGENCY LIGHTING	MISC	0	0	0	0	0	0	0	o	11	70	108	99	0	59	80	68	11	70	108	99	Ω	59.	80	68
45	TURBINE GEN BEARING LIFT PUMP	P109	0	0	0	0	0	0	0	0	45	0	0	o	0	0	0	0	45	0	0	0	o.	0	0	00
46	TURBINE GEN TURNING GEAR OIL PUMP	P111	0	0	0	ol	0	0	0	o	32	0:	0	ol	0	0	0	o	32	0:	0	O.	0	0	0	ď
47	TURBINE GEN TURNING GEAR	S103	0	0	0	o	0	0:	0	o	48	0	0	ol	0	0	0	0	48	0	0	o	0	0	0	0
48	RFPT TURNING GEAR	S106	0	0	0	o	0	0	0	o	2	1	0	ol	0	1	0	ŏ	2	1	0	o	0	1	0	0
49	INSTRUMENT GAS COMPRESSOR	K203	0	0	0	o	0	0	0	o	2	0	0	o	0	Ó	0	٥	2	0	o	ď	0	Ó	0	
50	INSTRUMENT AIR COMPRESSOR	K101	0	0	0	o	0	0	0	0	0	0	33	0	0	0	33	0	0	0	33	ď	0	0	33	0
51										Ĭ			-	Ĭ			-	7		0	00	~~~	0	0	00	0
52	OSC XFMR PNLS 00L140 & 00L141	X186	0	0	0	0	0	0	0	o	0	0	0	n	0	0	0	0	0	0	0	٥	0	0	0	0
53	TEST ENGINEER'S WORKSHOP	X187	0	0	0	o	0	0	0	o	0	0	0	0	0	0	0	ď	0	0	0	o	0	0	0	0
54	NORTH STACK RM ANTENNA SYS XFMR	X595	0	0	0	o	0	0	0	0	0	9	0	o	0	0	Ö	o	0	9	0	ă	0	0	n	0
55		1						_	_	1	-	_		1				1				1		U	0	
56	CRD REPAIR RM COOLING FAN	V904	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	α
57	125V BATTERY CHARGER	D113	0	0	0	O	0	0	0	a	0	0	0	96	0	0	0	96	0	0:	0	96	0	0	0	96
58	FIRE ALARM & P/A	1X5	0	0	0	12	0	0	0	o	0	0	0	12	0	0	0	0	Ö	0	0	12	0	0	0	90
59	FUEL POOL COOLING WATER PUMP	P211	0	0	0	0	0	0:	0	o	0	32	0		0	32	0	٦	0	32	0	12	0	32	0	0
1	FUEL POOL SVC WATER BOOSTER PUMP	P212	0	0	0	ď	0	0	0	ň	ő	0	0	ď	0	0	0	ă	0	0	0	9	0	0	0	0
61	INSTR. AC PWR SUPPLY (SPRAY POND)	Y501	1	1	0	ď	0	0	8	8	1	1	0	0	0	0	8	8	1	1.	0	ä	0	0	8	0
1	SPRAY POND PP STA. HTG COIL (6,11)	E701	0	0	0	al	ñ	0	0	ă	ó	0	0	ď	0	0	0	0	0	0:	0	7	0	0	0	0
1	SGTS RM VENT EXHAUST FAN	V131	0	0	0	ď	ő	0	0	0	7	0	0	ď	0	0	0	ă	7	0.	0	Ä	0	0	0	0
64	SECURITY AREAS AIR COND.	V565	0	0	0	0	0	0.	0	ď	Ó	0	14	7	0	0	0	ď	ó	0:	14	Ä	0	0.	0	0
l .	PIPING FILL PUMP	P256	0	0	0	ŏ	0	0:	0	ď	3	3	0	ď	0	3	0	0	3	3.	0	0	0	3	0	7
Į.	DRYWELL H2O2 ANALYZER	5205	0	0	0	ď	0	0:	0	d	0	0:	0	1	0	0	0	2	0	0	0	3	0	0	0	0
}	SUPPRESSION POOL H2O2 ANALYZER	S206	0	0	1	a	0	0.	0	Ä	0	0.	1		0	0	0	Ä	0	0.	ų.	d	-	-		U
1	CHILLER PUMP-OUT COMPRESSOR	K114	0	0	n	d	0	0	0	d	0	0	2	ol	0	0	0	3	0	0.	2	0	0	0.	0	0
		******		-					· ·	VI.				Ч		U		· · ·	0			U	U	U	0	_

#### Table 8.3-14 (continued)

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PAGE: 3 of 3

# DIESEL GENERATOR AND EMERGENCY BUS LOADING WITH UNITS 1 & 2 IN OPERATION D21 DIESEL GENERATOR OUT OF SERVICE

UNIT 1 DESIGN BASIS ACCIDENT; UNIT 2 SPURIOUS LOCA (7)

			Г		0 -	10 M	INUTE	S		***************************************			10 -	60 N	INUT	ES				-	1 HOL	JR AN	D LON	IGER		$\neg$
				UNI	Γ1			UNIT	2			UNIT	1			UNI	Τ2			UNI	IT 1			UNI	T 2	
			D/G	D/G	D/G	D/G	D/G	D/G [	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G [	D/G
		EQUIP	BUS	BUS	BUS I	BUS	BUS	BUS E	BUS	BUS	BUS E	BUS E	BUS	BUS	BUS	BUS	BUS	BUS	BUS	3US	BUS	BUS	BUS	BUS	BUS E	3US
ITEN	LOAD DESCRIPTION	NO	D11	D12	D13	D14	D21	D22 [	)23	D24	D11 I	012 [	D13	D14	D21	D22	D23	D24	D11	D12	D13	D14	D21	D22	D23 [	J24
69	SPRAY POND SUMP PUMP	P578	0	0	0	0	0	0	0	0	2	2	0	0	0	0	2	2	2	2	0	0	0	0	2	2
70	AUX EG. RM & COMP RM ELE. HUMID (11)	E743	0	0	0	0	0	0	0	0	43	0:	0	0	0	0	0	0	43	0	0	0	0	0:	0	0
71	CONTROL RM ELEC HUMIDIFIER (11)	E744	0	0	0	0	0	0	0	0	29	0	0	0	0	0	0	0	29	0:	0	0	0	0	0	0
72	250V BATTERY CHARGER	D123	0	0	0	0	0	9	0	0	0	9	0	0	0	9	0	0	0	9	0	0	0	9	0	0
73	ALT POWER SUPPLY TO 10X161 XFMR	10X161	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
74	PNL 00-Y500 MAINT PWR SUPPLY VIA XFMR	00-X500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0:	0	0	0	0.	0	0
75	TELEPHONE EQUIP POWER XFMR	X503	0	0	0	0	0	0	0	0	6	0.	0	0	0	0	0	0	6	0	0	0	0	0	0	0
76	RECOMBINER HYDROGEN ANALYZER	P947	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	DIESEL GENERATOR BRIDGE CRANE	H501	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
78	440V POWER RECEPTACLE	W508	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.	0	0
79	SPRAY POND PUMP HOIST	H511	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79	SPRAY POND PUMP HOIST	H513																								
80	TURB BLDG EQUIP COMPT EXHAUST FAN	V106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0:	0	0	0	0	0	0
81	DRYWELL CHILLER COMPRESSOR	K111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
82	ROD DRIVE CONROL CABINET XFMR	X516	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0:	0	0	0	0	0	0
83	SLCS PUMP	P208	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
84	RWCU SYSTEM RECIRC PUMP	P221	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.	0	0
85	440V POWER RECEPTACLES	W201	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	440V POWER RECEPTACLES	W202	l											- 1												
85	440V POWER RECEPTACLES	W205	1																			ı				ı
86	440V POWER RECEPTACLES / SP RECIRC	W601	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0:	0	0
87	440V POWER RECEPTACLES	W206	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88	MCC ANNUNCIATORS		1	1	1	1	0	1	1	1	1	1	1	- 1	0	1	1	1	1	1	1	1	0	1	1	- 1
89	TURB GEN TURNING GEAR PIGGYBCK MTR	S195	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
90	RHRSW CORROSION MONITORING	Y215	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
91	ADMIN BLDG 480V DISTR PNL	00B500	0	0	0	0	0	0	0	0	0	0	66	0	0	0	0	0	0	0	66	0	0	0	0	0
	4kv BUS SUBTOTAL (kw)		2361	2130 2	2099 1	629	0	1892 2	104	1996	1685 1	300 1	629	1410	0	2033	857	685	1685 1	300	1629	1410	0 2	2033	857	685

#### LEGEND

- (6) THE SPRAY POND PUMP STATION HEATING COILS ARE TRIPPED BY A LOCA SIGNAL.
- (7) ASSIGNMENT OF THE LOADING ON THE DIESEL GENERATORS IS SUCH THAT THE SITUATION OF A DBA ON ONE UNIT AND SPURIOUS LOCA ON THE OTHER UNIT DOES NOT PRECLUDE SAFE SHUTDOWN OF THE UNITS. A SPURIOUS LOCA IS DEFINED AS A LOCA FOR 0-10 MINUTES AND EMERGENCY SHUTDOWN FOR BEYOND 10 MINUTES.
- (11) HEATING LOADS AND COOLING LOADS ARE NOT COINCIDENT. THE COINCIDENT COOLING LOAD IS LARGER THAN THE COINCIDENT HEATING LOAD, THEREFORE, THE COOLING LOADS ARE SHOWN ENERGIZED.

Table 8.3-15

#### CALC 6380E.07 PAGE: 1 of 3

# DIESEL GENERATOR AND EMERGENCY BUS LOADING WITH UNITS 1 & 2 IN OPERATION D22 DIESEL GENERATOR OUT OF SERVICE

UNIT 1 DESIGN BASIS ACCIDENT; UNIT 2 SPURIOUS LOCA (7)

