Flood Evaluation Query

CF-05C-R224AM

03-Nov-98

TOP	PM	EVALUATION	RI
AA	3BKR	3 breaker challenges.	PAJ
AB	3BKR	3 breaker challenges.	PAJ
AC	None	23 HPSI pump normally aligned to 4KV Bus 24 (Top AD).	PAJ
AD	4BKR	4 breaker challenges.	PAJ
CS	F	CS Pump 11 is lost.	PAJ
CT	F	CS Pump 12 is lost.	PAJ
CV	F	Conservatively set to failure. CVCS relatively unimportant.	PAJ
F1	None	11 and 12 S/G AFW Block Valves fail. These valves are normally open and will fail open. Therefore there is no impact on this top. Flow control valves failing open are addressed in top event HX.	PAJ
F7	F	Lost the ability to use Unit 1 AFW MD Pump 13 to supply Unit 1 S/G.	PAJ
F9	F	Loss the ability to use Unit 2 AFW MD Pump 23 to supply Unit 1 S/G. Also, 21 and 22 S/G AFW Block and Flow Valves fail. These valves are normally open and fail as-is (open) on loss of power.	PAJ
FH	None	Loss the ability to start AFW MD Pump 13. Covered under Top F7.	PAJ
FN	None	Only has 2 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
GG	None	1CV1645 / 1CV1646 are both locked open. Both valves have been retired in place and can only be manipulated manually.	PAJ
GW	None	2CV5152, 2CV5153 and 2CV5212 fail open on loss of power and loss of air.	PAJ
GZ	None	2CV5150 and 2CV5210 fail open on loss of power and loss of air.	PAJ
HA	None	1MOV656 is normally locked open and fails as-is.	PAJ
HB	F	13 HPSI Pump fails.	PAJ

TOP	PM	EVALUATION	RI
HU	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact.	PAJ
HW	F	12 HPSI is lost. Also 1MOV653, 1MOV654, 1MOV655 and 1MOV656 fail as-is.	PAJ
HX	None	11 and 12 S/G AFW (motor driven feed line) flow control valves fail open. Impact already considered by Top F7 & F9 failure.	PAJ
IP	None	Air accumulators only. Mechanical operation only.	PAJ
K3	None	1CV5210 fails open on loss of power and loss of air. During a RAS, this valve needs to open for recirulation. It is assumed (Per Rob) that this top event will not fail during smaller LOCA size breaks.	PAJ
K4	None	1CV5212 fails open on loss of power and loss of air. During a RAS, this valve needs to open for recirulation. It is assumed (Per Rob) that this top event will not fail during smaller LOCA size breaks.	PAJ
M1	6BKR	6 breaker challenges.	PAJ
M2	10BKR	10 breaker challenges.	PAJ
M3	8BKR	8 breaker challenges.	PAJ
~~M4~~	~~5BKR~~	~~5 breaker challenges.~~ NOT IN U1 GT.	~~PAJ~~
MN	None	Has 6 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
MV	None	1MOV659/660 fail as-is and are normally electrically locked open, there will be no flood impact.	PAJ
N1	1BKR	1 breaker challenge.	PAJ
N2	1BKR	1 breaker challenge.	PAJ
N3	None	13 Charging Pump is normally aligned to 480V Bus 11A (Top N1). See Key Assumption 393.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ

TOP	PM	EVALUATION	RI
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
NR	None	Air accumulators only. Mechanical operation only.	PAJ
NR(TC)	None ~~Spec Impt~~	~~2CV1600/1637/1638/1639 fail close on loss of power, the undesirable position. Unable to use Unit 2 compressors for Unit 1.~~ (Note 11)	PAJ
NS	None ~~Spec Impt~~	~~2CV1600/1637/1638/1639 fail close on loss of power, the undesirable position. Unable to use Unit 2 compressors for Unit 2.~~ (Note 11)	PAJ
QZ	None	11 & 12 AFW Block valves (1CV4522/4523/4532/4533) are normally open and fail as-is on loss of power.	PAJ
RH	None ~~F~~	~~This human action requires the operator to start 11 and 13 HPSI Pumps. Both pumps are assumed not to start/run during a flood scenario.~~ (Note 9)	PAJ
S3	None	All valves fail to their appropriate positions on loss of power and loss of air. 1CV5148 (FO), 1CV5148A (FC), 1CV5151 (FO), 1CV5151A (FC) and 1CV5209 (FO).	PAJ
S4	None	All valves fail to their appropriate positions on loss of power and loss of air. 1CV5158 (FO), 1CV5158A (FC), 1CV5159 (FO), 1CV5159A (FC), 1CV5211 (FO), 1CV5153 (FO) and 1CV5157 (FC).	PAJ
SG	None ~~Spec Impt~~	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment. (Note 5)	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ
SR	Spec Impt ~~None~~	All MOVs (1MOV4144/4145/5462/5463) are closed and fail close. (note 10)	PAJ
TA	None ~~F~~	1CV1637/1639 fail close on loss of power / loss of air. (note 11)	PAJ
TB	None ~~F~~	1CV1600/1638 fail close on loss of power / loss of air. (Note 11)	PAJ
TE	F	1MOV4144 is normally in the closed position and will fail as-is. Therefore, the East Recirculation Header will not function properly.	PAJ
TH(HD1)	None	1CV5210 will fail to it's appropriate position not allowing the operator to throttle valve. Covered by Top S3 or K3.	PAJ

See notes in RAN 98-065 sect. 5.4 JPJR

TOP	PM	EVALUATION	RI
TH(HD2)	None	1CV5212 will fail to it's appropriate position not allowing the operator to throttle valve. Covered by Top S4 or K4.	PAJ
TW	F	1MOV4145 is normally in the closed position and will fail as-is. Therefore, the West Recirculation Header will not function properly.	PAJ
TX	None	Has 6 PSs. It is assumed that a flood will not prevent PS activation.	PAJ
UQ	None	1CV4525/4535 are normally open and fail as-is on loss of power. This top only fails when an under feed to the SG occurs.	PAJ
V1	F	A flood can potentially blow the fuse in the 11 ECCS pump room cooling fans circuit. Thus not allowing the fans to cool the room.	PAJ
V2	F	A flood can potentially blow the fuse in the 12 ECCS pump room cooling fans circuit. Thus not allowing the fans to cool the room.	PAJ
VC	None	Has 6 PCVs. I am assuming that these will not fail during a flood.	PAJ
VM(RM1)	None	Operator will be unable to start ECCS Pump Room Fans. Covered under Top V1.	PAJ
VM(RM2)	None	Operator will be unable to start ECCS Pump Room Fans. Covered under Top V2.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR	
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	AA	MAAF3Q	MAAF3Q	16	
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	AA	MACS1Q	MACS1Q	12	
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	AA	MAHP3Q	MAHP3Q	12	3BKR
A119	1PUMPSILPSI11	11 LOW PRESS SAFETY INJECTION PUMP (1MA104)	AA	MALP1Q	MALP1Q	12	
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	AB	MACS2Q	MACS2Q	12	
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	AB	MAHP4Q	MAHP4Q	12	3BKR
A118	1PUMPSILPSI12	12 LOW PRESS SAFETY INJECTION PUMP (1MA404)	AB	MALP2Q	MALP2Q	12	
A102	2PUMPHPSI23	SI HPSI PUMP 23 (2MA110)	AC	MAHP7Q	MAHP7Q	12	NONE
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	AD	MAAF6Q	MAAF6Q	16	
A102	2PUMPSICS22	22 CONTAINMENT SPRAY PUMP (2MA407)	AD	MACS4Q	MACS4Q	12	4BKR
A102	2PUMPHPSI23	SI HPSI PUMP 23 (2MA110)	AD	MAHP8Q	MAHP8Q	12	
A102	2PUMPSILPSI22	22 LOW PRESS SAFETY INJECTION PUMP (2MA404)	AD	MALP4Q	MALP4Q	12	
A119	1HXSICS11	11 SHUTDOWN COOLING HX	CS	CS0103	HXC11B	0	
A119	1HXSICS11	11 SHUTDOWN COOLING HX	CS	CS0103	HXC11P	0	
A119	1MOV663	SDC RECIRC TO 11 HPSI PP	CS	CS0103	MV663T	0	
A119	1CV3828	11 SDC HX OUTLET	CS	CSHX11	CV828P	0	
A119	1SV3828	S/D HX 11 COOL WTR DISCH VLV	CS	CSHX11	CV828P	0	FAILS
A119	1CV3828	11 SDC HX OUTLET	CS	CV828O	CV828O	0	
A119	1SV3828	S/D HX 11 COOL WTR DISCH VLV	CS	CV828O	CV828O	0	
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	CS	MA107R	MA107R	12	
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	CS	MA107S	MA107S	12	
A118	1HXSICS12	12 SHUTDOWN COOLING HX	CT	CT0103	HXC12B	0	
A118	1HXSICS12	12 SHUTDOWN COOLING HX	CT	CT0103	HXC12P	0	
A118	1MOV662	SDC RECIRC TO 13 HPSI PP	CT	CT0103	MV662T	0	
A118	1CV3830	12 SDC HX OUTLET	CT	CTXH12	CV830P	0	
A118	1SV3830	S/D HX #12 COMP CLG DISCH VLV	CT	CTXH12	CV830P	0	FAILS
A118	1CV3830	12 SDC HX OUTLET	CT	CV830O	CV830O	0	
A118	1SV3830	S/D HX #12 COMP CLG DISCH VLV	CT	CV830O	CV830O	0	
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	CT	MA407R	MA407R	12	
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	CT	MA407S	MA407S	12	
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0	
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0	
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0	
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0	
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0	
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0	
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0	
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0	
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0	
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0	
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0	
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0	FAIL
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12	
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12	
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12	
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12	
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0	
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0	
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12	
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0	
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0	
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12	
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PS224R	PS224R	0	
A226	1SV4522	11 S/G AFW BLOCK SV	F1	CV4522	CV522P	0	
A226	1SV4523	11 S/G AFW BLOCK SV	F1	CV4523	CV523P	0	
A226	1SV4532	12 S/G AFW BLOCK SV	F1	CV4532	CV532P	0	

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR	
A226	1SV4533	12 S/G AFW BLOCK SV	F1	CV4533	CV533P	0	
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0	NONE
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0	
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0	
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0	
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0	
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0	
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0	
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0	
A226	1SV4550	U-1 TO U-2 AFW X-CONN SV	F7	F7MPVA	C3550T	0	
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QR	MA13QR	16	FAILS
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QS	MA13QS	16	
A205	2SV4522	S/G 21 AFW MOTOR SYS ISOL VLV	F9	CVB22C	CVB22C	0	
A205	2SV4523	S/G 21 AFW MOTOR SYS ISOL VLV	F9	CVB23C	CVB23C	0	
A205	2SV4532	S/G 22 AFW MOTOR SYS ISOL VLV	F9	CVB32C	CVB32C	0	
A205	2SV4533	S/G 22 AFW MOTOR SYS ISOL VLV	F9	CVB33C	CVB33C	0	
A205	2SV4550	U-2 AUX FEED X-CONN VLV	F9	F9M2VA	C3B50O	0	
A205	2SV4550	U-2 AUX FEED X-CONN VLV	F9	F9M2VA	C3B50P	0	FAILS
A205	2SV4522	S/G 21 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB22T	0	
A205	2SV4523	S/G 21 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB23T	0	
A205	2SV4532	S/G 22 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB32T	0	
A205	2SV4533	S/G 22 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB33T	0	
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	F9	MA23QR	MA23QR	16	
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	F9	MA23QS	MA23QS	16	
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	FH	BHEF71	Start	16	NONE
A226	1PCV4512	1 IA SUPP ACCUM 11A & 11B PCV	FN	FN0000	CV512P	0	NONE
A226	1PCV4520	11B AFW AIR ACCUMULATOR OUTLET PCV	FN	FN0000	CV520P	0	
A224	1CV1645	1B DG SUPP FROM U-1 SRW	GG	GGSRW1	CVA45P	6	NONE
A224	1CV1646	1B DG RTN TO U-1 SRW	GG	GGSRW1	CVA46P	6	
A205	2I/P5212	SALT WTR OUT SERV WTR HTEX	GW	C2S12O	C2S12O	0	
A205	2SV5212	SERV WTR HTEX 22 SALT WTR OUT	GW	C2S12O	C2S12O	0	
A205	2SV5212A	SERV WTR HTEX 22 SALT WTR OUT	GW	C2S12O	C2S12O	0	
A205	2SV5152	SERV WTR HTEX 22 SALT WTR INLT	GW	S8CV52	C1S52P	0	
A205	2CV5153	22 SRW HX SW NORM B/U OUTLET	GW	S8H2CV	C1S53P	20	NONE
A205	2SV5153	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C1S53P	0	
A205	2I/P5212	SALT WTR OUT SERV WTR HTEX	GW	S8H2CV	C2S12P	0	
A205	2SV5212	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C2S12P	0	
A205	2SV5212A	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C2S12P	0	
A205	2SV5150	SERV WTR HTEX 21 SALT WTR INLT	GZ	S7H2CV	C1S50P	0	
A205	2I/P5210	SALT WTR OUT SERV WTR HTEX	GZ	S7H2CV	C2S10P	0	NONE
A205	2SV5210	SERV WTR HTEX 21 SALT WTR OUT	GZ	S7H2CV	C2S10P	0	
A205	2SV5210A	SERV WTR HTEX 21 SALT WTR OUT	GZ	S7H2CV	C2S10P	0	
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1AB	0	
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1AP	0	
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1BB	0	
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1BP	0	
A119	1HXSTF/BOX11A	HPSI PUMP 11	HA	HA1CCW	HXS1AB	0	
A119	1HXSTF/BOX11A	HPSI PUMP 11	HA	HA1CCW	HXS1AP	0	NONE
A119	1HXSTF/BOX11B	HPSI PUMP 11	HA	HA1CCW	HXS1BB	0	
A119	1HXSTF/BOX11B	HPSI PUMP 11	HA	HA1CCW	HXS1BP	0	
A119	1HX109	#11 HPSI PP SEAL COOLER	HA	HA1CCW	HXSC1B	0	
A119	1HX109	#11 HPSI PP SEAL COOLER	HA	HA1CCW	HXSC1P	0	
A119	1MOV656	AUX HPSI HDR ISOL	HA	HADISA	MV656P	0	
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3AB	0	
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3AP	0	
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3BB	0	

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR	
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3BP	0	FAILS
A118	1HXSTF/BOX13A	HPSI PUMP 13	HB	HB3CCW	HXS3AB	0	
A118	1HXSTF/BOX13A	HPSI PUMP 13	HB	HB3CCW	HXS3AP	0	
A118	1HXSTF/BOX13B	HPSI PUMP 13	HB	HB3CCW	HXS3BB	0	
A118	1HXSTF/BOX13B	HPSI PUMP 13	HB	HB3CCW	HXS3BP	0	
A118	1HX111	#13 HPSI PP SEAL COOLER	HB	HB3CCW	HXSC3B	0	
A118	1HX111	#13 HPSI PP SEAL COOLER	HB	HB3CCW	HXSC3P	0	
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	HB	MA013R	MA013R	12	
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	HB	MA013S	MA013S	12	
A118	1MOV654	HPSI HDR ISOL	HB	MV654P	MV654P	0	
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0	NON
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0	
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0	
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0	
A118	1PUMPHPSI12	12 HIGH PRESS SAFETY INJECTION PUMP	HW	BHEHW1	Start	12	FAILS
A119	1MOV656	AUX HPSI HDR ISOL	HW	HADISA	MV656P	0	
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2AB	0	
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2AP	0	
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2BB	0	
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2BP	0	
A118	1HXSTF/BOX12A	HPSI PUMP 12	HW	HW1CCW	HXS2AB	0	
A118	1HXSTF/BOX12A	HPSI PUMP 12	HW	HW1CCW	HXS2AP	0	
A118	1HXSTF/BOX12B	HPSI PUMP 12	HW	HW1CCW	HXS2BB	0	
A118	1HXSTF/BOX12B	HPSI PUMP 12	HW	HW1CCW	HXS2BP	0	
A119	1HX409	#12 HPSI PP SEAL COOLER	HW	HW1CCW	HXSC2B	0	
A119	1HX409	#12 HPSI PP SEAL COOLER	HW	HW1CCW	HXSC2P	0	
A118	1MOV653	HPSI HDR X-CONN	HW	MV653O	MV653O	0	
A118	1MOV653	HPSI HDR X-CONN	HW	MV653P	MV653P	0	
A118	1MOV654	HPSI HDR ISOL	HW	MV654P	MV654P	0	
A119	1MOV655	HPSI HDR X-CONN	HW	MV655P	MV655P	0	
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0	NONE
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0	
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0	
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0	
A224	1ACC1645	AIR ACCUMULATOR FOR 1CV1645	IP	IPIA99	TK645B	0	NONE
A224	1ACC1646	AIR ACCUMULATOR FOR 1CV1646	IP	IPIA99	TK646B	0	
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	C2210C	C2210C	0	OK
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	C2210C	C2210C	0	
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0	
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0	
A226	1ZC5210	1CV5210 POSITIONER	K3	C2210C	C2210C	0	NONE
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	K3CLOS	C2210T	0	
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	K3CLOS	C2210T	0	
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0	
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0	
A226	1ZC5210	1CV5210 POSITIONER	K3	K3CLOS	C2210T	0	
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	C2212C	C2212C	0	NONE
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	C2212C	C2212C	0	
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0	
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0	
A226	1ZC5212	1CV5212 POSITIONER	K4	C2212C	C2212C	0	
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	K4ISO1	C2212T	0	
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	K4ISO1	C2212T	0	
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0	
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0	
A226	1ZC5212	1CV5212 POSITIONER	K4	K4ISO1	C2212T	0	

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR	
A118	1MOV654	HPSI HDR ISOL	M1	MVM21Q	MVM21Q	0	
A118	1MOV653	HPSI HDR X-CONN	M1	MVM22Q	MVM22Q	0	
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	M1	MVM30Q	MVM30Q	0	
A118	1MOV660	MINI FLOW RETN TO RWT	M1	MVM32Q	MVM32Q	0	6 BKR
A122	1MOV4145	CONTMT SUMP OUT ISOL	M1	MVM44Q	MVM44Q	0	
A226	1FAN5334	SRW HX RM EXH FAN 18B (1M0451)	M1	VDM51Q	VDM51Q	0	
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0	
A119	1MOV656	AUX HPSI HDR ISOL	M2	MVN21Q	MVN21Q	0	
A119	1MOV655	HPSI HDR X-CONN	M2	MVN22Q	MVN22Q	0	
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0	
A118	1MOV659	MINI FLOW RETN TO RWT	M2	MVN32Q	MVN32Q	0	
A224	1MOV399	SDC HX RECIRC STOP	M2	MVN37Q	MVN37Q	6	18 BKR
A122	1MOV4144	CONTMT SUMP OUT ISOL	M2	MVN44Q	MVN44Q	0	
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	M2	MVN57Q	MVN57Q	0	
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0	
A226	1FAN5335	SRW HTEX RM FAN VU-18A (1M1441)	M2	VDN41Q	VDN41Q	0	
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0	
A102	2MOV654	HPSI HDR ISOL	M3	MVO21Q	MVO21Q	0	
A102	2MOV653	HPSI HDR X-CONN	M3	MVO22Q	MVO22Q	0	
A120	2MOV5463	U-2 CONTMT RECIRC PIPE TUNNEL	M3	MVO30Q	MVO30Q	0	
A102	2MOV660	MINI FLOW RETN TO RWT	M3	MVO32Q	MVO32Q	0	8 BKR
A120	2MOV4145	CONTMT SUMP OUTLET ISOL	M3	MVO44Q	MVO44Q	0	
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0	
A205	2FAN5334	SRW HX RM EXH FAN 19B (2M0451)	M3	VDO51Q	VDO51Q	0	
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32	
A102	2MOV659	MINI FLOW RETN TO RWT	M4	MVN32Q	MVN32Q	0	
A120	2MOV4144	CONTMT SUMP OUTLET ISOL	M4	MVN44Q	MVN44Q	0	5 BKR
A120	2MOV5462	U-2 CONTMT RECIRC PIPE TUNNEL	M4	MVN57Q	MVN57Q	0	
A205	2FAN5335	SRW HX RM SPLY FAN 19A (2M1437)	M4	VDN37Q	VDN37Q	0	
A226	1PCV5000	11 SGFP BRG OIL PRESS REG VLV	MN	MNFW58	PC000R	0	
A226	1PCV4993	11 SGFPT CONT OIL PRESS REG	MN	MNFW58	PC993R	0	
A226	1PCV4999	11 SGFPT OIL PRESS REG VLV	MN	MNFW58	PC999R	0	
A226	1PCV5043	12 SGFP TLO PP DISCH PCV	MN	MNFW68	PC043R	0	NONE
A226	1PCV5048	12 SGFP TLO RESERVOIR INLET PCV	MN	MNFW68	PC048R	0	
A226	1PCV5049	12 FW SGFP TLO TO PP BRGS PCV	MN	MNFW68	PC049R	0	
A118	1MOV659	MINI FLOW RETN TO RWT	MV	MV0A11	MV659P	0	
A118	1MOV659	MINI FLOW RETN TO RWT	MV	MV0A11	MV659X	0	NONE
A118	1MOV660	MINI FLOW RETN TO RWT	MV	MV0A11	MV660P	0	
A118	1MOV660	MINI FLOW RETN TO RWT	MV	MV0A11	MV660X	0	
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0	
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0	1BKR
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12	
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12	1BKR
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0	
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0	NONE
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12	
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12	1BKR
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0	
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0	NONE
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24	
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24	1BKR
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0	
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0	1BKR
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24	
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24	1BKR
A224	1ACC1645	AIR ACCUMULATOR FOR 1CV1645	NR	IPIA99	TK645B	0	

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A224	1ACC1646	AIR ACCUMULATOR FOR 1CV1646	NR	IPIA99	TK646B	0
A205	2SV1637	TURB & EHC OIL SERV WTR ISOL VLV	NR(TC)	UNIT 2-TAFB01	C3637P	0
A205	2SV1639	TURB LUB & EHC OIL SERVWTR ISO	NR(TC)	UNIT 2-TAFB01	C3639P	0
A205	2SV1600	TURB BLDG SERV WTR ISOL VLV	NR(TC)	UNIT 2-TBFB01	C3600P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NR(TC)	UNIT 2-TBFB01	C3638P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NS	NSSRW	N/A	0
A205	2SV1637	TURB & EHC OIL SERV WTR ISOL VLV	NS	UNIT 2-TAFB01	C3637P	0
A205	2SV1639	TURB LUB & EHC OIL SERVWTR ISO	NS	UNIT 2-TAFB01	C3639P	0
A205	2SV1600	TURB BLDG SERV WTR ISOL VLV	NS	UNIT 2-TBFB01	C3600P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NS	UNIT 2-TBFB01	C3638P	0
A226	1SV4522	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4523	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4532	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4533	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	RH	BHERH1	Start	12
A226	1SV5150	SERV WTR HTEX 11 SALT WTR INLT	S3	C1150P	C1150P	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148C	C2148C	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148C	C2148C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148C	C2148C	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148O	C2148O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148T	C2148T	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148T	C2148T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148T	C2148T	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151C	C2151C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151C	C2151C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151C	C2151C	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151C	C2151C	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	C2151O	C2151O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151O	C2151O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151O	C2151O	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	C2151O	C2151O	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151T	C2151T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151T	C2151T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151T	C2151T	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151T	C2151T	0
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AB	0
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AP	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BB	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BP	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1AV	C2148P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1CV5209	11A SRW HX SALT WATER OUTLET VLV	S3	S3H1AV	C2209P	0
A226	1FIC5209	11A SRW HX SW OUTLET FLOW INDICATOR	S3	S3H1AV	C2209P	0
A226	1P/P5209	1CV5209 A/S VOLUME BOOSTER	S3	S3H1AV	C2209P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2209P	0

NONE

SIEC INPT

SIEC INPT

NONE

FAILS

NONE

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1SV5209	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1SV5209A	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1BV	C2151P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1BV	C2151P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1BV	C2151P	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	S3H1BV	C2151P	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	S3	S3H1BV	C2210P	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	S3	S3H1BV	C2210P	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1ZC5210	1CV5210 POSITIONER	S3	S3H1BV	C2210P	0
A226	1CV5153	12 SRW HX SW NORM B/U OUTLET	S4	C1153P	C1153P	20
A226	1SV5153	SERV WTR HTEX 12 SALT WTR OUT	S4	C1153P	C1153P	0
A226	1CV5157	12A/12B SRW HX SALT WATER OUTLET VLV	S4	C2157T	C2157T	0
A226	1I/P5157	12A/12B SRW HX SW OUT I/P	S4	C2157T	C2157T	0
A226	1P/P5157	1CV5157 A/S VOLUME BOOSTER	S4	C2157T	C2157T	0
A226	1SV5157	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1SV5157A	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1ZC5157	1CV5157 POSITIONER	S4	C2157T	C2157T	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158C	C2158C	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158C	C2158C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158C	C2158C	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	C2158O	C2158O	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158O	C2158O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	C2158O	C2158O	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158T	C2158T	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158T	C2158T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158T	C2158T	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159C	C2159C	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159C	C2159C	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	C2159O	C2159O	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	C2159O	C2159O	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159T	C2159T	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159T	C2159T	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	C2212O	C2212O	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	C2212O	C2212O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2212O	C2212O	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1ZC5212	1CV5212 POSITIONER	S4	C2212O	C2212O	0
A226	1SV5152	SERV WTR HTEX 12 SALT WTR INLT	S4	S4CV52	C1152P	0
A226	1HVSRW-707	MANUAL SRW INLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW707P	0
A226	1HVSRW-708	MANUAL SRW OUTLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW708P	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AB	0

NONE

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR	
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AP	0	
A226	1HVSRW-709	MANUAL SRW INLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW709P	0	
A226	1HVSRW-710	MANUAL SRW OUTLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW710P	0	
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BB	0	
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BP	0	
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2AV	C2158P	0	
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0	
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	S4H2AV	C2158P	0	
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0	
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	S4H2AV	C2158P	0	
A226	1CV5211	12A SRW HX SALT WATER OUTLET VLV	S4	S4H2AV	C2211P	0	
A226	1FIC5211	12A SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2AV	C2211P	0	
A226	1P/P5211	1CV5211 A/S VOLUME BOOSTER	S4	S4H2AV	C2211P	0	
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2211P	0	
A226	1SV5211	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0	
A226	1SV5211A	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0	
A226	1ZC5211	1CV5211 POSITIONER	S4	S4H2AV	C2211P	0	
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2BV	C2159P	0	
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0	
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0	
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	S4H2BV	C2159P	0	
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2BV	C2212P	0	
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	S4H2BV	C2212P	0	
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2212P	0	
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0	
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0	
A226	1ZC5212	1CV5212 POSITIONER	S4	S4H2BV	C2212P	0	
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0	SPEC. INST
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0	
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0	
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0	
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0	
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0	NOVLE
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0	
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0	
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0	
A122	1MOV4144	CONTMT SUMP OUT ISOL	SR	MV144C	MV144C	0	
A122	1MOV4144	CONTMT SUMP OUT ISOL	SR	MV144T	MV144T	0	
A122	1MOV4145	CONTMT SUMP OUT ISOL	SR	MV145C	MV145C	0	
A122	1MOV4145	CONTMT SUMP OUT ISOL	SR	MV145T	MV145T	0	NOVLE
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV462C	MV462C	0	
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV462T	MV462T	0	
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV463C	MV463C	0	
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV463T	MV463T	0	
A226	1SV1637	TURB LUBE&EHC OIL SERVWTR ISOL	TA	TAFB01	C3637P	0	FAILS
A226	1SV1639	TURB LUB & EHC OIL SERV WTR IS	TA	TAFB01	C3639P	0	
A226	1SV1600	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3600P	0	FAILS
A226	1SV1638	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3638P	0	
A122	1MOV4144	CONTMT SUMP OUT ISOL	TE	MV144O	MV144O	0	FAILS
A122	1MOV4144	CONTMT SUMP OUT ISOL	TE	TE0101	MV144P	0	
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	TH(HD1)	BHER3B	Open	0	
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	TH(HD1)	BHER3B	Open	0	
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	TH(HD1)	BHER3B	Throttle	0	
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	TH(HD1)	BHER3B	Throttle	0	NOVLE
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0	
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0	

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR	
A226	1ZC5210	1CV5210 POSITIONER	TH(HD1)	BHER3B	Throttle	0	
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	TH(HD2)	BHER3B	Open	0	
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	TH(HD2)	BHER3B	Throttle	0	
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	TH(HD2)	BHER3B	Throttle	0	
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0	NONE
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0	
A226	1ZC5212	1CV5212 POSITIONER	TH(HD2)	BHER3B	Throttle	0	
A122	1MOV4145	CONTMT SUMP OUT ISOL	TW	MV145O	MV145O	0	FAILS
A122	1MOV4145	CONTMT SUMP OUT ISOL	TW	TW0101	MV145P	0	
A224	1PS4404	11 MT CONDENSER LOW VACUUM PS	TX	PS404D	PS404D	0	
A224	1PS4405	11 MT CONDENSER LOW VACUUM PS	TX	PS405D	PS405D	0	
A224	1PS4407	12 MT CONDENSER LOW VACUUM PS	TX	PS407D	PS407D	0	
A224	1PS4408	12 MT CONDENSER LOW VACUUM PS	TX	PS408D	PS408D	0	NONE
A224	1PS4410	13 MT CONDENSER LOW VACUUM PS	TX	PS410D	PS410D	0	
A224	1PS4411	13 MT CONDENSER LOW VACUUM PS	TX	PS411D	PS411D	0	
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0	
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0	
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0	NONE
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0	
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	TS404D	TS404D	0	
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1CLSE	WC170P	0	
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1CLSE	WC171P	0	
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1TEMP	TS404R	0	
A119	1HXHVACECCS11	ECCS PUMP ROOM AIR COOLER 11	V1	V1TRFR	HX205B	0	FAILS
A119	1HXHVACECCS11	ECCS PUMP ROOM AIR COOLER 11	V1	V1TRFR	HX205P	0	
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC170D	WC170D	0	
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC170O	WC170O	0	
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC171D	WC171D	0	
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC171O	WC171O	0	
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	TS405D	TS405D	0	
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	V2INLT	WC173P	0	
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	V2TEMP	TS405R	0	
A118	1HXHVACECCS12	ECCS PUMP ROOM AIR COOLER 12	V2	V2TRFR	HX207B	0	FAILS
A118	1HXHVACECCS12	ECCS PUMP ROOM AIR COOLER 12	V2	V2TRFR	HX207P	0	
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	WC173D	WC173D	0	
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	WC173O	WC173O	0	
A226	1PCV5214	11 CW PP SEAL WTR PCV	VC	VCCW1A	PC214R	0	
A226	1PCV5216	12 CW PP SEAL WTR PCV	VC	VCCW2A	PC216R	0	
A226	1PCV5218	13 CW PP SEAL WTR PCV	VC	VCCW3A	PC218R	0	
A226	1PCV5220	14 CW PP SEAL WTR PCV	VC	VCCW4A	PC220R	0	NONE
A226	1PCV5222	15 CW PP SEAL WTR PCV	VC	VCCW5A	PC222R	0	
A226	1PCV5224	16 CW PP SEAL WTR PCV	VC	VCCW6A	PC224R	0	
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	VM(RM1)	BHEV1T	Open	0	NONE
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	VM(RM1)	BHEV1T	Open	0	
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	VM(RM2)	BHEV1T	Open	0	NONE
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0	
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0	NONE
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0	

Flood Evaluation Query

CF-05D-C224AM

03-Nov-98

TOP	PM	EVALUATION	RI
CV	None ~~F~~	~~Conservatively set to failure. CVCS relatively unimportant.~~ Note 13	PAJ
GG	None	1CV1645 / 1CV1646 are both locked open. Both valves have been retired in place and can only be manipulated manually.	PAJ
IP	None	Air accumulators only. Mechanical operation only.	PAJ
M2	4BKR	4 breaker challenges.	PAJ
M3	2BKR	2 breaker challenges.	PAJ
~~M4~~	~~1BKR~~	~~1 breaker challenge.~~ NOT IN U1 GT.	~~PAJ~~
N1	1BKR	1 breaker challenge.	PAJ
N2	1BKR	1 breaker challenge.	PAJ
N3	None	13 Charging Pump is normally aligned to 480V Bus 11A (Top N1). See Key Assumption 393.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
NR	None	Air accumulators only. Mechanical operation only.	PAJ
SG	None ~~Spec Impt~~	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment. (Note 5)	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ

See Notes in RAN 98-065 sect. 5.4 JDR

TOP	PM	EVALUATION	RI
TX	None	Has 6 PSs. It is assumed that a flood will not prevent PS activation.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PS224R	PS224R	0
A224	1CV1645	1B DG SUPP FROM U-1 SRW	GG	GGSRW1	CVA45P	6
A224	1CV1646	1B DG RTN TO U-1 SRW	GG	GGSRW1	CVA46P	6
A224	1ACC1645	AIR ACCUMULATOR FOR 1CV1645	IP	IPIA99	TK645B	0
A224	1ACC1646	AIR ACCUMULATOR FOR 1CV1646	IP	IPIA99	TK646B	0
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A224	1MOV399	SDC HX RECIRC STOP	M2	MVN37Q	MVN37Q	6
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A224	1ACC1645	AIR ACCUMULATOR FOR 1CV1645	NR	IPIA99	TK645B	0
A224	1ACC1646	AIR ACCUMULATOR FOR 1CV1646	NR	IPIA99	TK646B	0
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0
A224	1PS4404	11 MT CONDENSER LOW VACUUM PS	TX	PS404D	PS404D	0
A224	1PS4405	11 MT CONDENSER LOW VACUUM PS	TX	PS405D	PS405D	0
A224	1PS4407	12 MT CONDENSER LOW VACUUM PS	TX	PS407D	PS407D	0
A224	1PS4408	12 MT CONDENSER LOW VACUUM PS	TX	PS408D	PS408D	0
A224	1PS4410	13 MT CONDENSER LOW VACUUM PS	TX	PS410D	PS410D	0
A224	1PS4411	13 MT CONDENSER LOW VACUUM PS	TX	PS411D	PS411D	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0

Flood Evaluation Query

CF-05E-W224AM

03-Nov-98

TOP	PM	EVALUATION	RI
CV	None ~~F~~	~~Conservatively set to failure. CVCS relatively unimportant.~~ (note 13)	PAJ
GG	None	1CV1645 / 1CV1646 are both locked open. Both valves have been retired in place and can only be manipulated manually.	PAJ
IP	None	Air accumulators only. Mechanical operation only.	PAJ
M2	4BKR	4 breaker challenges.	PAJ
M3	2BKR	2 breaker challenges.	PAJ
~~M4~~	~~1BKR~~	~~1 breaker challenge.~~ NOT IN U1 GT.	~~PAJ~~
N1	1BKR	1 breaker challenge.	PAJ
N2	1BKR	1 breaker challenge.	PAJ
N3	None	13 Charging Pump is normally aligned to 480V Bus 11A (Top N1). See Key Assumption 393.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
NR	None	Air accumulators only. Mechanical operation only.	PAJ
SG	None ~~Spec Impt~~	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment. (Note 5)	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ

see Notes in RAN 98-065 sect. 5.4 gsn

TOP	PM	EVALUATION	RI
TX	None	Has 6 PSs. It is assumed that a flood will not prevent PS activation.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PS224R	PS224R	0
A224	1CV1645	1B DG SUPP FROM U-1 SRW	GG	GGSRW1	CVA45P	6
A224	1CV1646	1B DG RTN TO U-1 SRW	GG	GGSRW1	CVA46P	6
A224	1ACC1645	AIR ACCUMULATOR FOR 1CV1645	IP	IPIA99	TK645B	0
A224	1ACC1646	AIR ACCUMULATOR FOR 1CV1646	IP	IPIA99	TK646B	0
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A224	1MOV399	SDC HX RECIRC STOP	M2	MVN37Q	MVN37Q	6
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A224	1ACC1645	AIR ACCUMULATOR FOR 1CV1645	NR	IPIA99	TK645B	0
A224	1ACC1646	AIR ACCUMULATOR FOR 1CV1646	NR	IPIA99	TK646B	0
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0
A224	1PS4404	11 MT CONDENSER LOW VACUUM PS	TX	PS404D	PS404D	0
A224	1PS4405	11 MT CONDENSER LOW VACUUM PS	TX	PS405D	PS405D	0
A224	1PS4407	12 MT CONDENSER LOW VACUUM PS	TX	PS407D	PS407D	0
A224	1PS4408	12 MT CONDENSER LOW VACUUM PS	TX	PS408D	PS408D	0
A224	1PS4410	13 MT CONDENSER LOW VACUUM PS	TX	PS410D	PS410D	0
A224	1PS4411	13 MT CONDENSER LOW VACUUM PS	TX	PS411D	PS411D	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0

Flood Evaluation Query

CF-05F-D224AM

03-Nov-98

TOP	PM	EVALUATION	RI
CV	F	Conservatively set to failure. CVCS relatively unimportant.	PAJ
GG	None	1CV1645 / 1CV1646 are both locked open. Both valves have been retired in place and can only be manipulated manually.	PAJ
IP	None	Air accumulators only. Mechanical operation only.	PAJ
M2	4BKR	4 breaker challenges.	PAJ
M3	2BKR	2 breaker challenges.	PAJ
~~M4~~	~~1BKR~~	~~1 breaker challenge.~~ NOT IN U1 GT.	~~PAJ~~
N1	1BKR	1 breaker challenge.	PAJ
N2	1BKR	1 breaker challenge.	PAJ
N3	None	13 Charging Pump is normally aligned to 480V Bus 11A (Top N1). See Key Assumption 393.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
NR	None	Air accumulators only. Mechanical operation only.	PAJ
SG	None ~~Spec Impt~~	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment. *	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ

* see Note 5 in RAN 98-065 SECT 5.4 JDK

TOP	PM	EVALUATION	RI
TX	None	Has 6 PSs. It is assumed that a flood will not prevent PS activation.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PS224R	PS224R	0
A224	1CV1645	1B DG SUPP FROM U-1 SRW	GG	GGSRW1	CVA45P	6
A224	1CV1646	1B DG RTN TO U-1 SRW	GG	GGSRW1	CVA46P	6
A224	1ACC1645	AIR ACCUMULATOR FOR 1CV1645	IP	IPIA99	TK645B	0
A224	1ACC1646	AIR ACCUMULATOR FOR 1CV1646	IP	IPIA99	TK646B	0
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A224	1MOV399	SDC HX RECIRC STOP	M2	MVN37Q	MVN37Q	6
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A224	1ACC1645	AIR ACCUMULATOR FOR 1CV1645	NR	IPIA99	TK645B	0
A224	1ACC1646	AIR ACCUMULATOR FOR 1CV1646	NR	IPIA99	TK646B	0
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0
A224	1PS4404	11 MT CONDENSER LOW VACUUM PS	TX	PS404D	PS404D	0
A224	1PS4405	11 MT CONDENSER LOW VACUUM PS	TX	PS405D	PS405D	0
A224	1PS4407	12 MT CONDENSER LOW VACUUM PS	TX	PS407D	PS407D	0
A224	1PS4408	12 MT CONDENSER LOW VACUUM PS	TX	PS408D	PS408D	0
A224	1PS4410	13 MT CONDENSER LOW VACUUM PS	TX	PS410D	PS410D	0
A224	1PS4411	13 MT CONDENSER LOW VACUUM PS	TX	PS411D	PS411D	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0

Flood Evaluation Query

CF-05G-N224AM

03-Nov-98

TOP	PM	EVALUATION	RI
AA	1BKR	1 breaker challenge.	PAJ
AD	1BKR	1 breaker challenge.	PAJ
CV	F	Conservatively set to failure. CVCS relatively unimportant.	PAJ
F1	None	11 and 12 S/G AFW Block Valves fail. These valves are normally open and will fail open. Therefore there is no impact on this top. Flow control valves failing open are addressed in top event HX. (NOTE 1)	PAJ
F7	F	Lost the ability to use Unit 1 AFW MD Pump 13 to supply Unit 1 S/G. (NOTES 1 & 14)	PAJ
F9	None ~~F~~	~~Loss the ability to use Unit 2 AFW MD Pump 23 to supply Unit 1 S/G. Also, 21 and 22 S/G AFW Block and Flow Valves fail. These valves are normally open and fail as is (open) on loss of power.~~ (Note 1) & (NOTE 14)	PAJ
FH	None	Loss the ability to start AFW MD Pump 13. Covered under Top F7.	PAJ
FN	None	Only has 2 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
GG	None	1CV1645 / 1CV1646 are both locked open. Both valves have been retired in place and can only be manipulated manually.	PAJ
GW	None	2CV5152, 2CV5153 and 2CV5212 fail open on loss of power and loss of air.	PAJ
GZ	None	2CV5150 and 2CV5210 fail open on loss of power and loss of air.	PAJ
HU	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact.	PAJ
HX	None	11 and 12 S/G AFW (motor driven feed line) flow control valves fail open. Impact already considered by Top F7 & F9 failure. (NOTES 1 & 14)	PAJ
IP	None	Air accumulators only. Mechanical operation only.	PAJ
K3	None	1CV5210 fails open on loss of power and loss of air. During a RAS, this valve needs to open for recirulation. It is assumed (Per Rob) that this top event will not fail during smaller LOCA size breaks.	PAJ
K4	None	1CV5212 fails open on loss of power and loss of air. During a RAS, this valve needs to open for recirulation. It is assumed (Per Rob) that this top event will not fail during smaller LOCA size breaks.	PAJ

See Notes in RAN 98-065 SECT 5.4 JPJR

TOP	PM	EVALUATION	RI
M1	3BKR	3 breaker challenges.	PAJ
M2	7BKR	7 breaker challenges.	PAJ
M3	5BKR	5 breaker challenges.	PAJ
~~M4~~	~~4BKR~~	~~4 breaker challenges.~~ NOT IN U1 GT.	~~PAJ~~
MN	None	Has 6 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
N1	1BKR	1 breaker challenge.	PAJ
N2	1BKR	1 breaker challenge.	PAJ
N3	None	13 Charging Pump is normally aligned to 480V Bus 11A (Top N1). See Key Assumption 393.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
NR	None	Air accumulators only. Mechanical operation only.	PAJ
NR(TC)	None ~~Spec Impt~~	~~2CV1~~600/1637/1~~638/1~~639 fa~~il close on loss of power, the undesirable position. Unable to use Unit 2 compressors for Unit 1.~~ (Note 1)	PAJ
NS	None ~~Spec Impt~~	~~2CV1600/1637/1638/1639 fail close on loss of power, the undesirable position. Unable to use Unit 2 compressors for Unit 2.~~ (Note 1)	PAJ
QZ	None	11 & 12 AFW Block valves (1CV4522/4523/4532/4533) are normally open and fail as-is on loss of power.	PAJ
S3	None	All valves fail to their appropriate positions on loss of power and loss of air. 1CV5148 (FO), 1CV5148A (FC), 1CV5151 (FO), 1CV5151A (FC) and 1CV5209 (FO).	PAJ

TOP	PM	EVALUATION	RI
S4	None	All valves fail to their appropriate positions on loss of power and loss of air. 1CV5158 (FO), 1CV5158A (FC), 1CV5159 (FO), 1CV5159A (FC), 1CV5211 (FO), 1CV5153 (FO) and 1CV5157 (FC).	PAJ
SG	None ~~Spec Impt~~	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment. (Note 5)	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ
SR	None	All MOVs (1MOV4144/4145/5462/5463) are closed and fail close.	PAJ
TA	None ~~F~~	~~1~~CV1637/1639 fail ~~close on loss of power / loss of air.~~ (Note 1)	PAJ
TB	None ~~F~~	~~1CV1600/1638~~ fail close ~~on loss of power~~ / loss ~~of air.~~ (Note 1)	PAJ
TE	F	1MOV4144 is normally in the closed position and will fail as-is. Therefore, the East Recirculation Header will not function properly.	PAJ
TH(HD1)	None	1CV5210 will fail to it's appropriate position not allowing the operator to throttle valve. Covered by Top S3 or K3.	PAJ
TH(HD2)	None	1CV5212 will fail to it's appropriate position not allowing the operator to throttle valve. Covered by Top S4 or K4.	PAJ
TW	F	1MOV4145 is normally in the closed position and will fail as-is. Therefore, the West Recirculation Header will not function properly.	PAJ
TX	None	Has 6 PSs. It is assumed that a flood will not prevent PS activation.	PAJ
UQ	None	1CV4525/4535 are normally open and fail as-is on loss of power. This top only fails when an under feed to the SG occurs.	PAJ
VC	None	Has 6 PCVs. I am assuming that these will not fail during a flood.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR	
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	AA	MAAF3Q	MAAF3Q	16	1BKR
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	AD	MAAF6Q	MAAF6Q	16	1BKR
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0	
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0	
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0	
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0	
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0	
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0	
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0	
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0	
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0	
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0	FAI
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0	
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0	
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12	
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12	
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12	
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12	
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0	
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0	
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404).	CV	MC013R	MC013R	12	
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0	
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0	
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12	
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PS224R	PS224R	0	
A226	1SV4522	11 S/G AFW BLOCK SV	F1	CV4522	CV522P	0	
A226	1SV4523	11 S/G AFW BLOCK SV	F1	CV4523	CV523P	0	
A226	1SV4532	12 S/G AFW BLOCK SV	F1	CV4532	CV532P	0	
A226	1SV4533	12 S/G AFW BLOCK SV	F1	CV4533	CV533P	0	
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0	
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0	NO
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0	
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0	
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0	
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0	
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0	
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0	
A226	1SV4550	U-1 TO U-2 AFW X-CONN SV	F7	F7MPVA	C3550T	0	
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QR	MA13QR	16	FAI
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QS	MA13QS	16	
A205	2SV4522	S/G 21 AFW MOTOR SYS ISOL VLV	F9	CVB22C	CVB22C	0	
A205	2SV4523	S/G 21 AFW MOTOR SYS ISOL VLV	F9	CVB23C	CVB23C	0	
A205	2SV4532	S/G 22 AFW MOTOR SYS ISOL VLV	F9	CVB32C	CVB32C	0	
A205	2SV4533	S/G 22 AFW MOTOR SYS ISOL VLV	F9	CVB33C	CVB33C	0	
A205	2SV4550	U-2 AUX FEED X-CONN VLV	F9	F9M2VA	C3B50O	0	
A205	2SV4550	U-2 AUX FEED X-CONN VLV	F9	F9M2VA	C3B50P	0	FAI
A205	2SV4522	S/G 21 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB22T	0	
A205	2SV4523	S/G 21 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB23T	0	
A205	2SV4532	S/G 22 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB32T	0	
A205	2SV4533	S/G 22 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB33T	0	
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	F9	MA23QR	MA23QR	16	
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	F9	MA23QS	MA23QS	16	
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	FH	BHEF71	Start	16	NO
A226	1PCV4512	1 IA SUPP ACCUM 11A & 11B PCV	FN	FN0000	CV512P	0	NO
A226	1PCV4520	11B AFW AIR ACCUMULATOR OUTLET PCV	FN	FN0000	CV520P	0	
A224	1CV1645	1B DG SUPP FROM U-1 SRW	GG	GGSRW1	CVA45P	6	NO

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A224	1CV1646	1B DG RTN TO U-1 SRW	GG	GGSRW1	CVA46P	6
A205	2I/P5212	SALT WTR OUT SERV WTR HTEX	GW	C2S12O	C2S12O	0
A205	2SV5212	SERV WTR HTEX 22 SALT WTR OUT	GW	C2S12O	C2S12O	0
A205	2SV5212A	SERV WTR HTEX 22 SALT WTR OUT	GW	C2S12O	C2S12O	0
A205	2SV5152	SERV WTR HTEX 22 SALT WTR INLT	GW	S8CV52	C1S52P	0
A205	2CV5153	22 SRW HX SW NORM B/U OUTLET	GW	S8H2CV	C1S53P	20
A205	2SV5153	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C1S53P	0
A205	2I/P5212	SALT WTR OUT SERV WTR HTEX	GW	S8H2CV	C2S12P	0
A205	2SV5212	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C2S12P	0
A205	2SV5212A	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C2S12P	0
A205	2SV5150	SERV WTR HTEX 21 SALT WTR INLT	GZ	S7H2CV	C1S50P	0
A205	2I/P5210	SALT WTR OUT SERV WTR HTEX	GZ	S7H2CV	C2S10P	0
A205	2SV5210	SERV WTR HTEX 21 SALT WTR OUT	GZ	S7H2CV	C2S10P	0
A205	2SV5210A	SERV WTR HTEX 21 SALT WTR OUT	GZ	S7H2CV	C2S10P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A224	1ACC1645	AIR ACCUMULATOR FOR 1CV1645	IP	IPIA99	TK645B	0
A224	1ACC1646	AIR ACCUMULATOR FOR 1CV1646	IP	IPIA99	TK646B	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	C2210C	C2210C	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	C2210C	C2210C	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0
A226	1ZC5210	1CV5210 POSITIONER	K3	C2210C	C2210C	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	K3CLOS	C2210T	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	K3CLOS	C2210T	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1ZC5210	1CV5210 POSITIONER	K3	K3CLOS	C2210T	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	C2212C	C2212C	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	C2212C	C2212C	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1ZC5212	1CV5212 POSITIONER	K4	C2212C	C2212C	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	K4ISO1	C2212T	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	K4ISO1	C2212T	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1ZC5212	1CV5212 POSITIONER	K4	K4ISO1	C2212T	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	M1	MVM30Q	MVM30Q	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	M1	MVM44Q	MVM44Q	0
A226	1FAN5334	SRW HX RM EXH FAN 18B (1M0451)	M1	VDM51Q	VDM51Q	0
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A224	1MOV399	SDC HX RECIRC STOP	M2	MVN37Q	MVN37Q	6
A122	1MOV4144	CONTMT SUMP OUT ISOL	M2	MVN44Q	MVN44Q	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	M2	MVN57Q	MVN57Q	0
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A226	1FAN5335	SRW HTEX RM FAN VU-18A (1M1441)	M2	VDN41Q	VDN41Q	0
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A120	2MOV5463	U-2 CONTMT RECIRC PIPE TUNNEL	M3	MVO30Q	MVO30Q	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR	
A120	2MOV4145	CONTMT SUMP OUTLET ISOL	M3	MVO44Q	MVO44Q	0	5BK
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0	
A205	2FAN5334	SRW HX RM EXH FAN 19B (2M0451)	M3	VDO51Q	VDO51Q	0	
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32	
A120	2MOV4144	CONTMT SUMP OUTLET ISOL	M4	MVN44Q	MVN44Q	0	4BK
A120	2MOV5462	U-2 CONTMT RECIRC PIPE TUNNEL	M4	MVN57Q	MVN57Q	0	
A205	2FAN5335	SRW HX RM SPLY FAN 19A (2M1437)	M4	VDN37Q	VDN37Q	0	
A226	1PCV5000	11 SGFP BRG OIL PRESS REG VLV	MN	MNFW58	PC000R	0	
A226	1PCV4993	11 SGFPT CONT OIL PRESS REG	MN	MNFW58	PC993R	0	
A226	1PCV4999	11 SGFPT OIL PRESS REG VLV	MN	MNFW58	PC999R	0	
A226	1PCV5043	12 SGFP TLO PP DISCH PCV	MN	MNFW68	PC043R	0	NO
A226	1PCV5048	12 SGFP TLO RESERVOIR INLET PCV	MN	MNFW68	PC048R	0	
A226	1PCV5049	12 FW SGFP TLO TO PP BRGS PCV	MN	MNFW68	PC049R	0	
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0	
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0	1BK
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12	
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12	1BK
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0	
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0	NO
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12	
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12	1BK
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0	
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0	1BK
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24	
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24	1BK
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0	
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0	1B
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24	
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24	1BK
A224	1ACC1645	AIR ACCUMULATOR FOR 1CV1645	NR	IPIA99	TK645B	0	
A224	1ACC1646	AIR ACCUMULATOR FOR 1CV1646	NR	IPIA99	TK646B	0	NN
A205	2SV1637	TURB & EHC OIL SERV WTR ISOL VLV	NR(TC)	UNIT 2-TAFB01	C3637P	0	
A205	2SV1639	TURB LUB & EHC OIL SERVWTR ISO	NR(TC)	UNIT 2-TAFB01	C3639P	0	SPE
A205	2SV1600	TURB BLDG SERV WTR ISOL VLV	NR(TC)	UNIT 2-TBFB01	C3600P	0	IM
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NR(TC)	UNIT 2-TBFB01	C3638P	0	
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NS	NSSRW	N/A	0	
A205	2SV1637	TURB & EHC OIL SERV WTR ISOL VLV	NS	UNIT 2-TAFB01	C3637P	0	SPE
A205	2SV1639	TURB LUB & EHC OIL SERVWTR ISO	NS	UNIT 2-TAFB01	C3639P	0	IM
A205	2SV1600	TURB BLDG SERV WTR ISOL VLV	NS	UNIT 2-TBFB01	C3600P	0	
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NS	UNIT 2-TBFB01	C3638P	0	
A226	1SV4522	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0	
A226	1SV4523	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0	
A226	1SV4532	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0	NO
A226	1SV4533	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0	
A226	1SV5150	SERV WTR HTEX 11 SALT WTR INLT	S3	C1150P	C1150P	0	
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148C	C2148C	0	
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0	
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148C	C2148C	0	
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0	
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148C	C2148C	0	
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0	
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0	
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148O	C2148O	0	
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0	
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0	
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148T	C2148T	0	

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148T	C2148T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148T	C2148T	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151C	C2151C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151C	C2151C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151C	C2151C	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151C	C2151C	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	C2151O	C2151O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151O	C2151O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151O	C2151O	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	C2151O	C2151O	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151T	C2151T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151T	C2151T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151T	C2151T	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151T	C2151T	0
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AB	0
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AP	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BB	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BP	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1AV	C2148P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1CV5209	11A SRW HX SALT WATER OUTLET VLV	S3	S3H1AV	C2209P	0
A226	1FIC5209	11A SRW HX SW OUTLET FLOW INDICATOR	S3	S3H1AV	C2209P	0
A226	1P/P5209	1CV5209 A/S VOLUME BOOSTER	S3	S3H1AV	C2209P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2209P	0
A226	1SV5209	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1SV5209A	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1BV	C2151P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1BV	C2151P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1BV	C2151P	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	S3H1BV	C2151P	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	S3	S3H1BV	C2210P	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	S3	S3H1BV	C2210P	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1ZC5210	1CV5210 POSITIONER	S3	S3H1BV	C2210P	0
A226	1CV5153	12 SRW HX SW NORM B/U OUTLET	S4	C1153P	C1153P	20
A226	1SV5153	SERV WTR HTEX 12 SALT WTR OUT	S4	C1153P	C1153P	0
A226	1CV5157	12A/12B SRW HX SALT WATER OUTLET VLV	S4	C2157T	C2157T	0
A226	1I/P5157	12A/12B SRW HX SW OUT I/P	S4	C2157T	C2157T	0
A226	1P/P5157	1CV5157 A/S VOLUME BOOSTER	S4	C2157T	C2157T	0
A226	1SV5157	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1SV5157A	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1ZC5157	1CV5157 POSITIONER	S4	C2157T	C2157T	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158C	C2158C	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158C	C2158C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158C	C2158C	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	C2158O	C2158O	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158O	C2158O	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	C2158O	C2158O	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158T	C2158T	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158T	C2158T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158T	C2158T	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159C	C2159C	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159C	C2159C	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	C2159O	C2159O	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	C2159O	C2159O	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159T	C2159T	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159T	C2159T	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	C2212O	C2212O	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	C2212O	C2212O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2212O	C2212O	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1ZC5212	1CV5212 POSITIONER	S4	C2212O	C2212O	0
A226	1SV5152	SERV WTR HTEX 12 SALT WTR INLT	S4	S4CV52	C1152P	0
A226	1HVSRW-707	MANUAL SRW INLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW707P	0
A226	1HVSRW-708	MANUAL SRW OUTLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW708P	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AB	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AP	0
A226	1HVSRW-709	MANUAL SRW INLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW709P	0
A226	1HVSRW-710	MANUAL SRW OUTLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW710P	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BB	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BP	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2AV	C2158P	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	S4H2AV	C2158P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	S4H2AV	C2158P	0
A226	1CV5211	12A SRW HX SALT WATER OUTLET VLV	S4	S4H2AV	C2211P	0
A226	1FIC5211	12A SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2AV	C2211P	0
A226	1P/P5211	1CV5211 A/S VOLUME BOOSTER	S4	S4H2AV	C2211P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2211P	0
A226	1SV5211	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1SV5211A	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1ZC5211	1CV5211 POSITIONER	S4	S4H2AV	C2211P	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2BV	C2159P	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	S4H2BV	C2159P	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2BV	C2212P	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	S4H2BV	C2212P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2212P	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1ZC5212	1CV5212 POSITIONER	S4	S4H2BV	C2212P	0

USA

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR	
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0	SPEC
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0	IDW
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0	
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0	
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0	
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0	NOT
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0	
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0	
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0	
A122	1MOV4144	CONTMT SUMP OUT ISOL	SR	MV144C	MV144C	0	
A122	1MOV4144	CONTMT SUMP OUT ISOL	SR	MV144T	MV144T	0	
A122	1MOV4145	CONTMT SUMP OUT ISOL	SR	MV145C	MV145C	0	
A122	1MOV4145	CONTMT SUMP OUT ISOL	SR	MV145T	MV145T	0	NOT
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV462C	MV462C	0	
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV462T	MV462T	0	
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV463C	MV463C	0	
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV463T	MV463T	0	
A226	1SV1637	TURB LUBE&EHC OIL SERVWTR ISOL	TA	TAFB01	C3637P	0	FAIL
A226	1SV1639	TURB LUB & EHC OIL SERV WTR IS	TA	TAFB01	C3639P	0	
A226	1SV1600	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3600P	0	FAIL
A226	1SV1638	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3638P	0	
A122	1MOV4144	CONTMT SUMP OUT ISOL	TE	MV144O	MV144O	0	FAIL
A122	1MOV4144	CONTMT SUMP OUT ISOL	TE	TE0101	MV144P	0	
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	TH(HD1)	BHER3B	Throttle	0	
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	TH(HD1)	BHER3B	Throttle	0	
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0	NOT
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0	
A226	1ZC5210	1CV5210 POSITIONER	TH(HD1)	BHER3B	Throttle	0	
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	TH(HD2)	BHER3B	Throttle	0	
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	TH(HD2)	BHER3B	Throttle	0	
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0	NOT
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0	
A226	1ZC5212	1CV5212 POSITIONER	TH(HD2)	BHER3B	Throttle	0	
A122	1MOV4145	CONTMT SUMP OUT ISOL	TW	MV145O	MV145O	0	FAIL
A122	1MOV4145	CONTMT SUMP OUT ISOL	TW	TW0101	MV145P	0	
A224	1PS4404	11 MT CONDENSER LOW VACUUM PS	TX	PS404D	PS404D	0	
A224	1PS4405	11 MT CONDENSER LOW VACUUM PS	TX	PS405D	PS405D	0	
A224	1PS4407	12 MT CONDENSER LOW VACUUM PS	TX	PS407D	PS407D	0	NOT
A224	1PS4408	12 MT CONDENSER LOW VACUUM PS	TX	PS408D	PS408D	0	
A224	1PS4410	13 MT CONDENSER LOW VACUUM PS	TX	PS410D	PS410D	0	
A224	1PS4411	13 MT CONDENSER LOW VACUUM PS	TX	PS411D	PS411D	0	
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0	
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0	
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0	VIV
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0	
A226	1PCV5214	11 CW PP SEAL WTR PCV	VC	VCCW1A	PC214R	0	
A226	1PCV5216	12 CW PP SEAL WTR PCV	VC	VCCW2A	PC216R	0	
A226	1PCV5218	13 CW PP SEAL WTR PCV	VC	VCCW3A	PC218R	0	NOT
A226	1PCV5220	14 CW PP SEAL WTR PCV	VC	VCCW4A	PC220R	0	
A226	1PCV5222	15 CW PP SEAL WTR PCV	VC	VCCW5A	PC222R	0	
A226	1PCV5224	16 CW PP SEAL WTR PCV	VC	VCCW6A	PC224R	0	
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0	
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0	NOT
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0	

Flood Evaluation Query

CF-05H-Q224AM

10-Dec-98

TOP	PM	EVALUATION	RI
AE	2BKR	2 breaker challenges.	PAJ
AF	4BKR	4 breaker challenges.	PAJ
BS	None ~~F~~	TBV modulation circuit fails to provide control signals. (note 16)	PAJ
F1	None ~~Spec Impt~~	~~Steam admission Control valves 1CV4070/4071 are normally closed, and will fail as-is(closed) on loss of power. Therefore, operators will be unable to open valves. These valves continuously have air (closing the valve). The operators may bleed air to open valve if need be.~~ (Note 15)	PAJ
F3	None	Steam Admission SV's 1SV4070/4071 are covered under top event F1.	PAJ
FC	None	If the AFW doors are open when the wall breaks between the Main Steam Piping Area and the Turbine Bldg, the water will quickly rush during initial surge. Then all water will propogate to the condenser pit. The fire damper is located well above surge area. The doors are only open when AFW Pump room cooling is not operational.	PAJ
FT	None	1MOV4516/4517 are normally open and fail as-is. Stop valves fail closed. If SGFPs are secured, which they are (See Top MT), this top is successful.	PAJ
HH	None	0CV5380A & 0CV5380B fail open on loss of power and loss of air. The valves controlled by the I/P will fail to their appropriate positions.	PAJ
IP	None	Air accumulators only. Mechanical operation only.	PAJ
K5	Spec Impt	Since top event MC fails in this scenario and this hose station is under water. All SFs with either of these make-up options available should be failed.	PAJ
LF	None ~~F~~	1CV1105/1106/4405/4406 fail closed on loss of power and loss of air. 1MOV4516/4517 are normally open and fail as-is. (Note 16)	PAJ
M1	2BKR	2 breaker challenges.	PAJ
M2	2BKR	2 breaker challenges.	PAJ
M7	33BKR	33 breaker challenges.	PAJ
M8	35BKR	35 breaker challenges.	PAJ
MC	F	11, 12 and 13 Condensate Pumps fail.	PAJ

See notes in RAN 98-065 sect. 5.4 JBM

TOP	PM	EVALUATION	RI
MH	Spec Impt	1CV4070/4071 are normally closed and fail as-is on loss of power. These valves must be locally vented.	PAJ
MN	F	Both SGFPs trip.	PAJ
MP	F	1CV1111/1121 are normally open and fail as-is.	PAJ
MS	F	1CV4043/4048 are normally open and fail as-is.	PAJ
MT	None	SGFP trip in this scenario. See top MN.	PAJ
N2	2BKR	2 breaker challenges.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
NR	Spec Impt ~~F~~	~~11 / 12 IA compressors and 11 Plant Air Compressors fail. 1CV2059/2061 both fail closed on loss of power resulting in the inability to use Unit 1 compressors for Unit 1.~~ (Note 17)	PAJ
NS	None ~~Spec Impt~~	~~11 Plant Air Compressors fails. Still have Unit 2 compressors.~~ (Note 18)	PAJ
QC	4BKR	4 breaker challenges.	PAJ
RL	Spec Impt	Since top event MC fails in this scenario and this hose station is under water. All SFs with either of these make-up options available should be failed.	PAJ
S3	None	No equipment impacted. IA & PA Aftercoolers are not affected by flood.	PAJ
S4	None	No equipment impacted. IA & PA Aftercoolers are not affected by flood.	PAJ
T1	None	1CV4406 fails closed on loss of power.	PAJ
TG	None	Steam admission Control valves 1CV4070/4071 are normally closed, and will fail as-is(closed) on loss of power. Therefore, operators will be unable to open valves. These valves continuously have air (closing the valve). The operators may bleed air to open valve if need be. Covered under Top F1.	PAJ
VC	F	11, 12 and 13 condensate vacuum pumps fail.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-3 (CP)	1PUMPCD11	11 CONDENSATE PUMP (1MA207)	AE	MYCP1Q	MYCP1Q	0
1TB12-2	1PUMPHDV11	11 FW HEATER DRAIN PUMP (1MA206)	AE	MYHD1Q	MYHD1Q	0
1TB12-2	1PUMPCBP13	CD CBP 13 (1MA304)	AF	MYCB3Q	MYCB3Q	0
1TB12-3 (CP)	1PUMPCD12	12 CONDENSATE PUMP (1MA307)	AF	MYCP2Q	MYCP2Q	0
1TB12-3 (CP)	1PUMPCD13	13 CONDENSATE PUMP (1MA308)	AF	MYCP3Q	MYCP3Q	0
1TB12-2	1PUMPHDV12	12 FW HEATER DRAIN PUMP (1MA306)	AF	MYHD2Q	MYHD2Q	0
1TB12-4	1PT4056	MS TURB BYPASS VLV CONTROL PT	BS	BS4056	PT056R	0
A315	1CV4070	11 S/G MS TO AFW PP TURB	F1	F1CV70	C8070O	12
A315	1CV4070	11 S/G MS TO AFW PP TURB	F1	F1CV70	C8070P	12
A315	1CV4070A	11 S/G AFW MAIN STM BYPASS VALVE	F1	F1CV70	C870AO	0
A315	1CV4071	12 S/G MS TO AFW PP TURB	F1	F1CV71	C8071O	12
A315	1CV4071	12 S/G MS TO AFW PP TURB	F1	F1CV71	C8071P	12
A315	1CV4071A	12 S/G AFW MAIN STM BYPASS VALVE	F1	F1CV71	C871AO	0
A315	1CV4070	11 S/G MS TO AFW PP TURB	F3	BHEF31	Open	12
A315	1CV4070A	11 S/G AFW MAIN STM BYPASS VALVE	F3	BHEF31	Open	0
A315	1CV4071	12 S/G MS TO AFW PP TURB	F3	BHEF31	Open	12
A315	1CV4071A	12 S/G AFW MAIN STM BYPASS VALVE	F3	BHEF31	Open	0
1TB12-1	1AFWDOORS	AFW DOUBLE DOORS	FC	Dummy	N/A	0
1TB12-1	1FDTB12W1	AFW RM SUPPLY FROM AFW TO TB12 FD	FC	FDAMPR	FD002I	0
A315	1MOV4516	11 SG FW ISOL	FT	FTFW10	MV516C	0
A315	1MOV4516	11 SG FW ISOL	FT	FTFW10	MV516T	0
A315	1MOV4517	12 SG FW ISOL	FT	FTFW20	MV517C	0
A315	1MOV4517	12 SG FW ISOL	FT	FTFW20	MV517T	0
1TB12-2	1SV5010	SGFP 11 TURB TRIP & RESET	FT	FTFW30	SV010D	0
1TB12-2	1SV5059	SGFP 12 TURB TRIP & RESET	FT	FTFW40	SV059D	0
1TB12-2	1CV3959B	11 FW SGFPT HP GOV VLV	FT	VT11HC	VT1HCO	0
1TB12-2	1CV3959B	11 FW SGFPT HP GOV VLV	FT	VT11HC	VT1HCT	0
1TB12-2	1CV3959A	11 FW SGFPT HP STOP VLV	FT	VT11HS	VT1HSO	0
1TB12-2	1CV3959A	11 FW SGFPT HP STOP VLV	FT	VT11HS	VT1HST	0
1TB12-2	1CV3961B	11 FW SGFPT LP GOV VLV	FT	VT11LC	VT1LCO	0
1TB12-2	1CV3961B	11 FW SGFPT LP GOV VLV	FT	VT11LC	VT1LCT	0
1TB12-2	1CV3961A	11 FW SGFPT LP STIP VLV	FT	VT11LS	VT1LSO	0
1TB12-2	1CV3961A	11 FW SGFPT LP STIP VLV	FT	VT11LS	VT1LST	0
1TB12-2	1CV3974B	12 FW SGFPT HP GOV VLV	FT	VT12HC	VT2HCO	0
1TB12-2	1CV3974B	12 FW SGFPT HP GOV VLV	FT	VT12HC	VT2HCT	0
1TB12-2	1CV3974A	12 FW SGFPT HP STOP VLV	FT	VT12HS	VT2HSO	0
1TB12-2	1CV3974A	12 FW SGFPT HP STOP VLV	FT	VT12HS	VT2HST	0
1TB12-2	1CV3980B	12 FW SGFPT LP GOV VLV	FT	VT12LC	VT2LCO	0
1TB12-2	1CV3980B	12 FW SGFPT LP GOV VLV	FT	VT12LC	VT2LCT	0
1TB12-2	1CV3980A	12 FW SGFPT LP STOP VLV	FT	VT12LS	VT2LSO	0
1TB12-2	1CV3980A	12 FW SGFPT LP STOP VLV	FT	VT12LS	VT2LST	0
1TB45-2	0CV5380A	11 HVAC CW SUPPLY SHUT OFF	HH	CV80AO	CV80AO	0
1TB45-2	0CV5380B	12 HVAC CW SUPPLY SHUT OFF	HH	CV80BO	CV80BO	0
1TB45-2	0I/P5386	0 HVAC/C CR HVAC UNITS 11 & 12 ISOL VLVS I/P	HH	HH1CSL	C386BT	0
1TB45-2	0CV5380A	11 HVAC CW SUPPLY SHUT OFF	HH	HH1CSL	CV80AP	0
1TB45-2	0I/P5386	0 HVAC/C CR HVAC UNITS 11 & 12 ISOL VLVS I/P	HH	HH1CSL	CV86AT	0
1TB45-2	0I/P5386	0 HVAC/C CR HVAC UNITS 11 & 12 ISOL VLVS I/P	HH	HH2CSL	C387BT	0
1TB45-2	0CV5380B	12 HVAC CW SUPPLY SHUT OFF	HH	HH2CSL	CV80BP	0
1TB45-2	0I/P5386	0 HVAC/C CR HVAC UNITS 11 & 12 ISOL VLVS I/P	HH	HH2CSL	CV87AT	0
1TB45-2	0YS5380A	11 HVAC CHLD WTR SUCT STRN	HH	HHCP1R	YS80AP	0
1TB45-2	0YS5380B	12 HVAC CHLD WTR SUCT STRN	HH	HHCP2R	YS80BP	0
1TB45-2	0I/P5386	0 HVAC/C CR HVAC UNITS 11 & 12 ISOL VLVS I/P	HH	HHCVIC	IZ386R	0
1TB12-4	1ACCIA11	11 IA COMPR RCVR	IP	IPIA99	TK11B	0
1TB12-1	1HOSE12-16	1 FP TURB BLDG TYPE C HOSE STA	K5	K5FIRE	K5FHSF	0
1TB27-2	1CV1105	11 SG FD REG VLV BYP	LF	C3105O	C3105O	0
1TB27-2	1I/P1105	STM GEN 11 FDWTR BY-PASS VALVE	LF	C3105O	C3105O	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB27-2	1CV1105	11 SG FD REG VLV BYP	LF	C3105P	C3105P	0
1TB27-2	1I/P1105	STM GEN 11 FDWTR BY-PASS VALVE	LF	C3105P	C3105P	0
1TB27-2	1CV1106	12 SG FD REG VALVE BYPASS	LF	C3106O	C3106O	0
1TB27-2	1I/P1106	STM GEN 12 FDWTR BY-PASS VALVE	LF	C3106O	C3106O	0
1TB27-2	1CV1106	12 SG FD REG VALVE BYPASS	LF	C3106P	C3106P	0
1TB27-2	1I/P1106	STM GEN 12 FDWTR BY-PASS VALVE	LF	C3106P	C3106P	0
1TB12-3 (CP)	1CV4406	CST TO HTWL M/U CV	LF	LFMUCV	C3406O	0
1TB12-3 (CP)	1I/P4406	COND STORAGE TO HOTWELL CONT	LF	LFMUCV	C3406O	0
1TB12-3 (CP)	1SV4406	CD STORAGE TO HOTWELL CONTROL SV	LF	LFMUCV	C3406O	0
1TB12-3 (CP)	1CV4406	CST TO HTWL M/U CV	LF	LFMUCV	C3406P	0
1TB12-3 (CP)	1I/P4406	COND STORAGE TO HOTWELL CONT	LF	LFMUCV	C3406P	0
1TB12-3 (CP)	1SV4406	CD STORAGE TO HOTWELL CONTROL SV	LF	LFMUCV	C3406P	0
1TB12-3 (CP)	1CV4405	HOTWELL TO COND STORAGE VLV	LF	LFMUCV	C3504T	0
1TB12-3 (CP)	1I/P4405	HOTWELL TO COND STORAGE CONT	LF	LFMUCV	C3504T	0
1TB12-3 (CP)	1LT4405	CD CONDENSER HOTWELL LT	LF	LFMUCV	LT405R	0
A315	1MOV4516	11 SG FW ISOL	LF	MNBYP1	MV516P	0
A315	1MOV4517	12 SG FW ISOL	LF	MNBYP2	MV417P	0
1TB27-2	1HXFWHPH16A	16A HP FEEDWATER HTR	LF	MNFW30	HX16AB	0
1TB27-2	1HXFWHPH16A	16A HP FEEDWATER HTR	LF	MNFW30	HX16AP	0
1TB27-2	1HXFWHPH16B	16B HP FEEDWATER HTR	LF	MNFW40	HX16BB	0
1TB27-2	1HXFWHPH16B	16B HP FEEDWATER HTR	LF	MNFW40	HX16BP	0
A315	1MOV4516	11 SG FW ISOL	LF	MV516O	MV516O	0
A315	1MOV4516	11 SG FW ISOL	LF	MV516P	MV516P	0
A315	1MOV4517	12 SG FW ISOL	LF	MV517O	MV517O	0
A315	1MOV4517	12 SG FW ISOL	LF	MV517P	MV517P	0
1TB12-2	1PY4483A	SGFP 12 LO SUCT PR TRIP	LF	RY83AT	RY83AT	0
A315	1MOV4517	12 SG FW ISOL	M1	MVM26Q	MVM26Q	0
A315	1MOV4052	MSIV 12 BYP VLV	M1	MVM28Q	MVM28Q	0
A315	1MOV4516	11 SG FW ISOL	M2	MVN26Q	MVN26Q	0
A315	1MOV4045	MSIV 11 BYP VLV	M2	MVN28Q	MVN28Q	0
1TB12-2 (CP)	1PNL1C51	11A AMERTAP CNTL PNL 1C51	M7	BUP23Q	BUP23Q	0
1TB12-2 (CP)	1PNL1C52	11B AMERTAP CNTL PNL 1C52	M7	BUP24Q	BUP24Q	0
1TB12-2 (CP)	1PNL1C53	12A AMERTAP CNTL PNL 1C53	M7	BUP25Q	BUP25Q	0
1TB12-4	1PUMPEHC11	11 MT EHC HYD UNIT PUMP (1MB216)	M7	MB216Q	MB216Q	0
1TB12-2 (CP)	1PUMPCAR12	12 CAR VAC PP (1MB217)	M7	MB217Q	MB217Q	0
1TB12-2 (CP)	1PUMPMSBD11	11 AUX BD TK PUMP (1M0671)	M7	MBP71Q	MBP71Q	0
1TB12-3 (CP)	1PUMPCDMTRLO11	11 CD PP LO CLR PP (1M0607)	M7	MMP07Q	MMP07Q	0
1TB12-2	1PUMPFPTLOMOP11A	11A SGFP MAIN OIL PUMP (1M0613)	M7	MMP13Q	MMP13Q	0
1TB12-2	1PUMPFPTLOMOP12A	12A SGFP MAIN OIL PUMP (1M0614)	M7	MMP14Q	MMP14Q	0
1TB12-2 (CP)	1PUMPCARSWP11	11 CAR SEAL WTR PUMP (1M0636)	M7	MMP36Q	MMP36Q	0
1TB12-2 (CP)	1PUMPCARSWP12	12 CAR SEAL WTR PUMP (1M0637)	M7	MMP37Q	MMP37Q	0
1TB12-2	1PUMPHDVLOP11A	11A HTR DRN PP LO CLR PP (1M0676)	M7	MMP76Q	MMP76Q	0
1TB12-2	1PUMPHDVLOP11B	11B HTR DRN PP LO CLR PP (1M0677)	M7	MMP77Q	MMP77Q	0
1TB12-3 (CP)	1MOV5225	11A COND'R INLET STRNR VLV	M7	MVP02Q	MVP02Q	0
1TB12-3 (CP)	1MOV5229	11B COND'R INLET STRNR VLV	M7	MVP03Q	MVP03Q	0
1TB12-3 (CP)	1MOV5233	12A COND'R INLET STRNR VLV	M7	MVP04Q	MVP04Q	0
1TB12-2	1MOV4652	14 STEAM LEAD DR	M7	MVP17Q	MVP17Q	0
1TB12-2	1MOV4651	12 STEAM LEAD DR	M7	MVP18Q	MVP18Q	0
1TB12-2	1MOV5090	11 SGFP LP STOP BELOW SEAT & CV CHEST DRN	M7	MVP28Q	MVP28Q	0
1TB12-4	1MOV4658	MN CONT VLVS BEFORE SEAT DRN	M7	MVP29Q	MVP29Q	0
1TB12-4	1MOV4659	1 GS MS SEAL SUPPLY MOV	M7	MVP30Q	MVP30Q	0
1TB12-4	1MOV4656	1 GS MS SEAL REG BYP MOV	M7	MVP31Q	MVP31Q	0
1TB12-4	1MOV4657	1 GS SEAL DUMP BYP MOV	M7	MVP32Q	MVP32Q	0
1TB12-2	1MOV5089	11 SGFP LP STOP ABOVE SEAT DRN	M7	MVP38Q	MVP38Q	0
1TB12-2	1MOV5088	11 SGFP HP STOP BELOW SEAT DRN	M7	MVP44Q	MVP44Q	0
1TB12-2	1MOV5087	11 SGFP HP STOP ABOVE SEAT DRN	M7	MVP46Q	MVP46Q	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-2	1MOV5091	1FW SG FD PP 1ST STG EXH DRN	M7	MVP49Q	MVP49Q	0
1TB12-4	1MOV4026	MS TO 11 MSR 2ND STG	M7	MVP51Q	MVP51Q	0
1TB12-2	1FANFPTLOCDTRE11	11 SGFP LO COND VAP EXT (1M0612)	M7	VAP12Q	VAP12Q	0
1TB12-2	1FANFPTLORESVE11	11 SGFP LO RESV VAPOR EXT (1M0615)	M7	VAP15Q	VAP15Q	0
1TB12-4	1FANGSPACK11	11 GLAND STEAM PACKING EXH (1M0633)	M7	VAP33Q	VAP33Q	0
1TB12-3 (CP)	1M0659	11 COND PP LUBE OIL COOLER FAN MTR (1M0659)	M7	VAP59Q	VAP59Q	0
1TB12-2	1FANHVACHDPS11	11 HTR DRN PUMP AREA CLR (1M0678)	M7	VAP78Q	VAP78Q	0
1TB12-2 (CP)	1RECEPTMCC116A	POWER RECEPT MCC116 (1W48, 1W49, 1W50, 1W51)	M8	BUQ05Q	BUQ05Q	0
1TB12-2 (CP)	1PNL1C54	12B AMERTAP CNTL PNL 1C54	M8	BUQ23Q	BUQ23Q	0
1TB12-2 (CP)	1PNL1C55	13A AMERTAP CNTL PNL 1C55	M8	BUQ24Q	BUQ24Q	0
1TB12-2 (CP)	1PNL1C56	13B AMERTAP CNTL PNL 1C56	M8	BUQ25Q	BUQ25Q	0
1TB12-4	1PUMPEHC12	12 MT EHC HYD UNIT PUMP (1MB316)	M8	MB316Q	MB316Q	0
1TB12-2 (CP)	1PUMPCAR14	14 CAR VAC PP (1MB317)	M8	MB317Q	MB317Q	0
1TB12-2	1PUMPFPTLOMOP11B	11B SGFP AUX OIL PUMP (1M1613)	M8	MBQ13Q	MBQ13Q	0
1TB12-2	1PUMPFPTLOMOP12B	12B SGFP AUX OIL PUMP (1M1614)	M8	MBQ14Q	MBQ14Q	0
1TB12-2 (CP)	1PUMPSMP11TB11	11 TURB BLDG SUMP 11 PP (1M1642)	M8	MBQ42Q	MBQ42Q	0
1TB12-2 (CP)	1PUMPSMP11TB12	11 TURB BLDG SUMP PP 12 (1M1643)	M8	MBQ43Q	MBQ43Q	0
1TB12-2 (CP)	1PUMPMSBD12	12 AUX BD TK PUMP (1M1656)	M8	MBQ56Q	MBQ56Q	0
1TB12-3 (CP)	1PUMPCDMTRLO12	12 CD PP LO CLR PP (1M1606)	M8	MMQ06Q	MMQ06Q	0
1TB12-3 (CP)	1PUMPCDMTRLO13	13 CD PP LO CLR PP (1M1607)	M8	MMQ07Q	MMQ07Q	0
1TB12-2 (CP)	1PUMPCARSWP13	13 CAR SEAL WTR PUMP (1M1636)	M8	MMQ36Q	MMQ36Q	0
1TB12-2 (CP)	1PUMPCARSWP14	14 CAR SEAL WTR PUMP (1M1637)	M8	MMQ37Q	MMQ37Q	0
1TB12-2	1PUMPHDVLOP12A	12A HTR DRN PP LO CLR PP (1M1676)	M8	MMQ76Q	MMQ76Q	0
1TB12-2	1PUMPHDVLOP12B	12B HTR DRN PP LO CLR PP (1M1677)	M8	MMQ77Q	MMQ77Q	0
1TB12-3 (CP)	1MOV5237	12B COND'R INLET STRNR VLV	M8	MVQ02Q	MVQ02Q	0
1TB12-3 (CP)	1MOV5241	13A COND'R STRNR INLET VLV	M8	MVQ03Q	MVQ03Q	0
1TB12-3 (CP)	1MOV5245	13B COND'R INLET STRNR VLV	M8	MVQ04Q	MVQ04Q	0
1TB12-2	1MOV5092	12 SGFP HP STOP ABOVE SEAT DRN	M8	MVQ28Q	MVQ28Q	0
1TB12-4	1MOV4022	11 MSR 2ND STG RHT SUPP DRN	M8	MVQ29Q	MVQ29Q	0
1TB12-4	1MOV4023	12 MSR 2ND STAGE RHT SUPP DRN	M8	MVQ30Q	MVQ30Q	0
1TB12-4	1MOV4678	AUX STM SEAL SUPPLY VLV	M8	MVQ31Q	MVQ31Q	0
1TB12-2	1MOV5094	12 SGFP LP STOP ABOVE SEAT DRN	M8	MVQ38Q	MVQ38Q	0
1TB12-2	1MOV5093	12 SGFP HP STOP BELOW SEAT DRN	M8	MVQ44Q	MVQ44Q	0
1TB12-2	1MOV5095	12 SGFP LP STOP BELOW SEAT & CV CHEST DRN	M8	MVQ46Q	MVQ46Q	0
1TB12-2	1MOV5096	12 SGFP 1ST STG EXH DRN	M8	MVQ49Q	MVQ49Q	0
1TB12-4	1MOV4025	MS TO 11 MSR 2ND STG	M8	MVQ51Q	MVQ51Q	0
1TB12-2	1FANFPTLOCDTRE12	12 SGFP LO COND FAN (1M1612)	M8	VAQ12Q	VAQ12Q	0
1TB12-2	1FANFPTLORESVE12	12 SGFP LO RESV VAPOR EXT (1M1615)	M8	VAQ15Q	VAQ15Q	0
1TB12-4	1M1633	12 STM PACKING EXH MTR (1M1633)	M8	VAQ33Q	VAQ33Q	0
1TB12-3 (CP)	1M1659	12 COND PP LUBE OIL COOLER FAN MTR (1M1659)	M8	VAQ59Q	VAQ59Q	0
1TB12-3 (CP)	1M1660	13 COND PP LUBE OIL COOLER FAN MTR (1M1660)	M8	VAQ60Q	VAQ60Q	0
1TB12-2	1M1678	12 HDV HTR DRN PP LUBE OIL CLR FAN 12 MTR (1M167	M8	VAQ78Q	VAQ78Q	0
1TB12-2	1PS4467	13 CD BOOSTER PP SUCTION LOW PS	MC	MCBP30	PS467R	0
1TB12-2	1PS4468	13 CD BOOSTER PP DISCHARGE LOW PS	MC	MCBP30	PS468D	0
1TB12-2	1PS4515	COND BOOSTER PUMP 13 PS	MC	MCBP30	PS515R	0
1TB12-4	1HXSTMSEALEXH11	11 CD STM SEAL EXH CNDSR	MC	MCCOMM	HXSSEB	0
1TB12-4	1HXSTMSEALEXH11	11 CD STM SEAL EXH CNDSR	MC	MCCOMM	HXSSEP	0
1TB12-1	1HXCDLPH13A	13A LP COND/FW HTR	MC	MCFH40	HX13AB	0
1TB12-1	1HXCDLPH13A	13A LP COND/FW HTR	MC	MCFH40	HX13AP	0
1TB27-2	1HXCDLPH14A	14A LP COND/FW HTR	MC	MCFH40	HX14AB	0
1TB27-2	1HXCDLPH14A	14A LP COND/FW HTR	MC	MCFH40	HX14AP	0
1TB45-2	1HXCDLPH15A	15A LP COND/FW HTR	MC	MCFH40	HX15AB	0
1TB45-2	1HXCDLPH15A	15A LP COND/FW HTR	MC	MCFH40	HX15AP	0
1TB12-1	1HXCDLPH13B	13B LP COND/FW HTR	MC	MCFH50	HX13BB	0
1TB12-1	1HXCDLPH13B	13B LP COND/FW HTR	MC	MCFH50	HX13BP	0
1TB27-2	1HXCDLPH14B	14B LP COND/FW HTR	MC	MCFH50	HX14BB	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB27-2	1HXCDLPH14B	14B LP COND/FW HTR	MC	MCFH50	HX14BP	0
1TB45-2	1HXCDLPH15B	15B LP COND/FW HTR	MC	MCFH50	HX15BB	0
1TB45-2	1HXCDLPH15B	15B LP COND/FW HTR	MC	MCFH50	HX15BP	0
1TB12-2	1TCV1621	13 CBP LO CLR TCV	MC	MCLO35	C7621P	0
1TB12-2	1HXCDBSTRLO13	13 CD BSTR PUMP LO CLR	MC	MCLO35	HXM13B	0
1TB12-2	1HXCDBSTRLO13	13 CD BSTR PUMP LO CLR	MC	MCLO35	HXM13P	0
1TB12-2	1HXCBP-SW-13A	CBP-13 SEAL WATER COOLER 13A	MC	MCLO35	HXS3AB	0
1TB12-2	1HXCBP-SW-13A	CBP-13 SEAL WATER COOLER 13A	MC	MCLO35	HXS3AP	0
1TB12-2	1HXCBP-SW-13B	CBP-13 SEAL WATER COOLER 13B	MC	MCLO35	HXS3BB	0
1TB12-2	1HXCBP-SW-13B	CBP-13 SEAL WATER COOLER 13B	MC	MCLO35	HXS3BP	0
1TB12-1	1FY4486	CD BOOSTER PP MINI FLOW CONTROL FY	MC	MCMN40	FY486R	0
1TB12-1	1FT4484	11 SGFP SUCT FLO XMTR	MC	MCMN51	FT484R	0
1TB12-1	1FY4484	11 FW SGFP SUCT FLO DEVICE	MC	MCMN51	FY484R	0
1TB12-2	1FT4485	12 FW SGFP SUCT FLO XMTR	MC	MCMN52	FT485R	0
1TB12-1	1FY4485	11 & 12 COND BSTR PP MINI FLO DEVICE	MC	MCMN52	FY485R	0
1TB12-2	1HXCDPPLOCLR11	11 CD PP LO CLR	MC	MCPP10	HXL11B	0
1TB12-2	1HXCDPPLOCLR11	11 CD PP LO CLR	MC	MCPP10	HXL11P	0
1TB12-3 (CP)	1YS4414	COND PMP MOTOR 11 OIL STRAINER	MC	MCPP10	YS414P	0
1TB12-2	1HXCDPPLOCLR12	12 CD PP LO CLR	MC	MCPP20	HXL12B	0
1TB12-2	1HXCDPPLOCLR12	12 CD PP LO CLR	MC	MCPP20	HXL12P	0
1TB12-3 (CP)	1YS4421	COND PMP MOTOR 12 OIL STRAINER	MC	MCPP20	YS421P	0
1TB12-2	1HXCDPPLOCLR13	13 CD PP LO CLR	MC	MCPP30	HXL13B	0
1TB12-2	1HXCDPPLOCLR13	13 CD PP LO CLR	MC	MCPP30	HXL13P	0
1TB12-3 (CP)	1YS4428	COND PMP MOTOR 13 OIL STRAINER	MC	MCPP30	YS428P	0
1TB12-3 (CP)	1PUMPCDMTRLO11	11 CD PP LO CLR PP (1M0607)	MC	MML11R	MML11R	0
1TB12-3 (CP)	1PUMPCDMTRLO12	12 CD PP LO CLR PP (1M1606)	MC	MML12R	MML12R	0
1TB12-3 (CP)	1PUMPCDMTRLO13	13 CD PP LO CLR PP (1M1607)	MC	MML13R	MML13R	0
1TB12-2	1PUMPCBP13	CD CBP 13 (1MA304)	MC	MYB13R	MYB13R	0
1TB12-2	1PUMPCBP13	CD CBP 13 (1MA304)	MC	MYB13S	MYB13S	0
1TB12-3 (CP)	1PUMPCD11	11 CONDENSATE PUMP (1MA207)	MC	MYC11R	MYC11R	0
1TB12-3 (CP)	1PUMPCD12	12 CONDENSATE PUMP (1MA307)	MC	MYC12R	MYC12R	0
1TB12-3 (CP)	1PUMPCD13	13 CONDENSATE PUMP (1MA308)	MC	MYC13R	MYC13R	0
A315	1PCV4415	COND PP 11 SEAL WTR REG	MC	PC415R	PC415R	0
A315	1PCV4422	COND PP 12 SEAL WTR REG	MC	PC422R	PC422R	0
A315	1PCV4506	COND PP 13 SEAL WTR REG	MC	PC506R	PC506R	0
1TB12-2	1TE1621	13 CD CBP LUBE OIL CLR OUT TE	MC	TE621R	TE621R	0
1TB12-3 (CP)	1M0659	11 COND PP LUBE OIL COOLER FAN MTR (1M0659)	MC	VAL11R	VAL11R	0
1TB12-3 (CP)	1M1659	12 COND PP LUBE OIL COOLER FAN MTR (1M1659)	MC	VAL12R	VAL12R	0
1TB12-3 (CP)	1M1660	13 COND PP LUBE OIL COOLER FAN MTR (1M1660)	MC	VAL13R	VAL13R	0
A315	1CV4070	11 S/G MS TO AFW PP TURB	MH	BHEF1I	Open	12
A315	1CV4071	12 S/G MS TO AFW PP TURB	MH	BHEF1I	Open	12
1TB27-2	1CV1105	11 SG FD REG VLV BYP	MN	C3105O	C3105O	0
1TB27-2	1I/P1105	STM GEN 11 FDWTR BY-PASS VALVE	MN	C3105O	C3105O	0
1TB27-2	1CV1105	11 SG FD REG VLV BYP	MN	C3105P	C3105P	0
1TB27-2	1I/P1105	STM GEN 11 FDWTR BY-PASS VALVE	MN	C3105P	C3105P	0
1TB27-2	1CV1106	12 SG FD REG VALVE BYPASS	MN	C3106O	C3106O	0
1TB27-2	1I/P1106	STM GEN 12 FDWTR BY-PASS VALVE	MN	C3106O	C3106O	0
1TB27-2	1CV1106	12 SG FD REG VALVE BYPASS	MN	C3106P	C3106P	0
1TB27-2	1I/P1106	STM GEN 12 FDWTR BY-PASS VALVE	MN	C3106P	C3106P	0
1TB12-2	1CV4484	11 SGFP MINI FLOW	MN	CV484O	CV484O	0
1TB12-2	1FY4484A	SGFP 11 MIN FLOW CONTROL	MN	CV484O	CV484O	0
1TB12-2	1FY4484B	SGFP 11 MIN FLOW CONTROL	MN	CV484O	CV484O	0
1TB12-2	1FY4484C	SG FEED PUMP 11 MIN FLOW CONTROL	MN	CV484O	CV484O	0
1TB12-2	1I/P4484	STEAM GENERATOR FEED PUMP 11 MINIFLOW	MN	CV484O	CV484O	0
1TB12-2	1PCV4484A	A/S 11 SGFP MINFLW CV POSIT	MN	CV484O	CV484O	0
1TB12-2	1PCV4484B	A/S 11 SGFP MINFLW CLOSE SV	MN	CV484O	CV484O	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-2	1PCV4484C	A/S 11 SGFP MINFLW SNP RY	MN	CV484O	CV484O	0
1TB12-2	1PCV4484D	A/S 11 SGFP MINFLW CONT	MN	CV484O	CV484O	0
1TB12-2	1SV4484	SGFP 11 TURB TRIP & RESET	MN	CV484O	CV484O	0
1TB12-2	1CV4485	12 SGFP MINI FLOW	MN	CV485O	CV485O	0
1TB12-2	1FY4485A	SGFP 12 MIN FLOW CONTROL	MN	CV485O	CV485O	0
1TB12-2	1FY4485B	SGFP 12 MIN FLOW CONTROL	MN	CV485O	CV485O	0
1TB12-2	1FY4485C	SG FEED PUMP 12 MIN FLO CONTROL	MN	CV485O	CV485O	0
1TB12-2	1I/P4485	STEAM GENERATOR FEED PUMP 12 MINIFLOW	MN	CV485O	CV485O	0
1TB12-2	1PCV4485A	A/S 12 SGFP MINFLW CV POSIT	MN	CV485O	CV485O	0
1TB12-2	1PCV4485B	A/S 12 SGFP MINFLW CLOSE SV	MN	CV485O	CV485O	0
1TB12-2	1PCV4485C	A/S 12 SGFP MINFLW SNP RY	MN	CV485O	CV485O	0
1TB12-2	1PCV4485D	A/S 12 SGFP MINFLW CONT	MN	CV485O	CV485O	0
1TB12-2	1SV4485	SGFP 12 TURB TRIP & RESET	MN	CV485O	CV485O	0
1TB12-2	1PUMPFPTLOMOP11B	11B SGFP AUX OIL PUMP (1M1613)	MN	MB11BR	MB11BR	0
1TB12-2	1PUMPFPTLOMOP11B	11B SGFP AUX OIL PUMP (1M1613)	MN	MB11BS	MB11BS	0
1TB12-2	1PUMPFPTLOMOP12B	12B SGFP AUX OIL PUMP (1M1614)	MN	MB12BR	MB12BR	0
1TB12-2	1PUMPFPTLOMOP12B	12B SGFP AUX OIL PUMP (1M1614)	MN	MB12BS	MB12BS	0
1TB12-2	1PUMPFPTLOMOP11A	11A SGFP MAIN OIL PUMP (1M0613)	MN	MM11AR	MM11AR	0
1TB12-2	1PUMPFPTLOMOP12A	12A SGFP MAIN OIL PUMP (1M0614)	MN	MM12AR	MM12AR	0
1TB12-4	1PUMPCDSGFPBSTR12	12 CD SGFP SEAL WTR BSTR PP (1M0152)	MN	MML12R	MML12R	0
1TB12-4	1PUMPCDSGFPBSTR12	12 CD SGFP SEAL WTR BSTR PP (1M0152)	MN	MML12S	MML12S	0
1TB12-2	1PUMPFW11	11 STM GEN FEED PUMP (1M0121)	MN	MN011R	MN011R	0
1TB12-2	1PUMPFW12	12 STM GEN FEED PUMP (1M0161)	MN	MN012R	MN012R	0
A315	1MOV4516	11 SG FW ISOL	MN	MNBYP1	MV516P	0
A315	1MOV4517	12 SG FW ISOL	MN	MNBYP2	MV517P	0
1TB27-2	1HXFWHPH16A	16A HP FEEDWATER HTR	MN	MNFW30	HX16AB	0
1TB27-2	1HXFWHPH16A	16A HP FEEDWATER HTR	MN	MNFW30	HX16AP	0
1TB27-2	1HXFWHPH16B	16B HP FEEDWATER HTR	MN	MNFW40	HX16BB	0
1TB27-2	1HXFWHPH16B	16B HP FEEDWATER HTR	MN	MNFW40	HX16BP	0
1TB12-2	1CV3959B	11 FW SGFPT HP GOV VLV	MN	MNFW52	VT1HCP	0
1TB12-2	1CV3959A	11 FW SGFPT HP STOP VLV	MN	MNFW52	VT1HSP	0
1TB12-2	1CV3961B	11 FW SGFPT LP GOV VLV	MN	MNFW53	VT1LCP	0
1TB12-2	1CV3961A	11 FW SGFPT LP STIP VLV	MN	MNFW53	VT1LSP	0
1TB12-2	1LS4705	11 GS GEN FEED PP TURBINE CASING HIGH LS	MN	MNFW54	LS705R	0
1TB12-2	1PS5002	BRG OIL HDR PS TO LOW PRESS TURB TRIPS	MN	MNFW54	PS002R	0
1TB12-2	1PS5025	11 FW SGFPT ACTIVE FRNT BTHR BRG PS	MN	MNFW54	PS025R	0
1TB12-2	1PS5027	11 FW SGFPT INACTIVE REAR THR BRG PS	MN	MNFW54	PS027R	0
1TB12-2	1SV5010	SGFP 11 TURB TRIP & RESET	MN	MNFW54	SV010T	0
1TB12-2	1CV4704	SGFP 11 PP SIDE SEAL BACK PRESS CV	MN	MNFW57	C7704P	0
1TB12-2	1CV4704	SGFP 11 PP SIDE SEAL BACK PRESS CV	MN	MNFW57	C7704T	0
1TB12-2	1CV4707	SGFP 11 TURB SIDE SEAL BACK PRESS CV	MN	MNFW57	C7707P	0
1TB12-2	1CV4707	SGFP 11 TURB SIDE SEAL BACK PRESS CV	MN	MNFW57	C7707T	0
1TB12-2	1CV4702	11 SGFP INJECT SEAL WTR CV	MN	MNFW57	CV702P	0
1TB12-2	1CV4705	11 SGFP INJECT SEAL WTR CV	MN	MNFW57	CV705P	0
1TB12-2	1PDC4702	11 CD SGFP INJECTION PDC	MN	MNFW57	PC702R	0
1TB12-2	1PC4704	11 FW SGFP INJECTION DISCHARGE PC	MN	MNFW57	PC704R	0
1TB12-2	1PDC4705	11 CD SGFP INJECTION PDC	MN	MNFW57	PC705R	0
1TB12-2	1PC4707	11 FW SGFP INJECTION DISCHARGE PC	MN	MNFW57	PC707R	0
1TB12-2	1CV4704OP	SGFP 11 PP SIDE SEAL BACK PRESS CV OPER	MN	MNFW57	PX704R	0
1TB12-2	1CV4707OP	SGFP 11 TURB SIDE SEAL BACK PRESS CV OPER	MN	MNFW57	PX707R	0
1TB12-2	1HXFPTLO-11	SGFP TURB LUBE OIL COOLER 11	MN	MNFW58	HX011B	0
1TB12-2	1HXFPTLO-11	SGFP TURB LUBE OIL COOLER 11	MN	MNFW58	HX011P	0
1TB12-2	1CV4484	11 SGFP MINI FLOW	MN	MNFW59	CV484P	0
1TB12-2	1FY4484A	SGFP 11 MIN FLOW CONTROL	MN	MNFW59	CV484P	0
1TB12-2	1FY4484B	SGFP 11 MIN FLOW CONTROL	MN	MNFW59	CV484P	0
1TB12-2	1FY4484C	SG FEED PUMP 11 MIN FLOW CONTROL	MN	MNFW59	CV484P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-2	1I/P4484	STEAM GENERATOR FEED PUMP 11 MINIFLOW	MN	MNFW59	CV484P	0
1TB12-2	1PCV4484A	A/S 11 SGFP MINFLW CV POSIT	MN	MNFW59	CV484P	0
1TB12-2	1PCV4484B	A/S 11 SGFP MINFLW CLOSE SV	MN	MNFW59	CV484P	0
1TB12-2	1PCV4484C	A/S 11 SGFP MINFLW SNP RY	MN	MNFW59	CV484P	0
1TB12-2	1PCV4484D	A/S 11 SGFP MINFLW CONT	MN	MNFW59	CV484P	0
1TB12-2	1SV4484	SGFP 11 TURB TRIP & RESET	MN	MNFW59	CV484P	0
1TB12-1	1FT4484A	11 FW SGFP MINI FLO XMTR	MN	MNFW59	FT84AR	0
1TB12-2	1CV3974B	12 FW SGFPT HP GOV VLV	MN	MNFW62	VT2HCP	0
1TB12-2	1CV3974A	12 FW SGFPT HP STOP VLV	MN	MNFW62	VT2HSP	0
1TB12-2	1CV3980B	12 FW SGFPT LP GOV VLV	MN	MNFW63	VT2LCP	0
1TB12-2	1CV3980A	12 FW SGFPT LP STOP VLV	MN	MNFW63	VT2LSP	0
1TB12-2	1LS4711	12 GS GEN FEED PP TURBINE CASING LS	MN	MNFW64	LS711R	0
1TB12-2	1PS5051	LOW BRG OIL PRESS TURB TRIP PS	MN	MNFW64	PS051R	0
1TB12-2	1PS5074	12 FW SGFPT ACTIVE FRNT THR BRG PS	MN	MNFW64	PS074R	0
1TB12-2	1PS5076	12 FW SGFPT INVACTIVE THR BRG PS	MN	MNFW64	PS076R	0
1TB12-2	1SV5059	SGFP 12 TURB TRIP & RESET	MN	MNFW64	SV059T	0
1TB12-2	1CV4710	12 SGFP SEAL DRN REG	MN	MNFW67	C7710P	0
1TB12-2	1CV4710	12 SGFP SEAL DRN REG	MN	MNFW67	C7710T	0
1TB12-2	1CV4713	12 SGFP SEAL DRN REG	MN	MNFW67	C7713P	0
1TB12-2	1CV4713	12 SGFP SEAL DRN REG	MN	MNFW67	C7713T	0
1TB12-2	1CV4708	12 SGFP INJECT SEAL WTR CV	MN	MNFW67	CV708P	0
1TB12-2	1CV4711	12 SGFP INJECT SEAL WTR CV	MN	MNFW67	CV711P	0
1TB12-2	1PDC4708	12 CD SGFP INJECTION PDC	MN	MNFW67	PC708R	0
1TB12-2	1PC4710	12 FW SEAL WTR DISCHARGE PC	MN	MNFW67	PC710R	0
1TB12-2	1PDC4711	12 CD SGFP INJECTION PDC	MN	MNFW67	PC711R	0
1TB12-2	1PC4713	12 FW SGFP SEAL WTR DISCHARGE PC	MN	MNFW67	PC713R	0
1TB12-2	1CV4710OP	12 SGFP SEAL DRN REG OPER	MN	MNFW67	PX710R	0
1TB12-2	1CV4713OP	12 SGFP SEAL DRN REG OPER	MN	MNFW67	PX713R	0
1TB12-2	1HXFPTLO-12	SGFP TURB LUBE OIL COOLER 12	MN	MNFW68	HX012B	0
1TB12-2	1HXFPTLO-12	SGFP TURB LUBE OIL COOLER 12	MN	MNFW68	HX012P	0
1TB12-2	1CV4485	12 SGFP MINI FLOW	MN	MNFW69	CV485P	0
1TB12-2	1FY4485A	SGFP 12 MIN FLOW CONTROL	MN	MNFW69	CV485P	0
1TB12-2	1FY4485B	SGFP 12 MIN FLOW CONTROL	MN	MNFW69	CV485P	0
1TB12-2	1FY4485C	SG FEED PUMP 12 MIN FLO CONTROL	MN	MNFW69	CV485P	0
1TB12-2	1I/P4485	STEAM GENERATOR FEED PUMP 12 MINIFLOW	MN	MNFW69	CV485P	0
1TB12-2	1PCV4485A	A/S 12 SGFP MINFLW CV POSIT	MN	MNFW69	CV485P	0
1TB12-2	1PCV4485B	A/S 12 SGFP MINFLW CLOSE SV	MN	MNFW69	CV485P	0
1TB12-2	1PCV4485C	A/S 12 SGFP MINFLW SNP RY	MN	MNFW69	CV485P	0
1TB12-2	1PCV4485D	A/S 12 SGFP MINFLW CONT	MN	MNFW69	CV485P	0
1TB12-2	1SV4485	SGFP 12 TURB TRIP & RESET	MN	MNFW69	CV485P	0
1TB12-1	1FT4485A	12 FW SGFP MINI FLO XMTR	MN	MNFW69	FT85AR	0
1TB12-2	1CV1622	11 SGFP LUBE OIL TEMP CV	MN	MNSRW1	CT622P	0
1TB12-2	1TIC1622	LUBE OIL TEMPERATURE CONTROL	MN	MNSRW1	CT622P	0
1TB12-2	1CV1622	11 SGFP LUBE OIL TEMP CV	MN	MNSRW1	CT622R	0
1TB12-2	1TIC1622	LUBE OIL TEMPERATURE CONTROL	MN	MNSRW1	CT622R	0
1TB12-2	1CV1623	12 SGFP LUBE OIL TEMP CV	MN	MNSRW2	CT623P	0
1TB12-2	1TIC1623	LUBE OIL TEMPERATURE CONTROL	MN	MNSRW2	CT623P	0
1TB12-2	1CV1623	12 SGFP LUBE OIL TEMP CV	MN	MNSRW2	CT623R	0
1TB12-2	1TIC1623	LUBE OIL TEMPERATURE CONTROL	MN	MNSRW2	CT623R	0
1TB12-2	1PS5042A	12 FW SGFP AUX OIL PP PS	MN	PS42AD	PS42AD	0
1TB12-2	1PS4482	11 & 12 SGFP SUCT LO PS	MN	PS482R	PS482R	0
1TB12-2	1PS4483	11 & 12 SGFP SUCT LO PS	MN	PS483R	PS483R	0
1TB12-4	1PS4487	CD SGFP SEAL WATER BOOSTER PPS DISCHARGE PS	MN	PS487D	PS487D	0
1TB12-2	1PS4490	11 FW SGFP DISCH PS	MN	PS490R	PS490R	0
1TB12-2	1PS4491	11 FW SGFP DISCH PS	MN	PS491R	PS491R	0
1TB12-2	1PS4495	12 FW SGFP DISCH PS	MN	PS495R	PS495R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-2	1PS4496	12 FW SGFP DISCH PS	MN	PS496R	PS496R	0
1TB12-2	1PS4992A	11 FW SGFP AUX OIL PUMP PS	MN	PS92AD	PS92AD	0
1TB12-2	1PY4482	SGFP 11 TURB TRIP & RESET	MN	RY482T	RY482T	0
1TB12-2	1PY4483	SGFP 11 TURB TRIP & RESET	MN	RY483T	RY483T	0
1TB12-2	1PY4482A	SGFP 12 LO SUCT PR ALARM	MN	RY82AT	RY82AT	0
1TB12-2	1PY4483A	SGFP 12 LO SUCT PR TRIP	MN	RY83AT	RY83AT	0
1TB12-2	1AY4483A	SGFP 12 LO SUCT PR TRIP	MN	RYA3AT	RYA3AT	0
1TB12-2	1AY4483	SGFP 11 TRIP & RESET	MN	RYA83T	RYA83T	0
1TB12-2	1CV3959B	11 FW SGFPT HP GOV VLV	MN	VT1HCO	VT1HCO	0
1TB12-2	1CV3961B	11 FW SGFPT LP GOV VLV	MN	VT1LCO	VT1LCO	0
1TB12-2	1CV3974B	12 FW SGFPT HP GOV VLV	MN	VT2HCO	VT2HCO	0
1TB12-2	1CV3980B	12 FW SGFPT LP GOV VLV	MN	VT2LCO	VT2LCO	0
1TB27-2	1CV1111	11 SG FD REG VLV	MP	MP11RV	CF111C	0
1TB27-2	1CV1111A	1CV1111 ACTUATOR CONTROL	MP	MP11RV	CF111C	0
1TB27-2	1CV1111B	1CV1111 ACTUATOR CONTROL	MP	MP11RV	CF111C	0
1TB27-2	1I/P1111	STM GEN 11 FDWTR CONTROL VALVE	MP	MP11RV	CF111C	0
1TB27-2	1SV1111	11 FRV AIR TO VALVE POSITIONER SV	MP	MP11RV	CF111C	0
1TB27-2	1CV1111	11 SG FD REG VLV	MP	MP11RV	CF111T	0
1TB27-2	1CV1111A	1CV1111 ACTUATOR CONTROL	MP	MP11RV	CF111T	0
1TB27-2	1CV1111B	1CV1111 ACTUATOR CONTROL	MP	MP11RV	CF111T	0
1TB27-2	1I/P1111	STM GEN 11 FDWTR CONTROL VALVE	MP	MP11RV	CF111T	0
1TB27-2	1SV1111	11 FRV AIR TO VALVE POSITIONER SV	MP	MP11RV	CF111T	0
1TB27-2	1CV1121	12 SG FD REG VLV	MP	MP12RV	CF121C	0
1TB27-2	1CV1121A	1CV1121 ACTUATOR CONTROL	MP	MP12RV	CF121C	0
1TB27-2	1CV1121B	1CV1121 ACTUATOR CONTROL	MP	MP12RV	CF121C	0
1TB27-2	1I/P1111	STM GEN 11 FDWTR CONTROL VALVE	MP	MP12RV	CF121C	0
1TB27-2	1SV1121	12 FRV AIR TO VALVE POSITIONER SV	MP	MP12RV	CF121C	0
1TB27-2	1CV1121	12 SG FD REG VLV	MP	MP12RV	CF121T	0
1TB27-2	1CV1121A	1CV1121 ACTUATOR CONTROL	MP	MP12RV	CF121T	0
1TB27-2	1CV1121B	1CV1121 ACTUATOR CONTROL	MP	MP12RV	CF121T	0
1TB27-2	1I/P1111	STM GEN 11 FDWTR CONTROL VALVE	MP	MP12RV	CF121T	0
1TB27-2	1SV1121	12 FRV AIR TO VALVE POSITIONER SV	MP	MP12RV	CF121T	0
A315	1CV4043	MSIV 11	MS	MT043C	MT043C	0
A315	1CV4048	MSIV 12	MS	MT048C	MT048C	0
1TB12-2	1PUMPFW11	11 STM GEN FEED PUMP (1M0121)	MT	BHEMT1	Trips	0
1TB12-2	1PUMPFW12	12 STM GEN FEED PUMP (1M0161)	MT	BHEMT1	Trips	0
1TB12-4	1COMPIA11	11 IA COMPR (1MB118)	N2	CM118Q	CM118Q	0
1TB12-4	1COMPPA11	11 PA COMPR (1MB123)	N2	CM123Q	CM123Q	0
1TB12-4	1COMPIA12	12 IA COMPR (1MB418)	N4	CM418Q	CM418Q	0
1TB12-4	1TCV1634	12 I/A COMPR TEMP REG VLV	NR	C7S34O	C7S34O	0
1TB12-4	1COMPIA11	11 IA COMPR (1MB118)	NR	CM011R	CM011R	0
1TB12-4	1COMPIA11	11 IA COMPR (1MB118)	NR	CM011S	CM011S	0
1TB12-4	1COMPIA12	12 IA COMPR (1MB418)	NR	CM012R	CM012R	0
1TB12-4	1COMPIA12	12 IA COMPR (1MB418)	NR	CM012S	CM012S	0
1TB12-4	1COMPIA11	11 IA COMPR (1MB118)	NR	CMP11R	CMP11R	0
1TB12-4	1ACCIA11	11 IA COMPR RCVR	NR	IPIA99	TKA11B	0
1TB12-4	1SV1633	12 I/A COMPR A/CLR SRW INLET	NR	IVS33D	IVS33D	0
1TB12-4	1SV1634	12 I/A COMPR SRW INLET	NR	IVS34D	IVS34D	0
1TB12-4	1TCV1630	11 I/A COMPR TEMP REG VLV	NR	NRIA11	C7630P	0
1TB12-4	1MUFFIAFILT11	11 IA COMPR FILTER SILENCER	NR	NRIA11	FL011P	0
1TB12-4	1HXIAA/CLR11	11 IA COMPR AFTER COOLER	NR	NRIA11	HXA11P	0
1TB12-4	1HXIAI/CLR11	11 IA COMPR INTER COOLER	NR	NRIA11	HXI11B	0
1TB12-4	1HXIAI/CLR11	11 IA COMPR INTER COOLER	NR	NRIA11	HXI11P	0
1TB12-4	1HXIAA/CLR11	11 IA COMPR AFTER COOLER	NR	NRIA11	HXIA1P	0
1TB12-4	1HXIAI/CLR12	12 IA COMPR INTER COOLER	NR	NRIA11	HXII1P	0
1TB12-4	1SV2062	COMPR LOAD SV	NR	NRIA11	IV062D	0

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1TB12-4	1SV2062	COMPR LOAD SV	NR	NRIA11	IV062T	0
1TB12-4	1SV1629	11 I/A COMPR A/CLR SRW INLET	NR	NRIA11	IV629T	0
1TB12-4	1SV1630	11 I/A COMPR SRW INLET	NR	NRIA11	IV630T	0
1TB12-4	1PS2062	11 IA COMPR UNLOADER CONTR PS	NR	NRIA11	PS062R	0
1TB12-4	1PS2063	11 IA COMPR OIL PS LOW	NR	NRIA11	PS063R	0
1TB12-4	1TE1630	11 SRW IA COMPR OUT TE	NR	NRIA11	TE630R	0
1TB12-4	1TS2063	11 IA COMPR A/CLR OUT TS HI	NR	NRIA11	TS063R	0
1TB12-4	1TS2082	11 IA COMPR I/CLR OUT TS	NR	NRIA11	TS082R	0
1TB12-4	1TCV1634	12 I/A COMPR TEMP REG VLV	NR	NRIA12	C7S34P	0
1TB12-4	1MUFFIAFILT12	12 IA COMPR FILTER SILENCER	NR	NRIA12	FLS12P	0
1TB12-4	1HXIAA/CLR12	12 IA COMPR AFTER COOLER	NR	NRIA12	HXAS2P	0
1TB12-4	1HXIAI/CLR12	12 IA COMPR INTER COOLER	NR	NRIA12	HXIS2B	0
1TB12-4	1HXIAI/CLR12	12 IA COMPR INTER COOLER	NR	NRIA12	HXIS2P	0
1TB12-4	1SV2064	12 IA COMPR LOADING SV	NR	NRIA12	IV064D	0
1TB12-4	1SV2064	12 IA COMPR LOADING SV	NR	NRIA12	IV064T	0
1TB12-4	1SV1633	12 I/A COMPR A/CLR SRW INLET	NR	NRIA12	IVS33T	0
1TB12-4	1SV1634	12 I/A COMPR SRW INLET	NR	NRIA12	IVS34T	0
1TB12-4	1PS2064	12 IA COMPR UNLOADER CONTR PS	NR	NRIA12	PS064R	0
1TB12-4	1PS2067	12 IA RCVR 11 TO COMPR 11 CONTR PS	NR	NRIA12	PS067R	0
1TB12-4	1PS2065	12 IA COMPR OIL PS LOW	NR	NRIA12	PSS65R	0
1TB12-4	1TE1634	12 SRW IA COMPR OUT TE	NR	NRIA12	TES34R	0
1TB12-4	1TS2065	12 IA COMPR A/CLR OUT TS HI	NR	NRIA12	TSS65R	0
1TB12-4	1TS2084	12 IA COMPR I/CLR OUT TS	NR	NRIA12	TSS84R	0
1TB12-4	1HXIAA/CLR11	11 IA COMPR AFTER COOLER	NR	NRIA99	HXA11B	0
1TB12-4	1HXIAA/CLR12	12 IA COMPR AFTER COOLER	NR	NRIA99	HXAS2B	0
1TB12-4	1ACCIA11	11 IA COMPR RCVR	NR	NRIA99	TK011B	0
1TB12-4	1ACCIA12	12 IA COMPR RCVR	NR	NRIA99	TK012B	0
1TB12-2	1DRYIA12	12 IA COMP AIR DRYER	NR	NRIAHD	AD12AP	0
1TB12-2	1DRYIA12	12 IA COMP AIR DRYER	NR	NRIAHD	AD12BP	0
1TB12-2	1CV2001	12 IA DRYER TOWER 12A INL CV	NR	NRIAHD	C0001P	0
1TB12-2	1CV2001A	12 IA DRYER TOWER 12A INL CV	NR	NRIAHD	C0001P	0
1TB12-2	1SV2001	INST AIR DRYER 12A TOWER INLET	NR	NRIAHD	C0001P	0
1TB12-2	1CV2001	12 IA DRYER TOWER 12A INL CV	NR	NRIAHD	C0001R	0
1TB12-2	1CV2001A	12 IA DRYER TOWER 12A INL CV	NR	NRIAHD	C0001R	0
1TB12-2	1SV2001	INST AIR DRYER 12A TOWER INLET	NR	NRIAHD	C0001R	0
1TB12-2	1CV2001	12 IA DRYER TOWER 12A INL CV	NR	NRIAHD	C0001T	0
1TB12-2	1CV2001A	12 IA DRYER TOWER 12A INL CV	NR	NRIAHD	C0001T	0
1TB12-2	1SV2001	INST AIR DRYER 12A TOWER INLET	NR	NRIAHD	C0001T	0
1TB12-2	1CV2002	12 IA DRYER TOWER 12B INL CV	NR	NRIAHD	C0002P	0
1TB12-2	1CV2002A	12 IA DRYER TOWER 12B INL CV	NR	NRIAHD	C0002P	0
1TB12-2	1SV2002	INST AIR DRYER 12B TOWER INLET	NR	NRIAHD	C0002P	0
1TB12-2	1CV2002	12 IA DRYER TOWER 12B INL CV	NR	NRIAHD	C0002R	0
1TB12-2	1CV2002A	12 IA DRYER TOWER 12B INL CV	NR	NRIAHD	C0002R	0
1TB12-2	1SV2002	INST AIR DRYER 12B TOWER INLET	NR	NRIAHD	C0002R	0
1TB12-2	1CV2002	12 IA DRYER TOWER 12B INL CV	NR	NRIAHD	C0002T	0
1TB12-2	1CV2002A	12 IA DRYER TOWER 12B INL CV	NR	NRIAHD	C0002T	0
1TB12-2	1SV2002	INST AIR DRYER 12B TOWER INLET	NR	NRIAHD	C0002T	0
1TB12-2	1CV2003	12 IA DRYER TOWER 12A PURGE CV	NR	NRIAHD	C0003R	0
1TB12-2	1CV2003A	12 IA DRYER TOWER 12A PURGE CV	NR	NRIAHD	C0003R	0
1TB12-2	1SV2003	INST AIR DRYER 12A TOWER PURGE	NR	NRIAHD	C0003R	0
1TB12-2	1CV2003	12 IA DRYER TOWER 12A PURGE CV	NR	NRIAHD	C0003T	0
1TB12-2	1CV2003A	12 IA DRYER TOWER 12A PURGE CV	NR	NRIAHD	C0003T	0
1TB12-2	1SV2003	INST AIR DRYER 12A TOWER PURGE	NR	NRIAHD	C0003T	0
1TB12-2	1CV2004	12 IA DRYER TOWER 12B PURGE CV	NR	NRIAHD	C0004R	0
1TB12-2	1CV2004A	12 IA DRYER TOWER 12B PURGE CV	NR	NRIAHD	C0004R	0
1TB12-2	1SV2004	INST AIR DRYER 12B TOWER PURGE	NR	NRIAHD	C0004R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-2	1CV2004	12 IA DRYER TOWER 12B PURGE CV	NR	NRIAHD	C0004T	0
1TB12-2	1CV2004A	12 IA DRYER TOWER 12B PURGE CV	NR	NRIAHD	C0004T	0
1TB12-2	1SV2004	INST AIR DRYER 12B TOWER PURGE	NR	NRIAHD	C0004T	0
1TB12-4	1NP1113B	IA DRYER 12 LOCAL CONTROL PNL	NR	NRIAHD	COD12R	0
1TB12-4	1FU1NP113B/FU3	12 IA DRYER CONTR CKT FU	NR	NRIAHD	FUC12R	0
1TB12-2	1HS2004	12 IA DRYER HS	NR	NRIAHD	HS004T	0
1TB12-4	1PCV2003	IA DRYER 12 PILOT REG PCV	NR	NRIAHD	PC003R	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	NR	NRPA01	HXAP1B	0
1TB12-4	1ACCPA11	11 PA COMPR RCVR	NR	NRPA01	TKP11B	0
1TB12-4	1TCV1636	11 P/A COMPR TEMP REG VLV	NR	NRPA11	C7636P	0
1TB12-4	1MUFFPAFILT11	11 PA COMPR FILTER SILENCER	NR	NRPA11	FLP11P	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	NR	NRPA11	HXAP1P	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	NR	NRPA11	HXPA1P	0
1TB12-4	1HXPAI/CLR11	11 PA COMPR INTER COOLER	NR	NRPA11	HXPI1B	0
1TB12-4	1HXPAI/CLR11	11 PA COMPR INTER COOLER	NR	NRPA11	HXPI1P	0
1TB12-4	1SV2054	11 PA COMPR LOADING SV	NR	NRPA11	IV154D	0
1TB12-4	1SV2054	11 PA COMPR LOADING SV	NR	NRPA11	IV154T	0
1TB12-4	1SV1635	11 P/A COMPR A/CLR SRW INLET	NR	NRPA11	IV635T	0
1TB12-4	1SV1636	11 P/A COMPR SRW INLET	NR	NRPA11	IV636T	0
1TB12-4	1PS2055	11 PA COMPR OIL PS LOW	NR	NRPA11	PS055R	0
1TB12-4	1PS2054	11 PA COMPR UNLOADER CONTR PS	NR	NRPA11	PS154R	0
1TB12-4	1TE1636	11 SRW PA COMPR OUT TE	NR	NRPA11	TE636R	0
1TB12-4	1TS2055	11 PA COMPR A/CLR OUT TS HI	NR	NRPA11	TS055R	0
1TB12-4	1TS2086	11 PA COMPR I/CLR OUT TS	NR	NRPA11	TS086R	0
1TB12-4	1CV2059	1 PA HDR ISOL CV	NR	NRPALP	C3059C	0
1TB12-4	1SV2059	PLNT AIR HEADER ISOL VLV CONT	NR	NRPALP	C3059C	0
1TB12-4	1CV2059	1 PA HDR ISOL CV	NR	NRPALP	C3059T	0
1TB12-4	1SV2059	PLNT AIR HEADER ISOL VLV CONT	NR	NRPALP	C3059T	0
1TB12-4	1PS2059	1 PA ISOL VLV CONTR PS	NR	NRPALP	PS059D	0
1TB12-4	1PS2059	1 PA ISOL VLV CONTR PS	NR	NRPALP	PS059R	0
1TB12-4	1CV2061	11 PA TO IA AUTO CROSSCONNECT CV	NR	NRPAXA	C3061O	0
1TB12-4	1SV2061	PLNT AIR TO INST AIR VLV CONT	NR	NRPAXA	C3061O	0
1TB12-4	1CV2061	11 PA TO IA AUTO CROSSCONNECT CV	NR	NRPAXA	C3061P	0
1TB12-4	1SV2061	PLNT AIR TO INST AIR VLV CONT	NR	NRPAXA	C3061P	0
1TB12-4	1PS2061	1 PA TO IA SV CONTR PS	NR	NRPAXA	PS061D	0
1TB12-4	1PS2061	1 PA TO IA SV CONTR PS	NR	NRPAXA	PS061R	0
1TB12-4	1PS2062	11 IA COMPR UNLOADER CONTR PS	NR	PS062D	PS062D	0
1TB12-4	1PS2064	12 IA COMPR UNLOADER CONTR PS	NR	PS064D	PS064D	0
1TB12-4	1PS2067	12 IA RCVR 11 TO COMPR 11 CONTR PS	NR	PS067D	PS067D	0
1TB12-4	1PS2054	11 PA COMPR UNLOADER CONTR PS	NR	PS154D	PS154D	0
1TB12-4	1COMPPA11	11 PA COMPR (1MB123)	NS	CMP11R	CMP11R	0
1TB12-4	1SV2054	11 PA COMPR LOADING SV	NS	NRCMP1	IV154D	0
1TB12-4	1SV2054	11 PA COMPR LOADING SV	NS	NRCMP1	IV154T	0
1TB12-4	1PS2054	11 PA COMPR UNLOADER CONTR PS	NS	NRCMP1	PS154R	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	NS	NRDPP1	HXAP1P	0
1TB12-4	1HXPAI/CLR11	11 PA COMPR INTER COOLER	NS	NRDPP1	HXPI1B	0
1TB12-4	1MUFFPAFILT11	11 PA COMPR FILTER SILENCER	NS	NRHVP1	FLP11P	0
1TB12-4	1PS2055	11 PA COMPR OIL PS LOW	NS	NRPSP1	PS055R	0
1TB12-4	1TS2055	11 PA COMPR A/CLR OUT TS HI	NS	NRPSP1	TS055R	0
1TB12-4	1TS2086	11 PA COMPR I/CLR OUT TS	NS	NRPSP1	TS086R	0
1TB12-4	1TCV1636	11 P/A COMPR TEMP REG VLV	NS	NRSW13	C7636P	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	NS	NRSW13	HXPA1P	0
1TB12-4	1HXPAI/CLR11	11 PA COMPR INTER COOLER	NS	NRSW13	HXPI1P	0
1TB12-4	1SV1635	11 P/A COMPR A/CLR SRW INLET	NS	NRSW13	IV635T	0
1TB12-4	1SV1636	11 P/A COMPR SRW INLET	NS	NRSW13	IV636T	0
1TB12-4	1TE1636	11 SRW PA COMPR OUT TE	NS	NRSW13	TE636R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	NS	NSPA01	HXAP1B	0
1TB12-4	1ACCPA11	11 PA COMPR RCVR	NS	NSPA01	TKP11B	0
1TB12-4	1CV2059	1 PA HDR ISOL CV	NS	NSPALP	C3059C	0
1TB12-4	1SV2059	PLNT AIR HEADER ISOL VLV CONT	NS	NSPALP	C3059C	0
1TB12-4	1CV2059	1 PA HDR ISOL CV	NS	NSPALP	C3059T	0
1TB12-4	1SV2059	PLNT AIR HEADER ISOL VLV CONT	NS	NSPALP	C3059T	0
1TB12-4	1PS2059	1 PA ISOL VLV CONTR PS	NS	NSPALP	PS059D	0
1TB12-4	1PS2059	1 PA ISOL VLV CONTR PS	NS	NSPALP	PS059R	0
1TB12-4	1PS2054	11 PA COMPR UNLOADER CONTR PS	NS	PS154D	PS154D	0
1TB12-2	1PUMPCBP13	CD CBP 13 (1MA304)	QC	QCMISC	MYCB3Q	0
1TB12-3 (CP)	1PUMPCD12	12 CONDENSATE PUMP (1MA307)	QC	QCMISC	MYCP2Q	0
1TB12-3 (CP)	1PUMPCD13	13 CONDENSATE PUMP (1MA308)	QC	QCMISC	MYCP3Q	0
1TB12-2	1PUMPHDV12	12 FW HEATER DRAIN PUMP (1MA306)	QC	QCMISC	MYHD2Q	0
1TB12-1	1HOSE12-16	1 FP TURB BLDG TYPE C HOSE STA	RL	RLFHSF	RLFHSF	0
1TB12-4	1HXIAA/CLR11	11 IA COMPR AFTER COOLER	S3	S3TBAL	ATIA1R	0
1TB12-4	1HXIAA/CLR12	12 IA COMPR AFTER COOLER	S3	S3TBAL	ATIA2R	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	S3	S3TBAL	ATPA1R	0
1TB12-4	1HXIAA/CLR11	11 IA COMPR AFTER COOLER	S4	S3TBAL	ATIA1R	0
1TB12-4	1HXIAA/CLR12	12 IA COMPR AFTER COOLER	S4	S3TBAL	ATIA2R	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	S4	S3TBAL	ATPA1R	0
1TB12-3 (CP)	1CV4406	CST TO HTWL M/U CV	T1	T1CS1F	C3406T	0
1TB12-3 (CP)	1I/P4406	COND STORAGE TO HOTWELL CONT	T1	T1CS1F	C3406T	0
1TB12-3 (CP)	1SV4406	CD STORAGE TO HOTWELL CONTROL SV	T1	T1CS1F	C3406T	0
1TB12-3 (CP)	1LT4405	CD CONDENSER HOTWELL LT	T1	T1CS1F	LT405R	0
A315	1CV4070	11 S/G MS TO AFW PP TURB	TG	BHEF1Y	Open	12
A315	1CV4071	12 S/G MS TO AFW PP TURB	TG	BHEF1Y	Open	12
1TB12-2 (CP)	1PUMPCARSWP11	11 CAR SEAL WTR PUMP (1M0636)	VC	MMS11R	MMS11R	0
1TB12-2 (CP)	1PUMPCARSWP12	12 CAR SEAL WTR PUMP (1M0637)	VC	MMS12R	MMS12R	0
1TB12-2 (CP)	1PUMPCARSWP13	13 CAR SEAL WTR PUMP (1M1636)	VC	MMS13R	MMS13R	0
1TB12-2 (CP)	1PUMPCAR11	11 CAR VAC PP (1MB203)	VC	MMV11R	MMV11R	0
1TB12-2 (CP)	1PUMPCAR12	12 CAR VAC PP (1MB217)	VC	MMV12R	MMV12R	0
1TB12-2 (CP)	1PUMPCAR13	13 CAR VAC PP (1MB303)	VC	MMV13R	MMV13R	0
1TB12-2	1CV1627	SRW TO COND VAC PP PCV	VC	VC0SRW	C3627P	0
1TB12-2	1PIC1627	10 SRW CNDSR PP VAC INL PIC	VC	VC0SRW	PC627R	0
1TB12-3 (CP)	1HS5225	11 CW PP WTRBX INL VLV HS	VC	VCCW1A	HS225T	0
1TB12-3 (CP)	1MOV5225	11A COND'R INLET STRNR VLV	VC	VCCW1A	MV225P	0
1TB12-3 (CP)	1HS5229	12 CW PP WTRBX INL VLV HS	VC	VCCW2A	HS229T	0
1TB12-3 (CP)	1MOV5229	11B COND'R INLET STRNR VLV	VC	VCCW2A	MV229P	0
1TB12-3 (CP)	1HS5233	13 CW PP WTRBX INL VLV HS	VC	VCCW3A	HS233T	0
1TB12-3 (CP)	1MOV5233	12A COND'R INLET STRNR VLV	VC	VCCW3A	MV233P	0
1TB12-3 (CP)	1HS5237	14 CW PP WTRBX INL VLV HS	VC	VCCW4A	HS237T	0
1TB12-3 (CP)	1MOV5237	12B COND'R INLET STRNR VLV	VC	VCCW4A	MV237P	0
1TB12-3 (CP)	1HS5241	15 CW PP WTRBX INL VLV HS	VC	VCCW5A	HS241T	0
1TB12-3 (CP)	1MOV5241	13A COND'R STRNR INLET VLV	VC	VCCW5A	MV241P	0
1TB12-3 (CP)	1HS5245	15 CW PP WTRBX INL VLV HS	VC	VCCW6A	HS245T	0
1TB12-3 (CP)	1MOV5245	13B COND'R INLET STRNR VLV	VC	VCCW6A	MV245P	0
1TB12-4	1CV5098	MISC DRN TK TO COND OUT CV	VC	VCMDTK	C3098C	0
1TB12-4	1SV5098	MISC TURB DRN TNK LEV CONT VLV	VC	VCMDTK	C3098C	0
1TB12-4	1CV5098	MISC DRN TK TO COND OUT CV	VC	VCMDTK	C3098T	0
1TB12-4	1SV5098	MISC TURB DRN TNK LEV CONT VLV	VC	VCMDTK	C3098T	0
1TB12-4	1LS5098	11 CD MISC DRN TANK LO LS	VC	VCMDTK	LS098D	0
1TB12-4	1LS5098	11 CD MISC DRN TANK LO LS	VC	VCMDTK	LS098R	0
1TB12-2 (CP)	1CV1754	11 CAR UNIT MOTIVE AIR	VC	VCP011	C3754P	0
1TB12-2	1SV1753	11 CAR BYP & MOTIVE VLV	VC	VCP011	C3754P	0
1TB12-2 (CP)	1CV1755	11 CAR UNIT SYS DIAPHRAM	VC	VCP011	C3755P	0
1TB12-2 (CP)	1LCV1753	11 CAR SEP	VC	VCP011	LC753R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-2 (CP)	1PS1755	11 CAR CNDSR VAC PP SEAL LOW PRESSURE WTR P	VC	VCP011	PS755R	0
1TB12-2 (CP)	1CV1757	12 CAR UNIT MOTIVE AIR	VC	VCP012	C3757P	0
1TB12-2	1SV1756	12 CAR BYP & MOTIVE VLVS	VC	VCP012	C3757P	0
1TB12-2 (CP)	1CV1758	12 CAR UNIT SYS DIAPHRAM	VC	VCP012	C3758P	0
1TB12-2 (CP)	1LCV1756	12 CAR SEP LO LVL CONTROL	VC	VCP012	LC756R	0
1TB12-2 (CP)	1PS1758	12 CAR CNDSR VAC PP SEAL WTR LOW PRESSURE P	VC	VCP012	PS758R	0
1TB12-2 (CP)	1CV1760	13 CAR UNIT MOTIVE AIR	VC	VCP013	C3760P	0
1TB12-2	1SV1759	13 CAR BYP & MOTIVE VLVS	VC	VCP013	C3760P	0
1TB12-2 (CP)	1CV1761	13 CAR UNIT SYS DIAPHRAM	VC	VCP013	C3761P	0
1TB12-2 (CP)	1LCV1759	SEP LO LVL CONTROL	VC	VCP013	LC759R	0
1TB12-2 (CP)	1PS1761	13 CAR CNDSR VAC PP SEAL WTR LOW PRESSURE P	VC	VCP013	PS761R	0
1TB12-3 (CP)	1HXCARSWC11	11 CAR SEAL WTR CLR	VC	VCS011	HXS11B	0
1TB12-3 (CP)	1HXCARSWC11	11 CAR SEAL WTR CLR	VC	VCS011	HXS11P	0
1TB12-3 (CP)	1HXCARSWC12	12 CAR SEAL WTR CLR	VC	VCS012	HXS12B	0
1TB12-3 (CP)	1HXCARSWC12	12 CAR SEAL WTR CLR	VC	VCS012	HXS12P	0
1TB12-3 (CP)	1HXCARSWC13	13 CAR SEAL WTR CLR	VC	VCS013	HXS13B	0
1TB12-3 (CP)	1HXCARSWC13	13 CAR SEAL WTR CLR	VC	VCS013	HXS13P	0
1TB12-4	1CV4681	MN STM SEAL REG	VC	VCTGS1	CV681O	0
1TB12-4	1CV4681	MN STM SEAL REG	VC	VCTGS1	CV681P	0
1TB12-4	1MOV4659	1 GS MS SEAL SUPPLY MOV	VC	VCTGS1	MV659P	0
1TB12-4	1PC4681	GS STM SEAL FEED VLV CONTROL PC	VC	VCTGS1	PC681R	0

Flood Evaluation Query

CF-06A-F225AM

04-Nov-98

TOP	PM	EVALUATION	RI
AA	1BKR	1 breaker challenge.	PAJ
CV	F	Conservatively set to failure. CVCS relatively unimportant.	PAJ
F1	None	11 and 12 S/G AFW Block Valves fail. These valves are normally open and will fail open. Therefore there is no impact on this top. Flow control valves failing open are addressed in top event HX.	PAJ
F7	None ~~F~~	~~Lost the ability to use Unit 1 AFW MD Pump 13 to supply Unit 1 S/G.~~ Note 1	PAJ
FC	Spec Impt	AFW Pump Room Emergency Vent Fans 11 & 12 fail along with NSR A/C Unit fail.	PAJ
FF	None	Both 11 and 12 AFW Pump Room Exhaust fans fail to start. Covered under Top FC.	PAJ
FH	None	Loss the ability to start AFW MD Pump 13. Covered under Top F7.	PAJ
FN	None	Only has 2 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
HU	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact.	PAJ
HX	None	11 and 12 S/G AFW (motor driven feed line) flow control valves fail open. Impact already considered by Top F7 & F9 failure.	PAJ
K3	None	1CV5210 fails open on loss of power and loss of air. During a RAS, this valve needs to open for recirulation. It is assumed (Per Rob) that this top event will not fail during smaller LOCA size breaks.	PAJ
K4	None	1CV5212 fails open on loss of power and loss of air. During a RAS, this valve needs to open for recirulation. It is assumed (Per Rob) that this top event will not fail during smaller LOCA size breaks.	PAJ
M1	4BKR	4 breaker challenges.	PAJ
M2	7BKR	7 breaker challenges.	PAJ
M3	2BKR	2 breaker challenges.	PAJ
~~M4~~	~~1BKR~~	~~1 breaker challenge.~~ NOT IN U1 GT.	~~PAJ~~
MN	None	Has 6 PCVs. I am assuming that these valves will not fail during a flood.	PAJ

See notes in RAN 98-065 SECT 5.4 JMK

TOP	PM	EVALUATION	RI
N1	1BKR	1 breaker challenge.	PAJ
N2	1BKR	1 breaker challenge.	PAJ
N3	None	13 Charging Pump is normally aligned to 480V Bus 11A (Top N1). See Key Assumption 393.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
QZ	None	11 & 12 AFW Block valves (1CV4522/4523/4532/4533) are normally open and fail as-is on loss of power.	PAJ
S3	None	All valves fail to their appropriate positions on loss of power and loss of air. 1CV5148 (FO), 1CV5148A (FC), 1CV5151 (FO), 1CV5151A (FC) and 1CV5209 (FO).	PAJ
S4	None	All valves fail to their appropriate positions on loss of power and loss of air. 1CV5158 (FO), 1CV5158A (FC), 1CV5159 (FO), 1CV5159A (FC), 1CV5211 (FO), 1CV5153 (FO) and 1CV5157 (FC).	PAJ
SG	None ~~Spec Impt~~	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment. (Note 5)	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ
TA	None ~~F~~	~~1CV1637/1639 fail close on loss of power / loss of air.~~ (Note 1)	PAJ
TB	None ~~F~~	~~1CV1600/1638 fail close on loss of power / loss of air.~~ (Note 1)	PAJ
TH(HD1)	None	1CV5210 will fail to it's appropriate position not allowing the operator to throttle valve. Covered by Top S3 or K3.	PAJ
TH(HD2)	None	1CV5212 will fail to it's appropriate position not allowing the operator to throttle valve. Covered by Top S4 or K4.	PAJ

TOP	PM	EVALUATION	RI
UQ	None	1CV4525/4535 are normally open and fail as-is on loss of power. This top only fails when an under feed to the SG occurs.	PAJ
~~V5~~	~~F~~	~~11 and 12 ECCS exhaust fans fails to start/run.~~ V5 No longer used gpr	PAJ
VC	None	Has 6 PCVs. I am assuming that these will not fail during a flood.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR	
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	AA	MAAF3Q	MAAF3Q	16	IBKR
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0	
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0	
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0	
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0	
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0	
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0	
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0	
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0	
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0	
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0	
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0	
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0	FAILS
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12	
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12	
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12	
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12	
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0	
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0	
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12	
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0	
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0	
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12	
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PS224R	PS224R	0	
A226	1SV4522	11 S/G AFW BLOCK SV	F1	CV4522	CV522P	0	
A226	1SV4523	11 S/G AFW BLOCK SV	F1	CV4523	CV523P	0	
A226	1SV4532	12 S/G AFW BLOCK SV	F1	CV4532	CV532P	0	
A226	1SV4533	12 S/G AFW BLOCK SV	F1	CV4533	CV533P	0	
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0	
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0	NONE
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0	
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0	
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0	
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0	
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0	
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0	
A226	1SV4550	U-1 TO U-2 AFW X-CONN SV	F7	F7MPVA	C3550T	0	
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QR	MA13QR	16	FAILS
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QS	MA13QS	16	
A225	1HS5472	MCC-101-8T BKR 52-10150 AFW PP RM A/C UNIT 11	FC	FCAC11	HS472T	0	
A225	1HS5470	AFW PP RM EMERG VENT FAN 11 MCC-114-12	FC	FCAUX1	HS470D	18	
A225	1HS5470	AFW PP RM EMERG VENT FAN 11 MCC-114-12	FC	FCAUX1	HS470T	18	
A225	1HS5471	AFW PP RM EMERG VENT FAN 12 MCC-104-12	FC	FCAUX2	HS471D	18	
A225	1HS5471	AFW PP RM EMERG VENT FAN 12 MCC-104-12	FC	FCAUX2	HS471T	18	SPEC
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	FC	VDA11R	VDA11R	36	IMPT
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	FC	VDA11S	VDA11S	36	
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	FC	VDA12R	VDA12R	36	
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	FC	VDA12S	VDA12S	36	
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	FF	BHEFCB	Start	36	NONE
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	FF	BHEFCB	Start	36	
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	FH	BHEF71	Start	16	NONE
A226	1PCV4512	1 IA SUPP ACCUM 11A & 11B PCV	FN	FN0000	CV512P	0	NONE
A226	1PCV4520	11B AFW AIR ACCUMULATOR OUTLET PCV	FN	FN0000	CV520P	0	
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0	
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0	NONE
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0	

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR	
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0	
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0	
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0	NONE
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0	
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0	
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	C2210C	C2210C	0	
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	C2210C	C2210C	0	
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0	
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0	
A226	1ZC5210	1CV5210 POSITIONER	K3	C2210C	C2210C	0	NONE
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	K3CLOS	C2210T	0	
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	K3CLOS	C2210T	0	
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0	
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0	
A226	1ZC5210	1CV5210 POSITIONER	K3	K3CLOS	C2210T	0	
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	C2212C	C2212C	0	
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	C2212C	C2212C	0	
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0	
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0	
A226	1ZC5212	1CV5212 POSITIONER	K4	C2212C	C2212C	0	NONE
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	K4ISO1	C2212T	0	
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	K4ISO1	C2212T	0	
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0	
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0	
A226	1ZC5212	1CV5212 POSITIONER	K4	K4ISO1	C2212T	0	
A225	1FANHVACPENETE12	12 PENET RM EXH FAN (1M0402)	M1	VDM02Q	VDM02Q	18.75	
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	M1	VDM12Q	VDM12Q	36	4BKR
A225	1FANHVACECCSE12	12 ECCS PUMP RM EXH (1M0413)	M1	VDM13Q	VDM13Q	0	
A226	1FAN5334	SRW HX RM EXH FAN 18B (1M0451)	M1	VDM51Q	VDM51Q	0	
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0	
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0	
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0	
A225	1FANHVACPENETE11	11 PENET RM EXH FAN (1M1402)	M2	VDN02Q	VDN02Q	18.75	7BKR
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	M2	VDN12Q	VDN12Q	36	
A225	1FANHVACECCSE11	11 ECCS PUMP RM EXH (1M1413)	M2	VDN13Q	VDN13Q	0	
A226	1FAN5335	SRW HTEX RM FAN VU-18A (1M1441)	M2	VDN41Q	VDN41Q	0	
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0	
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0	2BKR
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32	1BKR
A226	1PCV5000	11 SGFP BRG OIL PRESS REG VLV	MN	MNFW58	PC000R	0	
A226	1PCV4993	11 SGFPT CONT OIL PRESS REG	MN	MNFW58	PC993R	0	
A226	1PCV4999	11 SGFPT OIL PRESS REG VLV	MN	MNFW58	PC999R	0	NONE
A226	1PCV5043	12 SGFP TLO PP DISCH PCV	MN	MNFW68	PC043R	0	
A226	1PCV5048	12 SGFP TLO RESERVOIR INLET PCV	MN	MNFW68	PC048R	0	
A226	1PCV5049	12 FW SGFP TLO TO PP BRGS PCV	MN	MNFW68	PC049R	0	
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0	
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0	1BKR
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12	
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12	1BKR
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0	
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0	NONE
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12	
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12	1BKR
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0	
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0	1BKR
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24	

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR	
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24	IBKR
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0	IBKR
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0	
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24	
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24	IBKR
A226	1SV4522	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0	
A226	1SV4523	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0	
A226	1SV4532	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0	
A226	1SV4533	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0	
A226	1SV5150	SERV WTR HTEX 11 SALT WTR INLT	S3	C1150P	C1150P	0	
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148C	C2148C	0	
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0	
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148C	C2148C	0	
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0	
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148C	C2148C	0	
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0	
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0	
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148O	C2148O	0	
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0	
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0	
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148T	C2148T	0	
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0	
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148T	C2148T	0	
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0	
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148T	C2148T	0	
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151C	C2151C	0	
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151C	C2151C	0	
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151C	C2151C	0	NONE
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151C	C2151C	0	
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	C2151O	C2151O	0	
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151O	C2151O	0	
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151O	C2151O	0	
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	C2151O	C2151O	0	
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151T	C2151T	0	
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151T	C2151T	0	
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151T	C2151T	0	
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151T	C2151T	0	
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AB	0	
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AP	0	
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BB	0	
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BP	0	
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0	
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0	
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1AV	C2148P	0	
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0	
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0	
A226	1CV5209	11A SRW HX SALT WATER OUTLET VLV	S3	S3H1AV	C2209P	0	
A226	1FIC5209	11A SRW HX SW OUTLET FLOW INDICATOR	S3	S3H1AV	C2209P	0	
A226	1P/P5209	1CV5209 A/S VOLUME BOOSTER	S3	S3H1AV	C2209P	0	
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2209P	0	
A226	1SV5209	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0	
A226	1SV5209A	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0	
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1BV	C2151P	0	
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1BV	C2151P	0	
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1BV	C2151P	0	
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	S3H1BV	C2151P	0	

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	S3	S3H1BV	C2210P	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	S3	S3H1BV	C2210P	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1ZC5210	1CV5210 POSITIONER	S3	S3H1BV	C2210P	0
A226	1CV5153	12 SRW HX SW NORM B/U OUTLET	S4	C1153P	C1153P	20
A226	1SV5153	SERV WTR HTEX 12 SALT WTR OUT	S4	C1153P	C1153P	0
A226	1CV5157	12A/12B SRW HX SALT WATER OUTLET VLV	S4	C2157T	C2157T	0
A226	1I/P5157	12A/12B SRW HX SW OUT I/P	S4	C2157T	C2157T	0
A226	1P/P5157	1CV5157 A/S VOLUME BOOSTER	S4	C2157T	C2157T	0
A226	1SV5157	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1SV5157A	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1ZC5157	1CV5157 POSITIONER	S4	C2157T	C2157T	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158C	C2158C	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158C	C2158C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158C	C2158C	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	C2158O	C2158O	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158O	C2158O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	C2158O	C2158O	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158T	C2158T	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158T	C2158T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158T	C2158T	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159C	C2159C	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159C	C2159C	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	C2159O	C2159O	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	C2159O	C2159O	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159T	C2159T	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159T	C2159T	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	C2212O	C2212O	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	C2212O	C2212O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2212O	C2212O	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1ZC5212	1CV5212 POSITIONER	S4	C2212O	C2212O	0
A226	1SV5152	SERV WTR HTEX 12 SALT WTR INLT	S4	S4CV52	C1152P	0
A226	1HVSRW-707	MANUAL SRW INLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW707P	0
A226	1HVSRW-708	MANUAL SRW OUTLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW708P	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AB	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AP	0
A226	1HVSRW-709	MANUAL SRW INLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW709P	0
A226	1HVSRW-710	MANUAL SRW OUTLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW710P	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BB	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BP	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2AV	C2158P	0

NOVE

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR	
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0	
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	S4H2AV	C2158P	0	
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0	
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	S4H2AV	C2158P	0	
A226	1CV5211	12A SRW HX SALT WATER OUTLET VLV	S4	S4H2AV	C2211P	0	
A226	1FIC5211	12A SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2AV	C2211P	0	
A226	1P/P5211	1CV5211 A/S VOLUME BOOSTER	S4	S4H2AV	C2211P	0	
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2211P	0	
A226	1SV5211	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0	
A226	1SV5211A	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0	
A226	1ZC5211	1CV5211 POSITIONER	S4	S4H2AV	C2211P	0	
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2BV	C2159P	0	
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0	
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0	
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	S4H2BV	C2159P	0	
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2BV	C2212P	0	
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	S4H2BV	C2212P	0	
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2212P	0	
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0	
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0	
A226	1ZC5212	1CV5212 POSITIONER	S4	S4H2BV	C2212P	0	
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0	SPEC INST
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0	
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0	
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0	
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0	
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0	NONE
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0	
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0	
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0	
A226	1SV1637	TURB LUBE&EHC OIL SERVWTR ISOL	TA	TAFB01	C3637P	0	FAILS
A226	1SV1639	TURB LUB & EHC OIL SERV WTR IS	TA	TAFB01	C3639P	0	
A226	1SV1600	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3600P	0	FAILS
A226	1SV1638	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3638P	0	
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	TH(HD1)	BHER3B	Throttle	0	
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	TH(HD1)	BHER3B	Throttle	0	
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0	NONE
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0	
A226	1ZC5210	1CV5210 POSITIONER	TH(HD1)	BHER3B	Throttle	0	
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	TH(HD2)	BHER3B	Throttle	0	
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	TH(HD2)	BHER3B	Throttle	0	
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0	NONE
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0	
A226	1ZC5212	1CV5212 POSITIONER	TH(HD2)	BHER3B	Throttle	0	
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0	
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0	
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0	NONE
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0	
A225	1FANHVACECCSE11	11 ECCS PUMP RM EXH (1M1413)	V5	VDF11R	VDF11R	0	
A225	1FANHVACECCSE11	11 ECCS PUMP RM EXH (1M1413)	V5	VDF11S	VDF11S	0	FAILS
A225	1FANHVACECCSE12	12 ECCS PUMP RM EXH (1M0413)	V5	VDF12R	VDF12R	0	
A225	1FANHVACECCSE12	12 ECCS PUMP RM EXH (1M0413)	V5	VDF12S	VDF12S	0	
A226	1PCV5214	11 CW PP SEAL WTR PCV	VC	VCCW1A	PC214R	0	
A226	1PCV5216	12 CW PP SEAL WTR PCV	VC	VCCW2A	PC216R	0	NONE
A226	1PCV5218	13 CW PP SEAL WTR PCV	VC	VCCW3A	PC218R	0	
A226	1PCV5220	14 CW PP SEAL WTR PCV	VC	VCCW4A	PC220R	0	

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1PCV5222	15 CW PP SEAL WTR PCV	VC	VCCW5A	PC222R	0
A226	1PCV5224	16 CW PP SEAL WTR PCV	VC	VCCW6A	PC224R	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0

NONE

Flood Evaluation Query

CF-06B-F225AN *

04-Nov-98

TOP	PM	EVALUATION	RI
AA	4BKR	4 breaker challenges.	PAJ
AB	4BKR	4 breaker challenges.	PAJ
AC	2BKR	2 breaker challenges.	PAJ
AD	5BKR	5 breaker challenges.	PAJ
CS	F	CS Pump 11 is lost.	PAJ
CT	F	CS Pump 12 is lost.	PAJ
CV	F	Conservatively set to failure. CVCS relatively unimportant.	PAJ
F1	None	11 and 12 S/G AFW Block Valves fail. These valves are normally open and will fail open. Therefore there is no impact on this top. Flow control valves failing open are addressed in top event HX.	PAJ
F7	F	Lost the ability to use Unit 1 AFW MD Pump 13 to supply Unit 1 S/G.	PAJ
F9	F	Loss the ability to use Unit 2 AFW MD Pump 23 to supply Unit 1 S/G. Also, 21 and 22 S/G AFW Block and Flow Valves fail. These valves are normally open and fail as-is (open) on loss of power.	PAJ
FC	Spec Impt	AFW Pump Room Emergency Vent Fans 11 & 12 fail along with NSR A/C Unit fail.	PAJ
FF	None	Both 11 and 12 AFW Pump Room Exhaust fans fail to start. Covered under Top FC.	PAJ
FH	None	Loss the ability to start AFW MD Pump 13. Covered under Top F7.	PAJ
FN	None	Only has 2 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
GW	None	2CV5152, 2CV5153 and 2CV5212 fail open on loss of power and loss of air.	PAJ
GZ	None	2CV5150 and 2CV5210 fail open on loss of power and loss of air.	PAJ
HA	F	11 HPSI Pump fails.	PAJ
HB	F	13 HPSI Pump fails.	PAJ

* This flood is eliminated. See note 12 in RAN 98-065 sect 5.4 JBR

TOP	PM	EVALUATION	RI
HU	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact.	PAJ
HW	F	12 HPSI is lost. Also 1MOV653, 1MOV654, 1MOV655 and 1MOV656 fail as-is.	PAJ
HX	None	11 and 12 S/G AFW (motor driven feed line) flow control valves fail open. Impact already considered by Top F7 & F9 failure.	PAJ
K3	None	1CV5210 fails open on loss of power and loss of air. During a RAS, this valve needs to open for recirulation. It is assumed (Per Rob) that this top event will not fail during smaller LOCA size breaks.	PAJ
K4	None	1CV5212 fails open on loss of power and loss of air. During a RAS, this valve needs to open for recirulation. It is assumed (Per Rob) that this top event will not fail during smaller LOCA size breaks.	PAJ
M1	10BKR	10 breaker challenges.	PAJ
M2	13BKR	13 breaker challenges.	PAJ
M3	9BKR	9 breaker challenges.	PAJ
~~M4~~	~~5BKR~~	~~5 breaker challenges.~~ NOT IN U1 GT.	~~PAJ~~
MN	None	Has 6 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
MV	None	1MOV659/660 fail as-is and are normally electrically locked open, there will be no flood impact.	PAJ
N1	1BKR	1 breaker challenge.	PAJ
N2	1BKR	1 breaker challenge.	PAJ
N3	None	13 Charging Pump is normally aligned to 480V Bus 11A (Top N1). See Key Assumption 393.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ

TOP	PM	EVALUATION	RI
N8	1BKR	1 breaker challenge.	PAJ
NR(TC)	Spec Impt	2CV1600/1637/1638/1639 fail close on loss of power, the undesirable position. Unable to use Unit 2 compressors for Unit 1.	PAJ
NS	Spec Impt	2CV1600/1637/1638/1639 fail close on loss of power, the undesirable position. Unable to use Unit 2 compressors for Unit 2.	PAJ
QZ	None	11 & 12 AFW Block valves (1CV4522/4523/4532/4533) are normally open and fail as-is on loss of power.	PAJ
RH	F	This human action requires the operator to start 11 and 13 HPSI Pumps. Both pumps are assumed not to start/run during a flood scenario.	PAJ
S3	None	All valves fail to their appropriate positions on loss of power and loss of air. 1CV5148 (FO), 1CV5148A (FC), 1CV5151 (FO), 1CV5151A (FC) and 1CV5209 (FO).	PAJ
S4	None	All valves fail to their appropriate positions on loss of power and loss of air. 1CV5158 (FO), 1CV5158A (FC), 1CV5159 (FO), 1CV5159A (FC), 1CV5211 (FO), 1CV5153 (FO) and 1CV5157 (FC).	PAJ
SG	Spec Impt	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment.	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ
SR	None	All MOVs (1MOV4144/4145/5462/5463) are closed and fail close.	PAJ
TA	F	1CV1637/1639 fail close on loss of power / loss of air.	PAJ
TB	F	1CV1600/1638 fail close on loss of power / loss of air.	PAJ
TE	F	1MOV4144 is normally in the closed position and will fail as-is. Therefore, the East Recirculation Header will not function properly.	PAJ
TH(HD1)	None	1CV5210 will fail to it's appropriate position not allowing the operator to throttle valve. Covered by Top S3 or K3.	PAJ
TH(HD2)	None	1CV5212 will fail to it's appropriate position not allowing the operator to throttle valve. Covered by Top S4 or K4.	PAJ
TW	F	1MOV4145 is normally in the closed position and will fail as-is. Therefore, the West Recirculation Header will not function properly.	PAJ

TOP	PM	EVALUATION	RI
UQ	None	1CV4525/4535 are normally open and fail as-is on loss of power. This top only fails when an under feed to the SG occurs.	PAJ
V1	F	All ECCS Pump Room Fans fail to start/run.	PAJ
V2	F	All ECCS Pump Room Fans fail to start/run.	PAJ
V5	F	11 and 12 ECCS exhaust fans fails to start/run.	PAJ
VC	None	Has 6 PCVs. I am assuming that these will not fail during a flood.	PAJ
VM(RM1)	None	Operator will be unable to start ECCS Pump Room Fans. Covered under Top V1.	PAJ
VM(RM2)	None	Operator will be unable to start ECCS Pump Room Fans. Covered under Top V2.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR	
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	AA	MAAF3Q	MAAF3Q	16	
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	AA	MACS1Q	MACS1Q	12	
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	AA	MAHP1Q	MAHP1Q	24	4 BX
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	AA	MAHP3Q	MAHP3Q	12	
A119	1PUMPSILPSI11	11 LOW PRESS SAFETY INJECTION PUMP (1MA104)	AA	MALP1Q	MALP1Q	12	
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	AB	MACS2Q	MACS2Q	12	
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	AB	MAHP2Q	MAHP2Q	24	
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	AB	MAHP4Q	MAHP4Q	12	4 BX
A118	1PUMPSILPSI12	12 LOW PRESS SAFETY INJECTION PUMP (1MA404)	AB	MALP2Q	MALP2Q	12	
A101	2PUMPSICS21	21 CONTAINMENT SPRAY PUMP (2MA107)	AC	MACS3Q	MACS3Q	24	
A101	2PUMPHPSI21	SI HPSI PUMP 21 (2MA108)	AC	MAHP5Q	MAHP5Q	24	2 BX
A102	2PUMPHPSI23	SI HPSI PUMP 23 (2MA110)	AC	MAHP7Q	MAHP7Q	12	
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	AD	MAAF6Q	MAAF6Q	16	
A102	2PUMPSICS22	22 CONTAINMENT SPRAY PUMP (2MA407)	AD	MACS4Q	MACS4Q	12	
A101	2PUMPHPSI22	SI HPSI PUMP 22 (2MA408)	AD	MAHP6Q	MAHP6Q	24	5 BX
A102	2PUMPHPSI23	SI HPSI PUMP 23 (2MA110)	AD	MAHP8Q	MAHP8Q	12	
A102	2PUMPSILPSI22	22 LOW PRESS SAFETY INJECTION PUMP (2MA404)	AD	MALP4Q	MALP4Q	12	
A119	1HXSICS11	11 SHUTDOWN COOLING HX	CS	CS0103	HXC11B	0	
A119	1HXSICS11	11 SHUTDOWN COOLING HX	CS	CS0103	HXC11P	0	
A119	1MOV663	SDC RECIRC TO 11 HPSI PP	CS	CS0103	MV663T	0	
A119	1CV3828	11 SDC HX OUTLET	CS	CSHX11	CV828P	0	
A119	1SV3828	S/D HX 11 COOL WTR DISCH VLV	CS	CSHX11	CV828P	0	F
A119	1CV3828	11 SDC HX OUTLET	CS	CV828O	CV828O	0	
A119	1SV3828	S/D HX 11 COOL WTR DISCH VLV	CS	CV828O	CV828O	0	
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	CS	MA107R	MA107R	12	
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	CS	MA107S	MA107S	12	
A118	1HXSICS12	12 SHUTDOWN COOLING HX	CT	CT0103	HXC12B	0	
A118	1HXSICS12	12 SHUTDOWN COOLING HX	CT	CT0103	HXC12P	0	
A118	1MOV662	SDC RECIRC TO 13 HPSI PP	CT	CT0103	MV662T	0	
A118	1CV3830	12 SDC HX OUTLET	CT	CTXH12	CV830P	0	
A118	1SV3830	S/D HX #12 COMP CLG DISCH VLV	CT	CTXH12	CV830P	0	F
A118	1CV3830	12 SDC HX OUTLET	CT	CV830O	CV830O	0	
A118	1SV3830	S/D HX #12 COMP CLG DISCH VLV	CT	CV830O	CV830O	0	
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	CT	MA407R	MA407R	12	
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	CT	MA407S	MA407S	12	
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0	
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0	
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0	
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0	
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0	
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0	
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0	
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0	
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0	
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0	F
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0	
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0	
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12	
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12	
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12	
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12	
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0	
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0	
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12	
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0	
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0	

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PS224R	PS224R	0
A226	1SV4522	11 S/G AFW BLOCK SV	F1	CV4522	CV522P	0
A226	1SV4523	11 S/G AFW BLOCK SV	F1	CV4523	CV523P	0
A226	1SV4532	12 S/G AFW BLOCK SV	F1	CV4532	CV532P	0
A226	1SV4533	12 S/G AFW BLOCK SV	F1	CV4533	CV533P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A226	1SV4550	U-1 TO U-2 AFW X-CONN SV	F7	F7MPVA	C3550T	0
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QR	MA13QR	16
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QS	MA13QS	16
A205	2SV4522	S/G 21 AFW MOTOR SYS ISOL VLV	F9	CVB22C	CVB22C	0
A205	2SV4523	S/G 21 AFW MOTOR SYS ISOL VLV	F9	CVB23C	CVB23C	0
A205	2SV4532	S/G 22 AFW MOTOR SYS ISOL VLV	F9	CVB32C	CVB32C	0
A205	2SV4533	S/G 22 AFW MOTOR SYS ISOL VLV	F9	CVB33C	CVB33C	0
A205	2SV4550	U-2 AUX FEED X-CONN VLV	F9	F9M2VA	C3B50O	0
A205	2SV4550	U-2 AUX FEED X-CONN VLV	F9	F9M2VA	C3B50P	0
A205	2SV4522	S/G 21 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB22T	0
A205	2SV4523	S/G 21 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB23T	0
A205	2SV4532	S/G 22 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB32T	0
A205	2SV4533	S/G 22 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB33T	0
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	F9	MA23QR	MA23QR	16
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	F9	MA23QS	MA23QS	16
A225	1HS5472	MCC-101-BT BKR 52-10150 AFW PP RM A/C UNIT 11	FC	FCAC11	HS472T	0
A225	1HS5470	AFW PP RM EMERG VENT FAN 11 MCC-114-12	FC	FCAUX1	HS470D	18
A225	1HS5470	AFW PP RM EMERG VENT FAN 11 MCC-114-12	FC	FCAUX1	HS470T	18
A225	1HS5471	AFW PP RM EMERG VENT FAN 12 MCC-104-12	FC	FCAUX2	HS471D	18
A225	1HS5471	AFW PP RM EMERG VENT FAN 12 MCC-104-12	FC	FCAUX2	HS471T	18
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	FC	VDA11R	VDA11R	36
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	FC	VDA11S	VDA11S	36
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	FC	VDA12R	VDA12R	36
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	FC	VDA12S	VDA12S	36
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	FF	BHEFCB	Start	36
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	FF	BHEFCB	Start	36
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	FH	BHEF71	Start	16
A226	1PCV4512	1 IA SUPP ACCUM 11A & 11B PCV	FN	FN0000	CV512P	0
A226	1PCV4520	11B AFW AIR ACCUMULATOR OUTLET PCV	FN	FN0000	CV520P	0
A205	2I/P5212	SALT WTR OUT SERV WTR HTEX	GW	C2S12O	C2S12O	0
A205	2SV5212	SERV WTR HTEX 22 SALT WTR OUT	GW	C2S12O	C2S12O	0
A205	2SV5212A	SERV WTR HTEX 22 SALT WTR OUT	GW	C2S12O	C2S12O	0
A205	2SV5152	SERV WTR HTEX 22 SALT WTR INLT	GW	S8CV52	C1S52P	0
A205	2CV5153	22 SRW HX SW NORM B/U OUTLET	GW	S8H2CV	C1S53P	20
A205	2SV5153	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C1S53P	0
A205	2I/P5212	SALT WTR OUT SERV WTR HTEX	GW	S8H2CV	C2S12P	0
A205	2SV5212	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C2S12P	0
A205	2SV5212A	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C2S12P	0
A205	2SV5150	SERV WTR HTEX 21 SALT WTR INLT	GZ	S7H2CV	C1S50P	0
A205	2I/P5210	SALT WTR OUT SERV WTR HTEX	GZ	S7H2CV	C2S10P	0
A205	2SV5210	SERV WTR HTEX 21 SALT WTR OUT	GZ	S7H2CV	C2S10P	0
A205	2SV5210A	SERV WTR HTEX 21 SALT WTR OUT	GZ	S7H2CV	C2S10P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1AB	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1AP	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1BB	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1BP	0
A119	1HXSTF/BOX11A	HPSI PUMP 11	HA	HA1CCW	HXS1AB	0
A119	1HXSTF/BOX11A	HPSI PUMP 11	HA	HA1CCW	HXS1AP	0
A119	1HXSTF/BOX11B	HPSI PUMP 11	HA	HA1CCW	HXS1BB	0
A119	1HXSTF/BOX11B	HPSI PUMP 11	HA	HA1CCW	HXS1BP	0
A119	1HX109	#11 HPSI PP SEAL COOLER	HA	HA1CCW	HXSC1B	0
A119	1HX109	#11 HPSI PP SEAL COOLER	HA	HA1CCW	HXSC1P	0
A119	1MOV656	AUX HPSI HDR ISOL	HA	HADISA	MV656P	0
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	HA	MA011R	MA011R	24
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	HA	MA011S	MA011S	24
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3AB	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3AP	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3BB	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3BP	0
A118	1HXSTF/BOX13A	HPSI PUMP 13	HB	HB3CCW	HXS3AB	0
A118	1HXSTF/BOX13A	HPSI PUMP 13	HB	HB3CCW	HXS3AP	0
A118	1HXSTF/BOX13B	HPSI PUMP 13	HB	HB3CCW	HXS3BB	0
A118	1HXSTF/BOX13B	HPSI PUMP 13	HB	HB3CCW	HXS3BP	0
A118	1HX111	#13 HPSI PP SEAL COOLER	HB	HB3CCW	HXSC3B	0
A118	1HX111	#13 HPSI PP SEAL COOLER	HB	HB3CCW	HXSC3P	0
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	HB	MA013R	MA013R	12
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	HB	MA013S	MA013S	12
A118	1MOV654	HPSI HDR ISOL	HB	MV654P	MV654P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A118	1PUMPHPSI12	12 HIGH PRESS SAFETY INJECTION PUMP	HW	BHEHW1	Start	12
A119	1MOV656	AUX HPSI HDR ISOL	HW	HADISA	MV656P	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2AB	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2AP	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2BB	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2BP	0
A118	1HXSTF/BOX12A	HPSI PUMP 12	HW	HW1CCW	HXS2AB	0
A118	1HXSTF/BOX12A	HPSI PUMP 12	HW	HW1CCW	HXS2AP	0
A118	1HXSTF/BOX12B	HPSI PUMP 12	HW	HW1CCW	HXS2BB	0
A118	1HXSTF/BOX12B	HPSI PUMP 12	HW	HW1CCW	HXS2BP	0
A119	1HX409	#12 HPSI PP SEAL COOLER	HW	HW1CCW	HXSC2B	0
A119	1HX409	#12 HPSI PP SEAL COOLER	HW	HW1CCW	HXSC2P	0
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	HW	MA012R	MA012R	24
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	HW	MA012S	MA012S	24
A118	1MOV653	HPSI HDR X-CONN	HW	MV653O	MV653O	0
A118	1MOV653	HPSI HDR X-CONN	HW	MV653P	MV653P	0
A118	1MOV654	HPSI HDR ISOL	HW	MV654P	MV654P	0
A119	1MOV655	HPSI HDR X-CONN	HW	MV655P	MV655P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	C2210C	C2210C	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	C2210C	C2210C	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1ZC5210	1CV5210 POSITIONER	K3	C2210C	C2210C	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	K3CLOS	C2210T	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	K3CLOS	C2210T	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1ZC5210	1CV5210 POSITIONER	K3	K3CLOS	C2210T	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	C2212C	C2212C	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	C2212C	C2212C	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1ZC5212	1CV5212 POSITIONER	K4	C2212C	C2212C	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	K4ISO1	C2212T	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	K4ISO1	C2212T	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1ZC5212	1CV5212 POSITIONER	K4	K4ISO1	C2212T	0
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	M1	M1FPPR	VD48AQ	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	M1	M1FPPR	VD48BQ	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	M1	M1FPPR	VD48CQ	22
A118	1MOV654	HPSI HDR ISOL	M1	MVM21Q	MVM21Q	0
A118	1MOV653	HPSI HDR X-CONN	M1	MVM22Q	MVM22Q	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	M1	MVM30Q	MVM30Q	0
A118	1MOV660	MINI FLOW RETN TO RWT	M1	MVM32Q	MVM32Q	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	M1	MVM44Q	MVM44Q	0
A225	1FANHVACPENETE12	12 PENET RM EXH FAN (1M0402)	M1	VDM02Q	VDM02Q	18.75
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	M1	VDM12Q	VDM12Q	36
A225	1FANHVACECCSE12	12 ECCS PUMP RM EXH (1M0413)	M1	VDM13Q	VDM13Q	0
A226	1FAN5334	SRW HX RM EXH FAN 18B (1M0451)	M1	VDM51Q	VDM51Q	0
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	M2	M2FPPR	VD48AQ	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	M2	M2FPPR	VD48BQ	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	M2	M2FPPR	VD48CQ	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	M2	M2FPPR	VD48DQ	22
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A119	1MOV656	AUX HPSI HDR ISOL	M2	MVN21Q	MVN21Q	0
A119	1MOV655	HPSI HDR X-CONN	M2	MVN22Q	MVN22Q	0
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A118	1MOV659	MINI FLOW RETN TO RWT	M2	MVN32Q	MVN32Q	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	M2	MVN44Q	MVN44Q	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	M2	MVN57Q	MVN57Q	0
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A225	1FANHVACPENETE11	11 PENET RM EXH FAN (1M1402)	M2	VDN02Q	VDN02Q	18.75
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	M2	VDN12Q	VDN12Q	36
A225	1FANHVACECCSE11	11 ECCS PUMP RM EXH (1M1413)	M2	VDN13Q	VDN13Q	0
A226	1FAN5335	SRW HTEX RM FAN VU-18A (1M1441)	M2	VDN41Q	VDN41Q	0
A102	2FAN0448A	ECCS PP RM CLR 22 FAN A (2M0448A)	M3	M3FPPR	VD48AQ	22
A102	2FAN0448B	ECCS PP RM CLR 22 FAN B (2M0448B)	M3	M3FPPR	VD48BQ	22
A102	2FAN0448C	ECCS PP RM CLR 22 FAN C (2M0448C)	M3	M3FPPR	VD48CQ	22
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A102	2MOV654	HPSI HDR ISOL	M3	MVO21Q	MVO21Q	0
A102	2MOV653	HPSI HDR X-CONN	M3	MVO22Q	MVO22Q	0
A120	2MOV5463	U-2 CONTMT RECIRC PIPE TUNNEL	M3	MVO30Q	MVO30Q	0
A102	2MOV660	MINI FLOW RETN TO RWT	M3	MVO32Q	MVO32Q	0
A120	2MOV4145	CONTMT SUMP OUTLET ISOL	M3	MVO44Q	MVO44Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A205	2FAN5334	SRW HX RM EXH FAN 19B (2M0451)	M3	VDO51Q	VDO51Q	0
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A102	2MOV659	MINI FLOW RETN TO RWT	M4	MVN32Q	MVN32Q	0
A120	2MOV4144	CONTMT SUMP OUTLET ISOL	M4	MVN44Q	MVN44Q	0
A120	2MOV5462	U-2 CONTMT RECIRC PIPE TUNNEL	M4	MVN57Q	MVN57Q	0
A205	2FAN5335	SRW HX RM SPLY FAN 19A (2M1437)	M4	VDN37Q	VDN37Q	0
A226	1PCV5000	11 SGFP BRG OIL PRESS REG VLV	MN	MNFW58	PC000R	0
A226	1PCV4993	11 SGFPT CONT OIL PRESS REG	MN	MNFW58	PC993R	0
A226	1PCV4999	11 SGFPT OIL PRESS REG VLV	MN	MNFW58	PC999R	0
A226	1PCV5043	12 SGFP TLO PP DISCH PCV	MN	MNFW68	PC043R	0
A226	1PCV5048	12 SGFP TLO RESERVOIR INLET PCV	MN	MNFW68	PC048R	0
A226	1PCV5049	12 FW SGFP TLO TO PP BRGS PCV	MN	MNFW68	PC049R	0
A118	1MOV659	MINI FLOW RETN TO RWT	MV	MV0A11	MV659P	0
A118	1MOV659	MINI FLOW RETN TO RWT	MV	MV0A11	MV659X	0
A118	1MOV660	MINI FLOW RETN TO RWT	MV	MV0A11	MV660P	0
A118	1MOV660	MINI FLOW RETN TO RWT	MV	MV0A11	MV660X	0
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A205	2SV1637	TURB & EHC OIL SERV WTR ISOL VLV	NR(TC)	UNIT 2-TAFB01	C3637P	0
A205	2SV1639	TURB LUB & EHC OIL SERVWTR ISO	NR(TC)	UNIT 2-TAFB01	C3639P	0
A205	2SV1600	TURB BLDG SERV WTR ISOL VLV	NR(TC)	UNIT 2-TBFB01	C3600P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NR(TC)	UNIT 2-TBFB01	C3638P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NS	NSSRW	N/A	0
A205	2SV1637	TURB & EHC OIL SERV WTR ISOL VLV	NS	UNIT 2-TAFB01	C3637P	0
A205	2SV1639	TURB LUB & EHC OIL SERVWTR ISO	NS	UNIT 2-TAFB01	C3639P	0
A205	2SV1600	TURB BLDG SERV WTR ISOL VLV	NS	UNIT 2-TBFB01	C3600P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NS	UNIT 2-TBFB01	C3638P	0
A226	1SV4522	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4523	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4532	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4533	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	RH	BHERH1	Start	24
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	RH	BHERH1	Start	12
A226	1SV5150	SERV WTR HTEX 11 SALT WTR INLT	S3	C1150P	C1150P	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148C	C2148C	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148C	C2148C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148C	C2148C	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148O	C2148O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148T	C2148T	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148T	C2148T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148T	C2148T	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151C	C2151C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151C	C2151C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151C	C2151C	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151C	C2151C	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	C2151O	C2151O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151O	C2151O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151O	C2151O	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	C2151O	C2151O	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151T	C2151T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151T	C2151T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151T	C2151T	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151T	C2151T	0
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AB	0
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AP	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BB	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BP	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1AV	C2148P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1CV5209	11A SRW HX SALT WATER OUTLET VLV	S3	S3H1AV	C2209P	0
A226	1FIC5209	11A SRW HX SW OUTLET FLOW INDICATOR	S3	S3H1AV	C2209P	0
A226	1P/P5209	1CV5209 A/S VOLUME BOOSTER	S3	S3H1AV	C2209P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2209P	0
A226	1SV5209	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1SV5209A	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1BV	C2151P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1BV	C2151P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1BV	C2151P	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	S3H1BV	C2151P	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	S3	S3H1BV	C2210P	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	S3	S3H1BV	C2210P	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1ZC5210	1CV5210 POSITIONER	S3	S3H1BV	C2210P	0
A226	1CV5153	12 SRW HX SW NORM B/U OUTLET	S4	C1153P	C1153P	20
A226	1SV5153	SERV WTR HTEX 12 SALT WTR OUT	S4	C1153P	C1153P	0
A226	1CV5157	12A/12B SRW HX SALT WATER OUTLET VLV	S4	C2157T	C2157T	0
A226	1I/P5157	12A/12B SRW HX SW OUT I/P	S4	C2157T	C2157T	0
A226	1P/P5157	1CV5157 A/S VOLUME BOOSTER	S4	C2157T	C2157T	0
A226	1SV5157	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1SV5157A	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1ZC5157	1CV5157 POSITIONER	S4	C2157T	C2157T	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158C	C2158C	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158C	C2158C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158C	C2158C	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	C2158O	C2158O	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158O	C2158O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	C2158O	C2158O	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158T	C2158T	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158T	C2158T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158T	C2158T	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159C	C2159C	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159C	C2159C	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	C2159O	C2159O	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	C2159O	C2159O	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159T	C2159T	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159T	C2159T	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	C2212O	C2212O	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	C2212O	C2212O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2212O	C2212O	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1ZC5212	1CV5212 POSITIONER	S4	C2212O	C2212O	0
A226	1SV5152	SERV WTR HTEX 12 SALT WTR INLT	S4	S4CV52	C1152P	0
A226	1HVSRW-707	MANUAL SRW INLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW707P	0
A226	1HVSRW-708	MANUAL SRW OUTLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW708P	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AB	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AP	0
A226	1HVSRW-709	MANUAL SRW INLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW709P	0
A226	1HVSRW-710	MANUAL SRW OUTLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW710P	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BB	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BP	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2AV	C2158P	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	S4H2AV	C2158P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	S4H2AV	C2158P	0
A226	1CV5211	12A SRW HX SALT WATER OUTLET VLV	S4	S4H2AV	C2211P	0
A226	1FIC5211	12A SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2AV	C2211P	0
A226	1P/P5211	1CV5211 A/S VOLUME BOOSTER	S4	S4H2AV	C2211P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2211P	0
A226	1SV5211	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1SV5211A	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1ZC5211	1CV5211 POSITIONER	S4	S4H2AV	C2211P	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2BV	C2159P	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	S4H2BV	C2159P	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2BV	C2212P	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	S4H2BV	C2212P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2212P	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1ZC5212	1CV5212 POSITIONER	S4	S4H2BV	C2212P	0
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	SR	MV144C	MV144C	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	SR	MV144T	MV144T	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	SR	MV145C	MV145C	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	SR	MV145T	MV145T	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV462C	MV462C	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV462T	MV462T	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV463C	MV463C	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV463T	MV463T	0
A226	1SV1637	TURB LUBE&EHC OIL SERVWTR ISOL	TA	TAFB01	C3637P	0
A226	1SV1639	TURB LUB & EHC OIL SERV WTR IS	TA	TAFB01	C3639P	0
A226	1SV1600	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3600P	0
A226	1SV1638	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3638P	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	TE	MV144O	MV144O	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	TE	TE0101	MV144P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	TH(HD1)	BHER3B	Open	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	TH(HD1)	BHER3B	Open	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	TH(HD1)	BHER3B	Throttle	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1ZC5210	1CV5210 POSITIONER	TH(HD1)	BHER3B	Throttle	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	TH(HD2)	BHER3B	Open	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	TH(HD2)	BHER3B	Throttle	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1ZC5212	1CV5212 POSITIONER	TH(HD2)	BHER3B	Throttle	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	TW	MV145O	MV145O	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	TW	TW0101	MV145P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	TS404D	TS404D	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1CLSE	WC170P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1CLSE	WC171P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1TEMP	TS404R	0
A119	1HXHVACECCS11	ECCS PUMP ROOM AIR COOLER 11	V1	V1TRFR	HX205B	0
A119	1HXHVACECCS11	ECCS PUMP ROOM AIR COOLER 11	V1	V1TRFR	HX205P	0
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	V1	VD11AR	VD11AR	22
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	V1	VD11AS	VD11AS	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	V1	VD11BR	VD11BR	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	V1	VD11BS	VD11BS	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	V1	VD11CR	VD11CR	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	V1	VD11CS	VD11CS	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	V1	VD11DR	VD11DR	22

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	V1	VD11DS	VD11DS	22
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC170D	WC170D	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC170O	WC170O	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC171D	WC171D	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC171O	WC171O	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	TS405D	TS405D	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	V2INLT	WC173P	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	V2TEMP	TS405R	0
A118	1HXHVACECCS12	ECCS PUMP ROOM AIR COOLER 12	V2	V2TRFR	HX207B	0
A118	1HXHVACECCS12	ECCS PUMP ROOM AIR COOLER 12	V2	V2TRFR	HX207P	0
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	V2	VD12AR	VD12AR	22
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	V2	VD12AS	VD12AS	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	V2	VD12BR	VD12BR	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	V2	VD12BS	VD12BS	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	V2	VD12CR	VD12CR	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	V2	VD12CS	VD12CS	22
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	WC173D	WC173D	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	WC173O	WC173O	0
A225	1FANHVACECCSE11	11 ECCS PUMP RM EXH (1M1413)	V5	VDF11R	VDF11R	0
A225	1FANHVACECCSE11	11 ECCS PUMP RM EXH (1M1413)	V5	VDF11S	VDF11S	0
A225	1FANHVACECCSE12	12 ECCS PUMP RM EXH (1M0413)	V5	VDF12R	VDF12R	0
A225	1FANHVACECCSE12	12 ECCS PUMP RM EXH (1M0413)	V5	VDF12S	VDF12S	0
A226	1PCV5214	11 CW PP SEAL WTR PCV	VC	VCCW1A	PC214R	0
A226	1PCV5216	12 CW PP SEAL WTR PCV	VC	VCCW2A	PC216R	0
A226	1PCV5218	13 CW PP SEAL WTR PCV	VC	VCCW3A	PC218R	0
A226	1PCV5220	14 CW PP SEAL WTR PCV	VC	VCCW4A	PC220R	0
A226	1PCV5222	15 CW PP SEAL WTR PCV	VC	VCCW5A	PC222R	0
A226	1PCV5224	16 CW PP SEAL WTR PCV	VC	VCCW6A	PC224R	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	VM(RM1)	BHEV1T	Open	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	VM(RM1)	BHEV1T	Open	0
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	VM(RM1)	BHEV1T	Start	22
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	VM(RM2)	BHEV1T	Open	0
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	VM(RM2)	BHEV1T	Start	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	VM(RM2)	BHEV1T	Start	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	VM(RM2)	BHEV1T	Start	22
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0

Flood Evaluation Query

CF-06C-D225AM

04-Nov-98

TOP	PM	EVALUATION	RI
CV	F	Conservatively set to failure. CVCS relatively unimportant.	PAJ
FC	Spec Impt	AFW Pump Room Emergency Vent Fans 11 & 12 fail along with NSR A/C Unit.	PAJ
FF	None	Both 11 and 12 AFW Pump Room Exhaust fans fail to start. Covered under Top FC.	PAJ
M1	3BKR	3 breaker challenges.	PAJ
M1	1BKR	1 breaker challenge.	PAJ
M2	6BKR	6 breaker challenges.	PAJ
M3	2BKR	2 breaker challenges.	PAJ
N1	1BKR	1 breaker challenge.	PAJ
N2	1BKR	1 breaker challenge.	PAJ
N3	None	13 Charging Pump is normally aligned to 480V Bus 11A (Top N1). See Key Assumption 393.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
SG	None * ~~Spec Impt~~	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment.	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ

* See Note 5 in RAN 98-065 Sect 5.4 JBR

TOP	PM	EVALUATION	RI
~~V5~~	~~F~~	~~11 and 12 ECCS exhaust fans fails to start/run.~~ No longer used for	~~PAJ~~
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PS224R	PS224R	0
A225	1HS5472	MCC-101-BT BKR 52-10150 AFW PP RM A/C UNIT 11	FC	FCAC11	HS472T	0
A225	1HS5470	AFW PP RM EMERG VENT FAN 11 MCC-114-12	FC	FCAUX1	HS470D	18
A225	1HS5470	AFW PP RM EMERG VENT FAN 11 MCC-114-12	FC	FCAUX1	HS470T	18
A225	1HS5471	AFW PP RM EMERG VENT FAN 12 MCC-104-12	FC	FCAUX2	HS471D	18
A225	1HS5471	AFW PP RM EMERG VENT FAN 12 MCC-104-12	FC	FCAUX2	HS471T	18
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	FC	VDA11R	VDA11R	36
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	FC	VDA11S	VDA11S	36
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	FC	VDA12R	VDA12R	36
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	FC	VDA12S	VDA12S	36
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	FF	BHEFCB	Start	36
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	FF	BHEFCB	Start	36
A225	1FANHVACPENETE12	12 PENET RM EXH FAN (1M0402)	M1	VDM02Q	VDM02Q	18.75
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	M1	VDM12Q	VDM12Q	36
A225	1FANHVACECCSE12	12 ECCS PUMP RM EXH (1M0413)	M1	VDM13Q	VDM13Q	0
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A225	1FANHVACPENETE11	11 PENET RM EXH FAN (1M1402)	M2	VDN02Q	VDN02Q	18.75
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	M2	VDN12Q	VDN12Q	36
A225	1FANHVACECCSE11	11 ECCS PUMP RM EXH (1M1413)	M2	VDN13Q	VDN13Q	0
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0
A225	1FANHVACECCSE11	11 ECCS PUMP RM EXH (1M1413)	V5	VDF11R	VDF11R	0
A225	1FANHVACECCSE11	11 ECCS PUMP RM EXH (1M1413)	V5	VDF11S	VDF11S	0
A225	1FANHVACECCSE12	12 ECCS PUMP RM EXH (1M0413)	V5	VDF12R	VDF12R	0
A225	1FANHVACECCSE12	12 ECCS PUMP RM EXH (1M0413)	V5	VDF12S	VDF12S	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0