					0 -	10 M	INUT	ES					10 -	60 N	IINUT	ES				1	HOU	JR AN	D LON	3ER		
				UNI	T 1			UNI				UNI				UNI				UNI				UNIT		
		1	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G E	/G	D/G	D/G
		EQUIP	BUS	BUS	BUS	BUS	BUS	BUS I	3US	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS B	us I	BUS	BUS
ITEM	LOAD DESCRIPTION	NO	D11	D12	D13	D14	D21	D22	D23	D24	D11	D12	D13	D14	D21	D22	D23	D24	D11	D12	D13	D14	D21 E	22	D23	D24
1	RHR PUMP	P202	993	993	993	993	977	0:	993	993	0	993	0	993	977	0	0	0	0	993	0	993	977	0	0	-
2	CORE SPRAY PUMP	P206	529	529	529	529	529	0.	529	529	529	0	529	0	0	0	0	0	529	0	529	0	0	0	0	
3	RHR SERVICE WATER PUMP	P506	0	0	0	0	0	0	0	0	519	519	0	0	0	0	0	0	519	519	0	0	0	0	0	
4	ESW PUMP	P548	389	389	0	o	0	0	389	389	0	0	0	0	0	0	389	389	0	0	0	o	0	0:	389	38
5	125V BATTERY CHARGER	D103	51	50	9	9	51	0:	9	9	51	50	9	9	51	0	9	9	51	50	9	9	51	0	9	
6	DRYWELL COOLER FAN	V212	80	80	0	0	80	0	0	80	0	0	80	80	0	0	80	80	0	0	80	80	0	0	80	8
7	DG ROOM VENT FAN	V512	30	30	30	30	30	0:	30	30	30	30	30	30	30	0	30	30	30	30	30	30	30	0	30	3
8	RHR ROOM COOLING UNIT	V210	16	16	16	16	16	0.	16	16	16	16	16	16	16	0	16	16	16	16	16	16	16	0	16	
9	CORE SPRAY ROOM COOLING UNIT	V211	7	8	7	8	7	0	7	7	7	8	7	8	7	0	7	7	7	8	7	8	7	0	7	
10	HPCI ROOM COOLING UNIT	V209	0	10	0	o	0	0	0	0	0	10	0	0	0	0	0	o	0	10	0	0	0	O.	0	1
11	RCIC ROOM COOLING UNIT	V208	8	0	n	0	8	0	0	0	8	0	0	n	8	0	0	0	8	0	0	0	8	ő	0	,
12	INSTRUMENT AC POWER SUPPLY	Y101	11	11	12	11	12		12	12	11	11	12	11	12	0	12	12	11	11:	12	11	12	0	12	1
12	INSTRUMENT AC POWER SUPPLY	Y102	1											- ' '	/			, _		• • •	, ~~					
12	INSTRUMENT AC POWER SUPPLY	Y103	l			- 1																				
12	INSTRUMENT AC POWER SUPPLY	Y104	1											ı												
13	DG START AIR COMPRESSOR	K513	0	0	0	0	0	0	0	0	7	7	7	7	7	0	7	7	7	7	7	7	7	0	7	
14	DG FUEL OIL TRANSFER PUMP	P514	0	0	0	n	0	0	0	ň	0	n:	'n	'n	0	0	0	0	0	0	ó	Ó	ń	0	, O	
15	SGTS HEATER	E188	44	0	0	ol	0	0	0	0	44	0	0	0	0	0	Ô	n	44	0	0	ő	0	0.	0	ì
16	SGTS ROOM UNIT COOLER	V140	1	0	0	ň	0	0	0	n	1	0	0	۸	0	0	0	0	1	0	0	ŏ	0	0	0	
17	SGTS ROOM ACCESS UNIT COOLER	V141	6	0	0	0	0	0	0	ň	6	0	0	n	0	0	0	ŏ	6	0	0	ď	0	0:	0	,
18	SGTS EXHAUST FAN	V163	32	0	0	0	0	0.	0	n	32	0	0	n	0	0	0	o o	32	0	0	o	0	0.	n	
19	RERS FAN	V213	151	0	0	ŏ	151	0	0	o	151	0	0	ă	151	0	0	o	151	0	0	0	151	0	0	
20	HVAC DAMPER POWER	Y163	4	4	16	20	2	0:	22	2	4	4	16	20	2	0	22	2	4	4	16	20	2	0	22	
20	HVAC DAMPER POWER	Y164	1	7	10	- 20	4.,	0.	~~	-1	-	₹.	10	24	£	0	Karka	1	7	4	10	-4	~	0	K-E.	4
20	HVAC DAMPER POWER	Y206	1			- 1								-								- 1				
20	HVAC DAMPER POWER	Y207	l											- 1								- 1				
21	CONTROL ROOM CHILLER	K112	0	0	329	0	0	0:	0	n	0	0	329	ما	0	0	0	۸	0	0	329		n	0	0	
22	CONTROL ROOM CHILLER WATER PUMP	P162	0	0	16	0	0	0	0	0	0	0	16	n	0	0	0	0	0	0	16	٥	0	0	0	í
23	AUX PNL & COMP RM FAN COIL UNIT	V114	ő	0	24	ŏ	0	0	0	o	0	0	24	ď	0	0	0	0	0	0-	24	0	0	0.	0	,
24	AUX PNL & COMP RM RETURN AIR UNIT	V120	0	0	16	o	0	0	0	ď	0	0	16	ď	0	0	0	0	0	0	16	ď	n	n.	0	
25	CONTROL ROOM AIR COND UNIT	V116	0	0	32	ď	0	0	0	0	0	0	32	ň	0	0	0	ŏ	0	0:	32	Ä	0	0:	0	,
26	CONTROL ROOM RETURN AIR FAN	V121	0	0	12	7	0	0	0	~	0	0	12	7	0	0	0	Ä	0	0:	12	ď	0	0	0	
27	EMER SWGR & BTRY RM AIR COND UNIT	V121	0	0	9	Ä	0	0	0	J	0	0	9	3	0	0	0	3	0	0	9	7	0	0	n	,
28	AUX EQUIP & COMP RM AREA HTR (11)	E193	0	0	0	9	0	0	0	2	0	0:	52	9	0	0	0	9	0	0	52	ď	0	0:	0	
29	CONTROL ROOM AREA HEATER (11)	E193	0	0	0	7	0	0	0	0	0	0.	40	0	0	0	0	ď	0	0	40	0	0	Ů	0	
30	CONTROL RM FRESH AIR INTAKE HTR (11)	E192	0	0	32	d	0	0	0	d	0	0	40	J	0	0	0	0	0	0	40	Z	0	0	0	
31		V543	7	7	32	ď	0	0	0	0	7	ブ	0	J	0	0	0	0	7	7	0	, J	0	-	0	1,
	SPRAY POND STA. HTG COIL FAN (11) SLCS HEATERS	V543 S213	6		8	0	0		8	0	0	0-	8	J	0	0	_	0	0	0	8	J	-	0		(
32			0	0	-	-	0	0.	0	- 5	0	-	48	J	_	-	8 48	-1	0		-	0	0	0:	8	(
33	CONTAINMENT H2 RECOMBINER	S403	1 0	0	0	이	U	0:	0	O	0	0	48	U	0	0	48	O	U	0	48	O	0	0	48	0

### Table 8.3-15 (continued)

#### CALC 6380E.07 PAGE: 2 of 3

# DIESEL GENERATOR AND EMERGENCY BUS LOADING WITH UNITS 1 & 2 IN OPERATION D22 DIESEL GENERATOR OUT OF SERVICE

UNIT 1 DESIGN BASIS ACCIDENT; UNIT 2 SPURIOUS LOCA (7)

THEM						0 -	10 M	NUTI	ES					10 -	60 N	INUTI	ES				1	HOU	RAN	D LON	GER		
EQUIP   BUS						IT 1			UNIT																		
TEM    LOAD DESCRIPTION   NO   D11 D12 D13 D14 D21 D22 D23 D24 D11 D12 D13 D14 D21 D23 D24 D21 D22 D23 D24 D11 D12 D13 D14 D21 D23 D24 D22 D23 D24 D11 D12 D13 D14 D21 D23 D24 D22 D23 D24 D11 D12 D13 D14 D21 D23 D24 D22 D23 D24 D11 D12 D13 D14 D21 D23 D24 D21 D22 D23 D24 D11 D12 D13 D14 D21 D23 D24 D21 D22 D23 D24 D11 D12 D13 D14 D21 D23 D24			T																								
CONTROL ROOM ERESH AIR SUPPLY FAN   V127			EQUIP	BUS	BUS	BUS	BUS	BUS	BUS B	SUS E	BUS	BUS E	BUS E	BUS	BUS	BUS	BUS	BUS I	BUS	BUS	BUSE	BUS	BUS	BUS E	BUS	BUS	BUS
SCONTROL GOOM CHILLER OIL PUMP   P168   0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ITEM	LOAD DESCRIPTION	NO	D11	D12	D13	D14	D21	D22 [	)23	D24	D11	D12.1	D13	D14	D21	D22	D23	D24	D11	D12 I	D13	D14	D21 1	022	D23	D24
Second Column   Second Colum	34	CONTROL ROOM FRESH AIR SUPPLY FAN	V127	0	0	6	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	6	0	0	0:	0	C
37 DELETED 38 DELETED 39 CAD PUMP 40 DELETED 41 RECW PUMP 42 TECW PUMP 43 INSTRUMENT AC POWER SUPPLY 44 SINSTRUMENT AC POWER SUPPLY 43 INSTRUMENT AC POWER SUPPLY 43 INSTRUMENT AC POWER SUPPLY 44 SINSTRUMENT AC POWER SUPPLY 45 REFERENCY LIGHTING 46 TURBING GEAN REALING LIFT PUMP 47 TURBING GEAN REALING LIFT PUMP 48 TURBING GEAN REALING LIFT PUMP 49 O	35	CONTROL ROOM CHILLER OIL PUMP	P168	0	0	1	0	0	0.	0	0	0	0	1	0	0	0	0	0	0	0:	1	0	0	0	0	(
37 DELETED	36	DG AUXILIARIES	G501	0	0	0	0	0	0	0	0	14	14	14	14	14	0	14	14	14	14	14	14	14	0	14	14
SECRETED   SECRETED	37	DELETED					1													ĺ							
SAD PUMP	37	DELETED					-																				
AU   DELETED     AU   DELETED     AU   DELETED     AU   DELETED		DELETED																									
A1   RECW PUMP	39	CRD PUMP	P158	0	0	0	이	0	0	0	0	0	0	0	0	0	0	0	0	0	0:	0	o	0	0	0	(
A2   TECW PUMP	1						- 1																				
A3	41	RECW PUMP			_	_	0		_		0			68	0				0				0				C
43 INSTRUMENT AC POWER SUPPLY Y201 44 SINSTRUMENT AC POWER SUPPLY Y201 44 EMERGENCY LIGHTING MISC	42	TECW PUMP		1			0				0			_	0				- 1				0			-	(
43 INSTRUMENT AC POWER SUPPLY   Y201   Y202   Y204   Y202   Y205   Y20	43	INSTRUMENT AC POWER SUPPLY		0	0	0	0	0	0	0	0	5	10	24	14	24	0	24	24	5	10	24	14	24	0	24	24
43 INSTRUMENT AC POWER SUPPLY 44 EMERIGENCY LIGHTING MISC 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1						- 1																				
## EMERGENCY LIGHTING ## P109							- 1																- 1				
45 TURBINE GEN BEARING LIFT PUMP P109 0 0 0 0 0 0 0 0 0 45 0 0 0 45 0 0 0 36 0 0 0 36 0 0 0 36 0 0 0 36 0 0 0 46 TURBINE GEN TURNING GEAR OIL PUMP P111 0 0 0 0 0 0 0 0 0 0 0 32 0 0 0 0 32 0 0 0 0	43	INSTRUMENT AC POWER SUPPLY		1																							
46 TURBINE GEN TURNING GEAR OIL PUMP P111 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1						0	_	-	-	0					-	•						99	-	-		68
47 TURBINE GEN TURNING GEAR S103 0 0 0 0 0 0 0 0 0 0 24 0 0 0 48 0 0 0 24 0 0 0 48 0 0 0 24 0 0 0 48 0 0 0 24 0 0 0 48 0 0 0 24 0 0 0 0 48 0 0 0 24 0 0 0 0 48 0 0 0 0 24 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1				-		0	-	-	-	0		-	-	0	1	-	_			-	-	0		٧.	-	C
48 RFPTTURNING GEAR	1				_	_	0	-	-	-	0				0				-1				0		-	-	C
19	1				-		o			-	O		0		0				~1		-		0			_	C
SO   INSTRUMENT AIR COMPRESSOR   K101   O   O   O   O   O   O   O   O   O	1			1 -	•		o			-	0		1	-	o		-	-	~			-	0			-	C
51 52 OSC XFMR PNLS 00L140 & 00L141	1						0		-	-	0	_	-	_	0	,	_	_	- 1		-	_	0		-	-	0
52 OSC XFMR PNLS 00L140 & 00L141		INSTRUMENT AIR COMPRESSOR	K101	0	0	0	o	0	0:	0	0	0	0	33	0	0	0	33	O	0	0:	33	0	0	0.	33	C
TEST ENGINEER'S WORKSHOP X187 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1						- 1																- 1				
NORTH STACK RM ANTENNA SYS XFMR				_	-	_	0	_	_	_	0		0		0	-	-		0		0		0	-	Ο.		0
55 CRD REPAIR RM COOLING FAN V904 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				_			0				0	_	-	-	0		_		0	_	-	_	0	-	_	-	0
56   CRD REPAIR RM COOLING FAN   V904   0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		NORTH STACK RM ANTENNA SYS XFMR	X595	0	0	0	0	0	0.	0	0	0	9	0	o	0	0	0	0	0	9	0	o	0	0	0	C
57 125V BATTERY CHARGER  D113  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0															-						_	_	_		_		
58 FIRE ALARM & P/A 1X5 0 0 0 12 0 0 0 0 0 0 12 0 0 0 0 0 0 12 0 0 0 0				_			0	-		-	О	-		-	0		-	-	0		_		0		_		0
59 FUEL POOL COOLING WATER PUMP P211 0 0 0 0 0 0 0 0 0 32 0 0 32 0 0 32 0 0 32 0 0 0 66 FUEL POOL SVC WATER BOOSTER PUMP P212 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1				_		~	-	_		0	_	-	-	- 1		-	-		-	_			-	-	-	96
60 FUEL POOL SVC WATER BOOSTER PUMP P212 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0					-	_	12	_	-	_	0	-	-	-	12				U				12			-	0
61 INSTR. AC PWR SUPPLY (SPRAY POND)				_	-		0	-			0				O		_	_	О	_		_	9		~		Ü
62 SPRAY POND PP STA. HTG COIL (6,11) E701 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1			0			0			-	9	0	0	-	o				0	0	-,	-	0		-		0
63 SGTS RM VENT EXHAUST FAN V131 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				1	,		0	-		-	8	1	1		9	-	-	_	8	1		_	0		-	-	8
64 SECURITY AREAS AIR COND. V565 0 0 0 0 0 0 0 0 0 14 0 0 0 0 0 0 14 0 0 0 0	Į.	-		1 ~	-	_	0	-	-	-	0	0	-	-	o	-	-		0	-	-	-	0	-		-	0
65 PIPING FILL PUMP P256 0 0 0 0 0 0 0 0 3 3 0 0 3 3 0 0 3 3 0 0 3 0	1				-	-	0	-			o	7	-	_	0	_	-	_	0		~	-	9	-	-	-	0
66 DRYWELL H2O2 ANALYZER S205 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0						-	~1				~1		-		્ર		-		~1				- 1			-	0
67 SUPPRESSION POOL H202 ANALYZER S206 0 0 1 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0				-	_	-	~1	-	_		~1			-	0				~[			-	9		-	-	0
OF CONTROL WALLET	1				_	_	o	_	_	-	0	-		0	11		-	-	~ {			0	1				0
	1				-		9		-		9		-	1	O	-	-	-	- 1			1	- 1			-	0
108 CHILLER PUMP-001 COMPRESSOR KIT4   0 0 0 4 0 0 0 4 0 0 2 4 0 0 0 4 0 0 2 4 0 0 0	68	CHILLER PUMP-OUT COMPRESSOR	K114	0	0	0	이	0	0	0	0	0	0	2	O	0	0	0	O	0	0-	2	O	0	0	0	0