Flood Evaluation Query

CF-06D-N225AM

04-Nov-98

TOP	PM	EVALUATION	RI
AA	1BKR	1 breaker challenge.	PAJ
AD	1BKR	1 breaker challenge.	PAJ
CV	F	Conservatively set to failure. CVCS relatively unimportant.	PAJ
F1	None	11 and 12 S/G AFW Block Valves fail. These valves are normally open and will fail open. Therefore there is no impact on this top. Flow control valves failing open are addressed in top event HX.	PAJ
F7	F	Lost the ability to use Unit 1 AFW MD Pump 13 to supply Unit 1 S/G.	PAJ
F9	None ~~F~~	Loss the ability to use Unit 2 AFW MD Pump 23 to supply Unit 1 S/G. Also, 21 and 22 S/G AFW Block and Flow Valves fail. These valves are normally open and fail as-is (open) on loss of power. (Note 1)	PAJ
FC	Spec Impt	AFW Pump Room Emergency Vent Fans 11 & 12 fail along with NSR A/C Unit fail.	PAJ
FF	None	Both 11 and 12 AFW Pump Room Exhaust fans fail to start. Covered under Top FC.	PAJ
FH	None	Loss the ability to start AFW MD Pump 13. Covered under Top F7.	PAJ
FN	None	Only has 2 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
GW	None	2CV5152, 2CV5153 and 2CV5212 fail open on loss of power and loss of air.	PAJ
GZ	None	2CV5150 and 2CV5210 fail open on loss of power and loss of air.	PAJ
HU	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact.	PAJ
HX	None	11 and 12 S/G AFW (motor driven feed line) flow control valves fail open. Impact already considered by Top F7 & F9 failure.	PAJ
K3	None	1CV5210 fails open on loss of power and loss of air. During a RAS, this valve needs to open for recirulation. It is assumed (Per Rob) that this top event will not fail during smaller LOCA size breaks.	PAJ
K4	None	1CV5212 fails open on loss of power and loss of air. During a RAS, this valve needs to open for recirulation. It is assumed (Per Rob) that this top event will not fail during smaller LOCA size breaks.	PAJ

See Notes in RAN 98-065 sect 5.4 JTOR

TOP	PM	EVALUATION	RI
M1	6BKR	6 breaker challenges.	PAJ
M2	9BKR	9 breaker challenges.	PAJ
M3	5BKR	5 breaker challenges.	PAJ
~~M4~~	~~4BKR~~	~~4 breaker challenges.~~ NOT IN U1 GT.	~~PAJ~~
MN	None	Has 6 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
N1	1BKR	1 breaker challenge.	PAJ
N2	1BKR	1 breaker challenge.	PAJ
N3	None	13 Charging Pump is normally aligned to 480V Bus 11A (Top N1). See Key Assumption 393.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
NR(TC)	None ~~Spec Impt~~	2CV1600/1637/1638/1639 fail close on loss of power, the undesirable position. Unable to use Unit 2 compressors for Unit 1. (Note 1)	PAJ
NS	None ~~Spec Impt~~	2CV1600/1637/1638/1639 fail close on loss of power, the undesirable position. Unable to use Unit 2 compressors for Unit 2. (Note 1)	PAJ
QZ	None	11 & 12 AFW Block valves (1CV4522/4523/4532/4533) are normally open and fail as-is on loss of power.	PAJ
S3	None	All valves fail to their appropriate positions on loss of power and loss of air. 1CV5148 (FO), 1CV5148A (FC), 1CV5151 (FO), 1CV5151A (FC) and 1CV5209 (FO).	PAJ
S4	None	All valves fail to their appropriate positions on loss of power and loss of air. 1CV5158 (FO), 1CV5158A (FC), 1CV5159 (FO), 1CV5159A (FC), 1CV5211 (FO), 1CV5153 (FO) and 1CV5157 (FC).	PAJ

see Notes in RAN 98-065 sect. 5.4 JTJK

TOP	PM	EVALUATION	RI
SG	None ~~Spec Impt~~	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment. (Note 5)	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ
SR	Spec Impt ~~None~~	All MOVs (1MOV4144/4145/5462/5463) are closed and fail close. (Note 10)	PAJ
TA	~~F~~	~~1CV1637/1639 fail close on loss of power / loss of air.~~ (Note 1)	PAJ
TB	~~F~~	~~1CV1600/1638 fail close on loss of power / loss of air.~~ (Note 1)	PAJ
TE	F	1MOV4144 is normally in the closed position and will fail as-is. Therefore, the East Recirculation Header will not function properly.	PAJ
TH(HD1)	None	1CV5210 will fail to it's appropriate position not allowing the operator to throttle valve. Covered by Top S3 or K3.	PAJ
TH(HD2)	None	1CV5212 will fail to it's appropriate position not allowing the operator to throttle valve. Covered by Top S4 or K4.	PAJ
TW	F	1MOV4145 is normally in the closed position and will fail as-is. Therefore, the West Recirculation Header will not function properly.	PAJ
UQ	None	1CV4525/4535 are normally open and fail as-is on loss of power. This top only fails when an under feed to the SG occurs.	PAJ
V5	~~F~~	~~11 and 12 ECCS exhaust fans fails to start/run.~~ V5 no longer used	PAJ
VC	None	Has 6 PCVs. I am assuming that these will not fail during a flood.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	AA	MAAF3Q	MAAF3Q	16
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	AD	MAAF6Q	MAAF6Q	16
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PS224R	PS224R	0
A226	1SV4522	11 S/G AFW BLOCK SV	F1	CV4522	CV522P	0
A226	1SV4523	11 S/G AFW BLOCK SV	F1	CV4523	CV523P	0
A226	1SV4532	12 S/G AFW BLOCK SV	F1	CV4532	CV532P	0
A226	1SV4533	12 S/G AFW BLOCK SV	F1	CV4533	CV533P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A226	1SV4550	U-1 TO U-2 AFW X-CONN SV	F7	F7MPVA	C3550T	0
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QR	MA13QR	16
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QS	MA13QS	16
A205	2SV4522	S/G 21 AFW MOTOR SYS ISOL VLV	F9	CVB22C	CVB22C	0
A205	2SV4523	S/G 21 AFW MOTOR SYS ISOL VLV	F9	CVB23C	CVB23C	0
A205	2SV4532	S/G 22 AFW MOTOR SYS ISOL VLV	F9	CVB32C	CVB32C	0
A205	2SV4533	S/G 22 AFW MOTOR SYS ISOL VLV	F9	CVB33C	CVB33C	0
A205	2SV4550	U-2 AUX FEED X-CONN VLV	F9	F9M2VA	C3B50O	0
A205	2SV4550	U-2 AUX FEED X-CONN VLV	F9	F9M2VA	C3B50P	0
A205	2SV4522	S/G 21 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB22T	0
A205	2SV4523	S/G 21 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB23T	0
A205	2SV4532	S/G 22 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB32T	0
A205	2SV4533	S/G 22 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB33T	0
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	F9	MA23QR	MA23QR	16
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	F9	MA23QS	MA23QS	16
A225	1HS5472	MCC-101-BT BKR 52-10150 AFW PP RM A/C UNIT 11	FC	FCAC11	HS472T	0
A225	1HS5470	AFW PP RM EMERG VENT FAN 11 MCC-114-12	FC	FCAUX1	HS470D	18
A225	1HS5470	AFW PP RM EMERG VENT FAN 11 MCC-114-12	FC	FCAUX1	HS470T	18
A225	1HS5471	AFW PP RM EMERG VENT FAN 12 MCC-104-12	FC	FCAUX2	HS471D	18

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A225	1HS5471	AFW PP RM EMERG VENT FAN 12 MCC-104-12	FC	FCAUX2	HS471T	18
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	FC	VDA11R	VDA11R	36
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	FC	VDA11S	VDA11S	36
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	FC	VDA12R	VDA12R	36
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	FC	VDA12S	VDA12S	36
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	FF	BHEFCB	Start	36
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	FF	BHEFCB	Start	36
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	FH	BHEF71	Start	16
A226	1PCV4512	1 IA SUPP ACCUM 11A & 11B PCV	FN	FN0000	CV512P	0
A226	1PCV4520	11B AFW AIR ACCUMULATOR OUTLET PCV	FN	FN0000	CV520P	0
A205	2I/P5212	SALT WTR OUT SERV WTR HTEX	GW	C2S12O	C2S12O	0
A205	2SV5212	SERV WTR HTEX 22 SALT WTR OUT	GW	C2S12O	C2S12O	0
A205	2SV5212A	SERV WTR HTEX 22 SALT WTR OUT	GW	C2S12O	C2S12O	0
A205	2SV5152	SERV WTR HTEX 22 SALT WTR INLT	GW	S8CV52	C1S52P	0
A205	2CV5153	22 SRW HX SW NORM B/U OUTLET	GW	S8H2CV	C1S53P	20
A205	2SV5153	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C1S53P	0
A205	2I/P5212	SALT WTR OUT SERV WTR HTEX	GW	S8H2CV	C2S12P	0
A205	2SV5212	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C2S12P	0
A205	2SV5212A	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C2S12P	0
A205	2SV5150	SERV WTR HTEX 21 SALT WTR INLT	GZ	S7H2CV	C1S50P	0
A205	2I/P5210	SALT WTR OUT SERV WTR HTEX	GZ	S7H2CV	C2S10P	0
A205	2SV5210	SERV WTR HTEX 21 SALT WTR OUT	GZ	S7H2CV	C2S10P	0
A205	2SV5210A	SERV WTR HTEX 21 SALT WTR OUT	GZ	S7H2CV	C2S10P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	C2210C	C2210C	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	C2210C	C2210C	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0
A226	1ZC5210	1CV5210 POSITIONER	K3	C2210C	C2210C	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	K3CLOS	C2210T	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	K3CLOS	C2210T	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1ZC5210	1CV5210 POSITIONER	K3	K3CLOS	C2210T	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	C2212C	C2212C	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	C2212C	C2212C	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1ZC5212	1CV5212 POSITIONER	K4	C2212C	C2212C	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	K4ISO1	C2212T	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	K4ISO1	C2212T	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1ZC5212	1CV5212 POSITIONER	K4	K4ISO1	C2212T	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	M1	MVM30Q	MVM30Q	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	M1	MVM44Q	MVM44Q	0
A225	1FANHVACPENETE12	12 PENET RM EXH FAN (1M0402)	M1	VDM02Q	VDM02Q	18.75
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	M1	VDM12Q	VDM12Q	36
A225	1FANHVACECCSE12	12 ECCS PUMP RM EXH (1M0413)	M1	VDM13Q	VDM13Q	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1FAN5334	SRW HX RM EXH FAN 18B (1M0451)	M1	VDM51Q	VDM51Q	0
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	M2	MVN44Q	MVN44Q	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	M2	MVN57Q	MVN57Q	0
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A225	1FANHVACPENETE11	11 PENET RM EXH FAN (1M1402)	M2	VDN02Q	VDN02Q	18.75
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	M2	VDN12Q	VDN12Q	36
A225	1FANHVACECCSE11	11 ECCS PUMP RM EXH (1M1413)	M2	VDN13Q	VDN13Q	0
A226	1FAN5335	SRW HTEX RM FAN VU-18A (1M1441)	M2	VDN41Q	VDN41Q	0
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A120	2MOV5463	U-2 CONTMT RECIRC PIPE TUNNEL	M3	MVO30Q	MVO30Q	0
A120	2MOV4145	CONTMT SUMP OUTLET ISOL	M3	MVO44Q	MVO44Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A205	2FAN5334	SRW HX RM EXH FAN 19B (2M0451)	M3	VDO51Q	VDO51Q	0
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32
A120	2MOV4144	CONTMT SUMP OUTLET ISOL	M4	MVN44Q	MVN44Q	0
A120	2MOV5462	U-2 CONTMT RECIRC PIPE TUNNEL	M4	MVN57Q	MVN57Q	0
A205	2FAN5335	SRW HX RM SPLY FAN 19A (2M1437)	M4	VDN37Q	VDN37Q	0
A226	1PCV5000	11 SGFP BRG OIL PRESS REG VLV	MN	MNFW58	PC000R	0
A226	1PCV4993	11 SGFPT CONT OIL PRESS REG	MN	MNFW58	PC993R	0
A226	1PCV4999	11 SGFPT OIL PRESS REG VLV	MN	MNFW58	PC999R	0
A226	1PCV5043	12 SGFP TLO PP DISCH PCV	MN	MNFW68	PC043R	0
A226	1PCV5048	12 SGFP TLO RESERVOIR INLET PCV	MN	MNFW68	PC048R	0
A226	1PCV5049	12 FW SGFP TLO TO PP BRGS PCV	MN	MNFW68	PC049R	0
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A205	2SV1637	TURB & EHC OIL SERV WTR ISOL VLV	NR(TC)	UNIT 2-TAFB01	C3637P	0
A205	2SV1639	TURB LUB & EHC OIL SERVWTR ISO	NR(TC)	UNIT 2-TAFB01	C3639P	0
A205	2SV1600	TURB BLDG SERV WTR ISOL VLV	NR(TC)	UNIT 2-TBFB01	C3600P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NR(TC)	UNIT 2-TBFB01	C3638P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NS	NSSRW	N/A	0
A205	2SV1637	TURB & EHC OIL SERV WTR ISOL VLV	NS	UNIT 2-TAFB01	C3637P	0
A205	2SV1639	TURB LUB & EHC OIL SERVWTR ISO	NS	UNIT 2-TAFB01	C3639P	0
A205	2SV1600	TURB BLDG SERV WTR ISOL VLV	NS	UNIT 2-TBFB01	C3600P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NS	UNIT 2-TBFB01	C3638P	0
A226	1SV4522	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4523	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4532	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4533	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV5150	SERV WTR HTEX 11 SALT WTR INLT	S3	C1150P	C1150P	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148C	C2148C	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148C	C2148C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148C	C2148C	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148O	C2148O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148T	C2148T	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148T	C2148T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148T	C2148T	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151C	C2151C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151C	C2151C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151C	C2151C	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151C	C2151C	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	C2151O	C2151O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151O	C2151O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151O	C2151O	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	C2151O	C2151O	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151T	C2151T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151T	C2151T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151T	C2151T	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151T	C2151T	0
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AB	0
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AP	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BB	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BP	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1AV	C2148P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1CV5209	11A SRW HX SALT WATER OUTLET VLV	S3	S3H1AV	C2209P	0
A226	1FIC5209	11A SRW HX SW OUTLET FLOW INDICATOR	S3	S3H1AV	C2209P	0
A226	1P/P5209	1CV5209 A/S VOLUME BOOSTER	S3	S3H1AV	C2209P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2209P	0
A226	1SV5209	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1SV5209A	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1BV	C2151P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1BV	C2151P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1BV	C2151P	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	S3H1BV	C2151P	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	S3	S3H1BV	C2210P	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	S3	S3H1BV	C2210P	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1ZC5210	1CV5210 POSITIONER	S3	S3H1BV	C2210P	0
A226	1CV5153	12 SRW HX SW NORM B/U OUTLET	S4	C1153P	C1153P	20
A226	1SV5153	SERV WTR HTEX 12 SALT WTR OUT	S4	C1153P	C1153P	0
A226	1CV5157	12A/12B SRW HX SALT WATER OUTLET VLV	S4	C2157T	C2157T	0
A226	1I/P5157	12A/12B SRW HX SW OUT I/P	S4	C2157T	C2157T	0
A226	1P/P5157	1CV5157 A/S VOLUME BOOSTER	S4	C2157T	C2157T	0
A226	1SV5157	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1SV5157A	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1ZC5157	1CV5157 POSITIONER	S4	C2157T	C2157T	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158C	C2158C	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158C	C2158C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158C	C2158C	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	C2158O	C2158O	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158O	C2158O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	C2158O	C2158O	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158T	C2158T	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158T	C2158T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158T	C2158T	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159C	C2159C	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159C	C2159C	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	C2159O	C2159O	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	C2159O	C2159O	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159T	C2159T	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159T	C2159T	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	C2212O	C2212O	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	C2212O	C2212O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2212O	C2212O	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1ZC5212	1CV5212 POSITIONER	S4	C2212O	C2212O	0
A226	1SV5152	SERV WTR HTEX 12 SALT WTR INLT	S4	S4CV52	C1152P	0
A226	1HVSRW-707	MANUAL SRW INLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW707P	0
A226	1HVSRW-708	MANUAL SRW OUTLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW708P	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AB	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AP	0
A226	1HVSRW-709	MANUAL SRW INLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW709P	0
A226	1HVSRW-710	MANUAL SRW OUTLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW710P	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BB	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BP	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2AV	C2158P	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	S4H2AV	C2158P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	S4H2AV	C2158P	0
A226	1CV5211	12A SRW HX SALT WATER OUTLET VLV	S4	S4H2AV	C2211P	0
A226	1FIC5211	12A SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2AV	C2211P	0
A226	1P/P5211	1CV5211 A/S VOLUME BOOSTER	S4	S4H2AV	C2211P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2211P	0
A226	1SV5211	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1SV5211A	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1ZC5211	1CV5211 POSITIONER	S4	S4H2AV	C2211P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2BV	C2159P	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	S4H2BV	C2159P	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2BV	C2212P	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	S4H2BV	C2212P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2212P	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1ZC5212	1CV5212 POSITIONER	S4	S4H2BV	C2212P	0
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	SR	MV144C	MV144C	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	SR	MV144T	MV144T	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	SR	MV145C	MV145C	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	SR	MV145T	MV145T	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV462C	MV462C	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV462T	MV462T	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV463C	MV463C	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV463T	MV463T	0
A226	1SV1637	TURB LUBE&EHC OIL SERVWTR ISOL	TA	TAFB01	C3637P	0
A226	1SV1639	TURB LUB & EHC OIL SERV WTR IS	TA	TAFB01	C3639P	0
A226	1SV1600	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3600P	0
A226	1SV1638	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3638P	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	TE	MV144O	MV144O	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	TE	TE0101	MV144P	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	TH(HD1)	BHER3B	Throttle	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1ZC5210	1CV5210 POSITIONER	TH(HD1)	BHER3B	Throttle	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	TH(HD2)	BHER3B	Throttle	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1ZC5212	1CV5212 POSITIONER	TH(HD2)	BHER3B	Throttle	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	TW	MV145O	MV145O	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	TW	TW0101	MV145P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A225	1FANHVACECCSE11	11 ECCS PUMP RM EXH (1M1413)	V5	VDF11R	VDF11R	0
A225	1FANHVACECCSE11	11 ECCS PUMP RM EXH (1M1413)	V5	VDF11S	VDF11S	0
A225	1FANHVACECCSE12	12 ECCS PUMP RM EXH (1M0413)	V5	VDF12R	VDF12R	0
A225	1FANHVACECCSE12	12 ECCS PUMP RM EXH (1M0413)	V5	VDF12S	VDF12S	0
A226	1PCV5214	11 CW PP SEAL WTR PCV	VC	VCCW1A	PC214R	0
A226	1PCV5216	12 CW PP SEAL WTR PCV	VC	VCCW2A	PC216R	0
A226	1PCV5218	13 CW PP SEAL WTR PCV	VC	VCCW3A	PC218R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1PCV5220	14 CW PP SEAL WTR PCV	VC	VCCW4A	PC220R	0
A226	1PCV5222	15 CW PP SEAL WTR PCV	VC	VCCW5A	PC222R	0
A226	1PCV5224	16 CW PP SEAL WTR PCV	VC	VCCW6A	PC224R	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0

Flood Evaluation Query

CF-07A-F226AM

04-Nov-98

TOP	PM	EVALUATION	RI
AA	3BKR	3 breaker challenges.	PAJ
AB	1BKR	1 breaker challenge.	PAJ
CV	None ~~F~~	~~Conservatively set to failure. CVCS relatively unimportant.~~ Note 13 (CRMP293)	PAJ
F1	None	11 and 12 S/G AFW Block Valves fail. These valves are normally open and will fail open. Therefore there is no impact on this top. Flow control valves failing open are addressed in top event HX.	PAJ
F7	F	Lost the ability to use Unit 1 AFW MD Pump 13 to supply Unit 1 S/G.	PAJ
FH	None	Loss the ability to start AFW MD Pump 13. Covered under Top F7.	PAJ
FN	None	Only has 2 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
HU	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact.	PAJ
HX	None	11 and 12 S/G AFW (motor driven feed line) flow control valves fail open. Impact already considered by Top F7 & F9 failure.	PAJ
I1	F	11 SWAC fails.	PAJ
I2	F	12 SWAC fails.	PAJ
K3	None	1CV5210 fails open on loss of power and loss of air. During a RAS, this valve needs to open for recirulation. It is assumed (Per Rob) that this top event will not fail during smaller LOCA size breaks.	PAJ
K4	None	1CV5212 fails open on loss of power and loss of air. During a RAS, this valve needs to open for recirulation. It is assumed (Per Rob) that this top event will not fail during smaller LOCA size breaks.	PAJ
M1	2BKR	2 breaker challenges.	PAJ
M2	5BKR	5 breaker challenges.	PAJ
M3	2BKR	2 breaker challenges.	PAJ
~~M4~~	~~1BKR~~	~~1 breaker challenge.~~ NOT IN U1 GT.	~~PAJ~~

See notes in RAN 98-065 Sect 5.4 JPN

TOP	PM	EVALUATION	RI
MN	None	Has 6 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
N1	1BKR	1 breaker challenge.	PAJ
N2	1BKR	1 breaker challenge.	PAJ
N3	None	13 Charging Pump is normally aligned to 480V Bus 11A (Top N1). See Key Assumption 393.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
NR	Spec Impt ~~None~~	~~Air accumulators only. Mechanical operation only.~~ (Note 4)	PAJ
QZ	None	11 & 12 AFW Block valves (1CV4522/4523/4532/4533) are normally open and fail as-is on loss of power.	PAJ
S3	F	11 and 13 SRW Pumps fail.	PAJ
S4	F	12 and 13 SRW Pumps fail.	PAJ
SG	None ~~Spec Impt~~	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment. (Note 5)	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ
TA	F	1CV1637/1639 fail close on loss of power / loss of air.	PAJ
TB	F	1CV1600/1638 fail close on loss of power / loss of air.	PAJ
TH(HD1)	None	1CV5206/5210 will fail to there appropriate position not allowing the operator to throttle valves. Covered by Top S3 or K3.	PAJ

See Notes in RAN 98-065 sect. 5.4 JDK

TOP	PM	EVALUATION	RI
TH(HD2)	None	1CV5208/5212 will fail to there appropriate position not allowing the operator to throttle valves. Covered by Top S4 or K4.	PAJ
UQ	None	1CV4525/4535 will fail open. This top is only fails when an under feed to the SG occurs.	PAJ
VC	None	Has 6 PCVs. I am assuming that these will not fail during a flood.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	AA	MAAF3Q	MAAF3Q	16
A226	1PUMPSRW11	11 SERVICE WATER PUMP (1MA109)	AA	MWSR1Q	MWSR1Q	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	AA	MWSR3Q	MWSR3Q	32
A226	1PUMPSRW12	12 SERVICE WATER PUMP (1MA409)	AB	MWSR2Q	MWSR2Q	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	AB	MWSR4Q	MWSR4Q	32
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PS224R	PS224R	0
A226	1CV4522	11 S/G AFW BLOCK VLV	F1	CV4522	CV522P	40
A226	1SV4522	11 S/G AFW BLOCK SV	F1	CV4522	CV522P	0
A226	1CV4523	11 S/G AFW BLOCK VLV	F1	CV4523	CV523P	144
A226	1SV4523	11 S/G AFW BLOCK SV	F1	CV4523	CV523P	0
A226	1CV4532	12 S/G AFW BLOCK VLV	F1	CV4532	CV532P	40
A226	1SV4532	12 S/G AFW BLOCK SV	F1	CV4532	CV532P	0
A226	1CV4533	12 S/G AFW BLOCK VLV	F1	CV4533	CV533P	144
A226	1SV4533	12 S/G AFW BLOCK SV	F1	CV4533	CV533P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	F1	F1MLV1	C6525P	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	F1	F1MLV1	C6525R	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1CV4535	12 S/G AFW FLOW CONT VLV	F1	F1MLV2	C6535P	144
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1CV4535	12 S/G AFW FLOW CONT VLV	F1	F1MLV2	C6535R	144
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A226	1CV4550	U-1 TO U-2 AFW X-CONN VLV	F7	F7MPVA	C3550T	144
A226	1SV4550	U-1 TO U-2 AFW X-CONN SV	F7	F7MPVA	C3550T	0
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QR	MA13QR	16
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QS	MA13QS	16
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	FH	BHEF71	Start	16
A226	1PCV4512	1 IA SUPP ACCUM 11A & 11B PCV	FN	FN0000	CV512P	0
A226	1PCV4520	11B AFW AIR ACCUMULATOR OUTLET PCV	FN	FN0000	CV520P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	HU	BHEF1B	Throttle	144

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1CV4535	12 S/G AFW FLOW CONT VLV	HU	BHEF1B	Throttle	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	HX	BHEF1A	Throttle	144
A226	1CV4535	12 S/G AFW FLOW CONT VLV	HX	BHEF1A	Throttle	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1COMPSWAC11	11 SW AIR COMPRESSOR (1M1404)	I1	CMS11R	CMS11R	144
A226	1COMPSWAC11	11 SW AIR COMPRESSOR (1M1404)	I1	CMS11S	CMS11S	144
A226	1LS5200	11 IA SW AIR COMP LS	I1	I1CNTL	LS200R	144
A226	1TS5200	11 IA SW AIR COMP TS	I1	I1CNTL	TS200R	144
A226	1COMPSWAC12	12 SW AIR COMPRESSOR (1M0404)	I2	CMS12R	CMS12R	144
A226	1COMPSWAC12	12 SW AIR COMPRESSOR (1M0404)	I2	CMS12S	CMS12S	144
A226	1LS5201	12 IA SW AIR COMP LS	I2	I2CNTL	LS201R	144
A226	1TS5201	12 IA SW AIR COMP TS	I2	I2CNTL	TS201R	144
A226	1CV5210	11 SRW HX SW OUTLET CV	K3	C2210C	C2210C	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	C2210C	C2210C	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	C2210C	C2210C	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0
A226	1ZC5210	1CV5210 POSITIONER	K3	C2210C	C2210C	0
A226	1CV5210	11 SRW HX SW OUTLET CV	K3	K3CLOS	C2210T	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	K3CLOS	C2210T	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	K3CLOS	C2210T	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1ZC5210	1CV5210 POSITIONER	K3	K3CLOS	C2210T	0
A226	1CV5212	12 SRW HX SW OUT CV	K4	C2212C	C2212C	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	C2212C	C2212C	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	C2212C	C2212C	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1ZC5212	1CV5212 POSITIONER	K4	C2212C	C2212C	0
A226	1CV5212	12 SRW HX SW OUT CV	K4	K4ISO1	C2212T	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	K4ISO1	C2212T	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	K4ISO1	C2212T	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1ZC5212	1CV5212 POSITIONER	K4	K4ISO1	C2212T	0
A226	1COMPSWAC12	12 SW AIR COMPRESSOR (1M0404)	M1	CMM04Q	CMM04Q	144
A226	1FAN5334	SRW HX RM EXH FAN 18B (1M0451)	M1	VDM51Q	VDM51Q	0
A226	1COMPSWAC11	11 SW AIR COMPRESSOR (1M1404)	M2	CMN04Q	CMN04Q	144
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A226	1FAN5335	SRW HTEX RM FAN VU-18A (1M1441)	M2	VDN41Q	VDN41Q	0
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32
A226	1PCV5000	11 SGFP BRG OIL PRESS REG VLV	MN	MNFW58	PC000R	0
A226	1PCV4993	11 SGFPT CONT OIL PRESS REG	MN	MNFW58	PC993R	0
A226	1PCV4999	11 SGFPT OIL PRESS REG VLV	MN	MNFW58	PC999R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1PCV5043	12 SGFP TLO PP DISCH PCV	MN	MNFW68	PC043R	0
A226	1PCV5048	12 SGFP TLO RESERVOIR INLET PCV	MN	MNFW68	PC048R	0
A226	1PCV5049	12 FW SGFP TLO TO PP BRGS PCV	MN	MNFW68	PC049R	0
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A226	1ACC4070	11 S/G AFW STM VLV ACCUM	NR	NRIA99	TK070B	144
A226	1ACC4071	12 S/G STM VLV ACCUM	NR	NRIA99	TK071B	144
A226	1CV4522	11 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	40
A226	1CV4523	11 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	144
A226	1CV4532	12 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	40
A226	1CV4533	12 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	144
A226	1SV4522	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4523	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4532	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4533	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1CV5150	11 SRW HX SW INLET	S3	C1150P	C1150P	60
A226	1SV5150	SERV WTR HTEX 11 SALT WTR INLT	S3	C1150P	C1150P	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148C	C2148C	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148C	C2148C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148C	C2148C	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148O	C2148O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148T	C2148T	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148T	C2148T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148T	C2148T	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151C	C2151C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151C	C2151C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151C	C2151C	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151C	C2151C	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	C2151O	C2151O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151O	C2151O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151O	C2151O	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	C2151O	C2151O	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151T	C2151T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151T	C2151T	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151T	C2151T	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151T	C2151T	0
A226	1PUMPSRW11	11 SERVICE WATER PUMP (1MA109)	S3	MWS11R	MWS11R	32
A226	1PUMPSRW11	11 SERVICE WATER PUMP (1MA109)	S3	MWS11S	MWS11S	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S3	MWS13R	MWS13R	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S3	MWS13S	MWS13S	32
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AB	0
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AP	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BB	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BP	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1AV	C2148P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1CV5209	11A SRW HX SALT WATER OUTLET VLV	S3	S3H1AV	C2209P	0
A226	1FIC5209	11A SRW HX SW OUTLET FLOW INDICATOR	S3	S3H1AV	C2209P	0
A226	1P/P5209	1CV5209 A/S VOLUME BOOSTER	S3	S3H1AV	C2209P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2209P	0
A226	1SV5209	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1SV5209A	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1BV	C2151P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1BV	C2151P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1BV	C2151P	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	S3H1BV	C2151P	0
A226	1CV5210	11 SRW HX SW OUTLET CV	S3	S3H1BV	C2210P	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	S3	S3H1BV	C2210P	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	S3	S3H1BV	C2210P	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1ZC5210	1CV5210 POSITIONER	S3	S3H1BV	C2210P	0
A226	1CV5153	12 SRW HX SW NORM B/U OUTLET	S4	C1153P	C1153P	20
A226	1SV5153	SERV WTR HTEX 12 SALT WTR OUT	S4	C1153P	C1153P	0
A226	1CV5157	12A/12B SRW HX SALT WATER OUTLET VLV	S4	C2157T	C2157T	0
A226	1I/P5157	12A/12B SRW HX SW OUT I/P	S4	C2157T	C2157T	0
A226	1P/P5157	1CV5157 A/S VOLUME BOOSTER	S4	C2157T	C2157T	0
A226	1SV5157	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1SV5157A	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1ZC5157	1CV5157 POSITIONER	S4	C2157T	C2157T	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158C	C2158C	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158C	C2158C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158C	C2158C	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	C2158O	C2158O	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158O	C2158O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	C2158O	C2158O	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158T	C2158T	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158T	C2158T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158T	C2158T	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159C	C2159C	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159C	C2159C	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	C2159O	C2159O	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	C2159O	C2159O	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159T	C2159T	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159T	C2159T	0
A226	1CV5212	12 SRW HX SW OUT CV	S4	C2212O	C2212O	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	C2212O	C2212O	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	C2212O	C2212O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2212O	C2212O	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1ZC5212	1CV5212 POSITIONER	S4	C2212O	C2212O	0
A226	1PUMPSRW12	12 SERVICE WATER PUMP (1MA409)	S4	MWS12R	MWS12R	32
A226	1PUMPSRW12	12 SERVICE WATER PUMP (1MA409)	S4	MWS12S	MWS12S	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S4	MWS13R	MWS13R	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S4	MWS13S	MWS13S	32
A226	1CV5152	12 SRW HX SW INLET	S4	S4CV52	C1152P	60
A226	1SV5152	SERV WTR HTEX 12 SALT WTR INLT	S4	S4CV52	C1152P	0
A226	1HVSRW-707	MANUAL SRW INLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW707P	0
A226	1HVSRW-708	MANUAL SRW OUTLET ISOLATION VLV TO 12A PH	S4	S4H12A	HW708P	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AB	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AP	0
A226	1HVSRW-709	MANUAL SRW INLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW709P	0
A226	1HVSRW-710	MANUAL SRW OUTLET ISOLATION VLV TO 12B PH	S4	S4H12B	HW710P	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BB	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BP	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2AV	C2158P	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	S4H2AV	C2158P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	S4H2AV	C2158P	0
A226	1CV5211	12A SRW HX SALT WATER OUTLET VLV	S4	S4H2AV	C2211P	0
A226	1FIC5211	12A SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2AV	C2211P	0
A226	1P/P5211	1CV5211 A/S VOLUME BOOSTER	S4	S4H2AV	C2211P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2211P	0
A226	1SV5211	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1SV5211A	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1ZC5211	1CV5211 POSITIONER	S4	S4H2AV	C2211P	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2BV	C2159P	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	S4H2BV	C2159P	0
A226	1CV5212	12 SRW HX SW OUT CV	S4	S4H2BV	C2212P	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2BV	C2212P	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	S4H2BV	C2212P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2212P	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1ZC5212	1CV5212 POSITIONER	S4	S4H2BV	C2212P	0
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0
A226	1CV1637	TURB BLDG SRW HDR 11 ISOL	TA	TAFB01	C3637P	144
A226	1SV1637	TURB LUBE&EHC OIL SERVWTR ISOL	TA	TAFB01	C3637P	0
A226	1CV1639	TURB BLDG SRW HDR 11 ISOL	TA	TAFB01	C3639P	144
A226	1SV1639	TURB LUB & EHC OIL SERV WTR IS	TA	TAFB01	C3639P	0
A226	1CV1600	TURB BLDG SRW HDR 12 ISOL	TB	TBFB01	C3600P	72
A226	1SV1600	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3600P	0
A226	1CV1638	TURB BLDG SRW HDR 12 ISOL	TB	TBFB01	C3638P	72
A226	1SV1638	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3638P	0
A226	1CV5210	11 SRW HX SW OUTLET CV	TH(HD1)	BHER3B	Throttle	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	TH(HD1)	BHER3B	Throttle	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1ZC5210	1CV5210 POSITIONER	TH(HD1)	BHER3B	Throttle	0
A226	1CV5212	12 SRW HX SW OUT CV	TH(HD2)	BHER3B	Throttle	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	TH(HD2)	BHER3B	Throttle	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1ZC5212	1CV5212 POSITIONER	TH(HD2)	BHER3B	Throttle	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	UQ	BHEUQ1	Throttle	144
A226	1CV4535	12 S/G AFW FLOW CONT VLV	UQ	BHEUQ1	Throttle	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1PCV5214	11 CW PP SEAL WTR PCV	VC	VCCW1A	PC214R	0
A226	1PCV5216	12 CW PP SEAL WTR PCV	VC	VCCW2A	PC216R	0
A226	1PCV5218	13 CW PP SEAL WTR PCV	VC	VCCW3A	PC218R	0
A226	1PCV5220	14 CW PP SEAL WTR PCV	VC	VCCW4A	PC220R	0
A226	1PCV5222	15 CW PP SEAL WTR PCV	VC	VCCW5A	PC222R	0
A226	1PCV5224	16 CW PP SEAL WTR PCV	VC	VCCW6A	PC224R	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0

Flood Evaluation Query

CF-07B-F226AN *

05-Nov-98

TOP	PM	EVALUATION	RI
AA	6BKR	6 breaker challenges.	PAJ
AB	5BKR	5 breaker challenges.	PAJ
AC	2BKR	2 breaker challenges.	PAJ
AD	5BKR	5 breaker challenges.	PAJ
CS	F	CS Pump 11 is lost.	PAJ
CT	F	CS Pump 12 is lost.	PAJ
CV	None ~~F~~	~~Conservatively set to failure. CVCS relatively unimportant.~~ Note 13	PAJ
F1	None	11 and 12 S/G AFW Block Valves fail. These valves are normally open and will fail open. Therefore there is no impact on this top. Flow control valves failing open are addressed in top event HX.	PAJ
F7	F	Lost the ability to use Unit 1 AFW MD Pump 13 to supply Unit 1 S/G.	PAJ
F9	F	Loss the ability to use Unit 2 AFW MD Pump 23 to supply Unit 1 S/G. Also, 21 and 22 S/G AFW Block and Flow Valves fail. These valves are normally open and fail as-is (open) on loss of power.	PAJ
FH	None	Loss the ability to start AFW MD Pump 13. Covered under Top F7.	PAJ
FN	None	Only has 2 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
GW	None	2CV5152, 2CV5153 and 2CV5212 fail open on loss of power and loss of air.	PAJ
GZ	None	2CV5150 and 2CV5210 fail open on loss of power and loss of air.	PAJ
HA	F	11 HPSI Pump fails.	PAJ
HB	F	13 HPSI Pump fails.	PAJ
HU	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact.	PAJ
HW	F	12 HPSI is lost. Also 1MOV653, 1MOV654, 1MOV655 and 1MOV656 fail as-is.	PAJ

* This flood is eliminated - See Note 12 RAN 98-065 sect 5.4 JDK

TOP	PM	EVALUATION	RI
HX	None	11 and 12 S/G AFW (motor driven feed line) flow control valves fail open. Impact already considered by Top F7 & F9 failure.	PAJ
I1	F	11 SWAC fails.	PAJ
I2	F	12 SWAC fails.	PAJ
K3	None	1CV5210 fails open on loss of power and loss of air. During a RAS, this valve needs to open for recirulation. It is assumed (Per Rob) that this top event will not fail during smaller LOCA size breaks.	PAJ
K4	None	1CV5212 fails open on loss of power and loss of air. During a RAS, this valve needs to open for recirulation. It is assumed (Per Rob) that this top event will not fail during smaller LOCA size breaks.	PAJ
M1	8BKR	8 breaker challenges.	PAJ
M2	11BKR	11 breaker challenges.	PAJ
M3	9BKR	9 breaker challenges.	PAJ
~~M4~~	~~5BKR~~	~~5 breaker challenges.~~ NOT IN U1 GT.	~~PAJ~~
MN	None	Has 6 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
MV	None	1MOV659/660 fail as-is and are normally electrically locked open, there will be no flood impact.	PAJ
N1	1BKR	1 breaker challenge.	PAJ
N2	1BKR	1 breaker challenge.	PAJ
N3	None	13 Charging Pump is normally aligned to 480V Bus 11A (Top N1). See Key Assumption 393.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ

TOP	PM	EVALUATION	RI
N8	1BKR	1 breaker challenge.	PAJ
NR	None	Air accumulators only. Mechanical operation only.	PAJ
NR(TC)	Spec Impt	2CV1600/1637/1638/1639 fail close on loss of power, the undesirable position. Unable to use Unit 2 compressors for Unit 1.	PAJ
NS	Spec Impt	2CV1600/1637/1638/1639 fail close on loss of power, the undesirable position. Unable to use Unit 2 compressors for Unit 2.	PAJ
QZ	None	11 & 12 AFW Block valves (1CV4522/4523/4532/4533) are normally open and fail as-is on loss of power.	PAJ
RH	F	This human action requires the operator to start 11 and 13 HPSI Pumps. Both pumps are assumed not to start/run during a flood scenario.	PAJ
S3	F	11 and 13 SRW Pumps fail.	PAJ
S4	F	12 and 13 SRW Pumps fail.	PAJ
SG	Spec Impt	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment.	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ
SR	None	All MOVs (1MOV4144/4145/5462/5463) are closed and fail close.	PAJ
TA	F	1CV1637/1639 fail close on loss of power / loss of air.	PAJ
TB	F	1CV1600/1638 fail close on loss of power / loss of air.	PAJ
TE	F	1MOV4144 is normally in the closed position and will fail as-is. Therefore, the East Recirculation Header will not function properly.	PAJ
TH(HD1)	None	1CV5210 will fail to it's appropriate position not allowing the operator to throttle valve. Covered by Top S3 or K3.	PAJ
TH(HD2)	None	1CV5212 will fail to it's appropriate position not allowing the operator to throttle valve. Covered by Top S4 or K4.	PAJ
TW	F	1MOV4145 is normally in the closed position and will fail as-is. Therefore, the West Recirculation Header will not function properly.	PAJ

TOP	PM	EVALUATION	RI
UQ	None	1CV4525/4535 are normally open and fail as-is on loss of power. This top only fails when an under feed to the SG occurs.	PAJ
V1	F	All ECCS Pump Room Fans fail to start/run.	PAJ
V2	F	All ECCS Pump Room Fans fail to start/run.	PAJ
VC	None	Has 6 PCVs. I am assuming that these will not fail during a flood.	PAJ
VM(RM1)	None	Operator will be unable to start ECCS Pump Room Fans. Covered under Top V1.	PAJ
VM(RM2)	None	Operator will be unable to start ECCS Pump Room Fans. Covered under Top V2.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	AA	MAAF3Q	MAAF3Q	16
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	AA	MACS1Q	MACS1Q	12
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	AA	MAHP1Q	MAHP1Q	24
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	AA	MAHP3Q	MAHP3Q	12
A119	1PUMPSILPSI11	11 LOW PRESS SAFETY INJECTION PUMP (1MA104)	AA	MALP1Q	MALP1Q	12
A226	1PUMPSRW11	11 SERVICE WATER PUMP (1MA109)	AA	MWSR1Q	MWSR1	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	AA	MWSR3Q	MWSR3	32
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	AB	MACS2Q	MACS2Q	12
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	AB	MAHP2Q	MAHP2Q	24
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	AB	MAHP4Q	MAHP4Q	12
A118	1PUMPSILPSI12	12 LOW PRESS SAFETY INJECTION PUMP (1MA404)	AB	MALP2Q	MALP2Q	12
A226	1PUMPSRW12	12 SERVICE WATER PUMP (1MA409)	AB	MWSR2Q	MWSR2	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	AB	MWSR4Q	MWSR4	32
A101	2PUMPSICS21	21 CONTAINMENT SPRAY PUMP (2MA107)	AC	MACS3Q	MACS3Q	24
A101	2PUMPHPSI21	SI HPSI PUMP 21 (2MA108)	AC	MAHP5Q	MAHP5Q	24
A102	2PUMPHPSI23	SI HPSI PUMP 23 (2MA110)	AC	MAHP7Q	MAHP7Q	12
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	AD	MAAF6Q	MAAF6Q	16
A102	2PUMPSICS22	22 CONTAINMENT SPRAY PUMP (2MA407)	AD	MACS4Q	MACS4Q	12
A101	2PUMPHPSI22	SI HPSI PUMP 22 (2MA408)	AD	MAHP6Q	MAHP6Q	24
A102	2PUMPHPSI23	SI HPSI PUMP 23 (2MA110)	AD	MAHP8Q	MAHP8Q	12
A102	2PUMPSILPSI22	22 LOW PRESS SAFETY INJECTION PUMP (2MA404)	AD	MALP4Q	MALP4Q	12
A119	1HXSICS11	11 SHUTDOWN COOLING HX	CS	CS0103	HXC11B	0
A119	1HXSICS11	11 SHUTDOWN COOLING HX	CS	CS0103	HXC11P	0
A119	1MOV663	SDC RECIRC TO 11 HPSI PP	CS	CS0103	MV663T	0
A119	1CV3828	11 SDC HX OUTLET	CS	CSHX11	CV828P	0
A119	1SV3828	S/D HX 11 COOL WTR DISCH VLV	CS	CSHX11	CV828P	0
A119	1CV3828	11 SDC HX OUTLET	CS	CV828O	CV828O	0
A119	1SV3828	S/D HX 11 COOL WTR DISCH VLV	CS	CV828O	CV828O	0
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	CS	MA107R	MA107R	12
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	CS	MA107S	MA107S	12
A118	1HXSICS12	12 SHUTDOWN COOLING HX	CT	CT0103	HXC12B	0
A118	1HXSICS12	12 SHUTDOWN COOLING HX	CT	CT0103	HXC12P	0
A118	1MOV662	SDC RECIRC TO 13 HPSI PP	CT	CT0103	MV662T	0
A118	1CV3830	12 SDC HX OUTLET	CT	CTXH12	CV830P	0
A118	1SV3830	S/D HX #12 COMP CLG DISCH VLV	CT	CTXH12	CV830P	0
A118	1CV3830	12 SDC HX OUTLET	CT	CV830O	CV830O	0
A118	1SV3830	S/D HX #12 COMP CLG DISCH VLV	CT	CV830O	CV830O	0
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	CT	MA407R	MA407R	12
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	CT	MA407S	MA407S	12
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PS224R	PS224R	0
A226	1CV4522	11 S/G AFW BLOCK VLV	F1	CV4522	CV522P	40
A226	1SV4522	11 S/G AFW BLOCK SV	F1	CV4522	CV522P	0
A226	1CV4523	11 S/G AFW BLOCK VLV	F1	CV4523	CV523P	144
A226	1SV4523	11 S/G AFW BLOCK SV	F1	CV4523	CV523P	0
A226	1CV4532	12 S/G AFW BLOCK VLV	F1	CV4532	CV532P	40
A226	1SV4532	12 S/G AFW BLOCK SV	F1	CV4532	CV532P	0
A226	1CV4533	12 S/G AFW BLOCK VLV	F1	CV4533	CV533P	144
A226	1SV4533	12 S/G AFW BLOCK SV	F1	CV4533	CV533P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	F1	F1MLV1	C6525P	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	F1	F1MLV1	C6525R	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1CV4535	12 S/G AFW FLOW CONT VLV	F1	F1MLV2	C6535P	144
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1CV4535	12 S/G AFW FLOW CONT VLV	F1	F1MLV2	C6535R	144
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A226	1CV4550	U-1 TO U-2 AFW X-CONN VLV	F7	F7MPVA	C3550T	144
A226	1SV4550	U-1 TO U-2 AFW X-CONN SV	F7	F7MPVA	C3550T	0
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QR	MA13QR	16
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QS	MA13QS	16
A205	2SV4522	S/G 21 AFW MOTOR SYS ISOL VLV	F9	CVB22C	CVB22C	0
A205	2SV4523	S/G 21 AFW MOTOR SYS ISOL VLV	F9	CVB23C	CVB23C	0
A205	2SV4532	S/G 22 AFW MOTOR SYS ISOL VLV	F9	CVB32C	CVB32C	0
A205	2SV4533	S/G 22 AFW MOTOR SYS ISOL VLV	F9	CVB33C	CVB33C	0
A205	2SV4550	U-2 AUX FEED X-CONN VLV	F9	F9M2VA	C3B50O	0
A205	2SV4550	U-2 AUX FEED X-CONN VLV	F9	F9M2VA	C3B50P	0
A205	2SV4522	S/G 21 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB22T	0
A205	2SV4523	S/G 21 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB23T	0
A205	2SV4532	S/G 22 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB32T	0
A205	2SV4533	S/G 22 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB33T	0
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	F9	MA23QR	MA23QR	16
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	F9	MA23QS	MA23QS	16
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	FH	BHEF71	Start	16
A226	1PCV4512	1 IA SUPP ACCUM 11A & 11B PCV	FN	FN0000	CV512P	0
A226	1PCV4520	11B AFW AIR ACCUMULATOR OUTLET PCV	FN	FN0000	CV520P	0
A205	2I/P5212	SALT WTR OUT SERV WTR HTEX	GW	C2S12O	C2S12O	0
A205	2SV5212	SERV WTR HTEX 22 SALT WTR OUT	GW	C2S12O	C2S12O	0
A205	2SV5212A	SERV WTR HTEX 22 SALT WTR OUT	GW	C2S12O	C2S12O	0
A205	2SV5152	SERV WTR HTEX 22 SALT WTR INLT	GW	S8CV52	C1S52P	0
A205	2CV5153	22 SRW HX SW NORM B/U OUTLET	GW	S8H2CV	C1S53P	20
A205	2SV5153	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C1S53P	0
A205	2I/P5212	SALT WTR OUT SERV WTR HTEX	GW	S8H2CV	C2S12P	0
A205	2SV5212	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C2S12P	0
A205	2SV5212A	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C2S12P	0
A205	2SV5150	SERV WTR HTEX 21 SALT WTR INLT	GZ	S7H2CV	C1S50P	0
A205	2I/P5210	SALT WTR OUT SERV WTR HTEX	GZ	S7H2CV	C2S10P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A205	2SV5210	SERV WTR HTEX 21 SALT WTR OUT	GZ	S7H2CV	C2S10P	0
A205	2SV5210A	SERV WTR HTEX 21 SALT WTR OUT	GZ	S7H2CV	C2S10P	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1AB	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1AP	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1BB	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1BP	0
A119	1HXSTF/BOX11A	HPSI PUMP 11	HA	HA1CCW	HXS1AB	0
A119	1HXSTF/BOX11A	HPSI PUMP 11	HA	HA1CCW	HXS1AP	0
A119	1HXSTF/BOX11B	HPSI PUMP 11	HA	HA1CCW	HXS1BB	0
A119	1HXSTF/BOX11B	HPSI PUMP 11	HA	HA1CCW	HXS1BP	0
A119	1HX109	#11 HPSI PP SEAL COOLER	HA	HA1CCW	HXSC1B	0
A119	1HX109	#11 HPSI PP SEAL COOLER	HA	HA1CCW	HXSC1P	0
A119	1MOV656	AUX HPSI HDR ISOL	HA	HADISA	MV656P	0
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	HA	MA011R	MA011R	24
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	HA	MA011S	MA011S	24
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3AB	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3AP	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3BB	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3BP	0
A118	1HXSTF/BOX13A	HPSI PUMP 13	HB	HB3CCW	HXS3AB	0
A118	1HXSTF/BOX13A	HPSI PUMP 13	HB	HB3CCW	HXS3AP	0
A118	1HXSTF/BOX13B	HPSI PUMP 13	HB	HB3CCW	HXS3BB	0
A118	1HXSTF/BOX13B	HPSI PUMP 13	HB	HB3CCW	HXS3BP	0
A118	1HX111	#13 HPSI PP SEAL COOLER	HB	HB3CCW	HXSC3B	0
A118	1HX111	#13 HPSI PP SEAL COOLER	HB	HB3CCW	HXSC3P	0
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	HB	MA013R	MA013R	12
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	HB	MA013S	MA013S	12
A118	1MOV654	HPSI HDR ISOL	HB	MV654P	MV654P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	HU	BHEF1B	Throttle	144
A226	1CV4535	12 S/G AFW FLOW CONT VLV	HU	BHEF1B	Throttle	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A118	1PUMPHPSI12	12 HIGH PRESS SAFETY INJECTION PUMP	HW	BHEHW1	Start	12
A119	1MOV656	AUX HPSI HDR ISOL	HW	HADISA	MV656P	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2AB	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2AP	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2BB	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2BP	0
A118	1HXSTF/BOX12A	HPSI PUMP 12	HW	HW1CCW	HXS2AB	0
A118	1HXSTF/BOX12A	HPSI PUMP 12	HW	HW1CCW	HXS2AP	0
A118	1HXSTF/BOX12B	HPSI PUMP 12	HW	HW1CCW	HXS2BB	0
A118	1HXSTF/BOX12B	HPSI PUMP 12	HW	HW1CCW	HXS2BP	0
A119	1HX409	#12 HPSI PP SEAL COOLER	HW	HW1CCW	HXSC2B	0
A119	1HX409	#12 HPSI PP SEAL COOLER	HW	HW1CCW	HXSC2P	0
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	HW	MA012R	MA012R	24
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	HW	MA012S	MA012S	24
A118	1MOV653	HPSI HDR X-CONN	HW	MV653O	MV653O	0
A118	1MOV653	HPSI HDR X-CONN	HW	MV653P	MV653P	0
A118	1MOV654	HPSI HDR ISOL	HW	MV654P	MV654P	0
A119	1MOV655	HPSI HDR X-CONN	HW	MV655P	MV655P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	HX	BHEF1A	Throttle	144
A226	1CV4535	12 S/G AFW FLOW CONT VLV	HX	BHEF1A	Throttle	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1COMPSWAC11	11 SW AIR COMPRESSOR (1M1404)	I1	CMS11R	CMS11R	144
A226	1COMPSWAC11	11 SW AIR COMPRESSOR (1M1404)	I1	CMS11S	CMS11S	144
A226	1LS5200	11 IA SW AIR COMP LS	I1	I1CNTL	LS200R	144
A226	1TS5200	11 IA SW AIR COMP TS	I1	I1CNTL	TS200R	144
A226	1COMPSWAC12	12 SW AIR COMPRESSOR (1M0404)	I2	CMS12R	CMS12R	144
A226	1COMPSWAC12	12 SW AIR COMPRESSOR (1M0404)	I2	CMS12S	CMS12S	144
A226	1LS5201	12 IA SW AIR COMP LS	I2	I2CNTL	LS201R	144
A226	1TS5201	12 IA SW AIR COMP TS	I2	I2CNTL	TS201R	144
A226	1CV5210	11 SRW HX SW OUTLET CV	K3	C2210C	C2210C	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	C2210C	C2210C	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	C2210C	C2210C	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0
A226	1ZC5210	1CV5210 POSITIONER	K3	C2210C	C2210C	0
A226	1CV5210	11 SRW HX SW OUTLET CV	K3	K3CLOS	C2210T	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	K3CLOS	C2210T	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	K3CLOS	C2210T	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1ZC5210	1CV5210 POSITIONER	K3	K3CLOS	C2210T	0
A226	1CV5212	12 SRW HX SW OUT CV	K4	C2212C	C2212C	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	C2212C	C2212C	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	C2212C	C2212C	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1ZC5212	1CV5212 POSITIONER	K4	C2212C	C2212C	0
A226	1CV5212	12 SRW HX SW OUT CV	K4	K4ISO1	C2212T	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	K4ISO1	C2212T	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	K4ISO1	C2212T	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1ZC5212	1CV5212 POSITIONER	K4	K4ISO1	C2212T	0
A226	1COMPSWAC12	12 SW AIR COMPRESSOR (1M0404)	M1	CMM04Q	CMM04Q	144
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	M1	M1FPPR	VD48AQ	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	M1	M1FPPR	VD48BQ	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	M1	M1FPPR	VD48CQ	22
A118	1MOV654	HPSI HDR ISOL	M1	MVM21Q	MVM21Q	0
A118	1MOV653	HPSI HDR X-CONN	M1	MVM22Q	MVM22Q	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	M1	MVM30Q	MVM30Q	0
A118	1MOV660	MINI FLOW RETN TO RWT	M1	MVM32Q	MVM32Q	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	M1	MVM44Q	MVM44Q	0
A226	1FAN5334	SRW HX RM EXH FAN 18B (1M0451)	M1	VDM51Q	VDM51Q	0
A226	1COMPSWAC11	11 SW AIR COMPRESSOR (1M1404)	M2	CMN04Q	CMN04Q	144
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	M2	M2FPPR	VD48AQ	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	M2	M2FPPR	VD48BQ	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	M2	M2FPPR	VD48CQ	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	M2	M2FPPR	VD48DQ	22
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A119	1MOV656	AUX HPSI HDR ISOL	M2	MVN21Q	MVN21Q	0
A119	1MOV655	HPSI HDR X-CONN	M2	MVN22Q	MVN22Q	0
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A118	1MOV659	MINI FLOW RETN TO RWT	M2	MVN32Q	MVN32Q	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	M2	MVN44Q	MVN44Q	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	M2	MVN57Q	MVN57Q	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A226	1FAN5335	SRW HTEX RM FAN VU-18A (1M1441)	M2	VDN41Q	VDN41Q	0
A102	2FAN0448A	ECCS PP RM CLR 22 FAN A (2M0448A)	M3	M3FPPR	VD48AQ	22
A102	2FAN0448B	ECCS PP RM CLR 22 FAN B (2M0448B)	M3	M3FPPR	VD48BQ	22
A102	2FAN0448C	ECCS PP RM CLR 22 FAN C (2M0448C)	M3	M3FPPR	VD48CQ	22
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A102	2MOV654	HPSI HDR ISOL	M3	MVO21Q	MVO21Q	0
A102	2MOV653	HPSI HDR X-CONN	M3	MVO22Q	MVO22Q	0
A120	2MOV5463	U-2 CONTMT RECIRC PIPE TUNNEL	M3	MVO30Q	MVO30Q	0
A102	2MOV660	MINI FLOW RETN TO RWT	M3	MVO32Q	MVO32Q	0
A120	2MOV4145	CONTMT SUMP OUTLET ISOL	M3	MVO44Q	MVO44Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A205	2FAN5334	SRW HX RM EXH FAN 19B (2M0451)	M3	VDO51Q	VDO51Q	0
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32
A102	2MOV659	MINI FLOW RETN TO RWT	M4	MVN32Q	MVN32Q	0
A120	2MOV4144	CONTMT SUMP OUTLET ISOL	M4	MVN44Q	MVN44Q	0
A120	2MOV5462	U-2 CONTMT RECIRC PIPE TUNNEL	M4	MVN57Q	MVN57Q	0
A205	2FAN5335	SRW HX RM SPLY FAN 19A (2M1437)	M4	VDN37Q	VDN37Q	0
A226	1PCV5000	11 SGFP BRG OIL PRESS REG VLV	MN	MNFW58	PC000R	0
A226	1PCV4993	11 SGFPT CONT OIL PRESS REG	MN	MNFW58	PC993R	0
A226	1PCV4999	11 SGFPT OIL PRESS REG VLV	MN	MNFW58	PC999R	0
A226	1PCV5043	12 SGFP TLO PP DISCH PCV	MN	MNFW68	PC043R	0
A226	1PCV5048	12 SGFP TLO RESERVOIR INLET PCV	MN	MNFW68	PC048R	0
A226	1PCV5049	12 FW SGFP TLO TO PP BRGS PCV	MN	MNFW68	PC049R	0
A118	1MOV659	MINI FLOW RETN TO RWT	MV	MV0A11	MV659P	0
A118	1MOV659	MINI FLOW RETN TO RWT	MV	MV0A11	MV659X	0
A118	1MOV660	MINI FLOW RETN TO RWT	MV	MV0A11	MV660P	0
A118	1MOV660	MINI FLOW RETN TO RWT	MV	MV0A11	MV660X	0
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A226	1ACC4070	11 S/G AFW STM VLV ACCUM	NR	NRIA99	TK070B	144
A226	1ACC4071	12 S/G STM VLV ACCUM	NR	NRIA99	TK071B	144
A205	2SV1637	TURB & EHC OIL SERV WTR ISOL VLV	NR(TC)	UNIT 2-TAFB01	C3637P	0
A205	2SV1639	TURB LUB & EHC OIL SERVWTR ISO	NR(TC)	UNIT 2-TAFB01	C3639P	0
A205	2SV1600	TURB BLDG SERV WTR ISOL VLV	NR(TC)	UNIT 2-TBFB01	C3600P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NR(TC)	UNIT 2-TBFB01	C3638P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NS	NSSRW	N/A	0
A205	2SV1637	TURB & EHC OIL SERV WTR ISOL VLV	NS	UNIT 2-TAFB01	C3637P	0
A205	2SV1639	TURB LUB & EHC OIL SERVWTR ISO	NS	UNIT 2-TAFB01	C3639P	0
A205	2SV1600	TURB BLDG SERV WTR ISOL VLV	NS	UNIT 2-TBFB01	C3600P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NS	UNIT 2-TBFB01	C3638P	0
A226	1CV4522	11 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	40

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1CV4523	11 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	144
A226	1CV4532	12 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	40
A226	1CV4533	12 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	144
A226	1SV4522	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4523	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4532	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4533	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	RH	BHERH1	Start	24
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	RH	BHERH1	Start	12
A226	1CV5150	11 SRW HX SW INLET	S3	C1150P	C1150P	60
A226	1SV5150	SERV WTR HTEX 11 SALT WTR INLT	S3	C1150P	C1150P	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148C	C2148C	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148C	C2148C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148C	C2148C	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148O	C2148O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148T	C2148T	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148T	C2148T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148T	C2148T	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151C	C2151C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151C	C2151C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151C	C2151C	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151C	C2151C	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	C2151O	C2151O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151O	C2151O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151O	C2151O	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	C2151O	C2151O	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151T	C2151T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151T	C2151T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151T	C2151T	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151T	C2151T	0
A226	1PUMPSRW11	11 SERVICE WATER PUMP (1MA109)	S3	MWS11R	MWS11R	32
A226	1PUMPSRW11	11 SERVICE WATER PUMP (1MA109)	S3	MWS11S	MWS11S	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S3	MWS13R	MWS13R	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S3	MWS13S	MWS13S	32
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AB	0
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AP	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BB	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BP	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1AV	C2148P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1CV5209	11A SRW HX SALT WATER OUTLET VLV	S3	S3H1AV	C2209P	0
A226	1FIC5209	11A SRW HX SW OUTLET FLOW INDICATOR	S3	S3H1AV	C2209P	0
A226	1P/P5209	1CV5209 A/S VOLUME BOOSTER	S3	S3H1AV	C2209P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2209P	0
A226	1SV5209	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1SV5209A	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1BV	C2151P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1BV	C2151P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1BV	C2151P	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	S3H1BV	C2151P	0
A226	1CV5210	11 SRW HX SW OUTLET CV	S3	S3H1BV	C2210P	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	S3	S3H1BV	C2210P	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	S3	S3H1BV	C2210P	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1ZC5210	1CV5210 POSITIONER	S3	S3H1BV	C2210P	0
A226	1CV5153	12 SRW HX SW NORM B/U OUTLET	S4	C1153P	C1153P	20
A226	1SV5153	SERV WTR HTEX 12 SALT WTR OUT	S4	C1153P	C1153P	0
A226	1CV5157	12A/12B SRW HX SALT WATER OUTLET VLV	S4	C2157T	C2157T	0
A226	1I/P5157	12A/12B SRW HX SW OUT I/P	S4	C2157T	C2157T	0
A226	1P/P5157	1CV5157 A/S VOLUME BOOSTER	S4	C2157T	C2157T	0
A226	1SV5157	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1SV5157A	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1ZC5157	1CV5157 POSITIONER	S4	C2157T	C2157T	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158C	C2158C	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158C	C2158C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158C	C2158C	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	C2158O	C2158O	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158O	C2158O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	C2158O	C2158O	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158T	C2158T	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158T	C2158T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158T	C2158T	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159C	C2159C	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159C	C2159C	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	C2159O	C2159O	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	C2159O	C2159O	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159T	C2159T	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159T	C2159T	0
A226	1CV5212	12 SRW HX SW OUT CV	S4	C2212O	C2212O	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	C2212O	C2212O	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	C2212O	C2212O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2212O	C2212O	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1ZC5212	1CV5212 POSITIONER	S4	C2212O	C2212O	0
A226	1PUMPSRW12	12 SERVICE WATER PUMP (1MA409)	S4	MWS12R	MWS12R	32
A226	1PUMPSRW12	12 SERVICE WATER PUMP (1MA409)	S4	MWS12S	MWS12S	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S4	MWS13R	MWS13R	32

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S4	MWS13S	MWS13S	32
A226	1CV5152	12 SRW HX SW INLET	S4	S4CV52	C1152P	60
A226	1SV5152	SERV WTR HTEX 12 SALT WTR INLT	S4	S4CV52	C1152P	0
A226	1HVSRW-707	MANUAL SRW INLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW707P	0
A226	1HVSRW-708	MANUAL SRW OUTLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW708P	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AB	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AP	0
A226	1HVSRW-709	MANUAL SRW INLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW709P	0
A226	1HVSRW-710	MANUAL SRW OUTLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW710P	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BB	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BP	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2AV	C2158P	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	S4H2AV	C2158P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	S4H2AV	C2158P	0
A226	1CV5211	12A SRW HX SALT WATER OUTLET VLV	S4	S4H2AV	C2211P	0
A226	1FIC5211	12A SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2AV	C2211P	0
A226	1P/P5211	1CV5211 A/S VOLUME BOOSTER	S4	S4H2AV	C2211P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2211P	0
A226	1SV5211	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1SV5211A	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1ZC5211	1CV5211 POSITIONER	S4	S4H2AV	C2211P	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2BV	C2159P	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	S4H2BV	C2159P	0
A226	1CV5212	12 SRW HX SW OUT CV	S4	S4H2BV	C2212P	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2BV	C2212P	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	S4H2BV	C2212P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2212P	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1ZC5212	1CV5212 POSITIONER	S4	S4H2BV	C2212P	0
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	SR	MV144C	MV144C	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	SR	MV144T	MV144T	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	SR	MV145C	MV145C	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	SR	MV145T	MV145T	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV462C	MV462C	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV462T	MV462T	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV463C	MV463C	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV463T	MV463T	0
A226	1CV1637	TURB BLDG SRW HDR 11 ISOL	TA	TAFB01	C3637P	144
A226	1SV1637	TURB LUBE&EHC OIL SERVWTR ISOL	TA	TAFB01	C3637P	0
A226	1CV1639	TURB BLDG SRW HDR 11 ISOL	TA	TAFB01	C3639P	144
A226	1SV1639	TURB LUB & EHC OIL SERV WTR IS	TA	TAFB01	C3639P	0
A226	1CV1600	TURB BLDG SRW HDR 12 ISOL	TB	TBFB01	C3600P	72

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1SV1600	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3600P	0
A226	1CV1638	TURB BLDG SRW HDR 12 ISOL	TB	TBFB01	C3638P	72
A226	1SV1638	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3638P	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	TE	MV144O	MV144O	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	TE	TE0101	MV144P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	TH(HD1)	BHER3B	Open	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	TH(HD1)	BHER3B	Open	0
A226	1CV5210	11 SRW HX SW OUTLET CV	TH(HD1)	BHER3B	Throttle	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	TH(HD1)	BHER3B	Throttle	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1ZC5210	1CV5210 POSITIONER	TH(HD1)	BHER3B	Throttle	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	TH(HD2)	BHER3B	Open	0
A226	1CV5212	12 SRW HX SW OUT CV	TH(HD2)	BHER3B	Throttle	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	TH(HD2)	BHER3B	Throttle	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1ZC5212	1CV5212 POSITIONER	TH(HD2)	BHER3B	Throttle	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	TW	MV145O	MV145O	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	TW	TW0101	MV145P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	UQ	BHEUQ1	Throttle	144
A226	1CV4535	12 S/G AFW FLOW CONT VLV	UQ	BHEUQ1	Throttle	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	TS404D	TS404D	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1CLSE	WC170P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1CLSE	WC171P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1TEMP	TS404R	0
A119	1HXHVACECCS11	ECCS PUMP ROOM AIR COOLER 11	V1	V1TRFR	HX205B	0
A119	1HXHVACECCS11	ECCS PUMP ROOM AIR COOLER 11	V1	V1TRFR	HX205P	0
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	V1	VD11AR	VD11AR	22
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	V1	VD11AS	VD11AS	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	V1	VD11BR	VD11BR	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	V1	VD11BS	VD11BS	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	V1	VD11CR	VD11CR	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	V1	VD11CS	VD11CS	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	V1	VD11DR	VD11DR	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	V1	VD11DS	VD11DS	22
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC170D	WC170D	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC170O	WC170O	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC171D	WC171D	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC171O	WC171O	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	TS405D	TS405D	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	V2INLT	WC173P	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	V2TEMP	TS405R	0
A118	1HXHVACECCS12	ECCS PUMP ROOM AIR COOLER 12	V2	V2TRFR	HX207B	0
A118	1HXHVACECCS12	ECCS PUMP ROOM AIR COOLER 12	V2	V2TRFR	HX207P	0
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	V2	VD12AR	VD12AR	22
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	V2	VD12AS	VD12AS	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	V2	VD12BR	VD12BR	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	V2	VD12BS	VD12BS	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	V2	VD12CR	VD12CR	22

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	V2	VD12CS	VD12CS	22
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	WC173D	WC173D	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	WC173O	WC173O	0
A226	1PCV5214	11 CW PP SEAL WTR PCV	VC	VCCW1A	PC214R	0
A226	1PCV5216	12 CW PP SEAL WTR PCV	VC	VCCW2A	PC216R	0
A226	1PCV5218	13 CW PP SEAL WTR PCV	VC	VCCW3A	PC218R	0
A226	1PCV5220	14 CW PP SEAL WTR PCV	VC	VCCW4A	PC220R	0
A226	1PCV5222	15 CW PP SEAL WTR PCV	VC	VCCW5A	PC222R	0
A226	1PCV5224	16 CW PP SEAL WTR PCV	VC	VCCW6A	PC224R	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	VM(RM1)	BHEV1T	Open	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	VM(RM1)	BHEV1T	Open	0
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	VM(RM1)	BHEV1T	Start	22
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	VM(RM2)	BHEV1T	Open	0
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	VM(RM2)	BHEV1T	Start	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	VM(RM2)	BHEV1T	Start	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	VM(RM2)	BHEV1T	Start	22
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0

Flood Evaluation Query

CF-07C-S226AR

05-Nov-98

TOP	PM	EVALUATION	RI
AA	6BKR	6 breaker challenges.	PAJ
AB	5BKR	5 breaker challenges.	PAJ
AC	4BKR	4 breaker challenges.	PAJ
AD	7BKR	7 breaker challenges.	PAJ
CS	F	CS Pump 11 is lost.	PAJ
CT	F	CS Pump 12 is lost.	PAJ
CV	F	Conservatively set to failure. CVCS relatively unimportant.	PAJ
DL	None	11A and 11B LPSI Loop Isol MOVs (1MOV615 and 1MOV625), Fail to Open on Demand. LPSIs only used in large break LOCAs. Flood cannot cause a large break LOCA, therefore this top is not affected.	PAJ
F1	None ~~Spec Impt~~	11 and 12 S/G AFW Block Valves fail. These valves are normally open and will fail open. Therefore there is no impact on this top. Flow control valves failing open are addressed in top event HX. Steam admission Control valves 1CV4070/4071 are normally closed, and will fail as-is(closed) on loss of power. Therefore, operators will be unable to open valves. These valves continuously have air (closing the valve). The operators may bleed air to open valve if need be. (Note 2) (Note 19)	PAJ
F3	None	Steam Admission SV's 1SV4070/4071 are covered under top event F1. (Note 3)	PAJ
F7	F	Lost the ability to use Unit 1 AFW MD Pump 13 to supply Unit 1 S/G.	PAJ
F9	None ~~F~~	Loss the ability to use Unit 2 AFW MD Pump 23 to supply Unit 1 S/G. Also, 21 and 22 S/G AFW Block and Flow Valves fail. These valves are normally open and fail as-is (open) on loss of power. (Note 19)	PAJ
FC	Spec Impt	AFW Pump Room Emergency Vent Fans 11 & 12 fail along with NSR A/C Unit.	PAJ
FF	~~Failed~~ ~~None~~ NONE OK	Both 11 and 12 AFW Pump Room Exhaust fans fail to start. Covered under Top FC.	PAJ
FH	None	Loss the ability to start AFW MD Pump 13. Covered under Top F7.	PAJ
FN	None	Only has 2 PCVs. I am assuming that these valves will not fail during a flood.	PAJ

See notes in RAN 98-065 SECT. 5.4 JJK.

TOP	PM	EVALUATION	RI
FO	None ~~F~~	~~Use FO SF where M3 and M4 fail. 21A SWAC fails and 22A SWAC fails. The Unit 1 Plant Model does not credit anything other than the use of the SWACs. As a result, this function should be considered failed.~~ (NOTE 19)	PAJ
GG	None	1CV1645 / 1CV1646 are both locked open. Both valves have been retired in place and can only be manipulated manually.	PAJ
GW	None ~~F~~	~~22 and 23 SRW Pump fail.~~ (Note 19)	PAJ
GZ	None ~~F~~	~~21 and 23 SRW Pump fail.~~ (Note 19)	PAJ
HA	F	11 HPSI Pump fails.	PAJ
HB	F	13 HPSI Pump fails.	PAJ
HU	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact.	PAJ
HW	F	12 HPSI is lost. Also 1MOV653, 1MOV654, 1MOV655 and 1MOV656 fail as-is.	PAJ
HX	None	11 and 12 S/G AFW (motor driven feed line) flow control valves fail open. Impact already considered by Top F7 & F9 failure.	PAJ
I1	F	11 SWAC fails.	PAJ
I2	F	12 SWAC fails.	PAJ
IL	None	Air accumulators only. Mechanical operation only.	PAJ
IN	None	Air accumulators only. Mechanical operation only.	PAJ
IP	None	Air accumulators only. Mechanical operation only.	PAJ
K3	None	~~Since KX, KY and KZ fail, this top event will be set to success.~~ (Note 19)	PAJ
K4	None	~~Since KX, KY and KZ fail, this top event will be set to success.~~ (Note 19)	PAJ
KH(PP1)	None	~~Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to start 11 CCW Pump. 11 Component Cooling Pump fails to start.~~ (Note 19)	PAJ
KH(PP2)	None	~~Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to start 12 CCW Pump. 12 Component Cooling Pump fails to start.~~ (Note 19)	PAJ

TOP	PM	EVALUATION	RI
KH(PP3)	None	~~Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to start 13 CCW Pump. 13 Component Cooling Pump fails to start.~~ (Note 19)	PAJ
KI(HX1)	None	~~Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to open, close or modulate two valves (1CV3824 and 1CV5206). 1CV3824 will fail in the appropriate position. 1CV5206 will not. This valve will fail open neglecting the capability to throttle this valve. Therefore this top will fail.~~ (Note 19)	PAJ
KI(HX2)	None	~~Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to open, close or modulate two valves (1CV3826 and 1CV5208). 1CV3826 will fail in the appropriate position. 1CV5208 will not. This valve will fail open neglecting the capability to throttle this valve. Therefore this top will fail.~~ (Note 19)	PAJ
KM	None	~~Since KX, KY and KZ fail, this top event will be set to success. Also 1CV3823 will transfer close, which is the undesired affect. But it does not fail top unless 1HVCC-149 transfers shut or 1HXCC11 plugs during operation. Since mechanical components are screened for flood, it will not fail this top, only degrade it.~~ (Note 19)	PAJ
KN	None	~~Since KX, KY and KZ fail, this top event will be set to success. Also 1CV3825 will transfer close, which is the undesired affect. But it does not fail top unless 1HVCC-156 transfers shut or 1HXCC12 plugs during operation. Since mechanical components are screened for flood, it will not fail this top, only degrade it.~~ (Note 19)	PAJ
KX	None ~~F~~	~~11 CCW Pump will fail to start/run.~~ (Note 19)	PAJ
KY	None ~~F~~	~~12 CCW Pump will fail to start/run.~~ (Note 19)	PAJ
KZ	None ~~F~~	~~13 CCW Pump will fail to start/run.~~ (Note 19)	PAJ
M1	15BKR	15 breaker challenges.	PAJ
M2	24BKR	24 breaker challenges.	PAJ
M3	18BKR	18 breaker challenges.	PAJ
~~M4~~	~~21BKR~~	~~21 breaker challenges.~~ NOT IN U1 GT.	~~PAJ~~
MH	None ~~Spec Impt~~	1CV4070/4071 are normally closed and fail as-is on loss of power. ~~These valves must be locally vented.~~ (Note 3)	PAJ
MN	None	Has 6 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
MV	None	1MOV659/660 fail as-is and are normally electrically locked open, there will be no flood impact.	PAJ

TOP	PM	EVALUATION	RI
N1	2BKR	2 breaker challenges.	PAJ
N2	2BKR	2 breaker challenges.	PAJ
N3	1BKR	1 breaker challenge.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
N5	1BKR	1 breaker challenge.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	2BKR	2 breaker challenges.	PAJ
N8	2BKR	2 breaker challenges.	PAJ
NR	None	Air accumulators only. Mechanical operation only.	PAJ
NR(TC)	Spec Impt	2CV1600/1637/1638/1639 fail close on loss of power, the undesirable position. Unable to use Unit 2 compressors for Unit 1. (Note 4)	PAJ
NS	None ~~Spec Impt~~	~~2CV1600/1637/1638/1639 fail close on loss of power, the undesirable position. Unable to use Unit 2 compressors for Unit 2.~~ (Note 18)	PAJ
QZ	None	11 & 12 AFW Block valves (1CV4522/4523/4532/4533) are normally open and fail as-is on loss of power.	PAJ
RH	None ~~F~~	This human action requires the operator to start 11 and 13 HPSI Pumps. Both pumps are assumed not to start/run during a flood scenario. (Note 9)	PAJ
S3	F	11 and 13 SRW Pumps fail.	PAJ
S4	F	12 and 13 SRW Pumps fail.	PAJ
SG	None ~~Spec Impt~~	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment. (Note 5)	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ
SP(PP1)	None	11 CC Pumps fails to start/run. Accounted for by Top KX.	PAJ

TOP	PM	EVALUATION	RI
SP(PP2)	None	12 CC Pumps fails to start/run. Accounted for by Top KY.	PAJ
SP(PP3)	None	13 CC Pumps fails to start/run. Accounted for by Top KZ.	PAJ
SR	Spec Impt ~~None~~	All MOVs (1MOV4144/4145/5462/5463/615/625) are closed and fail close (Note 10)	PAJ
TA	F	1CV1637/1639 fail close on loss of power / loss of air.	PAJ
TB	F	1CV1600/1638 fail close on loss of power / loss of air.	PAJ
TE	F	1MOV4144 is normally in the closed position and will fail as-is. Therefore, the East Recirculation Header will not function properly.	PAJ
TG	None	Steam admission Control valves 1CV4070/4071 are normally closed, and will fail as-is(closed) on loss of power. Therefore, operators will be unable to open valves. These valves continuously have air (closing the valve). The operators may bleed air to open valve if need be. Covered under Top F1.	PAJ
TH(HD1)	None	1CV5206/5210 will fail to there appropriate position not allowing the operator to throttle valves. Covered by Top S3 or K3. Also, 1CV5170/5171 fails open on loss of power and loss of air.	PAJ
TH(HD2)	None	1CV5208/5212 will fail to there appropriate position not allowing the operator to throttle valves. Covered by Top S4 or K4. Also, 1CV5173 fails open on loss of power and loss of air.	PAJ
TW	F	1MOV4145 is normally in the closed position and will fail as-is. Therefore, the West Recirculation Header will not function properly.	PAJ
TX	None	Has 6 PSs. It is assumed that a flood will not prevent PS activation.	PAJ
UQ	None	1CV4525/4535 are normally open and fail as-is on loss of power. This top only fails when an under feed to the SG occurs.	PAJ
V1	F	All ECCS Pump Room Fans fail to start/run.	PAJ
V2	F	All ECCS Pump Room Fans fail to start/run.	PAJ
~~V5~~	~~F~~	V5 no longer used. gsh ~~11 and 12 ECCS exhaust fans fails to start/run.~~	PAJ
VC	None	Has 6 PCVs. I am assuming that these will not fail during a flood.	PAJ
VM(RM1)	None	Operator will be unable to start ECCS Pump Room Fans. Covered under Top V1.	PAJ

TOP	PM	EVALUATION	RI
VM(RM2)	None	Operator will be unable to start ECCS Pump Room Fans. Covered under Top V2.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ
WY	None	1CV1584/1592 fail open loss of power.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	AA	MAAF3Q	MAAF3Q	16
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	AA	MACS1Q	MACS1Q	12
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	AA	MAHP1Q	MAHP1Q	24
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	AA	MAHP3Q	MAHP3Q	12
A119	1PUMPSILPSI11	11 LOW PRESS SAFETY INJECTION PUMP (1MA104)	AA	MALP1Q	MALP1Q	12
A226	1PUMPSRW11	11 SERVICE WATER PUMP (1MA109)	AA	MWSR1Q	MWSR1Q	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	AA	MWSR3Q	MWSR3Q	32
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	AB	MACS2Q	MACS2Q	12
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	AB	MAHP2Q	MAHP2Q	24
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	AB	MAHP4Q	MAHP4Q	12
A118	1PUMPSILPSI12	12 LOW PRESS SAFETY INJECTION PUMP (1MA404)	AB	MALP2Q	MALP2Q	12
A226	1PUMPSRW12	12 SERVICE WATER PUMP (1MA409)	AB	MWSR2Q	MWSR2Q	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	AB	MWSR4Q	MWSR4Q	32
A101	2PUMPSICS21	21 CONTAINMENT SPRAY PUMP (2MA107)	AC	MACS3Q	MACS3Q	24
A101	2PUMPHPSI21	SI HPSI PUMP 21 (2MA108)	AC	MAHP5Q	MAHP5Q	24
A102	2PUMPHPSI23	SI HPSI PUMP 23 (2MA110)	AC	MAHP7Q	MAHP7Q	12
A101	2PUMPSILPSI21	21 LOW PRESS SAFETY INJECTION PUMP (2MA104)	AC	MALP3Q	MALP3Q	39
A205	2PUMPSRW21	21 SERVICE WATER PUMP (2MA109)	AC	MWSR5Q	MWSR5Q	32
A205	2PUMPSRW23	23 SERVICE WATER PUMP (2MA411)	AC	MWSR7Q	MWSR7Q	32
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	AD	MAAF6Q	MAAF6Q	16
A102	2PUMPSICS22	22 CONTAINMENT SPRAY PUMP (2MA407)	AD	MACS4Q	MACS4Q	12
A101	2PUMPHPSI22	SI HPSI PUMP 22 (2MA408)	AD	MAHP6Q	MAHP6Q	24
A102	2PUMPHPSI23	SI HPSI PUMP 23 (2MA110)	AD	MAHP8Q	MAHP8Q	12
A102	2PUMPSILPSI22	22 LOW PRESS SAFETY INJECTION PUMP (2MA404)	AD	MALP4Q	MALP4Q	12
A205	2PUMPSRW22	22 SERVICE WATER PUMP (2MA409)	AD	MWSR6Q	MWSR6Q	32
A205	2PUMPSRW23	23 SERVICE WATER PUMP (2MA411)	AD	MWSR8Q	MWSR8Q	32
A119	1HXSICS11	11 SHUTDOWN COOLING HX	CS	CS0103	HXC11B	0
A119	1HXSICS11	11 SHUTDOWN COOLING HX	CS	CS0103	HXC11P	0
A119	1MOV663	SDC RECIRC TO 11 HPSI PP	CS	CS0103	MV663T	0
A119	1CV3828	11 SDC HX OUTLET	CS	CSHX11	CV828P	0
A119	1SV3828	S/D HX 11 COOL WTR DISCH VLV	CS	CSHX11	CV828P	0
A119	1CV3828	11 SDC HX OUTLET	CS	CV828O	CV828O	0
A119	1SV3828	S/D HX 11 COOL WTR DISCH VLV	CS	CV828O	CV828O	0
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	CS	MA107R	MA107R	12
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	CS	MA107S	MA107S	12
A118	1HXSICS12	12 SHUTDOWN COOLING HX	CT	CT0103	HXC12B	0
A118	1HXSICS12	12 SHUTDOWN COOLING HX	CT	CT0103	HXC12P	0
A118	1MOV662	SDC RECIRC TO 13 HPSI PP	CT	CT0103	MV662T	0
A118	1CV3830	12 SDC HX OUTLET	CT	CTXH12	CV830P	0
A118	1SV3830	S/D HX #12 COMP CLG DISCH VLV	CT	CTXH12	CV830P	0
A118	1CV3830	12 SDC HX OUTLET	CT	CV830O	CV830O	0
A118	1SV3830	S/D HX #12 COMP CLG DISCH VLV	CT	CV830O	CV830O	0
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	CT	MA407R	MA407R	12
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	CT	MA407S	MA407S	12
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A218	1CV500	VOL CONT TNK INLT VLV	CV	CVHV03	CV500O	0
A218	1LC227A	VOLUME CONTROL TNK LEVEL HIGH	CV	CVHV03	CV500O	0
A218	1SV500	VOL CONT TANK INLET CONT VLV	CV	CVHV03	CV500O	0
A218	1CV500	VOL CONT TNK INLT VLV	CV	CVHV03	CV500P	0
A218	1LC227A	VOLUME CONTROL TNK LEVEL HIGH	CV	CVHV03	CV500P	0
A218	1SV500	VOL CONT TANK INLET CONT VLV	CV	CVHV03	CV500P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A217	1MOV514	BAPP TO CHG PP SUCT DIRECT FD	CV	CVMV01	MV514O	6
A217	1MOV514	BAPP TO CHG PP SUCT DIRECT FD	CV	CVMV01	MV514P	6
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A217	1PUMPCVCBA11	11 CVC BORIC ACID PUMP (1M1406)	CV	MP011R	MP011R	12
A217	1PUMPCVCBA11	11 CVC BORIC ACID PUMP (1M1406)	CV	MP011S	MP011S	12
A217	1PUMPCVCBA12	12 CVC BORIC ACID PUMP (1M0406)	CV	MP012R	MP012R	12
A217	1PUMPCVCBA12	12 CVC BORIC ACID PUMP (1M0406)	CV	MP012S	MP012S	12
A217	1MOV508	12 BAST GRAVITY FD	CV	MV508O	MV508O	6
A217	1MOV508	12 BAST GRAVITY FD	CV	MV508P	MV508P	6
A217	1MOV509	11 BAST GRAVITY FD	CV	MV509O	MV509O	6
A217	1MOV509	11 BAST GRAVITY FD	CV	MV509P	MV509P	6
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PS224R	PS224R	0
A227	1MOV615	11A LPSI LOOP ISOL	DL	DLL11A	MV615O	19
A227	1MOV615	11A LPSI LOOP ISOL	DL	DLL11A	MV615P	19
A227	1MOV625	11B LPSI LOOP ISOL	DL	DLL11B	MV625O	0
A227	1MOV625	11B LPSI LOOP ISOL	DL	DLL11B	MV625P	0
A226	1CV4522	11 S/G AFW BLOCK VLV	F1	CV4522	CV522P	40
A226	1SV4522	11 S/G AFW BLOCK SV	F1	CV4522	CV522P	0
A226	1CV4523	11 S/G AFW BLOCK VLV	F1	CV4523	CV523P	144
A226	1SV4523	11 S/G AFW BLOCK SV	F1	CV4523	CV523P	0
A226	1CV4532	12 S/G AFW BLOCK VLV	F1	CV4532	CV532P	40
A226	1SV4532	12 S/G AFW BLOCK SV	F1	CV4532	CV532P	0
A226	1CV4533	12 S/G AFW BLOCK VLV	F1	CV4533	CV533P	144
A226	1SV4533	12 S/G AFW BLOCK SV	F1	CV4533	CV533P	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	F1	F1CV70	C8070O	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	F1	F1CV70	C8070P	0
A227	1SV4071	12 S/G MS TO AFW PP	F1	F1CV71	C8071O	0
A227	1SV4071	12 S/G MS TO AFW PP	F1	F1CV71	C8071P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	F1	F1MLV1	C6525P	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	F1	F1MLV1	C6525R	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1CV4535	12 S/G AFW FLOW CONT VLV	F1	F1MLV2	C6535P	144
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1CV4535	12 S/G AFW FLOW CONT VLV	F1	F1MLV2	C6535R	144
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	F3	BHEF31	Open	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A227	1SV4071	12 S/G MS TO AFW PP	F3	BHEF31	Open	0
A226	1CV4550	U-1 TO U-2 AFW X-CONN VLV	F7	F7MPVA	C3550T	144
A226	1SV4550	U-1 TO U-2 AFW X-CONN SV	F7	F7MPVA	C3550T	0
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QR	MA13QR	16
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QS	MA13QS	16
A205	2CV4522	21 S/G AFW BLOCK VLV	F9	CVB22C	CVB22C	40
A205	2SV4522	S/G 21 AFW MOTOR SYS ISOL VLV	F9	CVB22C	CVB22C	0
A205	2CV4523	21 S/G AFW BLOCK VLV	F9	CVB23C	CVB23C	144
A205	2SV4523	S/G 21 AFW MOTOR SYS ISOL VLV	F9	CVB23C	CVB23C	0
A205	2CV4532	22 S/G AFW BLOCK VLV	F9	CVB32C	CVB32C	40
A205	2SV4532	S/G 22 AFW MOTOR SYS ISOL VLV	F9	CVB32C	CVB32C	0
A205	2CV4533	22 S/G AFW BLOCK VLV	F9	CVB33C	CVB33C	144
A205	2SV4533	S/G 22 AFW MOTOR SYS ISOL VLV	F9	CVB33C	CVB33C	0
A205	2CV4550	U-2 TO U-1 AFW XCONN VLV	F9	F9M2VA	C3B50O	144
A205	2SV4550	U-2 AUX FEED X-CONN VLV	F9	F9M2VA	C3B50O	0
A205	2CV4550	U-2 TO U-1 AFW XCONN VLV	F9	F9M2VA	C3B50P	144
A205	2SV4550	U-2 AUX FEED X-CONN VLV	F9	F9M2VA	C3B50P	0
A205	2CV4522	21 S/G AFW BLOCK VLV	F9	F9M2VA	CVB22T	40
A205	2SV4522	S/G 21 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB22T	0
A205	2CV4523	21 S/G AFW BLOCK VLV	F9	F9M2VA	CVB23T	144
A205	2SV4523	S/G 21 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB23T	0
A205	2CV4532	22 S/G AFW BLOCK VLV	F9	F9M2VA	CVB32T	40
A205	2SV4532	S/G 22 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB32T	0
A205	2CV4533	22 S/G AFW BLOCK VLV	F9	F9M2VA	CVB33T	144
A205	2SV4533	S/G 22 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB33T	0
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	F9	MA23QR	MA23QR	16
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	F9	MA23QS	MA23QS	16
A225	1HS5472	MCC-101-BT BKR 52-10150 AFW PP RM A/C UNIT 11	FC	FCAC11	HS472T	0
A225	1HS5470	AFW PP RM EMERG VENT FAN 11 MCC-114-12	FC	FCAUX1	HS470D	18
A225	1HS5470	AFW PP RM EMERG VENT FAN 11 MCC-114-12	FC	FCAUX1	HS470T	18
A225	1HS5471	AFW PP RM EMERG VENT FAN 12 MCC-104-12	FC	FCAUX2	HS471D	18
A225	1HS5471	AFW PP RM EMERG VENT FAN 12 MCC-104-12	FC	FCAUX2	HS471T	18
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	FC	VDA11R	VDA11R	36
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	FC	VDA11S	VDA11S	36
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	FC	VDA12R	VDA12R	36
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	FC	VDA12S	VDA12S	36
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	FF	BHEFCB	Start	36
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	FF	BHEFCB	Start	36
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	FH	BHEF71	Start	16
A226	1PCV4512	1 IA SUPP ACCUM 11A & 11B PCV	FN	FN0000	CV512P	0
A226	1PCV4520	11B AFW AIR ACCUMULATOR OUTLET PCV	FN	FN0000	CV520P	0
A205	2COMPSWAC21A	21 SW AIR COMPRESSOR MOTOR A (2M1405A)	FO	UNIT 2	CMS21R	144
A205	2COMPSWAC21A	21 SW AIR COMPRESSOR MOTOR A (2M1405A)	FO	UNIT 2	CMS21S	144
A205	2COMPSWAC22A	22 SW AIR COMPRESSOR MOTOR A (2M0405A)	FO	UNIT 2	CMS22R	144
A205	2COMPSWAC22A	22 SW AIR COMPRESSOR MOTOR A (2M0405A)	FO	UNIT 2	CMS22S	144
A205	2LS5200	21 IA SW AIR COMPR OIL LO LVL SW	FO	UNIT 2	LS200R	144
A205	2LS5201	22 IA SW AIR COMPR OIL LO LVL SW	FO	UNIT 2	LS201R	144
A205	2TS5200	21 IA SW AIR COMPR HI TEMP SW	FO	UNIT 2	TS200R	144
A205	2TS5201	22 IA SW AIR COMPR HI TEMP SW	FO	UNIT 2	TS201R	144
A224	1CV1645	1B DG SUPP FROM U-1 SRW	GG	GGSRW1	CVA45P	6
A224	1CV1646	1B DG RTN TO U-1 SRW	GG	GGSRW1	CVA46P	6
A205	2CV5212	22 SRW HX SW OUT CV	GW	C2S12O	C2S12O	48
A205	2I/P5212	SALT WTR OUT SERV WTR HTEX	GW	C2S12O	C2S12O	0
A205	2SV5212	SERV WTR HTEX 22 SALT WTR OUT	GW	C2S12O	C2S12O	0
A205	2SV5212A	SERV WTR HTEX 22 SALT WTR OUT	GW	C2S12O	C2S12O	0
A205	2PUMPSRW22	22 SERVICE WATER PUMP (2MA409)	GW	MWT22R	MWT22R	32