#### Table 8.3-15 (continued)

#### CALC 6380E.07

PAGE: 3 of 3

# DIESEL GENERATOR AND EMERGENCY BUS LOADING WITH UNITS 1 & 2 IN OPERATION D22 DIESEL GENERATOR OUT OF SERVICE

UNIT 1 DESIGN BASIS ACCIDENT; UNIT 2 SPURIOUS LOCA (7)

					0 -	10 M	INUTI	ES					10 -	60 N	MINUT	ES			Π		1 HOL	IR AN	D LO	VGEF	<del></del>	
	<b></b>			UNI				UNIT				UNI				UN				UN	IT 1			UN	T2	
			D/G	D/G	D/G I	D/G	D/G	D/G D	/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G
		EQUIP	BUS	BUS	BUS E	BUS	BUS	BUS B	US E	BUS	BUS E	BUS I	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS
ITEM		NO	D11	D12	D13 [	D14	D21	D22 D	23 [	D24	D11 I	012	D13	D14	D21	D22	D23	D24	D11	D12	D13	D14	D21	D22	D23	D24
69	SPRAY POND SUMP PUMP	P578	0	0	0	0	0	0	0	0	2	2	0	0	0	0	2	2	2	2		0	0	0	2	2
70	AUX EG. RM & COMP RM ELE. HUMID (11)	E743	0	0	0	0	0	0-	0	0	43	0	0	0	0	0	0	0	43	0	0	0	0	0	0	0
71	CONTROL RM ELEC HUMIDIFIER (11)	E744	0	0	0	0	0	0	0	0	29	0.	0	0	0	0	0	0	29	0	0	0	0	0	0	o
72	250V BATTERY CHARGER	D123	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	9	0	0	0	0	0	ol
73	ALT POWER SUPPLY TO 10X161 XFMR	10X161	0	0	0	0	0	0:	0	0	0	0	0	0	0	0	0	0	0	0	. 0	0	0	0	0	o
74	PNL 00-Y500 MAINT PWR SUPPLY VIA XFMR	00-X500	0	0	0	0	0	0	0	0	0	0:	0	0	20	0	0	0	0	0	0	o	20	0:	ñ	d
75	TELEPHONE EQUIP POWER XFMR	X503	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0
76	RECOMBINER HYDROGEN ANALYZER	P947	0	0	0	0	0	0:	0	0	0	0.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	DIESEL GENERATOR BRIDGE CRANE	H501	0	0	0	0	0	0	0	o	0	0	0	0	0	0	0	0	0	0	0	Õ	0	n	0	ď
78	440V POWER RECEPTACLE	W508	0	0	0	o	0	0	0	o	0	0	0	o	0	0	0	0	0	0	n	0	0	n	0	0
79	SPRAY POND PUMP HOIST	H511	0	0	0	0	0	0	0	o	0	0	0	0	0	0	0	0	n	0:	0	ň	0	0	n	
79	SPRAY POND PUMP HOIST	H513												-			·		ľ	·	·	1		٥.	U	٩
80	TURB BLDG EQUIP COMPT EXHAUST FAN	.V106	0	0	0	0	0	0	0	o	0	0	0	0	0	0	Ω	0	n	0	٥	n	٥	0	0	^
81	DRYWELL CHILLER COMPRESSOR	K111	0	0	0	o	0	0	0	0	0	0	0	0	0	Ô	0	0	n	0	n	ŏ	0	0	0	Ä
82	ROD DRIVE CONROL CABINET XFMR	X516	0	0	0	o	0	0	0	o	0	0	Ô	o	0	0	0	0	n	0.	0	ď	0	0	0	
83	SLCS PUMP	P208	0	0	0	0	0	0	0	o	0	0	0	0	0	0	0	٥	0	0:	0	0	0	U.	0	
84	RWCU SYSTEM RECIRC PUMP	P221	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ő	n	0	ď	0	0	٥	ď
85	440V POWER RECEPTACLES	W201	0	0	0	o	0	0.	0	o	0	0	0	0	0	0	0	0	0	0	0	ď	n	0	0	Ä
85	440V POWER RECEPTACLES	W202								- 1			-	1	_	-		Ĭ		•		7	Ü	0	0	7
85	440V POWER RECEPTACLES	W205								- 1												- 1				
86	440V POWER RECEPTACLES / SP RECIRC	W601	0	0	0	ol	0	0	0	0	0	0:	0	o	0	0	0	0	0	0	0	0	0	0	n	_
87	440V POWER RECEPTACLES	W206	0	0	0	0	0	0	0	o	o.	0	0	ď	n	0	0	ň	n	n	0	ä	٥	0	0	
88	MCC ANNUNCIATORS		1	1	1	1	1	0	1	1	1	1.	1	1	1	0	1	1	1	1.	1	1	1	0	4	7
89	TURB GEN TURNING GEAR PIGGYBCK MTR	S195	0	0	0	0	0	0.	0	0	Ô	n	ó	d	,	0	'n	0	ó	'n	'n		7	0	,	,
90	RHRSW CORROSION MONITORING	Y215	0	0	0	o	0	0:	0	0	0	0	0	ď	Ô	0	0	0	0	0	0	0	0	0	0	0
91	ADMIN BLDG 480V DISTR PNL	00B500	0	0	0	o	0	0	0	o	0	0	66	0	0	ő	0	ő	0	0	66	ă	0	n	0	9
	4kv BUS SUBTOTAL (kw)		2361	2130 2	099 1	629	1865	0.20	24 2	076	1685 1	819 1		410	1466	0	857	765	1685 1	819		410	1466	0	857	765

#### LEGEND

- (6) THE SPRAY POND PUMP STATION HEATING COILS ARE TRIPPED BY A LOCA SIGNAL.
- (7) ASSIGNMENT OF THE LOADING ON THE DIESEL GENERATORS IS SUCH THAT THE SITUATION OF A DBA ON ONE UNIT AND SPURIOUS LOCA ON THE OTHER UNIT DOES NOT PRECLUDE SAFE SHUTDOWN OF THE UNITS. A SPURIOUS LOCA IS DEFINED AS A LOCA FOR 0-10 MINUTES AND EMERGENCY SHUTDOWN FOR BEYOND 10 MINUTES.
- (11) HEATING LOADS AND COOLING LOADS ARE NOT COINCIDENT. THE COINCIDENT COOLING LOAD IS LARGER THAN THE COINCIDENT HEATING LOAD, THEREFORE, THE COOLING LOADS ARE SHOWN ENERGIZED.

CALC 6380E.07	As-Built Calculations Used	LGS	REV 12

Table 8.3-16

#### CALC 6380E.07

PAGE: 1 of 3

# DIESEL GENERATOR AND EMERGENCY BUS LOADING WITH UNITS 1 & 2 IN OPERATION D23 DIESEL GENERATOR OUT OF SERVICE

UNIT 1 DESIGN BASIS ACCIDENT; UNIT 2 SPURIOUS LOCA (7)