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A205	2PUMPSRW22	22 SERVICE WATER PUMP (2MA409)	GW	MWT22S	MWT22S	32
A205	2PUMPSRW23	23 SERVICE WATER PUMP (2MA411)	GW	MWT23R	MWT23R	32
A205	2PUMPSRW23	23 SERVICE WATER PUMP (2MA411)	GW	MWT23S	MWT23S	32
A205	2CV5152	22 SRW HX SW INLET	GW	S8CV52	C1S52P	60
A205	2SV5152	SERV WTR HTEX 22 SALT WTR INLT	GW	S8CV52	C1S52P	0
A205	2CV5153	22 SRW HX SW NORM B/U OUTLET	GW	S8H2CV	C1S53P	20
A205	2SV5153	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C1S53P	0
A205	2CV5212	22 SRW HX SW OUT CV	GW	S8H2CV	C2S12P	48
A205	2I/P5212	SALT WTR OUT SERV WTR HTEX	GW	S8H2CV	C2S12P	0
A205	2SV5212	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C2S12P	0
A205	2SV5212A	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C2S12P	0
A205	2HXSRW22	22 SRW HX	GW	S8HX22	HXS22B	144
A205	2HXSRW22	22 SRW HX	GW	S8HX22	HXS22P	144
A205	2PUMPSRW21	21 SERVICE WATER PUMP (2MA109)	GZ	MWT21R	MWT21R	32
A205	2PUMPSRW21	21 SERVICE WATER PUMP (2MA109)	GZ	MWT21S	MWT21S	32
A205	2PUMPSRW23	23 SERVICE WATER PUMP (2MA411)	GZ	MWT23R	MWT23R	32
A205	2PUMPSRW23	23 SERVICE WATER PUMP (2MA411)	GZ	MWT23S	MWT23S	32
A205	2CV5150	21 SRW HX SW INLET	GZ	S7H2CV	C1S50P	60
A205	2SV5150	SERV WTR HTEX 21 SALT WTR INLT	GZ	S7H2CV	C1S50P	0
A205	2CV5210	21 SRW HX SW OUTLET CV	GZ	S7H2CV	C2S10P	60
A205	2I/P5210	SALT WTR OUT SERV WTR HTEX	GZ	S7H2CV	C2S10P	0
A205	2SV5210	SERV WTR HTEX 21 SALT WTR OUT	GZ	S7H2CV	C2S10P	0
A205	2SV5210A	SERV WTR HTEX 21 SALT WTR OUT	GZ	S7H2CV	C2S10P	0
A205	2HXSRW21	21 SRW HX	GZ	S7HX21	HXS21B	144
A205	2HXSRW21	21 SRW HX	GZ	S7HX21	HXS21P	144
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1AB	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1AP	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1BB	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1BP	0
A119	1HXSTF/BOX11A	HPSI PUMP 11	HA	HA1CCW	HXS1AB	0
A119	1HXSTF/BOX11A	HPSI PUMP 11	HA	HA1CCW	HXS1AP	0
A119	1HXSTF/BOX11B	HPSI PUMP 11	HA	HA1CCW	HXS1BB	0
A119	1HXSTF/BOX11B	HPSI PUMP 11	HA	HA1CCW	HXS1BP	0
A119	1HX109	#11 HPSI PP SEAL COOLER	HA	HA1CCW	HXSC1B	0
A119	1HX109	#11 HPSI PP SEAL COOLER	HA	HA1CCW	HXSC1P	0
A119	1MOV656	AUX HPSI HDR ISOL	HA	HADISA	MV656P	0
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	HA	MA011R	MA011R	24
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	HA	MA011S	MA011S	24
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3AB	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3AP	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3BB	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3BP	0
A118	1HXSTF/BOX13A	HPSI PUMP 13	HB	HB3CCW	HXS3AB	0
A118	1HXSTF/BOX13A	HPSI PUMP 13	HB	HB3CCW	HXS3AP	0
A118	1HXSTF/BOX13B	HPSI PUMP 13	HB	HB3CCW	HXS3BB	0
A118	1HXSTF/BOX13B	HPSI PUMP 13	HB	HB3CCW	HXS3BP	0
A118	1HX111	#13 HPSI PP SEAL COOLER	HB	HB3CCW	HXSC3B	0
A118	1HX111	#13 HPSI PP SEAL COOLER	HB	HB3CCW	HXSC3P	0
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	HB	MA013R	MA013R	12
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	HB	MA013S	MA013S	12
A118	1MOV654	HPSI HDR ISOL	HB	MV654P	MV654P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	HU	BHEF1B	Throttle	144
A226	1CV4535	12 S/G AFW FLOW CONT VLV	HU	BHEF1B	Throttle	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A118	1PUMPHPSI12	12 HIGH PRESS SAFETY INJECTION PUMP	HW	BHEHW1	Start	12
A119	1MOV656	AUX HPSI HDR ISOL	HW	HADISA	MV656P	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2AB	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2AP	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2BB	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2BP	0
A118	1HXSTF/BOX12A	HPSI PUMP 12	HW	HW1CCW	HXS2AB	0
A118	1HXSTF/BOX12A	HPSI PUMP 12	HW	HW1CCW	HXS2AP	0
A118	1HXSTF/BOX12B	HPSI PUMP 12	HW	HW1CCW	HXS2BB	0
A118	1HXSTF/BOX12B	HPSI PUMP 12	HW	HW1CCW	HXS2BP	0
A119	1HX409	#12 HPSI PP SEAL COOLER	HW	HW1CCW	HXSC2B	0
A119	1HX409	#12 HPSI PP SEAL COOLER	HW	HW1CCW	HXSC2P	0
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	HW	MA012R	MA012R	24
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	HW	MA012S	MA012S	24
A118	1MOV653	HPSI HDR X-CONN	HW	MV653O	MV653O	0
A118	1MOV653	HPSI HDR X-CONN	HW	MV653P	MV653P	0
A118	1MOV654	HPSI HDR ISOL	HW	MV654P	MV654P	0
A119	1MOV655	HPSI HDR X-CONN	HW	MV655P	MV655P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	HX	BHEF1A	Throttle	144
A226	1CV4535	12 S/G AFW FLOW CONT VLV	HX	BHEF1A	Throttle	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1COMPSWAC11	11 SW AIR COMPRESSOR (1M1404)	I1	CMS11R	CMS11R	144
A226	1COMPSWAC11	11 SW AIR COMPRESSOR (1M1404)	I1	CMS11S	CMS11S	144
A226	1LS5200	11 IA SW AIR COMP LS	I1	I1CNTL	LS200R	144
A226	1TS5200	11 IA SW AIR COMP TS	I1	I1CNTL	TS200R	144
A226	1COMPSWAC12	12 SW AIR COMPRESSOR (1M0404)	I2	CMS12R	CMS12R	144
A226	1COMPSWAC12	12 SW AIR COMPRESSOR (1M0404)	I2	CMS12S	CMS12S	144
A226	1LS5201	12 IA SW AIR COMP LS	I2	I2CNTL	LS201R	144
A226	1TS5201	12 IA SW AIR COMP TS	I2	I2CNTL	TS201R	144
A228	1ACC5170	AIR ACCUMULATOR FOR 1CV5170	IL	ILIA99	TK170B	0
A228	1ACC5171	AIR ACCUMULATOR FOR 1CV5171	IL	ILIA99	TK171B	0
A228	1ACC5174	AIR ACCUMULATOR FOR 1CV5174	IL	ILIA99	TK174B	0
A228	1ACC5175	AIR ACCUMULATOR FOR 1CV5175	IL	ILIA99	TK175B	0
A228	1ACC5177	AIR ACCUMULATOR FOR 1CV5177	IL	ILIA99	TK177B	0
A228	1ACC5178	AIR ACCUMULATOR FOR 1CV5178	IL	ILIA99	TK178B	0
A228	1ACC5173	AIR ACCUMULATOR FOR 1CV5173	IN	INIA99	TK173B	0
A224	1ACC1645	AIR ACCUMULATOR FOR 1CV1645	IP	IPIA99	TK645B	0
A224	1ACC1646	AIR ACCUMULATOR FOR 1CV1646	IP	IPIA99	TK646B	0
A228	1CV5160	11 CC HX SW INLET	K3	C1160O	C1160O	0
A228	1SV5160	COMP CLG HTEX 11 SALT WTR INLT	K3	C1160O	C1160O	0
A228	1CV5206	11 CC HX SW OUTLET	K3	C2206O	C2206O	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	K3	C2206O	C2206O	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	K3	C2206O	C2206O	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	K3	C2206O	C2206O	0
A226	1CV5210	11 SRW HX SW OUTLET CV	K3	C2210C	C2210C	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	C2210C	C2210C	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	C2210C	C2210C	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0
A226	1ZC5210	1CV5210 POSITIONER	K3	C2210C	C2210C	0
A228	1CV3823	11 CC HX TEMP CONT BYP	K3	CT823R	CT823R	0
A228	1TIC3823	11 CC HX BYP VLV TEMP CONTL	K3	CT823R	CT823R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1CV5210	11 SRW HX SW OUTLET CV	K3	K3CLOS	C2210T	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	K3CLOS	C2210T	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	K3CLOS	C2210T	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1ZC5210	1CV5210 POSITIONER	K3	K3CLOS	C2210T	0
A228	1CV3823	11 CC HX TEMP CONT BYP	K3	K3COMP	CT823T	0
A228	1TIC3823	11 CC HX BYP VLV TEMP CONTL	K3	K3COMP	CT823T	0
A228	1CV5160	11 CC HX SW INLET	K3	K3OTLT	C1160P	0
A228	1SV5160	COMP CLG HTEX 11 SALT WTR INLT	K3	K3OTLT	C1160P	0
A228	1CV5206	11 CC HX SW OUTLET	K3	K3OTLT	C2206P	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	K3	K3OTLT	C2206P	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	K3	K3OTLT	C2206P	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	K3	K3OTLT	C2206P	0
A228	1CV5162	12 CC HX SW INLET	K4	C1162O	C1162O	0
A228	1SV5162	COMP CLG HTEX 12 SALT WTR INLT	K4	C1162O	C1162O	0
A228	1CV5163	12 CC HX SW NORM B/U OUTLET	K4	C1163O	C1163O	0
A228	1SV5163	COMP CLG HTEX 12 SALT WTR OUT	K4	C1163O	C1163O	0
A228	1CV5208	12 CC HX SW NORM OUT	K4	C2208O	C2208O	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	K4	C2208O	C2208O	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	K4	C2208O	C2208O	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	K4	C2208O	C2208O	0
A226	1CV5212	12 SRW HX SW OUT CV	K4	C2212C	C2212C	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	C2212C	C2212C	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	C2212C	C2212C	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1ZC5212	1CV5212 POSITIONER	K4	C2212C	C2212C	0
A228	1CV3825	12 CC HX TEMP CONT BYP	K4	CT825R	CT825R	0
A228	1TIC3825	12 CC HX BYP VLV TEMP CONTL	K4	CT825R	CT825R	0
A228	1CV3825	12 CC HX TEMP CONT BYP	K4	K4CMP1	CT825T	0
A228	1TIC3825	12 CC HX BYP VLV TEMP CONTL	K4	K4CMP1	CT825T	0
A228	1CV5162	12 CC HX SW INLET	K4	K4INLT	C1162P	0
A228	1SV5162	COMP CLG HTEX 12 SALT WTR INLT	K4	K4INLT	C1162P	0
A226	1CV5212	12 SRW HX SW OUT CV	K4	K4ISO1	C2212T	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	K4ISO1	C2212T	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	K4ISO1	C2212T	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1ZC5212	1CV5212 POSITIONER	K4	K4ISO1	C2212T	0
A228	1CV5165	12 CC HX SW AUX OUT	K4	K4OPN2	C4165O	0
A228	1SV5165	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4165O	0
A228	1CV5165	12 CC HX SW AUX OUT	K4	K4OPN2	C4165P	0
A228	1SV5165	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4165P	0
A228	1CV5166	12 CC HX SW AUX B/U OUTLET	K4	K4OPN2	C4166O	0
A228	1SV5166	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4166O	0
A228	1CV5166	12 CC HX SW AUX B/U OUTLET	K4	K4OPN2	C4166P	0
A228	1SV5166	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4166P	0
A228	1CV5163	12 CC HX SW NORM B/U OUTLET	K4	K4OTLT	C1163P	0
A228	1SV5163	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OTLT	C1163P	0
A228	1CV5208	12 CC HX SW NORM OUT	K4	K4OTLT	C2208P	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	K4	K4OTLT	C2208P	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OTLT	C2208P	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OTLT	C2208P	0
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KH(PP1)	BHEKC1	Start	12
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KH(PP1)	BHEKZ1	Start	12

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KH(PP2)	BHEKC1	Start	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KH(PP2)	BHEKZ1	Start	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KH(PP3)	BHEKC1	Start	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KH(PP3)	BHEKZ1	Start	12
A228	1CV3826	12 CC HX OUTLET	KI(HX1)	BHEK31	Close	0
A228	1CV5208	12 CC HX SW NORM OUT	KI(HX1)	BHEK31	Close	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	KI(HX1)	BHEK31	Close	0
A228	1SV3826	COMP CLG HTEX 12 DISCH CONTROL	KI(HX1)	BHEK31	Close	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	KI(HX1)	BHEK31	Close	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	KI(HX1)	BHEK31	Close	0
A228	1CV3824	11 CC HX OUTLET	KI(HX1)	BHEK31	Open	0
A228	1SV3824	COMP CLG HX 11 DISCH CONTROL	KI(HX1)	BHEK31	Open	0
A228	1CV5206	11 CC HX SW OUTLET	KI(HX1)	BHEK31	Throttle	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	KI(HX1)	BHEK31	Throttle	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	KI(HX1)	BHEK31	Throttle	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	KI(HX1)	BHEK31	Throttle	0
A228	1CV3824	11 CC HX OUTLET	KI(HX2)	BHEK31	Close	0
A228	1CV5206	11 CC HX SW OUTLET	KI(HX2)	BHEK31	Close	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	KI(HX2)	BHEK31	Close	0
A228	1SV3824	COMP CLG HX 11 DISCH CONTROL	KI(HX2)	BHEK31	Close	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	KI(HX2)	BHEK31	Close	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	KI(HX2)	BHEK31	Close	0
A228	1CV3826	12 CC HX OUTLET	KI(HX2)	BHEK31	Open	0
A228	1SV3826	COMP CLG HTEX 12 DISCH CONTROL	KI(HX2)	BHEK31	Open	0
A228	1CV5208	12 CC HX SW NORM OUT	KI(HX2)	BHEK31	Throttle	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	KI(HX2)	BHEK31	Throttle	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	KI(HX2)	BHEK31	Throttle	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	KI(HX2)	BHEK31	Throttle	0
A228	1HXCC11	11 COMPONENT COOLING WTR	KM	HXC11B	HXC11B	13
A228	1CV3823	11 CC HX TEMP CONT BYP	KM	KMBYPS	CT823P	0
A228	1TIC3823	11 CC HX BYP VLV TEMP CONTL	KM	KMBYPS	TC823R	0
A228	1CV3824	11 CC HX OUTLET	KM	KMCV24	CV824P	0
A228	1SV3824	COMP CLG HX 11 DISCH CONTROL	KM	KMCV24	CV824P	0
A228	1HXCC11	11 COMPONENT COOLING WTR	KM	KMPATH	HXC11P	13
A228	1HXCC12	12 COMPONENT COOLING WTR	KN	HXC12B	HXC12B	13
A228	1CV3825	12 CC HX TEMP CONT BYP	KN	KNBYPS	CT825P	0
A228	1TIC3825	12 CC HX BYP VLV TEMP CONTL	KN	KNBYPS	TC825R	0
A228	1CV3826	12 CC HX OUTLET	KN	KNCV26	CV826P	0
A228	1SV3826	COMP CLG HTEX 12 DISCH CONTROL	KN	KNCV26	CV826P	0
A228	1HXCC12	12 COMPONENT COOLING WTR	KN	KNPATH	HXC12P	13
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KX	MZC11R	MZC11R	12
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KX	MZC11S	MZC11S	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KY	MZC12R	MZC12R	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KY	MZC12S	MZC12S	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KZ	MZC13R	MZC13R	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KZ	MZC13S	MZC13S	12
A226	1COMPSWAC12	12 SW AIR COMPRESSOR (1M0404)	M1	CMM04Q	CMM04Q	144
A217	1U0409	11 BA TK HTR B	M1	HTM09Q	HTM09Q	6
A217	1U0434	12 BA TK HTR B	M1	HTM34Q	HTM34Q	6
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	M1	M1FPPR	VD48AQ	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	M1	M1FPPR	VD48BQ	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	M1	M1FPPR	VD48CQ	22
A217	1PUMPCVCBA12	12 CVC BORIC ACID PUMP (1M0406)	M1	MBM06Q	MBM06Q	12
A118	1MOV654	HPSI HDR ISOL	M1	MVM21Q	MVM21Q	0
A118	1MOV653	HPSI HDR X-CONN	M1	MVM22Q	MVM22Q	0
A217	1MOV514	BAPP TO CHG PP SUCT DIRECT FD	M1	MVM25Q	MVM25Q	6

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	M1	MVM30Q	MVM30Q	0
A118	1MOV660	MINI FLOW RETN TO RWT	M1	MVM32Q	MVM32Q	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	M1	MVM44Q	MVM44Q	0
A225	1FANHVACPENETE12	12 PENET RM EXH FAN (1M0402)	M1	VDM02Q	VDM02Q	18.75
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	M1	VDM12Q	VDM12Q	36
A225	1FANHVACECCSE12	12 ECCS PUMP RM EXH (1M0413)	M1	VDM13Q	VDM13Q	0
A226	1FAN5334	SRW HX RM EXH FAN 18B (1M0451)	M1	VDM51Q	VDM51Q	0
A226	1COMPSWAC11	11 SW AIR COMPRESSOR (1M1404)	M2	CMN04Q	CMN04Q	144
A217	1U1409	11 CVC BA TK HTR A	M2	HTN09Q	HTN09Q	6
A217	1U1434	12 BA TK HTR A	M2	HTN34Q	HTN34Q	6
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	M2	M2FPPR	VD48AQ	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	M2	M2FPPR	VD48BQ	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	M2	M2FPPR	VD48CQ	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	M2	M2FPPR	VD48DQ	22
A217	1PUMPCVCBA11	11 CVC BORIC ACID PUMP (1M1406)	M2	MBN06Q	MBN06Q	12
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A227	1MOV615	11A LPSI LOOP ISOL	M2	MVN07Q	MVN07Q	19
A227	1MOV625	11B LPSI LOOP ISOL	M2	MVN08Q	MVN08Q	0
A119	1MOV656	AUX HPSI HDR ISOL	M2	MVN21Q	MVN21Q	0
A119	1MOV655	HPSI HDR X-CONN	M2	MVN22Q	MVN22Q	0
A218	1MOV504	RWT TO CHG PP	M2	MVN23Q	MVN23Q	19
A217	1MOV509	11 BAST GRAVITY FD	M2	MVN24Q	MVN24Q	6
A217	1MOV508	12 BAST GRAVITY FD	M2	MVN30Q	MVN30Q	6
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A118	1MOV659	MINI FLOW RETN TO RWT	M2	MVN32Q	MVN32Q	0
A224	1MOV399	SDC HX RECIRC STOP	M2	MVN37Q	MVN37Q	6
A122	1MOV4144	CONTMT SUMP OUT ISOL	M2	MVN44Q	MVN44Q	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	M2	MVN57Q	MVN57Q	0
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A217	1X11	1 CVC BA HEAT TRACING XFMR	M2	TMN33Q	TMN33Q	6
A225	1FANHVACPENETE11	11 PENET RM EXH FAN (1M1402)	M2	VDN02Q	VDN02Q	18.75
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	M2	VDN12Q	VDN12Q	36
A225	1FANHVACECCSE11	11 ECCS PUMP RM EXH (1M1413)	M2	VDN13Q	VDN13Q	0
A226	1FAN5335	SRW HTEX RM FAN VU-18A (1M1441)	M2	VDN41Q	VDN41Q	0
A215	2U0409	21 CVC BA TK HTR B	M3	HTO09Q	HTO09Q	0
A215	2U0434	22 CVC BA TK HTR B	M3	HTO34Q	HTO34Q	0
A102	2FAN0448A	ECCS PP RM CLR 22 FAN A (2M0448A)	M3	M3FPPR	VD48AQ	22
A102	2FAN0448B	ECCS PP RM CLR 22 FAN B (2M0448B)	M3	M3FPPR	VD48BQ	22
A102	2FAN0448C	ECCS PP RM CLR 22 FAN C (2M0448C)	M3	M3FPPR	VD48CQ	22
A205	2COMPSWAC22A	22 SW AIR COMPRESSOR MOTOR A (2M0405A)	M3	M3FSWC	CMO5AQ	144
A205	2COMPSWAC22B	22 SW AIR COMPRESSOR MOTOR B (2M0405B)	M3	M3FSWC	CMO5BQ	144
A215	2PUMPCVCBA22	22 CVC BORIC ACID PUMP (2M0406)	M3	MBO06Q	MBO06Q	6
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A102	2MOV654	HPSI HDR ISOL	M3	MVO21Q	MVO21Q	0
A102	2MOV653	HPSI HDR X-CONN	M3	MVO22Q	MVO22Q	0
A215	2MOV514	BAPP'S TO CHG PP SUCT DIRECT FD	M3	MVO25Q	MVO25Q	0
A120	2MOV5463	U-2 CONTMT RECIRC PIPE TUNNEL	M3	MVO30Q	MVO30Q	0
A102	2MOV660	MINI FLOW RETN TO RWT	M3	MVO32Q	MVO32Q	0
A120	2MOV4145	CONTMT SUMP OUTLET ISOL	M3	MVO44Q	MVO44Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A203	2MOV399	SDC HX RECIRC ISOL	M3	MVO58Q	MVO58Q	6
A204	2FANHVACPENETE22	22 PENET RM EXH FAN (2M1402)	M3	VDO02Q	VDO02Q	18.75
A204	2FANHVACAFWE22	22 AFW PUMP RM EXH (2M0412)	M3	VDO12Q	VDO12Q	36
A204	2FANHVACECCSE22	22 ECCS PUMP RM EXH (2M0413)	M3	VDO13Q	VDO13Q	0
A205	2FAN5334	SRW HX RM EXH FAN 19B (2M0451)	M3	VDO51Q	VDO51Q	0
A215	2U1409	21 CVC BA TK HTR A	M4	HTN09Q	HTN09Q	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A215	2U1434	22 CVC BA TK HTR A	M4	HTN34Q	HTN34Q	0
A205	2COMPSWAC21A	21 SW AIR COMPRESSOR MOTOR A (2M1405A)	M4	M4FCRC	CM05AQ	144
A205	2COMPSWAC21B	21 SW AIR COMPRESSOR MOTOR B (2M1405B)	M4	M4FCRC	CM05BQ	144
A101	2FAN1448A	ECCS PP RM CLR 21 FAN A (2M1448A)	M4	M4FPPR	VD48AQ	72
A101	2FAN1448B	ECCS PP RM CLR 21 FAN B (2M1448B)	M4	M4FPPR	VD48BQ	72
A101	2FAN1448C	ECCS PP RM CLR 21 FAN C (2M1448C)	M4	M4FPPR	VD48CQ	72
A101	2FAN1448D	ECCS PP RM CLR 21 FAN D (2M1448D)	M4	M4FPPR	VD48DQ	72
A215	2PUMPCVCBA21	21 CVC BORIC ACID PUMP (2M1406)	M4	MBN06Q	MBN06Q	6
A206	2MOV615	21B LPSI OUTLET MOV	M4	MVN07Q	MVN07Q	24
A206	2MOV625	21A LPSI LOOP ISOL	M4	MVN08Q	MVN08Q	24
A101	2MOV656	AUX HPSI HDR ISOL	M4	MVN21Q	MVN21Q	54
A101	2MOV655	HPSI HDR X-CONN	M4	MVN22Q	MVN22Q	48
A212	2MOV504	RWT TO CHG PP	M4	MVN23Q	MVN23Q	24
A215	2MOV509	21 BAST GRAVITY FD	M4	MVN24Q	MVN24Q	0
A215	2MOV508	22 BAST GRAVITY FD	M4	MVN30Q	MVN30Q	0
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32
A102	2MOV659	MINI FLOW RETN TO RWT	M4	MVN32Q	MVN32Q	0
A120	2MOV4144	CONTMT SUMP OUTLET ISOL	M4	MVN44Q	MVN44Q	0
A120	2MOV5462	U-2 CONTMT RECIRC PIPE TUNNEL	M4	MVN57Q	MVN57Q	0
A215	2X11	BA HEAT TRACE XFMR 21	M4	TMN04Q	TMN04Q	0
A204	2FANHVACPENETE21	21 PENET RM EXH FAN (2M0402)	M4	VDN02Q	VDN02Q	18.75
A204	2FANHVACAFWE21	21 AFW PUMP RM EXH (2M1412)	M4	VDN12Q	VDN12Q	36
A204	2FANHVACECCSE21	21 ECCS PUMP RM EXH (2M1413)	M4	VDN13Q	VDN13Q	0
A205	2FAN5335	SRW HX RM SPLY FAN 19A (2M1437)	M4	VDN37Q	VDN37Q	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	MH	BHEF1I	Open	0
A227	1SV4071	12 S/G MS TO AFW PP	MH	BHEF1I	Open	0
A226	1PCV5000	11 SGFP BRG OIL PRESS REG VLV	MN	MNFW58	PC000R	0
A226	1PCV4993	11 SGFPT CONT OIL PRESS REG	MN	MNFW58	PC993R	0
A226	1PCV4999	11 SGFPT OIL PRESS REG VLV	MN	MNFW58	PC999R	0
A226	1PCV5043	12 SGFP TLO PP DISCH PCV	MN	MNFW68	PC043R	0
A226	1PCV5048	12 SGFP TLO RESERVOIR INLET PCV	MN	MNFW68	PC048R	0
A226	1PCV5049	12 FW SGFP TLO TO PP BRGS PCV	MN	MNFW68	PC049R	0
A118	1MOV659	MINI FLOW RETN TO RWT	MV	MV0A11	MV659P	0
A118	1MOV659	MINI FLOW RETN TO RWT	MV	MV0A11	MV659X	0
A118	1MOV660	MINI FLOW RETN TO RWT	MV	MV0A11	MV660P	0
A118	1MOV660	MINI FLOW RETN TO RWT	MV	MV0A11	MV660X	0
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	N1	MZ106Q	MZ106Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	N2	MZ116Q	MZ116Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	N3	MZ406Q	MZ406Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	N4	MZ416Q	MZ416Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A201	2PUMPCC21	21 COMPONENT COOLING PUMP (2MB106)	N5	MZT06Q	MZT06Q	12
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24
A201	2PUMPCC23	23 COMPONENT COOLING PUMP (2MB116)	N6	MZT16Q	MZT16Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A201	2PUMPCC22	22 COMPONENT COOLING PUMP (2MB406)	N7	MZT26Q	MZT26Q	12
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A201	2PUMPCC23	23 COMPONENT COOLING PUMP (2MB116)	N8	MZT36Q	MZT36Q	12
A228	1ACC5170	AIR ACCUMULATOR FOR 1CV5170	NR	ILIA99	TK170B	0
A228	1ACC5171	AIR ACCUMULATOR FOR 1CV5171	NR	ILIA99	TK171B	0
A228	1ACC5174	AIR ACCUMULATOR FOR 1CV5174	NR	ILIA99	TK174B	0
A228	1ACC5175	AIR ACCUMULATOR FOR 1CV5175	NR	ILIA99	TK175B	0
A228	1ACC5177	AIR ACCUMULATOR FOR 1CV5177	NR	ILIA99	TK177B	0
A228	1ACC5178	AIR ACCUMULATOR FOR 1CV5178	NR	ILIA99	TK178B	0
A228	1ACC5173	AIR ACCUMULATOR FOR 1CV5173	NR	INIA99	TK173B	0
A224	1ACC1645	AIR ACCUMULATOR FOR 1CV1645	NR	IPIA99	TK645B	0
A224	1ACC1646	AIR ACCUMULATOR FOR 1CV1646	NR	IPIA99	TK646B	0
A226	1ACC4070	11 S/G AFW STM VLV ACCUM	NR	NRIA99	TK070B	144
A226	1ACC4071	12 S/G STM VLV ACCUM	NR	NRIA99	TK071B	144
A205	2CV1637	TB SRW HDR ISOL	NR(TC)	UNIT 2-TAFB01	C3637P	144
A205	2SV1637	TURB & EHC OIL SERV WTR ISOL VLV	NR(TC)	UNIT 2-TAFB01	C3637P	0
A205	2CV1639	TB SRW HDR ISOL	NR(TC)	UNIT 2-TAFB01	C3639P	144
A205	2SV1639	TURB LUB & EHC OIL SERVWTR ISO	NR(TC)	UNIT 2-TAFB01	C3639P	0
A205	2CV1600	TB SRW HDR ISOL	NR(TC)	UNIT 2-TBFB01	C3600P	72
A205	2SV1600	TURB BLDG SERV WTR ISOL VLV	NR(TC)	UNIT 2-TBFB01	C3600P	0
A205	2CV1638	TB SRW HDR ISOL	NR(TC)	UNIT 2-TBFB01	C3638P	72
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NR(TC)	UNIT 2-TBFB01	C3638P	0
A205	2ACC4070	IA ACCUMULATOR	NS	NSIA99	TKS70B	144
A205	2ACC4071	IA ACCUMULATOR	NS	NSIA99	TKS71B	144
A205	2CV1638	TB SRW HDR ISOL	NS	NSSRW	N/A	72
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NS	NSSRW	N/A	0
A205	2CV1637	TB SRW HDR ISOL	NS	UNIT 2-TAFB01	C3637P	144
A205	2SV1637	TURB & EHC OIL SERV WTR ISOL VLV	NS	UNIT 2-TAFB01	C3637P	0
A205	2CV1639	TB SRW HDR ISOL	NS	UNIT 2-TAFB01	C3639P	144
A205	2SV1639	TURB LUB & EHC OIL SERVWTR ISO	NS	UNIT 2-TAFB01	C3639P	0
A205	2CV1600	TB SRW HDR ISOL	NS	UNIT 2-TBFB01	C3600P	72
A205	2SV1600	TURB BLDG SERV WTR ISOL VLV	NS	UNIT 2-TBFB01	C3600P	0
A205	2CV1638	TB SRW HDR ISOL	NS	UNIT 2-TBFB01	C3638P	72
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NS	UNIT 2-TBFB01	C3638P	0
A226	1CV4522	11 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	40
A226	1CV4523	11 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	144
A226	1CV4532	12 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	40
A226	1CV4533	12 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	144
A226	1SV4522	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4523	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4532	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4533	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	RH	BHERH1	Start	24
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	RH	BHERH1	Start	12
A226	1CV5150	11 SRW HX SW INLET	S3	C1150P	C1150P	60
A226	1SV5150	SERV WTR HTEX 11 SALT WTR INLT	S3	C1150P	C1150P	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148C	C2148C	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148C	C2148C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148C	C2148C	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148O	C2148O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148T	C2148T	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148T	C2148T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148T	C2148T	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151C	C2151C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151C	C2151C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151C	C2151C	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151C	C2151C	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	C2151O	C2151O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151O	C2151O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151O	C2151O	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	C2151O	C2151O	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151T	C2151T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151T	C2151T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151T	C2151T	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151T	C2151T	0
A226	1PUMPSRW11	11 SERVICE WATER PUMP (1MA109)	S3	MWS11R	MWS11R	32
A226	1PUMPSRW11	11 SERVICE WATER PUMP (1MA109)	S3	MWS11S	MWS11S	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S3	MWS13R	MWS13R	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S3	MWS13S	MWS13S	32
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AB	0
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AP	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BB	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BP	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1AV	C2148P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1CV5209	11A SRW HX SALT WATER OUTLET VLV	S3	S3H1AV	C2209P	0
A226	1FIC5209	11A SRW HX SW OUTLET FLOW INDICATOR	S3	S3H1AV	C2209P	0
A226	1P/P5209	1CV5209 A/S VOLUME BOOSTER	S3	S3H1AV	C2209P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2209P	0
A226	1SV5209	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1SV5209A	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1BV	C2151P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1BV	C2151P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1BV	C2151P	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	S3H1BV	C2151P	0
A226	1CV5210	11 SRW HX SW OUTLET CV	S3	S3H1BV	C2210P	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	S3	S3H1BV	C2210P	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	S3	S3H1BV	C2210P	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1ZC5210	1CV5210 POSITIONER	S3	S3H1BV	C2210P	0
A226	1CV5153	12 SRW HX SW NORM B/U OUTLET	S4	C1153P	C1153P	20
A226	1SV5153	SERV WTR HTEX 12 SALT WTR OUT	S4	C1153P	C1153P	0
A226	1CV5157	12A/12B SRW HX SALT WATER OUTLET VLV	S4	C2157T	C2157T	0
A226	1I/P5157	12A/12B SRW HX SW OUT I/P	S4	C2157T	C2157T	0
A226	1P/P5157	1CV5157 A/S VOLUME BOOSTER	S4	C2157T	C2157T	0
A226	1SV5157	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1SV5157A	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1ZC5157	1CV5157 POSITIONER	S4	C2157T	C2157T	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158C	C2158C	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158C	C2158C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158C	C2158C	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	C2158O	C2158O	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158O	C2158O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	C2158O	C2158O	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158T	C2158T	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158T	C2158T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158T	C2158T	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159C	C2159C	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159C	C2159C	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	C2159O	C2159O	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	C2159O	C2159O	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159T	C2159T	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159T	C2159T	0
A226	1CV5212	12 SRW HX SW OUT CV	S4	C2212O	C2212O	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	C2212O	C2212O	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	C2212O	C2212O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2212O	C2212O	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1ZC5212	1CV5212 POSITIONER	S4	C2212O	C2212O	0
A226	1PUMPSRW12	12 SERVICE WATER PUMP (1MA409)	S4	MWS12R	MWS12R	32
A226	1PUMPSRW12	12 SERVICE WATER PUMP (1MA409)	S4	MWS12S	MWS12S	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S4	MWS13R	MWS13R	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S4	MWS13S	MWS13S	32
A226	1CV5152	12 SRW HX SW INLET	S4	S4CV52	C1152P	60
A226	1SV5152	SERV WTR HTEX 12 SALT WTR INLT	S4	S4CV52	C1152P	0
A226	1HVSRW-707	MANUAL SRW INLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW707P	0
A226	1HVSRW-708	MANUAL SRW OUTLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW708P	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AB	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AP	0
A226	1HVSRW-709	MANUAL SRW INLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW709P	0
A226	1HVSRW-710	MANUAL SRW OUTLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW710P	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BB	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BP	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2AV	C2158P	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	S4H2AV	C2158P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	S4H2AV	C2158P	0
A226	1CV5211	12A SRW HX SALT WATER OUTLET VLV	S4	S4H2AV	C2211P	0
A226	1FIC5211	12A SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2AV	C2211P	0
A226	1P/P5211	1CV5211 A/S VOLUME BOOSTER	S4	S4H2AV	C2211P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2211P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1SV5211	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1SV5211A	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1ZC5211	1CV5211 POSITIONER	S4	S4H2AV	C2211P	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2BV	C2159P	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	S4H2BV	C2159P	0
A226	1CV5212	12 SRW HX SW OUT CV	S4	S4H2BV	C2212P	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2BV	C2212P	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	S4H2BV	C2212P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2212P	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1ZC5212	1CV5212 POSITIONER	S4	S4H2BV	C2212P	0
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0
A208	1CV2181	U-1 CONTMT WG HDR B/U ISOL	SH	IC181C	IC181C	12
A208	1SV2181	1-WGS-2181-CV SV	SH	IC181C	IC181C	12
A208	1CV2181	U-1 CONTMT WG HDR B/U ISOL	SH	IC181T	IC181T	12
A208	1SV2181	1-WGS-2181-CV SV	SH	IC181T	IC181T	12
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A221	1SV6507B	SOUTH PRIM SHLD H2 SAMPLE ANAL	SH	SHSV02	SV07BT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0
A221	1SV6507C	PRESSURIZ COMPRT H2 SAMPL ANAL	SH	SHSV05	SV07CT	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A221	1SV6507D	EAST EL 135 FT H2 SAMPLE ANAL	SH	SHSV08	SV07DT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0
A221	1SV6507B	SOUTH PRIM SHLD H2 SAMPLE ANAL	SH	SV07BD	SV07BD	0
A221	1SV6507C	PRESSURIZ COMPRT H2 SAMPL ANAL	SH	SV07CD	SV07CD	0
A221	1SV6507D	EAST EL 135 FT H2 SAMPLE ANAL	SH	SV07DD	SV07DD	0
A221	1SV6507G	H2 ANAL RETN TO CONTMT ATMOS ISOL	SH	SV07GD	SV07GD	0
A221	1SV6507G	H2 ANAL RETN TO CONTMT ATMOS ISOL	SH	SV07GT	SV07GT	0
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	SP(PP1)	BHEK12	Start	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	SP(PP2)	BHEK12	Start	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	SP(PP3)	BHEK12	Start	12
A122	1MOV4144	CONTMT SUMP OUT ISOL	SR	MV144C	MV144C	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	SR	MV144T	MV144T	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	SR	MV145C	MV145C	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	SR	MV145T	MV145T	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV462C	MV462C	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV462T	MV462T	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV463C	MV463C	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV463T	MV463T	0
A227	1MOV615	11A LPSI LOOP ISOL	SR	MV615C	MV615C	19
A227	1MOV615	11A LPSI LOOP ISOL	SR	MV615T	MV615T	19
A227	1MOV625	11B LPSI LOOP ISOL	SR	MV625C	MV625C	0
A227	1MOV625	11B LPSI LOOP ISOL	SR	MV625T	MV625T	0
A226	1CV1637	TURB BLDG SRW HDR 11 ISOL	TA	TAFB01	C3637P	144
A226	1SV1637	TURB LUBE&EHC OIL SERVWTR ISOL	TA	TAFB01	C3637P	0
A226	1CV1639	TURB BLDG SRW HDR 11 ISOL	TA	TAFB01	C3639P	144
A226	1SV1639	TURB LUB & EHC OIL SERV WTR IS	TA	TAFB01	C3639P	0
A226	1CV1600	TURB BLDG SRW HDR 12 ISOL	TB	TBFB01	C3600P	72
A226	1SV1600	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3600P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1CV1638	TURB BLDG SRW HDR 12 ISOL	TB	TBFB01	C3638P	72
A226	1SV1638	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3638P	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	TE	MV144O	MV144O	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	TE	TE0101	MV144P	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	TG	BHEF1Y	Open	0
A227	1SV4071	12 S/G MS TO AFW PP	TG	BHEF1Y	Open	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	TH(HD1)	BHER3B	Open	13
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	TH(HD1)	BHER3B	Open	0
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	TH(HD1)	BHER3B	Open	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	TH(HD1)	BHER3B	Open	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	TH(HD1)	BHER3B	Open	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	TH(HD1)	BHER3B	Open	0
A228	1CV5206	11 CC HX SW OUTLET	TH(HD1)	BHER3B	Throttle	0
A226	1CV5210	11 SRW HX SW OUTLET CV	TH(HD1)	BHER3B	Throttle	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	TH(HD1)	BHER3B	Throttle	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	TH(HD1)	BHER3B	Throttle	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	TH(HD1)	BHER3B	Throttle	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1ZC5210	1CV5210 POSITIONER	TH(HD1)	BHER3B	Throttle	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	TH(HD2)	BHER3B	Open	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	TH(HD2)	BHER3B	Open	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	TH(HD2)	BHER3B	Open	0
A228	1CV5208	12 CC HX SW NORM OUT	TH(HD2)	BHER3B	Throttle	0
A226	1CV5212	12 SRW HX SW OUT CV	TH(HD2)	BHER3B	Throttle	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	TH(HD2)	BHER3B	Throttle	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	TH(HD2)	BHER3B	Throttle	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	TH(HD2)	BHER3B	Throttle	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1ZC5212	1CV5212 POSITIONER	TH(HD2)	BHER3B	Throttle	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	TW	MV145O	MV145O	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	TW	TW0101	MV145P	0
A224	1PS4404	11 MT CONDENSER LOW VACUUM PS	TX	PS404D	PS404D	0
A224	1PS4405	11 MT CONDENSER LOW VACUUM PS	TX	PS405D	PS405D	0
A224	1PS4407	12 MT CONDENSER LOW VACUUM PS	TX	PS407D	PS407D	0
A224	1PS4408	12 MT CONDENSER LOW VACUUM PS	TX	PS408D	PS408D	0
A224	1PS4410	13 MT CONDENSER LOW VACUUM PS	TX	PS410D	PS410D	0
A224	1PS4411	13 MT CONDENSER LOW VACUUM PS	TX	PS411D	PS411D	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	UQ	BHEUQ1	Throttle	144
A226	1CV4535	12 S/G AFW FLOW CONT VLV	UQ	BHEUQ1	Throttle	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	TS404D	TS404D	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	V1	V1CLSE	WC170P	13
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	V1	V1CLSE	WC170P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1CLSE	WC170P	0
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	V1	V1CLSE	WC171P	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	V1	V1CLSE	WC171P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1CLSE	WC171P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1TEMP	TS404R	0
A119	1HXHVACECCS11	ECCS PUMP ROOM AIR COOLER 11	V1	V1TRFR	HX205B	0
A119	1HXHVACECCS11	ECCS PUMP ROOM AIR COOLER 11	V1	V1TRFR	HX205P	0
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	V1	VD11AR	VD11AR	22
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	V1	VD11AS	VD11AS	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	V1	VD11BR	VD11BR	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	V1	VD11BS	VD11BS	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	V1	VD11CR	VD11CR	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	V1	VD11CS	VD11CS	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	V1	VD11DR	VD11DR	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	V1	VD11DS	VD11DS	22
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	V1	WC170D	WC170D	13
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	V1	WC170D	WC170D	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC170D	WC170D	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	V1	WC170O	WC170O	13
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	V1	WC170O	WC170O	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC170O	WC170O	0
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	V1	WC171D	WC171D	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	V1	WC171D	WC171D	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC171D	WC171D	0
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	V1	WC171O	WC171O	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	V1	WC171O	WC171O	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC171O	WC171O	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	TS405D	TS405D	0
A228	1CV5174	12 ECCS PP RM AIR CLR SW NORM OUTLET	V2	V2CLSE	WC174P	0
A228	1SV5174	ECCS PP RM HTEX 12 SLT WTR OUT	V2	V2CLSE	WC174P	0
A228	1CV5175	12 ECCS PP RM AIR CLR SW NORM B/U OUT	V2	V2CLSE	WC175P	0
A228	1SV5175	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2CLSE	WC175P	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	V2	V2INLT	WC173P	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	V2	V2INLT	WC173P	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	V2INLT	WC173P	0
A228	1CV5177	12 ECCS PP RM AIR CLR SW AUX OUTLET	V2	V2OTLT	C4177O	0
A228	1SV5177	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4177O	0
A228	1CV5177	12 ECCS PP RM AIR CLR SW AUX OUTLET	V2	V2OTLT	C4177P	0
A228	1SV5177	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4177P	0
A228	1CV5178	12 ECCS PP RM AIR CLR SW AUX B/U OUT	V2	V2OTLT	C4178O	0
A228	1SV5178	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4178O	0
A228	1CV5178	12 ECCS PP RM AIR CLR SW AUX B/U OUT	V2	V2OTLT	C4178P	0
A228	1SV5178	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4178P	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	V2TEMP	TS405R	0
A118	1HXHVACECCS12	ECCS PUMP ROOM AIR COOLER 12	V2	V2TRFR	HX207B	0
A118	1HXHVACECCS12	ECCS PUMP ROOM AIR COOLER 12	V2	V2TRFR	HX207P	0
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	V2	VD12AR	VD12AR	22
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	V2	VD12AS	VD12AS	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	V2	VD12BR	VD12BR	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	V2	VD12BS	VD12BS	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	V2	VD12CR	VD12CR	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	V2	VD12CS	VD12CS	22
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	V2	WC173D	WC173D	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	V2	WC173D	WC173D	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	WC173D	WC173D	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	V2	WC173O	WC173O	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	V2	WC173O	WC173O	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	WC173O	WC173O	0
A225	1FANHVACECCSE11	11 ECCS PUMP RM EXH (1M1413)	V5	VDF11R	VDF11R	0
A225	1FANHVACECCSE11	11 ECCS PUMP RM EXH (1M1413)	V5	VDF11S	VDF11S	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A225	1FANHVACECCSE12	12 ECCS PUMP RM EXH (1M0413)	V5	VDF12R	VDF12R	0
A225	1FANHVACECCSE12	12 ECCS PUMP RM EXH (1M0413)	V5	VDF12S	VDF12S	0
A226	1PCV5214	11 CW PP SEAL WTR PCV	VC	VCCW1A	PC214R	0
A226	1PCV5216	12 CW PP SEAL WTR PCV	VC	VCCW2A	PC216R	0
A226	1PCV5218	13 CW PP SEAL WTR PCV	VC	VCCW3A	PC218R	0
A226	1PCV5220	14 CW PP SEAL WTR PCV	VC	VCCW4A	PC220R	0
A226	1PCV5222	15 CW PP SEAL WTR PCV	VC	VCCW5A	PC222R	0
A226	1PCV5224	16 CW PP SEAL WTR PCV	VC	VCCW6A	PC224R	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	VM(RM1)	BHEV1T	Open	13
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	VM(RM1)	BHEV1T	Open	0
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	VM(RM1)	BHEV1T	Open	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	VM(RM1)	BHEV1T	Open	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	VM(RM1)	BHEV1T	Open	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	VM(RM1)	BHEV1T	Open	0
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	VM(RM1)	BHEV1T	Start	22
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	VM(RM2)	BHEV1T	Open	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	VM(RM2)	BHEV1T	Open	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	VM(RM2)	BHEV1T	Open	0
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	VM(RM2)	BHEV1T	Start	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	VM(RM2)	BHEV1T	Start	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	VM(RM2)	BHEV1T	Start	22
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0
A221	1SV6507B	SOUTH PRIM SHLD H2 SAMPLE ANAL	WJ	BHESH2	Shut	0
A221	1SV6507C	PRESSURIZ COMPRT H2 SAMPL ANAL	WJ	BHESH2	Shut	0
A221	1SV6507D	EAST EL 135 FT H2 SAMPLE ANAL	WJ	BHESH2	Shut	0
A221	1SV6507G	H2 ANAL RETN TO CONTMT ATMOS ISOL	WJ	BHESH2	Shut	0
A221	1CV1584	12 CNTMT CLG U NORM INLET	WY	CV584O	CV584O	0
A221	1I/P1584	CNTMT CLR 12 SERV WTR INLT	WY	CV584O	CV584O	0
A221	1SV1584	CNTMT CLR 12 SERV WTR INLT VLV	WY	CV584O	CV584O	0
A221	1CV1592	14 CNTMT CLG U NORM INLET	WY	CV592O	CV592O	0
A221	1I/P1592	CNTMT CLR 14 SERV WTR INLT	WY	CV592O	CV592O	0
A221	1SV1592	CNTMT CLR 14 INLT VLV CONTROL	WY	CV592O	CV592O	0
A221	1CV1584	12 CNTMT CLG U NORM INLET	WY	WB102F	CV584P	0
A221	1I/P1584	CNTMT CLR 12 SERV WTR INLT	WY	WB102F	CV584P	0
A221	1SV1584	CNTMT CLR 12 SERV WTR INLT VLV	WY	WB102F	CV584P	0
A221	1CV1592	14 CNTMT CLG U NORM INLET	WY	WD102F	CV592P	0
A221	1I/P1592	CNTMT CLR 14 SERV WTR INLT	WY	WD102F	CV592P	0
A221	1SV1592	CNTMT CLR 14 INLT VLV CONTROL	WY	WD102F	CV592P	0

Flood Evaluation Query

CF-07D-S226AN

05-Nov-98

TOP	PM	EVALUATION	RI
AA	6BKR	6 breaker challenges.	PAJ
AB	5BKR	5 breaker challenges.	PAJ
AC	4BKR	4 breaker challenges.	PAJ
AD	7BKR	7 breaker challenges.	PAJ
CS	F	CS Pump 11 is lost.	PAJ
CT	F	CS Pump 12 is lost.	PAJ
CV	F	Conservatively set to failure. CVCS relatively unimportant.	PAJ
DL	None	11A and 11B LPSI Loop Isol MOVs (1MOV615 and 1MOV625), Fail to Open on Demand. LPSIs only used in large break LOCAs. Flood cannot cause a large break LOCA, therefore this top is not affected.	PAJ
F1	None ~~Spec Impt~~	11 and 12 S/G AFW Block Valves fail. These valves are normally open and will fail open. Therefore there is no impact on this top. Flow control valves failing open are addressed in top event HX. Steam admission Control valves 1CV4070/4071 are normally closed, and will fail as-is(closed) on loss of power. Therefore, operators will be unable to open valves. These valves continuously have air (closing the valve). The operators may bleed air to open valve if need be. (Note 2) (Note ~~1~~ 7)	PAJ
F3	None	Steam Admission SV's 1SV4070/4071 are covered under top event F1. (Note 3)	PAJ
F7	F	Lost the ability to use Unit 1 AFW MD Pump 13 to supply Unit 1 S/G.	PAJ
F9	F	Loss the ability to use Unit 2 AFW MD Pump 23 to supply Unit 1 S/G. Also, 21 and 22 S/G AFW Block and Flow Valves fail. These valves are normally open and fail as-is (open) on loss of power.	PAJ
FC	Spec Impt	AFW Pump Room Emergency Vent Fans 11 & 12 fail along with NSR A/C Unit.	PAJ
FF	None	Both 11 and 12 AFW Pump Room Exhaust fans fail to start. Covered under Top FC.	PAJ
FH	None	Loss the ability to start AFW MD Pump 13. Covered under Top F7.	PAJ
FN	None	Only has 2 PCVs. I am assuming that these valves will not fail during a flood.	PAJ

See notes in RAN 98-065 sect. 5.4

TOP	PM	EVALUATION	RI
FO	None ~~F~~	(Note 7) ~~Use FO-SF where M3 and M4 fail. 21A SWAC fails and 22A SWAC fails. The Unit 1 Plant Model does not credit anything other than the use of the SWACs. As a result, this function should be considered failed.~~	PAJ
GG	None	1CV1645 / 1CV1646 are both locked open. Both valves have been retired in place and can only be manipulated manually.	PAJ
GW	F	22 and 23 SRW Pump fail.	PAJ
GZ	F	21 and 23 SRW Pump fail.	PAJ
HA	F	11 HPSI Pump fails.	PAJ
HB	F	13 HPSI Pump fails.	PAJ
HU	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact.	PAJ
HW	F	12 HPSI is lost. Also 1MOV653, 1MOV654, 1MOV655 and 1MOV656 fail as-is.	PAJ
HX	None	11 and 12 S/G AFW (motor driven feed line) flow control valves fail open. Impact already considered by Top F7 & F9 failure.	PAJ
I1	F	11 SWAC fails.	PAJ
I2	F	12 SWAC fails.	PAJ
IL	None	Air accumulators only. Mechanical operation only.	PAJ
IN	None	Air accumulators only. Mechanical operation only.	PAJ
IP	None	Air accumulators only. Mechanical operation only.	PAJ
K3	None	Since KX, KY and KZ fail, this top event will be set to success.	PAJ
K4	None	Since KX, KY and KZ fail, this top event will be set to success.	PAJ
KH(PP1)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to start 11 CCW Pump. 11 Component Cooling Pump fails to start.	PAJ
KH(PP2)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to start 12 CCW Pump. 12 Component Cooling Pump fails to start.	PAJ

TOP	PM	EVALUATION	RI
KH(PP3)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to start 13 CCW Pump. 13 Component Cooling Pump fails to start.	PAJ
KI(HX1)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to open, close or modulate two valves (1CV3824 and 1CV5206). 1CV3824 will fail in the appropriate position. 1CV5206 will not. This valve will fail open neglecting the capability to throttle this valve. Therefore this top will fail.	PAJ
KI(HX2)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to open, close or modulate two valves (1CV3826 and 1CV5208). 1CV3826 will fail in the appropriate position. 1CV5208 will not. This valve will fail open neglecting the capability to throttle this valve. Therefore this top will fail.	PAJ
KM	None	Since KX, KY and KZ fail, this top event will be set to success. Also 1CV3823 will transfer close, which is the undesired affect. But it does not fail top unless 1HVCC-149 transfers shut or 1HXCC11 plugs during operation. Since mechanical components are screened for flood, it will not fail this top, only degrade it.	PAJ
KN	None	Since KX, KY and KZ fail, this top event will be set to success. Also 1CV3825 will transfer close, which is the undesired affect. But it does not fail top unless 1HVCC-156 transfers shut or 1HXCC12 plugs during operation. Since mechanical components are screened for flood, it will not fail this top, only degrade it.	PAJ
KX	F	11 CCW Pump will fail to start/run.	PAJ
KY	F	12 CCW Pump will fail to start/run.	PAJ
KZ	F	13 CCW Pump will fail to start/run.	PAJ
M1	15BKR	15 breaker challenges.	PAJ
M2	24BKR	24 breaker challenges.	PAJ
M3	18BKR	18 breaker challenges.	PAJ
~~M4~~	~~21BKR~~	~~21 breaker challenges.~~	~~PAJ~~
MH	(Note 3) ~~Spec Impt~~ None	~~1CV4070/4071 are normally closed and fail as-is on loss of power. These valves must be locally vented.~~	PAJ
MN	None	Has 6 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
MV	None	1MOV659/660 fail as-is and are normally electrically locked open, there will be no flood impact.	PAJ

TOP	PM	EVALUATION	RI
N1	2BKR	2 breaker challenges.	PAJ
N2	2BKR	2 breaker challenges.	PAJ
N3	1BKR	1 breaker challenge.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
N5	1BKR	1 breaker challenge.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	2BKR	2 breaker challenges.	PAJ
N8	2BKR	2 breaker challenges.	PAJ
NR	F ~~None~~	Air accumulators only. Mechanical operation only. (Note 8)	PAJ
NR(TC)	F ~~Spec Impt~~	2CV1600/1637/1638/1639 fail close on loss of power, the undesirable position. Unable to use Unit 2 compressors for Unit 1. (Note 8)	PAJ
NS	F ~~Spec Impt~~	2CV1600/1637/1638/1639 fail close on loss of power, the undesirable position. Unable to use Unit 2 compressors for Unit 2. (Note 8)	PAJ
QZ	None	11 & 12 AFW Block valves (1CV4522/4523/4532/4533) are normally open and fail as-is on loss of power.	PAJ
RH	None ~~F~~	This human action requires the operator to start 11 and 13 HPSI Pumps. Both pumps are assumed not to start/run during a flood scenario. (Note 9)	PAJ
S3	F	11 and 13 SRW Pumps fail.	PAJ
S4	F	12 and 13 SRW Pumps fail.	PAJ
SG	None ~~Spec Impt~~	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment. (Note 5)	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ
SP(PP1)	None	11 CC Pumps fails to start/run. Accounted for by Top KX.	PAJ

TOP	PM	EVALUATION	RI
SP(PP2)	None	12 CC Pumps fails to start/run. Accounted for by Top KY.	PAJ
SP(PP3)	None	13 CC Pumps fails to start/run. Accounted for by Top KZ.	PAJ
SR	Spec Impt. ~~None~~	All MOVs (1MOV4144/4145/5462/5463/615/625) are closed and fail close. (Note 10)	PAJ
TA	F	1CV1637/1639 fail close on loss of power / loss of air.	PAJ
TB	F	1CV1600/1638 fail close on loss of power / loss of air.	PAJ
TE	F	1MOV4144 is normally in the closed position and will fail as-is. Therefore, the East Recirculation Header will not function properly.	PAJ
TF	None ~~F~~	~~11 AFW Pump fails.~~ (Note 40)	PAJ
TG	None ~~F~~	~~12 AFW Pump fails.~~ (Note 40)	PAJ
TH(HD1)	None	1CV5206/5210 will fail to there appropriate position not allowing the operator to throttle valves. Covered by Top S3 or K3. Also, 1CV5170/5171 fails open on loss of power and loss of air.	PAJ
TH(HD2)	None	1CV5208/5212 will fail to there appropriate position not allowing the operator to throttle valves. Covered by Top S4 or K4. Also, 1CV5173 fails open on loss of power and loss of air.	PAJ
TW	F	1MOV4145 is normally in the closed position and will fail as-is. Therefore, the West Recirculation Header will not function properly.	PAJ
TX	None	Has 6 PSs. It is assumed that a flood will not prevent PS activation.	PAJ
UQ	None	1CV4525/4535 are normally open and fail as-is on loss of power. This top only fails when an under feed to the SG occurs.	PAJ
V1	F	All ECCS Pump Room Fans fail to start/run.	PAJ
V2	F	All ECCS Pump Room Fans fail to start/run.	PAJ
~~V5~~	~~F~~	~~11 and 12 ECCS exhaust fans fails to start/run.~~ V5 no longer used GJK	PAJ
VC	None	Has 6 PCVs. I am assuming that these will not fail during a flood.	PAJ
VM(RM1)	None	Operator will be unable to start ECCS Pump Room Fans. Covered under Top V1.	PAJ

TOP	PM	EVALUATION	RI
VM(RM2)	None	Operator will be unable to start ECCS Pump Room Fans. Covered under Top V2.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ
WY	None	1CV1584/1592 fail open loss of power.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	AA	MAAF3Q	MAAF3Q	16
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	AA	MACS1Q	MACS1Q	12
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	AA	MAHP1Q	MAHP1Q	24
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	AA	MAHP3Q	MAHP3Q	12
A119	1PUMPSILPSI11	11 LOW PRESS SAFETY INJECTION PUMP (1MA104)	AA	MALP1Q	MALP1Q	12
A226	1PUMPSRW11	11 SERVICE WATER PUMP (1MA109)	AA	MWSR1Q	MWSR1Q	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	AA	MWSR3Q	MWSR3Q	32
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	AB	MACS2Q	MACS2Q	12
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	AB	MAHP2Q	MAHP2Q	24
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	AB	MAHP4Q	MAHP4Q	12
A118	1PUMPSILPSI12	12 LOW PRESS SAFETY INJECTION PUMP (1MA404)	AB	MALP2Q	MALP2Q	12
A226	1PUMPSRW12	12 SERVICE WATER PUMP (1MA409)	AB	MWSR2Q	MWSR2Q	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	AB	MWSR4Q	MWSR4Q	32
A101	2PUMPSICS21	21 CONTAINMENT SPRAY PUMP (2MA107)	AC	MACS3Q	MACS3Q	24
A101	2PUMPHPSI21	SI HPSI PUMP 21 (2MA108)	AC	MAHP5Q	MAHP5Q	24
A102	2PUMPHPSI23	SI HPSI PUMP 23 (2MA110)	AC	MAHP7Q	MAHP7Q	12
A101	2PUMPSILPSI21	21 LOW PRESS SAFETY INJECTION PUMP (2MA104)	AC	MALP3Q	MALP3Q	39
A205	2PUMPSRW21	21 SERVICE WATER PUMP (2MA109)	AC	MWSR5Q	MWSR5Q	32
A205	2PUMPSRW23	23 SERVICE WATER PUMP (2MA411)	AC	MWSR7Q	MWSR7Q	32
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	AD	MAAF6Q	MAAF6Q	16
A102	2PUMPSICS22	22 CONTAINMENT SPRAY PUMP (2MA407)	AD	MACS4Q	MACS4Q	12
A101	2PUMPHPSI22	SI HPSI PUMP 22 (2MA408)	AD	MAHP6Q	MAHP6Q	24
A102	2PUMPHPSI23	SI HPSI PUMP 23 (2MA110)	AD	MAHP8Q	MAHP8Q	12
A102	2PUMPSILPSI22	22 LOW PRESS SAFETY INJECTION PUMP (2MA404)	AD	MALP4Q	MALP4Q	12
A205	2PUMPSRW22	22 SERVICE WATER PUMP (2MA409)	AD	MWSR6Q	MWSR6Q	32
A205	2PUMPSRW23	23 SERVICE WATER PUMP (2MA411)	AD	MWSR8Q	MWSR8Q	32
A119	1HXSICS11	11 SHUTDOWN COOLING HX	CS	CS0103	HXC11B	0
A119	1HXSICS11	11 SHUTDOWN COOLING HX	CS	CS0103	HXC11P	0
A119	1MOV663	SDC RECIRC TO 11 HPSI PP	CS	CS0103	MV663T	0
A119	1CV3828	11 SDC HX OUTLET	CS	CSHX11	CV828P	0
A119	1SV3828	S/D HX 11 COOL WTR DISCH VLV	CS	CSHX11	CV828P	0
A119	1CV3828	11 SDC HX OUTLET	CS	CV828O	CV828O	0
A119	1SV3828	S/D HX 11 COOL WTR DISCH VLV	CS	CV828O	CV828O	0
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	CS	MA107R	MA107R	12
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	CS	MA107S	MA107S	12
A118	1HXSICS12	12 SHUTDOWN COOLING HX	CT	CT0103	HXC12B	0
A118	1HXSICS12	12 SHUTDOWN COOLING HX	CT	CT0103	HXC12P	0
A118	1MOV662	SDC RECIRC TO 13 HPSI PP	CT	CT0103	MV662T	0
A118	1CV3830	12 SDC HX OUTLET	CT	CTXH12	CV830P	0
A118	1SV3830	S/D HX #12 COMP CLG DISCH VLV	CT	CTXH12	CV830P	0
A118	1CV3830	12 SDC HX OUTLET	CT	CV830O	CV830O	0
A118	1SV3830	S/D HX #12 COMP CLG DISCH VLV	CT	CV830O	CV830O	0
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	CT	MA407R	MA407R	12
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	CT	MA407S	MA407S	12
A115A	1ACCSTABILIZER11	11 CVC-SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A218	1CV500	VOL CONT TNK INLT VLV	CV	CVHV03	CV500O	0
A218	1LC227A	VOLUME CONTROL TNK LEVEL HIGH	CV	CVHV03	CV500O	0
A218	1SV500	VOL CONT TANK INLET CONT VLV	CV	CVHV03	CV500O	0
A218	1CV500	VOL CONT TNK INLT VLV	CV	CVHV03	CV500P	0
A218	1LC227A	VOLUME CONTROL TNK LEVEL HIGH	CV	CVHV03	CV500P	0
A218	1SV500	VOL CONT TANK INLET CONT VLV	CV	CVHV03	CV500P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A217	1MOV514	BAPP TO CHG PP SUCT DIRECT FD	CV	CVMV01	MV514O	6
A217	1MOV514	BAPP TO CHG PP SUCT DIRECT FD	CV	CVMV01	MV514P	6
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A217	1PUMPCVCBA11	11 CVC BORIC ACID PUMP (1M1406)	CV	MP011R	MP011R	12
A217	1PUMPCVCBA11	11 CVC BORIC ACID PUMP (1M1406)	CV	MP011S	MP011S	12
A217	1PUMPCVCBA12	12 CVC BORIC ACID PUMP (1M0406)	CV	MP012R	MP012R	12
A217	1PUMPCVCBA12	12 CVC BORIC ACID PUMP (1M0406)	CV	MP012S	MP012S	12
A217	1MOV508	12 BAST GRAVITY FD	CV	MV508O	MV508O	6
A217	1MOV508	12 BAST GRAVITY FD	CV	MV508P	MV508P	6
A217	1MOV509	11 BAST GRAVITY FD	CV	MV509O	MV509O	6
A217	1MOV509	11 BAST GRAVITY FD	CV	MV509P	MV509P	6
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PSZ24R	PS224R	0
A227	1MOV615	11A LPSI LOOP ISOL	DL	DLL11A	MV615O	19
A227	1MOV615	11A LPSI LOOP ISOL	DL	DLL11A	MV615P	19
A227	1MOV625	11B LPSI LOOP ISOL	DL	DLL11B	MV625O	0
A227	1MOV625	11B LPSI LOOP ISOL	DL	DLL11B	MV625P	0
A226	1CV4522	11 S/G AFW BLOCK VLV	F1	CV4522	CV522P	40
A226	1SV4522	11 S/G AFW BLOCK SV	F1	CV4522	CV522P	0
A226	1CV4523	11 S/G AFW BLOCK VLV	F1	CV4523	CV523P	144
A226	1SV4523	11 S/G AFW BLOCK SV	F1	CV4523	CV523P	0
A226	1CV4532	12 S/G AFW BLOCK VLV	F1	CV4532	CV532P	40
A226	1SV4532	12 S/G AFW BLOCK SV	F1	CV4532	CV532P	0
A226	1CV4533	12 S/G AFW BLOCK VLV	F1	CV4533	CV533P	144
A226	1SV4533	12 S/G AFW BLOCK SV	F1	CV4533	CV533P	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	F1	F1CV70	C8070O	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	F1	F1CV70	C8070P	0
A227	1SV4071	12 S/G MS TO AFW PP	F1	F1CV71	C8071O	0
A227	1SV4071	12 S/G MS TO AFW PP	F1	F1CV71	C8071P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	F1	F1MLV1	C6525P	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	F1	F1MLV1	C6525R	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1CV4535	12 S/G AFW FLOW CONT VLV	F1	F1MLV2	C6535P	144
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1CV4535	12 S/G AFW FLOW CONT VLV	F1	F1MLV2	C6535R	144
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	F3	BHEF31	Open	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A227	1SV4071	12 S/G MS TO AFW PP	F3	BHEF31	Open	0
A226	1CV4550	U-1 TO U-2 AFW X-CONN VLV	F7	F7MPVA	C3550T	144
A226	1SV4550	U-1 TO U-2 AFW X-CONN SV	F7	F7MPVA	C3550T	0
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QR	MA13QR	16
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QS	MA13QS	16
A205	2CV4522	21 S/G AFW BLOCK VLV	F9	CVB22C	CVB22C	40
A205	2SV4522	S/G 21 AFW MOTOR SYS ISOL VLV	F9	CVB22C	CVB22C	0
A205	2CV4523	21 S/G AFW BLOCK VLV	F9	CVB23C	CVB23C	144
A205	2SV4523	S/G 21 AFW MOTOR SYS ISOL VLV	F9	CVB23C	CVB23C	0
A205	2CV4532	22 S/G AFW BLOCK VLV	F9	CVB32C	CVB32C	40
A205	2SV4532	S/G 22 AFW MOTOR SYS ISOL VLV	F9	CVB32C	CVB32C	0
A205	2CV4533	22 S/G AFW BLOCK VLV	F9	CVB33C	CVB33C	144
A205	2SV4533	S/G 22 AFW MOTOR SYS ISOL VLV	F9	CVB33C	CVB33C	0
A205	2CV4550	U-2 TO U-1 AFW XCONN VLV	F9	F9M2VA	C3B50O	144
A205	2SV4550	U-2 AUX FEED X-CONN VLV	F9	F9M2VA	C3B50O	0
A205	2CV4550	U-2 TO U-1 AFW XCONN VLV	F9	F9M2VA	C3B50P	144
A205	2SV4550	U-2 AUX FEED X-CONN VLV	F9	F9M2VA	C3B50P	0
A205	2CV4522	21 S/G AFW BLOCK VLV	F9	F9M2VA	CVB22T	40
A205	2SV4522	S/G 21 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB22T	0
A205	2CV4523	21 S/G AFW BLOCK VLV	F9	F9M2VA	CVB23T	144
A205	2SV4523	S/G 21 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB23T	0
A205	2CV4532	22 S/G AFW BLOCK VLV	F9	F9M2VA	CVB32T	40
A205	2SV4532	S/G 22 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB32T	0
A205	2CV4533	22 S/G AFW BLOCK VLV	F9	F9M2VA	CVB33T	144
A205	2SV4533	S/G 22 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB33T	0
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	F9	MA23QR	MA23QR	16
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	F9	MA23QS	MA23QS	16
T603	1HXHVACAFW11	11 AFW PUMP ROOM	FC	FCAC11	CLA11R	0
T603	1HXHVACAFW11	11 AFW PUMP ROOM	FC	FCAC11	CLA11S	0
A225	1HS5472	MCC-101-BT BKR 52-10150 AFW PP RM A/C UNIT 11	FC	FCAC11	HS472T	0
A225	1HS5470	AFW PP RM EMERG VENT FAN 11 MCC-114-12	FC	FCAUX1	HS470D	18
A225	1HS5470	AFW PP RM EMERG VENT FAN 11 MCC-114-12	FC	FCAUX1	HS470T	18
A225	1HS5471	AFW PP RM EMERG VENT FAN 12 MCC-104-12	FC	FCAUX2	HS471D	18
A225	1HS5471	AFW PP RM EMERG VENT FAN 12 MCC-104-12	FC	FCAUX2	HS471T	18
T603	1FDAFWW1	AFW RM SUPPLY FROM RM 225 TO 1AFW FD	FC	FDAMPR	FD001I	0
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	FC	VDA11R	VDA11R	36
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	FC	VDA11S	VDA11S	36
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	FC	VDA12R	VDA12R	36
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	FC	VDA12S	VDA12S	36
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	FF	BHEFCB	Start	36
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	FF	BHEFCB	Start	36
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	FH	BHEF71	Start	16
A226	1PCV4512	1 IA SUPP ACCUM 11A & 11B PCV	FN	FN0000	CV512P	0
A226	1PCV4520	11B AFW AIR ACCUMULATOR OUTLET PCV	FN	FN0000	CV520P	0
A205	2COMPSWAC21A	21 SW AIR COMPRESSOR MOTOR A (2M1405A)	FO	UNIT 2	CMS21R	144
A205	2COMPSWAC21A	21 SW AIR COMPRESSOR MOTOR A (2M1405A)	FO	UNIT 2	CMS21S	144
A205	2COMPSWAC22A	22 SW AIR COMPRESSOR MOTOR A (2M0405A)	FO	UNIT 2	CMS22R	144
A205	2COMPSWAC22A	22 SW AIR COMPRESSOR MOTOR A (2M0405A)	FO	UNIT 2	CMS22S	144
A205	2LS5200	21 IA SW AIR COMPR OIL LO LVL SW	FO	UNIT 2	LS200R	144
A205	2LS5201	22 IA SW AIR COMPR OIL LO LVL SW	FO	UNIT 2	LS201R	144
A205	2TS5200	21 IA SW AIR COMPR HI TEMP SW	FO	UNIT 2	TS200R	144
A205	2TS5201	22 IA SW AIR COMPR HI TEMP SW	FO	UNIT 2	TS201R	144
A224	1CV1645	1B DG SUPP FROM U-1 SRW	GG	GGSRW1	CVA45P	6
A224	1CV1646	1B DG RTN TO U-1 SRW	GG	GGSRW1	CVA46P	6
A205	2CV5212	22 SRW HX SW OUT CV	GW	C2S12O	C2S12O	48
A205	2I/P5212	SALT WTR OUT SERV WTR HTEX	GW	C2S12O	C2S12O	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A205	2SV5212	SERV WTR HTEX 22 SALT WTR OUT	GW	C2S12O	C2S12O	0
A205	2SV5212A	SERV WTR HTEX 22 SALT WTR OUT	GW	C2S12O	C2S12O	0
A205	2PUMPSRW22	22 SERVICE WATER PUMP (2MA409)	GW	MWT22R	MWT22R	32
A205	2PUMPSRW22	22 SERVICE WATER PUMP (2MA409)	GW	MWT22S	MWT22S	32
A205	2PUMPSRW23	23 SERVICE WATER PUMP (2MA411)	GW	MWT23R	MWT23R	32
A205	2PUMPSRW23	23 SERVICE WATER PUMP (2MA411)	GW	MWT23S	MWT23S	32
A205	2CV5152	22 SRW HX SW INLET	GW	S8CV52	C1S52P	60
A205	2SV5152	SERV WTR HTEX 22 SALT WTR INLT	GW	S8CV52	C1S52P	0
A205	2CV5153	22 SRW HX SW NORM B/U OUTLET	GW	S8H2CV	C1S53P	20
A205	2SV5153	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C1S53P	0
A205	2CV5212	22 SRW HX SW OUT CV	GW	S8H2CV	C2S12P	48
A205	2I/P5212	SALT WTR OUT SERV WTR HTEX	GW	S8H2CV	C2S12P	0
A205	2SV5212	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C2S12P	0
A205	2SV5212A	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C2S12P	0
A205	2HXSRW22	22 SRW HX	GW	S8HX22	HXS22B	144
A205	2HXSRW22	22 SRW HX	GW	S8HX22	HXS22P	144
A205	2PUMPSRW21	21 SERVICE WATER PUMP (2MA109)	GZ	MWT21R	MWT21R	32
A205	2PUMPSRW21	21 SERVICE WATER PUMP (2MA109)	GZ	MWT21S	MWT21S	32
A205	2PUMPSRW23	23 SERVICE WATER PUMP (2MA411)	GZ	MWT23R	MWT23R	32
A205	2PUMPSRW23	23 SERVICE WATER PUMP (2MA411)	GZ	MWT23S	MWT23S	32
A205	2CV5150	21 SRW HX SW INLET	GZ	S7H2CV	C1S50P	60
A205	2SV5150	SERV WTR HTEX 21 SALT WTR INLT	GZ	S7H2CV	C1S50P	0
A205	2CV5210	21 SRW HX SW OUTLET CV	GZ	S7H2CV	C2S10P	60
A205	2I/P5210	SALT WTR OUT SERV WTR HTEX	GZ	S7H2CV	C2S10P	0
A205	2SV5210	SERV WTR HTEX 21 SALT WTR OUT	GZ	S7H2CV	C2S10P	0
A205	2SV5210A	SERV WTR HTEX 21 SALT WTR OUT	GZ	S7H2CV	C2S10P	0
A205	2HXSRW21	21 SRW HX	GZ	S7HX21	HXS21B	144
A205	2HXSRW21	21 SRW HX	GZ	S7HX21	HXS21P	144
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1AB	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1AP	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1BB	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1BP	0
A119	1HXSTF/BOX11A	HPSI PUMP 11	HA	HA1CCW	HXS1AB	0
A119	1HXSTF/BOX11A	HPSI PUMP 11	HA	HA1CCW	HXS1AP	0
A119	1HXSTF/BOX11B	HPSI PUMP 11	HA	HA1CCW	HXS1BB	0
A119	1HXSTF/BOX11B	HPSI PUMP 11	HA	HA1CCW	HXS1BP	0
A119	1HX109	#11 HPSI PP SEAL COOLER	HA	HA1CCW	HXSC1B	0
A119	1HX109	#11 HPSI PP SEAL COOLER	HA	HA1CCW	HXSC1P	0
A119	1MOV656	AUX HPSI HDR ISOL	HA	HADISA	MV656P	0
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	HA	MA011R	MA011R	24
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	HA	MA011S	MA011S	24
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3AB	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3AP	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3BB	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3BP	0
A118	1HXSTF/BOX13A	HPSI PUMP 13	HB	HB3CCW	HXS3AB	0
A118	1HXSTF/BOX13A	HPSI PUMP 13	HB	HB3CCW	HXS3AP	0
A118	1HXSTF/BOX13B	HPSI PUMP 13	HB	HB3CCW	HXS3BB	0
A118	1HXSTF/BOX13B	HPSI PUMP 13	HB	HB3CCW	HXS3BP	0
A118	1HX111	#13 HPSI PP SEAL COOLER	HB	HB3CCW	HXSC3B	0
A118	1HX111	#13 HPSI PP SEAL COOLER	HB	HB3CCW	HXSC3P	0
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	HB	MA013R	MA013R	12
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	HB	MA013S	MA013S	12
A118	1MOV654	HPSI HDR ISOL	HB	MV654P	MV654P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	HU	BHEF1B	Throttle	144
A226	1CV4535	12 S/G AFW FLOW CONT VLV	HU	BHEF1B	Throttle	144

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A118	1PUMPHPSI12	12 HIGH PRESS SAFETY INJECTION PUMP	HW	BHEHW1	Start	12
A119	1MOV656	AUX HPSI HDR ISOL	HW	HADISA	MV656P	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2AB	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2AP	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2BB	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2BP	0
A118	1HXSTF/BOX12A	HPSI PUMP 12	HW	HW1CCW	HXS2AB	0
A118	1HXSTF/BOX12A	HPSI PUMP 12	HW	HW1CCW	HXS2AP	0
A118	1HXSTF/BOX12B	HPSI PUMP 12	HW	HW1CCW	HXS2BB	0
A118	1HXSTF/BOX12B	HPSI PUMP 12	HW	HW1CCW	HXS2BP	0
A119	1HX409	#12 HPSI PP SEAL COOLER	HW	HW1CCW	HXSC2B	0
A119	1HX409	#12 HPSI PP SEAL COOLER	HW	HW1CCW	HXSC2P	0
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	HW	MA012R	MA012R	24
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	HW	MA012S	MA012S	24
A118	1MOV653	HPSI HDR X-CONN	HW	MV653O	MV653O	0
A118	1MOV653	HPSI HDR X-CONN	HW	MV653P	MV653P	0
A118	1MOV654	HPSI HDR ISOL	HW	MV654P	MV654P	0
A119	1MOV655	HPSI HDR X-CONN	HW	MV655P	MV655P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	HX	BHEF1A	Throttle	144
A226	1CV4535	12 S/G AFW FLOW CONT VLV	HX	BHEF1A	Throttle	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1COMPSWAC11	11 SW AIR COMPRESSOR (1M1404)	I1	CMS11R	CMS11R	144
A226	1COMPSWAC11	11 SW AIR COMPRESSOR (1M1404)	I1	CMS11S	CMS11S	144
A226	1LS5200	11 IA SW AIR COMP LS	I1	I1CNTL	LS200R	144
A226	1TS5200	11 IA SW AIR COMP TS	I1	I1CNTL	TS200R	144
A226	1COMPSWAC12	12 SW AIR COMPRESSOR (1M0404)	I2	CMS12R	CMS12R	144
A226	1COMPSWAC12	12 SW AIR COMPRESSOR (1M0404)	I2	CMS12S	CMS12S	144
A226	1LS5201	12 IA SW AIR COMP LS	I2	I2CNTL	LS201R	144
A226	1TS5201	12 IA SW AIR COMP TS	I2	I2CNTL	TS201R	144
A228	1ACC5170	AIR ACCUMULATOR FOR 1CV5170	IL	ILIA99	TK170B	0
A228	1ACC5171	AIR ACCUMULATOR FOR 1CV5171	IL	ILIA99	TK171B	0
A228	1ACC5174	AIR ACCUMULATOR FOR 1CV5174	IL	ILIA99	TK174B	0
A228	1ACC5175	AIR ACCUMULATOR FOR 1CV5175	IL	ILIA99	TK175B	0
A228	1ACC5177	AIR ACCUMULATOR FOR 1CV5177	IL	ILIA99	TK177B	0
A228	1ACC5178	AIR ACCUMULATOR FOR 1CV5178	IL	ILIA99	TK178B	0
A228	1ACC5173	AIR ACCUMULATOR FOR 1CV5173	IN	INIA99	TK173B	0
A224	1ACC1645	AIR ACCUMULATOR FOR 1CV1645	IP	IPIA99	TK645B	0
A224	1ACC1646	AIR ACCUMULATOR FOR 1CV1646	IP	IPIA99	TK646B	0
A228	1CV5160	11 CC HX SW INLET	K3	C1160O	C1160O	0
A228	1SV5160	COMP CLG HTEX 11 SALT WTR INLT	K3	C1160O	C1160O	0
A228	1CV5206	11 CC HX SW OUTLET	K3	C2206O	C2206O	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	K3	C2206O	C2206O	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	K3	C2206O	C2206O	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	K3	C2206O	C2206O	0
A226	1CV5210	11 SRW HX SW OUTLET CV	K3	C2210C	C2210C	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	C2210C	C2210C	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	C2210C	C2210C	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1ZC5210	1CV5210 POSITIONER	K3	C2210C	C2210C	0
A228	1CV3823	11 CC HX TEMP CONT BYP	K3	CT823R	CT823R	0
A228	1TIC3823	11 CC HX BYP VLV TEMP CONTL	K3	CT823R	CT823R	0
A226	1CV5210	11 SRW HX SW OUTLET CV	K3	K3CLOS	C2210T	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	K3CLOS	C2210T	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	K3CLOS	C2210T	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1ZC5210	1CV5210 POSITIONER	K3	K3CLOS	C2210T	0
A228	1CV3823	11 CC HX TEMP CONT BYP	K3	K3COMP	CT823T	0
A228	1TIC3823	11 CC HX BYP VLV TEMP CONTL	K3	K3COMP	CT823T	0
A228	1CV5160	11 CC HX SW INLET	K3	K3OTLT	C1160P	0
A228	1SV5160	COMP CLG HTEX 11 SALT WTR INLT	K3	K3OTLT	C1160P	0
A228	1CV5206	11 CC HX SW OUTLET	K3	K3OTLT	C2206P	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	K3	K3OTLT	C2206P	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	K3	K3OTLT	C2206P	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	K3	K3OTLT	C2206P	0
A228	1CV5162	12 CC HX SW INLET	K4	C1162O	C1162O	0
A228	1SV5162	COMP CLG HTEX 12 SALT WTR INLT	K4	C1162O	C1162O	0
A228	1CV5163	12 CC HX SW NORM B/U OUTLET	K4	C1163O	C1163O	0
A228	1SV5163	COMP CLG HTEX 12 SALT WTR OUT	K4	C1163O	C1163O	0
A228	1CV5208	12 CC HX SW NORM OUT	K4	C2208O	C2208O	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	K4	C2208O	C2208O	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	K4	C2208O	C2208O	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	K4	C2208O	C2208O	0
A226	1CV5212	12 SRW HX SW OUT CV	K4	C2212C	C2212C	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	C2212C	C2212C	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	C2212C	C2212C	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1ZC5212	1CV5212 POSITIONER	K4	C2212C	C2212C	0
A228	1CV3825	12 CC HX TEMP CONT BYP	K4	CT825R	CT825R	0
A228	1TIC3825	12 CC HX BYP VLV TEMP CONTL	K4	CT825R	CT825R	0
A228	1CV3825	12 CC HX TEMP CONT BYP	K4	K4CMP1	CT825T	0
A228	1TIC3825	12 CC HX BYP VLV TEMP CONTL	K4	K4CMP1	CT825T	0
A228	1CV5162	12 CC HX SW INLET	K4	K4INLT	C1162P	0
A228	1SV5162	COMP CLG HTEX 12 SALT WTR INLT	K4	K4INLT	C1162P	0
A226	1CV5212	12 SRW HX SW OUT CV	K4	K4ISO1	C2212T	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	K4ISO1	C2212T	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	K4ISO1	C2212T	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1ZC5212	1CV5212 POSITIONER	K4	K4ISO1	C2212T	0
A228	1CV5165	12 CC HX SW AUX OUT	K4	K4OPN2	C4165O	0
A228	1SV5165	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4165O	0
A228	1CV5165	12 CC HX SW AUX OUT	K4	K4OPN2	C4165P	0
A228	1SV5165	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4165P	0
A228	1CV5166	12 CC HX SW AUX B/U OUTLET	K4	K4OPN2	C4166O	0
A228	1SV5166	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4166O	0
A228	1CV5166	12 CC HX SW AUX B/U OUTLET	K4	K4OPN2	C4166P	0
A228	1SV5166	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4166P	0
A228	1CV5163	12 CC HX SW NORM B/U OUTLET	K4	K4OTLT	C1163P	0
A228	1SV5163	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OTLT	C1163P	0
A228	1CV5208	12 CC HX SW NORM OUT	K4	K4OTLT	C2208P	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	K4	K4OTLT	C2208P	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OTLT	C2208P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OTLT	C2208P	0
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KH(PP1)	BHEKC1	Start	12
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KH(PP1)	BHEKZ1	Start	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KH(PP2)	BHEKC1	Start	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KH(PP2)	BHEKZ1	Start	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KH(PP3)	BHEKC1	Start	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KH(PP3)	BHEKZ1	Start	12
A228	1CV3826	12 CC HX OUTLET	KI(HX1)	BHEK31	Close	0
A228	1CV5208	12 CC HX SW NORM OUT	KI(HX1)	BHEK31	Close	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	KI(HX1)	BHEK31	Close	0
A228	1SV3826	COMP CLG HTEX 12 DISCH CONTROL	KI(HX1)	BHEK31	Close	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	KI(HX1)	BHEK31	Close	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	KI(HX1)	BHEK31	Close	0
A228	1CV3824	11 CC HX OUTLET	KI(HX1)	BHEK31	Open	0
A228	1SV3824	COMP CLG HX 11 DISCH CONTROL	KI(HX1)	BHEK31	Open	0
A228	1CV5206	11 CC HX SW OUTLET	KI(HX1)	BHEK31	Throttle	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	KI(HX1)	BHEK31	Throttle	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	KI(HX1)	BHEK31	Throttle	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	KI(HX1)	BHEK31	Throttle	0
A228	1CV3824	11 CC HX OUTLET	KI(HX2)	BHEK31	Close	0
A228	1CV5206	11 CC HX SW OUTLET	KI(HX2)	BHEK31	Close	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	KI(HX2)	BHEK31	Close	0
A228	1SV3824	COMP CLG HX 11 DISCH CONTROL	KI(HX2)	BHEK31	Close	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	KI(HX2)	BHEK31	Close	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	KI(HX2)	BHEK31	Close	0
A228	1CV3826	12 CC HX OUTLET	KI(HX2)	BHEK31	Open	0
A228	1SV3826	COMP CLG HTEX 12 DISCH CONTROL	KI(HX2)	BHEK31	Open	0
A228	1CV5208	12 CC HX SW NORM OUT	KI(HX2)	BHEK31	Throttle	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	KI(HX2)	BHEK31	Throttle	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	KI(HX2)	BHEK31	Throttle	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	KI(HX2)	BHEK31	Throttle	0
A228	1HXCC11	11 COMPONENT COOLING WTR	KM	HXC11B	HXC11B	13
A228	1CV3823	11 CC HX TEMP CONT BYP	KM	KMBYPS	CT823P	0
A228	1TIC3823	11 CC HX BYP VLV TEMP CONTL	KM	KMBYPS	TC823R	0
A228	1CV3824	11 CC HX OUTLET	KM	KMCV24	CV824P	0
A228	1SV3824	COMP CLG HX 11 DISCH CONTROL	KM	KMCV24	CV824P	0
A228	1HXCC11	11 COMPONENT COOLING WTR	KM	KMPATH	HXC11P	13
A228	1HXCC12	12 COMPONENT COOLING WTR	KN	HXC12B	HXC12B	13
A228	1CV3825	12 CC HX TEMP CONT BYP	KN	KNBYPS	CT825P	0
A228	1TIC3825	12 CC HX BYP VLV TEMP CONTL	KN	KNBYPS	TC825R	0
A228	1CV3826	12 CC HX OUTLET	KN	KNCV26	CV826P	0
A228	1SV3826	COMP CLG HTEX 12 DISCH CONTROL	KN	KNCV26	CV826P	0
A228	1HXCC12	12 COMPONENT COOLING WTR	KN	KNPATH	HXC12P	13
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KX	MZC11R	MZC11R	12
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KX	MZC11S	MZC11S	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KY	MZC12R	MZC12R	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KY	MZC12S	MZC12S	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KZ	MZC13R	MZC13R	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KZ	MZC13S	MZC13S	12
A226	1COMPSWAC12	12 SW AIR COMPRESSOR (1M0404)	M1	CMM04Q	CMM04Q	144
A217	1U0409	11 BA TK HTR B	M1	HTM09Q	HTM09Q	6
A217	1U0434	12 BA TK HTR B	M1	HTM34Q	HTM34Q	6
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	M1	M1FPPR	VD48AQ	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	M1	M1FPPR	VD48BQ	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	M1	M1FPPR	VD48CQ	22
A217	1PUMPCVCBA12	12 CVC BORIC ACID PUMP (1M0406)	M1	MBM06Q	MBM06Q	12

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A118	1MOV654	HPSI HDR ISOL	M1	MVM21Q	MVM21Q	0
A118	1MOV653	HPSI HDR X-CONN	M1	MVM22Q	MVM22Q	0
A217	1MOV514	BAPP TO CHG PP SUCT DIRECT FD	M1	MVM25Q	MVM25Q	6
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	M1	MVM30Q	MVM30Q	0
A118	1MOV660	MINI FLOW RETN TO RWT	M1	MVM32Q	MVM32Q	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	M1	MVM44Q	MVM44Q	0
A225	1FANHVACPENETE12	12 PENET RM EXH FAN (1M0402)	M1	VDM02Q	VDM02Q	18.75
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	M1	VDM12Q	VDM12Q	36
A225	1FANHVACECCSE12	12 ECCS PUMP RM EXH (1M0413)	M1	VDM13Q	VDM13Q	0
A226	1FAN5334	SRW HX RM EXH FAN 18B (1M0451)	M1	VDM51Q	VDM51Q	0
A226	1COMPSWAC11	11 SW AIR COMPRESSOR (1M1404)	M2	CMN04Q	CMN04Q	144
A217	1U1409	11 CVC BA TK HTR A	M2	HTN09Q	HTN09Q	6
A217	1U1434	12 BA TK HTR A	M2	HTN34Q	HTN34Q	6
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	M2	M2FPPR	VD48AQ	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	M2	M2FPPR	VD48BQ	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	M2	M2FPPR	VD48CQ	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	M2	M2FPPR	VD48DQ	22
A217	1PUMPCVCBA11	11 CVC BORIC ACID PUMP (1M1406)	M2	MBN06Q	MBN06Q	12
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A227	1MOV615	11A LPSI LOOP ISOL	M2	MVN07Q	MVN07Q	19
A227	1MOV625	11B LPSI LOOP ISOL	M2	MVN08Q	MVN08Q	0
A119	1MOV656	AUX HPSI HDR ISOL	M2	MVN21Q	MVN21Q	0
A119	1MOV655	HPSI HDR X-CONN	M2	MVN22Q	MVN22Q	0
A218	1MOV504	RWT TO CHG PP	M2	MVN23Q	MVN23Q	19
A217	1MOV509	11 BAST GRAVITY FD	M2	MVN24Q	MVN24Q	6
A217	1MOV508	12 BAST GRAVITY FD	M2	MVN30Q	MVN30Q	6
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A118	1MOV659	MINI FLOW RETN TO RWT	M2	MVN32Q	MVN32Q	0
A224	1MOV399	SDC HX RECIRC STOP	M2	MVN37Q	MVN37Q	6
A122	1MOV4144	CONTMT SUMP OUT ISOL	M2	MVN44Q	MVN44Q	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	M2	MVN57Q	MVN57Q	0
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A217	1X11	1 CVC BA HEAT TRACING XFMR	M2	TMN33Q	TMN33Q	6
A225	1FANHVACPENETE11	11 PENET RM EXH FAN (1M1402)	M2	VDN02Q	VDN02Q	18.75
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	M2	VDN12Q	VDN12Q	36
A225	1FANHVACECCSE11	11 ECCS PUMP RM EXH (1M1413)	M2	VDN13Q	VDN13Q	0
A226	1FAN5335	SRW HTEX RM FAN VU-18A (1M1441)	M2	VDN41Q	VDN41Q	0
A215	2U0409	21 CVC BA TK HTR B	M3	HTO09Q	HTO09Q	0
A215	2U0434	22 CVC BA TK HTR B	M3	HTO34Q	HTO34Q	0
A102	2FAN0448A	ECCS PP RM CLR 22 FAN A (2M0448A)	M3	M3FPPR	VD48AQ	22
A102	2FAN0448B	ECCS PP RM CLR 22 FAN B (2M0448B)	M3	M3FPPR	VD48BQ	22
A102	2FAN0448C	ECCS PP RM CLR 22 FAN C (2M0448C)	M3	M3FPPR	VD48CQ	22
A205	2COMPSWAC22A	22 SW AIR COMPRESSOR MOTOR A (2M0405A)	M3	M3FSWC	CMO5AQ	144
A205	2COMPSWAC22B	22 SW AIR COMPRESSOR MOTOR B (2M0405B)	M3	M3FSWC	CMO5BQ	144
A215	2PUMPCVCBA22	22 CVC BORIC ACID PUMP (2M0406)	M3	MBO06Q	MBO06Q	6
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A102	2MOV654	HPSI HDR ISOL	M3	MVO21Q	MVO21Q	0
A102	2MOV653	HPSI HDR X-CONN	M3	MVO22Q	MVO22Q	0
A215	2MOV514	BAPP'S TO CHG PP SUCT DIRECT FD	M3	MVO25Q	MVO25Q	0
A120	2MOV5463	U-2 CONTMT RECIRC PIPE TUNNEL	M3	MVO30Q	MVO30Q	0
A102	2MOV660	MINI FLOW RETN TO RWT	M3	MVO32Q	MVO32Q	0
A120	2MOV4145	CONTMT SUMP OUTLET ISOL	M3	MVO44Q	MVO44Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A203	2MOV399	SDC HX RECIRC ISOL	M3	MVO58Q	MVO58Q	6
A204	2FANHVACPENETE22	22 PENET RM EXH FAN (2M1402)	M3	VDO02Q	VDO02Q	18.75
A204	2FANHVACAFWE22	22 AFW PUMP RM EXH (2M0412)	M3	VDO12Q	VDO12Q	36