					0 -	10 M	INUTE	ES					10 -	60 N	IINUT	ES				1	HOL	JR AN	ID LON	<b>IGER</b>		
				UNI	T 1			UNI	Τ2			UNI	<del></del>			UNI				UNI				UNI	T 2	
			D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G
		EQUIP	BUS	BUS	BUS	BUS	BUS	BUS:	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS
ITEM	LOAD DESCRIPTION	NO	D11	D12	D13	D14	D21	D22	D23	D24	D11	D12	D13	D14	D21	D22	D23	D24	D11	D12	D13	D14	D21	D22	D23	D24
1	RHR PUMP	P202	993	993	993	993	977	993	0	993	993	993	0	0	0	993	0	0	993	993	0	0	0	993	0	-
2	CORE SPRAY PUMP	P206	529	529	529	529	529	529	0	529	0	529	0	529	0	0	0	o	0	529	0	529	0	0.	0	
3	RHR SERVICE WATER PUMP	P506	0	0	0	o	0	0	0	0	0	0:	0	0	519	519	0	0	0	0	0	0	519	519	0	
4	ESW PUMP	P548	389	389	0	o	0	0	0	389	389	0	0	0	0	0	0	389	389	0	0	0	0	0	0	38
5	125V BATTERY CHARGER	D103	51	50	9	9	51	51	0	9	51	50	9	9	51	51	0	9	51	50	9	9	51	51	0	
6	DRYWELL COOLER FAN	V212	80	80	0	o	80	80	0	0	0	0	80	80	80	80	ō	0	0	0	80	80	80	80	0	
7	DG ROOM VENT FAN	V512	30	30	30	30	30	30:	0	30	30	30	30	30		30	0	30	30	30	30	30	30	30	0	3
8	RHR ROOM COOLING UNIT	V210	16	16	16	16	16	16	0	16		16	16	16		16	0	16		16	16	16	16	16	0	1
9	CORE SPRAY ROOM COOLING UNIT	V211	7	8	7	8	7	7	0	7	7	8	7	8	7	7	0	7	7	8	7	8	7	7	Ô	
10	HPCI ROOM COOLING UNIT	V209	o	10	0	0	0	10	0	ń	0	10.	ó	n	0	10	0	ó	0	10	ó	0	ó	10	0	
11	RCIC ROOM COOLING UNIT	V208	8	0	Ô	n	8	0	n	0	8	0	0	0	8	0	0	0	8	0	0	ď	8	0	0	
12	INSTRUMENT AC POWER SUPPLY	Y101	11	11	12	11	12	12:	0	12	11	11	12	11	12	12	0	12	11	11	12	11	12	12	0	1
12	INSTRUMENT AC POWER SUPPLY	Y102			1 des		12			'-	, ,	, ,	14	. ,	, 2	14		,,,		, ,	12	' '	12	12.	U	
12	INSTRUMENT AC POWER SUPPLY	Y103				- 1																				
12	INSTRUMENT AC POWER SUPPLY	Y104	l			- 1																				
13	DG START AIR COMPRESSOR	K513	0	0	0	٥	0	0	0	0	7	7	7	7	7	7	0	7	7	7	7	-	7	7	0	
14	DG FUEL OIL TRANSFER PUMP	P514	0	0	0	0	0	0	0	0	ó	'n	ó	,	ó	0	0	ó	ó	0:	0	1	0	0	0	
15	SGTS HEATER	E188	44	0	0	0	0	0	0	0	44	0	0	0	0	0	0	0	44	0	0	7	0	0,	0	1
16	SGTS ROOM UNIT COOLER	V140	1	0	0	0	0	0.	0	0	. 44	0	0	0	0	0	0	0	44	0	0	ď	0	0	0	
17	SGTS ROOM ACCESS UNIT COOLER	V140	6	0	0	7	0	0	0	Ä	6	0	0	0	0	0	0	7	6	0	0	9	0	0	0	
18	SGTS EXHAUST FAN	V163	32	0	0	0	0	0	0	0	32	0	0	0	0	0	0	0	-	0	0	9	-	0.	0	
19	RERS FAN	V213	151	0	0	0	-	0:	0	0		0	0	ű		-	-	0	32			9	0	-	-	
20	HVAC DAMPER POWER	Y163	4	4	16	20	151	9	0	7	151 4	0	16		151	0	0	9	151	0:	0	0	151	0	0	
20	HVAC DAMPER POWER	Y164	4	4	10	20	2	2	U	4	4	4	10	20	2	2	0	4	4	4	16	20	2	2	0	,
20	HVAC DAMPER POWER	Y206	1											-												
						- 1												- 1				- 1				
20	HVAC DAMPER POWER	Y207	_		000								200										_			
21	CONTROL ROOM CHILLER	K112	0	0	329	9	0	0	0	U	0	0	329	9	0	0	0	9	0		329	0	0	0	0	1
22	CONTROL ROOM CHILLER WATER PUMP	P162	0	0	16	9	0	0	0	0	0	0	16	0	0	0	0	0	0	0:	16	O	0	0	0	(
23	AUX PNL & COMP RM FAN COIL UNIT	V114	0	0	24	9	0	0	0	U	0	0	24	O	0	0	0	9	0	0	24	O	0	0	0	6
24	AUX PNL & COMP RM RETURN AIR UNIT	V120	0	0	16	9	0	0	0	0	0	0:	16	0	0	0	0	o	0	0	16	o	0	0	0	(
25	CONTROL ROOM AIR COND UNIT	V116	0	0	32	o	0	0	0	0	0	0	32	o	0	0	0	o	0	0	32	이	0	0	0	(
26	CONTROL ROOM RETURN AIR FAN	V121	0	0	12	U	0	0	0	의	0	0	12	0	0	0	0	9	0	0	12	o	0	0:	0	(
27	EMER SWGR & BTRY RM AIR COND UNIT	V118	0	0	9	0	0	0.	0	0	0	0	9	0	0	0	0	0	0	0:	9	9	0	0	0	(
	AUX EQUIP & COMP RM AREA HTR (11)	E193	0	0	0	o	0	0:	0	0	0	0	52	의	0	0	0	9	0	0	52	0	0	0	0	{
29	CONTROL ROOM AREA HEATER (11)	E192	0	0	0	0	0	0	0	0	0	0	40	0	0	0	0	9	0	0	40	0	0	0	0	(
30	CONTROL RM FRESH AIR INTAKE HTR (11)	E191	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0	이	0	0	0	0	0	0	0	(
31	SPRAY POND STA. HTG COIL FAN (11)	V543	7	7	0	o	0	0.	0	0	7	7	0	0	0	0.	0	0	7	7	0	0	0	0:	0	(
32	SLCS HEATERS	S213	0	0	8	0	0	0	0	O	0	0	8	0	0	0	0	0	0	0.	8	o	0	0	0	(
33	CONTAINMENT H2 RECOMBINER	S403	0	0	0	0	0	0:	0	O	0	0.	48	o	0	0-	0	O	0	0:	48	0	0	0:	0	0
			~ ~ ~																							

### Table 8.3-16 (continued)

#### CALC 6380E.07

PAGE: 2 of 3

# DIESEL GENERATOR AND EMERGENCY BUS LOADING WITH UNITS 1 & 2 IN OPERATION D23 DIESEL GENERATOR OUT OF SERVICE

UNIT 1 DESIGN BASIS ACCIDENT; UNIT 2 SPURIOUS LOCA (7)

					0 -	10 M	INUTI	ES					10 -	60 N	INUTI	ES				1	HOU	R AN	D LON	IGER		
				UNI	T 1			UNIT	2			UNI	Γ1			UNI	T 2			UNIT	1			UNI	T 2	
			D/G	D/G	D/G	D/G	D/G	D/G E	)/G [	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G I	)/G	D/G	D/G	D/G	D/G	D/G
		EQUIP	BUS I	BUS	BUS	BUS	BUS	BUS B	US E	BUS	BUS	BUS I	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS E	JUS	BUS	BUS	BUS:	BUS	BUS
ITEM	LOAD DESCRIPTION	NO	D11	D12	D13	D14	D21	D22 : E	23 [	D24	D11	D12	D13	D14	D21	D22	D23	D24	D11	D12 I	)13	D14	D21	D22	D23	D24
34	CONTROL ROOM FRESH AIR SUPPLY FAN	V127	0	0	6	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	6	0	0	0	0	0
35	CONTROL ROOM CHILLER OIL PUMP	P168	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
36	DG AUXILIARIES	G501	0	0	0	0	0	0	0	0	14	14	14	14	14	14	0	14	14	14	14	14	14	14	0	14
37	DELETED																									
37	DELETED									ı								- 1				- 1				
38	DELETED																	- 1				- 1				
39	CRD PUMP	P158	0	0	0	0	0	0:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	DELETED		ĺ			l				ı																
41	RECW PUMP	P210	0	0	0	0	0	0.	0	0	0	0	68	0	0	0	0	68	0	0:	68	0	0	0	0	68
42	TECW PUMP	P103	0	0	0	0	0	0	0	0	11	11	0	0	12	11	0	0	11	11	0	0	12	11	0	0
43	INSTRUMENT AC POWER SUPPLY	Y105	0	0	0	0	0	0-	0	0	5	10	24	14	24	24	0	24	5	10	24	14	24	24	0	24
43	INSTRUMENT AC POWER SUPPLY	Y106								- 1												- 1				
43	INSTRUMENT AC POWER SUPPLY	Y201				- 1				- 1								- 1								
43	INSTRUMENT AC POWER SUPPLY	Y202				- 1				- 1																
44	EMERGENCY LIGHTING	MISC	0	0	0	0	0	0	0	o	11	70	108	99	0	59	0	68	11	70	108	99	0	59	0	68
45	TURBINE GEN BEARING LIFT PUMP	P109	0	0	0	0	0	0	0	0	45	0	0	0	36	0	0	0	45	0	0	0	36	0:	0	0
46	TURBINE GEN TURNING GEAR OIL PUMP	P111	0	0	0	0	0	0	0	0	32	0	0	0	32	0	0	0	32	0	0	0	32	0	0	0
47	TURBINE GEN TURNING GEAR	S103	0	0	0	0	0	0.	0	0	48	0	0	0	24	0	0	0	48	0	0	0	24	0	0	0
48	RFPT TURNING GEAR	S106	0	0	0	0	0	0;	0	0	2	1	0	0	2	1	0	0	2	1.	0	o	2	1	0	0
49	INSTRUMENT GAS COMPRESSOR	K203	0	0	0	0	0	0	0	0	2	0	0	o	1	0	0	0	2	0	0	o	1	0:	0	0
50	INSTRUMENT AIR COMPRESSOR	K101	0	0	0	0	0	0.	0	0	0	0	33	0	0	0	0	0	0	0	33	0	0	0:	0	0
51						- 1				- 1				- 1				- 1				- 1				
52	OSC XFMR PNLS 00L140 & 00L141	X186	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0:	0	o	0	0	0	0
53	TEST ENGINEER'S WORKSHOP	X187	0	0	0	0	0	0:	0	0	0	0	0	0	. 0	0	0	0	0	0	0	o	0	0	0	0
54	NORTH STACK RM ANTENNA SYS XFMR	X595	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	9:	0	0	0	0	0	0
55						- 1								- 1				- 1				- 1				
56	CRD REPAIR RM COOLING FAN	V904	0	0	0	0	0	0	0	0	0	0-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
57	125V BATTERY CHARGER	D113	0	0	0	0	0	0	0	0	0	0	0	96	0	0	0	96	0	0.	0	96	0	0	0	96
58	FIRE ALARM & P/A	1X5	0	0	0	12	0	0.	0	0	0	0.	0	12	0	0	0	0	0	0:	0	12	0	0.	0	0
59	FUEL POOL COOLING WATER PUMP	P211	0	0	0	0	0	0:	0	0	0	32	0	0	0	32	0	0	0	32	0	0	0	32	0	0
60	FUEL POOL SVC WATER BOOSTER PUMP	P212	0	0	0	0	0	0	0	0	0	0:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61	INSTR. AC PWR SUPPLY (SPRAY POND)	Y501	1	1	0	0	0	0	0	8	1	1	0	0	0	0	0	8	1	1	0	0	0	0:	0	8
62	SPRAY POND PP STA. HTG COIL (6,11)	E701	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0:	0	0	0	0-	0	0
63	SGTS RM VENT EXHAUST FAN	V131	0	0	0	0	0	0:	0	0	7	0	0	0	0	0	0	0	7	0:	0	0	0	0	0	0
64	SECURITY AREAS AIR COND.	V565	0	0	0	0	0	0	0	0	0	0	14	0	0	0.	0	0	0	0	14	0	0	0	0	0
65	PIPING FILL PUMP	P256	0	0	0	0	0	0	0	0	3	3	0	0	3	0	0	0	3	3-	0	0	3	0:	0	0
66	DRYWELL H2O2 ANALYZER	S205	0	0	0	1	0	0-	0	0	0	0.	0	1	0	0	0	0	0	0	0	1	0	0-	0	0
67	SUPPRESSION POOL H202 ANALYZER	S206	0	0	1	0	0	0:	0	0	0	0;	1	0	0	0	0	0	0	0;	of the same	o	0	0	0	0
68	CHILLER PUMP-OUT COMPRESSOR	K114	0	0	0	ol	0	0:	0	0	0	0	2	o	0	0	0	0	0	0	2	O	0	Ó	0	0

 CALC 6380E.07
 As-Built Calculations Used
 LGS
 REV 12

#### Table 8.3-16 (continued)

CALC 6380E.07

PAGE: 3 of 3

# DIESEL GENERATOR AND EMERGENCY BUS LOADING WITH UNITS 1 & 2 IN OPERATION D23 DIESEL GENERATOR OUT OF SERVICE

UNIT 1 DESIGN BASIS ACCIDENT; UNIT 2 SPURIOUS LOCA (7)

					0 -	10 N	INUTE	S					10 -	- 60 N	IINUT	ES			L		1 HOI	JR AN	ID LOI	VGER		
				UNI	T 1			UNIT	2			UNI	T 1			UNI	T 2			UNI	T 1			UNI	T 2	
			D/G	D/G	D/G	D/G	D/G	D/G E	)/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G
		EQUIP	BUS	BUS	BUS	BUS	BUS	BUS B	US I	BUS	BUS	BUS.	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS I	3US
ITEM	LOAD DESCRIPTION	NO	D11	D12	D13	D14	D21	D22 [	23	D24	D11	D12	D13	D14	D21	D22	D23	D24	D11	D12	D13	D14	D21	D22	D23	D24
69	SPRAY POND SUMP PUMP	P578	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	2	2	2	0	0	0	0	0	2
70	AUX EG. RM & COMP RM ELE. HUMID (11)	E743	0	0	0	0	0	0	0	0	43	0:	0	0	0	0	0	0	43	0	0	0	0	0	0	0
71	CONTROL RM ELEC HUMIDIFIER (11)	E744	0	0	0	0	0	0	0	0	29	0:	0	0	0	0	0	0	29	0	0	0	0	0	0	0
72	250V BATTERY CHARGER	D123	0	0	0	0	0	9	0	0	0	9	0	0	0	9	0	0	0	9:	0	0	0	9	0	0
73	ALT POWER SUPPLY TO 10X161 XFMR	10X161	0	0	0	0	0	0.	0	0	0	0	0	0	0	0	0	0	0	0:	0	0	0	0	O	0
74	PNL 00-Y500 MAINT PWR SUPPLY VIA XFMR	00-X500	0	0	0	0	0	0	0	0	0	0:	0	0	20	0	0	0	0	0	0	0	20	0	0	0
75	TELEPHONE EQUIP POWER XFMR	X503	0	0	0	0	0	0	0	0	6	0:	0	0	0	0	0	0	6	0	0	0	0	0	0	0
76	RECOMBINER HYDROGEN ANALYZER	P947	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.	0	0
77	DIESEL GENERATOR BRIDGE CRANE	H501	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
78	440V POWER RECEPTACLE	W508	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79	SPRAY POND PUMP HOIST	H511	0	0	0	0	0	0	0	0	0	0:	0	0	0	0	0	0	0	0	0	0	0	0:	0	0
79	SPRAY POND PUMP HOIST	H513																								1
80	TURB BLDG EQUIP COMPT EXHAUST FAN	V106	0	0	0	0	0	0:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0:	0	0
81	DRYWELL CHILLER COMPRESSOR	K111	0	0	0	0	0	0	0	0	0	0:	0	0	0	0	0	0	0	0	0	0	0	0:	0	0
82	ROD DRIVE CONROL CABINET XFMR	X516	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	o	0	0	0	0
83	SLCS PUMP	P208	0	0	0	0	0	0:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
84	RWCU SYSTEM RECIRC PUMP	P221	0	0	0	0	0	0	0	0	0	0	0	0	0	Ö	0	0	0	0	0	0	0	0	0	0
85	440V POWER RECEPTACLES	W201	0	0	0	0	0	0:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	440V POWER RECEPTACLES	W202																								
85	440V POWER RECEPTACLES	W205								- 1																l
86	440V POWER RECEPTACLES / SP RECIRC	W601	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
87	440V POWER RECEPTACLES	W206	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.	0	0
88	MCC ANNUNCIATORS		1	1	1	1	1	1	0	1	1	1.	1	1	1	1	0	1	1	1	1	1	1	1	0	1
89	TURB GEN TURNING GEAR PIGGYBCK MTR	S195	0	0	0	0	0	0.	0	0	0	0	0	0	2	0	0	0	0	0:	0	0	2	0	0	0
90	RHRSW CORROSION MONITORING	Y215	0	0	0	0	0	0.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
91	ADMIN BLDG 480V DISTR PNL	00B500	0	0	0	0	0	0	0	0	0	0	66	0	0	0	0	0	0	0	66	0	0	0	0	0
	4kv BUS SUBTOTAL (kw)		2361	2130	2099	1630	1865	1741.	0 1	1996	2019	1829	1100	946	1056	1879	0	753	2019	1829	1100	946	1056	1879	0	753

#### LEGEND

- (6) THE SPRAY POND PUMP STATION HEATING COILS ARE TRIPPED BY A LOCA SIGNAL.
- (7) ASSIGNMENT OF THE LOADING ON THE DIESEL GENERATORS IS SUCH THAT THE SITUATION OF A DBA ON ONE UNIT AND SPURIOUS LOCA ON THE OTHER UNIT DOES NOT PRECLUDE SAFE SHUTDOWN OF THE UNITS. A SPURIOUS LOCA IS DEFINED AS A LOCA FOR 0-10 MINUTES AND EMERGENCY SHUTDOWN FOR BEYOND 10 MINUTES.
- (11) HEATING LOADS AND COOLING LOADS ARE NOT COINCIDENT. THE COINCIDENT COOLING LOAD IS LARGER THAN THE COINCIDENT HEATING LOAD, THEREFORE, THE COOLING LOADS ARE SHOWN ENERGIZED.

Table 8.3-17

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#### CALC 6380E.07

# DIESEL GENERATOR AND EMERGENCY BUS LOADING WITH UNITS 1 & 2 IN OPERATION D24 DIESEL GENERATOR OUT OF SERVICE

UNIT 1 DESIGN BASIS ACCIDENT; UNIT 2 SPURIOUS LOCA (7)

					0 -	10 MI	NUTE	S					10 -	60 N	MINUT	ES				1	HOL	IR AN	D LON	GER		
				UN	T 1			UNIT	2			UNI	T 1			UNI	Т2			UNIT	1_			UNI	Τ2	
			D/G	D/G	D/G	D/G	D/G	D/G I	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G I	D/G	D/G	D/G	D/G	D/G	D/G
		EQUIP	BUS	BUS	BUS	BUS	BUS	BUS E	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS E	3US	BUS	BUS E	SUS	BUS	BUS	BUS	BUS	BUS
ITEM	LOAD DESCRIPTION	NO	D11	D12	D13	D14	D21	D22 1	D23	D24	D11	D12	D13	D14	D21	D22	D23	D24	D11	D12 I	013	D14	D21	D22	D23	D24
1	RHR PUMP	P202	993	993	993	993	977	993	993	0	0	993	0	993	977	0	0	0	0	993	0	993	977	0	0	
2	CORE SPRAY PUMP	P206	529	529	529	529	529	529	529	0	529	0	529	0	0	0	0	0	529	0.	529	0	0	0	0	
3	RHR SERVICE WATER PUMP	P506	0	0	0	0	0	0.	0	0	519	0	0	0	0	519	0	0	519	0:	0	0	0	519	0	
4	ESW PUMP	P548	389	389	0	0	0	0	389	0	0	389	0	0	0	0	389	0	0	389	0	0	0	0	389	
5	125V BATTERY CHARGER	D103	51	50	9	9	51	51	9	0	51	50	9	9	51	51	9	0	51	50	9	9	51	51.	9	
6	DRYWELL COOLER FAN	-V212	80	80	0	0	80	80	0	0	80	0	0	80	0	80	80	0	80	0:	0	80	0	80	80	
7	DG ROOM VENT FAN	V512	30	30	30	30	30	30	30	0	30	30	30	30	30	30	30	0	30	30	30	30	30	30	30	
8	RHR ROOM COOLING UNIT	V210	16	16	16	16	16	16	16	0	16	16	16	16	16	16	16	0	16	16:	16	16	16	16	16	
9	CORE SPRAY ROOM COOLING UNIT	V211	7	8	7	8	7	7	7	0	7	8	7	8	7	7	7	0	7	8	7	8	7	7	7	
10	HPCI ROOM COOLING UNIT	V209	0	10	0	0	0	10	0	0	0	10	0	0	0	10	0	0	0	10	0	0	0	10	0	
11	RCIC ROOM COOLING UNIT	V208	8	0	0	0	8	0	0	0	8	0	0	0	8	0	0	0	8	0	0	0	8	0:	0	
12	INSTRUMENT AC POWER SUPPLY	Y101	11	11	12	11	12	12	12	0	11	11	12	11	12	12	12	0	11	11:	12	11	12	12	12	
12	INSTRUMENT AC POWER SUPPLY	Y102	1											- 1												
12	INSTRUMENT AC POWER SUPPLY	Y103																								
12	INSTRUMENT AC POWER SUPPLY	Y104	1			- 1								- 1				1				- 1				
13	DG START AIR COMPRESSOR	K513	0	0	0	0	0	0	0	0	7	7	7	7	7	7	7	0	7	7	7	7	7	7	7	
14	DG FUEL OIL TRANSFER PUMP	P514	0	0	0	0	0	0:	0	o	0	0	0	0	0	0.	0	0	0	0	0	0	0	0.	0	
15	SGTS HEATER	E188	44	0	0	o	0	0	0	0	44	0	0	0	0	0	0	0	44	0	0	0	0	0	0	(
16	SGTS ROOM UNIT COOLER	V140	1	0	0	o	0	0	0	0	1	0	0	0	0	0	0	o	1	0	0	0	0	0	0	
17	SGTS ROOM ACCESS UNIT COOLER	V141	6	0	0	o	0	0	0	0	6	0	0	0	0	0	0	0	6	0	0	0	0	0	0	
18	SGTS EXHAUST FAN	V163	32	0	0	0	0	0:	0	0	32	0	0	0	0	0	0	0	32	0.	0	0	0	0-	0	1
19	BERS FAN	V213	151	0	0	o	151	0	0	o	151	0	0	0	151	0	0	o	151	0	0	o	151	0	0	
20	HVAC DAMPER POWER	Y163	4	4	16	20	2	2.	22	0	4	4:	16	20	2	2	22	0	4	4	16	20	2	2:	22	4
20	HVAC DAMPER POWER	Y164	1																							
20	HVAC DAMPER POWER	Y206	1															- 1								
	HVAC DAMPER POWER	Y207	ĺ							- 1																
21	CONTROL ROOM CHILLER	K112	0	0	329	ol	0	0.	0	0	0	0	329	ol	0	0	0	0	0	0	329	o	0	0	0	
22	CONTROL ROOM CHILLER WATER PUMP	P162	0	0	16	o	0	0	0	o	0	0	16	o	0	0	0	0	0	0:	16	0	. 0	0	0	(
23	AUX PNL & COMP RM FAN COIL UNIT	V114	0	0	24	ol	0	0	0	ol	0	0.	24	õ	0	0	0	ol	0	0	24	ď	. 0	0	0	
24	AUX PNL & COMP RM RETURN AIR UNIT	V120	0	0	16	ol	0	0	0	ď	0	0	16	ol	0	0	Ö	o	0	0	16	ď	0	0	0	
	CONTROL ROOM AIR COND UNIT	V116	0	0	32	o	0	0	0	ol	0	0	32	o	0	0	0	0	0	0	32	ő	0	0	0	
	CONTROL ROOM RETURN AIR FAN	V121	ő	o	12	ŏ	0	0:	0	0	0	0	12	ol	Ő	0	0	o	0	0	12	ď	0	0	0	(
27	EMER SWGR & BTRY RM AIR COND UNIT	V118	ŏ	0	9	ol	0	0	0	d	ű	0:	9	ol	0	0	0	o	0	0	9	o	0	0	0	(
	AUX EQUIP & COMP RM AREA HTR (11)	E193	ő	0	0	ő	0	0	0	ő	0	0	52	0	0	0	0	ol	Ö	0	52	a	0	0	0	(
	CONTROL ROOM AREA HEATER (11)	E192	0	0	0	ŏ	0	0	0	ď	0	0	40	ol	0	0	0	ol	0	0	40	0	0	0	0	
	CONTROL RM FRESH AIR INTAKE HTR (11)	E191	0	0	32	ő	0	0:	0	ď	0	0	0	o	0	0	0	ď	0	0	0	0	0	0	0	- 7
	SPRAY POND STA. HTG COIL FAN (11)	V543	7	7	0	ď	0	0.	0	7	7	7:	n	n	0	0	0	ď	7	7	0	ol	0	0:	0	1
	SLCS HEATERS	S213	Ó	Ó	8	d	0	0.	8	Ä	Ó	ó	8	N	0	0	8	d	0	o.	8		0	0	8	í
33	CONTAINMENT H2 RECOMBINER	S403	0	0	0	ď	0	0	0	0	0	0	48	0	0	0	48	ď	0	0:	48	d	0	0	48	(

#### Table 8.3-17 (continued)

#### CALC 6380E.07

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# DIESEL GENERATOR AND EMERGENCY BUS LOADING WITH UNITS 1 & 2 IN OPERATION D24 DIESEL GENERATOR OUT OF SERVICE

UNIT 1 DESIGN BASIS ACCIDENT; UNIT 2 SPURIOUS LOCA (7)