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A204	2FANHVACECCSE22	22 ECCS PUMP RM EXH (2M0413)	M3	VDO13Q	VDO13Q	0
A205	2FAN5334	SRW HX RM EXH FAN 19B (2M0451)	M3	VDO51Q	VDO51Q	0
A215	2U1409	21 CVC BA TK HTR A	M4	HTN09Q	HTN09Q	0
A215	2U1434	22 CVC BA TK HTR A	M4	HTN34Q	HTN34Q	0
A205	2COMPSWAC21A	21 SW AIR COMPRESSOR MOTOR A (2M1405A)	M4	M4FCRC	CM05AQ	144
A205	2COMPSWAC21B	21 SW AIR COMPRESSOR MOTOR B (2M1405B)	M4	M4FCRC	CM05BQ	144
A101	2FAN1448A	ECCS PP RM CLR 21 FAN A (2M1448A)	M4	M4FPPR	VD48AQ	72
A101	2FAN1448B	ECCS PP RM CLR 21 FAN B (2M1448B)	M4	M4FPPR	VD48BQ	72
A101	2FAN1448C	ECCS PP RM CLR 21 FAN C (2M1448C)	M4	M4FPPR	VD48CQ	72
A101	2FAN1448D	ECCS PP RM CLR 21 FAN D (2M1448D)	M4	M4FPPR	VD48DQ	72
A215	2PUMPCVCBA21	21 CVC BORIC ACID PUMP (2M1406)	M4	MBN06Q	MBN06Q	6
A206	2MOV615	21B LPSI OUTLET MOV	M4	MVN07Q	MVN07Q	24
A206	2MOV625	21A LPSI LOOP ISOL	M4	MVN08Q	MVN08Q	24
A101	2MOV656	AUX HPSI HDR ISOL	M4	MVN21Q	MVN21Q	54
A101	2MOV655	HPSI HDR X-CONN	M4	MVN22Q	MVN22Q	48
A212	2MOV504	RWT TO CHG PP	M4	MVN23Q	MVN23Q	24
A215	2MOV509	21 BAST GRAVITY FD	M4	MVN24Q	MVN24Q	0
A215	2MOV508	22 BAST GRAVITY FD	M4	MVN30Q	MVN30Q	0
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32
A102	2MOV659	MINI FLOW RETN TO RWT	M4	MVN32Q	MVN32Q	0
A120	2MOV4144	CONTMT SUMP OUTLET ISOL	M4	MVN44Q	MVN44Q	0
A120	2MOV5462	U-2 CONTMT RECIRC PIPE TUNNEL	M4	MVN57Q	MVN57Q	0
A215	2X11	BA HEAT TRACE XFMR 21	M4	TMN04Q	TMN04Q	0
A204	2FANHVACPENETE21	21 PENET RM EXH FAN (2M0402)	M4	VDN02Q	VDN02Q	18.75
A204	2FANHVACAFWE21	21 AFW PUMP RM EXH (2M1412)	M4	VDN12Q	VDN12Q	36
A204	2FANHVACECCSE21	21 ECCS PUMP RM EXH (2M1413)	M4	VDN13Q	VDN13Q	0
A205	2FAN5335	SRW HX RM SPLY FAN 19A (2M1437)	M4	VDN37Q	VDN37Q	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	MH	BHEF1I	Open	0
A227	1SV4071	12 S/G MS TO AFW PP	MH	BHEF1I	Open	0
A226	1PCV5000	11 SGFP BRG OIL PRESS REG VLV	MN	MNFW58	PC000R	0
A226	1PCV4993	11 SGFPT CONT OIL PRESS REG	MN	MNFW58	PC993R	0
A226	1PCV4999	11 SGFPT OIL PRESS REG VLV	MN	MNFW58	PC999R	0
A226	1PCV5043	12 SGFP TLO PP DISCH PCV	MN	MNFW68	PC043R	0
A226	1PCV5048	12 SGFP TLO RESERVOIR INLET PCV	MN	MNFW68	PC048R	0
A226	1PCV5049	12 FW SGFP TLO TO PP BRGS PCV	MN	MNFW68	PC049R	0
A118	1MOV659	MINI FLOW RETN TO RWT	MV	MV0A11	MV659P	0
A118	1MOV659	MINI FLOW RETN TO RWT	MV	MV0A11	MV659X	0
A118	1MOV660	MINI FLOW RETN TO RWT	MV	MV0A11	MV660P	0
A118	1MOV660	MINI FLOW RETN TO RWT	MV	MV0A11	MV660X	0
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	N1	MZ106Q	MZ106Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	N2	MZ116Q	MZ116Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	N3	MZ406Q	MZ406Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	N4	MZ416Q	MZ416Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A201	2PUMPCC21	21 COMPONENT COOLING PUMP (2MB106).	N5	MZT06Q	MZT06Q	12
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A201	2PUMPCC23	23 COMPONENT COOLING PUMP (2MB116)	N6	MZT16Q	MZT16Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A201	2PUMPCC22	22 COMPONENT COOLING PUMP (2MB406)	N7	MZT26Q	MZT26Q	12
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A201	2PUMPCC23	23 COMPONENT COOLING PUMP (2MB116)	N8	MZT36Q	MZT36Q	12
A228	1ACC5170	AIR ACCUMULATOR FOR 1CV5170	NR	ILIA99	TK170B	0
A228	1ACC5171	AIR ACCUMULATOR FOR 1CV5171	NR	ILIA99	TK171B	0
A228	1ACC5174	AIR ACCUMULATOR FOR 1CV5174	NR	ILIA99	TK174B	0
A228	1ACC5175	AIR ACCUMULATOR FOR 1CV5175	NR	ILIA99	TK175B	0
A228	1ACC5177	AIR ACCUMULATOR FOR 1CV5177	NR	ILIA99	TK177B	0
A228	1ACC5178	AIR ACCUMULATOR FOR 1CV5178	NR	ILIA99	TK178B	0
A228	1ACC5173	AIR ACCUMULATOR FOR 1CV5173	NR	INIA99	TK173B	0
A224	1ACC1645	AIR ACCUMULATOR FOR 1CV1645	NR	IPIA99	TK645B	0
A224	1ACC1646	AIR ACCUMULATOR FOR 1CV1646	NR	IPIA99	TK646B	0
A226	1ACC4070	11 S/G AFW STM VLV ACCUM	NR	NRIA99	TK070B	144
A226	1ACC4071	12 S/G STM VLV ACCUM	NR	NRIA99	TK071B	144
A205	2CV1637	TB SRW HDR ISOL	NR(TC)	UNIT 2-TAFB01	C3637P	144
A205	2SV1637	TURB & EHC OIL SERV WTR ISOL VLV	NR(TC)	UNIT 2-TAFB01	C3637P	0
A205	2CV1639	TB SRW HDR ISOL	NR(TC)	UNIT 2-TAFB01	C3639P	144
A205	2SV1639	TURB LUB & EHC OIL SERVWTR ISO	NR(TC)	UNIT 2-TAFB01	C3639P	0
A205	2CV1600	TB SRW HDR ISOL	NR(TC)	UNIT 2-TBFB01	C3600P	72
A205	2SV1600	TURB BLDG SERV WTR ISOL VLV	NR(TC)	UNIT 2-TBFB01	C3600P	0
A205	2CV1638	TB SRW HDR ISOL	NR(TC)	UNIT 2-TBFB01	C3638P	72
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NR(TC)	UNIT 2-TBFB01	C3638P	0
A205	2ACC4070	IA ACCUMULATOR	NS	NSIA99	TKS70B	144
A205	2ACC4071	IA ACCUMULATOR	NS	NSIA99	TKS71B	144
A205	2CV1638	TB SRW HDR ISOL	NS	NSSRW	N/A	72
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NS	NSSRW	N/A	0
A205	2CV1637	TB SRW HDR ISOL	NS	UNIT 2-TAFB01	C3637P	144
A205	2SV1637	TURB & EHC OIL SERV WTR ISOL VLV	NS	UNIT 2-TAFB01	C3637P	0
A205	2CV1639	TB SRW HDR ISOL	NS	UNIT 2-TAFB01	C3639P	144
A205	2SV1639	TURB LUB & EHC OIL SERVWTR ISO	NS	UNIT 2-TAFB01	C3639P	0
A205	2CV1600	TB SRW HDR ISOL	NS	UNIT 2-TBFB01	C3600P	72
A205	2SV1600	TURB BLDG SERV WTR ISOL VLV	NS	UNIT 2-TBFB01	C3600P	0
A205	2CV1638	TB SRW HDR ISOL	NS	UNIT 2-TBFB01	C3638P	72
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NS	UNIT 2-TBFB01	C3638P	0
A226	1CV4522	11 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	40
A226	1CV4523	11 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	144
A226	1CV4532	12 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	40
A226	1CV4533	12 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	144
A226	1SV4522	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4523	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4532	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4533	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	RH	BHERH1	Start	24
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	RH	BHERH1	Start	12
A226	1CV5150	11 SRW HX SW INLET	S3	C1150P	C1150P	60
A226	1SV5150	SERV WTR HTEX 11 SALT WTR INLT	S3	C1150P	C1150P	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148C	C2148C	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148C	C2148C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148C	C2148C	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148O	C2148O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148T	C2148T	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148T	C2148T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148T	C2148T	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151C	C2151C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151C	C2151C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151C	C2151C	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151C	C2151C	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	C2151O	C2151O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151O	C2151O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151O	C2151O	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	C2151O	C2151O	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151T	C2151T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151T	C2151T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151T	C2151T	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151T	C2151T	0
A226	1PUMPSRW11	11 SERVICE WATER PUMP (1MA109)	S3	MWS11R	MWS11R	32
A226	1PUMPSRW11	11 SERVICE WATER PUMP (1MA109)	S3	MWS11S	MWS11S	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S3	MWS13R	MWS13R	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S3	MWS13S	MWS13S	32
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AB	0
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AP	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BB	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BP	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1AV	C2148P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1CV5209	11A SRW HX SALT WATER OUTLET VLV	S3	S3H1AV	C2209P	0
A226	1FIC5209	11A SRW HX SW OUTLET FLOW INDICATOR	S3	S3H1AV	C2209P	0
A226	1P/P5209	1CV5209 A/S VOLUME BOOSTER	S3	S3H1AV	C2209P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2209P	0
A226	1SV5209	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1SV5209A	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1BV	C2151P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1BV	C2151P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1BV	C2151P	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	S3H1BV	C2151P	0
A226	1CV5210	11 SRW HX SW OUTLET CV	S3	S3H1BV	C2210P	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	S3	S3H1BV	C2210P	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	S3	S3H1BV	C2210P	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1ZC5210	1CV5210 POSITIONER	S3	S3H1BV	C2210P	0
A226	1CV5153	12 SRW HX SW NORM B/U OUTLET	S4	C1153P	C1153P	20
A226	1SV5153	SERV WTR HTEX 12 SALT WTR OUT	S4	C1153P	C1153P	0
A226	1CV5157	12A/12B SRW HX SALT WATER OUTLET VLV	S4	C2157T	C2157T	0
A226	1I/P5157	12A/12B SRW HX SW OUT I/P	S4	C2157T	C2157T	0
A226	1P/P5157	1CV5157 A/S VOLUME BOOSTER	S4	C2157T	C2157T	0
A226	1SV5157	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1SV5157A	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1ZC5157	1CV5157 POSITIONER	S4	C2157T	C2157T	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158C	C2158C	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158C	C2158C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158C	C2158C	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	C2158O	C2158O	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158O	C2158O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	C2158O	C2158O	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158T	C2158T	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158T	C2158T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158T	C2158T	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159C	C2159C	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159C	C2159C	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	C2159O	C2159O	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	C2159O	C2159O	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159T	C2159T	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159T	C2159T	0
A226	1CV5212	12 SRW HX SW OUT CV	S4	C2212O	C2212O	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	C2212O	C2212O	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	C2212O	C2212O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2212O	C2212O	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1ZC5212	1CV5212 POSITIONER	S4	C2212O	C2212O	0
A226	1PUMPSRW12	12 SERVICE WATER PUMP (1MA409)	S4	MWS12R	MWS12R	32
A226	1PUMPSRW12	12 SERVICE WATER PUMP (1MA409)	S4	MWS12S	MWS12S	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S4	MWS13R	MWS13R	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S4	MWS13S	MWS13S	32
A226	1CV5152	12 SRW HX SW INLET	S4	S4CV52	C1152P	60
A226	1SV5152	SERV WTR HTEX 12 SALT WTR INLT	S4	S4CV52	C1152P	0
A226	1HVSRW-707	MANUAL SRW INLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW707P	0
A226	1HVSRW-708	MANUAL SRW OUTLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW708P	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AB	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AP	0
A226	1HVSRW-709	MANUAL SRW INLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW709P	0
A226	1HVSRW-710	MANUAL SRW OUTLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW710P	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BB	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BP	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2AV	C2158P	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	S4H2AV	C2158P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	S4H2AV	C2158P	0
A226	1CV5211	12A SRW HX SALT WATER OUTLET VLV	S4	S4H2AV	C2211P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1FIC5211	12A SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2AV	C2211P	0
A226	1P/P5211	1CV5211 A/S VOLUME BOOSTER	S4	S4H2AV	C2211P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2211P	0
A226	1SV5211	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1SV5211A	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1ZC5211	1CV5211 POSITIONER	S4	S4H2AV	C2211P	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2BV	C2159P	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	S4H2BV	C2159P	0
A226	1CV5212	12 SRW HX SW OUT CV	S4	S4H2BV	C2212P	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2BV	C2212P	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	S4H2BV	C2212P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2212P	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1ZC5212	1CV5212 POSITIONER	S4	S4H2BV	C2212P	0
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0
A208	1CV2181	U-1 CONTMT WG HDR B/U ISOL	SH	IC181C	IC181C	12
A208	1SV2181	1-WGS-2181-CV SV	SH	IC181C	IC181C	12
A208	1CV2181	U-1 CONTMT WG HDR B/U ISOL	SH	IC181T	IC181T	12
A208	1SV2181	1-WGS-2181-CV SV	SH	IC181T	IC181T	12
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A221	1SV6507B	SOUTH PRIM SHLD H2 SAMPLE ANAL	SH	SHSV02	SV07BT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0
A221	1SV6507C	PRESSURIZ COMPRT H2 SAMPL ANAL	SH	SHSV05	SV07CT	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A221	1SV6507D	EAST EL 135 FT H2 SAMPLE ANAL	SH	SHSV08	SV07DT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0
A221	1SV6507B	SOUTH PRIM SHLD H2 SAMPLE ANAL	SH	SV07BD	SV07BD	0
A221	1SV6507C	PRESSURIZ COMPRT H2 SAMPL ANAL	SH	SV07CD	SV07CD	0
A221	1SV6507D	EAST EL 135 FT H2 SAMPLE ANAL	SH	SV07DD	SV07DD	0
A221	1SV6507G	H2 ANAL RETN TO CONTMT ATMOS ISOL	SH	SV07GD	SV07GD	0
A221	1SV6507G	H2 ANAL RETN TO CONTMT ATMOS ISOL	SH	SV07GT	SV07GT	0
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	SP(PP1)	BHEK12	Start	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	SP(PP2)	BHEK12	Start	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	SP(PP3)	BHEK12	Start	12
A122	1MOV4144	CONTMT SUMP OUT ISOL	SR	MV144C	MV144C	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	SR	MV144T	MV144T	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	SR	MV145C	MV145C	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	SR	MV145T	MV145T	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV462C	MV462C	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV462T	MV462T	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV463C	MV463C	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV463T	MV463T	0
A227	1MOV615	11A LPSI LOOP ISOL	SR	MV615C	MV615C	19
A227	1MOV615	11A LPSI LOOP ISOL	SR	MV615T	MV615T	19
A227	1MOV625	11B LPSI LOOP ISOL	SR	MV625C	MV625C	0
A227	1MOV625	11B LPSI LOOP ISOL	SR	MV625T	MV625T	0
A226	1CV1637	TURB BLDG SRW HDR 11 ISOL	TA	TAFB01	C3637P	144
A226	1SV1637	TURB LUBE&EHC OIL SERVWTR ISOL	TA	TAFB01	C3637P	0
A226	1CV1639	TURB BLDG SRW HDR 11 ISOL	TA	TAFB01	C3639P	144

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1SV1639	TURB LUB & EHC OIL SERV WTR IS	TA	TAFB01	C3639P	0
A226	1CV1600	TURB BLDG SRW HDR 12 ISOL	TB	TBFB01	C3600P	72
A226	1SV1600	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3600P	0
A226	1CV1638	TURB BLDG SRW HDR 12 ISOL	TB	TBFB01	C3638P	72
A226	1SV1638	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3638P	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	TE	MV144O	MV144O	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	TE	TE0101	MV144P	0
T603	1PUMPAFWTD11	11 AUX FW TURB DRIVEN PP	TF	AW11RR	AW11RR	30
T603	1PUMPAFWTD11	11 AUX FW TURB DRIVEN PP	TF	AW11RS	AW11RS	30
T603	1CV3986	11 AFW TURB THROT/STOP VLV	TF	TF11TP	VT986P	0
T603	1SV3986	11 AFW PP TURB THROT/STOP VLV TRIP	TF	TF11TP	VT986P	0
T603	1CV3986	11 AFW TURB THROT/STOP VLV	TF	VT986O	VT986O	0
T603	1SV3986	11 AFW PP TURB THROT/STOP VLV TRIP	TF	VT986O	VT986O	0
T603	1PUMPAFWTD12	12 AUX FW TURB DRIVEN PP	TG	AW12RR	AW12RR	30
T603	1PUMPAFWTD12	12 AUX FW TURB DRIVEN PP	TG	AW12RS	AW12RS	30
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	TG	BHEF1Y	Open	0
A227	1SV4071	12 S/G MS TO AFW PP	TG	BHEF1Y	Open	0
T603	1CV3988	12 AFW TURB THROT/STOP VLV	TG	TGTP12	VT988P	0
T603	1SV3988	12 AFW PP TURB THROT/STOP VLV TRIP	TG	TGTP12	VT988P	0
T603	1CV3988	12 AFW TURB THROT/STOP VLV	TG	VT988O	VT988O	0
T603	1SV3988	12 AFW PP TURB THROT/STOP VLV TRIP	TG	VT988O	VT988O	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	TH(HD1)	BHER3B	Open	13
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	TH(HD1)	BHER3B	Open	0
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	TH(HD1)	BHER3B	Open	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	TH(HD1)	BHER3B	Open	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	TH(HD1)	BHER3B	Open	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	TH(HD1)	BHER3B	Open	0
A228	1CV5206	11 CC HX SW OUTLET	TH(HD1)	BHER3B	Throttle	0
A226	1CV5210	11 SRW HX SW OUTLET CV	TH(HD1)	BHER3B	Throttle	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	TH(HD1)	BHER3B	Throttle	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	TH(HD1)	BHER3B	Throttle	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	TH(HD1)	BHER3B	Throttle	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1ZC5210	1CV5210 POSITIONER	TH(HD1)	BHER3B	Throttle	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	TH(HD2)	BHER3B	Open	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	TH(HD2)	BHER3B	Open	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	TH(HD2)	BHER3B	Open	0
A228	1CV5208	12 CC HX SW NORM OUT	TH(HD2)	BHER3B	Throttle	0
A226	1CV5212	12 SRW HX SW OUT CV	TH(HD2)	BHER3B	Throttle	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	TH(HD2)	BHER3B	Throttle	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	TH(HD2)	BHER3B	Throttle	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	TH(HD2)	BHER3B	Throttle	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1ZC5212	1CV5212 POSITIONER	TH(HD2)	BHER3B	Throttle	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	TW	MV145O	MV145O	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	TW	TW0101	MV145P	0
A224	1PS4404	11 MT CONDENSER LOW VACUUM PS	TX	PS404D	PS404D	0
A224	1PS4405	11 MT CONDENSER LOW VACUUM PS	TX	PS405D	PS405D	0
A224	1PS4407	12 MT CONDENSER LOW VACUUM PS	TX	PS407D	PS407D	0
A224	1PS4408	12 MT CONDENSER LOW VACUUM PS	TX	PS408D	PS408D	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A224	1PS4410	13 MT CONDENSER LOW VACUUM PS	TX	PS410D	PS410D	0
A224	1PS4411	13 MT CONDENSER LOW VACUUM PS	TX	PS411D	PS411D	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	UQ	BHEUQ1	Throttle	144
A226	1CV4535	12 S/G AFW FLOW CONT VLV	UQ	BHEUQ1	Throttle	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	TS404D	TS404D	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	V1	V1CLSE	WC170P	13
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	V1	V1CLSE	WC170P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1CLSE	WC170P	0
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	V1	V1CLSE	WC171P	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	V1	V1CLSE	WC171P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1CLSE	WC171P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1TEMP	TS404R	0
A119	1HXHVACECCS11	ECCS PUMP ROOM AIR COOLER 11	V1	V1TRFR	HX205B	0
A119	1HXHVACECCS11	ECCS PUMP ROOM AIR COOLER 11	V1	V1TRFR	HX205P	0
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	V1	VD11AR	VD11AR	22
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	V1	VD11AS	VD11AS	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	V1	VD11BR	VD11BR	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	V1	VD11BS	VD11BS	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	V1	VD11CR	VD11CR	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	V1	VD11CS	VD11CS	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	V1	VD11DR	VD11DR	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	V1	VD11DS	VD11DS	22
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	V1	WC170D	WC170D	13
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	V1	WC170D	WC170D	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC170D	WC170D	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	V1	WC170O	WC170O	13
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	V1	WC170O	WC170O	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC170O	WC170O	0
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	V1	WC171D	WC171D	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	V1	WC171D	WC171D	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC171D	WC171D	0
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	V1	WC171O	WC171O	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	V1	WC171O	WC171O	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC171O	WC171O	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	TS405D	TS405D	0
A228	1CV5174	12 ECCS PP RM AIR CLR SW NORM OUTLET	V2	V2CLSE	WC174P	0
A228	1SV5174	ECCS PP RM HTEX 12 SLT WTR OUT	V2	V2CLSE	WC174P	0
A228	1CV5175	12 ECCS PP RM AIR CLR SW NORM B/U OUT	V2	V2CLSE	WC175P	0
A228	1SV5175	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2CLSE	WC175P	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	V2	V2INLT	WC173P	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	V2	V2INLT	WC173P	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	V2INLT	WC173P	0
A228	1CV5177	12 ECCS PP RM AIR CLR SW AUX OUTLET	V2	V2OTLT	C4177O	0
A228	1SV5177	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4177O	0
A228	1CV5177	12 ECCS PP RM AIR CLR SW AUX OUTLET	V2	V2OTLT	C4177P	0
A228	1SV5177	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4177P	0
A228	1CV5178	12 ECCS PP RM AIR CLR SW AUX B/U OUT	V2	V2OTLT	C4178O	0
A228	1SV5178	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4178O	0
A228	1CV5178	12 ECCS PP RM AIR CLR SW AUX B/U OUT	V2	V2OTLT	C4178P	0
A228	1SV5178	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4178P	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	V2TEMP	TS405R	0
A118	1HXHVACECCS12	ECCS PUMP ROOM AIR COOLER 12	V2	V2TRFR	HX207B	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A118	1HXHVACECCS12	ECCS PUMP ROOM AIR COOLER 12	V2	V2TRFR	HX207P	0
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	V2	VD12AR	VD12AR	22
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	V2	VD12AS	VD12AS	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	V2	VD12BR	VD12BR	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	V2	VD12BS	VD12BS	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	V2	VD12CR	VD12CR	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	V2	VD12CS	VD12CS	22
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	V2	WC173D	WC173D	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	V2	WC173D	WC173D	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	WC173D	WC173D	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	V2	WC173O	WC173O	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	V2	WC173O	WC173O	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	WC173O	WC173O	0
A225	1FANHVACECCSE11	11 ECCS PUMP RM EXH (1M1413)	V5	VDF11R	VDF11R	0
A225	1FANHVACECCSE11	11 ECCS PUMP RM EXH (1M1413)	V5	VDF11S	VDF11S	0
A225	1FANHVACECCSE12	12 ECCS PUMP RM EXH (1M0413)	V5	VDF12R	VDF12R	0
A225	1FANHVACECCSE12	12 ECCS PUMP RM EXH (1M0413)	V5	VDF12S	VDF12S	0
A226	1PCV5214	11 CW PP SEAL WTR PCV	VC	VCCW1A	PC214R	0
A226	1PCV5216	12 CW PP SEAL WTR PCV	VC	VCCW2A	PC216R	0
A226	1PCV5218	13 CW PP SEAL WTR PCV	VC	VCCW3A	PC218R	0
A226	1PCV5220	14 CW PP SEAL WTR PCV	VC	VCCW4A	PC220R	0
A226	1PCV5222	15 CW PP SEAL WTR PCV	VC	VCCW5A	PC222R	0
A226	1PCV5224	16 CW PP SEAL WTR PCV	VC	VCCW6A	PC224R	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	VM(RM1)	BHEV1T	Open	13
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	VM(RM1)	BHEV1T	Open	0
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	VM(RM1)	BHEV1T	Open	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	VM(RM1)	BHEV1T	Open	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	VM(RM1)	BHEV1T	Open	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	VM(RM1)	BHEV1T	Open	0
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	VM(RM1)	BHEV1T	Start	22
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	VM(RM2)	BHEV1T	Open	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	VM(RM2)	BHEV1T	Open	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	VM(RM2)	BHEV1T	Open	0
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	VM(RM2)	BHEV1T	Start	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	VM(RM2)	BHEV1T	Start	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	VM(RM2)	BHEV1T	Start	22
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0
A221	1SV6507B	SOUTH PRIM SHLD H2 SAMPLE ANAL	WJ	BHESH2	Shut	0
A221	1SV6507C	PRESSURIZ COMPRT H2 SAMPL ANAL	WJ	BHESH2	Shut	0
A221	1SV6507D	EAST EL 135 FT H2 SAMPLE ANAL	WJ	BHESH2	Shut	0
A221	1SV6507G	H2 ANAL RETN TO CONTMT ATMOS ISOL	WJ	BHESH2	Shut	0
A221	1CV1584	12 CNTMT CLG U NORM INLET	WY	CV584O	CV584O	0
A221	1I/P1584	CNTMT CLR 12 SERV WTR INLT	WY	CV584O	CV584O	0
A221	1SV1584	CNTMT CLR 12 SERV WTR INLT VLV	WY	CV584O	CV584O	0
A221	1CV1592	14 CNTMT CLG U NORM INLET	WY	CV592O	CV592O	0
A221	1I/P1592	CNTMT CLR 14 SERV WTR INLT	WY	CV592O	CV592O	0
A221	1SV1592	CNTMT CLR 14 INLT VLV CONTROL	WY	CV592O	CV592O	0
A221	1CV1584	12 CNTMT CLG U NORM INLET	WY	WB102F	CV584P	0
A221	1I/P1584	CNTMT CLR 12 SERV WTR INLT	WY	WB102F	CV584P	0
A221	1SV1584	CNTMT CLR 12 SERV WTR INLT VLV	WY	WB102F	CV584P	0
A221	1CV1592	14 CNTMT CLG U NORM INLET	WY	WD102F	CV592P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A221	1I/P1592	CNTMT CLR 14 SERV WTR INLT	WY	WD102F	CV592P	0
A221	1SV1592	CNTMT CLR 14 INLT VLV CONTROL	WY	WD102F	CV592P	0

Flood Evaluation Query

CF-07E-W226AM

05-Nov-98

TOP	PM	EVALUATION	RI
AA	3BKR	3 breaker challenges.	PAJ
AB	1BKR	1 breaker challenge.	PAJ
CV	None ~~F~~	~~Conservatively set to failure. CVCS relatively unimportant.~~ (Note 13)	PAJ
F1	None	11 and 12 S/G AFW Block Valves fail. These valves are normally open and will fail open. Therefore there is no impact on this top. Flow control valves failing open are addressed in top event HX.	PAJ
F7	F	Lost the ability to use Unit 1 AFW MD Pump 13 to supply Unit 1 S/G.	PAJ
FH	None	Loss the ability to start AFW MD Pump 13. Covered under Top F7.	PAJ
FN	None	Only has 2 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
HU	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact.	PAJ
HX	None	11 and 12 S/G AFW (motor driven feed line) flow control valves fail open. Impact already considered by Top F7 & F9 failure.	PAJ
I1	F	11 SWAC fails.	PAJ
I2	F	12 SWAC fails.	PAJ
K3	None	1CV5210 fails open on loss of power and loss of air. During a RAS, this valve needs to open for recirulation. It is assumed (Per Rob) that this top event will not fail during smaller LOCA size breaks.	PAJ
K4	None	1CV5212 fails open on loss of power and loss of air. During a RAS, this valve needs to open for recirulation. It is assumed (Per Rob) that this top event will not fail during smaller LOCA size breaks.	PAJ
M1	2BKR	2 breaker challenges.	PAJ
M2	5BKR	5 breaker challenges.	PAJ
M3	2BKR	2 breaker challenges.	PAJ
~~M4~~	~~1BKR~~	~~1 breaker challenge.~~	~~PAJ~~

See notes in RAN 98-065 Sect. 5.4 JMM

TOP	PM	EVALUATION	RI
MN	None	Has 6 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
N1	1BKR	1 breaker challenge.	PAJ
N2	1BKR	1 breaker challenge.	PAJ
N3	None	13 Charging Pump is normally aligned to 480V Bus 11A (Top N1). See Key Assumption 393.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
NR	Spec Impt ~~None~~	Air accumulators only. Mechanical operation only. (Note 4)	PAJ
QZ	None	11 & 12 AFW Block valves (1CV4522/4523/4532/4533) are normally open and fail as-is on loss of power.	PAJ
S3	F	11 and 13 SRW Pumps fail.	PAJ
S4	F	12 and 13 SRW Pumps fail.	PAJ
SG	None ~~Spec Impt~~	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment. (Note 5)	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ
TA	F	1CV1637/1639 fail close on loss of power / loss of air.	PAJ
TB	F	1CV1600/1638 fail close on loss of power / loss of air.	PAJ
TH(HD1)	None	1CV5206/5210 will fail to there appropriate position not allowing the operator to throttle valves. Covered by Top S3 or K3.	PAJ

See Notes in RAN 98-065 sect 5.4 JMR

TOP	PM	EVALUATION	RI
TH(HD2)	None	1CV5208/5212 will fail to there appropriate position not allowing the operator to throttle valves. Covered by Top S4 or K4.	PAJ
UQ	None	1CV4525/4535 will fail open. This top is only fails when an under feed to the SG occurs.	PAJ
VC	None	Has 6 PCVs. I am assuming that these will not fail during a flood.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	AA	MAAF3Q	MAAF3Q	16
A226	1PUMPSRW11	11 SERVICE WATER PUMP (1MA109)	AA	MWSR1Q	MWSR1Q	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	AA	MWSR3Q	MWSR3Q	32
A226	1PUMPSRW12	12 SERVICE WATER PUMP (1MA409)	AB	MWSR2Q	MWSR2Q	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	AB	MWSR4Q	MWSR4Q	32
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PS224R	PS224R	0
A226	1CV4522	11 S/G AFW BLOCK VLV	F1	CV4522	CV522P	40
A226	1SV4522	11 S/G AFW BLOCK SV	F1	CV4522	CV522P	0
A226	1CV4523	11 S/G AFW BLOCK VLV	F1	CV4523	CV523P	144
A226	1SV4523	11 S/G AFW BLOCK SV	F1	CV4523	CV523P	0
A226	1CV4532	12 S/G AFW BLOCK VLV	F1	CV4532	CV532P	40
A226	1SV4532	12 S/G AFW BLOCK SV	F1	CV4532	CV532P	0
A226	1CV4533	12 S/G AFW BLOCK VLV	F1	CV4533	CV533P	144
A226	1SV4533	12 S/G AFW BLOCK SV	F1	CV4533	CV533P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	F1	F1MLV1	C6525P	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	F1	F1MLV1	C6525R	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1CV4535	12 S/G AFW FLOW CONT VLV	F1	F1MLV2	C6535P	144
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1CV4535	12 S/G AFW FLOW CONT VLV	F1	F1MLV2	C6535R	144
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A226	1CV4550	U-1 TO U-2 AFW X-CONN VLV	F7	F7MPVA	C3550T	144
A226	1SV4550	U-1 TO U-2 AFW X-CONN SV	F7	F7MPVA	C3550T	0
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QR	MA13QR	16
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QS	MA13QS	16
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	FH	BHEF71	Start	16
A226	1PCV4512	1 IA SUPP ACCUM 11A & 11B PCV	FN	FN0000	CV512P	0
A226	1PCV4520	11B AFW AIR ACCUMULATOR OUTLET PCV	FN	FN0000	CV520P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	HU	BHEF1B	Throttle	144

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1CV4535	12 S/G AFW FLOW CONT VLV	HU	BHEF1B	Throttle	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	HX	BHEF1A	Throttle	144
A226	1CV4535	12 S/G AFW FLOW CONT VLV	HX	BHEF1A	Throttle	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1COMPSWAC11	11 SW AIR COMPRESSOR (1M1404)	I1	CMS11R	CMS11R	144
A226	1COMPSWAC11	11 SW AIR COMPRESSOR (1M1404)	I1	CMS11S	CMS11S	144
A226	1LS5200	11 IA SW AIR COMP LS	I1	I1CNTL	LS200R	144
A226	1TS5200	11 IA SW AIR COMP TS	I1	I1CNTL	TS200R	144
A226	1COMPSWAC12	12 SW AIR COMPRESSOR (1M0404)	I2	CMS12R	CMS12R	144
A226	1COMPSWAC12	12 SW AIR COMPRESSOR (1M0404)	I2	CMS12S	CMS12S	144
A226	1LS5201	12 IA SW AIR COMP LS	I2	I2CNTL	LS201R	144
A226	1TS5201	12 IA SW AIR COMP TS	I2	I2CNTL	TS201R	144
A226	1CV5210	11 SRW HX SW OUTLET CV	K3	C2210C	C2210C	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	C2210C	C2210C	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	C2210C	C2210C	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0
A226	1ZC5210	1CV5210 POSITIONER	K3	C2210C	C2210C	0
A226	1CV5210	11 SRW HX SW OUTLET CV	K3	K3CLOS	C2210T	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	K3CLOS	C2210T	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	K3CLOS	C2210T	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1ZC5210	1CV5210 POSITIONER	K3	K3CLOS	C2210T	0
A226	1CV5212	12 SRW HX SW OUT CV	K4	C2212C	C2212C	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	C2212C	C2212C	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	C2212C	C2212C	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1ZC5212	1CV5212 POSITIONER	K4	C2212C	C2212C	0
A226	1CV5212	12 SRW HX SW OUT CV	K4	K4ISO1	C2212T	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	K4ISO1	C2212T	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	K4ISO1	C2212T	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1ZC5212	1CV5212 POSITIONER	K4	K4ISO1	C2212T	0
A226	1COMPSWAC12	12 SW AIR COMPRESSOR (1M0404)	M1	CMM04Q	CMM04Q	144
A226	1FAN5334	SRW HX RM EXH FAN 18B (1M0451)	M1	VDM51Q	VDM51Q	0
A226	1COMPSWAC11	11 SW AIR COMPRESSOR (1M1404)	M2	CMN04Q	CMN04Q	144
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A226	1FAN5335	SRW HTEX RM FAN VU-18A (1M1441)	M2	VDN41Q	VDN41Q	0
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32
A226	1PCV5000	11 SGFP BRG OIL PRESS REG VLV	MN	MNFW58	PC000R	0
A226	1PCV4993	11 SGFPT CONT OIL PRESS REG	MN	MNFW58	PC993R	0
A226	1PCV4999	11 SGFPT OIL PRESS REG VLV	MN	MNFW58	PC999R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1PCV5043	12 SGFP TLO PP DISCH PCV	MN	MNFW68	PC043R	0
A226	1PCV5048	12 SGFP TLO RESERVOIR INLET PCV	MN	MNFW68	PC048R	0
A226	1PCV5049	12 FW SGFP TLO TO PP BRGS PCV	MN	MNFW68	PC049R	0
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A226	1ACC4070	11 S/G AFW STM VLV ACCUM	NR	NRIA99	TK070B	144
A226	1ACC4071	12 S/G STM VLV ACCUM	NR	NRIA99	TK071B	144
A226	1CV4522	11 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	40
A226	1CV4523	11 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	144
A226	1CV4532	12 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	40
A226	1CV4533	12 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	144
A226	1SV4522	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4523	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4532	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4533	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1CV5150	11 SRW HX SW INLET	S3	C1150P	C1150P	60
A226	1SV5150	SERV WTR HTEX 11 SALT WTR INLT	S3	C1150P	C1150P	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148C	C2148C	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148C	C2148C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148C	C2148C	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148O	C2148O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148T	C2148T	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148T	C2148T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148T	C2148T	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151C	C2151C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151C	C2151C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151C	C2151C	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151C	C2151C	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	C2151O	C2151O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151O	C2151O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151O	C2151O	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	C2151O	C2151O	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151T	C2151T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151T	C2151T	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151T	C2151T	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151T	C2151T	0
A226	1PUMPSRW11	11 SERVICE WATER PUMP (1MA109)	S3	MWS11R	MWS11R	32
A226	1PUMPSRW11	11 SERVICE WATER PUMP (1MA109)	S3	MWS11S	MWS11S	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S3	MWS13R	MWS13R	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S3	MWS13S	MWS13S	32
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AB	0
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AP	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BB	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BP	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1AV	C2148P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1CV5209	11A SRW HX SALT WATER OUTLET VLV	S3	S3H1AV	C2209P	0
A226	1FIC5209	11A SRW HX SW OUTLET FLOW INDICATOR	S3	S3H1AV	C2209P	0
A226	1P/P5209	1CV5209 A/S VOLUME BOOSTER	S3	S3H1AV	C2209P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2209P	0
A226	1SV5209	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1SV5209A	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1BV	C2151P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1BV	C2151P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1BV	C2151P	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	S3H1BV	C2151P	0
A226	1CV5210	11 SRW HX SW OUTLET CV	S3	S3H1BV	C2210P	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	S3	S3H1BV	C2210P	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	S3	S3H1BV	C2210P	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1ZC5210	1CV5210 POSITIONER	S3	S3H1BV	C2210P	0
A226	1CV5153	12 SRW HX SW NORM B/U OUTLET	S4	C1153P	C1153P	20
A226	1SV5153	SERV WTR HTEX 12 SALT WTR OUT	S4	C1153P	C1153P	0
A226	1CV5157	12A/12B SRW HX SALT WATER OUTLET VLV	S4	C2157T	C2157T	0
A226	1I/P5157	12A/12B SRW HX SW OUT I/P	S4	C2157T	C2157T	0
A226	1P/P5157	1CV5157 A/S VOLUME BOOSTER	S4	C2157T	C2157T	0
A226	1SV5157	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1SV5157A	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1ZC5157	1CV5157 POSITIONER	S4	C2157T	C2157T	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158C	C2158C	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158C	C2158C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158C	C2158C	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	C2158O	C2158O	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158O	C2158O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	C2158O	C2158O	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158T	C2158T	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158T	C2158T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158T	C2158T	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159C	C2159C	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159C	C2159C	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	C2159O	C2159O	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	C2159O	C2159O	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159T	C2159T	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159T	C2159T	0
A226	1CV5212	12 SRW HX SW OUT CV	S4	C2212O	C2212O	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	C2212O	C2212O	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	C2212O	C2212O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2212O	C2212O	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1ZC5212	1CV5212 POSITIONER	S4	C2212O	C2212O	0
A226	1PUMPSRW12	12 SERVICE WATER PUMP (1MA409)	S4	MWS12R	MWS12R	32
A226	1PUMPSRW12	12 SERVICE WATER PUMP (1MA409)	S4	MWS12S	MWS12S	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S4	MWS13R	MWS13R	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S4	MWS13S	MWS13S	32
A226	1CV5152	12 SRW HX SW INLET	S4	S4CV52	C1152P	60
A226	1SV5152	SERV WTR HTEX 12 SALT WTR INLT	S4	S4CV52	C1152P	0
A226	1HVSRW-707	MANUAL SRW INLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW707P	0
A226	1HVSRW-708	MANUAL SRW OUTLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW708P	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AB	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AP	0
A226	1HVSRW-709	MANUAL SRW INLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW709P	0
A226	1HVSRW-710	MANUAL SRW OUTLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW710P	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BB	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BP	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2AV	C2158P	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	S4H2AV	C2158P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	S4H2AV	C2158P	0
A226	1CV5211	12A SRW HX SALT WATER OUTLET VLV	S4	S4H2AV	C2211P	0
A226	1FIC5211	12A SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2AV	C2211P	0
A226	1P/P5211	1CV5211 A/S VOLUME BOOSTER	S4	S4H2AV	C2211P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2211P	0
A226	1SV5211	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1SV5211A	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1ZC5211	1CV5211 POSITIONER	S4	S4H2AV	C2211P	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2BV	C2159P	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	S4H2BV	C2159P	0
A226	1CV5212	12 SRW HX SW OUT CV	S4	S4H2BV	C2212P	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2BV	C2212P	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	S4H2BV	C2212P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2212P	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1ZC5212	1CV5212 POSITIONER	S4	S4H2BV	C2212P	0
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0
A226	1CV1637	TURB BLDG SRW HDR 11 ISOL	TA	TAFB01	C3637P	144
A226	1SV1637	TURB LUBE&EHC OIL SERVWTR ISOL	TA	TAFB01	C3637P	0
A226	1CV1639	TURB BLDG SRW HDR 11 ISOL	TA	TAFB01	C3639P	144
A226	1SV1639	TURB LUB & EHC OIL SERV WTR IS	TA	TAFB01	C3639P	0
A226	1CV1600	TURB BLDG SRW HDR 12 ISOL	TB	TBFB01	C3600P	72
A226	1SV1600	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3600P	0
A226	1CV1638	TURB BLDG SRW HDR 12 ISOL	TB	TBFB01	C3638P	72
A226	1SV1638	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3638P	0
A226	1CV5210	11 SRW HX SW OUTLET CV	TH(HD1)	BHER3B	Throttle	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	TH(HD1)	BHER3B	Throttle	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1ZC5210	1CV5210 POSITIONER	TH(HD1)	BHER3B	Throttle	0
A226	1CV5212	12 SRW HX SW OUT CV	TH(HD2)	BHER3B	Throttle	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	TH(HD2)	BHER3B	Throttle	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1ZC5212	1CV5212 POSITIONER	TH(HD2)	BHER3B	Throttle	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	UQ	BHEUQ1	Throttle	144
A226	1CV4535	12 S/G AFW FLOW CONT VLV	UQ	BHEUQ1	Throttle	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1PCV5214	11 CW PP SEAL WTR PCV	VC	VCCW1A	PC214R	0
A226	1PCV5216	12 CW PP SEAL WTR PCV	VC	VCCW2A	PC216R	0
A226	1PCV5218	13 CW PP SEAL WTR PCV	VC	VCCW3A	PC218R	0
A226	1PCV5220	14 CW PP SEAL WTR PCV	VC	VCCW4A	PC220R	0
A226	1PCV5222	15 CW PP SEAL WTR PCV	VC	VCCW5A	PC222R	0
A226	1PCV5224	16 CW PP SEAL WTR PCV	VC	VCCW6A	PC224R	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0

Flood Evaluation Query

CF-07F-N226AR *

06-Nov-98

TOP	PM	EVALUATION	RI
AA	3BKR	3 breaker challenges.	PAJ
AB	1BKR	1 breaker challenges.	PAJ
CV	F	Conservatively set to failure. CVCS relatively unimportant.	PAJ
F1	None	11 and 12 S/G AFW Block Valves fail. These valves are normally open and will fail open. Therefore there is no impact on this top. Flow control valves failing open are addressed in top event HX.	PAJ
F7	F	Lost the ability to use Unit 1 AFW MD Pump 13 to supply Unit 1 S/G.	PAJ
FC	Spec Impt	AFW Pump Room Emergency Vent Fans 11 & 12 fail along with NSR A/C Unit fail.	PAJ
FF	None	Both 11 and 12 AFW Pump Room Exhaust fans fail to start. Covered under Top FC.	PAJ
FH	None	Loss the ability to start AFW MD Pump 13. Covered under Top F7.	PAJ
FN	None	Only has 2 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
HU	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact.	PAJ
HX	None	11 and 12 S/G AFW (motor driven feed line) flow control valves fail open. Impact already considered by Top F7 & F9 failure.	PAJ
I1	F	11 SWAC fails.	PAJ
I2	F	12 SWAC fails.	PAJ
K3	None	1CV5210 fails open on loss of power and loss of air. During a RAS, this valve needs to open for recirulation. It is assumed (Per Rob) that this top event will not fail during smaller LOCA size breaks.	PAJ
K4	None	1CV5212 fails open on loss of power and loss of air. During a RAS, this valve needs to open for recirulation. It is assumed (Per Rob) that this top event will not fail during smaller LOCA size breaks.	PAJ
M1	5BKR	5 breaker challenges.	PAJ
M2	8BKR	8 breaker challenges.	PAJ

* This recovered version is no longer used. See N226LN which is re-designated N226RM. gbk

TOP	PM	EVALUATION	RI
M3	2BKR	2 breaker challenges.	PAJ
MN	None	Has 6 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
N1	1BKR	1 breaker challenge.	PAJ
N2	1BKR	1 breaker challenge.	PAJ
N3	None	13 Charging Pump is normally aligned to 480V Bus 11A (Top N1). See Key Assumption 393.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
NR	None	Air accumulators only. Mechanical operation only.	PAJ
QZ	None	11 & 12 AFW Block valves (1CV4522/4523/4532/4533) are normally open and fail as-is on loss of power.	PAJ
S3	F	11 and 13 SRW Pumps fail.	PAJ
S4	F	12 and 13 SRW Pumps fail.	PAJ
SG	Spec Impt	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment.	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ
TA	F	1CV1637/1639 fail close on loss of power / loss of air.	PAJ
TB	F	1CV1600/1638 fail close on loss of power / loss of air.	PAJ

TOP	PM	EVALUATION	RI
TH(HD1)	None	1CV5206/5210 will fail to there appropriate position not allowing the operator to throttle valves. Covered by Top S3 or K3.	PAJ
TH(HD2)	None	1CV5208/5212 will fail to there appropriate position not allowing the operator to throttle valves. Covered by Top S4 or K4.	PAJ
UQ	None	1CV4525/4535 will fail open. This top is only fails when an under feed to the SG occurs.	PAJ
V5	F	11 and 12 ECCS exhaust fans fails to start/run.	PAJ
VC	None	Has 6 PCVs. I am assuming that these will not fail during a flood.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	AA	MAAF3Q	MAAF3Q	16
A226	1PUMPSRW11	11 SERVICE WATER PUMP (1MA109)	AA	MWSR1Q	MWSR1Q	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	AA	MWSR3Q	MWSR3Q	32
A226	1PUMPSRW12	12 SERVICE WATER PUMP (1MA409)	AB	MWSR2Q	MWSR2Q	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	AB	MWSR4Q	MWSR4Q	32
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PS224R	PS224R	0
A226	1CV4522	11 S/G AFW BLOCK VLV	F1	CV4522	CV522P	40
A226	1SV4522	11 S/G AFW BLOCK SV	F1	CV4522	CV522P	0
A226	1CV4523	11 S/G AFW BLOCK VLV	F1	CV4523	CV523P	144
A226	1SV4523	11 S/G AFW BLOCK SV	F1	CV4523	CV523P	0
A226	1CV4532	12 S/G AFW BLOCK VLV	F1	CV4532	CV532P	40
A226	1SV4532	12 S/G AFW BLOCK SV	F1	CV4532	CV532P	0
A226	1CV4533	12 S/G AFW BLOCK VLV	F1	CV4533	CV533P	144
A226	1SV4533	12 S/G AFW BLOCK SV	F1	CV4533	CV533P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	F1	F1MLV1	C6525P	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	F1	F1MLV1	C6525R	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1CV4535	12 S/G AFW FLOW CONT VLV	F1	F1MLV2	C6535P	144
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1CV4535	12 S/G AFW FLOW CONT VLV	F1	F1MLV2	C6535R	144
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A226	1CV4550	U-1 TO U-2 AFW X-CONN VLV	F7	F7MPVA	C3550T	144
A226	1SV4550	U-1 TO U-2 AFW X-CONN SV	F7	F7MPVA	C3550T	0
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QR	MA13QR	16
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QS	MA13QS	16
A225	1HS5472	MCC-101-BT BKR 52-10150 AFW PP RM A/C UNIT 11	FC	FCAC11	HS472T	0
A225	1HS5470	AFW PP RM EMERG VENT FAN 11 MCC-114-12	FC	FCAUX1	HS470D	18
A225	1HS5470	AFW PP RM EMERG VENT FAN 11 MCC-114-12	FC	FCAUX1	HS470T	18
A225	1HS5471	AFW PP RM EMERG VENT FAN 12 MCC-104-12	FC	FCAUX2	HS471D	18

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A225	1HS5471	AFW PP RM EMERG VENT FAN 12 MCC-104-12	FC	FCAUX2	HS471T	18
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	FC	VDA11R	VDA11R	36
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	FC	VDA11S	VDA11S	36
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	FC	VDA12R	VDA12R	36
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	FC	VDA12S	VDA12S	36
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	FF	BHEFCB	Start	36
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	FF	BHEFCB	Start	36
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	FH	BHEF71	Start	16
A226	1PCV4512	1 IA SUPP ACCUM 11A & 11B PCV	FN	FN0000	CV512P	0
A226	1PCV4520	11B AFW AIR ACCUMULATOR OUTLET PCV	FN	FN0000	CV520P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	HU	BHEF1B	Throttle	144
A226	1CV4535	12 S/G AFW FLOW CONT VLV	HU	BHEF1B	Throttle	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	HX	BHEF1A	Throttle	144
A226	1CV4535	12 S/G AFW FLOW CONT VLV	HX	BHEF1A	Throttle	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1COMPSWAC11	11 SW AIR COMPRESSOR (1M1404)	I1	CMS11R	CMS11R	144
A226	1COMPSWAC11	11 SW AIR COMPRESSOR (1M1404)	I1	CMS11S	CMS11S	144
A226	1LS5200	11 IA SW AIR COMP LS	I1	I1CNTL	LS200R	144
A226	1TS5200	11 IA SW AIR COMP TS	I1	I1CNTL	TS200R	144
A226	1COMPSWAC12	12 SW AIR COMPRESSOR (1M0404)	I2	CMS12R	CMS12R	144
A226	1COMPSWAC12	12 SW AIR COMPRESSOR (1M0404)	I2	CMS12S	CMS12S	144
A226	1LS5201	12 IA SW AIR COMP LS	I2	I2CNTL	LS201R	144
A226	1TS5201	12 IA SW AIR COMP TS	I2	I2CNTL	TS201R	144
A226	1CV5210	11 SRW HX SW OUTLET CV	K3	C2210C	C2210C	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	C2210C	C2210C	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	C2210C	C2210C	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0
A226	1ZC5210	1CV5210 POSITIONER	K3	C2210C	C2210C	0
A226	1CV5210	11 SRW HX SW OUTLET CV	K3	K3CLOS	C2210T	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	K3CLOS	C2210T	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	K3CLOS	C2210T	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1ZC5210	1CV5210 POSITIONER	K3	K3CLOS	C2210T	0
A226	1CV5212	12 SRW HX SW OUT CV	K4	C2212C	C2212C	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	C2212C	C2212C	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	C2212C	C2212C	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1ZC5212	1CV5212 POSITIONER	K4	C2212C	C2212C	0
A226	1CV5212	12 SRW HX SW OUT CV	K4	K4ISO1	C2212T	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	K4ISO1	C2212T	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	K4ISO1	C2212T	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1ZC5212	1CV5212 POSITIONER	K4	K4ISO1	C2212T	0
A226	1COMPSWAC12	12 SW AIR COMPRESSOR (1M0404)	M1	CMM04Q	CMM04Q	144
A225	1FANHVACPENETE12	12 PENET RM EXH FAN (1M0402)	M1	VDM02Q	VDM02Q	18.75

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	M1	VDM12Q	VDM12Q	36
A225	1FANHVACECCSE12	12 ECCS PUMP RM EXH (1M0413)	M1	VDM13Q	VDM13Q	0
A226	1FAN5334	SRW HX RM EXH FAN 18B (1M0451)	M1	VDM51Q	VDM51Q	0
A226	1COMPSWAC11	11 SW AIR COMPRESSOR (1M1404)	M2	CMN04Q	CMN04Q	144
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A225	1FANHVACPENETE11	11 PENET RM EXH FAN (1M1402)	M2	VDN02Q	VDN02Q	18.75
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	M2	VDN12Q	VDN12Q	36
A225	1FANHVACECCSE11	11 ECCS PUMP RM EXH (1M1413)	M2	VDN13Q	VDN13Q	0
A226	1FAN5335	SRW HTEX RM FAN VU-18A (1M1441)	M2	VDN41Q	VDN41Q	0
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A226	1PCV5000	11 SGFP BRG OIL PRESS REG VLV	MN	MNFW58	PC000R	0
A226	1PCV4993	11 SGFPT CONT OIL PRESS REG	MN	MNFW58	PC993R	0
A226	1PCV4999	11 SGFPT OIL PRESS REG VLV	MN	MNFW58	PC999R	0
A226	1PCV5043	12 SGFP TLO PP DISCH PCV	MN	MNFW68	PC043R	0
A226	1PCV5048	12 SGFP TLO RESERVOIR INLET PCV	MN	MNFW68	PC048R	0
A226	1PCV5049	12 FW SGFP TLO TO PP BRGS PCV	MN	MNFW68	PC049R	0
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A226	1ACC4070	11 S/G AFW STM VLV ACCUM	NR	NRIA99	TK070B	144
A226	1ACC4071	12 S/G STM VLV ACCUM	NR	NRIA99	TK071B	144
A226	1CV4522	11 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	40
A226	1CV4523	11 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	144
A226	1CV4532	12 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	40
A226	1CV4533	12 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	144
A226	1SV4522	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4523	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4532	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4533	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1CV5150	11 SRW HX SW INLET	S3	C1150P	C1150P	60
A226	1SV5150	SERV WTR HTEX 11 SALT WTR INLT	S3	C1150P	C1150P	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148C	C2148C	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148C	C2148C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148C	C2148C	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148O	C2148O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148T	C2148T	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148T	C2148T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148T	C2148T	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151C	C2151C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151C	C2151C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151C	C2151C	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151C	C2151C	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	C2151O	C2151O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151O	C2151O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151O	C2151O	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	C2151O	C2151O	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151T	C2151T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151T	C2151T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151T	C2151T	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151T	C2151T	0
A226	1PUMPSRW11	11 SERVICE WATER PUMP (1MA109)	S3	MWS11R	MWS11R	32
A226	1PUMPSRW11	11 SERVICE WATER PUMP (1MA109)	S3	MWS11S	MWS11S	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S3	MWS13R	MWS13R	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S3	MWS13S	MWS13S	32
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AB	0
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AP	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BB	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BP	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1AV	C2148P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1CV5209	11A SRW HX SALT WATER OUTLET VLV	S3	S3H1AV	C2209P	0
A226	1FIC5209	11A SRW HX SW OUTLET FLOW INDICATOR	S3	S3H1AV	C2209P	0
A226	1P/P5209	1CV5209 A/S VOLUME BOOSTER	S3	S3H1AV	C2209P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2209P	0
A226	1SV5209	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1SV5209A	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1BV	C2151P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1BV	C2151P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1BV	C2151P	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	S3H1BV	C2151P	0
A226	1CV5210	11 SRW HX SW OUTLET CV	S3	S3H1BV	C2210P	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	S3	S3H1BV	C2210P	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	S3	S3H1BV	C2210P	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1ZC5210	1CV5210 POSITIONER	S3	S3H1BV	C2210P	0
A226	1CV5153	12 SRW HX SW NORM B/U OUTLET	S4	C1153P	C1153P	20
A226	1SV5153	SERV WTR HTEX 12 SALT WTR OUT	S4	C1153P	C1153P	0
A226	1CV5157	12A/12B SRW HX SALT WATER OUTLET VLV	S4	C2157T	C2157T	0
A226	1I/P5157	12A/12B SRW HX SW OUT I/P	S4	C2157T	C2157T	0
A226	1P/P5157	1CV5157 A/S VOLUME BOOSTER	S4	C2157T	C2157T	0
A226	1SV5157	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1SV5157A	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1ZC5157	1CV5157 POSITIONER	S4	C2157T	C2157T	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158C	C2158C	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158C	C2158C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158C	C2158C	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	C2158O	C2158O	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158O	C2158O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	C2158O	C2158O	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158T	C2158T	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158T	C2158T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158T	C2158T	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159C	C2159C	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159C	C2159C	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	C2159O	C2159O	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	C2159O	C2159O	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159T	C2159T	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159T	C2159T	0
A226	1CV5212	12 SRW HX SW OUT CV	S4	C2212O	C2212O	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	C2212O	C2212O	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	C2212O	C2212O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2212O	C2212O	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1ZC5212	1CV5212 POSITIONER	S4	C2212O	C2212O	0
A226	1PUMPSRW12	12 SERVICE WATER PUMP (1MA409)	S4	MWS12R	MWS12R	32
A226	1PUMPSRW12	12 SERVICE WATER PUMP (1MA409)	S4	MWS12S	MWS12S	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S4	MWS13R	MWS13R	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S4	MWS13S	MWS13S	32
A226	1CV5152	12 SRW HX SW INLET	S4	S4CV52	C1152P	60
A226	1SV5152	SERV WTR HTEX 12 SALT WTR INLT	S4	S4CV52	C1152P	0
A226	1HVSRW-707	MANUAL SRW INLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW707P	0
A226	1HVSRW-708	MANUAL SRW OUTLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW708P	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AB	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AP	0
A226	1HVSRW-709	MANUAL SRW INLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW709P	0
A226	1HVSRW-710	MANUAL SRW OUTLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW710P	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BB	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BP	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2AV	C2158P	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	S4H2AV	C2158P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	S4H2AV	C2158P	0
A226	1CV5211	12A SRW HX SALT WATER OUTLET VLV	S4	S4H2AV	C2211P	0
A226	1FIC5211	12A SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2AV	C2211P	0
A226	1P/P5211	1CV5211 A/S VOLUME BOOSTER	S4	S4H2AV	C2211P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2211P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1SV5211	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1SV5211A	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1ZC5211	1CV5211 POSITIONER	S4	S4H2AV	C2211P	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2BV	C2159P	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	S4H2BV	C2159P	0
A226	1CV5212	12 SRW HX SW OUT CV	S4	S4H2BV	C2212P	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2BV	C2212P	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	S4H2BV	C2212P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2212P	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1ZC5212	1CV5212 POSITIONER	S4	S4H2BV	C2212P	0
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0
A226	1CV1637	TURB BLDG SRW HDR 11 ISOL	TA	TAFB01	C3637P	144
A226	1SV1637	TURB LUBE&EHC OIL SERVWTR ISOL	TA	TAFB01	C3637P	0
A226	1CV1639	TURB BLDG SRW HDR 11 ISOL	TA	TAFB01	C3639P	144
A226	1SV1639	TURB LUB & EHC OIL SERV WTR IS	TA	TAFB01	C3639P	0
A226	1CV1600	TURB BLDG SRW HDR 12 ISOL	TB	TBFB01	C3600P	72
A226	1SV1600	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3600P	0
A226	1CV1638	TURB BLDG SRW HDR 12 ISOL	TB	TBFB01	C3638P	72
A226	1SV1638	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3638P	0
A226	1CV5210	11 SRW HX SW OUTLET CV	TH(HD1)	BHER3B	Throttle	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	TH(HD1)	BHER3B	Throttle	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1ZC5210	1CV5210 POSITIONER	TH(HD1)	BHER3B	Throttle	0
A226	1CV5212	12 SRW HX SW OUT CV	TH(HD2)	BHER3B	Throttle	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	TH(HD2)	BHER3B	Throttle	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1ZC5212	1CV5212 POSITIONER	TH(HD2)	BHER3B	Throttle	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	UQ	BHEUQ1	Throttle	144
A226	1CV4535	12 S/G AFW FLOW CONT VLV	UQ	BHEUQ1	Throttle	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A225	1FANHVACECCSE11	11 ECCS PUMP RM EXH (1M1413)	V5	VDF11R	VDF11R	0
A225	1FANHVACECCSE11	11 ECCS PUMP RM EXH (1M1413)	V5	VDF11S	VDF11S	0
A225	1FANHVACECCSE12	12 ECCS PUMP RM EXH (1M0413)	V5	VDF12R	VDF12R	0
A225	1FANHVACECCSE12	12 ECCS PUMP RM EXH (1M0413)	V5	VDF12S	VDF12S	0
A226	1PCV5214	11 CW PP SEAL WTR PCV	VC	VCCW1A	PC214R	0
A226	1PCV5216	12 CW PP SEAL WTR PCV	VC	VCCW2A	PC216R	0
A226	1PCV5218	13 CW PP SEAL WTR PCV	VC	VCCW3A	PC218R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1PCV5220	14 CW PP SEAL WTR PCV	VC	VCCW4A	PC220R	0
A226	1PCV5222	15 CW PP SEAL WTR PCV	VC	VCCW5A	PC222R	0
A226	1PCV5224	16 CW PP SEAL WTR PCV	VC	VCCW6A	PC224R	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0

Flood Evaluation Query

CF-07G-N226LN *

06-Nov-98

TOP	PM	EVALUATION	RI
AA	3BKR	3 breaker challenges.	PAJ
AB	1BKR	1 breaker challenges.	PAJ
AD	1BKR	1 breaker challenges.	PAJ
CS	None	1CV3828 fails open on loss of power and loss of air. 1MOV663 is normally closed and fails as-is.	PAJ
CT	None	1CV3830 fails open on loss of power and loss of air. 1MOV662 is normally closed and fails as-is.	PAJ
CV	None ~~F~~	~~Conservatively set to failure. CVCS relatively unimportant.~~ (Note 13)	PAJ
F1	None	11 and 12 S/G AFW Block Valves fail. These valves are normally open and will fail open. Therefore there is no impact on this top. Flow control valves failing open are addressed in top event HX.	PAJ
F7	F	Lost the ability to use Unit 1 AFW MD Pump 13 to supply Unit 1 S/G.	PAJ
F9	None ~~F~~	~~Loss the ability to use Unit 2 AFW MD Pump 23 to supply Unit 1 S/G. Also, 21 and 22 S/G AFW Block and Flow Valves fail. These valves are normally open and fail as-is (open) on loss of power.~~ (Note 14)	PAJ
FC	None ~~Spec Impt~~	(Note 1) ~~AFW Pump Room Emergency Vent Fans 11 & 12 fail along with NSR A/C Unit fail.~~	PAJ
FF	None	Both 11 and 12 AFW Pump Room Exhaust fans fail to start. Covered under Top FC.	PAJ
FH	None	Loss the ability to start AFW MD Pump 13. Covered under Top F7.	PAJ
FN	None	Only has 2 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
GW	None	2CV5152, 2CV5153 and 2CV5212 fail open on loss of power and loss of air.	PAJ
GZ	None	2CV5150 and 2CV5210 fail open on loss of power and loss of air.	PAJ
HA	None	1MOV656 is normally locked open and fails as-is.	PAJ
HB	None	1MOV654 is normally locked open and fails as-is.	PAJ

*This flood is re-designated N226AM

See notes in RAN 98-065 Sect. 5.4

TOP	PM	EVALUATION	RI
HU	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact.	PAJ
HW	None ~~Spec Impt~~	~~1MOV654/655/656 are normally locked open and fail as-is. 1MOV653 is normally locked shut. Therefore, HPSI 12 main header will be available, but the cross connect 1MOV653 (auxiliary header) we be unavailable.~~ (Note 20)	PAJ
HX	None	11 and 12 S/G AFW (motor driven feed line) flow control valves fail open. Impact already considered by Top F7 & F9 failure.	PAJ
I1	F	11 SWAC fails.	PAJ
I2	F	12 SWAC fails.	PAJ
K3	None	1CV5210 fails open on loss of power and loss of air. During a RAS, this valve needs to open for recirulation. It is assumed (Per Rob) that this top event will not fail during smaller LOCA size breaks.	PAJ
K4	None	1CV5212 fails open on loss of power and loss of air. During a RAS, this valve needs to open for recirulation. It is assumed (Per Rob) that this top event will not fail during smaller LOCA size breaks.	PAJ
M1	10BKR	10 breaker challenges.	PAJ
M2	13BKR	13 breaker challenges.	PAJ
M3	8BKR	8 breaker challenges.	PAJ
~~M4~~	~~5BKR~~	~~5 breaker challenges.~~	~~PAJ~~
MN	None	Has 6 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
MV	None	1MOV659/660 fail as-is and are normally electrically locked open, there will be no flood impact.	PAJ
N1	1BKR	1 breaker challenge.	PAJ
N2	1BKR	1 breaker challenge.	PAJ
N3	None	13 Charging Pump is normally aligned to 480V Bus 11A (Top N1). See Key Assumption 393.	PAJ
N4	1BKR	1 breaker challenge.	PAJ

TOP	PM	EVALUATION	RI
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
NR	Spec. Impt. ~~None~~	~~Air accumulators only.~~ Mechanical ~~operation only.~~ (note 4)	PAJ
NR(TC)	None ~~Spec Impt~~	~~2CV1600/1637/1638/1639 fail close on loss of power, the undesirable position. Unable to use Unit 2 compressors for Unit 1.~~ (note 4)	PAJ
NS	None ~~Spec Impt.~~	~~2CV1600/1637/1638/1639 fail close on loss of power, the undesirable position. Unable to use Unit 2 compressors for Unit 2.~~ (note 18)	PAJ
QZ	None	11 & 12 AFW Block valves (1CV4522/4523/4532/4533) are normally open and fail as-is on loss of power.	PAJ
S3	F	11 and 13 SRW Pumps fail.	PAJ
S4	F	12 and 13 SRW Pumps fail.	PAJ
SG	None ~~Spec Impt~~	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment. (Note 5)	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ
SR	None	All MOVs (1MOV4144/4145/5462/5463) are closed and fail close.	PAJ
TA	F	1CV1637/1639 fail close on loss of power / loss of air.	PAJ
TB	F	1CV1600/1638 fail close on loss of power / loss of air.	PAJ
TE	None ~~F~~	(note 20) ~~1MOV4144 is normally in the closed position and will fail as-is. Therefore, the East Recirculation Header will not function properly.~~	PAJ
TH(HD1)	None	1CV5206/5210 will fail to there appropriate position not allowing the operator to throttle valves. Covered by Top S3 or K3.	PAJ

TOP	PM	EVALUATION	RI
TH(HD2)	None	1CV5208/5212 will fail to there appropriate position not allowing the operator to throttle valves. Covered by Top S4 or K4.	PAJ
TW	None ~~F~~	~~1MOV4145 is normally in the closed position and will fail as-is. Therefore, the West Recirculation Header will not function properly~~. (Note 20)	PAJ
UQ	None	1CV4525/4535 will fail open. This top is only fails when an under feed to the SG occurs.	PAJ
V1	None ~~F~~	~~A flood can potentially blow the fuse (via 1TS5404) in the 11 ECCS pump room cooling fans circuit. Thus not allowing the fans to cool the room~~. (Note 20)	PAJ
V2	None ~~F~~	~~A flood can potentially blow the fuse (via 1TS5405) in the 12 ECCS pump room cooling fans circuit. Thus not allowing the fans to cool the room~~. (Note 20)	PAJ
~~V5~~	None ~~F~~	Top Event V5 no longer used. ~~11 and 12 ECCS exhaust fans fails to start/run.~~	PAJ
VC	None	Has 6 PCVs. I am assuming that these will not fail during a flood.	PAJ
VM(RM1)	None	Operator will be unable to start ECCS Pump Room Fans. Covered under Top V1.	PAJ
VM(RM2)	None	Operator will be unable to start ECCS Pump Room Fans. Covered under Top V2.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	AA	MAAF3Q	MAAF3Q	16
A226	1PUMPSRW11	11 SERVICE WATER PUMP (1MA109)	AA	MWSR1Q	MWSR1Q	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	AA	MWSR3Q	MWSR3Q	32
A226	1PUMPSRW12	12 SERVICE WATER PUMP (1MA409)	AB	MWSR2Q	MWSR2Q	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	AB	MWSR4Q	MWSR4Q	32
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	AD	MAAF6Q	MAAF6Q	16
A119	1HXSICS11	11 SHUTDOWN COOLING HX	CS	CS0103	HXC11B	0
A119	1HXSICS11	11 SHUTDOWN COOLING HX	CS	CS0103	HXC11P	0
A119	1MOV663	SDC RECIRC TO 11 HPSI PP	CS	CS0103	MV663T	0
A119	1CV3828	11 SDC HX OUTLET	CS	CSHX11	CV828P	0
A119	1SV3828	S/D HX 11 COOL WTR DISCH VLV	CS	CSHX11	CV828P	0
A119	1CV3828	11 SDC HX OUTLET	CS	CV828O	CV828O	0
A119	1SV3828	S/D HX 11 COOL WTR DISCH VLV	CS	CV828O	CV828O	0
A118	1HXSICS12	12 SHUTDOWN COOLING HX	CT	CT0103	HXC12B	0
A118	1HXSICS12	12 SHUTDOWN COOLING HX	CT	CT0103	HXC12P	0
A118	1MOV662	SDC RECIRC TO 13 HPSI PP	CT	CT0103	MV662T	0
A118	1CV3830	12 SDC HX OUTLET	CT	CTXH12	CV830P	0
A118	1SV3830	S/D HX #12 COMP CLG DISCH VLV	CT	CTXH12	CV830P	0
A118	1CV3830	12 SDC HX OUTLET	CT	CV830O	CV830O	0
A118	1SV3830	S/D HX #12 COMP CLG DISCH VLV	CT	CV830O	CV830O	0
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PS224R	PS224R	0
A226	1CV4522	11 S/G AFW BLOCK VLV	F1	CV4522	CV522P	40
A226	1SV4522	11 S/G AFW BLOCK SV	F1	CV4522	CV522P	0
A226	1CV4523	11 S/G AFW BLOCK VLV	F1	CV4523	CV523P	144
A226	1SV4523	11 S/G AFW BLOCK SV	F1	CV4523	CV523P	0
A226	1CV4532	12 S/G AFW BLOCK VLV	F1	CV4532	CV532P	40
A226	1SV4532	12 S/G AFW BLOCK SV	F1	CV4532	CV532P	0
A226	1CV4533	12 S/G AFW BLOCK VLV	F1	CV4533	CV533P	144
A226	1SV4533	12 S/G AFW BLOCK SV	F1	CV4533	CV533P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	F1	F1MLV1	C6525P	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	F1	F1MLV1	C6525R	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1CV4535	12 S/G AFW FLOW CONT VLV	F1	F1MLV2	C6535P	144
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1CV4535	12 S/G AFW FLOW CONT VLV	F1	F1MLV2	C6535R	144
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A226	1CV4550	U-1 TO U-2 AFW X-CONN VLV	F7	F7MPVA	C3550T	144
A226	1SV4550	U-1 TO U-2 AFW X-CONN SV	F7	F7MPVA	C3550T	0
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QR	MA13QR	16
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QS	MA13QS	16
A205	2SV4522	S/G 21 AFW MOTOR SYS ISOL VLV	F9	CVB22C	CVB22C	0
A205	2SV4523	S/G 21 AFW MOTOR SYS ISOL VLV	F9	CVB23C	CVB23C	0
A205	2SV4532	S/G 22 AFW MOTOR SYS ISOL VLV	F9	CVB32C	CVB32C	0
A205	2SV4533	S/G 22 AFW MOTOR SYS ISOL VLV	F9	CVB33C	CVB33C	0
A205	2SV4550	U-2 AUX FEED X-CONN VLV	F9	F9M2VA	C3B50O	0
A205	2SV4550	U-2 AUX FEED X-CONN VLV	F9	F9M2VA	C3B50P	0
A205	2SV4522	S/G 21 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB22T	0
A205	2SV4523	S/G 21 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB23T	0
A205	2SV4532	S/G 22 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB32T	0
A205	2SV4533	S/G 22 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB33T	0
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	F9	MA23QR	MA23QR	16
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	F9	MA23QS	MA23QS	16
A225	1HS5472	MCC-101-BT BKR 52-10150 AFW PP RM A/C UNIT 11	FC	FCAC11	HS472T	0
A225	1HS5470	AFW PP RM EMERG VENT FAN 11 MCC-114-12	FC	FCAUX1	HS470D	18
A225	1HS5470	AFW PP RM EMERG VENT FAN 11 MCC-114-12	FC	FCAUX1	HS470T	18
A225	1HS5471	AFW PP RM EMERG VENT FAN 12 MCC-104-12	FC	FCAUX2	HS471D	18
A225	1HS5471	AFW PP RM EMERG VENT FAN 12 MCC-104-12	FC	FCAUX2	HS471T	18
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	FC	VDA11R	VDA11R	36
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	FC	VDA11S	VDA11S	36
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	FC	VDA12R	VDA12R	36
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	FC	VDA12S	VDA12S	36
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	FF	BHEFCB	Start	36
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	FF	BHEFCB	Start	36
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	FH	BHEF71	Start	16
A226	1PCV4512	1 IA SUPP ACCUM 11A & 11B PCV	FN	FN0000	CV512P	0
A226	1PCV4520	11B AFW AIR ACCUMULATOR OUTLET PCV	FN	FN0000	CV520P	0
A205	2I/P5212	SALT WTR OUT SERV WTR HTEX	GW	C2S12O	C2S12O	0
A205	2SV5212	SERV WTR HTEX 22 SALT WTR OUT	GW	C2S12O	C2S12O	0
A205	2SV5212A	SERV WTR HTEX 22 SALT WTR OUT	GW	C2S12O	C2S12O	0
A205	2SV5152	SERV WTR HTEX 22 SALT WTR INLT	GW	S8CV52	C1S52P	0
A205	2CV5153	22 SRW HX SW NORM B/U OUTLET	GW	S8H2CV	C1S53P	20
A205	2SV5153	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C1S53P	0
A205	2I/P5212	SALT WTR OUT SERV WTR HTEX	GW	S8H2CV	C2S12P	0
A205	2SV5212	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C2S12P	0
A205	2SV5212A	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C2S12P	0
A205	2SV5150	SERV WTR HTEX 21 SALT WTR INLT	GZ	S7H2CV	C1S50P	0
A205	2I/P5210	SALT WTR OUT SERV WTR HTEX	GZ	S7H2CV	C2S10P	0
A205	2SV5210	SERV WTR HTEX 21 SALT WTR OUT	GZ	S7H2CV	C2S10P	0
A205	2SV5210A	SERV WTR HTEX 21 SALT WTR OUT	GZ	S7H2CV	C2S10P	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1AB	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1AP	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1BB	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1BP	0
A119	1HXSTF/BOX11A	HPSI PUMP 11	HA	HA1CCW	HXS1AB	0
A119	1HXSTF/BOX11A	HPSI PUMP 11	HA	HA1CCW	HXS1AP	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A119	1HXSTF/BOX11B	HPSI PUMP 11	HA	HA1CCW	HXS1BB	0
A119	1HXSTF/BOX11B	HPSI PUMP 11	HA	HA1CCW	HXS1BP	0
A119	1HX109	#11 HPSI PP SEAL COOLER	HA	HA1CCW	HXSC1B	0
A119	1HX109	#11 HPSI PP SEAL COOLER	HA	HA1CCW	HXSC1P	0
A119	1MOV656	AUX HPSI HDR ISOL	HA	HADISA	MV656P	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3AB	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3AP	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3BB	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3BP	0
A118	1HXSTF/BOX13A	HPSI PUMP 13	HB	HB3CCW	HXS3AB	0
A118	1HXSTF/BOX13A	HPSI PUMP 13	HB	HB3CCW	HXS3AP	0
A118	1HXSTF/BOX13B	HPSI PUMP 13	HB	HB3CCW	HXS3BB	0
A118	1HXSTF/BOX13B	HPSI PUMP 13	HB	HB3CCW	HXS3BP	0
A118	1HX111	#13 HPSI PP SEAL COOLER	HB	HB3CCW	HXSC3B	0
A118	1HX111	#13 HPSI PP SEAL COOLER	HB	HB3CCW	HXSC3P	0
A118	1MOV654	HPSI HDR ISOL	HB	MV654P	MV654P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	HU	BHEF1B	Throttle	144
A226	1CV4535	12 S/G AFW FLOW CONT VLV	HU	BHEF1B	Throttle	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A119	1MOV656	AUX HPSI HDR ISOL	HW	HADISA	MV656P	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2AB	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2AP	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2BB	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2BP	0
A118	1HXSTF/BOX12A	HPSI PUMP 12	HW	HW1CCW	HXS2AB	0
A118	1HXSTF/BOX12A	HPSI PUMP 12	HW	HW1CCW	HXS2AP	0
A118	1HXSTF/BOX12B	HPSI PUMP 12	HW	HW1CCW	HXS2BB	0
A118	1HXSTF/BOX12B	HPSI PUMP 12	HW	HW1CCW	HXS2BP	0
A119	1HX409	#12 HPSI PP SEAL COOLER	HW	HW1CCW	HXSC2B	0
A119	1HX409	#12 HPSI PP SEAL COOLER	HW	HW1CCW	HXSC2P	0
A118	1MOV653	HPSI HDR X-CONN	HW	MV653O	MV653O	0
A118	1MOV653	HPSI HDR X-CONN	HW	MV653P	MV653P	0
A118	1MOV654	HPSI HDR ISOL	HW	MV654P	MV654P	0
A119	1MOV655	HPSI HDR X-CONN	HW	MV655P	MV655P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	HX	BHEF1A	Throttle	144
A226	1CV4535	12 S/G AFW FLOW CONT VLV	HX	BHEF1A	Throttle	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1COMPSWAC11	11 SW AIR COMPRESSOR (1M1404)	I1	CMS11R	CMS11R	144
A226	1COMPSWAC11	11 SW AIR COMPRESSOR (1M1404)	I1	CMS11S	CMS11S	144
A226	1LS5200	11 IA SW AIR COMP LS	I1	I1CNTL	LS200R	144
A226	1TS5200	11 IA SW AIR COMP TS	I1	I1CNTL	TS200R	144
A226	1COMPSWAC12	12 SW AIR COMPRESSOR (1M0404)	I2	CMS12R	CMS12R	144
A226	1COMPSWAC12	12 SW AIR COMPRESSOR (1M0404)	I2	CMS12S	CMS12S	144
A226	1LS5201	12 IA SW AIR COMP LS	I2	I2CNTL	LS201R	144
A226	1TS5201	12 IA SW AIR COMP TS	I2	I2CNTL	TS201R	144
A226	1CV5210	11 SRW HX SW OUTLET CV	K3	C2210C	C2210C	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	C2210C	C2210C	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	C2210C	C2210C	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1ZC5210	1CV5210 POSITIONER	K3	C2210C	C2210C	0
A226	1CV5210	11 SRW HX SW OUTLET CV	K3	K3CLOS	C2210T	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	K3CLOS	C2210T	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	K3CLOS	C2210T	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1ZC5210	1CV5210 POSITIONER	K3	K3CLOS	C2210T	0
A226	1CV5212	12 SRW HX SW OUT CV	K4	C2212C	C2212C	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	C2212C	C2212C	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	C2212C	C2212C	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1ZC5212	1CV5212 POSITIONER	K4	C2212C	C2212C	0
A226	1CV5212	12 SRW HX SW OUT CV	K4	K4ISO1	C2212T	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	K4ISO1	C2212T	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	K4ISO1	C2212T	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1ZC5212	1CV5212 POSITIONER	K4	K4ISO1	C2212T	0
A226	1COMPSWAC12	12 SW AIR COMPRESSOR (1M0404)	M1	CMM04Q	CMM04Q	144
A118	1MOV654	HPSI HDR ISOL	M1	MVM21Q	MVM21Q	0
A118	1MOV653	HPSI HDR X-CONN	M1	MVM22Q	MVM22Q	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	M1	MVM30Q	MVM30Q	0
A118	1MOV660	MINI FLOW RETN TO RWT	M1	MVM32Q	MVM32Q	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	M1	MVM44Q	MVM44Q	0
A225	1FANHVACPENETE12	12 PENET RM EXH FAN (1M0402)	M1	VDM02Q	VDM02Q	18.75
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	M1	VDM12Q	VDM12Q	36
A225	1FANHVACECCSE12	12 ECCS PUMP RM EXH (1M0413)	M1	VDM13Q	VDM13Q	0
A226	1FAN5334	SRW HX RM EXH FAN 18B (1M0451)	M1	VDM51Q	VDM51Q	0
A226	1COMPSWAC11	11 SW AIR COMPRESSOR (1M1404)	M2	CMN04Q	CMN04Q	144
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A119	1MOV656	AUX HPSI HDR ISOL	M2	MVN21Q	MVN21Q	0
A119	1MOV655	HPSI HDR X-CONN	M2	MVN22Q	MVN22Q	0
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A118	1MOV659	MINI FLOW RETN TO RWT	M2	MVN32Q	MVN32Q	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	M2	MVN44Q	MVN44Q	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	M2	MVN57Q	MVN57Q	0
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A225	1FANHVACPENETE11	11 PENET RM EXH FAN (1M1402)	M2	VDN02Q	VDN02Q	18.75
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	M2	VDN12Q	VDN12Q	36
A225	1FANHVACECCSE11	11 ECCS PUMP RM EXH (1M1413)	M2	VDN13Q	VDN13Q	0
A226	1FAN5335	SRW HTEX RM FAN VU-18A (1M1441)	M2	VDN41Q	VDN41Q	0
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A102	2MOV654	HPSI HDR ISOL	M3	MVO21Q	MVO21Q	0
A102	2MOV653	HPSI HDR X-CONN	M3	MVO22Q	MVO22Q	0
A120	2MOV5463	U-2 CONTMT RECIRC PIPE TUNNEL	M3	MVO30Q	MVO30Q	0
A102	2MOV660	MINI FLOW RETN TO RWT	M3	MVO32Q	MVO32Q	0
A120	2MOV4145	CONTMT SUMP OUTLET ISOL	M3	MVO44Q	MVO44Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A205	2FAN5334	SRW HX RM EXH FAN 19B (2M0451)	M3	VDO51Q	VDO51Q	0
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32
A102	2MOV659	MINI FLOW RETN TO RWT	M4	MVN32Q	MVN32Q	0
A120	2MOV4144	CONTMT SUMP OUTLET ISOL	M4	MVN44Q	MVN44Q	0
A120	2MOV5462	U-2 CONTMT RECIRC PIPE TUNNEL	M4	MVN57Q	MVN57Q	0
A205	2FAN5335	SRW HX RM SPLY FAN 19A (2M1437)	M4	VDN37Q	VDN37Q	0
A226	1PCV5000	11 SGFP BRG OIL PRESS REG VLV	MN	MNFW58	PC000R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1PCV4993	11 SGFPT CONT OIL PRESS REG	MN	MNFW58	PC993R	0
A226	1PCV4999	11 SGFPT OIL PRESS REG VLV	MN	MNFW58	PC999R	0
A226	1PCV5043	12 SGFP TLO PP DISCH PCV	MN	MNFW68	PC043R	0
A226	1PCV5048	12 SGFP TLO RESERVOIR INLET PCV	MN	MNFW68	PC048R	0
A226	1PCV5049	12 FW SGFP TLO TO PP BRGS PCV	MN	MNFW68	PC049R	0
A118	1MOV659	MINI FLOW RETN TO RWT	MV	MV0A11	MV659P	0
A118	1MOV659	MINI FLOW RETN TO RWT	MV	MV0A11	MV659X	0
A118	1MOV660	MINI FLOW RETN TO RWT	MV	MV0A11	MV660P	0
A118	1MOV660	MINI FLOW RETN TO RWT	MV	MV0A11	MV660X	0
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A226	1ACC4070	11 S/G AFW STM VLV ACCUM	NR	NRIA99	TK070B	144
A226	1ACC4071	12 S/G STM VLV ACCUM	NR	NRIA99	TK071B	144
A205	2SV1637	TURB & EHC OIL SERV WTR ISOL VLV	NR(TC)	UNIT 2-TAFB01	C3637P	0
A205	2SV1639	TURB LUB & EHC OIL SERVWTR ISO	NR(TC)	UNIT 2-TAFB01	C3639P	0
A205	2SV1600	TURB BLDG SERV WTR ISOL VLV	NR(TC)	UNIT 2-TBFB01	C3600P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NR(TC)	UNIT 2-TBFB01	C3638P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NS	NSSRW	N/A	0
A205	2SV1637	TURB & EHC OIL SERV WTR ISOL VLV	NS	UNIT 2-TAFB01	C3637P	0
A205	2SV1639	TURB LUB & EHC OIL SERVWTR ISO	NS	UNIT 2-TAFB01	C3639P	0
A205	2SV1600	TURB BLDG SERV WTR ISOL VLV	NS	UNIT 2-TBFB01	C3600P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NS	UNIT 2-TBFB01	C3638P	0
A226	1CV4522	11 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	40
A226	1CV4523	11 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	144
A226	1CV4532	12 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	40
A226	1CV4533	12 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	144
A226	1SV4522	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4523	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4532	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4533	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1CV5150	11 SRW HX SW INLET	S3	C1150P	C1150P	60
A226	1SV5150	SERV WTR HTEX 11 SALT WTR INLT	S3	C1150P	C1150P	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148C	C2148C	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148C	C2148C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148C	C2148C	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148O	C2148O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148T	C2148T	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148T	C2148T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148T	C2148T	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151C	C2151C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151C	C2151C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151C	C2151C	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151C	C2151C	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	C2151O	C2151O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151O	C2151O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151O	C2151O	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	C2151O	C2151O	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151T	C2151T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151T	C2151T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151T	C2151T	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151T	C2151T	0
A226	1PUMPSRW11	11 SERVICE WATER PUMP (1MA109)	S3	MWS11R	MWS11R	32
A226	1PUMPSRW11	11 SERVICE WATER PUMP (1MA109)	S3	MWS11S	MWS11S	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S3	MWS13R	MWS13R	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S3	MWS13S	MWS13S	32
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AB	0
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AP	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BB	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BP	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1AV	C2148P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1CV5209	11A SRW HX SALT WATER OUTLET VLV	S3	S3H1AV	C2209P	0
A226	1FIC5209	11A SRW HX SW OUTLET FLOW INDICATOR	S3	S3H1AV	C2209P	0
A226	1P/P5209	1CV5209 A/S VOLUME BOOSTER	S3	S3H1AV	C2209P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2209P	0
A226	1SV5209	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1SV5209A	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1BV	C2151P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1BV	C2151P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1BV	C2151P	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	S3H1BV	C2151P	0
A226	1CV5210	11 SRW HX SW OUTLET CV	S3	S3H1BV	C2210P	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	S3	S3H1BV	C2210P	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	S3	S3H1BV	C2210P	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1ZC5210	1CV5210 POSITIONER	S3	S3H1BV	C2210P	0
A226	1CV5153	12 SRW HX SW NORM B/U OUTLET	S4	C1153P	C1153P	20
A226	1SV5153	SERV WTR HTEX 12 SALT WTR OUT	S4	C1153P	C1153P	0
A226	1CV5157	12A/12B SRW HX SALT WATER OUTLET VLV	S4	C2157T	C2157T	0
A226	1I/P5157	12A/12B SRW HX SW OUT I/P	S4	C2157T	C2157T	0
A226	1P/P5157	1CV5157 A/S VOLUME BOOSTER	S4	C2157T	C2157T	0
A226	1SV5157	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1SV5157A	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1ZC5157	1CV5157 POSITIONER	S4	C2157T	C2157T	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158C	C2158C	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158C	C2158C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158C	C2158C	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	C2158O	C2158O	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158O	C2158O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	C2158O	C2158O	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158T	C2158T	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158T	C2158T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158T	C2158T	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159C	C2159C	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159C	C2159C	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	C2159O	C2159O	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	C2159O	C2159O	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159T	C2159T	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159T	C2159T	0
A226	1CV5212	12 SRW HX SW OUT CV	S4	C2212O	C2212O	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	C2212O	C2212O	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	C2212O	C2212O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2212O	C2212O	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1ZC5212	1CV5212 POSITIONER	S4	C2212O	C2212O	0
A226	1PUMPSRW12	12 SERVICE WATER PUMP (1MA409)	S4	MWS12R	MWS12R	32
A226	1PUMPSRW12	12 SERVICE WATER PUMP (1MA409)	S4	MWS12S	MWS12S	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S4	MWS13R	MWS13R	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S4	MWS13S	MWS13S	32
A226	1CV5152	12 SRW HX SW INLET	S4	S4CV52	C1152P	60
A226	1SV5152	SERV WTR HTEX 12 SALT WTR INLT	S4	S4CV52	C1152P	0
A226	1HVSRW-707	MANUAL SRW INLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW707P	0
A226	1HVSRW-708	MANUAL SRW OUTLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW708P	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AB	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AP	0
A226	1HVSRW-709	MANUAL SRW INLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW709P	0
A226	1HVSRW-710	MANUAL SRW OUTLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW710P	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BB	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BP	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2AV	C2158P	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	S4H2AV	C2158P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	S4H2AV	C2158P	0
A226	1CV5211	12A SRW HX SALT WATER OUTLET VLV	S4	S4H2AV	C2211P	0
A226	1FIC5211	12A SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2AV	C2211P	0
A226	1P/P5211	1CV5211 A/S VOLUME BOOSTER	S4	S4H2AV	C2211P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2211P	0
A226	1SV5211	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1SV5211A	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1ZC5211	1CV5211 POSITIONER	S4	S4H2AV	C2211P	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2BV	C2159P	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	S4H2BV	C2159P	0
A226	1CV5212	12 SRW HX SW OUT CV	S4	S4H2BV	C2212P	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2BV	C2212P	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	S4H2BV	C2212P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2212P	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1ZC5212	1CV5212 POSITIONER	S4	S4H2BV	C2212P	0
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	SR	MV144C	MV144C	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	SR	MV144T	MV144T	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	SR	MV145C	MV145C	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	SR	MV145T	MV145T	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV462C	MV462C	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV462T	MV462T	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV463C	MV463C	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV463T	MV463T	0
A226	1CV1637	TURB BLDG SRW HDR 11 ISOL	TA	TAFB01	C3637P	144
A226	1SV1637	TURB LUBE&EHC OIL SERVWTR ISOL	TA	TAFB01	C3637P	0
A226	1CV1639	TURB BLDG SRW HDR 11 ISOL	TA	TAFB01	C3639P	144
A226	1SV1639	TURB LUB & EHC OIL SERV WTR IS	TA	TAFB01	C3639P	0
A226	1CV1600	TURB BLDG SRW HDR 12 ISOL	TB	TBFB01	C3600P	72
A226	1SV1600	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3600P	0
A226	1CV1638	TURB BLDG SRW HDR 12 ISOL	TB	TBFB01	C3638P	72
A226	1SV1638	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3638P	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	TE	MV144O	MV144O	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	TE	TE0101	MV144P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	TH(HD1)	BHER3B	Open	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	TH(HD1)	BHER3B	Open	0
A226	1CV5210	11 SRW HX SW OUTLET CV	TH(HD1)	BHER3B	Throttle	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	TH(HD1)	BHER3B	Throttle	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1ZC5210	1CV5210 POSITIONER	TH(HD1)	BHER3B	Throttle	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	TH(HD2)	BHER3B	Open	0
A226	1CV5212	12 SRW HX SW OUT CV	TH(HD2)	BHER3B	Throttle	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	TH(HD2)	BHER3B	Throttle	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1ZC5212	1CV5212 POSITIONER	TH(HD2)	BHER3B	Throttle	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	TW	MV145O	MV145O	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A122	1MOV4145	CONTMT SUMP OUT ISOL	TW	TW0101	MV145P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	UQ	BHEUQ1	Throttle	144
A226	1CV4535	12 S/G AFW FLOW CONT VLV	UQ	BHEUQ1	Throttle	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	TS404D	TS404D	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1CLSE	WC170P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1CLSE	WC171P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1TEMP	TS404R	0
A119	1HXHVACECCS11	ECCS PUMP ROOM AIR COOLER 11	V1	V1TRFR	HX205B	0
A119	1HXHVACECCS11	ECCS PUMP ROOM AIR COOLER 11	V1	V1TRFR	HX205P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC170D	WC170D	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC170O	WC170O	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC171D	WC171D	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC171O	WC171O	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	TS405D	TS405D	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	V2INLT	WC173P	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	V2TEMP	TS405R	0
A118	1HXHVACECCS12	ECCS PUMP ROOM AIR COOLER 12	V2	V2TRFR	HX207B	0
A118	1HXHVACECCS12	ECCS PUMP ROOM AIR COOLER 12	V2	V2TRFR	HX207P	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	WC173D	WC173D	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	WC173O	WC173O	0
A225	1FANHVACECCSE11	11 ECCS PUMP RM EXH (1M1413)	V5	VDF11R	VDF11R	0
A225	1FANHVACECCSE11	11 ECCS PUMP RM EXH (1M1413)	V5	VDF11S	VDF11S	0
A225	1FANHVACECCSE12	12 ECCS PUMP RM EXH (1M0413)	V5	VDF12R	VDF12R	0
A225	1FANHVACECCSE12	12 ECCS PUMP RM EXH (1M0413)	V5	VDF12S	VDF12S	0
A226	1PCV5214	11 CW PP SEAL WTR PCV	VC	VCCW1A	PC214R	0
A226	1PCV5216	12 CW PP SEAL WTR PCV	VC	VCCW2A	PC216R	0
A226	1PCV5218	13 CW PP SEAL WTR PCV	VC	VCCW3A	PC218R	0
A226	1PCV5220	14 CW PP SEAL WTR PCV	VC	VCCW4A	PC220R	0
A226	1PCV5222	15 CW PP SEAL WTR PCV	VC	VCCW5A	PC222R	0
A226	1PCV5224	16 CW PP SEAL WTR PCV	VC	VCCW6A	PC224R	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	VM(RM1)	BHEV1T	Open	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	VM(RM1)	BHEV1T	Open	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	VM(RM2)	BHEV1T	Open	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0