			0 - 10 MINUTES					10 - 60 MINUTES							1 HOUR AND LONGER											
			UNIT 1 UNIT 2						UNI	T 1			UNI	T 2		UNIT 1					UNI	T 2				
			D/G I	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G
		EQUIP	BUS E	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS:	BUS	BUS
ITEM	LOAD DESCRIPTION	NO	D11 [	012	D13	D14	D21	D22	D23	D24	D11	D12	D13	D14	D21	D22	D23	D24	D11	D12	D13	D14	D21	D22	D23	D24
34	CONTROL ROOM FRESH AIR SUPPLY FAN	V127	0	0	6	0	0	0:	0	0	0	0;	6	0	0	0	0	0	0	0	6	0	0	0	0	. 0
35	CONTROL ROOM CHILLER OIL PUMP	P168	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0:	1	0	0	0	0	0
36	DG AUXILIARIES	G501	0	0	0	0	0	0	0	0	14	14	14	14	14	14	14	0	14	14	14	14	14	14	14	- 0
37	DELETED																									
37	DELETED		l																							*
38	DELETED																									
39	CRD PUMP	P158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	DELETED										1															
41	RECW PUMP	P210	0	0	0	0	0	0	0	0	0	0	68	0	0	0	68	0	0	0:	68	0	0	0,	68	0
42	TECW PUMP	P103	0	0	0	0	0	0	0	0	11	11-	0	0	12	11	0	0	11	11	0	0	12	11	0	0
43	INSTRUMENT AC POWER SUPPLY	Y105	0	0	0	0	0	0	0	0	5	10	24	14	24	24	24	0	5	10	24	14	24	24.	24	0
43	INSTRUMENT AC POWER SUPPLY	Y106																								
43	INSTRUMENT AC POWER SUPPLY	Y201												- 1												
43	INSTRUMENT AC POWER SUPPLY	Y202																								
44	EMERGENCY LIGHTING	MISC	0	0	0	0	0	0:	0	0	11	70	108	99	0	59	80	0	11	70	108	99	0	59	80	0
45	TURBINE GEN BEARING LIFT PUMP	P109	0	0	0	0	0	0	0	0	45	0:	0	0	36	0	0	0	45	0:	0	0	36	0.	0	0
46	TURBINE GEN TURNING GEAR OIL PUMP	P111	0	0	0	0	0	0	0	0	32	0	0	0	32	0	0	0	32	0:	0	0	32	0:	0	0
47	TURBINE GEN TURNING GEAR	S103	0	0	0	0	0	0:	0	0	48	0	0	0	24	0	0	0	48	0	0	0	24	0	0	0
48	RFPT TURNING GEAR	S106	0	0	0	0	0	0	0	0	2	1:	0	0	2	1	0	0	2	1	0	0	2	1.	0	0
49	INSTRUMENT GAS COMPRESSOR	K203	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	2	0	0	o	1	0	0	0
50	INSTRUMENT AIR COMPRESSOR	K101	0	0	0	0	0	0:	0	0	0	0	33	0	0	0	33	0	0	0	33	0	0	0	33	0
51														- 1												
52	OSC XFMR PNLS 00L140 & 00L141	X186	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0,	0	0	0	0	0	0
53	TEST ENGINEER'S WORKSHOP	X187	0	0	0	0	0	0:	0	0	0	0.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54	NORTH STACK RM ANTENNA SYS XFMR	X595	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	9	0	0	0	0	0	0
55						- 1								- 1				- 1				- 1				
56	CRD REPAIR RM COOLING FAN	V904	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.	0	0
57	125V BATTERY CHARGER	D113	0	0	0	0	0	0	0	0	0	0:	0	96	0	0	0	0	0	0	0	96	0	0	0	0
58	FIRE ALARM & P/A	1X5	0	0	0	12	0	0:	0	0	0	0	0	12	0	0	0	0	0	0	0	12	0	0	0	0
59	FUEL POOL COOLING WATER PUMP	P211	0	0	0	0	0	0:	0	0	32	32	0	0	32	32	0	0	32	32	0	0	32	32	0	0
60	FUEL POOL SVC WATER BOOSTER PUMP	P212	0	0	0	0	0	0	0	0	0	0	0	o	0	0	0	o	0	0.	0	0	0	0.	0	0
61	INSTR. AC PWR SUPPLY (SPRAY POND)	Y501	1	1	0	0	0	0	8	0	1	1	0	0	0	0	8	0	1	1	0	0	0	0	8	0
62	SPRAY POND PP STA. HTG COIL (6,11)	E701	0	0	0	0	0	0	0	0	0	0.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
63	SGTS RM VENT EXHAUST FAN	V131	0	0	0	0	0	0	0	0	7	0.	0	o	0	0	0	0	7	0	0	0	0	0	0	0
64	SECURITY AREAS AIR COND.	V565	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	14	0	0	0	0	0
65	PIPING FILL PUMP	P256	0	0	0	0	0	0	0	0	3	3.	0	0	3	3	0	o	3	3	0	o	3	3	0	0
66	DRYWELL H2O2 ANALYZER	S205	0	0	0	1	0	0-	0	0	0	0-	0	1	0	0	0	o	0	0	0	1	0	0	0	0
67	SUPPRESSION POOL H2O2 ANALYZER	S206	0	0	1	o	0	0	0	0	0	0-	1	0	0	0	0	0	0	0	1	o	0	0	0	0
68	CHILLER PUMP-OUT COMPRESSOR	K114	0	0	0	o	0	0	0	0	0	0.	2	ol	0	0	0	ol	0	0.	2	o	0	0	0	0

 CALC 6380E.07
 As-Built Calculations Used
 LGS
 REV 12

#### Table 8.3-17 (continued)

#### CALC 6380E.07

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# DIESEL GENERATOR AND EMERGENCY BUS LOADING WITH UNITS 1 & 2 IN OPERATION D24 DIESEL GENERATOR OUT OF SERVICE

UNIT 1 DESIGN BASIS ACCIDENT; UNIT 2 SPURIOUS LOCA (7)

				0 - 10 MINUTES							10 -	60 N	MNUT	ES			1 HOUR AN				D LO	VGEF	ı			
				UNI	Γ1			UNIT	2			UNIT	1			UNI	T 2			UNI	T 1			UN	T 2	
			D/G	D/G	D/G	D/G	D/G	D/G D	)/G	D/G	D/G I	D/G I	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G	D/G [	5/G
		EQUIP	BUS	BUS	BUS	BUS	BUS	BUS B	US F	BUS	BUS E	BUSE	BUS I	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS	BUS E	BUS
ITEM	LOAD DESCRIPTION	NO	D11	D12	D13	D14	D21	D22 D	23	D24	D11 [	012	D13	D14	D21	D22	D23	D24	D11	D12	D13	D14	D21	D22	D23 [	)24
69	SPRAY POND SUMP PUMP	P578	0	0	0	0	0	0-	0	0	2	2	0	0	0	0	2	0	2	2	0	0	0	0	2	0
70	AUX EG. RM & COMP RM ELE. HUMID (11)	E743	0	0	0	0	0	0	0	0	43	0	0	0	0	0	0	0	43	0	0	0	0	0:	0	0
71	CONTROL RM ELEC HUMIDIFIER (11)	E744	0	0	0	0	0	0:	0	0	29	0	0	0	0	0	0	0	29	0	0	0	0	0	0	0
72	250V BATTERY CHARGER	D123	0	0	0	0	0	9	0	0	0	9	0	0	0	9	0	0	0	9	0	0	0	9	0	0
73	ALT POWER SUPPLY TO 10X161 XFMR	10X161	0	0	0	0	0	0	0	0	0	0	O	0	0	0	0	0	0	0:	0	0	0	0	0	0
74	PNL 00-Y500 MAINT PWR SUPPLY VIA XFMR	00-X500	0	0	0	0	0	0:	0	0	0	0:	0	0	20	0	0	0	0	0	0	0	20	0	0	0
75	TELEPHONE EQUIP POWER XFMR	X503	0	0	0	0	0	0-	0	0	6	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0
76	RECOMBINER HYDROGEN ANALYZER	P947	0	0	0	0	0	0:	0	0	0	0.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	DIESEL GENERATOR BRIDGE CRANE	H501	0	0	0	0	0	0	0	0	0	0:	0	0	0	0	0	0	0	0:	0	0	0	0	0	0
78	440V POWER RECEPTACLE	W508	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.	0	0	0	0	0	o
79	SPRAY POND PUMP HOIST	H511	0	0	0	0	0	0:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	o
79	SPRAY POND PUMP HOIST	H513																				- 1				
80	TURB BLDG EQUIP COMPT EXHAUST FAN	V106	0	0	0	0	0	0:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81	DRYWELL CHILLER COMPRESSOR	K111	0	0	0	0	0	0	0	0	0	0.	0	0	0	0	0	0	0	0:	0	0	0	0:	0	0
82	ROD DRIVE CONROL CABINET XFMR	X516	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83	SLCS PUMP	P208	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
84	RWCU SYSTEM RECIRC PUMP	P221	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	440V POWER RECEPTACLES	W201	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	440V POWER RECEPTACLES	W202								- 1																
85	440V POWER RECEPTACLES	W205								- 1												ı				- 1
86	440V POWER RECEPTACLES / SP RECIRC	W601	0	0	0	0	0	0.	0	0	0	0:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
87	440V POWER RECEPTACLES	W206	0	0	0	0	0	0	0	0	0	0:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
88	MCC ANNUNCIATORS		1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1:	1	1	1	1:	1	0
89	TURB GEN TURNING GEAR PIGGYBCK MTR	S195	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	o	2	0	0	0
90	RHRSW CORROSION MONITORING	Y215	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	o	0	0	0	0
91	ADMIN BLDG 480V DISTR PNL	00B500	0	0	0	0	0	0	0	0	0	0	66	0	0	0	0	0	0	0:	66	0	0	0	0	0
	4kv BUS SUBTOTAL (kw)		2361	2130 2	2099	1630	1865	1741.20	)24	0	1797 1	689:1	549 1	1410	1466	889	857	0	1797	1689	1549	1410	1466	889	857	0

#### LEGEND

- (6) THE SPRAY POND PUMP STATION HEATING COILS ARE TRIPPED BY A LOCA SIGNAL.
- (7) ASSIGNMENT OF THE LOADING ON THE DIESEL GENERATORS IS SUCH THAT THE SITUATION OF A DBA ON ONE UNIT AND SPURIOUS LOCA ON THE OTHER UNIT DOES NOT PRECLUDE SAFE SHUTDOWN OF THE UNITS. A SPURIOUS LOCA IS DEFINED AS A LOCA FOR 0-10 MINUTES AND EMERGENCY SHUTDOWN FOR BEYOND 10 MINUTES.
- (11) HEATING LOADS AND COOLING LOADS ARE NOT COINCIDENT. THE COINCIDENT COOLING LOAD IS LARGER THAN THE COINCIDENT HEATING LOAD, THEREFORE, THE COOLING LOADS ARE SHOWN ENERGIZED.

CALC 6380E.07 As-Built Calculations Used LGS REV 12

Table 8.3-18

Table 8.3-18 (Deleted)

Table 8.3-18A

Table 8.3-18A (Deleted)

Table 8.3-19

Table 8.3-19 (Deleted)

Table 8.3-20

Table 8.3-20 (Deleted)

Table 8.3-21

Table 8.3-21 (Deleted)

Table 8.3-22

Table 8.3-22 (Deleted)

Table 8.3-23

Table 8.3-23 (Deleted)

Table 8.3-24

Table 8.3-24 (Deleted)

Table 8.3-25

Table 8.3-25 (Deleted)

Table 8.3-26

Table 8.3-26 (Deleted)

Table 8.3-27

# INSTRUMENT AND CONTROL SYSTEMS POWER SUPPLY PANELS

<u>Panel</u>	<u>Voltage</u>	Division
Y101	120 V ac	1
Y102	II .	II
Y103	II .	III
Y104	II .	IV
Y105	H .	NS
Y106	H .	NS
Y201	H .	NS
Y202	"	NS
Y109	"	NS
Y110	II .	NS
AY160	II .	NS
BY160	II	NS
AD102	125 V dc	1
BD102	II	II
CD102	II .	III
DD102	"	IV
AD108	"	NS
BD108	"	NS
AY185	120 V ac	NS
BY185	"	NS
00Y591	"	NS
00Y592	"	NS
Y163	"	III
Y164	II	IV
NS = Nonsafeguard		

#### Table 8.3-28

#### UNDERVOLTAGE ALARMS

SECTION I		
Number	<u>Annunciator</u>	Status Lights
1	Division I RHR Out-of-Service Panel AC801, #21	RHR Pump Breaker Control Power Undervoltage RHR Unit Coolers Out-of- Service RHRSW Pump Breaker Control Power Undervoltage Spray Pond MOV Overload/Loss of Power Spray Pond HVAC Out-of-Service RHR Relays Logic Power Failure RHR MOVs Overload/Loss of Power RHR Trip Units Out-of-File/ Loss of Power
2	Division II RHR Out-of- Service Panel CC801, #21	Same as #1
3	Division III RHR Out-of- Service Panel AC801, #36	Same as #1
4	Division IV RHR Out-of- Service Panel CC801, #36	Same as #1
5	Division I Core Spray Out- of-Service Panel AC801, #1	Core Spray Pump Breaker Control Power Undervoltage Core Spray Unit Coolers Out- of-Service Core Spray MOVs Overload/Loss of Power Core Spray Logic Power Failure Core Spray Trip Unit Out-of- File/Power Failure
6	Division II Core Spray Out- of-Service Panel CC801, #1	Same as #5
7	Division III Core Spray Out- of-Service Panel AC801, #11	Same as #5

Number	<u>Annunciator</u>	Status Lights
8	Division IV Core Spray Out- of-Service Panel CC801, #11	Same as #5
9	RCIC Out-of-Service Panel C848, #1	RCIC Logic Power Failure RCIC Trip Unit Out of File/Power Failure RCIC Area Temperature Logic Power Failure RCIC Inverter Failure RCIC MOVs Overload/Loss of Power RCIC Unit Coolers Out-of- Service
10	HPCI Out-of-Service Panel C847, #1	HPCI Auxiliary Oil Pump Overload/Loss of Power HPCI Inverter Failure HPCI MOV Overload/Loss of Power HPCI Logic Power Failure HPCI Area Temperaure Logic Power Failure HPCI Trip Unit Out-of-File/ Power Failure HPCI Unit Coolers Out-of- Service
11	Division I ESW Out-of- Service Panel AC 867, #1	ESW MOVs Overload/Loss of Power Spray Pond MOVs Overload Loss of Power Spray Pond HVAC Out-of-Service EWS Pump Breaker Control Power Undervoltage
12	Division II ESW Out-of- Service Panel BC867, #16	Same as #11
13	Division III ESW Out-of- Service Panel AC867, #6	Same as #11
14	Division IV ESW Out-of- Service Panel BC867, #21	Same as #11
15	Division I Standby ac Power System Out-of-Service Panel AC861, #17	DG Cooling Water MOVs Overload/Loss of Power 201-DXX Bus Breaker Control Power Undervoltage

Number	Annunciator	Status Lights
		101-DXX Bus Breaker Control Power Undervoltage Safeguard LC Xmfr. Breaker Control Power Undervoltage CRD Water Pump Breaker Control Power Undervoltage Turbine Enclosure Exhaust Fan Breaker Control Power Undervoltage Drywell Chiller Breaker Control Power Undervoltage DG Not Ready for Autostart
16	Division II Standby ac Power System Out-of-Service Panel BC861, #17	Same as #15
17	Division III Standby ac Power System Out-of-Service Panel CC861, #17	Same as #15
18	Division IV Standby ac Power System Out-of-Service Panel AC802, #17	Same as #15
19	Reactor Isolation System Outboard Out-of-Service Panel AC802, #25	NSSSS Trip Unit Out-of-File/ Power Failure NSSSS MOV Overload/Loss of Power
20	Reactor Isolation System Inboard Out-of-Service Panel AC802, #20	Same as #19
21	Division I ADS Out-of- Service Panel C826, #1	Relay Logic Power Failure Trip Unit Out-of-File/Power Failure
21A	Division III ADS Out-of- Service Panel C826, #11	Same as #21
22	RPS System A Out-of-Service Panel BC803, #5	Trip Unit Out-of-File/ Power Failure
22A	RPS System B Out-of- Service Panel BC803, #10	Same as #22

Table 8.3-28 (Cont'd)

## SECTION II

<u>ocomortii</u>				
Number	<u>Bus</u>	<u>Voltage</u>	<u>Alarm</u>	Panel/Window
23	10A101	13.2 kV	11 Unit Auxiliary Bus UV	1BC854/6
24	10A102	13.2 kV	12 Unit Auxiliary Bus UV	1BC854/9
25	20A101	13.2 kV	21 Unit Auxiliary Bus UV	2BC854/26
26	20A102	13.2 kV	22 Unit Auxiliary Bus UV	2BC854/29
27	10	13.2 kV	10 Startup Bus UV	00C860/4
28	20	13.2 kV	20 Startup Bus UV	00C860/24
29	101	4.16 kV	101 Safeguard Bus UV	1AC861/28
30	201	4.16 kV	201 Safeguard Bus UV	1AC861/29
31	D11	4.16 kV	D11 Safeguard Bus UV	1AC861/6
32	D12	4.16 kV	D12 Safeguard Bus UV	1BC861/6
33	D13	4.16 kV	D13 Safeguard Bus UV	1CC861/6
34	D14	4.16 kV	D14 Safeguard Bus UV	1DC861/6
35	D21	4.16 kV	D21 Safeguard Bus UV	2AC861/6
36	D22	4.16 kV	D22 Safeguard Bus UV	2BC861/6
37	D23	4.16 kV	D23 Safeguard Bus UV	2CC861/6
38	D24	4.16 kV	D24 Safeguard Bus UV	2DC861/6
39	AD102	125 V dc	PPA1/A3 125 V dc Distribution Panel UV	AC861/33
40	BD501	125 V dc	PPA2 125 V dc Distribution Panel UV	AC861/34
41	BD102	125 V dc	PPB1/B3 125 V dc Distribution Panel UV	BC861/34
42	BD501	125 V dc	PPB2 125 V dc Distribution Panel UV	BC861/35
43	CD102	125 V dc	PPC1/C3 125 V dc Distribution Panel UV	CC861/32
44	CD501	125 V dc	PPC2 125 V dc Distribution Panel UV	CC861/33

Number	<u>Bus</u>	<u>Voltage</u>	<u>Alarm</u>		Panel/Window		
45	DD102	125 V dc	PPD1/D3 125 V dc Distribution Panel UV		DC861/32		
46	DD501	125 V dc	PPD2 125 V dc Distribution Panel UV		DC861/33		
47	AD108	125 V dc	PP01 125 V dc Distribution Panel UV		1AC854/3 2BC854/18		
48	BD108	125 V dc		1AC854/4 2BC854/19			
49	CD108	125 V dc	PP03 125 V dc Distribution Panel UV		1AC854/5 2BC854/20		
50	DD108	125 V dc	PP04 125 V dc Distribution Panel UV		1AC854/8 2BC854/25		
SECTION III							
Number	<u>A</u>	<u>llarm</u>		Panel/W	<u>/indow</u>		
51	Д	RFPT Control Volt F	ailure	BC868/5	5		
52	В	RFPT Control Volt F	ailure	BC868/	10		
53	C	RFPT Control Volt F	ailure	BC868/15			
54	Д	RPS/UPS Static Inve	erter Trouble	AC861/5			
55	В	RPS/UPS Static Inve	erter Trouble	BC861/5	5		
56	F	RFPT Control Signal F	ailure	AC803/2	20		
57	IF	RM Downscale		AC803/3	33		
58	S	SRM Downscale		AC803/3	34		
59	IF	RM Upscale/Inop		AC803/3	38		
60	S	SRM Upscale/Inop		AC803/3	39		
61	C	PRM/APRM Trouble		BC803/5	5		
62	N	lot Used		BC803/9	9		
63	N	lot Used		BC803/	13		
64	F	RBM Downscale/Troub	ble	BC803/	19		
65	N	lot Used		BC803/	14		

Number	<u>Alarm</u>	Panel/Window
66	RPIS Inop	BC803/25
67	SLCS Squib Valve Loss of Continuity	BC803/44
68	Division 1 Core Spray Trip Unit Inverter Power Failure	AC801/5
69	Division 2 Core Spray Trip Unit Inverter Power Failure	CC801/5
70	Division 3 Core Spray Trip Unit Inverter Power Failure	AC801/15
71	Division 4 Core Spray Trip Unit Inverter Power Failure	CC801/15
72	DELETED	
73	DELETED	
74	Main Steam Line (A/B) Radiation Monitor Downscale	C800/26
75	Main Steam Line (C/D) Radiation Monitor Downscale	C800/27
76	North Stack Radiation Monitor Downscale	00C824/23
77	South Stack Radiation Monitor Downscale	00C824/28
78	A RPS/UPS Distribution Panel Trouble	AC861/30
79	B RPS/UPS Distribution Panel Trouble	BC861/29
80	TSC/Computer Trouble	00C855/4
81	A Drywell Chiller Loss of Control Power	C881/11
82	B Drywell Chiller Loss of Control Power	C881/16
83	SPTMS Trouble Division I	AC803/23

<u>Number</u>	<u>Alarm</u>	Panel/Window
84	SPTMS Trouble Division II	AC803/24
85	RDCS Inop	BC803/24
86	INTENTIONALLY LEFT BLANK	
87	CRD Trip Unit Out-of-Service	BC803/40
88	CRD Accumulator Trouble	BC803/26
89	A Recirculation MG Controller Signal Failure (Unit 2 only)	AC802/27
89A	A Recirculation ASD Major Failure (Unit 1 only)	AC902/07
90	B Recirculation MG Controller Signal Failure (Unit 2 only)	BC802/27
90A	B Recirculation ASD Major Failure (Unit 1 only)	AC902/07
91	1 RFPT Loss of Power	AC868/33
92	2 RFPT Loss of Power	AC868/38
93	3 RFPT Loss of Power	AC868/43
94	Turbine Enclosure HVAC Panel C126 Trouble	C881/36
95	Suppression Atmospheric Analyzer Trouble	C800/28
96	Drywell Atmospheric Analyzer Trouble	C800/4
97	PMS-1 Failover	CC861/10

#### Table 8.3-29

# PANEL ALARMS WITH LOSS OF POWER AS POSSIBLE INDIRECT CAUSE

<u>Panel</u>	Indication	Alarm No. / Name
Y101	Indirect	<ul> <li>Div. I RHR Out of Service (1)</li> <li>Div. I CS Out of Service (1)</li> <li>RCIC Out of Service (1)</li> <li>Standby Liquid Squib Valve Loss of Continuity</li> <li>Div. I SPOTMOS Trouble</li> <li>Turbine Enclosure HVAC Panel C126 Trouble</li> </ul>
Y102	Indirect	<ul> <li>Div. II RHR Out of Service (1)</li> <li>Div. II CS Out of Service (1)</li> <li>HPCI Out of Service (1)</li> <li>Standby Liquid Squib Valve Loss of Continuity</li> <li>Div. II SPOTMOS Trouble</li> <li>Turbine Enclosure HVAC Panel C126 Trouble</li> </ul>
Y103	Indirect	<ul> <li>Div. III RHR Out of Service (1)</li> <li>Div. III CS Out of Service (1)</li> <li>Standby Liquid Squib Valve Loss of Continuity</li> </ul>
Y104	Indirect	<ul> <li>Div. IV RHR Out of Service (1)</li> <li>Div. IV CS Out of Service (1)</li> </ul>
Y105	Indirect	94 Turbine Enclosure HVAC Panel C126 Trouble
Y106	Indirect	87 CRD Trip Unit Out of Service 88 CRD Accumulator Trouble
Y201	Indirect	<ul> <li>RFPT Control Signal Failure</li> <li>RPIS INOP</li> <li>North Stack Radiation Monitor Downscale</li> <li>South Stack Radiation Monitor Downscale</li> <li>A DW Chiller Loss of Control Power</li> <li>C RFPT Loss of Power</li> </ul>
Y202	Indirect	<ul> <li>North Stack Radiation Monitor Downscale</li> <li>South Stack Radiation Monitor Downscale</li> <li>B DW Chiller Loss of Control Power</li> </ul>
AY160	Direct	19 Reactor Isolation System Outboard Out of Service 20 Reactor Isolation System Inboard Out of Service 22 RPS System A Out of Service 54 A RPS / UPS Static Invertor Trouble 57 IRM Downscale 58 SRM Downscale 59 IRM Upscale / Inop 60 SRM Upscale / Inop 78 A RPS / UPS Distribution Panel Trouble