Flood Evaluation Query

CF-08A-F227AM

09-Nov-98

TOP	PM	EVALUATION	RI
CV	F	Conservatively set to failure. CVCS relatively unimportant.	PAJ
DL	Spec Impt	11A and 11B LPSI Loop Isol MOVs (1MOV615 and 1MOV625), Fail to Open on Demand. LPSIs only used in large break LOCAs. Flood cannot cause a large break LOCA, therefore this top is not affected for LPSI's. HPSI MOV'S (1MOV616/617/626/627) fail to open on demand. This valves are normally closed and fail as-is. Flow paths via MOV's 636/637/646/647 are still available, therefore this top is only impacted.	PAJ
F1	none ~~Spec Impt~~	11 and 12 S/G AFW Block Valves fail. These valves are normally open and will fail open. Therefore there is no impact on this top. Flow control valves failing open are addressed in top event HX. Steam admission Control valves 1CV4070/4071 are normally closed, and will fail as-is(closed) on loss of power. Therefore, operators will be unable to open valves. These valves continuously have air (closing the valve). The operators may bleed air to open valve if need be. (note 2)(note 3)	PAJ
F3	None	Steam Admission SV's 1SV4070/4071 are covered under top event F1.	PAJ
HA	F	1MOV617/627 are normally open and fail as-is during this particular scenario. They are normally closed, but when this top event is used, they will be open and need to close in order not to cavitate the HPSI pumps. Other flow paths exist, but we will conservatively fail for now.	PAJ
HB	F	1MOV616/617/626/627 are normally open and fail as-is during this particular scenario. They are normally closed, but when this top event is used, they will be open and need to close in order not to cavitate the HPSI pumps. Other flow paths exist, but we will conservatively fail for now. Operators will be unable to throttle flow.	PAJ
HU	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact.	PAJ
HW	F	1MOV616/617/626/627 are normally open and fail as-is during this particular scenario. They are normally closed, but when this top event is used, they will be open and need to close in order not to cavitate the HPSI pumps. Other flow paths exist, but we will conservatively fail for now.	PAJ
HX	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact.	PAJ
K3	None	1CV3832/3833 fail closed on loss of power and loss of air.	PAJ
K4	None	1CV3832/3833 fail closed on loss of power and loss of air.	PAJ
KS	F	1CV3832/3833 fail closed on loss of power and loss of air.	PAJ

See notes in RAN 98-065 sect. 5.4 gpa

TOP	PM	EVALUATION	RI
M1	6BKR	6 breaker challenges.	PAJ
M2	9BKR	9 breaker challenges.	PAJ
M3	2BKR	2 breaker challenges.	PAJ
~~M4~~	~~1BKR~~	~~1 breaker challenge.~~	~~PAJ~~
MH	Spec Impt	1CV4070/4071 are normally closed and fail as-is on loss of power. These valves must be locally vented.	PAJ
N1	1BKR	1 breaker challenge.	PAJ
N2	1BKR	1 breaker challenge.	PAJ
N3	None	13 Charging Pump is normally aligned to 480V Bus 11A (Top N1). See Key Assumption 393.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
QZ	None	11 & 12 AFW Block valves (1CV4522/4523/4532/4533) are normally open and fail as-is on loss of power.	PAJ
RH	F	This human action requires operators to open 1MOV616/617/626/627. These MOVs are normally closed and fail as-is, therefore not allowing operators to open.	PAJ
SG	None ~~Spec Impt~~	The hydorgen purge hand switches for MOVs 6901/6902/6903 fail. (Note 5) It is assumed that the MOVs will fail to the undesired position. This does impact the top but does not fail it. There is a check valve or MOV downstream of these MOVs that isolate containment.	PAJ
SH	None	All valves either are normally closed or will fail closed. 1MOV2080 has a chech valve downstream of the MOV that isolates containment.	PAJ
SI	None	1CV1411/1413 were deleted. No longer as-built. These valves are normally closed and fail closed on loss of power and loss of air.	PAJ

TOP	PM	EVALUATION	RI
SR	None	1MOV615/625 are normally closed and fail as-is. Both also have a check valve downstream of the MOV to isolate containment.	PAJ
TG	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact. Steam admission Control valves 1CV4070/4071 are normally closed, and will fail as-is(closed) on loss of power. Therefore, operators will be unable to open valves. These valves continuously have air (closing the valve). The operators may bleed air to open valve if need be. Covered under Top F1.	PAJ
UQ	None	1CV4511/4512 will fail open. This top is only fails when an under feed to the SG occurs.	PAJ
VQ	None	1CV38322/3833 fail closed on loss of power and loss of air. 1MOV651 is normally closed and fails as-is.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ
WY	None	1CV1584/1592/1585/1593 fail open on loss of power.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PS224R	PS224R	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	DL	DLA11A	MV617P	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	DL	DLA11B	MV627P	0
A227	1MOV615	11A LPSI LOOP ISOL	DL	DLL11A	MV615O	19
A227	1MOV615	11A LPSI LOOP ISOL	DL	DLL11A	MV615P	19
A227	1MOV625	11B LPSI LOOP ISOL	DL	DLL11B	MV625O	0
A227	1MOV625	11B LPSI LOOP ISOL	DL	DLL11B	MV625P	0
A316	1MOV616	11A HPSI LOOP ISOL	DL	DLM11A	MV616P	0
A316	1MOV626	11B HPSI LOOP ISOL	DL	DLM11B	MV626P	0
A316	1MOV616	11A HPSI LOOP ISOL	DL	MV616O	MV616O	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	DL	MV617O	MV617O	0
A316	1MOV626	11B HPSI LOOP ISOL	DL	MV626O	MV626O	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	DL	MV627O	MV627O	0
A316	1CV4520	11 S/G AFW BLOCK VLV	F1	CV4520	CV520P	0
A316	1SV4520	11 S/G AFW BLOCK SV	F1	CV4520	CV520P	0
A316	1CV4521	11 S/G AFW BLOCK VLV	F1	CV4521	CV521P	0
A316	1SV4521	11 S/G AFW BLOCK SV	F1	CV4521	CV521P	0
A316	1CV4530	12 S/G AFW BLOCK VLV	F1	CV4530	CV530P	0
A316	1SV4530	12 S/G AFW BLOCK SV	F1	CV4530	CV530P	0
A316	1CV4531	12 S/G AFW BLOCK VLV	F1	CV4531	CV531P	0
A316	1SV4531	12 S/G AFW BLOCK SV	F1	CV4531	CV531P	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	F1	F1CV70	C8070O	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	F1	F1CV70	C8070P	0
A316	1SV4070A	11 S/G AFW MAIN STM BYP VALVE	F1	F1CV70	C870AO	0
A227	1SV4071	12 S/G MS TO AFW PP	F1	F1CV71	C8071O	0
A227	1SV4071	12 S/G MS TO AFW PP	F1	F1CV71	C8071P	0
A316	1SV4071A	12 S/G AFW MAIN STM BYP VLV	F1	F1CV71	C871AO	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	F1	F1TLV1	C6511P	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	F1	F1TLV1	C6511P	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	F1	F1TLV1	C6511P	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	F1	F1TLV1	C6511R	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	F1	F1TLV1	C6511R	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	F1	F1TLV1	C6511R	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	F1	F1TLV2	C6512P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	F1	F1TLV2	C6512P	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	F1	F1TLV2	C6512P	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	F1	F1TLV2	C6512R	0
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	F1	F1TLV2	C6512R	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	F1	F1TLV2	C6512R	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	F3	BHEF31	Open	0
A316	1SV4070A	11 S/G AFW MAIN STM BYP VALVE	F3	BHEF31	Open	0
A227	1SV4071	12 S/G MS TO AFW PP	F3	BHEF31	Open	0
A316	1SV4071A	12 S/G AFW MAIN STM BYP VLV	F3	BHEF31	Open	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	HA	HATRTL	MV617C	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	HA	HATRTL	MV617T	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	HA	HATRTL	MV627C	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	HA	HATRTL	MV627T	0
A316	1MOV616	11A HPSI LOOP ISOL	HB	BHEHW1	Throttle	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	HB	BHEHW1	Throttle	0
A316	1MOV626	11B HPSI LOOP ISOL	HB	BHEHW1	Throttle	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	HB	BHEHW1	Throttle	0
A316	1MOV616	11A HPSI LOOP ISOL	HB	HBTRTL	MV616C	0
A316	1MOV616	11A HPSI LOOP ISOL	HB	HBTRTL	MV616T	0
A316	1MOV626	11B HPSI LOOP ISOL	HB	HBTRTL	MV626C	0
A316	1MOV626	11B HPSI LOOP ISOL	HB	HBTRTL	MV626T	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	HU	BHEF1B	Throttle	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	HU	BHEF1B	Throttle	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	HW	HATRTL	MV617C	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	HW	HATRTL	MV617T	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	HW	HATRTL	MV627C	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	HW	HATRTL	MV627T	0
A316	1MOV616	11A HPSI LOOP ISOL	HW	HBTRTL	MV616C	0
A316	1MOV616	11A HPSI LOOP ISOL	HW	HBTRTL	MV616T	0
A316	1MOV626	11B HPSI LOOP ISOL	HW	HBTRTL	MV626C	0
A316	1MOV626	11B HPSI LOOP ISOL	HW	HBTRTL	MV626T	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	HX	BHEF1A	Throttle	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	HX	BHEF1A	Throttle	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A316	1CV3832	CONTMT SUPPLY CV	K3	C3832C	C3832C	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	K3	C3832C	C3832C	0
A316	1CV3832	CONTMT SUPPLY CV	K3	C3832T	C3832T	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	K3	C3832T	C3832T	0
A316	1CV3833	CONTMT RETN CV	K3	C3833C	C3833C	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	K3	C3833C	C3833C	0
A316	1CV3833	CONTMT RETN CV	K3	C3833T	C3833T	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	K3	C3833T	C3833T	0
A316	1CV3832	CONTMT SUPPLY CV	K4	C3832C	C3832C	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	K4	C3832C	C3832C	0
A316	1CV3832	CONTMT SUPPLY CV	K4	C3832T	C3832T	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	K4	C3832T	C3832T	0
A316	1CV3833	CONTMT RETN CV	K4	C3833C	C3833C	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	K4	C3833C	C3833C	0
A316	1CV3833	CONTMT RETN CV	K4	C3833T	C3833T	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	K4	C3833T	C3833T	0
A316	1CV3832	CONTMT SUPPLY CV	KS	KSCV32	C3832P	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	KS	KSCV32	C3832P	0
A316	1CV3833	CONTMT RETN CV	KS	KSCV33	C3833P	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	KS	KSCV33	C3833P	0
A316	1MOV616	11A HPSI LOOP ISOL	M1	MVM16Q	MVM16Q	0
A316	1MOV626	11B HPSI LOOP ISOL	M1	MVM17Q	MVM17Q	0
A316	1MOV6200	NO 1 CNTMT ISOL VLV	M1	MVM23Q	MVM23Q	0
A316	1MOV6903	H2 PURGE REPLACE AIR CONTMT ISOL	M1	MVM52Q	MVM52Q	0
A316	1MOV6902	H2 PURGE FLOW CONTROL DAMPER	M1	MVM56Q	MVM56Q	0
A316	1FANHP11	H2 PURGE REP BLOWER (1M0403)	M1	VAM03Q	VAM03Q	0
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A227	1MOV615	11A LPSI LOOP ISOL	M2	MVN07Q	MVN07Q	19
A227	1MOV625	11B LPSI LOOP ISOL	M2	MVN08Q	MVN08Q	0
A316	1MOV6901	H2 PURGE CONTMT ISOL (PER RM SIDE)	M2	MVN14Q	MVN14Q	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	M2	MVN16Q	MVN16Q	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	M2	MVN17Q	MVN17Q	0
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A316	1MOV2080	CNTMT IA ISOLATION MOV	M2	MVN53Q	MVN53Q	0
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	MH	BHEF11	Open	0
A227	1SV4071	12 S/G MS TO AFW PP	MH	BHEF11	Open	0
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A316	1CV4520	11 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	0
A316	1CV4521	11 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	0
A316	1CV4530	12 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	0
A316	1CV4531	12 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	0
A316	1SV4520	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A316	1SV4521	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A316	1SV4530	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A316	1SV4531	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A316	1MOV616	11A HPSI LOOP ISOL	RH	BHERH1	Open	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	RH	BHERH1	Open	0
A316	1MOV626	11B HPSI LOOP ISOL	RH	BHERH1	Open	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	RH	BHERH1	Open	0
A316	1MOV6901	H2 PURGE CONTMT ISOL (PER RM SIDE)	SG	MV691C	MV691C	0
A316	1MOV6901	H2 PURGE CONTMT ISOL (PER RM SIDE)	SG	MV691T	MV691T	0
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0

Flood Evaluation Query

CF-08B-F227AN *

09-Nov-98

TOP	PM	EVALUATION	RI
AA	4BKR	4 breaker challenges.	PAJ
AB	4BKR	4 breaker challenges.	PAJ
AC	3BKR	3 breaker challenges.	PAJ
AD	5BKR	5 breaker challenges.	PAJ
CS	F	CS Pump 11 is lost.	PAJ
CT	F	CS Pump 12 is lost.	PAJ
CV	F	Conservatively set to failure. CVCS relatively unimportant.	PAJ
DL	Spec Impt	11A and 11B LPSI Loop Isol MOVs (1MOV615 and 1MOV625), Fail to Open on Demand. LPSIs only used in large break LOCAs. Flood cannot cause a large break LOCA, therefore this top is not affected for LPSI's. HPSI MOV'S (1MOV616/617/626/627) fail to open on demand. This valves are normally closed and fail as-is. Flow paths via MOV's 636/637/646/647 are still available, therefore this top is only impacted.	PAJ
F1	Spec Impt	11 and 12 S/G AFW Block Valves fail. These valves are normally open and will fail open. Therefore there is no impact on this top. Flow control valves failing open are addressed in top event HX. Steam admission Control valves 1CV4070/4071 are normally closed, and will fail as-is(closed) on loss of power. Therefore, operators will be unable to open valves. These valves continuously have air (closing the valve). The operators may bleed air to open valve if need be.	PAJ
F3	None	Steam Admission SV's 1SV4070/4071 are covered under top event F1.	PAJ
F7	F	Lost the ability to use Unit 1 AFW MD Pump 13 to supply Unit 1 S/G.	PAJ
F9	F	Loss the ability to use Unit 2 AFW MD Pump 23 to supply Unit 1 S/G. Also, 21 and 22 S/G AFW Block and Flow Valves fail. These valves are normally open and fail as-is (open) on loss of power.	PAJ
FH	None	Loss the ability to start AFW MD Pump 13. Covered under Top F7.	PAJ
FN	None	Only has 2 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
GW	None	2CV5152, 2CV5153 and 2CV5212 fail open on loss of power and loss of air.	PAJ

* This flood is deleted. See note 12 in RAN 98-065 Sect. 5.4 JDR.

TOP	PM	EVALUATION	RI
GZ	None	2CV5150 and 2CV5210 fail open on loss of power and loss of air.	PAJ
HA	F	11 HPSI Pump fails.	PAJ
HB	F	13 HPSI Pump fails.	PAJ
HU	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact.	PAJ
HW	F	12 HPSI is lost. Also 1MOV653, 1MOV654, 1MOV655 and 1MOV656 fail as-is.	PAJ
HX	None	11 and 12 S/G AFW (motor driven feed line) flow control valves fail open. Impact already considered by Top F7 & F9 failure.	PAJ
K3	None	1CV5210 fails open on loss of power and loss of air. During a RAS, this valve needs to open for recirulation. It is assumed (Per Rob) that this top event will not fail during smaller LOCA size breaks.	PAJ
K4	None	1CV5212 fails open on loss of power and loss of air. During a RAS, this valve needs to open for recirulation. It is assumed (Per Rob) that this top event will not fail during smaller LOCA size breaks.	PAJ
KS	F	1CV3832/3833 fail closed on loss of power and loss of air.	PAJ
M1	13BKR	13 breaker challenges.	PAJ
M2	16BKR	16 breaker challenges.	PAJ
M3	9BKR	9 breaker challenges.	PAJ
~~M4~~	~~5BKR~~	~~5 breaker challenges.~~	~~PAJ~~
MH	Spec Impt	1CV4070/4071 are normally closed and fail as-is on loss of power. These valves must be locally vented.	PAJ
MN	None	Has 6 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
MV	None	1MOV659/660 fail as-is and are normally electrically locked open, there will be no flood impact.	PAJ
N1	1BKR	1 breaker challenge.	PAJ
N2	1BKR	1 breaker challenge.	PAJ

TOP	PM	EVALUATION	RI
N3	None	13 Charging Pump is normally aligned to 480V Bus 11A (Top N1). See Key Assumption 393.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
NR(TC)	Spec Impt	2CV1600/1637/1638/1639 fail close on loss of power, the undesirable position. Unable to use Unit 2 compressors for Unit 1.	PAJ
NS	Spec Impt	2CV1600/1637/1638/1639 fail close on loss of power, the undesirable position. Unable to use Unit 2 compressors for Unit 2.	PAJ
QZ	None	11 & 12 AFW Block valves (1CV4522/4523/4532/4533) are normally open and fail as-is on loss of power.	PAJ
RH	F	This human action requires the operator to start 11 and 13 HPSI Pumps. Both pumps are assumed not to start/run during a flood scenario.	PAJ
S3	None	All valves fail to their appropriate positions on loss of power and loss of air. 1CV5148 (FO), 1CV5148A (FC), 1CV5151 (FO), 1CV5151A (FC) and 1CV5209 (FO).	PAJ
S4	None	All valves fail to their appropriate positions on loss of power and loss of air. 1CV5158 (FO), 1CV5158A (FC), 1CV5159 (FO), 1CV5159A (FC), 1CV5211 (FO), 1CV5153 (FO) and 1CV5157 (FC).	PAJ
SG	Spec Impt	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment.	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ
SI	None	1CV1411/1413 were deleted. No longer as-built. These valves are normally closed and fail closed on loss of power and loss of air.	PAJ
SR	None	All MOVs (1MOV4144/4145/5462/5463/615/625) are closed and fail close.	PAJ

TOP	PM	EVALUATION	RI
TA	F	1CV1637/1639 fail close on loss of power / loss of air.	PAJ
TB	F	1CV1600/1638 fail close on loss of power / loss of air.	PAJ
TE	F	1MOV4144 is normally in the closed position and will fail as-is. Therefore, the East Recirculation Header will not function properly.	PAJ
TG	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact. Steam admission Control valves 1CV4070/4071 are normally closed, and will fail as-is(closed) on loss of power. Therefore, operators will be unable to open valves. These valves continuously have air (closing the valve). The operators may bleed air to open valve if need be. Covered under Top F1.	PAJ
TH(HD1)	None	1CV5206/5210 will fail to there appropriate position not allowing the operator to throttle valves. Covered by Top S3 or K3.	PAJ
TH(HD2)	None	1CV5208/5212 will fail to there appropriate position not allowing the operator to throttle valves. Covered by Top S4 or K4.	PAJ
TW	F	1MOV4145 is normally in the closed position and will fail as-is. Therefore, the West Recirculation Header will not function properly.	PAJ
UQ	None	1CV4511/4512/4525/4535 will fail open. This top is only fails when an under feed to the SG occurs.	PAJ
V1	F	All ECCS Pump Room Fans fail to start/run.	PAJ
V2	F	All ECCS Pump Room Fans fail to start/run.	PAJ
VC	None	Has 6 PCVs. I am assuming that these will not fail during a flood.	PAJ
VM(RM1)	None	Operator will be unable to start ECCS Pump Room Fans. Covered under Top V1.	PAJ
VM(RM2)	None	Operator will be unable to start ECCS Pump Room Fans. Covered under Top V2.	PAJ
VQ	None	1CV38322/3833 fail closed on loss of power and loss of air. 1MOV651 is normally closed and fails as-is.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ
WY	None	1CV1584/1592/1585/1593 fail open on loss of power.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	AA	MAAF3Q	MAAF3Q	16
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	AA	MACS1Q	MACS1Q	12
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	AA	MAHP1Q	MAHP1Q	24
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	AA	MAHP3Q	MAHP3Q	12
A119	1PUMPSILPSI11	11 LOW PRESS SAFETY INJECTION PUMP (1MA104)	AA	MALP1Q	MALP1Q	12
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	AB	MACS2Q	MACS2Q	12
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	AB	MAHP2Q	MAHP2Q	24
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	AB	MAHP4Q	MAHP4Q	12
A118	1PUMPSILPSI12	12 LOW PRESS SAFETY INJECTION PUMP (1MA404)	AB	MALP2Q	MALP2Q	12
A101	2PUMPSICS21	21 CONTAINMENT SPRAY PUMP (2MA107)	AC	MACS3Q	MACS3Q	24
A101	2PUMPHPSI21	SI HPSI PUMP 21 (2MA108)	AC	MAHP5Q	MAHP5Q	24
A102	2PUMPHPSI23	SI HPSI PUMP 23 (2MA110)	AC	MAHP7Q	MAHP7Q	12
A101	2PUMPSILPSI21	21 LOW PRESS SAFETY INJECTION PUMP (2MA104)	AC	MALP3Q	MALP3Q	39
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	AD	MAAF6Q	MAAF6Q	16
A102	2PUMPSICS22	22 CONTAINMENT SPRAY PUMP (2MA407)	AD	MACS4Q	MACS4Q	12
A101	2PUMPHPSI22	SI HPSI PUMP 22 (2MA408)	AD	MAHP6Q	MAHP6Q	24
A102	2PUMPHPSI23	SI HPSI PUMP 23 (2MA110)	AD	MAHP8Q	MAHP8Q	12
A102	2PUMPSILPSI22	22 LOW PRESS SAFETY INJECTION PUMP (2MA404)	AD	MALP4Q	MALP4Q	12
A119	1HXSICS11	11 SHUTDOWN COOLING HX	CS	CS0103	HXC11B	0
A119	1HXSICS11	11 SHUTDOWN COOLING HX	CS	CS0103	HXC11P	0
A119	1MOV663	SDC RECIRC TO 11 HPSI PP	CS	CS0103	MV663T	0
A119	1CV3828	11 SDC HX OUTLET	CS	CSHX11	CV828P	0
A119	1SV3828	S/D HX 11 COOL WTR DISCH VLV	CS	CSHX11	CV828P	0
A119	1CV3828	11 SDC HX OUTLET	CS	CV828O	CV828O	0
A119	1SV3828	S/D HX 11 COOL WTR DISCH VLV	CS	CV828O	CV828O	0
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	CS	MA107R	MA107R	12
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	CS	MA107S	MA107S	12
A118	1HXSICS12	12 SHUTDOWN COOLING HX	CT	CT0103	HXC12B	0
A118	1HXSICS12	12 SHUTDOWN COOLING HX	CT	CT0103	HXC12P	0
A118	1MOV662	SDC RECIRC TO 13 HPSI PP	CT	CT0103	MV662T	0
A118	1CV3830	12 SDC HX OUTLET	CT	CTXH12	CV830P	0
A118	1SV3830	S/D HX #12 COMP CLG DISCH VLV	CT	CTXH12	CV830P	0
A118	1CV3830	12 SDC HX OUTLET	CT	CV830O	CV830O	0
A118	1SV3830	S/D HX #12 COMP CLG DISCH VLV	CT	CV830O	CV830O	0
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	CT	MA407R	MA407R	12
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	CT	MA407S	MA407S	12
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PS224R	PS224R	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	DL	DLA11A	MV617P	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	DL	DLA11B	MV627P	0
A227	1MOV615	11A LPSI LOOP ISOL	DL	DLL11A	MV615O	19
A227	1MOV615	11A LPSI LOOP ISOL	DL	DLL11A	MV615P	19
A227	1MOV625	11B LPSI LOOP ISOL	DL	DLL11B	MV625O	0
A227	1MOV625	11B LPSI LOOP ISOL	DL	DLL11B	MV625P	0
A316	1MOV616	11A HPSI LOOP ISOL	DL	DLM11A	MV616P	0
A316	1MOV626	11B HPSI LOOP ISOL	DL	DLM11B	MV626P	0
A316	1MOV616	11A HPSI LOOP ISOL	DL	MV616O	MV616O	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	DL	MV617O	MV617O	0
A316	1MOV626	11B HPSI LOOP ISOL	DL	MV626O	MV626O	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	DL	MV627O	MV627O	0
A316	1CV4520	11 S/G AFW BLOCK VLV	F1	CV4520	CV520P	0
A316	1SV4520	11 S/G AFW BLOCK SV	F1	CV4520	CV520P	0
A316	1CV4521	11 S/G AFW BLOCK VLV	F1	CV4521	CV521P	0
A316	1SV4521	11 S/G AFW BLOCK SV	F1	CV4521	CV521P	0
A226	1SV4522	11 S/G AFW BLOCK SV	F1	CV4522	CV522P	0
A226	1SV4523	11 S/G AFW BLOCK SV	F1	CV4523	CV523P	0
A316	1CV4530	12 S/G AFW BLOCK VLV	F1	CV4530	CV530P	0
A316	1SV4530	12 S/G AFW BLOCK SV	F1	CV4530	CV530P	0
A316	1CV4531	12 S/G AFW BLOCK VLV	F1	CV4531	CV531P	0
A316	1SV4531	12 S/G AFW BLOCK SV	F1	CV4531	CV531P	0
A226	1SV4532	12 S/G AFW BLOCK SV	F1	CV4532	CV532P	0
A226	1SV4533	12 S/G AFW BLOCK SV	F1	CV4533	CV533P	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	F1	F1CV70	C8070O	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	F1	F1CV70	C8070P	0
A316	1SV4070A	11 S/G AFW MAIN STM BYP VALVE	F1	F1CV70	C870AO	0
A227	1SV4071	12 S/G MS TO AFW PP	F1	F1CV71	C8071O	0
A227	1SV4071	12 S/G MS TO AFW PP	F1	F1CV71	C8071P	0
A316	1SV4071A	12 S/G AFW MAIN STM BYP VLV	F1	F1CV71	C871AO	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	F1	F1TLV1	C6511P	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	F1	F1TLV1	C6511P	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	F1	F1TLV1	C6511P	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	F1	F1TLV1	C6511R	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	F1	F1TLV1	C6511R	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	F1	F1TLV1	C6511R	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	F1	F1TLV2	C6512P	0
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	F1	F1TLV2	C6512P	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	F1	F1TLV2	C6512P	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	F1	F1TLV2	C6512R	0
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	F1	F1TLV2	C6512R	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	F1	F1TLV2	C6512R	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	F3	BHEF31	Open	0
A316	1SV4070A	11 S/G AFW MAIN STM BYP VALVE	F3	BHEF31	Open	0
A227	1SV4071	12 S/G MS TO AFW PP	F3	BHEF31	Open	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A316	1SV4071A	12 S/G AFW MAIN STM BYP VLV	F3	BHEF31	Open	0
A226	1SV4550	U-1 TO U-2 AFW X-CONN SV	F7	F7MPVA	C3550T	0
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QR	MA13QR	16
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QS	MA13QS	16
A205	2SV4522	S/G 21 AFW MOTOR SYS ISOL VLV	F9	CVB22C	CVB22C	0
A205	2SV4523	S/G 21 AFW MOTOR SYS ISOL VLV	F9	CVB23C	CVB23C	0
A205	2SV4532	S/G 22 AFW MOTOR SYS ISOL VLV	F9	CVB32C	CVB32C	0
A205	2SV4533	S/G 22 AFW MOTOR SYS ISOL VLV	F9	CVB33C	CVB33C	0
A205	2SV4550	U-2 AUX FEED X-CONN VLV	F9	F9M2VA	C3B50O	0
A205	2SV4550	U-2 AUX FEED X-CONN VLV	F9	F9M2VA	C3B50P	0
A205	2SV4522	S/G 21 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB22T	0
A205	2SV4523	S/G 21 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB23T	0
A205	2SV4532	S/G 22 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB32T	0
A205	2SV4533	S/G 22 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB33T	0
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	F9	MA23QR	MA23QR	16
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	F9	MA23QS	MA23QS	16
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	FH	BHEF71	Start	16
A226	1PCV4512	1 IA SUPP ACCUM 11A & 11B PCV	FN	FN0000	CV512P	0
A226	1PCV4520	11B AFW AIR ACCUMULATOR OUTLET PCV	FN	FN0000	CV520P	0
A205	2I/P5212	SALT WTR OUT SERV WTR HTEX	GW	C2S12O	C2S12O	0
A205	2SV5212	SERV WTR HTEX 22 SALT WTR OUT	GW	C2S12O	C2S12O	0
A205	2SV5212A	SERV WTR HTEX 22 SALT WTR OUT	GW	C2S12O	C2S12O	0
A205	2SV5152	SERV WTR HTEX 22 SALT WTR INLT	GW	S8CV52	C1S52P	0
A205	2CV5153	22 SRW HX SW NORM B/U OUTLET	GW	S8H2CV	C1S53P	20
A205	2SV5153	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C1S53P	0
A205	2I/P5212	SALT WTR OUT SERV WTR HTEX	GW	S8H2CV	C2S12P	0
A205	2SV5212	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C2S12P	0
A205	2SV5212A	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C2S12P	0
A205	2SV5150	SERV WTR HTEX 21 SALT WTR INLT	GZ	S7H2CV	C1S50P	0
A205	2I/P5210	SALT WTR OUT SERV WTR HTEX	GZ	S7H2CV	C2S10P	0
A205	2SV5210	SERV WTR HTEX 21 SALT WTR OUT	GZ	S7H2CV	C2S10P	0
A205	2SV5210A	SERV WTR HTEX 21 SALT WTR OUT	GZ	S7H2CV	C2S10P	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1AB	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1AP	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1BB	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1BP	0
A119	1HXSTF/BOX11A	HPSI PUMP 11	HA	HA1CCW	HXS1AB	0
A119	1HXSTF/BOX11A	HPSI PUMP 11	HA	HA1CCW	HXS1AP	0
A119	1HXSTF/BOX11B	HPSI PUMP 11	HA	HA1CCW	HXS1BB	0
A119	1HXSTF/BOX11B	HPSI PUMP 11	HA	HA1CCW	HXS1BP	0
A119	1HX109	#11 HPSI PP SEAL COOLER	HA	HA1CCW	HXSC1B	0
A119	1HX109	#11 HPSI PP SEAL COOLER	HA	HA1CCW	HXSC1P	0
A119	1MOV656	AUX HPSI HDR ISOL	HA	HADISA	MV656P	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	HA	HATRTL	MV617C	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	HA	HATRTL	MV617T	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	HA	HATRTL	MV627C	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	HA	HATRTL	MV627T	0
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	HA	MA011R	MA011R	24
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	HA	MA011S	MA011S	24
A316	1MOV616	11A HPSI LOOP ISOL	HB	BHEHW1	Throttle	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	HB	BHEHW1	Throttle	0
A316	1MOV626	11B HPSI LOOP ISOL	HB	BHEHW1	Throttle	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	HB	BHEHW1	Throttle	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3AB	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3AP	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3BB	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3BP	0
A118	1HXSTF/BOX13A	HPSI PUMP 13	HB	HB3CCW	HXS3AB	0
A118	1HXSTF/BOX13A	HPSI PUMP 13	HB	HB3CCW	HXS3AP	0
A118	1HXSTF/BOX13B	HPSI PUMP 13	HB	HB3CCW	HXS3BB	0
A118	1HXSTF/BOX13B	HPSI PUMP 13	HB	HB3CCW	HXS3BP	0
A118	1HX111	#13 HPSI PP SEAL COOLER	HB	HB3CCW	HXSC3B	0
A118	1HX111	#13 HPSI PP SEAL COOLER	HB	HB3CCW	HXSC3P	0
A316	1MOV616	11A HPSI LOOP ISOL	HB	HBTRTL	MV616C	0
A316	1MOV616	11A HPSI LOOP ISOL	HB	HBTRTL	MV616T	0
A316	1MOV626	11B HPSI LOOP ISOL	HB	HBTRTL	MV626C	0
A316	1MOV626	11B HPSI LOOP ISOL	HB	HBTRTL	MV626T	0
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	HB	MA013R	MA013R	12
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	HB	MA013S	MA013S	12
A118	1MOV654	HPSI HDR ISOL	HB	MV654P	MV654P	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	HU	BHEF1B	Throttle	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	HU	BHEF1B	Throttle	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A118	1PUMPHPSI12	12 HIGH PRESS SAFETY INJECTION PUMP	HW	BHEHW1	Start	12
A119	1MOV656	AUX HPSI HDR ISOL	HW	HADISA	MV656P	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	HW	HATRTL	MV617C	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	HW	HATRTL	MV617T	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	HW	HATRTL	MV627C	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	HW	HATRTL	MV627T	0
A316	1MOV616	11A HPSI LOOP ISOL	HW	HBTRTL	MV616C	0
A316	1MOV616	11A HPSI LOOP ISOL	HW	HBTRTL	MV616T	0
A316	1MOV626	11B HPSI LOOP ISOL	HW	HBTRTL	MV626C	0
A316	1MOV626	11B HPSI LOOP ISOL	HW	HBTRTL	MV626T	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2AB	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2AP	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2BB	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2BP	0
A118	1HXSTF/BOX12A	HPSI PUMP 12	HW	HW1CCW	HXS2AB	0
A118	1HXSTF/BOX12A	HPSI PUMP 12	HW	HW1CCW	HXS2AP	0
A118	1HXSTF/BOX12B	HPSI PUMP 12	HW	HW1CCW	HXS2BB	0
A118	1HXSTF/BOX12B	HPSI PUMP 12	HW	HW1CCW	HXS2BP	0
A119	1HX409	#12 HPSI PP SEAL COOLER	HW	HW1CCW	HXSC2B	0
A119	1HX409	#12 HPSI PP SEAL COOLER	HW	HW1CCW	HXSC2P	0
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	HW	MA012R	MA012R	24
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	HW	MA012S	MA012S	24
A118	1MOV653	HPSI HDR X-CONN	HW	MV653O	MV653O	0
A118	1MOV653	HPSI HDR X-CONN	HW	MV653P	MV653P	0
A118	1MOV654	HPSI HDR ISOL	HW	MV654P	MV654P	0
A119	1MOV655	HPSI HDR X-CONN	HW	MV655P	MV655P	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	HX	BHEF1A	Throttle	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	HX	BHEF1A	Throttle	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	C2210C	C2210C	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	C2210C	C2210C	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0
A226	1ZC5210	1CV5210 POSITIONER	K3	C2210C	C2210C	0
A316	1CV3832	CONTMT SUPPLY CV	K3	C3832C	C3832C	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	K3	C3832C	C3832C	0
A316	1CV3832	CONTMT SUPPLY CV	K3	C3832T	C3832T	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	K3	C3832T	C3832T	0
A316	1CV3833	CONTMT RETN CV	K3	C3833C	C3833C	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	K3	C3833C	C3833C	0
A316	1CV3833	CONTMT RETN CV	K3	C3833T	C3833T	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	K3	C3833T	C3833T	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	K3CLOS	C2210T	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	K3CLOS	C2210T	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1ZC5210	1CV5210 POSITIONER	K3	K3CLOS	C2210T	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	C2212C	C2212C	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	C2212C	C2212C	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1ZC5212	1CV5212 POSITIONER	K4	C2212C	C2212C	0
A316	1CV3832	CONTMT SUPPLY CV	K4	C3832C	C3832C	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	K4	C3832C	C3832C	0
A316	1CV3832	CONTMT SUPPLY CV	K4	C3832T	C3832T	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	K4	C3832T	C3832T	0
A316	1CV3833	CONTMT RETN CV	K4	C3833C	C3833C	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	K4	C3833C	C3833C	0
A316	1CV3833	CONTMT RETN CV	K4	C3833T	C3833T	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	K4	C3833T	C3833T	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	K4ISO1	C2212T	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	K4ISO1	C2212T	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1ZC5212	1CV5212 POSITIONER	K4	K4ISO1	C2212T	0
A316	1CV3832	CONTMT SUPPLY CV	KS	KSCV32	C3832P	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	KS	KSCV32	C3832P	0
A316	1CV3833	CONTMT RETN CV	KS	KSCV33	C3833P	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	KS	KSCV33	C3833P	0
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	M1	M1FPPR	VD48AQ	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	M1	M1FPPR	VD48BQ	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	M1	M1FPPR	VD48CQ	22
A316	1MOV616	11A HPSI LOOP ISOL	M1	MVM16Q	MVM16Q	0
A316	1MOV626	11B HPSI LOOP ISOL	M1	MVM17Q	MVM17Q	0
A118	1MOV654	HPSI HDR ISOL	M1	MVM21Q	MVM21Q	0
A118	1MOV653	HPSI HDR X-CONN	M1	MVM22Q	MVM22Q	0
A316	1MOV6200	NO 1 CNTMT ISOL VLV	M1	MVM23Q	MVM23Q	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	M1	MVM30Q	MVM30Q	0
A118	1MOV660	MINI FLOW RETN TO RWT	M1	MVM32Q	MVM32Q	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	M1	MVM44Q	MVM44Q	0
A316	1MOV6903	H2 PURGE REPLACE AIR CONTMT ISOL	M1	MVM52Q	MVM52Q	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A316	1MOV6902	H2 PURGE FLOW CONTROL DAMPER	M1	MVM56Q	MVM56Q	0
A316	1FANHP11	H2 PURGE REP BLOWER (1M0403)	M1	VAM03Q	VAM03Q	0
A226	1FAN5334	SRW HX RM EXH FAN 18B (1M0451)	M1	VDM51Q	VDM51Q	0
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	M2	M2FPPR	VD48AQ	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	M2	M2FPPR	VD48BQ	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	M2	M2FPPR	VD48CQ	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	M2	M2FPPR	VD48DQ	22
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A227	1MOV615	11A LPSI LOOP ISOL	M2	MVN07Q	MVN07Q	19
A227	1MOV625	11B LPSI LOOP ISOL	M2	MVN08Q	MVN08Q	0
A316	1MOV6901	H2 PURGE CONTMT ISOL (PER RM SIDE)	M2	MVN14Q	MVN14Q	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	M2	MVN16Q	MVN16Q	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	M2	MVN17Q	MVN17Q	0
A119	1MOV656	AUX HPSI HDR ISOL	M2	MVN21Q	MVN21Q	0
A119	1MOV655	HPSI HDR X-CONN	M2	MVN22Q	MVN22Q	0
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A118	1MOV659	MINI FLOW RETN TO RWT	M2	MVN32Q	MVN32Q	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	M2	MVN44Q	MVN44Q	0
A316	1MOV2080	CNTMT IA ISOLATION MOV	M2	MVN53Q	MVN53Q	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	M2	MVN57Q	MVN57Q	0
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A226	1FAN5335	SRW HTEX RM FAN VU-18A (1M1441)	M2	VDN41Q	VDN41Q	0
A102	2FAN0448A	ECCS PP RM CLR 22 FAN A (2M0448A)	M3	M3FPPR	VD48AQ	22
A102	2FAN0448B	ECCS PP RM CLR 22 FAN B (2M0448B)	M3	M3FPPR	VD48BQ	22
A102	2FAN0448C	ECCS PP RM CLR 22 FAN C (2M0448C)	M3	M3FPPR	VD48CQ	22
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A102	2MOV654	HPSI HDR ISOL	M3	MVO21Q	MVO21Q	0
A102	2MOV653	HPSI HDR X-CONN	M3	MVO22Q	MVO22Q	0
A120	2MOV5463	U-2 CONTMT RECIRC PIPE TUNNEL	M3	MVO30Q	MVO30Q	0
A102	2MOV660	MINI FLOW RETN TO RWT	M3	MVO32Q	MVO32Q	0
A120	2MOV4145	CONTMT SUMP OUTLET ISOL	M3	MVO44Q	MVO44Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A205	2FAN5334	SRW HX RM EXH FAN 19B (2M0451)	M3	VDO51Q	VDO51Q	0
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32
A102	2MOV659	MINI FLOW RETN TO RWT	M4	MVN32Q	MVN32Q	0
A120	2MOV4144	CONTMT SUMP OUTLET ISOL	M4	MVN44Q	MVN44Q	0
A120	2MOV5462	U-2 CONTMT RECIRC PIPE TUNNEL	M4	MVN57Q	MVN57Q	0
A205	2FAN5335	SRW HX RM SPLY FAN 19A (2M1437)	M4	VDN37Q	VDN37Q	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	MH	BHEF1I	Open	0
A227	1SV4071	12 S/G MS TO AFW PP	MH	BHEF1I	Open	0
A226	1PCV5000	11 SGFP BRG OIL PRESS REG VLV	MN	MNFW58	PC000R	0
A226	1PCV4993	11 SGFPT CONT OIL PRESS REG	MN	MNFW58	PC993R	0
A226	1PCV4999	11 SGFPT OIL PRESS REG VLV	MN	MNFW58	PC999R	0
A226	1PCV5043	12 SGFP TLO PP DISCH PCV	MN	MNFW68	PC043R	0
A226	1PCV5048	12 SGFP TLO RESERVOIR INLET PCV	MN	MNFW68	PC048R	0
A226	1PCV5049	12 FW SGFP TLO TO PP BRGS PCV	MN	MNFW68	PC049R	0
A118	1MOV659	MINI FLOW RETN TO RWT	MV	MV0A11	MV659P	0
A118	1MOV659	MINI FLOW RETN TO RWT	MV	MV0A11	MV659X	0
A118	1MOV660	MINI FLOW RETN TO RWT	MV	MV0A11	MV660P	0
A118	1MOV660	MINI FLOW RETN TO RWT	MV	MV0A11	MV660X	0
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A205	2SV1637	TURB & EHC OIL SERV WTR ISOL VLV	NR(TC)	UNIT 2-TAFB01	C3637P	0
A205	2SV1639	TURB LUB & EHC OIL SERVWTR ISO	NR(TC)	UNIT 2-TAFB01	C3639P	0
A205	2SV1600	TURB BLDG SERV WTR ISOL VLV	NR(TC)	UNIT 2-TBFB01	C3600P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NR(TC)	UNIT 2-TBFB01	C3638P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NS	NSSRW	N/A	0
A205	2SV1637	TURB & EHC OIL SERV WTR ISOL VLV	NS	UNIT 2-TAFB01	C3637P	0
A205	2SV1639	TURB LUB & EHC OIL SERVWTR ISO	NS	UNIT 2-TAFB01	C3639P	0
A205	2SV1600	TURB BLDG SERV WTR ISOL VLV	NS	UNIT 2-TBFB01	C3600P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NS	UNIT 2-TBFB01	C3638P	0
A316	1CV4520	11 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	0
A316	1CV4521	11 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	0
A316	1CV4530	12 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	0
A316	1CV4531	12 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	0
A316	1SV4520	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A316	1SV4521	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4522	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4523	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A316	1SV4530	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A316	1SV4531	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4532	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4533	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A316	1MOV616	11A HPSI LOOP ISOL	RH	BHERH1	Open	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	RH	BHERH1	Open	0
A316	1MOV626	11B HPSI LOOP ISOL	RH	BHERH1	Open	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	RH	BHERH1	Open	0
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	RH	BHERH1	Start	24
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	RH	BHERH1	Start	12
A226	1SV5150	SERV WTR HTEX 11 SALT WTR INLT	S3	C1150P	C1150P	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148C	C2148C	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148C	C2148C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148C	C2148C	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148O	C2148O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148T	C2148T	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148T	C2148T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148T	C2148T	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151C	C2151C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151C	C2151C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151C	C2151C	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151C	C2151C	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	C2151O	C2151O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151O	C2151O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151O	C2151O	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	C2151O	C2151O	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151T	C2151T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151T	C2151T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151T	C2151T	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151T	C2151T	0
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AB	0
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AP	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BB	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BP	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1AV	C2148P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1CV5209	11A SRW HX SALT WATER OUTLET VLV	S3	S3H1AV	C2209P	0
A226	1FIC5209	11A SRW HX SW OUTLET FLOW INDICATOR	S3	S3H1AV	C2209P	0
A226	1P/P5209	1CV5209 A/S VOLUME BOOSTER	S3	S3H1AV	C2209P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2209P	0
A226	1SV5209	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1SV5209A	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1BV	C2151P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1BV	C2151P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1BV	C2151P	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	S3H1BV	C2151P	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	S3	S3H1BV	C2210P	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	S3	S3H1BV	C2210P	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1ZC5210	1CV5210 POSITIONER	S3	S3H1BV	C2210P	0
A226	1CV5153	12 SRW HX SW NORM B/U OUTLET	S4	C1153P	C1153P	20
A226	1SV5153	SERV WTR HTEX 12 SALT WTR OUT	S4	C1153P	C1153P	0
A226	1CV5157	12A/12B SRW HX SALT WATER OUTLET VLV	S4	C2157T	C2157T	0
A226	1I/P5157	12A/12B SRW HX SW OUT I/P	S4	C2157T	C2157T	0
A226	1P/P5157	1CV5157 A/S VOLUME BOOSTER	S4	C2157T	C2157T	0
A226	1SV5157	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1SV5157A	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1ZC5157	1CV5157 POSITIONER	S4	C2157T	C2157T	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158C	C2158C	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158C	C2158C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158C	C2158C	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	C2158O	C2158O	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158O	C2158O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	C2158O	C2158O	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158T	C2158T	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158T	C2158T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158T	C2158T	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159C	C2159C	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159C	C2159C	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	C2159O	C2159O	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	C2159O	C2159O	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159T	C2159T	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159T	C2159T	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	C2212O	C2212O	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	C2212O	C2212O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2212O	C2212O	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1ZC5212	1CV5212 POSITIONER	S4	C2212O	C2212O	0
A226	1SV5152	SERV WTR HTEX 12 SALT WTR INLT	S4	S4CV52	C1152P	0
A226	1HVSRW-707	MANUAL SRW INLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW707P	0
A226	1HVSRW-708	MANUAL SRW OUTLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW708P	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AB	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AP	0
A226	1HVSRW-709	MANUAL SRW INLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW709P	0
A226	1HVSRW-710	MANUAL SRW OUTLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW710P	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BB	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BP	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2AV	C2158P	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	S4H2AV	C2158P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	S4H2AV	C2158P	0
A226	1CV5211	12A SRW HX SALT WATER OUTLET VLV	S4	S4H2AV	C2211P	0
A226	1FIC5211	12A SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2AV	C2211P	0
A226	1P/P5211	1CV5211 A/S VOLUME BOOSTER	S4	S4H2AV	C2211P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2211P	0
A226	1SV5211	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1SV5211A	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1ZC5211	1CV5211 POSITIONER	S4	S4H2AV	C2211P	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2BV	C2159P	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	S4H2BV	C2159P	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2BV	C2212P	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	S4H2BV	C2212P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2212P	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1ZC5212	1CV5212 POSITIONER	S4	S4H2BV	C2212P	0
A316	1MOV6901	H2 PURGE CONTMT ISOL (PER RM SIDE)	SG	MV691C	MV691C	0
A316	1MOV6901	H2 PURGE CONTMT ISOL (PER RM SIDE)	SG	MV691T	MV691T	0
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0
A316	1MOV6902	H2 PURGE FLOW CONTROL DAMPER	SG	SGMV01	MV692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0
A316	1MOV6903	H2 PURGE REPLACE AIR CONTMT ISOL	SG	SGMV02	MV693T	0
A316	1CV5292	CONTMT ATMOS SMPL ISOL	SH	IC292C	IC292C	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A316	1SV5292	CONTMT ATMOS SMPL ISOL	SH	IC292C	IC292C	0
A316	1CV5460	U-1 CONTMT ISOL	SH	IC460T	IC460T	0
A316	1SV5460	U-1 CONTMT ISOL SV	SH	IC460T	IC460T	0
A316	1MOV2080	CNTMT IA ISOLATION MOV	SH	MV080T	MV080T	0
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A316	1CV5460	U-1 CONTMT ISOL	SH	SHIC01	IC460C	0
A316	1SV5460	U-1 CONTMT ISOL SV	SH	SHIC01	IC460C	0
A316	1CV5292	CONTMT ATMOS SMPL ISOL	SH	SHIC03	IC292T	0
A316	1SV5292	CONTMT ATMOS SMPL ISOL	SH	SHIC03	IC292T	0
A316	1MOV2080	CNTMT IA ISOLATION MOV	SH	SHMV01	MV080C	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0
A316	1CV1411	CPA SUPP ISOL CV	SI	IC411C	IC411C	0
A316	1SV1411	CPA SUPP ISOL CV CONT	SI	IC411C	IC411C	0
A316	1CV1413	CPA EXH ISOL CV	SI	IC413C	IC413C	0
A316	1SV1413	CPA EXH ISOL CV CONT	SI	IC413C	IC413C	0
A316	1CV1411	CPA SUPP ISOL CV	SI	SICV02	IC411T	0
A316	1SV1411	CPA SUPP ISOL CV CONT	SI	SICV02	IC411T	0
A316	1CV1413	CPA EXH ISOL CV	SI	SICV04	IC413T	0
A316	1SV1413	CPA EXH ISOL CV CONT	SI	SICV04	IC413T	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	SR	MV144C	MV144C	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	SR	MV144T	MV144T	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	SR	MV145C	MV145C	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	SR	MV145T	MV145T	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV462C	MV462C	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV462T	MV462T	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV463C	MV463C	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV463T	MV463T	0
A227	1MOV615	11A LPSI LOOP ISOL	SR	MV615C	MV615C	19
A227	1MOV615	11A LPSI LOOP ISOL	SR	MV615T	MV615T	19
A227	1MOV625	11B LPSI LOOP ISOL	SR	MV625C	MV625C	0
A227	1MOV625	11B LPSI LOOP ISOL	SR	MV625T	MV625T	0
A226	1SV1637	TURB LUBE&EHC OIL SERVWTR ISOL	TA	TAFB01	C3637P	0
A226	1SV1639	TURB LUB & EHC OIL SERV WTR IS	TA	TAFB01	C3639P	0
A226	1SV1600	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3600P	0
A226	1SV1638	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3638P	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	TE	MV144O	MV144O	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	TE	TE0101	MV144P	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	TG	BHEF1Y	Close/Open	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	TG	BHEF1Y	Close/Open	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	TG	BHEF1Y	Close/Open	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	TG	BHEF1Y	Close/Open	0
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	TG	BHEF1Y	Close/Open	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	TG	BHEF1Y	Close/Open	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	TG	BHEF1Y	Open	0
A227	1SV4071	12 S/G MS TO AFW PP	TG	BHEF1Y	Open	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	TH(HD1)	BHER3B	Open	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	TH(HD1)	BHER3B	Open	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	TH(HD1)	BHER3B	Throttle	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1ZC5210	1CV5210 POSITIONER	TH(HD1)	BHER3B	Throttle	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	TH(HD2)	BHER3B	Open	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	TH(HD2)	BHER3B	Throttle	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1ZC5212	1CV5212 POSITIONER	TH(HD2)	BHER3B	Throttle	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	TW	MV145O	MV145O	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	TW	TW0101	MV145P	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	UQ	BHEUQ1	Throttle	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	UQ	BHEUQ1	Throttle	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	TS404D	TS404D	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1CLSE	WC170P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1CLSE	WC171P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1TEMP	TS404R	0
A119	1HXHVACECCS11	ECCS PUMP ROOM AIR COOLER 11	V1	V1TRFR	HX205B	0
A119	1HXHVACECCS11	ECCS PUMP ROOM AIR COOLER 11	V1	V1TRFR	HX205P	0
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	V1	VD11AR	VD11AR	22
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	V1	VD11AS	VD11AS	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	V1	VD11BR	VD11BR	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	V1	VD11BS	VD11BS	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	V1	VD11CR	VD11CR	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	V1	VD11CS	VD11CS	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	V1	VD11DR	VD11DR	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	V1	VD11DS	VD11DS	22
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC170D	WC170D	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC170O	WC170O	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC171D	WC171D	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC171O	WC171O	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	TS405D	TS405D	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	V2INLT	WC173P	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	V2TEMP	TS405R	0
A118	1HXHVACECCS12	ECCS PUMP ROOM AIR COOLER 12	V2	V2TRFR	HX207B	0
A118	1HXHVACECCS12	ECCS PUMP ROOM AIR COOLER 12	V2	V2TRFR	HX207P	0
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	V2	VD12AR	VD12AR	22
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	V2	VD12AS	VD12AS	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	V2	VD12BR	VD12BR	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	V2	VD12BS	VD12BS	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	V2	VD12CR	VD12CR	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	V2	VD12CS	VD12CS	22
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	WC173D	WC173D	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	WC173O	WC173O	0
A226	1PCV5214	11 CW PP SEAL WTR PCV	VC	VCCW1A	PC214R	0
A226	1PCV5216	12 CW PP SEAL WTR PCV	VC	VCCW2A	PC216R	0
A226	1PCV5218	13 CW PP SEAL WTR PCV	VC	VCCW3A	PC218R	0
A226	1PCV5220	14 CW PP SEAL WTR PCV	VC	VCCW4A	PC220R	0
A226	1PCV5222	15 CW PP SEAL WTR PCV	VC	VCCW5A	PC222R	0
A226	1PCV5224	16 CW PP SEAL WTR PCV	VC	VCCW6A	PC224R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	VM(RM1)	BHEV1T	Open	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	VM(RM1)	BHEV1T	Open	0
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	VM(RM1)	BHEV1T	Start	22
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	VM(RM2)	BHEV1T	Open	0
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	VM(RM2)	BHEV1T	Start	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	VM(RM2)	BHEV1T	Start	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	VM(RM2)	BHEV1T	Start	22
A316	1CV3832	CONTMT SUPPLY CV	VQ	IC832C	IC832C	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	VQ	IC832C	IC832C	0
A316	1CV3832	CONTMT SUPPLY CV	VQ	IC832T	IC832T	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	VQ	IC832T	IC832T	0
A316	1CV3833	CONTMT RETN CV	VQ	IC833C	IC833C	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	VQ	IC833C	IC833C	0
A316	1CV3833	CONTMT RETN CV	VQ	IC833T	IC833T	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	VQ	IC833T	IC833T	0
A316	1MOV651	SDC RETN ISOL	VQ	MV651C	MV651C	0
A316	1MOV651	SDC RETN ISOL	VQ	MV651X	MV651X	0
A316	1MOV651	SDC RETN ISOL	VQ	VQMV01	MV651T	0
A316	1CV5460	U-1 CONTMT ISOL	WJ	BHESH1	Shut	0
A316	1SV5460	U-1 CONTMT ISOL SV	WJ	BHESH1	Shut	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0
A316	1CV1581	11 CNTMT CLG U NORM INLET	WY	CV581O	CV581O	0
A316	1I/P1581	CNTMT CLR 11 SERV WTR INLT	WY	CV581O	CV581O	0
A316	1SV1581	CNTMT CLR 11 INLT VLV CONTROL	WY	CV581O	CV581O	0
A316	1CV1582	11 CNTMT CLG U EMER DISCH	WY	CV582O	CV582O	0
A316	1SV1582	CNTMT CLR 11 SERV WTR OUT	WY	CV582O	CV582O	0
A316	1CV1589	13 CNTMT CLG U NORM INLET	WY	CV589O	CV589O	0
A316	1I/P1589	CNTMT CLR 13 SERV WTR INLT	WY	CV589O	CV589O	0
A316	1SV1589	CNTMT CLR 13 INLT VLV CONTROL	WY	CV589O	CV589O	0
A316	1CV1590	13 CNTMT CLG U EMER DISCH	WY	CV590O	CV590O	0
A316	1SV1590	CNTMT CLR 13 OUTLT VLV CONTROL	WY	CV590O	CV590O	0
A316	1CV1581	11 CNTMT CLG U NORM INLET	WY	WA102F	CV581P	0
A316	1I/P1581	CNTMT CLR 11 SERV WTR INLT	WY	WA102F	CV581P	0
A316	1SV1581	CNTMT CLR 11 INLT VLV CONTROL	WY	WA102F	CV581P	0
A316	1CV1582	11 CNTMT CLG U EMER DISCH	WY	WAHVCV	CV582P	0
A316	1SV1582	CNTMT CLR 11 SERV WTR OUT	WY	WAHVCV	CV582P	0
A316	1CV1589	13 CNTMT CLG U NORM INLET	WY	WC102F	CV589P	0
A316	1I/P1589	CNTMT CLR 13 SERV WTR INLT	WY	WC102F	CV589P	0
A316	1SV1589	CNTMT CLR 13 INLT VLV CONTROL	WY	WC102F	CV589P	0
A316	1CV1590	13 CNTMT CLG U EMER DISCH	WY	WCHVCV	CV590P	0
A316	1SV1590	CNTMT CLR 13 OUTLT VLV CONTROL	WY	WCHVCV	CV590P	0

Flood Evaluation Query

CF-08C-C227AM

09-Nov-98

TOP	PM	EVALUATION	RI
CV	None ~~F~~	~~Conservatively set to failure. CVCS relatively unimportant.~~ (Note 13)	PAJ
DL	Spec Impt	11A and 11B LPSI Loop Isol MOVs (1MOV615 and 1MOV625), Fail to Open on Demand. LPSIs only used in large break LOCAs. Flood cannot cause a large break LOCA, therefore this top is not affected for LPSI's. HPSI MOV'S (1MOV616/617/626/627) fail to open on demand. This valves are normally closed and fail as-is. Flow paths via MOV's 636/637/646/647 are still available, therefore this top is only impacted.	PAJ
F1	None ~~Spec Impt~~	11 and 12 S/G AFW Block Valves fail. These valves are normally open and will fail open. Therefore there is no impact on this top. Flow control valves failing open are addressed in top event HX. Steam admission Control valves 1CV4070/4071 are normally closed, and will fail as-is(closed) on loss of power. Therefore, operators will be unable to open valves. These valves continuously have air (closing the valve). The operators may bleed air to open valve if need be. (Note 2) (Note 3)	PAJ
F3	None	Steam Admission SV's 1SV4070/4071 are covered under top event F1.	PAJ
HA	F	1MOV617/627 are normally open and fail as-is during this particular scenario. They are normally closed, but when this top event is used, they will be open and need to close in order not to cavitate the HPSI pumps. Other flow paths exist, but we will conservatively fail for now.	PAJ
HB	F	1MOV616/617/626/627 are normally open and fail as-is during this particular scenario. They are normally closed, but when this top event is used, they will be open and need to close in order not to cavitate the HPSI pumps. Other flow paths exist, but we will conservatively fail for now. Operators will be unable to throttle flow.	PAJ
HU	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact.	PAJ
HW	F	1MOV616/617/626/627 are normally open and fail as-is during this particular scenario. They are normally closed, but when this top event is used, they will be open and need to close in order not to cavitate the HPSI pumps. Other flow paths exist, but we will conservatively fail for now.	PAJ
HX	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact.	PAJ
K3	None	1CV3832/3833 fail closed on loss of power and loss of air.	PAJ
K4	None	1CV3832/3833 fail closed on loss of power and loss of air.	PAJ
KS	F	1CV3832/3833 fail closed on loss of power and loss of air.	PAJ

See notes in RAN 98-065 sect. 5.4 JJK

TOP	PM	EVALUATION	RI
M1	6BKR	6 breaker challenges.	PAJ
M2	9BKR	9 breaker challenges.	PAJ
M3	2BKR	2 breaker challenges.	PAJ
~~M4~~	~~1BKR~~	~~1 breaker challenge.~~	~~PAJ~~
MH	Spec Impt	1CV4070/4071 are normally closed and fail as-is on loss of power. These valves must be locally vented.	PAJ
N1	1BKR	1 breaker challenge.	PAJ
N2	1BKR	1 breaker challenge.	PAJ
N3	None	13 Charging Pump is normally aligned to 480V Bus 11A (Top N1). See Key Assumption 393.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
QZ	None	11 & 12 AFW Block valves (1CV4522/4523/4532/4533) are normally open and fail as-is on loss of power.	PAJ
RH	F	This human action requires operators to open 1MOV616/617/626/627. These MOVs are normally closed and fail as-is, therefore not allowing operators to open.	PAJ
SG	None ~~Spec Impt~~	The hydorgen purge hand switches for MOVs 6901/6902/6903 fail. (Note 5) It is assumed that the MOVs will fail to the undesired position. This does impact the top but does not fail it. There is a check valve or MOV downstream of these MOVs that isolate containment.	PAJ
SH	None	All valves either are normally closed or will fail closed. 1MOV2080 has a chech valve downstream of the MOV that isolates containment.	PAJ
SI	None	1CV1411/1413 were deleted. No longer as-built. These valves are normally closed and fail closed on loss of power and loss of air.	PAJ

TOP	PM	EVALUATION	RI
SR	None	1MOV615/625 are normally closed and fail as-is. Both also have a check valve downstream of the MOV to isolate containment.	PAJ
TG	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact. Steam admission Control valves 1CV4070/4071 are normally closed, and will fail as-is(closed) on loss of power. Therefore, operators will be unable to open valves. These valves continuously have air (closing the valve). The operators may bleed air to open valve if need be. Covered under Top F1.	PAJ
UQ	None	1CV4511/4512 will fail open. This top is only fails when an under feed to the SG occurs.	PAJ
VQ	None	1CV38322/3833 fail closed on loss of power and loss of air. 1MOV651 is normally closed and fails as-is.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ
WY	None	1CV1584/1592/1585/1593 fail open on loss of power.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRI	CV	PS224R	PS224R	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	DL	DLA11A	MV617P	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	DL	DLA11B	MV627P	0
A227	1MOV615	11A LPSI LOOP ISOL	DL	DLL11A	MV615O	19
A227	1MOV615	11A LPSI LOOP ISOL	DL	DLL11A	MV615P	19
A227	1MOV625	11B LPSI LOOP ISOL	DL	DLL11B	MV625O	0
A227	1MOV625	11B LPSI LOOP ISOL	DL	DLL11B	MV625P	0
A316	1MOV616	11A HPSI LOOP ISOL	DL	DLM11A	MV616P	0
A316	1MOV626	11B HPSI LOOP ISOL	DL	DLM11B	MV626P	0
A316	1MOV616	11A HPSI LOOP ISOL	DL	MV616O	MV616O	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	DL	MV617O	MV617O	0
A316	1MOV626	11B HPSI LOOP ISOL	DL	MV626O	MV626O	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	DL	MV627O	MV627O	0
A316	1CV4520	11 S/G AFW BLOCK VLV	F1	CV4520	CV520P	0
A316	1SV4520	11 S/G AFW BLOCK SV	F1	CV4520	CV520P	0
A316	1CV4521	11 S/G AFW BLOCK VLV	F1	CV4521	CV521P	0
A316	1SV4521	11 S/G AFW BLOCK SV	F1	CV4521	CV521P	0
A316	1CV4530	12 S/G AFW BLOCK VLV	F1	CV4530	CV530P	0
A316	1SV4530	12 S/G AFW BLOCK SV	F1	CV4530	CV530P	0
A316	1CV4531	12 S/G AFW BLOCK VLV	F1	CV4531	CV531P	0
A316	1SV4531	12 S/G AFW BLOCK SV	F1	CV4531	CV531P	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	F1	F1CV70	C8070O	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	F1	F1CV70	C8070P	0
A316	1SV4070A	11 S/G AFW MAIN STM BYP VALVE	F1	F1CV70	C870AO	0
A227	1SV4071	12 S/G MS TO AFW PP	F1	F1CV71	C8071O	0
A227	1SV4071	12 S/G MS TO AFW PP	F1	F1CV71	C8071P	0
A316	1SV4071A	12 S/G AFW MAIN STM BYP VLV	F1	F1CV71	C871AO	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	F1	F1TLV1	C6511P	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	F1	F1TLV1	C6511P	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	F1	F1TLV1	C6511P	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	F1	F1TLV1	C6511R	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	F1	F1TLV1	C6511R	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	F1	F1TLV1	C6511R	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	F1	F1TLV2	C6512P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	F1	F1TLV2	C6512P	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	F1	F1TLV2	C6512P	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	F1	F1TLV2	C6512R	0
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	F1	F1TLV2	C6512R	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	F1	F1TLV2	C6512R	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	F3	BHEF31	Open	0
A316	1SV4070A	11 S/G AFW MAIN STM BYP VALVE	F3	BHEF31	Open	0
A227	1SV4071	12 S/G MS TO AFW PP	F3	BHEF31	Open	0
A316	1SV4071A	12 S/G AFW MAIN STM BYP VLV	F3	BHEF31	Open	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	HA	HATRTL	MV617C	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	HA	HATRTL	MV617T	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	HA	HATRTL	MV627C	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	HA	HATRTL	MV627T	0
A316	1MOV616	11A HPSI LOOP ISOL	HB	BHEHW1	Throttle	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	HB	BHEHW1	Throttle	0
A316	1MOV626	11B HPSI LOOP ISOL	HB	BHEHW1	Throttle	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	HB	BHEHW1	Throttle	0
A316	1MOV616	11A HPSI LOOP ISOL	HB	HBTRTL	MV616C	0
A316	1MOV616	11A HPSI LOOP ISOL	HB	HBTRTL	MV616T	0
A316	1MOV626	11B HPSI LOOP ISOL	HB	HBTRTL	MV626C	0
A316	1MOV626	11B HPSI LOOP ISOL	HB	HBTRTL	MV626T	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	HU	BHEF1B	Throttle	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	HU	BHEF1B	Throttle	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	HW	HATRTL	MV617C	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	HW	HATRTL	MV617T	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	HW	HATRTL	MV627C	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	HW	HATRTL	MV627T	0
A316	1MOV616	11A HPSI LOOP ISOL	HW	HBTRTL	MV616C	0
A316	1MOV616	11A HPSI LOOP ISOL	HW	HBTRTL	MV616T	0
A316	1MOV626	11B HPSI LOOP ISOL	HW	HBTRTL	MV626C	0
A316	1MOV626	11B HPSI LOOP ISOL	HW	HBTRTL	MV626T	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	HX	BHEF1A	Throttle	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	HX	BHEF1A	Throttle	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A316	1CV3832	CONTMT SUPPLY CV	K3	C3832C	C3832C	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	K3	C3832C	C3832C	0
A316	1CV3832	CONTMT SUPPLY CV	K3	C3832T	C3832T	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	K3	C3832T	C3832T	0
A316	1CV3833	CONTMT RETN CV	K3	C3833C	C3833C	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	K3	C3833C	C3833C	0
A316	1CV3833	CONTMT RETN CV	K3	C3833T	C3833T	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	K3	C3833T	C3833T	0
A316	1CV3832	CONTMT SUPPLY CV	K4	C3832C	C3832C	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	K4	C3832C	C3832C	0
A316	1CV3832	CONTMT SUPPLY CV	K4	C3832T	C3832T	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	K4	C3832T	C3832T	0
A316	1CV3833	CONTMT RETN CV	K4	C3833C	C3833C	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	K4	C3833C	C3833C	0
A316	1CV3833	CONTMT RETN CV	K4	C3833T	C3833T	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	K4	C3833T	C3833T	0
A316	1CV3832	CONTMT SUPPLY CV	KS	KSCV32	C3832P	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	KS	KSCV32	C3832P	0
A316	1CV3833	CONTMT RETN CV	KS	KSCV33	C3833P	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	KS	KSCV33	C3833P	0
A316	1MOV616	11A HPSI LOOP ISOL	M1	MVM16Q	MVM16Q	0
A316	1MOV626	11B HPSI LOOP ISOL	M1	MVM17Q	MVM17Q	0
A316	1MOV6200	NO 1 CNTMT ISOL VLV	M1	MVM23Q	MVM23Q	0
A316	1MOV6903	H2 PURGE REPLACE AIR CONTMT ISOL	M1	MVM52Q	MVM52Q	0
A316	1MOV6902	H2 PURGE FLOW CONTROL DAMPER	M1	MVM56Q	MVM56Q	0
A316	1FANHP11	H2 PURGE REP BLOWER (1M0403)	M1	VAM03Q	VAM03Q	0
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A227	1MOV615	11A LPSI LOOP ISOL	M2	MVN07Q	MVN07Q	19
A227	1MOV625	11B LPSI LOOP ISOL	M2	MVN08Q	MVN08Q	0
A316	1MOV6901	H2 PURGE CONTMT ISOL (PER RM SIDE)	M2	MVN14Q	MVN14Q	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	M2	MVN16Q	MVN16Q	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	M2	MVN17Q	MVN17Q	0
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A316	1MOV2080	CNTMT IA ISOLATION MOV	M2	MVN53Q	MVN53Q	0
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	MH	BHEF1I	Open	0
A227	1SV4071	12 S/G MS TO AFW PP	MH	BHEF1I	Open	0
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A316	1CV4520	11 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	0
A316	1CV4521	11 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	0
A316	1CV4530	12 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	0
A316	1CV4531	12 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	0
A316	1SV4520	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A316	1SV4521	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A316	1SV4530	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A316	1SV4531	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A316	1MOV616	11A HPSI LOOP ISOL	RH	BHERH1	Open	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	RH	BHERH1	Open	0
A316	1MOV626	11B HPSI LOOP ISOL	RH	BHERH1	Open	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	RH	BHERH1	Open	0
A316	1MOV6901	H2 PURGE CONTMT ISOL (PER RM SIDE)	SG	MV691C	MV691C	0
A316	1MOV6901	H2 PURGE CONTMT ISOL (PER RM SIDE)	SG	MV691T	MV691T	0
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A316	1MOV6902	H2 PURGE FLOW CONTROL DAMPER	SG	SGMV01	MV692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0
A316	1MOV6903	H2 PURGE REPLACE AIR CONTMT ISOL	SG	SGMV02	MV693T	0
A316	1CV5292	CONTMT ATMOS SMPL ISOL	SH	IC292C	IC292C	0
A316	1SV5292	CONTMT ATMOS SMPL ISOL	SH	IC292C	IC292C	0
A316	1CV5460	U-1 CONTMT ISOL	SH	IC460T	IC460T	0
A316	1SV5460	U-1 CONTMT ISOL SV	SH	IC460T	IC460T	0
A316	1MOV2080	CNTMT IA ISOLATION MOV	SH	MV080T	MV080T	0
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A316	1CV5460	U-1 CONTMT ISOL	SH	SHIC01	IC460C	0
A316	1SV5460	U-1 CONTMT ISOL SV	SH	SHIC01	IC460C	0
A316	1CV5292	CONTMT ATMOS SMPL ISOL	SH	SHIC03	IC292T	0
A316	1SV5292	CONTMT ATMOS SMPL ISOL	SH	SHIC03	IC292T	0
A316	1MOV2080	CNTMT IA ISOLATION MOV	SH	SHMV01	MV080C	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0
A316	1CV1411	CPA SUPP ISOL CV	SI	IC411C	IC411C	0
A316	1SV1411	CPA SUPP ISOL CV CONT	SI	IC411C	IC411C	0
A316	1CV1413	CPA EXH ISOL CV	SI	IC413C	IC413C	0
A316	1SV1413	CPA EXH ISOL CV CONT	SI	IC413C	IC413C	0
A316	1CV1411	CPA SUPP ISOL CV	SI	SICV02	IC411T	0
A316	1SV1411	CPA SUPP ISOL CV CONT	SI	SICV02	IC411T	0
A316	1CV1413	CPA EXH ISOL CV	SI	SICV04	IC413T	0
A316	1SV1413	CPA EXH ISOL CV CONT	SI	SICV04	IC413T	0
A227	1MOV615	11A LPSI LOOP ISOL	SR	MV615C	MV615C	19
A227	1MOV615	11A LPSI LOOP ISOL	SR	MV615T	MV615T	19
A227	1MOV625	11B LPSI LOOP ISOL	SR	MV625C	MV625C	0
A227	1MOV625	11B LPSI LOOP ISOL	SR	MV625T	MV625T	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	TG	BHEF1Y	Close/Open	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	TG	BHEF1Y	Close/Open	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	TG	BHEF1Y	Close/Open	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	TG	BHEF1Y	Close/Open	0
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	TG	BHEF1Y	Close/Open	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	TG	BHEF1Y	Close/Open	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	TG	BHEF1Y	Open	0
A227	1SV4071	12 S/G MS TO AFW PP	TG	BHEF1Y	Open	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	UQ	BHEUQ1	Throttle	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	UQ	BHEUQ1	Throttle	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A316	1CV3832	CONTMT SUPPLY CV	VQ	IC832C	IC832C	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	VQ	IC832C	IC832C	0
A316	1CV3832	CONTMT SUPPLY CV	VQ	IC832T	IC832T	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	VQ	IC832T	IC832T	0
A316	1CV3833	CONTMT RETN CV	VQ	IC833C	IC833C	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	VQ	IC833C	IC833C	0
A316	1CV3833	CONTMT RETN CV	VQ	IC833T	IC833T	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	VQ	IC833T	IC833T	0
A316	1MOV651	SDC RETN ISOL	VQ	MV651C	MV651C	0
A316	1MOV651	SDC RETN ISOL	VQ	MV651X	MV651X	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A316	1MOV651	SDC RETN ISOL	VQ	VQMV01	MV651T	0
A316	1CV5460	U-1 CONTMT ISOL	WJ	BHESH1	Shut	0
A316	1SV5460	U-1 CONTMT ISOL SV	WJ	BHESH1	Shut	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0
A316	1CV1581	11 CNTMT CLG U NORM INLET	WY	CV581O	CV581O	0
A316	1I/P1581	CNTMT CLR 11 SERV WTR INLT	WY	CV581O	CV581O	0
A316	1SV1581	CNTMT CLR 11 INLT VLV CONTROL	WY	CV581O	CV581O	0
A316	1CV1582	11 CNTMT CLG U EMER DISCH	WY	CV582O	CV582O	0
A316	1SV1582	CNTMT CLR 11 SERV WTR OUT	WY	CV582O	CV582O	0
A316	1CV1589	13 CNTMT CLG U NORM INLET	WY	CV589O	CV589O	0
A316	1I/P1589	CNTMT CLR 13 SERV WTR INLT	WY	CV589O	CV589O	0
A316	1SV1589	CNTMT CLR 13 INLT VLV CONTROL	WY	CV589O	CV589O	0
A316	1CV1590	13 CNTMT CLG U EMER DISCH	WY	CV590O	CV590O	0
A316	1SV1590	CNTMT CLR 13 OUTLT VLV CONTROL	WY	CV590O	CV590O	0
A316	1CV1581	11 CNTMT CLG U NORM INLET	WY	WA102F	CV581P	0
A316	1I/P1581	CNTMT CLR 11 SERV WTR INLT	WY	WA102F	CV581P	0
A316	1SV1581	CNTMT CLR 11 INLT VLV CONTROL	WY	WA102F	CV581P	0
A316	1CV1582	11 CNTMT CLG U EMER DISCH	WY	WAHVCV	CV582P	0
A316	1SV1582	CNTMT CLR 11 SERV WTR OUT	WY	WAHVCV	CV582P	0
A316	1CV1589	13 CNTMT CLG U NORM INLET	WY	WC102F	CV589P	0
A316	1I/P1589	CNTMT CLR 13 SERV WTR INLT	WY	WC102F	CV589P	0
A316	1SV1589	CNTMT CLR 13 INLT VLV CONTROL	WY	WC102F	CV589P	0
A316	1CV1590	13 CNTMT CLG U EMER DISCH	WY	WCHVCV	CV590P	0
A316	1SV1590	CNTMT CLR 13 OUTLT VLV CONTROL	WY	WCHVCV	CV590P	0

Flood Evaluation Query

CF-08D-W227AM

10-Dec-98

TOP	PM	EVALUATION	RI
CV	None ~~F~~	~~Conservatively set to failure. CVCS relatively unimportant.~~ (Note 13)	PAJ
DL	Spec Impt	11A and 11B LPSI Loop Isol MOVs (1MOV615 and 1MOV625), Fail to Open on Demand. LPSIs only used in large break LOCAs. Flood cannot cause a large break LOCA, therefore this top is not affected for LPSI's. HPSI MOV'S (1MOV616/617/626/627) fail to open on demand. This valves are normally closed and fail as-is. Flow paths via MOV's 636/637/646/647 are still available, therefore this top is only impacted.	PAJ
F1	None ~~Spec Impt~~	11 and 12 S/G AFW Block Valves fail. These valves are normally open and will fail open. Therefore there is no impact on this top. Flow control valves failing open are addressed in top event HX. Steam admission Control valves 1CV4070/4071 are normally closed, and will fail as-is(closed) on loss of power. Therefore, operators will be unable to open valves. These valves continuously have air (closing the valve). The operators may bleed air to open valve if need be. (Note 2)(note 3)	PAJ
F3	None	Steam Admission SV's 1SV4070/4071 are covered under top event F1.	PAJ
HA	F	1MOV617/627 are normally open and fail as-is during this particular scenario. They are normally closed, but when this top event is used, they will be open and need to close in order not to cavitate the HPSI pumps. Other flow paths exist, but we will conservatively fail for now.	PAJ
HB	F	1MOV616/617/626/627 are normally open and fail as-is during this particular scenario. They are normally closed, but when this top event is used, they will be open and need to close in order not to cavitate the HPSI pumps. Other flow paths exist, but we will conservatively fail for now. Operators will be unable to throttle flow.	PAJ
HU	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact.	PAJ
HW	F	1MOV616/617/626/627 are normally open and fail as-is during this particular scenario. They are normally closed, but when this top event is used, they will be open and need to close in order not to cavitate the HPSI pumps. Other flow paths exist, but we will conservatively fail for now.	PAJ
HX	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact.	PAJ
K3	None	1CV3832/3833 fail closed on loss of power and loss of air.	PAJ
K4	None	1CV3832/3833 fail closed on loss of power and loss of air.	PAJ
KS	F	1CV3832/3833 fail closed on loss of power and loss of air.	PAJ

See notes in RAN 98-065 sect 5.4 gpm

TOP	PM	EVALUATION	RI
M1	6BKR	6 breaker challenges.	PAJ
M2	9BKR	9 breaker challenges.	PAJ
M3	2BKR	2 breaker challenges.	PAJ
~~M4~~	~~1BKR~~	~~1 breaker challenge.~~	~~PAJ~~
MH	Spec Impt	1CV4070/4071 are normally closed and fail as-is on loss of power. These valves must be locally vented.	PAJ
N1	1BKR	1 breaker challenge.	PAJ
N2	1BKR	1 breaker challenge.	PAJ
N3	None	13 Charging Pump is normally aligned to 480V Bus 11A (Top N1). See Key Assumption 393.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
QZ	None	11 & 12 AFW Block valves (1CV4522/4523/4532/4533) are normally open and fail as-is on loss of power.	PAJ
RH	F	This human action requires operators to open 1MOV616/617/626/627. These MOVs are normally closed and fail as-is, therefore not allowing operators to open.	PAJ
SG	None ~~Spec Impt~~	The hydorgen purge hand switches for MOVs 6901/6902/6903 fail. It is assumed that the (Note 5) MOVs will fail to the undesired position. This does impact the top but does not fail it. There is a check valve or MOV downstream of these MOVs that isolate containment.	PAJ
SH	None	All valves either are normally closed or will fail closed. 1MOV2080 has a check valve downstream of the MOV that isolates containment.	PAJ
SI	None	1CV1411/1413 were deleted. No longer as-built. These valves are normally closed and fail closed on loss of power and loss of air.	PAJ

TOP	PM	EVALUATION	RI
SR	None	1MOV615/625 are normally closed and fail as-is. Both also have a check valve downstream of the MOV to isolate containment.	PAJ
TG	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact. Steam admission Control valves 1CV4070/4071 are normally closed, and will fail as-is(closed) on loss of power. Therefore, operators will be unable to open valves. These valves continuously have air (closing the valve). The operators may bleed air to open valve if need be. Covered under Top F1.	PAJ
UQ	None	1CV4511/4512 will fail open. This top is only fails when an under feed to the SG occurs.	PAJ
VQ	None	1CV38322/3833 fail closed on loss of power and loss of air. 1MOV651 is normally closed and fails as-is.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ
WY	None	1CV1584/1592/1585/1593 fail open on loss of power.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRI	CV	PS224R	PS224R	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	DL	DLA11A	MV617P	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	DL	DLA11B	MV627P	0
A227	1MOV615	11A LPSI LOOP ISOL	DL	DLL11A	MV615O	19
A227	1MOV615	11A LPSI LOOP ISOL	DL	DLL11A	MV615P	19
A227	1MOV625	11B LPSI LOOP ISOL	DL	DLL11B	MV625O	0
A227	1MOV625	11B LPSI LOOP ISOL	DL	DLL11B	MV625P	0
A316	1MOV616	11A HPSI LOOP ISOL	DL	DLM11A	MV616P	0
A316	1MOV626	11B HPSI LOOP ISOL	DL	DLM11B	MV626P	0
A316	1MOV616	11A HPSI LOOP ISOL	DL	MV616O	MV616O	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	DL	MV617O	MV617O	0
A316	1MOV626	11B HPSI LOOP ISOL	DL	MV626O	MV626O	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	DL	MV627O	MV627O	0
A316	1CV4520	11 S/G AFW BLOCK VLV	F1	CV4520	CV520P	0
A316	1SV4520	11 S/G AFW BLOCK SV	F1	CV4520	CV520P	0
A316	1CV4521	11 S/G AFW BLOCK VLV	F1	CV4521	CV521P	0
A316	1SV4521	11 S/G AFW BLOCK SV	F1	CV4521	CV521P	0
A316	1CV4530	12 S/G AFW BLOCK VLV	F1	CV4530	CV530P	0
A316	1SV4530	12 S/G AFW BLOCK SV	F1	CV4530	CV530P	0
A316	1CV4531	12 S/G AFW BLOCK VLV	F1	CV4531	CV531P	0
A316	1SV4531	12 S/G AFW BLOCK SV	F1	CV4531	CV531P	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	F1	F1CV70	C8070O	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	F1	F1CV70	C8070P	0
A316	1SV4070A	11 S/G AFW MAIN STM BYP VALVE	F1	F1CV70	C870AO	0
A227	1SV4071	12 S/G MS TO AFW PP	F1	F1CV71	C8071O	0
A227	1SV4071	12 S/G MS TO AFW PP	F1	F1CV71	C8071P	0
A316	1SV4071A	12 S/G AFW MAIN STM BYP VLV	F1	F1CV71	C871AO	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	F1	F1TLV1	C6511P	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	F1	F1TLV1	C6511P	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	F1	F1TLV1	C6511P	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	F1	F1TLV1	C6511R	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	F1	F1TLV1	C6511R	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	F1	F1TLV1	C6511R	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	F1	F1TLV2	C6512P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	F1	F1TLV2	C6512P	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	F1	F1TLV2	C6512P	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	F1	F1TLV2	C6512R	0
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	F1	F1TLV2	C6512R	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	F1	F1TLV2	C6512R	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	F3	BHEF31	Open	0
A316	1SV4070A	11 S/G AFW MAIN STM BYP VALVE	F3	BHEF31	Open	0
A227	1SV4071	12 S/G MS TO AFW PP	F3	BHEF31	Open	0
A316	1SV4071A	12 S/G AFW MAIN STM BYP VLV	F3	BHEF31	Open	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	HA	HATRTL	MV617C	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	HA	HATRTL	MV617T	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	HA	HATRTL	MV627C	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	HA	HATRTL	MV627T	0
A316	1MOV616	11A HPSI LOOP ISOL	HB	BHEHW1	Throttle	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	HB	BHEHW1	Throttle	0
A316	1MOV626	11B HPSI LOOP ISOL	HB	BHEHW1	Throttle	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	HB	BHEHW1	Throttle	0
A316	1MOV616	11A HPSI LOOP ISOL	HB	HBTRTL	MV616C	0
A316	1MOV616	11A HPSI LOOP ISOL	HB	HBTRTL	MV616T	0
A316	1MOV626	11B HPSI LOOP ISOL	HB	HBTRTL	MV626C	0
A316	1MOV626	11B HPSI LOOP ISOL	HB	HBTRTL	MV626T	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	HU	BHEF1B	Throttle	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	HU	BHEF1B	Throttle	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	HW	HATRTL	MV617C	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	HW	HATRTL	MV617T	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	HW	HATRTL	MV627C	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	HW	HATRTL	MV627T	0
A316	1MOV616	11A HPSI LOOP ISOL	HW	HBTRTL	MV616C	0
A316	1MOV616	11A HPSI LOOP ISOL	HW	HBTRTL	MV616T	0
A316	1MOV626	11B HPSI LOOP ISOL	HW	HBTRTL	MV626C	0
A316	1MOV626	11B HPSI LOOP ISOL	HW	HBTRTL	MV626T	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	HX	BHEF1A	Throttle	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	HX	BHEF1A	Throttle	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A316	1CV3832	CONTMT SUPPLY CV	K3	C3832C	C3832C	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	K3	C3832C	C3832C	0
A316	1CV3832	CONTMT SUPPLY CV	K3	C3832T	C3832T	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	K3	C3832T	C3832T	0
A316	1CV3833	CONTMT RETN CV	K3	C3833C	C3833C	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	K3	C3833C	C3833C	0
A316	1CV3833	CONTMT RETN CV	K3	C3833T	C3833T	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	K3	C3833T	C3833T	0
A316	1CV3832	CONTMT SUPPLY CV	K4	C3832C	C3832C	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	K4	C3832C	C3832C	0
A316	1CV3832	CONTMT SUPPLY CV	K4	C3832T	C3832T	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	K4	C3832T	C3832T	0
A316	1CV3833	CONTMT RETN CV	K4	C3833C	C3833C	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	K4	C3833C	C3833C	0
A316	1CV3833	CONTMT RETN CV	K4	C3833T	C3833T	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	K4	C3833T	C3833T	0
A316	1CV3832	CONTMT SUPPLY CV	KS	KSCV32	C3832P	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	KS	KSCV32	C3832P	0
A316	1CV3833	CONTMT RETN CV	KS	KSCV33	C3833P	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	KS	KSCV33	C3833P	0
A316	1MOV616	11A HPSI LOOP ISOL	M1	MVM16Q	MVM16Q	0
A316	1MOV626	11B HPSI LOOP ISOL	M1	MVM17Q	MVM17Q	0
A316	1MOV6200	NO 1 CNTMT ISOL VLV	M1	MVM23Q	MVM23Q	0
A316	1MOV6903	H2 PURGE REPLACE AIR CONTMT ISOL	M1	MVM52Q	MVM52Q	0
A316	1MOV6902	H2 PURGE FLOW CONTROL DAMPER	M1	MVM56Q	MVM56Q	0
A316	1FANHP11	H2 PURGE REP BLOWER (1M0403)	M1	VAM03Q	VAM03Q	0
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A227	1MOV615	11A LPSI LOOP ISOL	M2	MVN07Q	MVN07Q	19
A227	1MOV625	11B LPSI LOOP ISOL	M2	MVN08Q	MVN08Q	0
A316	1MOV6901	H2 PURGE CONTMT ISOL (PER RM SIDE)	M2	MVN14Q	MVN14Q	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	M2	MVN16Q	MVN16Q	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	M2	MVN17Q	MVN17Q	0
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A316	1MOV2080	CNTMT IA ISOLATION MOV	M2	MVN53Q	MVN53Q	0
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	MH	BHEF1I	Open	0
A227	1SV4071	12 S/G MS TO AFW PP	MH	BHEF1I	Open	0
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A316	1CV4520	11 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	0
A316	1CV4521	11 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	0
A316	1CV4530	12 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	0
A316	1CV4531	12 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	0
A316	1SV4520	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A316	1SV4521	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A316	1SV4530	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A316	1SV4531	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A316	1MOV616	11A HPSI LOOP ISOL	RH	BHERH1	Open	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	RH	BHERH1	Open	0
A316	1MOV626	11B HPSI LOOP ISOL	RH	BHERH1	Open	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	RH	BHERH1	Open	0
A316	1MOV6901	H2 PURGE CONTMT ISOL (PER RM SIDE)	SG	MV691C	MV691C	0
A316	1MOV6901	H2 PURGE CONTMT ISOL (PER RM SIDE)	SG	MV691T	MV691T	0
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A316	1MOV6902	H2 PURGE FLOW CONTROL DAMPER	SG	SGMV01	MV692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0
A316	1MOV6903	H2 PURGE REPLACE AIR CONTMT ISOL	SG	SGMV02	MV693T	0
A316	1CV5292	CONTMT ATMOS SMPL ISOL	SH	IC292C	IC292C	0
A316	1SV5292	CONTMT ATMOS SMPL ISOL	SH	IC292C	IC292C	0
A316	1CV5460	U-1 CONTMT ISOL	SH	IC460T	IC460T	0
A316	1SV5460	U-1 CONTMT ISOL SV	SH	IC460T	IC460T	0
A316	1MOV2080	CNTMT IA ISOLATION MOV	SH	MV080T	MV080T	0
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A316	1CV5460	U-1 CONTMT ISOL	SH	SHIC01	IC460C	0
A316	1SV5460	U-1 CONTMT ISOL SV	SH	SHIC01	IC460C	0
A316	1CV5292	CONTMT ATMOS SMPL ISOL	SH	SHIC03	IC292T	0
A316	1SV5292	CONTMT ATMOS SMPL ISOL	SH	SHIC03	IC292T	0
A316	1MOV2080	CNTMT IA ISOLATION MOV	SH	SHMV01	MV080C	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0
A316	1CV1411	CPA SUPP ISOL CV	SI	IC411C	IC411C	0
A316	1SV1411	CPA SUPP ISOL CV CONT	SI	IC411C	IC411C	0
A316	1CV1413	CPA EXH ISOL CV	SI	IC413C	IC413C	0
A316	1SV1413	CPA EXH ISOL CV CONT	SI	IC413C	IC413C	0
A316	1CV1411	CPA SUPP ISOL CV	SI	SICV02	IC411T	0
A316	1SV1411	CPA SUPP ISOL CV CONT	SI	SICV02	IC411T	0
A316	1CV1413	CPA EXH ISOL CV	SI	SICV04	IC413T	0
A316	1SV1413	CPA EXH ISOL CV CONT	SI	SICV04	IC413T	0
A227	1MOV615	11A LPSI LOOP ISOL	SR	MV615C	MV615C	19
A227	1MOV615	11A LPSI LOOP ISOL	SR	MV615T	MV615T	19
A227	1MOV625	11B LPSI LOOP ISOL	SR	MV625C	MV625C	0
A227	1MOV625	11B LPSI LOOP ISOL	SR	MV625T	MV625T	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	TG	BHEF1Y	Close/Open	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	TG	BHEF1Y	Close/Open	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	TG	BHEF1Y	Close/Open	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	TG	BHEF1Y	Close/Open	0
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	TG	BHEF1Y	Close/Open	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	TG	BHEF1Y	Close/Open	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	TG	BHEF1Y	Open	0
A227	1SV4071	12 S/G MS TO AFW PP	TG	BHEF1Y	Open	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	UQ	BHEUQ1	Throttle	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	UQ	BHEUQ1	Throttle	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A316	1CV3832	CONTMT SUPPLY CV	VQ	IC832C	IC832C	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	VQ	IC832C	IC832C	0
A316	1CV3832	CONTMT SUPPLY CV	VQ	IC832T	IC832T	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	VQ	IC832T	IC832T	0
A316	1CV3833	CONTMT RETN CV	VQ	IC833C	IC833C	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	VQ	IC833C	IC833C	0
A316	1CV3833	CONTMT RETN CV	VQ	IC833T	IC833T	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	VQ	IC833T	IC833T	0
A316	1MOV651	SDC RETN ISOL	VQ	MV651C	MV651C	0
A316	1MOV651	SDC RETN ISOL	VQ	MV651X	MV651X	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A316	1MOV651	SDC RETN ISOL	VQ	VQMV01	MV651T	0
A316	1CV5460	U-1 CONTMT ISOL	WJ	BHESH1	Shut	0
A316	1SV5460	U-1 CONTMT ISOL SV	WJ	BHESH1	Shut	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0
A316	1CV1581	11 CNTMT CLG U NORM INLET	WY	CV581O	CV581O	0
A316	1I/P1581	CNTMT CLR 11 SERV WTR INLT	WY	CV581O	CV581O	0
A316	1SV1581	CNTMT CLR 11 INLT VLV CONTROL	WY	CV581O	CV581O	0
A316	1CV1582	11 CNTMT CLG U EMER DISCH	WY	CV582O	CV582O	0
A316	1SV1582	CNTMT CLR 11 SERV WTR OUT	WY	CV582O	CV582O	0
A316	1CV1589	13 CNTMT CLG U NORM INLET	WY	CV589O	CV589O	0
A316	1I/P1589	CNTMT CLR 13 SERV WTR INLT	WY	CV589O	CV589O	0
A316	1SV1589	CNTMT CLR 13 INLT VLV CONTROL	WY	CV589O	CV589O	0
A316	1CV1590	13 CNTMT CLG U EMER DISCH	WY	CV590O	CV590O	0
A316	1SV1590	CNTMT CLR 13 OUTLT VLV CONTROL	WY	CV590O	CV590O	0
A316	1CV1581	11 CNTMT CLG U NORM INLET	WY	WA102F	CV581P	0
A316	1I/P1581	CNTMT CLR 11 SERV WTR INLT	WY	WA102F	CV581P	0
A316	1SV1581	CNTMT CLR 11 INLT VLV CONTROL	WY	WA102F	CV581P	0
A316	1CV1582	11 CNTMT CLG U EMER DISCH	WY	WAHVCV	CV582P	0
A316	1SV1582	CNTMT CLR 11 SERV WTR OUT	WY	WAHVCV	CV582P	0
A316	1CV1589	13 CNTMT CLG U NORM INLET	WY	WC102F	CV589P	0
A316	1I/P1589	CNTMT CLR 13 SERV WTR INLT	WY	WC102F	CV589P	0
A316	1SV1589	CNTMT CLR 13 INLT VLV CONTROL	WY	WC102F	CV589P	0
A316	1CV1590	13 CNTMT CLG U EMER DISCH	WY	WCHVCV	CV590P	0
A316	1SV1590	CNTMT CLR 13 OUTLT VLV CONTROL	WY	WCHVCV	CV590P	0

Flood Evaluation Query

CF-08E-D227AM

09-Nov-98

TOP	PM	EVALUATION	RI
CV	F	Conservatively set to failure. CVCS relatively unimportant.	PAJ
DL	Spec Impt	11A and 11B LPSI Loop Isol MOVs (1MOV615 and 1MOV625), Fail to Open on Demand. LPSIs only used in large break LOCAs. Flood cannot cause a large break LOCA, therefore this top is not affected for LPSI's. HPSI MOV'S (1MOV616/617/626/627) fail to open on demand. This valves are normally closed and fail as-is. Flow paths via MOV's 636/637/646/647 are still available, therefore this top is only impacted.	PAJ
F1	None ~~Spec Impt~~	11 and 12 S/G AFW Block Valves fail. These valves are normally open and will fail open. Therefore there is no impact on this top. Flow control valves failing open are addressed in top event HX. Steam admission Control valves 1CV4070/4071 are normally closed, and will fail as-is(closed) on loss of power. Therefore, operators will be unable to open valves. These valves continuously have air (closing the valve). The operators may bleed air to open valve if need be. (Note 2)(note 3)	PAJ
F3	None	Steam Admission SV's 1SV4070/4071 are covered under top event F1.	PAJ
HA	F	1MOV617/627 are normally open and fail as-is during this particular scenario. They are normally closed, but when this top event is used, they will be open and need to close in order not to cavitate the HPSI pumps. Other flow paths exist, but we will conservatively fail for now.	PAJ
HB	F	1MOV616/617/626/627 are normally open and fail as-is during this particular scenario. They are normally closed, but when this top event is used, they will be open and need to close in order not to cavitate the HPSI pumps. Other flow paths exist, but we will conservatively fail for now. Operators will be unable to throttle flow.	PAJ
HU	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact.	PAJ
HW	F	1MOV616/617/626/627 are normally open and fail as-is during this particular scenario. They are normally closed, but when this top event is used, they will be open and need to close in order not to cavitate the HPSI pumps. Other flow paths exist, but we will conservatively fail for now.	PAJ
HX	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact.	PAJ
K3	None	1CV3832/3833 fail closed on loss of power and loss of air.	PAJ
K4	None	1CV3832/3833 fail closed on loss of power and loss of air.	PAJ
KS	F	1CV3832/3833 fail closed on loss of power and loss of air.	PAJ

See notes in RAN 98-065 sect. 5.4 JPA

TOP	PM	EVALUATION	RI
M1	6BKR	6 breaker challenges.	PAJ
M2	9BKR	9 breaker challenges.	PAJ
M3	2BKR	2 breaker challenges.	PAJ
~~M4~~	~~1BKR~~	~~1 breaker challenge.~~	~~PAJ~~
MH	Spec Impt	1CV4070/4071 are normally closed and fail as-is on loss of power. These valves must be locally vented.	PAJ
N1	1BKR	1 breaker challenge.	PAJ
N2	1BKR	1 breaker challenge.	PAJ
N3	None	13 Charging Pump is normally aligned to 480V Bus 11A (Top N1). See Key Assumption 393.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
QZ	None	11 & 12 AFW Block valves (1CV4522/4523/4532/4533) are normally open and fail as-is on loss of power.	PAJ
RH	F	This human action requires operators to open 1MOV616/617/626/627. These MOVs are normally closed and fail as-is, therefore not allowing operators to open.	PAJ
SG	None ~~Spec Impt~~	The hydorgen purge hand switches for MOVs 6901/6902/6903 fail. (Note 5) It is assumed that the MOVs will fail to the undesired position. This does impact the top but does not fail it. There is a check valve or MOV downstream of these MOVs that isolate containment.	PAJ
SH	None	All valves either are normally closed or will fail closed. 1MOV2080 has a chech valve downstream of the MOV that isolates containment.	PAJ
SI	None	1CV1411/1413 were deleted. No longer as-built. These valves are normally closed and fail closed on loss of power and loss of air.	PAJ

TOP	PM	EVALUATION	RI
SR	None	1MOV615/625 are normally closed and fail as-is. Both also have a check valve downstream of the MOV to isolate containment.	PAJ
TG	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact. Steam admission Control valves 1CV4070/4071 are normally closed, and will fail as-is(closed) on loss of power. Therefore, operators will be unable to open valves. These valves continuously have air (closing the valve). The operators may bleed air to open valve if need be. Covered under Top F1.	PAJ
UQ	None	1CV4511/4512 will fail open. This top is only fails when an under feed to the SG occurs.	PAJ
VQ	None	1CV38322/3833 fail closed on loss of power and loss of air. 1MOV651 is normally closed and fails as-is.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ
WY	None	1CV1584/1592/1585/1593 fail open on loss of power.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PS224R	PS224R	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	DL	DLA11A	MV617P	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	DL	DLA11B	MV627P	0
A227	1MOV615	11A LPSI LOOP ISOL	DL	DLL11A	MV615O	19
A227	1MOV615	11A LPSI LOOP ISOL	DL	DLL11A	MV615P	19
A227	1MOV625	11B LPSI LOOP ISOL	DL	DLL11B	MV625O	0
A227	1MOV625	11B LPSI LOOP ISOL	DL	DLL11B	MV625P	0
A316	1MOV616	11A HPSI LOOP ISOL	DL	DLM11A	MV616P	0
A316	1MOV626	11B HPSI LOOP ISOL	DL	DLM11B	MV626P	0
A316	1MOV616	11A HPSI LOOP ISOL	DL	MV616O	MV616O	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	DL	MV617O	MV617O	0
A316	1MOV626	11B HPSI LOOP ISOL	DL	MV626O	MV626O	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	DL	MV627O	MV627O	0
A316	1CV4520	11 S/G AFW BLOCK VLV	F1	CV4520	CV520P	0
A316	1SV4520	11 S/G AFW BLOCK SV	F1	CV4520	CV520P	0
A316	1CV4521	11 S/G AFW BLOCK VLV	F1	CV4521	CV521P	0
A316	1SV4521	11 S/G AFW BLOCK SV	F1	CV4521	CV521P	0
A316	1CV4530	12 S/G AFW BLOCK VLV	F1	CV4530	CV530P	0
A316	1SV4530	12 S/G AFW BLOCK SV	F1	CV4530	CV530P	0
A316	1CV4531	12 S/G AFW BLOCK VLV	F1	CV4531	CV531P	0
A316	1SV4531	12 S/G AFW BLOCK SV	F1	CV4531	CV531P	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	F1	F1CV70	C8070O	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	F1	F1CV70	C8070P	0
A316	1SV4070A	11 S/G AFW MAIN STM BYP VALVE	F1	F1CV70	C870AO	0
A227	1SV4071	12 S/G MS TO AFW PP	F1	F1CV71	C8071O	0
A227	1SV4071	12 S/G MS TO AFW PP	F1	F1CV71	C8071P	0
A316	1SV4071A	12 S/G AFW MAIN STM BYP VLV	F1	F1CV71	C871AO	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	F1	F1TLV1	C6511P	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	F1	F1TLV1	C6511P	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	F1	F1TLV1	C6511P	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	F1	F1TLV1	C6511R	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	F1	F1TLV1	C6511R	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	F1	F1TLV1	C6511R	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	F1	F1TLV2	C6512P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	F1	F1TLV2	C6512P	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	F1	F1TLV2	C6512P	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	F1	F1TLV2	C6512R	0
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	F1	F1TLV2	C6512R	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	F1	F1TLV2	C6512R	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	F3	BHEF31	Open	0
A316	1SV4070A	11 S/G AFW MAIN STM BYP VALVE	F3	BHEF31	Open	0
A227	1SV4071	12 S/G MS TO AFW PP	F3	BHEF31	Open	0
A316	1SV4071A	12 S/G AFW MAIN STM BYP VLV	F3	BHEF31	Open	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	HA	HATRTL	MV617C	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	HA	HATRTL	MV617T	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	HA	HATRTL	MV627C	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	HA	HATRTL	MV627T	0
A316	1MOV616	11A HPSI LOOP ISOL	HB	BHEHW1	Throttle	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	HB	BHEHW1	Throttle	0
A316	1MOV626	11B HPSI LOOP ISOL	HB	BHEHW1	Throttle	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	HB	BHEHW1	Throttle	0
A316	1MOV616	11A HPSI LOOP ISOL	HB	HBTRTL	MV616C	0
A316	1MOV616	11A HPSI LOOP ISOL	HB	HBTRTL	MV616T	0
A316	1MOV626	11B HPSI LOOP ISOL	HB	HBTRTL	MV626C	0
A316	1MOV626	11B HPSI LOOP ISOL	HB	HBTRTL	MV626T	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	HU	BHEF1B	Throttle	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	HU	BHEF1B	Throttle	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	HW	HATRTL	MV617C	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	HW	HATRTL	MV617T	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	HW	HATRTL	MV627C	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	HW	HATRTL	MV627T	0
A316	1MOV616	11A HPSI LOOP ISOL	HW	HBTRTL	MV616C	0
A316	1MOV616	11A HPSI LOOP ISOL	HW	HBTRTL	MV616T	0
A316	1MOV626	11B HPSI LOOP ISOL	HW	HBTRTL	MV626C	0
A316	1MOV626	11B HPSI LOOP ISOL	HW	HBTRTL	MV626T	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	HX	BHEF1A	Throttle	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	HX	BHEF1A	Throttle	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A316	1CV3832	CONTMT SUPPLY CV	K3	C3832C	C3832C	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	K3	C3832C	C3832C	0
A316	1CV3832	CONTMT SUPPLY CV	K3	C3832T	C3832T	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	K3	C3832T	C3832T	0
A316	1CV3833	CONTMT RETN CV	K3	C3833C	C3833C	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	K3	C3833C	C3833C	0
A316	1CV3833	CONTMT RETN CV	K3	C3833T	C3833T	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	K3	C3833T	C3833T	0
A316	1CV3832	CONTMT SUPPLY CV	K4	C3832C	C3832C	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	K4	C3832C	C3832C	0
A316	1CV3832	CONTMT SUPPLY CV	K4	C3832T	C3832T	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	K4	C3832T	C3832T	0
A316	1CV3833	CONTMT RETN CV	K4	C3833C	C3833C	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	K4	C3833C	C3833C	0
A316	1CV3833	CONTMT RETN CV	K4	C3833T	C3833T	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	K4	C3833T	C3833T	0
A316	1CV3832	CONTMT SUPPLY CV	KS	KSCV32	C3832P	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	KS	KSCV32	C3832P	0
A316	1CV3833	CONTMT RETN CV	KS	KSCV33	C3833P	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	KS	KSCV33	C3833P	0
A316	1MOV616	11A HPSI LOOP ISOL	M1	MVM16Q	MVM16Q	0
A316	1MOV626	11B HPSI LOOP ISOL	M1	MVM17Q	MVM17Q	0
A316	1MOV6200	NO 1 CNTMT ISOL VLV	M1	MVM23Q	MVM23Q	0
A316	1MOV6903	H2 PURGE REPLACE AIR CONTMT ISOL	M1	MVM52Q	MVM52Q	0
A316	1MOV6902	H2 PURGE FLOW CONTROL DAMPER	M1	MVM56Q	MVM56Q	0
A316	1FANHP11	H2 PURGE REP BLOWER (1M0403)	M1	VAM03Q	VAM03Q	0
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A227	1MOV615	11A LPSI LOOP ISOL	M2	MVN07Q	MVN07Q	19
A227	1MOV625	11B LPSI LOOP ISOL	M2	MVN08Q	MVN08Q	0
A316	1MOV6901	H2 PURGE CONTMT ISOL (PER RM SIDE)	M2	MVN14Q	MVN14Q	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	M2	MVN16Q	MVN16Q	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	M2	MVN17Q	MVN17Q	0
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A316	1MOV2080	CNTMT IA ISOLATION MOV	M2	MVN53Q	MVN53Q	0
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	MH	BHEF1I	Open	0
A227	1SV4071	12 S/G MS TO AFW PP	MH	BHEF1I	Open	0
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A316	1CV4520	11 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	0
A316	1CV4521	11 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	0
A316	1CV4530	12 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	0
A316	1CV4531	12 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	0
A316	1SV4520	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A316	1SV4521	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A316	1SV4530	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A316	1SV4531	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A316	1MOV616	11A HPSI LOOP ISOL	RH	BHERH1	Open	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	RH	BHERH1	Open	0
A316	1MOV626	11B HPSI LOOP ISOL	RH	BHERH1	Open	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	RH	BHERH1	Open	0
A316	1MOV6901	H2 PURGE CONTMT ISOL (PER RM SIDE)	SG	MV691C	MV691C	0
A316	1MOV6901	H2 PURGE CONTMT ISOL (PER RM SIDE)	SG	MV691T	MV691T	0
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A316	1MOV6902	H2 PURGE FLOW CONTROL DAMPER	SG	SGMV01	MV692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0
A316	1MOV6903	H2 PURGE REPLACE AIR CONTMT ISOL	SG	SGMV02	MV693T	0
A316	1CV5292	CONTMT ATMOS SMPL ISOL	SH	IC292C	IC292C	0
A316	1SV5292	CONTMT ATMOS SMPL ISOL	SH	IC292C	IC292C	0
A316	1CV5460	U-1 CONTMT ISOL	SH	IC460T	IC460T	0
A316	1SV5460	U-1 CONTMT ISOL SV	SH	IC460T	IC460T	0
A316	1MOV2080	CNTMT IA ISOLATION MOV	SH	MV080T	MV080T	0
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A316	1CV5460	U-1 CONTMT ISOL	SH	SHIC01	IC460C	0
A316	1SV5460	U-1 CONTMT ISOL SV	SH	SHIC01	IC460C	0
A316	1CV5292	CONTMT ATMOS SMPL ISOL	SH	SHIC03	IC292T	0
A316	1SV5292	CONTMT ATMOS SMPL ISOL	SH	SHIC03	IC292T	0
A316	1MOV2080	CNTMT IA ISOLATION MOV	SH	SHMV01	MV080C	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0
A316	1CV1411	CPA SUPP ISOL CV	SI	IC411C	IC411C	0
A316	1SV1411	CPA SUPP ISOL CV CONT	SI	IC411C	IC411C	0
A316	1CV1413	CPA EXH ISOL CV	SI	IC413C	IC413C	0
A316	1SV1413	CPA EXH ISOL CV CONT	SI	IC413C	IC413C	0
A316	1CV1411	CPA SUPP ISOL CV	SI	SICV02	IC411T	0
A316	1SV1411	CPA SUPP ISOL CV CONT	SI	SICV02	IC411T	0
A316	1CV1413	CPA EXH ISOL CV	SI	SICV04	IC413T	0
A316	1SV1413	CPA EXH ISOL CV CONT	SI	SICV04	IC413T	0
A227	1MOV615	11A LPSI LOOP ISOL	SR	MV615C	MV615C	19
A227	1MOV615	11A LPSI LOOP ISOL	SR	MV615T	MV615T	19
A227	1MOV625	11B LPSI LOOP ISOL	SR	MV625C	MV625C	0
A227	1MOV625	11B LPSI LOOP ISOL	SR	MV625T	MV625T	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	TG	BHEF1Y	Close/Open	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	TG	BHEF1Y	Close/Open	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	TG	BHEF1Y	Close/Open	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	TG	BHEF1Y	Close/Open	0
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	TG	BHEF1Y	Close/Open	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	TG	BHEF1Y	Close/Open	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	TG	BHEF1Y	Open	0
A227	1SV4071	12 S/G MS TO AFW PP	TG	BHEF1Y	Open	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	UQ	BHEUQ1	Throttle	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	UQ	BHEUQ1	Throttle	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A316	1CV3832	CONTMT SUPPLY CV	VQ	IC832C	IC832C	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	VQ	IC832C	IC832C	0
A316	1CV3832	CONTMT SUPPLY CV	VQ	IC832T	IC832T	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	VQ	IC832T	IC832T	0
A316	1CV3833	CONTMT RETN CV	VQ	IC833C	IC833C	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	VQ	IC833C	IC833C	0
A316	1CV3833	CONTMT RETN CV	VQ	IC833T	IC833T	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	VQ	IC833T	IC833T	0
A316	1MOV651	SDC RETN ISOL	VQ	MV651C	MV651C	0
A316	1MOV651	SDC RETN ISOL	VQ	MV651X	MV651X	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A316	1MOV651	SDC RETN ISOL	VQ	VQMV01	MV651T	0
A316	1CV5460	U-1 CONTMT ISOL	WJ	BHESH1	Shut	0
A316	1SV5460	U-1 CONTMT ISOL SV	WJ	BHESH1	Shut	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0
A316	1CV1581	11 CNTMT CLG U NORM INLET	WY	CV581O	CV581O	0
A316	1I/P1581	CNTMT CLR 11 SERV WTR INLT	WY	CV581O	CV581O	0
A316	1SV1581	CNTMT CLR 11 INLT VLV CONTROL	WY	CV581O	CV581O	0
A316	1CV1582	11 CNTMT CLG U EMER DISCH	WY	CV582O	CV582O	0
A316	1SV1582	CNTMT CLR 11 SERV WTR OUT	WY	CV582O	CV582O	0
A316	1CV1589	13 CNTMT CLG U NORM INLET	WY	CV589O	CV589O	0
A316	1I/P1589	CNTMT CLR 13 SERV WTR INLT	WY	CV589O	CV589O	0
A316	1SV1589	CNTMT CLR 13 INLT VLV CONTROL	WY	CV589O	CV589O	0
A316	1CV1590	13 CNTMT CLG U EMER DISCH	WY	CV590O	CV590O	0
A316	1SV1590	CNTMT CLR 13 OUTLT VLV CONTROL	WY	CV590O	CV590O	0
A316	1CV1581	11 CNTMT CLG U NORM INLET	WY	WA102F	CV581P	0
A316	1I/P1581	CNTMT CLR 11 SERV WTR INLT	WY	WA102F	CV581P	0
A316	1SV1581	CNTMT CLR 11 INLT VLV CONTROL	WY	WA102F	CV581P	0
A316	1CV1582	11 CNTMT CLG U EMER DISCH	WY	WAHVCV	CV582P	0
A316	1SV1582	CNTMT CLR 11 SERV WTR OUT	WY	WAHVCV	CV582P	0
A316	1CV1589	13 CNTMT CLG U NORM INLET	WY	WC102F	CV589P	0
A316	1I/P1589	CNTMT CLR 13 SERV WTR INLT	WY	WC102F	CV589P	0
A316	1SV1589	CNTMT CLR 13 INLT VLV CONTROL	WY	WC102F	CV589P	0
A316	1CV1590	13 CNTMT CLG U EMER DISCH	WY	WCHVCV	CV590P	0
A316	1SV1590	CNTMT CLR 13 OUTLT VLV CONTROL	WY	WCHVCV	CV590P	0

Flood Evaluation Query

CF-09A-N227AM *

09-Nov-98

TOP	PM	EVALUATION	RI
CV	F	Conservatively set to failure. CVCS relatively unimportant.	PAJ
DL	Spec Impt	11A and 11B LPSI Loop Isol MOVs (1MOV615 and 1MOV625), Fail to Open on Demand. LPSIs only used in large break LOCAs. Flood cannot cause a large break LOCA, therefore this top is not affected for LPSI's. HPSI MOV'S (1MOV616/617/626/627) fail to open on demand. This valves are normally closed and fail as-is. Flow paths via MOV's 636/637/646/647 are still available, therefore this top is only impacted.	PAJ
F1	Spec Impt	11 and 12 S/G AFW Block Valves fail. These valves are normally open and will fail open. Therefore there is no impact on this top. Flow control valves failing open are addressed in top event HX. Steam admission Control valves 1CV4070/4071 are normally closed, and will fail as-is(closed) on loss of power. Therefore, operators will be unable to open valves. These valves continuously have air (closing the valve). The operators may bleed air to open valve if need be.	PAJ
F3	None	Steam Admission SV's 1SV4070/4071 are covered under top event F1.	PAJ
HA	F	1MOV617/627 are normally open and fail as-is during this particular scenario. They are normally closed, but when this top event is used, they will be open and need to close in order not to cavitate the HPSI pumps. Other flow paths exist, but we will conservatively fail for now.	PAJ
HB	F	1MOV616/617/626/627 are normally open and fail as-is during this particular scenario. They are normally closed, but when this top event is used, they will be open and need to close in order not to cavitate the HPSI pumps. Other flow paths exist, but we will conservatively fail for now. Operators will be unable to throttle flow.	PAJ
HU	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact.	PAJ
HW	F	1MOV616/617/626/627 are normally open and fail as-is during this particular scenario. They are normally closed, but when this top event is used, they will be open and need to close in order not to cavitate the HPSI pumps. Other flow paths exist, but we will conservatively fail for now.	PAJ
HX	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact.	PAJ
K3	None	1CV3832/3833 fail closed on loss of power and loss of air.	PAJ
K4	None	1CV3832/3833 fail closed on loss of power and loss of air.	PAJ
KS	F	1CV3832/3833 fail closed on loss of power and loss of air.	PAJ

* This flood was screened out. See CF-9 Rev 1 (RAN 94-001)
JDK

TOP	PM	EVALUATION	RI
M1	6BKR	6 breaker challenges.	PAJ
M2	9BKR	9 breaker challenges.	PAJ
M3	2BKR	2 breaker challenges.	PAJ
~~M4~~	~~1BKR~~	~~1 breaker challenge.~~	~~PAJ~~
MH	Spec Impt	1CV4070/4071 are normally closed and fail as-is on loss of power. These valves must be locally vented.	PAJ
N1	1BKR	1 breaker challenge.	PAJ
N2	1BKR	1 breaker challenge.	PAJ
N3	None	13 Charging Pump is normally aligned to 480V Bus 11A (Top N1). See Key Assumption 393.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
QZ	None	11 & 12 AFW Block valves (1CV4522/4523/4532/4533) are normally open and fail as-is on loss of power.	PAJ
RH	F	This human action requires operators to open 1MOV616/617/626/627. These MOVs are normally closed and fail as-is, therefore not allowing operators to open.	PAJ
SG	Spec Impt	The hydorgen purge hand switches for MOVs 6901/6902/6903 fail. It is assumed that the MOVs will fail to the undesired position. This does impact the top but does not fail it. There is a check valve or MOV downstream of these MOVs that isolate containment.	PAJ
SH	None	All valves either are normally closed or will fail closed. 1MOV2080 has a chech valve downstream of the MOV that isolates containment.	PAJ
SI	None	1CV1411/1413 were deleted. No longer as-built. These valves are normally closed and fail closed on loss of power and loss of air.	PAJ

TOP	PM	EVALUATION	RI
SR	None	1MOV615/625 are normally closed and fail as-is. Both also have a check valve downstream of the MOV to isolate containment.	PAJ
TG	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact. Steam admission Control valves 1CV4070/4071 are normally closed, and will fail as-is(closed) on loss of power. Therefore, operators will be unable to open valves. These valves continuously have air (closing the valve). The operators may bleed air to open valve if need be. Covered under Top F1.	PAJ
UQ	None	1CV4511/4512 will fail open. This top is only fails when an under feed to the SG occurs.	PAJ
VQ	None	1CV38322/3833 fail closed on loss of power and loss of air. 1MOV651 is normally closed and fails as-is.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ
WY	None	1CV1584/1592/1585/1593 fail open on loss of power.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PS224R	PS224R	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	DL	DLA11A	MV617P	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	DL	DLA11B	MV627P	0
A227	1MOV615	11A LPSI LOOP ISOL	DL	DLL11A	MV615O	19
A227	1MOV615	11A LPSI LOOP ISOL	DL	DLL11A	MV615P	19
A227	1MOV625	11B LPSI LOOP ISOL	DL	DLL11B	MV625O	0
A227	1MOV625	11B LPSI LOOP ISOL	DL	DLL11B	MV625P	0
A316	1MOV616	11A HPSI LOOP ISOL	DL	DLM11A	MV616P	0
A316	1MOV626	11B HPSI LOOP ISOL	DL	DLM11B	MV626P	0
A316	1MOV616	11A HPSI LOOP ISOL	DL	MV616O	MV616O	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	DL	MV617O	MV617O	0
A316	1MOV626	11B HPSI LOOP ISOL	DL	MV626O	MV626O	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	DL	MV627O	MV627O	0
A316	1CV4520	11 S/G AFW BLOCK VLV	F1	CV4520	CV520P	0
A316	1SV4520	11 S/G AFW BLOCK SV	F1	CV4520	CV520P	0
A316	1CV4521	11 S/G AFW BLOCK VLV	F1	CV4521	CV521P	0
A316	1SV4521	11 S/G AFW BLOCK SV	F1	CV4521	CV521P	0
A316	1CV4530	12 S/G AFW BLOCK VLV	F1	CV4530	CV530P	0
A316	1SV4530	12 S/G AFW BLOCK SV	F1	CV4530	CV530P	0
A316	1CV4531	12 S/G AFW BLOCK VLV	F1	CV4531	CV531P	0
A316	1SV4531	12 S/G AFW BLOCK SV	F1	CV4531	CV531P	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	F1	F1CV70	C8070O	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	F1	F1CV70	C8070P	0
A316	1SV4070A	11 S/G AFW MAIN STM BYP VALVE	F1	F1CV70	C870AO	0
A227	1SV4071	12 S/G MS TO AFW PP	F1	F1CV71	C8071O	0
A227	1SV4071	12 S/G MS TO AFW PP	F1	F1CV71	C8071P	0
A316	1SV4071A	12 S/G AFW MAIN STM BYP VLV	F1	F1CV71	C871AO	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	F1	F1TLV1	C6511P	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	F1	F1TLV1	C6511P	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	F1	F1TLV1	C6511P	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	F1	F1TLV1	C6511R	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	F1	F1TLV1	C6511R	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	F1	F1TLV1	C6511R	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	F1	F1TLV2	C6512P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	F1	F1TLV2	C6512P	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	F1	F1TLV2	C6512P	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	F1	F1TLV2	C6512R	0
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	F1	F1TLV2	C6512R	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	F1	F1TLV2	C6512R	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	F3	BHEF31	Open	0
A316	1SV4070A	11 S/G AFW MAIN STM BYP VALVE	F3	BHEF31	Open	0
A227	1SV4071	12 S/G MS TO AFW PP	F3	BHEF31	Open	0
A316	1SV4071A	12 S/G AFW MAIN STM BYP VLV	F3	BHEF31	Open	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	HA	HATRTL	MV617C	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	HA	HATRTL	MV617T	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	HA	HATRTL	MV627C	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	HA	HATRTL	MV627T	0
A316	1MOV616	11A HPSI LOOP ISOL	HB	BHEHW1	Throttle	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	HB	BHEHW1	Throttle	0
A316	1MOV626	11B HPSI LOOP ISOL	HB	BHEHW1	Throttle	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	HB	BHEHW1	Throttle	0
A316	1MOV616	11A HPSI LOOP ISOL	HB	HBTRTL	MV616C	0
A316	1MOV616	11A HPSI LOOP ISOL	HB	HBTRTL	MV616T	0
A316	1MOV626	11B HPSI LOOP ISOL	HB	HBTRTL	MV626C	0
A316	1MOV626	11B HPSI LOOP ISOL	HB	HBTRTL	MV626T	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	HU	BHEF1B	Throttle	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	HU	BHEF1B	Throttle	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	HW	HATRTL	MV617C	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	HW	HATRTL	MV617T	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	HW	HATRTL	MV627C	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	HW	HATRTL	MV627T	0
A316	1MOV616	11A HPSI LOOP ISOL	HW	HBTRTL	MV616C	0
A316	1MOV616	11A HPSI LOOP ISOL	HW	HBTRTL	MV616T	0
A316	1MOV626	11B HPSI LOOP ISOL	HW	HBTRTL	MV626C	0
A316	1MOV626	11B HPSI LOOP ISOL	HW	HBTRTL	MV626T	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	HX	BHEF1A	Throttle	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	HX	BHEF1A	Throttle	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A316	1CV3832	CONTMT SUPPLY CV	K3	C3832C	C3832C	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	K3	C3832C	C3832C	0
A316	1CV3832	CONTMT SUPPLY CV	K3	C3832T	C3832T	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	K3	C3832T	C3832T	0
A316	1CV3833	CONTMT RETN CV	K3	C3833C	C3833C	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	K3	C3833C	C3833C	0
A316	1CV3833	CONTMT RETN CV	K3	C3833T	C3833T	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	K3	C3833T	C3833T	0
A316	1CV3832	CONTMT SUPPLY CV	K4	C3832C	C3832C	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	K4	C3832C	C3832C	0
A316	1CV3832	CONTMT SUPPLY CV	K4	C3832T	C3832T	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	K4	C3832T	C3832T	0
A316	1CV3833	CONTMT RETN CV	K4	C3833C	C3833C	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	K4	C3833C	C3833C	0
A316	1CV3833	CONTMT RETN CV	K4	C3833T	C3833T	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	K4	C3833T	C3833T	0
A316	1CV3832	CONTMT SUPPLY CV	KS	KSCV32	C3832P	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	KS	KSCV32	C3832P	0
A316	1CV3833	CONTMT RETN CV	KS	KSCV33	C3833P	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	KS	KSCV33	C3833P	0
A316	1MOV616	11A HPSI LOOP ISOL	M1	MVM16Q	MVM16Q	0
A316	1MOV626	11B HPSI LOOP ISOL	M1	MVM17Q	MVM17Q	0
A316	1MOV6200	NO 1 CNTMT ISOL VLV	M1	MVM23Q	MVM23Q	0
A316	1MOV6903	H2 PURGE REPLACE AIR CONTMT ISOL	M1	MVM52Q	MVM52Q	0
A316	1MOV6902	H2 PURGE FLOW CONTROL DAMPER	M1	MVM56Q	MVM56Q	0
A316	1FANHP11	H2 PURGE REP BLOWER (1M0403)	M1	VAM03Q	VAM03Q	0
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A227	1MOV615	11A LPSI LOOP ISOL	M2	MVN07Q	MVN07Q	19
A227	1MOV625	11B LPSI LOOP ISOL	M2	MVN08Q	MVN08Q	0
A316	1MOV6901	H2 PURGE CONTMT ISOL (PER RM SIDE)	M2	MVN14Q	MVN14Q	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	M2	MVN16Q	MVN16Q	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	M2	MVN17Q	MVN17Q	0
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A316	1MOV2080	CNTMT IA ISOLATION MOV	M2	MVN53Q	MVN53Q	0
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	MH	BHEF1I	Open	0
A227	1SV4071	12 S/G MS TO AFW PP	MH	BHEF1I	Open	0
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A316	1CV4520	11 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	0
A316	1CV4521	11 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	0
A316	1CV4530	12 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	0
A316	1CV4531	12 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	0
A316	1SV4520	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A316	1SV4521	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A316	1SV4530	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A316	1SV4531	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A316	1MOV616	11A HPSI LOOP ISOL	RH	BHERH1	Open	0
A316	1MOV617	11A AUX HPSI LOOP ISOL	RH	BHERH1	Open	0
A316	1MOV626	11B HPSI LOOP ISOL	RH	BHERH1	Open	0
A316	1MOV627	11B AUX HPSI LOOP ISOL	RH	BHERH1	Open	0
A316	1MOV6901	H2 PURGE CONTMT ISOL (PER RM SIDE)	SG	MV691C	MV691C	0
A316	1MOV6901	H2 PURGE CONTMT ISOL (PER RM SIDE)	SG	MV691T	MV691T	0
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A316	1MOV6902	H2 PURGE FLOW CONTROL DAMPER	SG	SGMV01	MV692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0
A316	1MOV6903	H2 PURGE REPLACE AIR CONTMT ISOL	SG	SGMV02	MV693T	0
A316	1CV5292	CONTMT ATMOS SMPL ISOL	SH	IC292C	IC292C	0
A316	1SV5292	CONTMT ATMOS SMPL ISOL	SH	IC292C	IC292C	0
A316	1CV5460	U-1 CONTMT ISOL	SH	IC460T	IC460T	0
A316	1SV5460	U-1 CONTMT ISOL SV	SH	IC460T	IC460T	0
A316	1MOV2080	CNTMT IA ISOLATION MOV	SH	MV080T	MV080T	0
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A316	1CV5460	U-1 CONTMT ISOL	SH	SHIC01	IC460C	0
A316	1SV5460	U-1 CONTMT ISOL SV	SH	SHIC01	IC460C	0
A316	1CV5292	CONTMT ATMOS SMPL ISOL	SH	SHIC03	IC292T	0
A316	1SV5292	CONTMT ATMOS SMPL ISOL	SH	SHIC03	IC292T	0
A316	1MOV2080	CNTMT IA ISOLATION MOV	SH	SHMV01	MV080C	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0
A316	1CV1411	CPA SUPP ISOL CV	SI	IC411C	IC411C	0
A316	1SV1411	CPA SUPP ISOL CV CONT	SI	IC411C	IC411C	0
A316	1CV1413	CPA EXH ISOL CV	SI	IC413C	IC413C	0
A316	1SV1413	CPA EXH ISOL CV CONT	SI	IC413C	IC413C	0
A316	1CV1411	CPA SUPP ISOL CV	SI	SICV02	IC411T	0
A316	1SV1411	CPA SUPP ISOL CV CONT	SI	SICV02	IC411T	0
A316	1CV1413	CPA EXH ISOL CV	SI	SICV04	IC413T	0
A316	1SV1413	CPA EXH ISOL CV CONT	SI	SICV04	IC413T	0
A227	1MOV615	11A LPSI LOOP ISOL	SR	MV615C	MV615C	19
A227	1MOV615	11A LPSI LOOP ISOL	SR	MV615T	MV615T	19
A227	1MOV625	11B LPSI LOOP ISOL	SR	MV625C	MV625C	0
A227	1MOV625	11B LPSI LOOP ISOL	SR	MV625T	MV625T	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	TG	BHEF1Y	Close/Open	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	TG	BHEF1Y	Close/Open	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	TG	BHEF1Y	Close/Open	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	TG	BHEF1Y	Close/Open	0
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	TG	BHEF1Y	Close/Open	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	TG	BHEF1Y	Close/Open	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	TG	BHEF1Y	Open	0
A227	1SV4071	12 S/G MS TO AFW PP	TG	BHEF1Y	Open	0
A316	1CV4511	11 S/G AFW FLOW CONT VALVE	UQ	BHEUQ1	Throttle	0
A316	1CV4512	12 S/G AFW FLOW CONT VALVE	UQ	BHEUQ1	Throttle	0
A316	1I/P4511A	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A316	1I/P4511B	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A316	1I/P4512A	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A316	1I/P4512B	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A316	1CV3832	CONTMT SUPPLY CV	VQ	IC832C	IC832C	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	VQ	IC832C	IC832C	0
A316	1CV3832	CONTMT SUPPLY CV	VQ	IC832T	IC832T	0
A316	1SV3832	COMP CLG INTO CNTMT VLV CONT	VQ	IC832T	IC832T	0
A316	1CV3833	CONTMT RETN CV	VQ	IC833C	IC833C	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	VQ	IC833C	IC833C	0
A316	1CV3833	CONTMT RETN CV	VQ	IC833T	IC833T	0
A316	1SV3833	COMP CLG OUTLT CNTMT ISOL CONT	VQ	IC833T	IC833T	0
A316	1MOV651	SDC RETN ISOL	VQ	MV651C	MV651C	0
A316	1MOV651	SDC RETN ISOL	VQ	MV651X	MV651X	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A316	1MOV651	SDC RETN ISOL	VQ	VQMV01	MV651T	0
A316	1CV5460	U-1 CONTMT ISOL	WJ	BHESH1	Shut	0
A316	1SV5460	U-1 CONTMT ISOL SV	WJ	BHESH1	Shut	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0
A316	1CV1581	11 CNTMT CLG U NORM INLET	WY	CV581O	CV581O	0
A316	1I/P1581	CNTMT CLR 11 SERV WTR INLT	WY	CV581O	CV581O	0
A316	1SV1581	CNTMT CLR 11 INLT VLV CONTROL	WY	CV581O	CV581O	0
A316	1CV1582	11 CNTMT CLG U EMER DISCH	WY	CV582O	CV582O	0
A316	1SV1582	CNTMT CLR 11 SERV WTR OUT	WY	CV582O	CV582O	0
A316	1CV1589	13 CNTMT CLG U NORM INLET	WY	CV589O	CV589O	0
A316	1I/P1589	CNTMT CLR 13 SERV WTR INLT	WY	CV589O	CV589O	0
A316	1SV1589	CNTMT CLR 13 INLT VLV CONTROL	WY	CV589O	CV589O	0
A316	1CV1590	13 CNTMT CLG U EMER DISCH	WY	CV590O	CV590O	0
A316	1SV1590	CNTMT CLR 13 OUTLT VLV CONTROL	WY	CV590O	CV590O	0
A316	1CV1581	11 CNTMT CLG U NORM INLET	WY	WA102F	CV581P	0
A316	1I/P1581	CNTMT CLR 11 SERV WTR INLT	WY	WA102F	CV581P	0
A316	1SV1581	CNTMT CLR 11 INLT VLV CONTROL	WY	WA102F	CV581P	0
A316	1CV1582	11 CNTMT CLG U EMER DISCH	WY	WAHVCV	CV582P	0
A316	1SV1582	CNTMT CLR 11 SERV WTR OUT	WY	WAHVCV	CV582P	0
A316	1CV1589	13 CNTMT CLG U NORM INLET	WY	WC102F	CV589P	0
A316	1I/P1589	CNTMT CLR 13 SERV WTR INLT	WY	WC102F	CV589P	0
A316	1SV1589	CNTMT CLR 13 INLT VLV CONTROL	WY	WC102F	CV589P	0
A316	1CV1590	13 CNTMT CLG U EMER DISCH	WY	WCHVCV	CV590P	0
A316	1SV1590	CNTMT CLR 13 OUTLT VLV CONTROL	WY	WCHVCV	CV590P	0

Flood Evaluation Query

CF-10A-F228AM

10-Nov-98

TOP	PM	EVALUATION	RI
CV	F	Conservatively set to failure. CVCS relatively unimportant.	PAJ
IL	None	Air accumulators only. Mechanical operation only.	PAJ
IN	None	Air accumulators only. Mechanical operation only.	PAJ
K3	None	Since KX, KY and KZ fail, this top event will be set to success.	PAJ
K4	None	Since KX, KY and KZ fail, this top event will be set to success.	PAJ
KH(PP1)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to start 11 CCW Pump. 11 Component Cooling Pump fails to start.	PAJ
KH(PP2)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to start 12 CCW Pump. 12 Component Cooling Pump fails to start.	PAJ
KH(PP3)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to start 13 CCW Pump. 13 Component Cooling Pump fails to start.	PAJ
KI(HX1)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to open, close or modulate two valves (1CV3824 and 1CV5206). 1CV3824 will fail in the appropriate position. 1CV5206 will not. This valve will fail open neglecting the capability to throttle this valve. Therefore this top will fail.	PAJ
KI(HX2)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to open, close or modulate two valves (1CV3826 and 1CV5208). 1CV3826 will fail in the appropriate position. 1CV5208 will not. This valve will fail open neglecting the capability to throttle this valve. Therefore this top will fail.	PAJ
KM	None	Since KX, KY and KZ fail, this top event will be set to success. Also 1CV3823 will transfer close, which is the undesired affect. But it does not fail top unless 1HVCC-149 transfers shut or 1HXCC11 plugs during operation. Since mechanical components are screened for flood, it will not fail this top, only degrade it.	PAJ
KN	None	Since KX, KY and KZ fail, this top event will be set to success. Also 1CV3825 will transfer close, which is the undesired affect. But it does not fail top unless 1HVCC-156 transfers shut or 1HXCC12 plugs during operation. Since mechanical components are screened for flood, it will not fail this top, only degrade it.	PAJ
KX	F	11 CCW Pump will fail to start/run.	PAJ
KY	F	12 CCW Pump will fail to start/run.	PAJ

TOP	PM	EVALUATION	RI
KZ	F	13 CCW Pump will fail to start/run.	PAJ
M2	3BKR	3 breaker challenge.	PAJ
M3	2BKR	2 breaker challenges.	PAJ
~~M4~~	~~1BKR~~	~~1 breaker challenge.~~	~~PAJ~~
N1	2BKR	2 breaker challenges.	PAJ
N2	2BKR	2 breaker challenges.	PAJ
N3	1BKR	1 breaker challenges.	PAJ
N4	1BKR	1 breaker challenges.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
NR	None	Air accumulators only. Mechanical operation only.	PAJ
SG	None ~~Spec Impt~~	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment. (Note 5)	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ
SP(PP1)	None	11 CC Pumps fails to start/run. Accounted for by Top KX.	PAJ
SP(PP2)	None	12 CC Pumps fails to start/run. Accounted for by Top KY.	PAJ
SP(PP3)	None	13 CC Pumps fails to start/run. Accounted for by Top KZ.	PAJ
TH(HD1)	None	1CV5170/5171 fail open. 1CV5206 will fail to the open position not allowing the operator to throttle valves. Covered by Top S3 or K3.	PAJ

See notes in RAN 98-065, sect. 5.4 [illegible]

TOP	PM	EVALUATION	RI
TH(HD2)	None	1CV5173 fails open. 1CV5208 will fail to the open position not allowing the operator to throttle valves. Covered by Top S3 or K3.	PAJ
V1	None	1CV5170/5171 fails open on loss of power and loss of air.	PAJ
V2	None	1CV5173/5174/5175/5177/5178 fails open allowing flow through to the discharge structure.	PAJ
VM(RM1)	None	Covered under Top V1.	PAJ
VM(RM2)	None	Covered under Top V2.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PS224R	PS224R	0
A228	1ACC5170	AIR ACCUMULATOR FOR 1CV5170	IL	ILIA99	TK170B	0
A228	1ACC5171	AIR ACCUMULATOR FOR 1CV5171	IL	ILIA99	TK171B	0
A228	1ACC5174	AIR ACCUMULATOR FOR 1CV5174	IL	ILIA99	TK174B	0
A228	1ACC5175	AIR ACCUMULATOR FOR 1CV5175	IL	ILIA99	TK175B	0
A228	1ACC5177	AIR ACCUMULATOR FOR 1CV5177	IL	ILIA99	TK177B	0
A228	1ACC5178	AIR ACCUMULATOR FOR 1CV5178	IL	ILIA99	TK178B	0
A228	1ACC5173	AIR ACCUMULATOR FOR 1CV5173	IN	INIA99	TK173B	0
A228	1CV5160	11 CC HX SW INLET	K3	C1160O	C1160O	0
A228	1SV5160	COMP CLG HTEX 11 SALT WTR INLT	K3	C1160O	C1160O	0
A228	1CV5206	11 CC HX SW OUTLET	K3	C2206O	C2206O	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	K3	C2206O	C2206O	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	K3	C2206O	C2206O	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	K3	C2206O	C2206O	0
A228	1CV3823	11 CC HX TEMP CONT BYP	K3	CT823R	CT823R	0
A228	1TIC3823	11 CC HX BYP VLV TEMP CONTL	K3	CT823R	CT823R	0
A228	1CV3823	11 CC HX TEMP CONT BYP	K3	K3COMP	CT823T	0
A228	1TIC3823	11 CC HX BYP VLV TEMP CONTL	K3	K3COMP	CT823T	0
A228	1CV5160	11 CC HX SW INLET	K3	K3OTLT	C1160P	0
A228	1SV5160	COMP CLG HTEX 11 SALT WTR INLT	K3	K3OTLT	C1160P	0
A228	1CV5206	11 CC HX SW OUTLET	K3	K3OTLT	C2206P	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	K3	K3OTLT	C2206P	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	K3	K3OTLT	C2206P	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	K3	K3OTLT	C2206P	0
A228	1CV5162	12 CC HX SW INLET	K4	C1162O	C1162O	0
A228	1SV5162	COMP CLG HTEX 12 SALT WTR INLT	K4	C1162O	C1162O	0
A228	1CV5163	12 CC HX SW NORM B/U OUTLET	K4	C1163O	C1163O	0
A228	1SV5163	COMP CLG HTEX 12 SALT WTR OUT	K4	C1163O	C1163O	0
A228	1CV5208	12 CC HX SW NORM OUT	K4	C2208O	C2208O	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	K4	C2208O	C2208O	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	K4	C2208O	C2208O	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	K4	C2208O	C2208O	0
A228	1CV3825	12 CC HX TEMP CONT BYP	K4	CT825R	CT825R	0
A228	1TIC3825	12 CC HX BYP VLV TEMP CONTL	K4	CT825R	CT825R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A228	1CV3825	12 CC HX TEMP CONT BYP	K4	K4CMP1	CT825T	0
A228	1TIC3825	12 CC HX BYP VLV TEMP CONTL	K4	K4CMP1	CT825T	0
A228	1CV5162	12 CC HX SW INLET	K4	K4INLT	C1162P	0
A228	1SV5162	COMP CLG HTEX 12 SALT WTR INLT	K4	K4INLT	C1162P	0
A228	1CV5165	12 CC HX SW AUX OUT	K4	K4OPN2	C4165O	0
A228	1SV5165	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4165O	0
A228	1CV5165	12 CC HX SW AUX OUT	K4	K4OPN2	C4165P	0
A228	1SV5165	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4165P	0
A228	1CV5166	12 CC HX SW AUX B/U OUTLET	K4	K4OPN2	C4166O	0
A228	1SV5166	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4166O	0
A228	1CV5166	12 CC HX SW AUX B/U OUTLET	K4	K4OPN2	C4166P	0
A228	1SV5166	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4166P	0
A228	1CV5163	12 CC HX SW NORM B/U OUTLET	K4	K4OTLT	C1163P	0
A228	1SV5163	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OTLT	C1163P	0
A228	1CV5208	12 CC HX SW NORM OUT	K4	K4OTLT	C2208P	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	K4	K4OTLT	C2208P	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OTLT	C2208P	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OTLT	C2208P	0
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KH(PP1)	BHEKC1	Start	12
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KH(PP1)	BHEKZ1	Start	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KH(PP2)	BHEKC1	Start	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KH(PP2)	BHEKZ1	Start	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KH(PP3)	BHEKC1	Start	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KH(PP3)	BHEKZ1	Start	12
A228	1CV3826	12 CC HX OUTLET	KI(HX1)	BHEK31	Close	0
A228	1CV5208	12 CC HX SW NORM OUT	KI(HX1)	BHEK31	Close	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	KI(HX1)	BHEK31	Close	0
A228	1SV3826	COMP CLG HTEX 12 DISCH CONTROL	KI(HX1)	BHEK31	Close	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	KI(HX1)	BHEK31	Close	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	KI(HX1)	BHEK31	Close	0
A228	1CV3824	11 CC HX OUTLET	KI(HX1)	BHEK31	Open	0
A228	1SV3824	COMP CLG HX 11 DISCH CONTROL	KI(HX1)	BHEK31	Open	0
A228	1CV5206	11 CC HX SW OUTLET	KI(HX1)	BHEK31	Throttle	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	KI(HX1)	BHEK31	Throttle	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	KI(HX1)	BHEK31	Throttle	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	KI(HX1)	BHEK31	Throttle	0
A228	1CV3824	11 CC HX OUTLET	KI(HX2)	BHEK31	Close	0
A228	1CV5206	11 CC HX SW OUTLET	KI(HX2)	BHEK31	Close	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	KI(HX2)	BHEK31	Close	0
A228	1SV3824	COMP CLG HX 11 DISCH CONTROL	KI(HX2)	BHEK31	Close	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	KI(HX2)	BHEK31	Close	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	KI(HX2)	BHEK31	Close	0
A228	1CV3826	12 CC HX OUTLET	KI(HX2)	BHEK31	Open	0
A228	1SV3826	COMP CLG HTEX 12 DISCH CONTROL	KI(HX2)	BHEK31	Open	0
A228	1CV5208	12 CC HX SW NORM OUT	KI(HX2)	BHEK31	Throttle	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	KI(HX2)	BHEK31	Throttle	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	KI(HX2)	BHEK31	Throttle	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	KI(HX2)	BHEK31	Throttle	0
A228	1HXCC11	11 COMPONENT COOLING WTR	KM	HXC11B	HXC11B	13
A228	1CV3823	11 CC HX TEMP CONT BYP	KM	KMBYPS	CT823P	0
A228	1TIC3823	11 CC HX BYP VLV TEMP CONTL	KM	KMBYPS	TC823R	0
A228	1CV3824	11 CC HX OUTLET	KM	KMCV24	CV824P	0
A228	1SV3824	COMP CLG HX 11 DISCH CONTROL	KM	KMCV24	CV824P	0
A228	1HXCC11	11 COMPONENT COOLING WTR	KM	KMPATH	HXC11P	13
A228	1HXCC12	12 COMPONENT COOLING WTR	KN	HXC12B	HXC12B	13
A228	1CV3825	12 CC HX TEMP CONT BYP	KN	KNBYPS	CT825P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A228	1TIC3825	12 CC HX BYP VLV TEMP CONTL	KN	KNBYPS	TC825R	0
A228	1CV3826	12 CC HX OUTLET	KN	KNCV26	CV826P	0
A228	1SV3826	COMP CLG HTEX 12 DISCH CONTROL	KN	KNCV26	CV826P	0
A228	1HXCC12	12 COMPONENT COOLING WTR	KN	KNPATH	HXC12P	13
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KX	MZC11R	MZC11R	12
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KX	MZC11S	MZC11S	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KY	MZC12R	MZC12R	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KY	MZC12S	MZC12S	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KZ	MZC13R	MZC13R	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KZ	MZC13S	MZC13S	12
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	N1	MZ106Q	MZ106Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	N2	MZ116Q	MZ116Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	N3	MZ406Q	MZ406Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	N4	MZ416Q	MZ416Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A228	1ACC5170	AIR ACCUMULATOR FOR 1CV5170	NR	ILIA99	TK170B	0
A228	1ACC5171	AIR ACCUMULATOR FOR 1CV5171	NR	ILIA99	TK171B	0
A228	1ACC5174	AIR ACCUMULATOR FOR 1CV5174	NR	ILIA99	TK174B	0
A228	1ACC5175	AIR ACCUMULATOR FOR 1CV5175	NR	ILIA99	TK175B	0
A228	1ACC5177	AIR ACCUMULATOR FOR 1CV5177	NR	ILIA99	TK177B	0
A228	1ACC5178	AIR ACCUMULATOR FOR 1CV5178	NR	ILIA99	TK178B	0
A228	1ACC5173	AIR ACCUMULATOR FOR 1CV5173	NR	INIA99	TK173B	0
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	SP(PP1)	BHEK12	Start	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	SP(PP2)	BHEK12	Start	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	SP(PP3)	BHEK12	Start	12
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	TH(HD1)	BHER3B	Open	13

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	TH(HD1)	BHER3B	Open	0
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	TH(HD1)	BHER3B	Open	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	TH(HD1)	BHER3B	Open	0
A228	1CV5206	11 CC HX SW OUTLET	TH(HD1)	BHER3B	Throttle	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	TH(HD1)	BHER3B	Throttle	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	TH(HD2)	BHER3B	Open	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	TH(HD2)	BHER3B	Open	0
A228	1CV5208	12 CC HX SW NORM OUT	TH(HD2)	BHER3B	Throttle	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	TH(HD2)	BHER3B	Throttle	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	V1	V1CLSE	WC170P	13
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	V1	V1CLSE	WC170P	0
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	V1	V1CLSE	WC171P	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	V1	V1CLSE	WC171P	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	V1	WC170D	WC170D	13
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	V1	WC170D	WC170D	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	V1	WC170O	WC170O	13
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	V1	WC170O	WC170O	0
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	V1	WC171D	WC171D	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	V1	WC171D	WC171D	0
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	V1	WC171O	WC171O	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	V1	WC171O	WC171O	0
A228	1CV5174	12 ECCS PP RM AIR CLR SW NORM OUTLET	V2	V2CLSE	WC174P	0
A228	1SV5174	ECCS PP RM HTEX 12 SLT WTR OUT	V2	V2CLSE	WC174P	0
A228	1CV5175	12 ECCS PP RM AIR CLR SW NORM B/U OUT	V2	V2CLSE	WC175P	0
A228	1SV5175	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2CLSE	WC175P	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	V2	V2INLT	WC173P	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	V2	V2INLT	WC173P	0
A228	1CV5177	12 ECCS PP RM AIR CLR SW AUX OUTLET	V2	V2OTLT	C4177O	0
A228	1SV5177	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4177O	0
A228	1CV5177	12 ECCS PP RM AIR CLR SW AUX OUTLET	V2	V2OTLT	C4177P	0
A228	1SV5177	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4177P	0
A228	1CV5178	12 ECCS PP RM AIR CLR SW AUX B/U OUT	V2	V2OTLT	C4178O	0
A228	1SV5178	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4178O	0
A228	1CV5178	12 ECCS PP RM AIR CLR SW AUX B/U OUT	V2	V2OTLT	C4178P	0
A228	1SV5178	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4178P	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	V2	WC173D	WC173D	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	V2	WC173D	WC173D	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	V2	WC173O	WC173O	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	V2	WC173O	WC173O	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	VM(RM1)	BHEV1T	Open	13
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	VM(RM1)	BHEV1T	Open	0
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	VM(RM1)	BHEV1T	Open	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	VM(RM1)	BHEV1T	Open	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	VM(RM2)	BHEV1T	Open	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	VM(RM2)	BHEV1T	Open	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0

Flood Evaluation Query

CF-10B-F228AN *

10-Nov-98

TOP	PM	EVALUATION	RI
AA	4BKR	4 breaker challenges.	PAJ
AB	4BKR	4 breaker challenges.	PAJ
AC	2BKR	2 breaker challenges.	PAJ
AD	5BKR	5 breaker challenges.	PAJ
CS	F	CS Pump 11 is lost.	PAJ
CT	F	CS Pump 12 is lost.	PAJ
CV	F	Conservatively set to failure. CVCS relatively unimportant.	PAJ
F1	None	11 and 12 S/G AFW Block Valves fail. These valves are normally open and will fail open. Therefore there is no impact on this top. Flow control valves failing open are addressed in top event HX.	PAJ
F7	F	Lost the ability to use Unit 1 AFW MD Pump 13 to supply Unit 1 S/G.	PAJ
F9	F	Loss the ability to use Unit 2 AFW MD Pump 23 to supply Unit 1 S/G. Also, 21 and 22 S/G AFW Block and Flow Valves fail. These valves are normally open and fail as-is (open) on loss of power.	PAJ
FH	None	Loss the ability to start AFW MD Pump 13. Covered under Top F7.	PAJ
FN	None	Only has 2 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
GW	None	2CV5152, 2CV5153 and 2CV5212 fail open on loss of power and loss of air.	PAJ
GZ	None	2CV5150 and 2CV5210 fail open on loss of power and loss of air.	PAJ
HA	F	11 HPSI Pump fails.	PAJ
HB	F	13 HPSI Pump fails.	PAJ
HU	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact.	PAJ
HW	F	12 HPSI is lost. Also 1MOV653, 1MOV654, 1MOV655 and 1MOV656 fail as-is.	PAJ

* This flood was eliminated. See Note 12 RAN 98-065 Sect. 5.4 GBM

TOP	PM	EVALUATION	RI
HX	None	11 and 12 S/G AFW (motor driven feed line) flow control valves fail open. Impact already considered by Top F7 & F9 failure.	PAJ
IL	None	Air accumulators only. Mechanical operation only.	PAJ
IN	None	Air accumulators only. Mechanical operation only.	PAJ
K3	None	Since KX, KY and KZ fail, this top event will be set to success.	PAJ
K4	None	Since KX, KY and KZ fail, this top event will be set to success.	PAJ
KH(PP1)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to start 11 CCW Pump. 11 Component Cooling Pump fails to start.	PAJ
KH(PP2)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to start 12 CCW Pump. 12 Component Cooling Pump fails to start.	PAJ
KH(PP3)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to start 13 CCW Pump. 13 Component Cooling Pump fails to start.	PAJ
KI(HX1)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to open, close or modulate two valves (1CV3824 and 1CV5206). 1CV3824 will fail in the appropriate position. 1CV5206 will not. This valve will fail open neglecting the capability to throttle this valve. Therefore this top will fail.	PAJ
KI(HX2)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to open, close or modulate two valves (1CV3826 and 1CV5208). 1CV3826 will fail in the appropriate position. 1CV5208 will not. This valve will fail open neglecting the capability to throttle this valve. Therefore this top will fail.	PAJ
KM	None	Since KX, KY and KZ fail, this top event will be set to success. Also 1CV3823 will transfer close, which is the undesired affect. But it does not fail top unless 1HVCC-149 transfers shut or 1HXCC11 plugs during operation. Since mechanical components are screened for flood, it will not fail this top, only degrade it.	PAJ
KN	None	Since KX, KY and KZ fail, this top event will be set to success. Also 1CV3825 will transfer close, which is the undesired affect. But it does not fail top unless 1HVCC-156 transfers shut or 1HXCC12 plugs during operation. Since mechanical components are screened for flood, it will not fail this top, only degrade it.	PAJ
KX	F	11 CCW Pump will fail to start/run.	PAJ
KY	F	12 CCW Pump will fail to start/run.	PAJ
KZ	F	13 CCW Pump will fail to start/run.	PAJ

TOP	PM	EVALUATION	RI
M1	7BKR	7 breaker challenges.	PAJ
M2	10BKR	10 breaker challenges.	PAJ
M3	9BKR	9 breaker challenges.	PAJ
~~M4~~	~~5BKR~~	~~5 breaker challenges.~~	~~PAJ~~
MN	None	Has 6 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
MV	None	1MOV659/660 fail as-is and are normally electrically locked open, there will be no flood impact.	PAJ
N1	2BKR	2 breaker challenges.	PAJ
N2	2BKR	2 breaker challenges.	PAJ
N3	1BKR	1 breaker challenges.	PAJ
N4	1BKR	1 breaker challenges.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
NR	None	Air accumulators only. Mechanical operation only.	PAJ
NR(TC)	Spec Impt	2CV1600/1637/1638/1639 fail close on loss of power, the undesirable position. Unable to use Unit 2 compressors for Unit 1.	PAJ
NS	Spec Impt	2CV1600/1637/1638/1639 fail close on loss of power, the undesirable position. Unable to use Unit 2 compressors for Unit 2.	PAJ
QZ	None	11 & 12 AFW Block valves (1CV4522/4523/4532/4533) are normally open and fail as-is on loss of power.	PAJ
RH	F	This human action requires the operator to start 11 and 13 HPSI Pumps. Both pumps are assumed not to start/run during a flood scenario.	PAJ

TOP	PM	EVALUATION	RI
S3	None	All valves fail to their appropriate positions on loss of power and loss of air. 1CV5148 (FO), 1CV5148A (FC), 1CV5151 (FO), 1CV5151A (FC) and 1CV5209 (FO).	PAJ
S4	None	All valves fail to their appropriate positions on loss of power and loss of air. 1CV5158 (FO), 1CV5158A (FC), 1CV5159 (FO), 1CV5159A (FC), 1CV5211 (FO), 1CV5153 (FO) and 1CV5157 (FC).	PAJ
SG	Spec Impt	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment.	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ
SP(PP1)	None	11 CC Pumps fails to start/run. Accounted for by Top KX.	PAJ
SP(PP2)	None	12 CC Pumps fails to start/run. Accounted for by Top KY.	PAJ
SP(PP3)	None	13 CC Pumps fails to start/run. Accounted for by Top KZ.	PAJ
SR	None	All MOVs (1MOV4144/4145/5462/5463) are closed and fail close.	PAJ
TA	F	1CV1637/1639 fail close on loss of power / loss of air.	PAJ
TB	F	1CV1600/1638 fail close on loss of power / loss of air.	PAJ
TE	F	1MOV4144 is normally in the closed position and will fail as-is. Therefore, the East Recirculation Header will not function properly.	PAJ
TH(HD1)	None	1CV5170/5171 fail open. 1CV5206/5210 will fail to the open position not allowing the operator to throttle valves. ECCS Pump Room Cooling Fans fail. Covered by Top S3 or K3.	PAJ
TH(HD2)	None	1CV5173 fails open. 1CV5208/5212 will fail to the open position not allowing the operator to throttle valves. ECCS Pump Room Cooling Fans fail. Covered by Top S3 or K3.	PAJ
TW	F	1MOV4145 is normally in the closed position and will fail as-is. Therefore, the West Recirculation Header will not function properly.	PAJ
UQ	None	1CV4525/4535 are normally open and fail as-is on loss of power. This top only fails when an under feed to the SG occurs.	PAJ
V1	F	All ECCS Pump Room Fans fail to start/run.	PAJ

TOP	PM	EVALUATION	RI
V2	F	All ECCS Pump Room Fans fail to start/run.	PAJ
VC	None	Has 6 PCVs. I am assuming that these will not fail during a flood.	PAJ
VM(RM1)	None	Operator will be unable to start ECCS Pump Room Fans. Covered under Top V1.	PAJ
VM(RM2)	None	Operator will be unable to start ECCS Pump Room Fans. Covered under Top V2.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	AA	MAAF3Q	MAAF3Q	16
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	AA	MACS1Q	MACS1Q	12
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	AA	MAHP1Q	MAHP1Q	24
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	AA	MAHP3Q	MAHP3Q	12
A119	1PUMPSILPSI11	11 LOW PRESS SAFETY INJECTION PUMP (1MA104)	AA	MALP1Q	MALP1Q	12
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	AB	MACS2Q	MACS2Q	12
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	AB	MAHP2Q	MAHP2Q	24
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	AB	MAHP4Q	MAHP4Q	12
A118	1PUMPSILPSI12	12 LOW PRESS SAFETY INJECTION PUMP (1MA404)	AB	MALP2Q	MALP2Q	12
A101	2PUMPSICS21	21 CONTAINMENT SPRAY PUMP (2MA107)	AC	MACS3Q	MACS3Q	24
A101	2PUMPHPSI21	SI HPSI PUMP 21 (2MA108)	AC	MAHP5Q	MAHP5Q	24
A102	2PUMPHPSI23	SI HPSI PUMP 23 (2MA110)	AC	MAHP7Q	MAHP7Q	12
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	AD	MAAF6Q	MAAF6Q	16
A102	2PUMPSICS22	22 CONTAINMENT SPRAY PUMP (2MA407)	AD	MACS4Q	MACS4Q	12
A101	2PUMPHPSI22	SI HPSI PUMP 22 (2MA408)	AD	MAHP6Q	MAHP6Q	24
A102	2PUMPHPSI23	SI HPSI PUMP 23 (2MA110)	AD	MAHP8Q	MAHP8Q	12
A102	2PUMPSILPSI22	22 LOW PRESS SAFETY INJECTION PUMP (2MA404)	AD	MALP4Q	MALP4Q	12
A119	1HXSICS11	11 SHUTDOWN COOLING HX	CS	CS0103	HXC11B	0
A119	1HXSICS11	11 SHUTDOWN COOLING HX	CS	CS0103	HXC11P	0
A119	1MOV663	SDC RECIRC TO 11 HPSI PP	CS	CS0103	MV663T	0
A119	1CV3828	11 SDC HX OUTLET	CS	CSHX11	CV828P	0
A119	1SV3828	S/D HX 11 COOL WTR DISCH VLV	CS	CSHX11	CV828P	0
A119	1CV3828	11 SDC HX OUTLET	CS	CV828O	CV828O	0
A119	1SV3828	S/D HX 11 COOL WTR DISCH VLV	CS	CV828O	CV828O	0
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	CS	MA107R	MA107R	12
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	CS	MA107S	MA107S	12
A118	1HXSICS12	12 SHUTDOWN COOLING HX	CT	CT0103	HXC12B	0
A118	1HXSICS12	12 SHUTDOWN COOLING HX	CT	CT0103	HXC12P	0
A118	1MOV662	SDC RECIRC TO 13 HPSI PP	CT	CT0103	MV662T	0
A118	1CV3830	12 SDC HX OUTLET	CT	CTXH12	CV830P	0
A118	1SV3830	S/D HX #12 COMP CLG DISCH VLV	CT	CTXH12	CV830P	0
A118	1CV3830	12 SDC HX OUTLET	CT	CV830O	CV830O	0
A118	1SV3830	S/D HX #12 COMP CLG DISCH VLV	CT	CV830O	CV830O	0
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	CT	MA407R	MA407R	12
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	CT	MA407S	MA407S	12
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PS224R	PS224R	0
A226	1SV4522	11 S/G AFW BLOCK SV	F1	CV4522	CV522P	0
A226	1SV4523	11 S/G AFW BLOCK SV	F1	CV4523	CV523P	0
A226	1SV4532	12 S/G AFW BLOCK SV	F1	CV4532	CV532P	0
A226	1SV4533	12 S/G AFW BLOCK SV	F1	CV4533	CV533P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A226	1SV4550	U-1 TO U-2 AFW X-CONN SV	F7	F7MPVA	C3550T	0
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QR	MA13QR	16
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QS	MA13QS	16
A205	2SV4522	S/G 21 AFW MOTOR SYS ISOL VLV	F9	CVB22C	CVB22C	0
A205	2SV4523	S/G 21 AFW MOTOR SYS ISOL VLV	F9	CVB23C	CVB23C	0
A205	2SV4532	S/G 22 AFW MOTOR SYS ISOL VLV	F9	CVB32C	CVB32C	0
A205	2SV4533	S/G 22 AFW MOTOR SYS ISOL VLV	F9	CVB33C	CVB33C	0
A205	2SV4550	U-2 AUX FEED X-CONN VLV	F9	F9M2VA	C3B50O	0
A205	2SV4550	U-2 AUX FEED X-CONN VLV	F9	F9M2VA	C3B50P	0
A205	2SV4522	S/G 21 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB22T	0
A205	2SV4523	S/G 21 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB23T	0
A205	2SV4532	S/G 22 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB32T	0
A205	2SV4533	S/G 22 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB33T	0
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	F9	MA23QR	MA23QR	16
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	F9	MA23QS	MA23QS	16
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	FH	BHEF71	Start	16
A226	1PCV4512	1 IA SUPP ACCUM 11A & 11B PCV	FN	FN0000	CV512P	0
A226	1PCV4520	11B AFW AIR ACCUMULATOR OUTLET PCV	FN	FN0000	CV520P	0
A205	2I/P5212	SALT WTR OUT SERV WTR HTEX	GW	C2S12O	C2S12O	0
A205	2SV5212	SERV WTR HTEX 22 SALT WTR OUT	GW	C2S12O	C2S12O	0
A205	2SV5212A	SERV WTR HTEX 22 SALT WTR OUT	GW	C2S12O	C2S12O	0
A205	2SV5152	SERV WTR HTEX 22 SALT WTR INLT	GW	S8CV52	C1S52P	0
A205	2CV5153	22 SRW HX SW NORM B/U OUTLET	GW	S8H2CV	C1S53P	20
A205	2SV5153	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C1S53P	0
A205	2I/P5212	SALT WTR OUT SERV WTR HTEX	GW	S8H2CV	C2S12P	0
A205	2SV5212	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C2S12P	0
A205	2SV5212A	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C2S12P	0
A205	2SV5150	SERV WTR HTEX 21 SALT WTR INLT	GZ	S7H2CV	C1S50P	0
A205	2I/P5210	SALT WTR OUT SERV WTR HTEX	GZ	S7H2CV	C2S10P	0
A205	2SV5210	SERV WTR HTEX 21 SALT WTR OUT	GZ	S7H2CV	C2S10P	0
A205	2SV5210A	SERV WTR HTEX 21 SALT WTR OUT	GZ	S7H2CV	C2S10P	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1AB	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1AP	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1BB	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1BP	0
A119	1HXSTF/BOX11A	HPSI PUMP 11	HA	HA1CCW	HXS1AB	0
A119	1HXSTF/BOX11A	HPSI PUMP 11	HA	HA1CCW	HXS1AP	0
A119	1HXSTF/BOX11B	HPSI PUMP 11	HA	HA1CCW	HXS1BB	0
A119	1HXSTF/BOX11B	HPSI PUMP 11	HA	HA1CCW	HXS1BP	0
A119	1HX109	#11 HPSI PP SEAL COOLER	HA	HA1CCW	HXSC1B	0
A119	1HX109	#11 HPSI PP SEAL COOLER	HA	HA1CCW	HXSC1P	0
A119	1MOV656	AUX HPSI HDR ISOL	HA	HADISA	MV656P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	HA	MA011R	MA011R	24
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	HA	MA011S	MA011S	24
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3AB	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3AP	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3BB	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3BP	0
A118	1HXSTF/BOX13A	HPSI PUMP 13	HB	HB3CCW	HXS3AB	0
A118	1HXSTF/BOX13A	HPSI PUMP 13	HB	HB3CCW	HXS3AP	0
A118	1HXSTF/BOX13B	HPSI PUMP 13	HB	HB3CCW	HXS3BB	0
A118	1HXSTF/BOX13B	HPSI PUMP 13	HB	HB3CCW	HXS3BP	0
A118	1HX111	#13 HPSI PP SEAL COOLER	HB	HB3CCW	HXSC3B	0
A118	1HX111	#13 HPSI PP SEAL COOLER	HB	HB3CCW	HXSC3P	0
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	HB	MA013R	MA013R	12
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	HB	MA013S	MA013S	12
A118	1MOV654	HPSI HDR ISOL	HB	MV654P	MV654P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A118	1PUMPHPSI12	12 HIGH PRESS SAFETY INJECTION PUMP	HW	BHEHW1	Start	12
A119	1MOV656	AUX HPSI HDR ISOL	HW	HADISA	MV656P	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2AB	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2AP	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2BB	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2BP	0
A118	1HXSTF/BOX12A	HPSI PUMP 12	HW	HW1CCW	HXS2AB	0
A118	1HXSTF/BOX12A	HPSI PUMP 12	HW	HW1CCW	HXS2AP	0
A118	1HXSTF/BOX12B	HPSI PUMP 12	HW	HW1CCW	HXS2BB	0
A118	1HXSTF/BOX12B	HPSI PUMP 12	HW	HW1CCW	HXS2BP	0
A119	1HX409	#12 HPSI PP SEAL COOLER	HW	HW1CCW	HXSC2B	0
A119	1HX409	#12 HPSI PP SEAL COOLER	HW	HW1CCW	HXSC2P	0
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	HW	MA012R	MA012R	24
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	HW	MA012S	MA012S	24
A118	1MOV653	HPSI HDR X-CONN	HW	MV653O	MV653O	0
A118	1MOV653	HPSI HDR X-CONN	HW	MV653P	MV653P	0
A118	1MOV654	HPSI HDR ISOL	HW	MV654P	MV654P	0
A119	1MOV655	HPSI HDR X-CONN	HW	MV655P	MV655P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A228	1ACC5170	AIR ACCUMULATOR FOR 1CV5170	IL	ILIA99	TK170B	0
A228	1ACC5171	AIR ACCUMULATOR FOR 1CV5171	IL	ILIA99	TK171B	0
A228	1ACC5174	AIR ACCUMULATOR FOR 1CV5174	IL	ILIA99	TK174B	0
A228	1ACC5175	AIR ACCUMULATOR FOR 1CV5175	IL	ILIA99	TK175B	0
A228	1ACC5177	AIR ACCUMULATOR FOR 1CV5177	IL	ILIA99	TK177B	0
A228	1ACC5178	AIR ACCUMULATOR FOR 1CV5178	IL	ILIA99	TK178B	0
A228	1ACC5173	AIR ACCUMULATOR FOR 1CV5173	IN	INIA99	TK173B	0
A228	1CV5160	11 CC HX SW INLET	K3	C1160O	C1160O	0
A228	1SV5160	COMP CLG HTEX 11 SALT WTR INLT	K3	C1160O	C1160O	0
A228	1CV5206	11 CC HX SW OUTLET	K3	C2206O	C2206O	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	K3	C2206O	C2206O	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	K3	C2206O	C2206O	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	K3	C2206O	C2206O	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	C2210C	C2210C	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	C2210C	C2210C	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0
A226	1ZC5210	1CV5210 POSITIONER	K3	C2210C	C2210C	0
A228	1CV3823	11 CC HX TEMP CONT BYP	K3	CT823R	CT823R	0
A228	1TIC3823	11 CC HX BYP VLV TEMP CONTL	K3	CT823R	CT823R	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	K3CLOS	C2210T	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	K3CLOS	C2210T	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1ZC5210	1CV5210 POSITIONER	K3	K3CLOS	C2210T	0
A228	1CV3823	11 CC HX TEMP CONT BYP	K3	K3COMP	CT823T	0
A228	1TIC3823	11 CC HX BYP VLV TEMP CONTL	K3	K3COMP	CT823T	0
A228	1CV5160	11 CC HX SW INLET	K3	K3OTLT	C1160P	0
A228	1SV5160	COMP CLG HTEX 11 SALT WTR INLT	K3	K3OTLT	C1160P	0
A228	1CV5206	11 CC HX SW OUTLET	K3	K3OTLT	C2206P	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	K3	K3OTLT	C2206P	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	K3	K3OTLT	C2206P	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	K3	K3OTLT	C2206P	0
A228	1CV5162	12 CC HX SW INLET	K4	C1162O	C1162O	0
A228	1SV5162	COMP CLG HTEX 12 SALT WTR INLT	K4	C1162O	C1162O	0
A228	1CV5163	12 CC HX SW NORM B/U OUTLET	K4	C1163O	C1163O	0
A228	1SV5163	COMP CLG HTEX 12 SALT WTR OUT	K4	C1163O	C1163O	0
A228	1CV5208	12 CC HX SW NORM OUT	K4	C2208O	C2208O	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	K4	C2208O	C2208O	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	K4	C2208O	C2208O	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	K4	C2208O	C2208O	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	C2212C	C2212C	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	C2212C	C2212C	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1ZC5212	1CV5212 POSITIONER	K4	C2212C	C2212C	0
A228	1CV3825	12 CC HX TEMP CONT BYP	K4	CT825R	CT825R	0
A228	1TIC3825	12 CC HX BYP VLV TEMP CONTL	K4	CT825R	CT825R	0
A228	1CV3825	12 CC HX TEMP CONT BYP	K4	K4CMP1	CT825T	0
A228	1TIC3825	12 CC HX BYP VLV TEMP CONTL	K4	K4CMP1	CT825T	0
A228	1CV5162	12 CC HX SW INLET	K4	K4INLT	C1162P	0
A228	1SV5162	COMP CLG HTEX 12 SALT WTR INLT	K4	K4INLT	C1162P	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	K4ISO1	C2212T	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	K4ISO1	C2212T	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1ZC5212	1CV5212 POSITIONER	K4	K4ISO1	C2212T	0
A228	1CV5165	12 CC HX SW AUX OUT	K4	K4OPN2	C4165O	0
A228	1SV5165	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4165O	0
A228	1CV5165	12 CC HX SW AUX OUT	K4	K4OPN2	C4165P	0
A228	1SV5165	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4165P	0
A228	1CV5166	12 CC HX SW AUX B/U OUTLET	K4	K4OPN2	C4166O	0
A228	1SV5166	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4166O	0
A228	1CV5166	12 CC HX SW AUX B/U OUTLET	K4	K4OPN2	C4166P	0
A228	1SV5166	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4166P	0
A228	1CV5163	12 CC HX SW NORM B/U OUTLET	K4	K4OTLT	C1163P	0
A228	1SV5163	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OTLT	C1163P	0
A228	1CV5208	12 CC HX SW NORM OUT	K4	K4OTLT	C2208P	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	K4	K4OTLT	C2208P	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OTLT	C2208P	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OTLT	C2208P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KH(PP1)	BHEKC1	Start	12
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KH(PP1)	BHEKZ1	Start	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KH(PP2)	BHEKC1	Start	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KH(PP2)	BHEKZ1	Start	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KH(PP3)	BHEKC1	Start	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KH(PP3)	BHEKZ1	Start	12
A228	1CV3826	12 CC HX OUTLET	KI(HX1)	BHEK31	Close	0
A228	1CV5208	12 CC HX SW NORM OUT	KI(HX1)	BHEK31	Close	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	KI(HX1)	BHEK31	Close	0
A228	1SV3826	COMP CLG HTEX 12 DISCH CONTROL	KI(HX1)	BHEK31	Close	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	KI(HX1)	BHEK31	Close	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	KI(HX1)	BHEK31	Close	0
A228	1CV3824	11 CC HX OUTLET	KI(HX1)	BHEK31	Open	0
A228	1SV3824	COMP CLG HX 11 DISCH CONTROL	KI(HX1)	BHEK31	Open	0
A228	1CV5206	11 CC HX SW OUTLET	KI(HX1)	BHEK31	Throttle	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	KI(HX1)	BHEK31	Throttle	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	KI(HX1)	BHEK31	Throttle	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	KI(HX1)	BHEK31	Throttle	0
A228	1CV3824	11 CC HX OUTLET	KI(HX2)	BHEK31	Close	0
A228	1CV5206	11 CC HX SW OUTLET	KI(HX2)	BHEK31	Close	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	KI(HX2)	BHEK31	Close	0
A228	1SV3824	COMP CLG HX 11 DISCH CONTROL	KI(HX2)	BHEK31	Close	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	KI(HX2)	BHEK31	Close	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	KI(HX2)	BHEK31	Close	0
A228	1CV3826	12 CC HX OUTLET	KI(HX2)	BHEK31	Open	0
A228	1SV3826	COMP CLG HTEX 12 DISCH CONTROL	KI(HX2)	BHEK31	Open	0
A228	1CV5208	12 CC HX SW NORM OUT	KI(HX2)	BHEK31	Throttle	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	KI(HX2)	BHEK31	Throttle	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	KI(HX2)	BHEK31	Throttle	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	KI(HX2)	BHEK31	Throttle	0
A228	1HXCC11	11 COMPONENT COOLING WTR	KM	HXC11B	HXC11B	13
A228	1CV3823	11 CC HX TEMP CONT BYP	KM	KMBYPS	CT823P	0
A228	1TIC3823	11 CC HX BYP VLV TEMP CONTL	KM	KMBYPS	TC823R	0
A228	1CV3824	11 CC HX OUTLET	KM	KMCV24	CV824P	0
A228	1SV3824	COMP CLG HX 11 DISCH CONTROL	KM	KMCV24	CV824P	0
A228	1HXCC11	11 COMPONENT COOLING WTR	KM	KMPATH	HXC11P	13
A228	1HXCC12	12 COMPONENT COOLING WTR	KN	HXC12B	HXC12B	13
A228	1CV3825	12 CC HX TEMP CONT BYP	KN	KNBYPS	CT825P	0
A228	1TIC3825	12 CC HX BYP VLV TEMP CONTL	KN	KNBYPS	TC825R	0
A228	1CV3826	12 CC HX OUTLET	KN	KNCV26	CV826P	0
A228	1SV3826	COMP CLG HTEX 12 DISCH CONTROL	KN	KNCV26	CV826P	0
A228	1HXCC12	12 COMPONENT COOLING WTR	KN	KNPATH	HXC12P	13
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KX	MZC11R	MZC11R	12
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KX	MZC11S	MZC11S	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KY	MZC12R	MZC12R	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KY	MZC12S	MZC12S	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KZ	MZC13R	MZC13R	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KZ	MZC13S	MZC13S	12
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	M1	M1FPPR	VD48AQ	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	M1	M1FPPR	VD48BQ	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	M1	M1FPPR	VD48CQ	22
A118	1MOV654	HPSI HDR ISOL	M1	MVM21Q	MVM21Q	0
A118	1MOV653	HPSI HDR X-CONN	M1	MVM22Q	MVM22Q	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	M1	MVM30Q	MVM30Q	0
A118	1MOV660	MINI FLOW RETN TO RWT	M1	MVM32Q	MVM32Q	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	M1	MVM44Q	MVM44Q	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1FAN5334	SRW HX RM EXH FAN 18B (1M0451)	M1	VDM51Q	VDM51Q	0
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	M2	M2FPPR	VD48AQ	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	M2	M2FPPR	VD48BQ	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	M2	M2FPPR	VD48CQ	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	M2	M2FPPR	VD48DQ	22
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A119	1MOV656	AUX HPSI HDR ISOL	M2	MVN21Q	MVN21Q	0
A119	1MOV655	HPSI HDR X-CONN	M2	MVN22Q	MVN22Q	0
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A118	1MOV659	MINI FLOW RETN TO RWT	M2	MVN32Q	MVN32Q	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	M2	MVN44Q	MVN44Q	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	M2	MVN57Q	MVN57Q	0
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A226	1FAN5335	SRW HTEX RM FAN VU-18A (1M1441)	M2	VDN41Q	VDN41Q	0
A102	2FAN0448A	ECCS PP RM CLR 22 FAN A (2M0448A)	M3	M3FPPR	VD48AQ	22
A102	2FAN0448B	ECCS PP RM CLR 22 FAN B (2M0448B)	M3	M3FPPR	VD48BQ	22
A102	2FAN0448C	ECCS PP RM CLR 22 FAN C (2M0448C)	M3	M3FPPR	VD48CQ	22
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A102	2MOV654	HPSI HDR ISOL	M3	MVO21Q	MVO21Q	0
A102	2MOV653	HPSI HDR X-CONN	M3	MVO22Q	MVO22Q	0
A120	2MOV5463	U-2 CONTMT RECIRC PIPE TUNNEL	M3	MVO30Q	MVO30Q	0
A102	2MOV660	MINI FLOW RETN TO RWT	M3	MVO32Q	MVO32Q	0
A120	2MOV4145	CONTMT SUMP OUTLET ISOL	M3	MVO44Q	MVO44Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A205	2FAN5334	SRW HX RM EXH FAN 19B (2M0451)	M3	VDO51Q	VDO51Q	0
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32
A102	2MOV659	MINI FLOW RETN TO RWT	M4	MVN32Q	MVN32Q	0
A120	2MOV4144	CONTMT SUMP OUTLET ISOL	M4	MVN44Q	MVN44Q	0
A120	2MOV5462	U-2 CONTMT RECIRC PIPE TUNNEL	M4	MVN57Q	MVN57Q	0
A205	2FAN5335	SRW HX RM SPLY FAN 19A (2M1437)	M4	VDN37Q	VDN37Q	0
A226	1PCV5000	11 SGFP BRG OIL PRESS REG VLV	MN	MNFW58	PC000R	0
A226	1PCV4993	11 SGFPT CONT OIL PRESS REG	MN	MNFW58	PC993R	0
A226	1PCV4999	11 SGFPT OIL PRESS REG VLV	MN	MNFW58	PC999R	0
A226	1PCV5043	12 SGFP TLO PP DISCH PCV	MN	MNFW68	PC043R	0
A226	1PCV5048	12 SGFP TLO RESERVOIR INLET PCV	MN	MNFW68	PC048R	0
A226	1PCV5049	12 FW SGFP TLO TO PP BRGS PCV	MN	MNFW68	PC049R	0
A118	1MOV659	MINI FLOW RETN TO RWT	MV	MV0A11	MV659P	0
A118	1MOV659	MINI FLOW RETN TO RWT	MV	MV0A11	MV659X	0
A118	1MOV660	MINI FLOW RETN TO RWT	MV	MV0A11	MV660P	0
A118	1MOV660	MINI FLOW RETN TO RWT	MV	MV0A11	MV660X	0
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	N1	MZ106Q	MZ106Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	N2	MZ116Q	MZ116Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	N3	MZ406Q	MZ406Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	N4	MZ416Q	MZ416Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A228	1ACC5170	AIR ACCUMULATOR FOR 1CV5170	NR	ILIA99	TK170B	0
A228	1ACC5171	AIR ACCUMULATOR FOR 1CV5171	NR	ILIA99	TK171B	0
A228	1ACC5174	AIR ACCUMULATOR FOR 1CV5174	NR	ILIA99	TK174B	0
A228	1ACC5175	AIR ACCUMULATOR FOR 1CV5175	NR	ILIA99	TK175B	0
A228	1ACC5177	AIR ACCUMULATOR FOR 1CV5177	NR	ILIA99	TK177B	0
A228	1ACC5178	AIR ACCUMULATOR FOR 1CV5178	NR	ILIA99	TK178B	0
A228	1ACC5173	AIR ACCUMULATOR FOR 1CV5173	NR	INIA99	TK173B	0
A205	2SV1637	TURB & EHC OIL SERV WTR ISOL VLV	NR(TC)	UNIT 2-TAFB01	C3637P	0
A205	2SV1639	TURB LUB & EHC OIL SERVWTR ISO	NR(TC)	UNIT 2-TAFB01	C3639P	0
A205	2SV1600	TURB BLDG SERV WTR ISOL VLV	NR(TC)	UNIT 2-TBFB01	C3600P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NR(TC)	UNIT 2-TBFB01	C3638P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NS	NSSRW	N/A	0
A205	2SV1637	TURB & EHC OIL SERV WTR ISOL VLV	NS	UNIT 2-TAFB01	C3637P	0
A205	2SV1639	TURB LUB & EHC OIL SERVWTR ISO	NS	UNIT 2-TAFB01	C3639P	0
A205	2SV1600	TURB BLDG SERV WTR ISOL VLV	NS	UNIT 2-TBFB01	C3600P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NS	UNIT 2-TBFB01	C3638P	0
A226	1SV4522	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4523	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4532	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4533	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	RH	BHERH1	Start	24
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	RH	BHERH1	Start	12
A226	1SV5150	SERV WTR HTEX 11 SALT WTR INLT	S3	C1150P	C1150P	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148C	C2148C	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148C	C2148C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148C	C2148C	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148O	C2148O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148T	C2148T	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148T	C2148T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148T	C2148T	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151C	C2151C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151C	C2151C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151C	C2151C	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151C	C2151C	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	C2151O	C2151O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151O	C2151O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151O	C2151O	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	C2151O	C2151O	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151T	C2151T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151T	C2151T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151T	C2151T	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151T	C2151T	0
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AB	0
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AP	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BB	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BP	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1AV	C2148P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1CV5209	11A SRW HX SALT WATER OUTLET VLV	S3	S3H1AV	C2209P	0
A226	1FIC5209	11A SRW HX SW OUTLET FLOW INDICATOR	S3	S3H1AV	C2209P	0
A226	1P/P5209	1CV5209 A/S VOLUME BOOSTER	S3	S3H1AV	C2209P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2209P	0
A226	1SV5209	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1SV5209A	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1BV	C2151P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1BV	C2151P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1BV	C2151P	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	S3H1BV	C2151P	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	S3	S3H1BV	C2210P	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	S3	S3H1BV	C2210P	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1ZC5210	1CV5210 POSITIONER	S3	S3H1BV	C2210P	0
A226	1CV5153	12 SRW HX SW NORM B/U OUTLET	S4	C1153P	C1153P	20
A226	1SV5153	SERV WTR HTEX 12 SALT WTR OUT	S4	C1153P	C1153P	0
A226	1CV5157	12A/12B SRW HX SALT WATER OUTLET VLV	S4	C2157T	C2157T	0
A226	1I/P5157	12A/12B SRW HX SW OUT I/P	S4	C2157T	C2157T	0
A226	1P/P5157	1CV5157 A/S VOLUME BOOSTER	S4	C2157T	C2157T	0
A226	1SV5157	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1SV5157A	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1ZC5157	1CV5157 POSITIONER	S4	C2157T	C2157T	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158C	C2158C	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158C	C2158C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158C	C2158C	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	C2158O	C2158O	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158O	C2158O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	C2158O	C2158O	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158T	C2158T	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158T	C2158T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158T	C2158T	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159C	C2159C	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159C	C2159C	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	C2159O	C2159O	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	C2159O	C2159O	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159T	C2159T	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159T	C2159T	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	C2212O	C2212O	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	C2212O	C2212O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2212O	C2212O	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1ZC5212	1CV5212 POSITIONER	S4	C2212O	C2212O	0
A226	1SV5152	SERV WTR HTEX 12 SALT WTR INLT	S4	S4CV52	C1152P	0
A226	1HVSRW-707	MANUAL SRW INLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW707P	0
A226	1HVSRW-708	MANUAL SRW OUTLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW708P	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AB	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AP	0
A226	1HVSRW-709	MANUAL SRW INLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW709P	0
A226	1HVSRW-710	MANUAL SRW OUTLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW710P	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BB	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BP	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2AV	C2158P	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	S4H2AV	C2158P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	S4H2AV	C2158P	0
A226	1CV5211	12A SRW HX SALT WATER OUTLET VLV	S4	S4H2AV	C2211P	0
A226	1FIC5211	12A SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2AV	C2211P	0
A226	1P/P5211	1CV5211 A/S VOLUME BOOSTER	S4	S4H2AV	C2211P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2211P	0
A226	1SV5211	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1SV5211A	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1ZC5211	1CV5211 POSITIONER	S4	S4H2AV	C2211P	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2BV	C2159P	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	S4H2BV	C2159P	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2BV	C2212P	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	S4H2BV	C2212P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2212P	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1ZC5212	1CV5212 POSITIONER	S4	S4H2BV	C2212P	0
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	SP(PP1)	BHEK12	Start	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	SP(PP2)	BHEK12	Start	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	SP(PP3)	BHEK12	Start	12
A122	1MOV4144	CONTMT SUMP OUT ISOL	SR	MV144C	MV144C	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	SR	MV144T	MV144T	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	SR	MV145C	MV145C	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	SR	MV145T	MV145T	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV462C	MV462C	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV462T	MV462T	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV463C	MV463C	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV463T	MV463T	0
A226	1SV1637	TURB LUBE&EHC OIL SERVWTR ISOL	TA	TAFB01	C3637P	0
A226	1SV1639	TURB LUB & EHC OIL SERV WTR IS	TA	TAFB01	C3639P	0
A226	1SV1600	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3600P	0
A226	1SV1638	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3638P	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	TE	MV144O	MV144O	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	TE	TE0101	MV144P	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	TH(HD1)	BHER3B	Open	13
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	TH(HD1)	BHER3B	Open	0
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	TH(HD1)	BHER3B	Open	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	TH(HD1)	BHER3B	Open	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	TH(HD1)	BHER3B	Open	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	TH(HD1)	BHER3B	Open	0
A228	1CV5206	11 CC HX SW OUTLET	TH(HD1)	BHER3B	Throttle	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	TH(HD1)	BHER3B	Throttle	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	TH(HD1)	BHER3B	Throttle	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	TH(HD1)	BHER3B	Throttle	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1ZC5210	1CV5210 POSITIONER	TH(HD1)	BHER3B	Throttle	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	TH(HD2)	BHER3B	Open	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	TH(HD2)	BHER3B	Open	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	TH(HD2)	BHER3B	Open	0
A228	1CV5208	12 CC HX SW NORM OUT	TH(HD2)	BHER3B	Throttle	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	TH(HD2)	BHER3B	Throttle	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	TH(HD2)	BHER3B	Throttle	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	TH(HD2)	BHER3B	Throttle	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1ZC5212	1CV5212 POSITIONER	TH(HD2)	BHER3B	Throttle	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	TW	MV145O	MV145O	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	TW	TW0101	MV145P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	TS404D	TS404D	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	V1	V1CLSE	WC170P	13
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	V1	V1CLSE	WC170P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1CLSE	WC170P	0
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	V1	V1CLSE	WC171P	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	V1	V1CLSE	WC171P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1CLSE	WC171P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1TEMP	TS404R	0
A119	1HXHVACECCS11	ECCS PUMP ROOM AIR COOLER 11	V1	V1TRFR	HX205B	0
A119	1HXHVACECCS11	ECCS PUMP ROOM AIR COOLER 11	V1	V1TRFR	HX205P	0
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	V1	VD11AR	VD11AR	22
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	V1	VD11AS	VD11AS	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	V1	VD11BR	VD11BR	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	V1	VD11BS	VD11BS	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	V1	VD11CR	VD11CR	22