<u>Panel</u>	<u>Indication</u>	Alarm No. / Name	
BY160	Direct	19 Reactor Isolation System Outboard Out of Service 20 Reactor Isolation System Inboard Out of Service 22A RPS System B Out of Service 55 B RPS / UPS Static Inverter Trouble 57 IRM Downscale 58 SRM Downscale 59 IRM Upscale / Inop 60 SRM Upscale / Inop 79 B RPS / UPS Distribution Panel Trouble	
Y109	Indirect	56 RFPT Control Signal Failure	ĺ
		91 A RFPT Loss of Power	Į
Y110	Indirect	56 RFPT Control Signal Failure	I
		92 B RFPT Loss of Power	I
AD102	Direct	<ul> <li>Div. I RHR Out of Service</li> <li>Div. I CS Out of Service</li> <li>RCIC Out of Service</li> <li>Div. I ESW Out of Service</li> <li>Div. I Standby ac Power System Out of Service</li> <li>Div. I ADS Out of Service</li> <li>PPA1/A3 125V dc Distribution Panel UV</li> </ul>	
BD102	Direct	<ul> <li>Div. II RHR Out of Service</li> <li>Div. II CS Out of Service</li> <li>HPCI Out of Service</li> <li>Div. II ESW Out of Service</li> <li>Div. II Standby ac Power System Out of Service</li> <li>PPB1/B3 125V dc Distribution Panel UV</li> </ul>	
CD102	Direct	3 Div. III RHR Out of Service 7 Div. III CS Out of Service 9 RCIC Out of Service 13 Div. III ESW Out of Service 17 Div. III Standby ac Power System Out of Service 21A Div. III ADS Out of Service 43 PPC1/C3 125V dc Distribution Panel UV 81 A DW Chiller Loss of Control Power	

Table 8.3-29 (Cont'd)

<u>Panel</u>	Indication	Alarm No. / Name
DD102	Direct	<ul> <li>Div. IV RHR Out of Service</li> <li>Div. IV CS Out of Service</li> <li>HPCI Out of Service</li> <li>Div. IV ESW Out of Service</li> <li>Div. IV Standby ac Power System Out of Service</li> <li>PPD1/D3 125V dc Distribution Panel UV</li> <li>B DW Chiller Loss of Control Power</li> </ul>
AD108	Direct	<ul><li>47 PP01 125V dc Distribution Panel UV</li><li>51 A RFPT Control Voltage Failure</li></ul>
BD108	Direct	<ul> <li>48 PP02 125V dc Distribution Panel UV</li> <li>52 B RFPT Control Voltage Failure</li> </ul>
AY185	Indirect	61 APRM Upscale Trip / Inop 64 RBM Downscale
BY185	Indirect	61 APRM Upscale Trip / Inop 64 RBM Downscale
00Y591	Indirect	80 TSC / Computer Trouble
00Y592	Indirect	80 TSC / Computer Trouble
Y163	Indirect	95 SP Atmospheric Analyzer Trouble
Y164	Indirect	96 DW Atmospheric Analyzer Trouble

Note: (1) Panel provides backup feed to system trip units; this alarm will sound only upon concurrent loss of the normal dc supply.

Table 8.3-30
INSTRUMENTS USED TO ACHIEVE COLD SHUTDOWN

Parameter	Instrument #	<u>Bus</u>	Evaluation
Reactor Level	LR42-1R608 LI42-1R605 LI42-1R606A LI42-1R606B LI42-1R606C LI42-1R604 LI42-1R610 LR42-1R615 XR42-1R623A XR42-1R623B	Y109,Y110 Y201 Y109 Y110 BD108 AY160 Y101,AD102 Y102,BD102 Y101,AD102 Y102,BD102	A A A A A A A
Reactor Pressure	XR42-1R623A XR42-1R623B XR01-1R609 PI42-1R605	Y101,AD102 Y102,BD102 Y105,Y110 Y109	A A A
Vessel Temperature	TR42-1R006 TR42-1R007	Y202 Y202	B B
NMS	APRM 1 APRM 2 APRM 3 APRM 4 RBM A RBM B SRM A, C SRM B, D IRM A, C, E, G IRM B, D, F, H SRM Recorder 602A SRM Recorder 602B IRM/APRM Recorder 603A IRM/APRM Recorder 603B IRM/APRM/RBM Recorder 603C IRM/APRM/RBM Recorder 603D	AY185, BY185 AY185, BY185 AY185, BY185 AY185, BY185 AY185, BY185 AY185, BY185 AY160 BY160	O O O O O O O A A A A A A A A A A A A A
RPIS		BY185,Y106,Y201, MCC B130	С
Condenser Vacuum	PR05-101 PI05-101A PI05-101B PI05-101C	Y106 Y106 Y106 Y106	D D D

<u>Parameter</u>	Instrument #	Bus	<u>Evaluation</u>
CST level	LR08-102,202 LI55-112,212 LAHL08-112,212	Y106,Y105 Y106 AD108	F F F
Standby Liquid Control Tank Level	LI48-1R601	Y202	Е
Pump Discharge Pressure	PI48-IN600A PI48-IN600B PI48-IN600C	Y101,AD102 Y102,BD102 Y103,CD102	E E E
Suppression Pool Temperature	TRS-041-101 TRS-041-103	Y101 Y102	A A
Suppression Pool Level	LI52-140A LI52-140B LR55-115 LI55-115-1	Y101,AD102 Y102 Y105,Y106 Y105,Y106	A A A
Suppression Pool Pressure	PR57-101 PR42-101	Y101,AD102 Y102,BD102	A A
Drywell Pressure	PR57-101 PI42-170-1 PI42-101 PI42-170	Y101,AD102 Y102,BD102 Y101,AD102 Y102,BD102	A A A
Drywell Temperature	TI77-101A-H TR57-110 TR57-122	Y202 Y105 Y101	A,D A,D A,D
Turbine 1st Stage Pressure	PI01-112	Y106,Y105	В
CRD System Flow	FI46-R606	Y106	В
HPCI Instrumentation		BD102	G
HPCI Turbine-Pump Temperature HPCI Turbine Vibration	XR - 036-101 XR - 036-102 VR56-162	Y201 Y106 Y102	D D D
RCIC Instrumentation		AD102	Н
Core Spray Instrumentation A Loop Flow B Loop Flow A Loop Disch Pressure B Loop Disch Pressure	FI52-1R601A FI52-1R601B PI52-1R600A PI52-1R600B	Y101,AD102 Y102,BD102 Y101 Y102,BD102	K K L L

Table 8.3-30 (Cont'd)

<u>Parameter</u>	Instrument #	<u>Bus</u>	<u>Evaluation</u>
RHR Instrumentation A Loop Flow B Loop Flow C Loop Flow D Loop Flow RHR HX A Discharge Pressure RHR HX B Discharge Pressure Deleted	FI51-1R603A FI51-1R603B FI51-1R603C FI51-1R603D PI51-105A PI51-105B	Y101,AD102 Y102,BD102 Y103 Y104 Y101 Y102	M M M M M
RHR Service Water			
A RHR HX Service Water Flow	FI51-1R602A	Y101,AD102	M
B RHR HX Service Water	FI51-1R602B	Y102,BD102	M
Flow RHR SW Loop A Discharge	PI12-001A	Y101	N
Pressure RHR SW Loop B Discharge	PI12-001B	Y102	N
Pressure RHR SW A HX Outlet Rad RHR SW B HX Outlet Rad	RR12 - OR616A RR12 - OR616B	Y103 Y104	N N
RHR SW A Loop Return Rad RHR SW B Loop Return Rad	RR12 - OR615A RR12 - OR615B	Y101 Y102	N N
Emergency Service Water ESW A Flow ESW B Flow ESW A Supply Pressure ESW B Supply Pressure	FI11-013A FI11-013B PI11-003A PI11-003B	Y101 Y102 Y101 Y102	N N N N
ADS Relief Valve Position Indication	ZYI41-115EF	AY185	А
SRV Outlet Temperature	XR-036-101 XR-036-102	Y201 Y106	В В
Containment Instrument Gas A Instrument Gas Pressure B Instrument Gas Pressure	PI59-103A PI59-103B	Y103,CD102 Y104,DD102	B B

#### Table 8.3-30 (Cont'd)

<u>Parameter</u>	Instrument #	<u>Bus</u>	<b>Evaluation</b>
Radiation Monitoring			
NSE-RMS	RMMS 00Y591,00Y592	Y201,Y202	D
SSE-RMS	RMMS 00Y591,00Y592	Y201,Y202	D
PCPL-RMS	RR26-191A, RMMS	Y103,00Y592	Α
PCPL-RMS	RR26-191B, RMMS	Y102,00Y592	Α
PCPL-RMS	RR26-191C, RMMS	Y103,00Y592	Α
PCPL-RMS	RR26-191D, RMMS	Y102,00Y592	Α
Containment Atmospheric Control			
	AL 57. 450	V404	Б.
Drywell 0 <sub>2</sub>	AI 57-150	Y164	В
Drywell H <sub>2</sub>	AI 57-151	Y164	В
Pool 0 <sub>2</sub>	AI 57-187	Y163	В
Pool H <sub>2</sub>	AI 57-188	Y163	В

#### **EVALUATIONS**

- A. There is more than one instrument in the control room to monitor this parameter and these instruments are not fed from the same bus; therefore, the loss of one bus will not affect the operator's ability to determine the value of this parameter.
- B. This parameter can be determined from other parameters or local instruments if needed. Loss of this parameter would not affect the capability of achieving a cold shutdown condition.
- C. The RPIS receives data from the RMCS and is fed from non-Class 1E instrument buses. If power to these buses is lost, rod position indication will be lost in the control room. Loss of rod position indication does not prohibit a manual or automatic SCRAM; therefore, the capability to achieve a cold shutdown condition is not affected by loss of power to the RMCS or the RPIS.
- D. Loss of this parameter does not affect the ability to achieve a cold shutdown condition.
- E. The SLCS has been redesigned per ATWS requirements. The controls and instrumentation of this system have been designed to perform their function with a single failure; therefore, loss of power to a single division will not prevent the achievement of a cold shutdown condition.

- F. CST level indication will be lost when Y106 is lost; however, the tank HI/LOW level alarm will still be operable.
- G. If power from panel BD102 is lost, the HPCI becomes inoperative. If this occurs, the ADS will be used to depressurize the reactor vessel so that the RCIC and RHR and core spray systems can be used to achieve a cold shutdown condition. Loss of HPCI due to loss of panel BD102 will not affect the ability to achieve a cold shutdown condition.
- H. If power from panel AD102 is lost, the RCIC system becomes inoperative. If this occurs, the HPCI system can be used in its place; therefore, the loss of the RCIC system due to the loss of power from panel AD102 will not affect the ability to achieve a cold shutdown condition.
- K. Core spray system instrumentation for Loop A is fed from Division 1 Class 1E power. Loop B instrumentation is fed from Division II. Loss of panel Y101 will cause loss of Loop A flow indication in the control room. Loss of Y102 will cause loss of Loop B flow indication. Loss of either of these panels does not affect the operability of the core spray system; therefore, the ability to achieve a cold shutdown condition is not affected.
- L. Both of the supply panels must be lost in order to lose indication of this parameter.
- M. The RHR system is composed of two redundant loops, each consisting of two pumps and one RHR heat exchanger. The pressure controllers, flow indicators, and pressure indicators for the A loop are fed from separate power panels than those for the B loop. The loss of one bus feeding RHR instrumentation would not affect the operating capability of the RHR system and therefore, would not affect the ability to achieve a cold shutdown.
- N. This system has redundant loops. The instrumentation on each loop is fed from separate buses; therefore, the loss of one loop or panel will not affect the ability to achieve a cold shutdown condition with the remaining loop.
- O. There is more than one instrument in the control room to monitor this parameter and these instruments are fed by two buses (redundant power); Therefore, the loss of one bus will not affect the operator's ability to determine the value of this parameter.

Table 8.3-31 (Deleted)

Table 8.3-32

(The information in this table has been relocated to the TRM)