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	V1	VD11CS	VD11CS	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	V1	VD11DR	VD11DR	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	V1	VD11DS	VD11DS	22
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	V1	WC170D	WC170D	13
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	V1	WC170D	WC170D	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC170D	WC170D	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	V1	WC170O	WC170O	13
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	V1	WC170O	WC170O	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC170O	WC170O	0
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	V1	WC171D	WC171D	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	V1	WC171D	WC171D	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC171D	WC171D	0
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	V1	WC171O	WC171O	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	V1	WC171O	WC171O	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC171O	WC171O	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	TS405D	TS405D	0
A228	1CV5174	12 ECCS PP RM AIR CLR SW NORM OUTLET	V2	V2CLSE	WC174P	0
A228	1SV5174	ECCS PP RM HTEX 12 SLT WTR OUT	V2	V2CLSE	WC174P	0
A228	1CV5175	12 ECCS PP RM AIR CLR SW NORM B/U OUT	V2	V2CLSE	WC175P	0
A228	1SV5175	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2CLSE	WC175P	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	V2	V2INLT	WC173P	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	V2	V2INLT	WC173P	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	V2INLT	WC173P	0
A228	1CV5177	12 ECCS PP RM AIR CLR SW AUX OUTLET	V2	V2OTLT	C4177O	0
A228	1SV5177	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4177O	0
A228	1CV5177	12 ECCS PP RM AIR CLR SW AUX OUTLET	V2	V2OTLT	C4177P	0
A228	1SV5177	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4177P	0
A228	1CV5178	12 ECCS PP RM AIR CLR SW AUX B/U OUT	V2	V2OTLT	C4178O	0
A228	1SV5178	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4178O	0
A228	1CV5178	12 ECCS PP RM AIR CLR SW AUX B/U OUT	V2	V2OTLT	C4178P	0
A228	1SV5178	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4178P	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	V2TEMP	TS405R	0
A118	1HXHVACECCS12	ECCS PUMP ROOM AIR COOLER 12	V2	V2TRFR	HX207B	0
A118	1HXHVACECCS12	ECCS PUMP ROOM AIR COOLER 12	V2	V2TRFR	HX207P	0
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	V2	VD12AR	VD12AR	22
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	V2	VD12AS	VD12AS	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	V2	VD12BR	VD12BR	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	V2	VD12BS	VD12BS	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	V2	VD12CR	VD12CR	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	V2	VD12CS	VD12CS	22
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	V2	WC173D	WC173D	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	V2	WC173D	WC173D	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	WC173D	WC173D	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	V2	WC173O	WC173O	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	V2	WC173O	WC173O	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	WC173O	WC173O	0
A226	1PCV5214	11 CW PP SEAL WTR PCV	VC	VCCW1A	PC214R	0
A226	1PCV5216	12 CW PP SEAL WTR PCV	VC	VCCW2A	PC216R	0
A226	1PCV5218	13 CW PP SEAL WTR PCV	VC	VCCW3A	PC218R	0
A226	1PCV5220	14 CW PP SEAL WTR PCV	VC	VCCW4A	PC220R	0
A226	1PCV5222	15 CW PP SEAL WTR PCV	VC	VCCW5A	PC222R	0
A226	1PCV5224	16 CW PP SEAL WTR PCV	VC	VCCW6A	PC224R	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	VM(RM1)	BHEV1T	Open	13
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	VM(RM1)	BHEV1T	Open	0
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	VM(RM1)	BHEV1T	Open	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	VM(RM1)	BHEV1T	Open	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	VM(RM1)	BHEV1T	Open	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	VM(RM1)	BHEV1T	Open	0
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	VM(RM1)	BHEV1T	Start	22
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	VM(RM2)	BHEV1T	Open	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	VM(RM2)	BHEV1T	Open	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	VM(RM2)	BHEV1T	Open	0
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	VM(RM2)	BHEV1T	Start	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	VM(RM2)	BHEV1T	Start	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	VM(RM2)	BHEV1T	Start	22
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0

Flood Evaluation Query

CF-10C-C228AM

10-Nov-98

TOP	PM	EVALUATION	RI
CV	F	Conservatively set to failure. CVCS relatively unimportant.	PAJ
IL	None	Air accumulators only. Mechanical operation only.	PAJ
IN	None	Air accumulators only. Mechanical operation only.	PAJ
K3	None	Since KX, KY and KZ fail, this top event will be set to success.	PAJ
K4	None	Since KX, KY and KZ fail, this top event will be set to success.	PAJ
KH(PP1)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to start 11 CCW Pump. 11 Component Cooling Pump fails to start.	PAJ
KH(PP2)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to start 12 CCW Pump. 12 Component Cooling Pump fails to start.	PAJ
KH(PP3)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to start 13 CCW Pump. 13 Component Cooling Pump fails to start.	PAJ
KI(HX1)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to open, close or modulate two valves (1CV3824 and 1CV5206). 1CV3824 will fail in the appropriate position. 1CV5206 will not. This valve will fail open neglecting the capability to throttle this valve. Therefore this top will fail.	PAJ
KI(HX2)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to open, close or modulate two valves (1CV3826 and 1CV5208). 1CV3826 will fail in the appropriate position. 1CV5208 will not. This valve will fail open neglecting the capability to throttle this valve. Therefore this top will fail.	PAJ
KM	None	Since KX, KY and KZ fail, this top event will be set to success. Also 1CV3823 will transfer close, which is the undesired affect. But it does not fail top unless 1HVCC-149 transfers shut or 1HXCC11 plugs during operation. Since mechanical components are screened for flood, it will not fail this top, only degrade it.	PAJ
KN	None	Since KX, KY and KZ fail, this top event will be set to success. Also 1CV3825 will transfer close, which is the undesired affect. But it does not fail top unless 1HVCC-156 transfers shut or 1HXCC12 plugs during operation. Since mechanical components are screened for flood, it will not fail this top, only degrade it.	PAJ
KX	F	11 CCW Pump will fail to start/run.	PAJ
KY	F	12 CCW Pump will fail to start/run.	PAJ

TOP	PM	EVALUATION	RI
KZ	F	13 CCW Pump will fail to start/run.	PAJ
M2	3BKR	3 breaker challenge.	PAJ
M3	2BKR	2 breaker challenges.	PAJ
~~M4~~	~~1BKR~~	~~1 breaker challenge.~~	~~PAJ~~
N1	2BKR	2 breaker challenges.	PAJ
N2	2BKR	2 breaker challenges.	PAJ
N3	1BKR	1 breaker challenges.	PAJ
N4	1BKR	1 breaker challenges.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
NR	None	Air accumulators only. Mechanical operation only.	PAJ
SG	None ~~Spec Impt~~	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment. (Note 5)	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ
SP(PP1)	None	11 CC Pumps fails to start/run. Accounted for by Top KX.	PAJ
SP(PP2)	None	12 CC Pumps fails to start/run. Accounted for by Top KY.	PAJ
SP(PP3)	None	13 CC Pumps fails to start/run. Accounted for by Top KZ.	PAJ
TH(HD1)	None	1CV5170/5171 fail open. 1CV5206 will fail to the open position not allowing the operator to throttle valves. Covered by Top S3 or K3.	PAJ

See notes in RAN 98-065 sect. 5.4

TOP	PM	EVALUATION	RI
TH(HD2)	None	1CV5173 fails open. 1CV5208 will fail to the open position not allowing the operator to throttle valves. Covered by Top S3 or K3.	PAJ
V1	None	1CV5170/5171 fails open on loss of power and loss of air.	PAJ
V2	None	1CV5173/5174/5175/5177/5178 fails open allowing flow through to the discharge structure.	PAJ
VM(RM1)	None	Covered under Top V1.	PAJ
VM(RM2)	None	Covered under Top V2.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRI	CV	PS224R	PS224R	0
A228	1ACC5170	AIR ACCUMULATOR FOR 1CV5170	IL	ILIA99	TK170B	0
A228	1ACC5171	AIR ACCUMULATOR FOR 1CV5171	IL	ILIA99	TK171B	0
A228	1ACC5174	AIR ACCUMULATOR FOR 1CV5174	IL	ILIA99	TK174B	0
A228	1ACC5175	AIR ACCUMULATOR FOR 1CV5175	IL	ILIA99	TK175B	0
A228	1ACC5177	AIR ACCUMULATOR FOR 1CV5177	IL	ILIA99	TK177B	0
A228	1ACC5178	AIR ACCUMULATOR FOR 1CV5178	IL	ILIA99	TK178B	0
A228	1ACC5173	AIR ACCUMULATOR FOR 1CV5173	IN	INIA99	TK173B	0
A228	1CV5160	11 CC HX SW INLET	K3	C1160O	C1160O	0
A228	1SV5160	COMP CLG HTEX 11 SALT WTR INLT	K3	C1160O	C1160O	0
A228	1CV5206	11 CC HX SW OUTLET	K3	C2206O	C2206O	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	K3	C2206O	C2206O	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	K3	C2206O	C2206O	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	K3	C2206O	C2206O	0
A228	1CV3823	11 CC HX TEMP CONT BYP	K3	CT823R	CT823R	0
A228	1TIC3823	11 CC HX BYP VLV TEMP CONTL	K3	CT823R	CT823R	0
A228	1CV3823	11 CC HX TEMP CONT BYP	K3	K3COMP	CT823T	0
A228	1TIC3823	11 CC HX BYP VLV TEMP CONTL	K3	K3COMP	CT823T	0
A228	1CV5160	11 CC HX SW INLET	K3	K3OTLT	C1160P	0
A228	1SV5160	COMP CLG HTEX 11 SALT WTR INLT	K3	K3OTLT	C1160P	0
A228	1CV5206	11 CC HX SW OUTLET	K3	K3OTLT	C2206P	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	K3	K3OTLT	C2206P	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	K3	K3OTLT	C2206P	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	K3	K3OTLT	C2206P	0
A228	1CV5162	12 CC HX SW INLET	K4	C1162O	C1162O	0
A228	1SV5162	COMP CLG HTEX 12 SALT WTR INLT	K4	C1162O	C1162O	0
A228	1CV5163	12 CC HX SW NORM B/U OUTLET	K4	C1163O	C1163O	0
A228	1SV5163	COMP CLG HTEX 12 SALT WTR OUT	K4	C1163O	C1163O	0
A228	1CV5208	12 CC HX SW NORM OUT	K4	C2208O	C2208O	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	K4	C2208O	C2208O	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	K4	C2208O	C2208O	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	K4	C2208O	C2208O	0
A228	1CV3825	12 CC HX TEMP CONT BYP	K4	CT825R	CT825R	0
A228	1TIC3825	12 CC HX BYP VLV TEMP CONTL	K4	CT825R	CT825R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A228	1CV3825	12 CC HX TEMP CONT BYP	K4	K4CMP1	CT825T	0
A228	1TIC3825	12 CC HX BYP VLV TEMP CONTL	K4	K4CMP1	CT825T	0
A228	1CV5162	12 CC HX SW INLET	K4	K4INLT	C1162P	0
A228	1SV5162	COMP CLG HTEX 12 SALT WTR INLT	K4	K4INLT	C1162P	0
A228	1CV5165	12 CC HX SW AUX OUT	K4	K4OPN2	C4165O	0
A228	1SV5165	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4165O	0
A228	1CV5165	12 CC HX SW AUX OUT	K4	K4OPN2	C4165P	0
A228	1SV5165	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4165P	0
A228	1CV5166	12 CC HX SW AUX B/U OUTLET	K4	K4OPN2	C4166O	0
A228	1SV5166	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4166O	0
A228	1CV5166	12 CC HX SW AUX B/U OUTLET	K4	K4OPN2	C4166P	0
A228	1SV5166	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4166P	0
A228	1CV5163	12 CC HX SW NORM B/U OUTLET	K4	K4OTLT	C1163P	0
A228	1SV5163	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OTLT	C1163P	0
A228	1CV5208	12 CC HX SW NORM OUT	K4	K4OTLT	C2208P	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	K4	K4OTLT	C2208P	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OTLT	C2208P	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OTLT	C2208P	0
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KH(PP1)	BHEKC1	Start	12
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KH(PP1)	BHEKZ1	Start	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KH(PP2)	BHEKC1	Start	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KH(PP2)	BHEKZ1	Start	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KH(PP3)	BHEKC1	Start	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KH(PP3)	BHEKZ1	Start	12
A228	1CV3826	12 CC HX OUTLET	KI(HX1)	BHEK31	Close	0
A228	1CV5208	12 CC HX SW NORM OUT	KI(HX1)	BHEK31	Close	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	KI(HX1)	BHEK31	Close	0
A228	1SV3826	COMP CLG HTEX 12 DISCH CONTROL	KI(HX1)	BHEK31	Close	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	KI(HX1)	BHEK31	Close	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	KI(HX1)	BHEK31	Close	0
A228	1CV3824	11 CC HX OUTLET	KI(HX1)	BHEK31	Open	0
A228	1SV3824	COMP CLG HX 11 DISCH CONTROL	KI(HX1)	BHEK31	Open	0
A228	1CV5206	11 CC HX SW OUTLET	KI(HX1)	BHEK31	Throttle	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	KI(HX1)	BHEK31	Throttle	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	KI(HX1)	BHEK31	Throttle	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	KI(HX1)	BHEK31	Throttle	0
A228	1CV3824	11 CC HX OUTLET	KI(HX2)	BHEK31	Close	0
A228	1CV5206	11 CC HX SW OUTLET	KI(HX2)	BHEK31	Close	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	KI(HX2)	BHEK31	Close	0
A228	1SV3824	COMP CLG HX 11 DISCH CONTROL	KI(HX2)	BHEK31	Close	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	KI(HX2)	BHEK31	Close	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	KI(HX2)	BHEK31	Close	0
A228	1CV3826	12 CC HX OUTLET	KI(HX2)	BHEK31	Open	0
A228	1SV3826	COMP CLG HTEX 12 DISCH CONTROL	KI(HX2)	BHEK31	Open	0
A228	1CV5208	12 CC HX SW NORM OUT	KI(HX2)	BHEK31	Throttle	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	KI(HX2)	BHEK31	Throttle	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	KI(HX2)	BHEK31	Throttle	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	KI(HX2)	BHEK31	Throttle	0
A228	1HXCC11	11 COMPONENT COOLING WTR	KM	HXC11B	HXC11B	13
A228	1CV3823	11 CC HX TEMP CONT BYP	KM	KMBYPS	CT823P	0
A228	1TIC3823	11 CC HX BYP VLV TEMP CONTL	KM	KMBYPS	TC823R	0
A228	1CV3824	11 CC HX OUTLET	KM	KMCV24	CV824P	0
A228	1SV3824	COMP CLG HX 11 DISCH CONTROL	KM	KMCV24	CV824P	0
A228	1HXCC11	11 COMPONENT COOLING WTR	KM	KMPATH	HXC11P	13
A228	1HXCC12	12 COMPONENT COOLING WTR	KN	HXC12B	HXC12B	13
A228	1CV3825	12 CC HX TEMP CONT BYP	KN	KNBYPS	CT825P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A228	1TIC3825	12 CC HX BYP VLV TEMP CONTL	KN	KNBYPS	TC825R	0
A228	1CV3826	12 CC HX OUTLET	KN	KNCV26	CV826P	0
A228	1SV3826	COMP CLG HTEX 12 DISCH CONTROL	KN	KNCV26	CV826P	0
A228	1HXCC12	12 COMPONENT COOLING WTR	KN	KNPATH	HXC12P	13
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KX	MZC11R	MZC11R	12
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KX	MZC11S	MZC11S	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KY	MZC12R	MZC12R	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KY	MZC12S	MZC12S	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KZ	MZC13R	MZC13R	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KZ	MZC13S	MZC13S	12
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	N1	MZ106Q	MZ106Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	N2	MZ116Q	MZ116Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	N3	MZ406Q	MZ406Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	N4	MZ416Q	MZ416Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A228	1ACC5170	AIR ACCUMULATOR FOR 1CV5170	NR	ILIA99	TK170B	0
A228	1ACC5171	AIR ACCUMULATOR FOR 1CV5171	NR	ILIA99	TK171B	0
A228	1ACC5174	AIR ACCUMULATOR FOR 1CV5174	NR	ILIA99	TK174B	0
A228	1ACC5175	AIR ACCUMULATOR FOR 1CV5175	NR	ILIA99	TK175B	0
A228	1ACC5177	AIR ACCUMULATOR FOR 1CV5177	NR	ILIA99	TK177B	0
A228	1ACC5178	AIR ACCUMULATOR FOR 1CV5178	NR	ILIA99	TK178B	0
A228	1ACC5173	AIR ACCUMULATOR FOR 1CV5173	NR	INIA99	TK173B	0
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	SP(PP1)	BHEK12	Start	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	SP(PP2)	BHEK12	Start	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	SP(PP3)	BHEK12	Start	12
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	TH(HD1)	BHER3B	Open	13

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	TH(HD1)	BHER3B	Open	0
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	TH(HD1)	BHER3B	Open	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	TH(HD1)	BHER3B	Open	0
A228	1CV5206	11 CC HX SW OUTLET	TH(HD1)	BHER3B	Throttle	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	TH(HD1)	BHER3B	Throttle	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	TH(HD2)	BHER3B	Open	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	TH(HD2)	BHER3B	Open	0
A228	1CV5208	12 CC HX SW NORM OUT	TH(HD2)	BHER3B	Throttle	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	TH(HD2)	BHER3B	Throttle	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	V1	V1CLSE	WC170P	13
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	V1	V1CLSE	WC170P	0
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	V1	V1CLSE	WC171P	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	V1	V1CLSE	WC171P	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	V1	WC170D	WC170D	13
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	V1	WC170D	WC170D	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	V1	WC170O	WC170O	13
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	V1	WC170O	WC170O	0
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	V1	WC171D	WC171D	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	V1	WC171D	WC171D	0
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	V1	WC171O	WC171O	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	V1	WC171O	WC171O	0
A228	1CV5174	12 ECCS PP RM AIR CLR SW NORM OUTLET	V2	V2CLSE	WC174P	0
A228	1SV5174	ECCS PP RM HTEX 12 SLT WTR OUT	V2	V2CLSE	WC174P	0
A228	1CV5175	12 ECCS PP RM AIR CLR SW NORM B/U OUT	V2	V2CLSE	WC175P	0
A228	1SV5175	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2CLSE	WC175P	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	V2	V2INLT	WC173P	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	V2	V2INLT	WC173P	0
A228	1CV5177	12 ECCS PP RM AIR CLR SW AUX OUTLET	V2	V2OTLT	C4177O	0
A228	1SV5177	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4177O	0
A228	1CV5177	12 ECCS PP RM AIR CLR SW AUX OUTLET	V2	V2OTLT	C4177P	0
A228	1SV5177	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4177P	0
A228	1CV5178	12 ECCS PP RM AIR CLR SW AUX B/U OUT	V2	V2OTLT	C4178O	0
A228	1SV5178	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4178O	0
A228	1CV5178	12 ECCS PP RM AIR CLR SW AUX B/U OUT	V2	V2OTLT	C4178P	0
A228	1SV5178	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4178P	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	V2	WC173D	WC173D	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	V2	WC173D	WC173D	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	V2	WC173O	WC173O	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	V2	WC173O	WC173O	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	VM(RM1)	BHEV1T	Open	13
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	VM(RM1)	BHEV1T	Open	0
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	VM(RM1)	BHEV1T	Open	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	VM(RM1)	BHEV1T	Open	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	VM(RM2)	BHEV1T	Open	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	VM(RM2)	BHEV1T	Open	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0

Flood Evaluation Query

CF-10D-D228AM

10-Nov-98

TOP	PM	EVALUATION	RI
CV	F	Conservatively set to failure. CVCS relatively unimportant.	PAJ
IL	None	Air accumulators only. Mechanical operation only.	PAJ
IN	None	Air accumulators only. Mechanical operation only.	PAJ
K3	None	Since KX, KY and KZ fail, this top event will be set to success.	PAJ
K4	None	Since KX, KY and KZ fail, this top event will be set to success.	PAJ
KH(PP1)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to start 11 CCW Pump. 11 Component Cooling Pump fails to start.	PAJ
KH(PP2)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to start 12 CCW Pump. 12 Component Cooling Pump fails to start.	PAJ
KH(PP3)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to start 13 CCW Pump. 13 Component Cooling Pump fails to start.	PAJ
KI(HX1)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to open, close or modulate two valves (1CV3824 and 1CV5206). 1CV3824 will fail in the appropriate position. 1CV5206 will not. This valve will fail open neglecting the capability to throttle this valve. Therefore this top will fail.	PAJ
KI(HX2)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to open, close or modulate two valves (1CV3826 and 1CV5208). 1CV3826 will fail in the appropriate position. 1CV5208 will not. This valve will fail open neglecting the capability to throttle this valve. Therefore this top will fail.	PAJ
KM	None	Since KX, KY and KZ fail, this top event will be set to success. Also 1CV3823 will transfer close, which is the undesired affect. But it does not fail top unless 1HVCC-149 transfers shut or 1HXCC11 plugs during operation. Since mechanical components are screened for flood, it will not fail this top, only degrade it.	PAJ
KN	None	Since KX, KY and KZ fail, this top event will be set to success. Also 1CV3825 will transfer close, which is the undesired affect. But it does not fail top unless 1HVCC-156 transfers shut or 1HXCC12 plugs during operation. Since mechanical components are screened for flood, it will not fail this top, only degrade it.	PAJ
KX	F	11 CCW Pump will fail to start/run.	PAJ
KY	F	12 CCW Pump will fail to start/run.	PAJ

TOP	PM	EVALUATION	RI
KZ	F	13 CCW Pump will fail to start/run.	PAJ
M2	3BKR	3 breaker challenge.	PAJ
M3	2BKR	2 breaker challenges.	PAJ
~~M4~~	~~1BKR~~	~~1 breaker challenge.~~	~~PAJ~~
N1	2BKR	2 breaker challenges.	PAJ
N2	2BKR	2 breaker challenges.	PAJ
N3	1BKR	1 breaker challenges.	PAJ
N4	1BKR	1 breaker challenges.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
NR	None	Air accumulators only. Mechanical operation only.	PAJ
SG	None ~~Spec Impt~~	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment. (Note 5)	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ
SP(PP1)	None	11 CC Pumps fails to start/run. Accounted for by Top KX.	PAJ
SP(PP2)	None	12 CC Pumps fails to start/run. Accounted for by Top KY.	PAJ
SP(PP3)	None	13 CC Pumps fails to start/run. Accounted for by Top KZ.	PAJ
TH(HD1)	None	1CV5170/5171 fail open. 1CV5206 will fail to the open position not allowing the operator to throttle valves. Covered by Top S3 or K3.	PAJ

See notes in RAN 98-065 sect. 5.4 JPSN

TOP	PM	EVALUATION	RI
TH(HD2)	None	1CV5173 fails open. 1CV5208 will fail to the open position not allowing the operator to throttle valves. Covered by Top S3 or K3.	PAJ
V1	None	1CV5170/5171 fails open on loss of power and loss of air.	PAJ
V2	None	1CV5173/5174/5175/5177/5178 fails open allowing flow through to the discharge structure.	PAJ
VM(RM1)	None	Covered under Top V1.	PAJ
VM(RM2)	None	Covered under Top V2.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TR	CV	PS224R	PS224R	0
A228	1ACC5170	AIR ACCUMULATOR FOR 1CV5170	IL	ILIA99	TK170B	0
A228	1ACC5171	AIR ACCUMULATOR FOR 1CV5171	IL	ILIA99	TK171B	0
A228	1ACC5174	AIR ACCUMULATOR FOR 1CV5174	IL	ILIA99	TK174B	0
A228	1ACC5175	AIR ACCUMULATOR FOR 1CV5175	IL	ILIA99	TK175B	0
A228	1ACC5177	AIR ACCUMULATOR FOR 1CV5177	IL	ILIA99	TK177B	0
A228	1ACC5178	AIR ACCUMULATOR FOR 1CV5178	IL	ILIA99	TK178B	0
A228	1ACC5173	AIR ACCUMULATOR FOR 1CV5173	IN	INIA99	TK173B	0
A228	1CV5160	11 CC HX SW INLET	K3	C1160O	C1160O	0
A228	1SV5160	COMP CLG HTEX 11 SALT WTR INLT	K3	C1160O	C1160O	0
A228	1CV5206	11 CC HX SW OUTLET	K3	C2206O	C2206O	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	K3	C2206O	C2206O	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	K3	C2206O	C2206O	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	K3	C2206O	C2206O	0
A228	1CV3823	11 CC HX TEMP CONT BYP	K3	CT823R	CT823R	0
A228	1TIC3823	11 CC HX BYP VLV TEMP CONTL	K3	CT823R	CT823R	0
A228	1CV3823	11 CC HX TEMP CONT BYP	K3	K3COMP	CT823T	0
A228	1TIC3823	11 CC HX BYP VLV TEMP CONTL	K3	K3COMP	CT823T	0
A228	1CV5160	11 CC HX SW INLET	K3	K3OTLT	C1160P	0
A228	1SV5160	COMP CLG HTEX 11 SALT WTR INLT	K3	K3OTLT	C1160P	0
A228	1CV5206	11 CC HX SW OUTLET	K3	K3OTLT	C2206P	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	K3	K3OTLT	C2206P	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	K3	K3OTLT	C2206P	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	K3	K3OTLT	C2206P	0
A228	1CV5162	12 CC HX SW INLET	K4	C1162O	C1162O	0
A228	1SV5162	COMP CLG HTEX 12 SALT WTR INLT	K4	C1162O	C1162O	0
A228	1CV5163	12 CC HX SW NORM B/U OUTLET	K4	C1163O	C1163O	0
A228	1SV5163	COMP CLG HTEX 12 SALT WTR OUT	K4	C1163O	C1163O	0
A228	1CV5208	12 CC HX SW NORM OUT	K4	C2208O	C2208O	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	K4	C2208O	C2208O	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	K4	C2208O	C2208O	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	K4	C2208O	C2208O	0
A228	1CV3825	12 CC HX TEMP CONT BYP	K4	CT825R	CT825R	0
A228	1TIC3825	12 CC HX BYP VLV TEMP CONTL	K4	CT825R	CT825R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A228	1CV3825	12 CC HX TEMP CONT BYP	K4	K4CMP1	CT825T	0
A228	1TIC3825	12 CC HX BYP VLV TEMP CONTL	K4	K4CMP1	CT825T	0
A228	1CV5162	12 CC HX SW INLET	K4	K4INLT	C1162P	0
A228	1SV5162	COMP CLG HTEX 12 SALT WTR INLT	K4	K4INLT	C1162P	0
A228	1CV5165	12 CC HX SW AUX OUT	K4	K4OPN2	C4165O	0
A228	1SV5165	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4165O	0
A228	1CV5165	12 CC HX SW AUX OUT	K4	K4OPN2	C4165P	0
A228	1SV5165	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4165P	0
A228	1CV5166	12 CC HX SW AUX B/U OUTLET	K4	K4OPN2	C4166O	0
A228	1SV5166	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4166O	0
A228	1CV5166	12 CC HX SW AUX B/U OUTLET	K4	K4OPN2	C4166P	0
A228	1SV5166	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4166P	0
A228	1CV5163	12 CC HX SW NORM B/U OUTLET	K4	K4OTLT	C1163P	0
A228	1SV5163	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OTLT	C1163P	0
A228	1CV5208	12 CC HX SW NORM OUT	K4	K4OTLT	C2208P	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	K4	K4OTLT	C2208P	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OTLT	C2208P	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OTLT	C2208P	0
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KH(PP1)	BHEKC1	Start	12
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KH(PP1)	BHEKZ1	Start	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KH(PP2)	BHEKC1	Start	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KH(PP2)	BHEKZ1	Start	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KH(PP3)	BHEKC1	Start	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KH(PP3)	BHEKZ1	Start	12
A228	1CV3826	12 CC HX OUTLET	KI(HX1)	BHEK31	Close	0
A228	1CV5208	12 CC HX SW NORM OUT	KI(HX1)	BHEK31	Close	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	KI(HX1)	BHEK31	Close	0
A228	1SV3826	COMP CLG HTEX 12 DISCH CONTROL	KI(HX1)	BHEK31	Close	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	KI(HX1)	BHEK31	Close	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	KI(HX1)	BHEK31	Close	0
A228	1CV3824	11 CC HX OUTLET	KI(HX1)	BHEK31	Open	0
A228	1SV3824	COMP CLG HX 11 DISCH CONTROL	KI(HX1)	BHEK31	Open	0
A228	1CV5206	11 CC HX SW OUTLET	KI(HX1)	BHEK31	Throttle	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	KI(HX1)	BHEK31	Throttle	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	KI(HX1)	BHEK31	Throttle	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	KI(HX1)	BHEK31	Throttle	0
A228	1CV3824	11 CC HX OUTLET	KI(HX2)	BHEK31	Close	0
A228	1CV5206	11 CC HX SW OUTLET	KI(HX2)	BHEK31	Close	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	KI(HX2)	BHEK31	Close	0
A228	1SV3824	COMP CLG HX 11 DISCH CONTROL	KI(HX2)	BHEK31	Close	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	KI(HX2)	BHEK31	Close	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	KI(HX2)	BHEK31	Close	0
A228	1CV3826	12 CC HX OUTLET	KI(HX2)	BHEK31	Open	0
A228	1SV3826	COMP CLG HTEX 12 DISCH CONTROL	KI(HX2)	BHEK31	Open	0
A228	1CV5208	12 CC HX SW NORM OUT	KI(HX2)	BHEK31	Throttle	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	KI(HX2)	BHEK31	Throttle	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	KI(HX2)	BHEK31	Throttle	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	KI(HX2)	BHEK31	Throttle	0
A228	1HXCC11	11 COMPONENT COOLING WTR	KM	HXC11B	HXC11B	13
A228	1CV3823	11 CC HX TEMP CONT BYP	KM	KMBYPS	CT823P	0
A228	1TIC3823	11 CC HX BYP VLV TEMP CONTL	KM	KMBYPS	TC823R	0
A228	1CV3824	11 CC HX OUTLET	KM	KMCV24	CV824P	0
A228	1SV3824	COMP CLG HX 11 DISCH CONTROL	KM	KMCV24	CV824P	0
A228	1HXCC11	11 COMPONENT COOLING WTR	KM	KMPATH	HXC11P	13
A228	1HXCC12	12 COMPONENT COOLING WTR	KN	HXC12B	HXC12B	13
A228	1CV3825	12 CC HX TEMP CONT BYP	KN	KNBYPS	CT825P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A228	1TIC3825	12 CC HX BYP VLV TEMP CONTL	KN	KNBYPS	TC825R	0
A228	1CV3826	12 CC HX OUTLET	KN	KNCV26	CV826P	0
A228	1SV3826	COMP CLG HTEX 12 DISCH CONTROL	KN	KNCV26	CV826P	0
A228	1HXCC12	12 COMPONENT COOLING WTR	KN	KNPATH	HXC12P	13
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KX	MZC11R	MZC11R	12
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KX	MZC11S	MZC11S	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KY	MZC12R	MZC12R	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KY	MZC12S	MZC12S	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KZ	MZC13R	MZC13R	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KZ	MZC13S	MZC13S	12
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	N1	MZ106Q	MZ106Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	N2	MZ116Q	MZ116Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	N3	MZ406Q	MZ406Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	N4	MZ416Q	MZ416Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A228	1ACC5170	AIR ACCUMULATOR FOR 1CV5170	NR	ILIA99	TK170B	0
A228	1ACC5171	AIR ACCUMULATOR FOR 1CV5171	NR	ILIA99	TK171B	0
A228	1ACC5174	AIR ACCUMULATOR FOR 1CV5174	NR	ILIA99	TK174B	0
A228	1ACC5175	AIR ACCUMULATOR FOR 1CV5175	NR	ILIA99	TK175B	0
A228	1ACC5177	AIR ACCUMULATOR FOR 1CV5177	NR	ILIA99	TK177B	0
A228	1ACC5178	AIR ACCUMULATOR FOR 1CV5178	NR	ILIA99	TK178B	0
A228	1ACC5173	AIR ACCUMULATOR FOR 1CV5173	NR	INIA99	TK173B	0
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	SP(PP1)	BHEK12	Start	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	SP(PP2)	BHEK12	Start	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	SP(PP3)	BHEK12	Start	12
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	TH(HD1)	BHER3B	Open	13

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	TH(HD1)	BHER3B	Open	0
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	TH(HD1)	BHER3B	Open	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	TH(HD1)	BHER3B	Open	0
A228	1CV5206	11 CC HX SW OUTLET	TH(HD1)	BHER3B	Throttle	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	TH(HD1)	BHER3B	Throttle	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	TH(HD2)	BHER3B	Open	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	TH(HD2)	BHER3B	Open	0
A228	1CV5208	12 CC HX SW NORM OUT	TH(HD2)	BHER3B	Throttle	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	TH(HD2)	BHER3B	Throttle	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	V1	V1CLSE	WC170P	13
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	V1	V1CLSE	WC170P	0
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	V1	V1CLSE	WC171P	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	V1	V1CLSE	WC171P	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	V1	WC170D	WC170D	13
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	V1	WC170D	WC170D	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	V1	WC170O	WC170O	13
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	V1	WC170O	WC170O	0
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	V1	WC171D	WC171D	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	V1	WC171D	WC171D	0
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	V1	WC171O	WC171O	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	V1	WC171O	WC171O	0
A228	1CV5174	12 ECCS PP RM AIR CLR SW NORM OUTLET	V2	V2CLSE	WC174P	0
A228	1SV5174	ECCS PP RM HTEX 12 SLT WTR OUT	V2	V2CLSE	WC174P	0
A228	1CV5175	12 ECCS PP RM AIR CLR SW NORM B/U OUT	V2	V2CLSE	WC175P	0
A228	1SV5175	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2CLSE	WC175P	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	V2	V2INLT	WC173P	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	V2	V2INLT	WC173P	0
A228	1CV5177	12 ECCS PP RM AIR CLR SW AUX OUTLET	V2	V2OTLT	C4177O	0
A228	1SV5177	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4177O	0
A228	1CV5177	12 ECCS PP RM AIR CLR SW AUX OUTLET	V2	V2OTLT	C4177P	0
A228	1SV5177	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4177P	0
A228	1CV5178	12 ECCS PP RM AIR CLR SW AUX B/U OUT	V2	V2OTLT	C4178O	0
A228	1SV5178	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4178O	0
A228	1CV5178	12 ECCS PP RM AIR CLR SW AUX B/U OUT	V2	V2OTLT	C4178P	0
A228	1SV5178	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4178P	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	V2	WC173D	WC173D	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	V2	WC173D	WC173D	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	V2	WC173O	WC173O	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	V2	WC173O	WC173O	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	VM(RM1)	BHEV1T	Open	13
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	VM(RM1)	BHEV1T	Open	0
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	VM(RM1)	BHEV1T	Open	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	VM(RM1)	BHEV1T	Open	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	VM(RM2)	BHEV1T	Open	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	VM(RM2)	BHEV1T	Open	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0

Flood Evaluation Query

CF-10E-R228AM

10-Nov-98

TOP	PM	EVALUATION	RI
AA	4BKR	4 breaker challenges.	PAJ
AB	4BKR	4 breaker challenges.	PAJ
AC	3BKR	3 breaker challenges.	PAJ
AD	5BKR	5 breaker challenges.	PAJ
CS	F	CS Pump 11 is lost.	PAJ
CT	F	CS Pump 12 is lost.	PAJ
CV	F	Conservatively set to failure. CVCS relatively unimportant.	PAJ
F1	None	11 and 12 S/G AFW Block Valves fail. These valves are normally open and will fail open. Therefore there is no impact on this top. Flow control valves failing open are addressed in top event HX.	PAJ
F7	None ~~F~~	~~Lost the ability to use Unit 1 AFW MD Pump 13 to supply Unit 1 S/G.~~ (note 1)	PAJ
F9	None ~~F~~	~~•Loss the ability to use Unit 2 AFW MD Pump 23 to supply Unit 1 S/G. Also, 21 and 22 •S/G AFW Block and Flow Valves fail. These valves are normally open and fail as-is (open) on loss of power.~~ (note 1)	PAJ
FH	None	Loss the ability to start AFW MD Pump 13. Covered under Top F7.	PAJ
FN	None	Only has 2 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
GW	None	2CV5152, 2CV5153 and 2CV5212 fail open on loss of power and loss of air.	PAJ
GZ	None	2CV5150 and 2CV5210 fail open on loss of power and loss of air.	PAJ
HA	F	11 HPSI Pump fails.	PAJ
HB	F	13 HPSI Pump fails.	PAJ
HU	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact.	PAJ
HW	F	12 HPSI is lost. Also 1MOV653, 1MOV654, 1MOV655 and 1MOV656 fail as-is.	PAJ

See notes in RAN 98-065 sect. 5.4 gpr

TOP	PM	EVALUATION	RI
HX	None	11 and 12 S/G AFW (motor driven feed line) flow control valves fail open. Impact already considered by Top F7 & F9 failure.	PAJ
IL	None	Air accumulators only. Mechanical operation only.	PAJ
IN	None	Air accumulators only. Mechanical operation only.	PAJ
K3	None	Since KX, KY and KZ fail, this top event will be set to success.	PAJ
K4	None	Since KX, KY and KZ fail, this top event will be set to success.	PAJ
KH(PP1)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to start 11 CCW Pump. 11 Component Cooling Pump fails to start.	PAJ
KH(PP2)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to start 12 CCW Pump. 12 Component Cooling Pump fails to start.	PAJ
KH(PP3)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to start 13 CCW Pump. 13 Component Cooling Pump fails to start.	PAJ
KI(HX1)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to open, close or modulate two valves (1CV3824 and 1CV5206). 1CV3824 will fail in the appropriate position. 1CV5206 will not. This valve will fail open neglecting the capability to throttle this valve. Therefore this top will fail.	PAJ
KI(HX2)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to open, close or modulate two valves (1CV3826 and 1CV5208). 1CV3826 will fail in the appropriate position. 1CV5208 will not. This valve will fail open neglecting the capability to throttle this valve. Therefore this top will fail.	PAJ
KM	None	Since KX, KY and KZ fail, this top event will be set to success. Also 1CV3823 will transfer close, which is the undesired affect. But it does not fail top unless 1HVCC-149 transfers shut or 1HXCC11 plugs during operation. Since mechanical components are screened for flood, it will not fail this top, only degrade it.	PAJ
KN	None	Since KX, KY and KZ fail, this top event will be set to success. Also 1CV3825 will transfer close, which is the undesired affect. But it does not fail top unless 1HVCC-156 transfers shut or 1HXCC12 plugs during operation. Since mechanical components are screened for flood, it will not fail this top, only degrade it.	PAJ
KX	F	11 CCW Pump will fail to start/run.	PAJ
KY	F	12 CCW Pump will fail to start/run.	PAJ
KZ	F	13 CCW Pump will fail to start/run.	PAJ

TOP	PM	EVALUATION	RI
M1	7BKR	7 breaker challenges.	PAJ
M2	10BKR	10 breaker challenges.	PAJ
M3	9BKR	9 breaker challenges.	PAJ
~~M4~~	~~6BKR~~	~~6 breaker challenges.~~	~~PAJ~~
MN	None	Has 6 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
MV	None	1MOV659/660 fail as-is and are normally electrically locked open, there will be no flood impact.	PAJ
N1	2BKR	2 breaker challenges.	PAJ
N2	2BKR	2 breaker challenges.	PAJ
N3	1BKR	1 breaker challenges.	PAJ
N4	1BKR	1 breaker challenges.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
NR	None	Air accumulators only. Mechanical operation only.	PAJ
NR(TC)	None ~~Spec Impt~~	~~2CV1600/1637/1638/1639 fail close on loss of power, the undesirable position. Unable to use Unit 2 compressors for Unit 1.~~ (note 1)	PAJ
NS	None ~~Spec Impt~~	~~2CV1600/1637/1638/1639 fail close on loss of power, the undesirable position. Unable~~ to ~~use Unit 2 compressors for Unit 2.~~ (note 1)	PAJ
QZ	None	11 & 12 AFW Block valves (1CV4522/4523/4532/4533) are normally open and fail as-is on loss of power.	PAJ
RH	None ~~F~~	This human action requires the operator to start 11 and 13 HPSI Pumps. Both pumps are assumed not to start/run during a flood scenario. (Note 9)	PAJ

TOP	PM	EVALUATION	RI
S3	None	All valves fail to their appropriate positions on loss of power and loss of air. 1CV5148 (FO), 1CV5148A (FC), 1CV5151 (FO), 1CV5151A (FC) and 1CV5209 (FO).	PAJ
S4	None	All valves fail to their appropriate positions on loss of power and loss of air. 1CV5158 (FO), 1CV5158A (FC), 1CV5159 (FO), 1CV5159A (FC), 1CV5211 (FO), 1CV5153 (FO) and 1CV5157 (FC).	PAJ
SG	None ~~Spec Impt~~	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment. (Note 5)	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ
SP(PP1)	None	11 CC Pumps fails to start/run. Accounted for by Top KX.	PAJ
SP(PP2)	None	12 CC Pumps fails to start/run. Accounted for by Top KY.	PAJ
SP(PP3)	None	13 CC Pumps fails to start/run. Accounted for by Top KZ.	PAJ
SR	Spec. Impt ~~None~~	All MOVs (1MOV4144/4145/5462/5463) are closed and fail close. (note 10)	PAJ
TA	None ~~F~~	~~1CV1637/1639 fail close on loss of power / loss of air.~~ (note 1)	PAJ
TB	None ~~F~~	~~1CV1600/1638 fail close on loss of power / loss of air.~~ (note 1)	PAJ
TE	F	1MOV4144 is normally in the closed position and will fail as-is. Therefore, the East Recirculation Header will not function properly.	PAJ
TH(HD1)	None	1CV5170/5171 fail open. 1CV5206/5210 will fail to the open position not allowing the operator to throttle valves. ECCS Pump Room Cooling Fans fail. Covered by Top S3 or K3.	PAJ
TH(HD2)	None	1CV5173 fails open. 1CV5208/5212 will fail to the open position not allowing the operator to throttle valves. ECCS Pump Room Cooling Fans fail. Covered by Top S3 or K3.	PAJ
TW	F	1MOV4145 is normally in the closed position and will fail as-is. Therefore, the West Recirculation Header will not function properly.	PAJ
UQ	None	1CV4525/4535 are normally open and fail as-is on loss of power. This top only fails when an under feed to the SG occurs.	PAJ
V1	F	All ECCS Pump Room Fans fail to start/run.	PAJ

TOP	PM	EVALUATION	RI
V2	F	All ECCS Pump Room Fans fail to start/run.	PAJ
VC	None	Has 6 PCVs. I am assuming that these will not fail during a flood.	PAJ
VM(RM1)	None	Operator will be unable to start ECCS Pump Room Fans. Covered under Top V1.	PAJ
VM(RM2)	None	Operator will be unable to start ECCS Pump Room Fans. Covered under Top V2.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	AA	MAAF3Q	MAAF3Q	16
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	AA	MACS1Q	MACS1Q	12
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	AA	MAHP1Q	MAHP1Q	24
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	AA	MAHP3Q	MAHP3Q	12
A119	1PUMPSILPSI11	11 LOW PRESS SAFETY INJECTION PUMP (1MA104)	AA	MALP1Q	MALP1Q	12
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	AB	MACS2Q	MACS2Q	12
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	AB	MAHP2Q	MAHP2Q	24
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	AB	MAHP4Q	MAHP4Q	12
A118	1PUMPSILPSI12	12 LOW PRESS SAFETY INJECTION PUMP (1MA404)	AB	MALP2Q	MALP2Q	12
A101	2PUMPSICS21	21 CONTAINMENT SPRAY PUMP (2MA107)	AC	MACS3Q	MACS3Q	24
A101	2PUMPHPSI21	SI HPSI PUMP 21 (2MA108)	AC	MAHP5Q	MAHP5Q	24
A102	2PUMPHPSI23	SI HPSI PUMP 23 (2MA110)	AC	MAHP7Q	MAHP7Q	12
A101	2PUMPSILPSI21	21 LOW PRESS SAFETY INJECTION PUMP (2MA104)	AC	MALP3Q	MALP3Q	39
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	AD	MAAF6Q	MAAF6Q	16
A102	2PUMPSICS22	22 CONTAINMENT SPRAY PUMP (2MA407)	AD	MACS4Q	MACS4Q	12
A101	2PUMPHPSI22	SI HPSI PUMP 22 (2MA408)	AD	MAHP6Q	MAHP6Q	24
A102	2PUMPHPSI23	SI HPSI PUMP 23 (2MA110)	AD	MAHP8Q	MAHP8Q	12
A102	2PUMPSILPSI22	22 LOW PRESS SAFETY INJECTION PUMP (2MA404)	AD	MALP4Q	MALP4Q	12
A119	1HXSICS11	11 SHUTDOWN COOLING HX	CS	CS0103	HXC11B	0
A119	1HXSICS11	11 SHUTDOWN COOLING HX	CS	CS0103	HXC11P	0
A119	1MOV663	SDC RECIRC TO 11 HPSI PP	CS	CS0103	MV663T	0
A119	1CV3828	11 SDC HX OUTLET	CS	CSHX11	CV828P	0
A119	1SV3828	S/D HX 11 COOL WTR DISCH VLV	CS	CSHX11	CV828P	0
A119	1CV3828	11 SDC HX OUTLET	CS	CV828O	CV828O	0
A119	1SV3828	S/D HX 11 COOL WTR DISCH VLV	CS	CV828O	CV828O	0
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	CS	MA107R	MA107R	12
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	CS	MA107S	MA107S	12
A118	1HXSICS12	12 SHUTDOWN COOLING HX	CT	CT0103	HXC12B	0
A118	1HXSICS12	12 SHUTDOWN COOLING HX	CT	CT0103	HXC12P	0
A118	1MOV662	SDC RECIRC TO 13 HPSI PP	CT	CT0103	MV662T	0
A118	1SV3830	S/D HX #12 COMP CLG DISCH VLV	CT	CTXH12	CV830P	0
A118	1CV3830	12 SDC HX OUTLET	CT	CTXH12	CV830P	0
A118	1SV3830	S/D HX #12 COMP CLG DISCH VLV	CT	CV830O	CV830O	0
A118	1CV3830	12 SDC HX OUTLET	CT	CV830O	CV830O	0
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	CT	MA407R	MA407R	12
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	CT	MA407S	MA407S	12
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PS224R	PS224R	0
A226	1SV4522	11 S/G AFW BLOCK SV	F1	CV4522	CV522P	0
A226	1SV4523	11 S/G AFW BLOCK SV	F1	CV4523	CV523P	0
A226	1SV4532	12 S/G AFW BLOCK SV	F1	CV4532	CV532P	0
A226	1SV4533	12 S/G AFW BLOCK SV	F1	CV4533	CV533P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A226	1SV4550	U-1 TO U-2 AFW X-CONN SV	F7	F7MPVA	C3550T	0
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QR	MA13QR	16
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QS	MA13QS	16
A205	2SV4522	S/G 21 AFW MOTOR SYS ISOL VLV	F9	CVB22C	CVB22C	0
A205	2SV4523	S/G 21 AFW MOTOR SYS ISOL VLV	F9	CVB23C	CVB23C	0
A205	2SV4532	S/G 22 AFW MOTOR SYS ISOL VLV	F9	CVB32C	CVB32C	0
A205	2SV4533	S/G 22 AFW MOTOR SYS ISOL VLV	F9	CVB33C	CVB33C	0
A205	2SV4550	U-2 AUX FEED X-CONN VLV	F9	F9M2VA	C3B50O	0
A205	2SV4550	U-2 AUX FEED X-CONN VLV	F9	F9M2VA	C3B50P	0
A205	2SV4522	S/G 21 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB22T	0
A205	2SV4523	S/G 21 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB23T	0
A205	2SV4532	S/G 22 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB32T	0
A205	2SV4533	S/G 22 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB33T	0
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	F9	MA23QR	MA23QR	16
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	F9	MA23QS	MA23QS	16
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	FH	BHEF71	Start	16
A226	1PCV4512	1 IA SUPP ACCUM 11A & 11B PCV	FN	FN0000	CV512P	0
A226	1PCV4520	11B AFW AIR ACCUMULATOR OUTLET PCV	FN	FN0000	CV520P	0
A205	2SV5212	SERV WTR HTEX 22 SALT WTR OUT	GW	C2S12O	C2S12O	0
A205	2I/P5212	SALT WTR OUT SERV WTR HTEX	GW	C2S12O	C2S12O	0
A205	2SV5212A	SERV WTR HTEX 22 SALT WTR OUT	GW	C2S12O	C2S12O	0
A205	2SV5152	SERV WTR HTEX 22 SALT WTR INLT	GW	S8CV52	C1S52P	0
A205	2SV5153	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C1S53P	0
A205	2CV5153	22 SRW HX SW NORM B/U OUTLET	GW	S8H2CV	C1S53P	20
A205	2SV5212	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C2S12P	0
A205	2SV5212A	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C2S12P	0
A205	2I/P5212	SALT WTR OUT SERV WTR HTEX	GW	S8H2CV	C2S12P	0
A205	2SV5150	SERV WTR HTEX 21 SALT WTR INLT	GZ	S7H2CV	C1S50P	0
A205	2I/P5210	SALT WTR OUT SERV WTR HTEX	GZ	S7H2CV	C2S10P	0
A205	2SV5210	SERV WTR HTEX 21 SALT WTR OUT	GZ	S7H2CV	C2S10P	0
A205	2SV5210A	SERV WTR HTEX 21 SALT WTR OUT	GZ	S7H2CV	C2S10P	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1AB	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1AP	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1BB	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1BP	0
A119	1HXSTF/BOX11A	HPSI PUMP 11	HA	HA1CCW	HXS1AB	0
A119	1HXSTF/BOX11A	HPSI PUMP 11	HA	HA1CCW	HXS1AP	0
A119	1HXSTF/BOX11B	HPSI PUMP 11	HA	HA1CCW	HXS1BB	0
A119	1HXSTF/BOX11B	HPSI PUMP 11	HA	HA1CCW	HXS1BP	0
A119	1HX109	#11 HPSI PP SEAL COOLER	HA	HA1CCW	HXSC1B	0
A119	1HX109	#11 HPSI PP SEAL COOLER	HA	HA1CCW	HXSC1P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A119	1MOV656	AUX HPSI HDR ISOL	HA	HADISA	MV656P	0
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	HA	MA011R	MA011R	24
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	HA	MA011S	MA011S	24
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3AB	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3AP	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3BB	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3BP	0
A118	1HXSTF/BOX13A	HPSI PUMP 13	HB	HB3CCW	HXS3AB	0
A118	1HXSTF/BOX13A	HPSI PUMP 13	HB	HB3CCW	HXS3AP	0
A118	1HXSTF/BOX13B	HPSI PUMP 13	HB	HB3CCW	HXS3BB	0
A118	1HXSTF/BOX13B	HPSI PUMP 13	HB	HB3CCW	HXS3BP	0
A118	1HX111	#13 HPSI PP SEAL COOLER	HB	HB3CCW	HXSC3B	0
A118	1HX111	#13 HPSI PP SEAL COOLER	HB	HB3CCW	HXSC3P	0
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	HB	MA013R	MA013R	12
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	HB	MA013S	MA013S	12
A118	1MOV654	HPSI HDR ISOL	HB	MV654P	MV654P	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A118	1PUMPHPSI12	12 HIGH PRESS SAFETY INJECTION PUMP	HW	BHEHW1	Start	12
A119	1MOV656	AUX HPSI HDR ISOL	HW	HADISA	MV656P	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2AB	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2AP	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2BB	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2BP	0
A118	1HXSTF/BOX12A	HPSI PUMP 12	HW	HW1CCW	HXS2AB	0
A118	1HXSTF/BOX12A	HPSI PUMP 12	HW	HW1CCW	HXS2AP	0
A118	1HXSTF/BOX12B	HPSI PUMP 12	HW	HW1CCW	HXS2BB	0
A118	1HXSTF/BOX12B	HPSI PUMP 12	HW	HW1CCW	HXS2BP	0
A119	1HX409	#12 HPSI PP SEAL COOLER	HW	HW1CCW	HXSC2B	0
A119	1HX409	#12 HPSI PP SEAL COOLER	HW	HW1CCW	HXSC2P	0
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	HW	MA012R	MA012R	24
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	HW	MA012S	MA012S	24
A118	1MOV653	HPSI HDR X-CONN	HW	MV653O	MV653O	0
A118	1MOV653	HPSI HDR X-CONN	HW	MV653P	MV653P	0
A118	1MOV654	HPSI HDR ISOL	HW	MV654P	MV654P	0
A119	1MOV655	HPSI HDR X-CONN	HW	MV655P	MV655P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A228	1ACC5170	AIR ACCUMULATOR FOR 1CV5170	IL	ILIA99	TK170B	0
A228	1ACC5171	AIR ACCUMULATOR FOR 1CV5171	IL	ILIA99	TK171B	0
A228	1ACC5174	AIR ACCUMULATOR FOR 1CV5174	IL	ILIA99	TK174B	0
A228	1ACC5175	AIR ACCUMULATOR FOR 1CV5175	IL	ILIA99	TK175B	0
A228	1ACC5177	AIR ACCUMULATOR FOR 1CV5177	IL	ILIA99	TK177B	0
A228	1ACC5178	AIR ACCUMULATOR FOR 1CV5178	IL	ILIA99	TK178B	0
A228	1ACC5173	AIR ACCUMULATOR FOR 1CV5173	IN	INIA99	TK173B	0
A228	1CV5160	11 CC HX SW INLET	K3	C1160O	C1160O	0
A228	1SV5160	COMP CLG HTEX 11 SALT WTR INLT	K3	C1160O	C1160O	0
A228	1CV5206	11 CC HX SW OUTLET	K3	C2206O	C2206O	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	K3	C2206O	C2206O	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	K3	C2206O	C2206O	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	K3	C2206O	C2206O	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	C2210C	C2210C	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	C2210C	C2210C	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0
A226	1ZC5210	1CV5210 POSITIONER	K3	C2210C	C2210C	0
A228	1TIC3823	11 CC HX BYP VLV TEMP CONTL	K3	CT823R	CT823R	0
A228	1CV3823	11 CC HX TEMP CONT BYP	K3	CT823R	CT823R	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	K3CLOS	C2210T	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	K3CLOS	C2210T	0
A226	1ZC5210	1CV5210 POSITIONER	K3	K3CLOS	C2210T	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A228	1CV3823	11 CC HX TEMP CONT BYP	K3	K3COMP	CT823T	0
A228	1TIC3823	11 CC HX BYP VLV TEMP CONTL	K3	K3COMP	CT823T	0
A228	1SV5160	COMP CLG HTEX 11 SALT WTR INLT	K3	K3OTLT	C1160P	0
A228	1CV5160	11 CC HX SW INLET	K3	K3OTLT	C1160P	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	K3	K3OTLT	C2206P	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	K3	K3OTLT	C2206P	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	K3	K3OTLT	C2206P	0
A228	1CV5206	11 CC HX SW OUTLET	K3	K3OTLT	C2206P	0
A228	1CV5162	12 CC HX SW INLET	K4	C1162O	C1162O	0
A228	1SV5162	COMP CLG HTEX 12 SALT WTR INLT	K4	C1162O	C1162O	0
A228	1CV5163	12 CC HX SW NORM B/U OUTLET	K4	C1163O	C1163O	0
A228	1SV5163	COMP CLG HTEX 12 SALT WTR OUT	K4	C1163O	C1163O	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	K4	C2208O	C2208O	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	K4	C2208O	C2208O	0
A228	1CV5208	12 CC HX SW NORM OUT	K4	C2208O	C2208O	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	K4	C2208O	C2208O	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1ZC5212	1CV5212 POSITIONER	K4	C2212C	C2212C	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	C2212C	C2212C	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	C2212C	C2212C	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A228	1CV3825	12 CC HX TEMP CONT BYP	K4	CT825R	CT825R	0
A228	1TIC3825	12 CC HX BYP VLV TEMP CONTL	K4	CT825R	CT825R	0
A228	1TIC3825	12 CC HX BYP VLV TEMP CONTL	K4	K4CMP1	CT825T	0
A228	1CV3825	12 CC HX TEMP CONT BYP	K4	K4CMP1	CT825T	0
A228	1SV5162	COMP CLG HTEX 12 SALT WTR INLT	K4	K4INLT	C1162P	0
A228	1CV5162	12 CC HX SW INLET	K4	K4INLT	C1162P	0
A226	1ZC5212	1CV5212 POSITIONER	K4	K4ISO1	C2212T	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	K4ISO1	C2212T	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	K4ISO1	C2212T	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A228	1CV5165	12 CC HX SW AUX OUT	K4	K4OPN2	C4165O	0
A228	1SV5165	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4165O	0
A228	1SV5165	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4165P	0
A228	1CV5165	12 CC HX SW AUX OUT	K4	K4OPN2	C4165P	0
A228	1CV5166	12 CC HX SW AUX B/U OUTLET	K4	K4OPN2	C4166O	0
A228	1SV5166	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4166O	0
A228	1CV5166	12 CC HX SW AUX B/U OUTLET	K4	K4OPN2	C4166P	0
A228	1SV5166	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4166P	0
A228	1SV5163	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OTLT	C1163P	0
A228	1CV5163	12 CC HX SW NORM B/U OUTLET	K4	K4OTLT	C1163P	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OTLT	C2208P	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OTLT	C2208P	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	K4	K4OTLT	C2208P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A228	1CV5208	12 CC HX SW NORM OUT	K4	K4OTLT	C2208P	0
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KH(PP1)	BHEKC1	Start	12
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KH(PP1)	BHEKZ1	Start	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KH(PP2)	BHEKC1	Start	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KH(PP2)	BHEKZ1	Start	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KH(PP3)	BHEKC1	Start	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KH(PP3)	BHEKZ1	Start	12
A228	1CV3826	12 CC HX OUTLET	KI(HX1)	BHEK31	Close	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	KI(HX1)	BHEK31	Close	0
A228	1SV3826	COMP CLG HTEX 12 DISCH CONTROL	KI(HX1)	BHEK31	Close	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	KI(HX1)	BHEK31	Close	0
A228	1CV5208	12 CC HX SW NORM OUT	KI(HX1)	BHEK31	Close	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	KI(HX1)	BHEK31	Close	0
A228	1SV3824	COMP CLG HX 11 DISCH CONTROL	KI(HX1)	BHEK31	Open	0
A228	1CV3824	11 CC HX OUTLET	KI(HX1)	BHEK31	Open	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	KI(HX1)	BHEK31	Throttle	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	KI(HX1)	BHEK31	Throttle	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	KI(HX1)	BHEK31	Throttle	0
A228	1CV5206	11 CC HX SW OUTLET	KI(HX1)	BHEK31	Throttle	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	KI(HX2)	BHEK31	Close	0
A228	1CV3824	11 CC HX OUTLET	KI(HX2)	BHEK31	Close	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	KI(HX2)	BHEK31	Close	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	KI(HX2)	BHEK31	Close	0
A228	1CV5206	11 CC HX SW OUTLET	KI(HX2)	BHEK31	Close	0
A228	1SV3824	COMP CLG HX 11 DISCH CONTROL	KI(HX2)	BHEK31	Close	0
A228	1CV3826	12 CC HX OUTLET	KI(HX2)	BHEK31	Open	0
A228	1SV3826	COMP CLG HTEX 12 DISCH CONTROL	KI(HX2)	BHEK31	Open	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	KI(HX2)	BHEK31	Throttle	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	KI(HX2)	BHEK31	Throttle	0
A228	1CV5208	12 CC HX SW NORM OUT	KI(HX2)	BHEK31	Throttle	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	KI(HX2)	BHEK31	Throttle	0
A228	1HXCC11	11 COMPONENT COOLING WTR	KM	HXC11B	HXC11B	13
A228	1CV3823	11 CC HX TEMP CONT BYP	KM	KMBYPS	CT823P	0
A228	1TIC3823	11 CC HX BYP VLV TEMP CONTL	KM	KMBYPS	TC823R	0
A228	1CV3824	11 CC HX OUTLET	KM	KMCV24	CV824P	0
A228	1SV3824	COMP CLG HX 11 DISCH CONTROL	KM	KMCV24	CV824P	0
A228	1HXCC11	11 COMPONENT COOLING WTR	KM	KMPATH	HXC11P	13
A228	1HXCC12	12 COMPONENT COOLING WTR	KN	HXC12B	HXC12B	13
A228	1CV3825	12 CC HX TEMP CONT BYP	KN	KNBYPS	CT825P	0
A228	1TIC3825	12 CC HX BYP VLV TEMP CONTL	KN	KNBYPS	TC825R	0
A228	1CV3826	12 CC HX OUTLET	KN	KNCV26	CV826P	0
A228	1SV3826	COMP CLG HTEX 12 DISCH CONTROL	KN	KNCV26	CV826P	0
A228	1HXCC12	12 COMPONENT COOLING WTR	KN	KNPATH	HXC12P	13
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KX	MZC11R	MZC11R	12
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KX	MZC11S	MZC11S	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KY	MZC12R	MZC12R	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KY	MZC12S	MZC12S	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KZ	MZC13R	MZC13R	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KZ	MZC13S	MZC13S	12
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	M1	M1FPPR	VD48AQ	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	M1	M1FPPR	VD48BQ	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	M1	M1FPPR	VD48CQ	22
A118	1MOV654	HPSI HDR ISOL	M1	MVM21Q	MVM21Q	0
A118	1MOV653	HPSI HDR X-CONN	M1	MVM22Q	MVM22Q	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	M1	MVM30Q	MVM30Q	0
A118	1MOV660	MINI FLOW RETN TO RWT	M1	MVM32Q	MVM32Q	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A122	1MOV4145	CONTMT SUMP OUT ISOL	M1	MVM44Q	MVM44Q	0
A226	1FAN5334	SRW HX RM EXH FAN 18B (1M0451)	M1	VDM51Q	VDM51Q	0
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	M2	M2FPPR	VD48AQ	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	M2	M2FPPR	VD48BQ	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	M2	M2FPPR	VD48CQ	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	M2	M2FPPR	VD48DQ	22
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A119	1MOV656	AUX HPSI HDR ISOL	M2	MVN21Q	MVN21Q	0
A119	1MOV655	HPSI HDR X-CONN	M2	MVN22Q	MVN22Q	0
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A118	1MOV659	MINI FLOW RETN TO RWT	M2	MVN32Q	MVN32Q	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	M2	MVN44Q	MVN44Q	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	M2	MVN57Q	MVN57Q	0
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A226	1FAN5335	SRW HTEX RM FAN VU-18A (1M1441)	M2	VDN41Q	VDN41Q	0
A102	2FAN0448A	ECCS PP RM CLR 22 FAN A (2M0448A)	M3	M3FPPR	VD48AQ	22
A102	2FAN0448B	ECCS PP RM CLR 22 FAN B (2M0448B)	M3	M3FPPR	VD48BQ	22
A102	2FAN0448C	ECCS PP RM CLR 22 FAN C (2M0448C)	M3	M3FPPR	VD48CQ	22
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A102	2MOV654	HPSI HDR ISOL	M3	MVO21Q	MVO21Q	0
A102	2MOV653	HPSI HDR X-CONN	M3	MVO22Q	MVO22Q	0
A120	2MOV5463	U-2 CONTMT RECIRC PIPE TUNNEL	M3	MVO30Q	MVO30Q	0
A102	2MOV660	MINI FLOW RETN TO RWT	M3	MVO32Q	MVO32Q	0
A120	2MOV4145	CONTMT SUMP OUTLET ISOL	M3	MVO44Q	MVO44Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A205	2FAN5334	SRW HX RM EXH FAN 19B (2M0451)	M3	VDO51Q	VDO51Q	0
A101	2MOV656	AUX HPSI HDR ISOL	M4	MVN21Q	MVN21Q	54
A101	2MOV655	HPSI HDR X-CONN	M4	MVN22Q	MVN22Q	48
A102	2MOV659	MINI FLOW RETN TO RWT	M4	MVN32Q	MVN32Q	0
A120	2MOV4144	CONTMT SUMP OUTLET ISOL	M4	MVN44Q	MVN44Q	0
A120	2MOV5462	U-2 CONTMT RECIRC PIPE TUNNEL	M4	MVN57Q	MVN57Q	0
A205	2FAN5335	SRW HX RM SPLY FAN 19A (2M1437)	M4	VDN37Q	VDN37Q	0
A226	1PCV5000	11 SGFP BRG OIL PRESS REG VLV	MN	MNFW58	PC000R	0
A226	1PCV4993	11 SGFPT CONT OIL PRESS REG	MN	MNFW58	PC993R	0
A226	1PCV4999	11 SGFPT OIL PRESS REG VLV	MN	MNFW58	PC999R	0
A226	1PCV5043	12 SGFP TLO PP DISCH PCV	MN	MNFW68	PC043R	0
A226	1PCV5048	12 SGFP TLO RESERVOIR INLET PCV	MN	MNFW68	PC048R	0
A226	1PCV5049	12 FW SGFP TLO TO PP BRGS PCV	MN	MNFW68	PC049R	0
A118	1MOV659	MINI FLOW RETN TO RWT	MV	MV0A11	MV659P	0
A118	1MOV659	MINI FLOW RETN TO RWT	MV	MV0A11	MV659X	0
A118	1MOV660	MINI FLOW RETN TO RWT	MV	MV0A11	MV660P	0
A118	1MOV660	MINI FLOW RETN TO RWT	MV	MV0A11	MV660X	0
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	N1	MZ106Q	MZ106Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	N2	MZ116Q	MZ116Q	12
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	N3	MZ406Q	MZ406Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	N4	MZ416Q	MZ416Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A228	1ACC5170	AIR ACCUMULATOR FOR 1CV5170	NR	ILIA99	TK170B	0
A228	1ACC5171	AIR ACCUMULATOR FOR 1CV5171	NR	ILIA99	TK171B	0
A228	1ACC5174	AIR ACCUMULATOR FOR 1CV5174	NR	ILIA99	TK174B	0
A228	1ACC5175	AIR ACCUMULATOR FOR 1CV5175	NR	ILIA99	TK175B	0
A228	1ACC5177	AIR ACCUMULATOR FOR 1CV5177	NR	ILIA99	TK177B	0
A228	1ACC5178	AIR ACCUMULATOR FOR 1CV5178	NR	ILIA99	TK178B	0
A228	1ACC5173	AIR ACCUMULATOR FOR 1CV5173	NR	INIA99	TK173B	0
A205	2SV1637	TURB & EHC OIL SERV WTR ISOL VLV	NR(TC)	UNIT 2-TAFB01	C3637P	0
A205	2SV1639	TURB LUB & EHC OIL SERVWTR ISO	NR(TC)	UNIT 2-TAFB01	C3639P	0
A205	2SV1600	TURB BLDG SERV WTR ISOL VLV	NR(TC)	UNIT 2-TBFB01	C3600P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NR(TC)	UNIT 2-TBFB01	C3638P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NS	NSSRW	N/A	0
A205	2SV1637	TURB & EHC OIL SERV WTR ISOL VLV	NS	UNIT 2-TAFB01	C3637P	0
A205	2SV1639	TURB LUB & EHC OIL SERVWTR ISO	NS	UNIT 2-TAFB01	C3639P	0
A205	2SV1600	TURB BLDG SERV WTR ISOL VLV	NS	UNIT 2-TBFB01	C3600P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NS	UNIT 2-TBFB01	C3638P	0
A226	1SV4523	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4522	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4532	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4533	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	RH	BHERH1	Start	12
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	RH	BHERH1	Start	24
A226	1SV5150	SERV WTR HTEX 11 SALT WTR INLT	S3	C1150P	C1150P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148C	C2148C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148C	C2148C	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148C	C2148C	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148O	C2148O	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148T	C2148T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148T	C2148T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148T	C2148T	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151C	C2151C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151C	C2151C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151C	C2151C	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151C	C2151C	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	C2151O	C2151O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151O	C2151O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151O	C2151O	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	C2151O	C2151O	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151T	C2151T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151T	C2151T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151T	C2151T	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151T	C2151T	0
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AB	0
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AP	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BB	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BP	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1AV	C2148P	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2209P	0
A226	1SV5209	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1FIC5209	11A SRW HX SW OUTLET FLOW INDICATOR	S3	S3H1AV	C2209P	0
A226	1CV5209	11A SRW HX SALT WATER OUTLET VLV	S3	S3H1AV	C2209P	0
A226	1P/P5209	1CV5209 A/S VOLUME BOOSTER	S3	S3H1AV	C2209P	0
A226	1SV5209A	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	S3H1BV	C2151P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1BV	C2151P	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1BV	C2151P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1BV	C2151P	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	S3	S3H1BV	C2210P	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	S3	S3H1BV	C2210P	0
A226	1ZC5210	1CV5210 POSITIONER	S3	S3H1BV	C2210P	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1CV5153	12 SRW HX SW NORM B/U OUTLET	S4	C1153P	C1153P	20
A226	1SV5153	SERV WTR HTEX 12 SALT WTR OUT	S4	C1153P	C1153P	0
A226	1I/P5157	12A/12B SRW HX SW OUT I/P	S4	C2157T	C2157T	0
A226	1P/P5157	1CV5157 A/S VOLUME BOOSTER	S4	C2157T	C2157T	0
A226	1CV5157	12A/12B SRW HX SALT WATER OUTLET VLV	S4	C2157T	C2157T	0
A226	1ZC5157	1CV5157 POSITIONER	S4	C2157T	C2157T	0
A226	1SV5157A	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1SV5157	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158C	C2158C	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158C	C2158C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158C	C2158C	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	C2158O	C2158O	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158O	C2158O	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	C2158O	C2158O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158T	C2158T	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158T	C2158T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158T	C2158T	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159C	C2159C	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159C	C2159C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	C2159O	C2159O	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	C2159O	C2159O	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159T	C2159T	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159T	C2159T	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2212O	C2212O	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1ZC5212	1CV5212 POSITIONER	S4	C2212O	C2212O	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	C2212O	C2212O	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	C2212O	C2212O	0
A226	1SV5152	SERV WTR HTEX 12 SALT WTR INLT	S4	S4CV52	C1152P	0
A226	1HVSRW-707	MANUAL SRW INLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW707P	0
A226	1HVSRW-708	MANUAL SRW OUTLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW708P	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AB	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AP	0
A226	1HVSRW-709	MANUAL SRW INLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW709P	0
A226	1HVSRW-710	MANUAL SRW OUTLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW710P	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BB	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BP	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	S4H2AV	C2158P	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	S4H2AV	C2158P	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2AV	C2158P	0
A226	1FIC5211	12A SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2AV	C2211P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2211P	0
A226	1SV5211A	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1CV5211	12A SRW HX SALT WATER OUTLET VLV	S4	S4H2AV	C2211P	0
A226	1SV5211	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1P/P5211	1CV5211 A/S VOLUME BOOSTER	S4	S4H2AV	C2211P	0
A226	1ZC5211	1CV5211 POSITIONER	S4	S4H2AV	C2211P	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2BV	C2159P	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	S4H2BV	C2159P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2212P	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	S4H2BV	C2212P	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2BV	C2212P	0
A226	1ZC5212	1CV5212 POSITIONER	S4	S4H2BV	C2212P	0
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	SP(PP1)	BHEK12	Start	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	SP(PP2)	BHEK12	Start	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	SP(PP3)	BHEK12	Start	12
A122	1MOV4144	CONTMT SUMP OUT ISOL	SR	MV144C	MV144C	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	SR	MV144T	MV144T	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	SR	MV145C	MV145C	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	SR	MV145T	MV145T	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV462C	MV462C	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV462T	MV462T	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV463C	MV463C	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV463T	MV463T	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1SV1637	TURB LUBE&EHC OIL SERVWTR ISOL	TA	TAFB01	C3637P	0
A226	1SV1639	TURB LUB & EHC OIL SERV WTR IS	TA	TAFB01	C3639P	0
A226	1SV1600	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3600P	0
A226	1SV1638	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3638P	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	TE	MV144O	MV144O	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	TE	TE0101	MV144P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	TH(HD1)	BHER3B	Open	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	TH(HD1)	BHER3B	Open	0
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	TH(HD1)	BHER3B	Open	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	TH(HD1)	BHER3B	Open	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	TH(HD1)	BHER3B	Open	13
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	TH(HD1)	BHER3B	Open	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	TH(HD1)	BHER3B	Throttle	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	TH(HD1)	BHER3B	Throttle	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	TH(HD1)	BHER3B	Throttle	0
A226	1ZC5210	1CV5210 POSITIONER	TH(HD1)	BHER3B	Throttle	0
A228	1CV5206	11 CC HX SW OUTLET	TH(HD1)	BHER3B	Throttle	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	TH(HD2)	BHER3B	Open	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	TH(HD2)	BHER3B	Open	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	TH(HD2)	BHER3B	Open	0
A226	1ZC5212	1CV5212 POSITIONER	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	TH(HD2)	BHER3B	Throttle	0
A228	1CV5208	12 CC HX SW NORM OUT	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	TH(HD2)	BHER3B	Throttle	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	TH(HD2)	BHER3B	Throttle	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	TW	MV145O	MV145O	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	TW	TW0101	MV145P	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	TS404D	TS404D	0
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	V1	V1CLSE	WC170P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1CLSE	WC170P	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	V1	V1CLSE	WC170P	13
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	V1	V1CLSE	WC171P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1CLSE	WC171P	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	V1	V1CLSE	WC171P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1TEMP	TS404R	0
A119	1HXHVACECCS11	ECCS PUMP ROOM AIR COOLER 11	V1	V1TRFR	HX205B	0
A119	1HXHVACECCS11	ECCS PUMP ROOM AIR COOLER 11	V1	V1TRFR	HX205P	0
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	V1	VD11AR	VD11AR	22
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	V1	VD11AS	VD11AS	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	V1	VD11BR	VD11BR	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	V1	VD11BS	VD11BS	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	V1	VD11CR	VD11CR	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	V1	VD11CS	VD11CS	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	V1	VD11DR	VD11DR	22

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	V1	VD11DS	VD11DS	22
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC170D	WC170D	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	V1	WC170D	WC170D	13
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	V1	WC170D	WC170D	0
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	V1	WC170O	WC170O	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	V1	WC170O	WC170O	13
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC170O	WC170O	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	V1	WC171D	WC171D	0
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	V1	WC171D	WC171D	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC171D	WC171D	0
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	V1	WC171O	WC171O	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC171O	WC171O	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	V1	WC171O	WC171O	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	TS405D	TS405D	0
A228	1SV5174	ECCS PP RM HTEX 12 SLT WTR OUT	V2	V2CLSE	WC174P	0
A228	1CV5174	12 ECCS PP RM AIR CLR SW NORM OUTLET	V2	V2CLSE	WC174P	0
A228	1CV5175	12 ECCS PP RM AIR CLR SW NORM B/U OUT	V2	V2CLSE	WC175P	0
A228	1SV5175	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2CLSE	WC175P	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	V2INLT	WC173P	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	V2	V2INLT	WC173P	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	V2	V2INLT	WC173P	0
A228	1CV5177	12 ECCS PP RM AIR CLR SW AUX OUTLET	V2	V2OTLT	C4177O	0
A228	1SV5177	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4177O	0
A228	1CV5177	12 ECCS PP RM AIR CLR SW AUX OUTLET	V2	V2OTLT	C4177P	0
A228	1SV5177	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4177P	0
A228	1CV5178	12 ECCS PP RM AIR CLR SW AUX B/U OUT	V2	V2OTLT	C4178O	0
A228	1SV5178	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4178O	0
A228	1CV5178	12 ECCS PP RM AIR CLR SW AUX B/U OUT	V2	V2OTLT	C4178P	0
A228	1SV5178	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4178P	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	V2TEMP	TS405R	0
A118	1HXHVACECCS12	ECCS PUMP ROOM AIR COOLER 12	V2	V2TRFR	HX207B	0
A118	1HXHVACECCS12	ECCS PUMP ROOM AIR COOLER 12	V2	V2TRFR	HX207P	0
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	V2	VD12AR	VD12AR	22
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	V2	VD12AS	VD12AS	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	V2	VD12BR	VD12BR	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	V2	VD12BS	VD12BS	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	V2	VD12CR	VD12CR	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	V2	VD12CS	VD12CS	22
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	V2	WC173D	WC173D	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	WC173D	WC173D	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	V2	WC173D	WC173D	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	WC173O	WC173O	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	V2	WC173O	WC173O	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	V2	WC173O	WC173O	0
A226	1PCV5214	11 CW PP SEAL WTR PCV	VC	VCCW1A	PC214R	0
A226	1PCV5216	12 CW PP SEAL WTR PCV	VC	VCCW2A	PC216R	0
A226	1PCV5218	13 CW PP SEAL WTR PCV	VC	VCCW3A	PC218R	0
A226	1PCV5220	14 CW PP SEAL WTR PCV	VC	VCCW4A	PC220R	0
A226	1PCV5222	15 CW PP SEAL WTR PCV	VC	VCCW5A	PC222R	0
A226	1PCV5224	16 CW PP SEAL WTR PCV	VC	VCCW6A	PC224R	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	VM(RM1)	BHEV1T	Open	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	VM(RM1)	BHEV1T	Open	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	VM(RM1)	BHEV1T	Open	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	VM(RM1)	BHEV1T	Open	13
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	VM(RM1)	BHEV1T	Open	0
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	VM(RM1)	BHEV1T	Open	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	VM(RM1)	BHEV1T	Start	22
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	VM(RM2)	BHEV1T	Open	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	VM(RM2)	BHEV1T	Open	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	VM(RM2)	BHEV1T	Open	0
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	VM(RM2)	BHEV1T	Start	22
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	VM(RM2)	BHEV1T	Start	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	VM(RM2)	BHEV1T	Start	22
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0

Flood Evaluation Query

CF-10F-S228AR

11-Nov-98

TOP	PM	EVALUATION	RI
AA	6BKR	6 breaker challenges.	PAJ
AB	5BKR	5 breaker challenges.	PAJ
AC	4BKR	4 breaker challenges.	PAJ
AD	7BKR	7 breaker challenges.	PAJ
CS	F	CS Pump 11 is lost.	PAJ
CT	F	CS Pump 12 is lost.	PAJ
CV	F	Conservatively set to failure. CVCS relatively unimportant.	PAJ
DL	None	11A and 11B LPSI Loop Isol MOVs (1MOV615 and 1MOV625), Fail to Open on Demand. LPSIs only used in large break LOCAs. Flood cannot cause a large break LOCA, therefore this top is not affected.	PAJ
F1	None ~~Spec Impt~~	11 and 12 S/G AFW Block Valves fail. These valves are normally open and will fail open. Therefore there is no impact on this top. Flow control valves failing open are addressed in top event HX. Steam admission Control valves 1CV4070/4071 are normally closed, and will fail as-is(closed) on loss of power. Therefore, operators will be unable to open valves. These valves continuously have air (closing the valve). The operators may bleed air to open valve if need be. (note 1 & 2)	PAJ
F3	None	Steam Admission SV's 1SV4070/4071 are covered under top event F1.	PAJ
F7	None ~~F~~	~~Lost the ability to use Unit 1 AFW MD Pump 13 to supply Unit 1 S/G.~~ (note 1)	PAJ
F9	None ~~F~~	~~Loss the ability to use Unit 2 AFW MD Pump 23 to supply Unit 1 S/G. Also, 21 and 22 S/G AFW Block and Flow Valves fail. These valves are normally open and fail as-is (open) on loss of power.~~ (note 1)	PAJ
FC	None ~~Spec Impt.~~	(note 22) AFW Pump Room Emergency Vent Fans 11 & 12 fail along with NSR A/C Unit.	PAJ
FF	None	~~Both 11 and 12 AFW Pump Room Exhaust fans fail to start. Covered under Top FC.~~ (note 22)	PAJ
FH	None	~~Loss the ability to start AFW MD Pump 13. Covered under Top F7.~~ (note 1)	PAJ
FN	None	Only has 2 PCVs. I am assuming that these valves will not fail during a flood.	PAJ

See notes in RAN 98-065 Sect. 5.4 JPM

TOP	PM	EVALUATION	RI
GG	None	1CV1645 / 1CV1646 are both locked open. Both valves have been retired in place and can only be manipulated manually.	PAJ
GW	None ~~F~~	~~22 and 23 SRW Pump fail.~~ (note 1)	PAJ
GZ	None ~~F~~	~~21 and 23 SRW Pump fail.~~ (note 1)	PAJ
HA	F	11 HPSI Pump fails.	PAJ
HB	F	13 HPSI Pump fails.	PAJ
HU	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact.	PAJ
HW	F	12 HPSI is lost. Also 1MOV653, 1MOV654, 1MOV655 and 1MOV656 fail as-is.	PAJ
HX	None	11 and 12 S/G AFW (motor driven feed line) flow control valves fail open. Impact already considered by Top F7 & F9 failure.	PAJ
IL	None	Air accumulators only. Mechanical operation only.	PAJ
IN	None	Air accumulators only. Mechanical operation only.	PAJ
IP	None	Air accumulators only. Mechanical operation only.	PAJ
K3	None	Since KX, KY and KZ fail, this top event will be set to success.	PAJ
K4	None	Since KX, KY and KZ fail, this top event will be set to success.	PAJ
KH(PP1)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to start 11 CCW Pump. 11 Component Cooling Pump fails to start.	PAJ
KH(PP2)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to start 12 CCW Pump. 12 Component Cooling Pump fails to start.	PAJ
KH(PP3)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to start 13 CCW Pump. 13 Component Cooling Pump fails to start.	PAJ
KI(HX1)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to open, close or modulate two valves (1CV3824 and 1CV5206). 1CV3824 will fail in the appropriate position. 1CV5206 will not. This valve will fail open neglecting the capability to throttle this valve. Therefore this top will fail.	PAJ

TOP	PM	EVALUATION	RI
KI(HX2)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to open, close or modulate two valves (1CV3826 and 1CV5208). 1CV3826 will fail in the appropriate position. 1CV5208 will not. This valve will fail open neglecting the capability to throttle this valve. Therefore this top will fail.	PAJ
KM	None	Since KX, KY and KZ fail, this top event will be set to success. Also 1CV3823 will transfer close, which is the undesired affect. But it does not fail top unless 1HVCC-149 transfers shut or 1HXCC11 plugs during operation. Since mechanical components are screened for flood, it will not fail this top, only degrade it.	PAJ
KN	None	Since KX, KY and KZ fail, this top event will be set to success. Also 1CV3825 will transfer close, which is the undesired affect. But it does not fail top unless 1HVCC-156 transfers shut or 1HXCC12 plugs during operation. Since mechanical components are screened for flood, it will not fail this top, only degrade it.	PAJ
KX	F	11 CCW Pump will fail to start/run.	PAJ
KY	F	12 CCW Pump will fail to start/run.	PAJ
KZ	F	13 CCW Pump will fail to start/run.	PAJ
M1	14BKR	14 breaker challenges.	PAJ
M2	23BKR	23 breaker challenges.	PAJ
M3	17BKR	17 breaker challenges.	PAJ
~~M4~~	~~20BKR~~	~~20 breaker challenges.~~	~~PAJ~~
MH	None ~~Spec Impt~~	~~1CV4070/4071 are normally closed and fail as-is on loss of power. These valves must be locally vented.~~ (Note 3)	PAJ
MN	None	Has 6 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
MV	None	1MOV659/660 fail as-is and are normally electrically locked open, there will be no flood impact.	PAJ
N1	2BKR	2 breaker challenges.	PAJ
N2	2BKR	2 breaker challenges.	PAJ
N3	1BKR	1 breaker challenges.	PAJ
N4	1BKR	1 breaker challenges.	PAJ

TOP	PM	EVALUATION	RI
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
NR	None	Air accumulators only. Mechanical operation only.	PAJ
NR(TC)	Spec Impt	~~2CV1600/1637/1638/1639 fail close on loss of power, the undesirable position. Unable to use Unit 2 compressors for Unit 1.~~ (note 4)	PAJ
NS	None ~~Spec Impt~~	~~2CV1600/1637/1638/1639 fail close on loss of power, the undesirable position. Unable to use Unit 2 compressors for Unit 2.~~ (note 18)	PAJ
QZ	None	11 & 12 AFW Block valves (1CV4522/4523/4532/4533) are normally open and fail as-is on loss of power.	PAJ
RH	None ~~F~~	This human action requires the operator to start 11 and 13 HPSI Pumps. Both pumps are assumed not to start/run during a flood scenario. (Note 9)	PAJ
S3	F	11 and 13 SRW Pumps fail.	PAJ
S4	F	12 and 13 SRW Pumps fail.	PAJ
SG	None ~~Spec Impt~~	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment. (Note 5)	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ
SP(PP1)	None	11 CC Pumps fails to start/run. Accounted for by Top KX.	PAJ
SP(PP2)	None	12 CC Pumps fails to start/run. Accounted for by Top KY.	PAJ
SP(PP3)	None	13 CC Pumps fails to start/run. Accounted for by Top KZ.	PAJ
SR	Spec Impt ~~None~~	All MOVs (1MOV4144/4145/5462/5463/615/625) are closed and fail close. (note 10)	PAJ
TA	F	1CV1637/1639 fail close on loss of power / loss of air.	PAJ

TOP	PM	EVALUATION	RI
TB	F	1CV1600/1638 fail close on loss of power / loss of air.	PAJ
TE	F	1MOV4144 is normally in the closed position and will fail as-is. Therefore, the East Recirculation Header will not function properly.	PAJ
TG	None	Steam admission Control valves 1CV4070/4071 are normally closed, and will fail as-is(closed) on loss of power. Therefore, operators will be unable to open valves. These valves continuously have air (closing the valve). The operators may bleed air to open valve if need be. Covered under Top F1.	PAJ
TH(HD1)	None	1CV5206/5210 will fail to there appropriate position not allowing the operator to throttle valves. Covered by Top S3 or K3. Also, 1CV5170/5171 fails open on loss of power and loss of air.	PAJ
TH(HD2)	None	1CV5208/5212 will fail to there appropriate position not allowing the operator to throttle valves. Covered by Top S4 or K4. Also, 1CV5173 fails open on loss of power and loss of air.	PAJ
TW	F	1MOV4145 is normally in the closed position and will fail as-is. Therefore, the West Recirculation Header will not function properly.	PAJ
TX	None	Has 6 PSs. It is assumed that a flood will not prevent PS activation.	PAJ
UQ	None	1CV4525/4535 are normally open and fail as-is on loss of power. This top only fails when an under feed to the SG occurs.	PAJ
V1	F	All ECCS Pump Room Fans fail to start/run.	PAJ
V2	F	All ECCS Pump Room Fans fail to start/run.	PAJ
~~V5~~	~~F~~	Top Event V5 no longer used JBR. ~~11 and 12 ECCS exhaust fans fails to start/~~run.	PAJ
VC	None	Has 6 PCVs. I am assuming that these will not fail during a flood.	PAJ
VM(RM1)	None	Operator will be unable to start ECCS Pump Room Fans. Covered under Top V1.	PAJ
VM(RM2)	None	Operator will be unable to start ECCS Pump Room Fans. Covered under Top V2.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ
WY	None	1CV1584/1592 fail open loss of power.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	AA	MAAF3Q	MAAF3Q	16
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	AA	MACS1Q	MACS1Q	12
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	AA	MAHP1Q	MAHP1Q	24
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	AA	MAHP3Q	MAHP3Q	12
A119	1PUMPSILPSI11	11 LOW PRESS SAFETY INJECTION PUMP (1MA104)	AA	MALP1Q	MALP1Q	12
A226	1PUMPSRW11	11 SERVICE WATER PUMP (1MA109)	AA	MWSR1Q	MWSR1Q	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	AA	MWSR3Q	MWSR3Q	32
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	AB	MACS2Q	MACS2Q	12
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	AB	MAHP2Q	MAHP2Q	24
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	AB	MAHP4Q	MAHP4Q	12
A118	1PUMPSILPSI12	12 LOW PRESS SAFETY INJECTION PUMP (1MA404)	AB	MALP2Q	MALP2Q	12
A226	1PUMPSRW12	12 SERVICE WATER PUMP (1MA409)	AB	MWSR2Q	MWSR2Q	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	AB	MWSR4Q	MWSR4Q	32
A101	2PUMPSICS21	21 CONTAINMENT SPRAY PUMP (2MA107)	AC	MACS3Q	MACS3Q	24
A101	2PUMPHPSI21	SI HPSI PUMP 21 (2MA108)	AC	MAHP5Q	MAHP5Q	24
A102	2PUMPHPSI23	SI HPSI PUMP 23 (2MA110)	AC	MAHP7Q	MAHP7Q	12
A101	2PUMPSILPSI21	21 LOW PRESS SAFETY INJECTION PUMP (2MA104)	AC	MALP3Q	MALP3Q	39
A205	2PUMPSRW21	21 SERVICE WATER PUMP (2MA109)	AC	MWSR5Q	MWSR5Q	32
A205	2PUMPSRW23	23 SERVICE WATER PUMP (2MA411)	AC	MWSR7Q	MWSR7Q	32
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	AD	MAAF6Q	MAAF6Q	16
A102	2PUMPSICS22	22 CONTAINMENT SPRAY PUMP (2MA407)	AD	MACS4Q	MACS4Q	12
A101	2PUMPHPSI22	SI HPSI PUMP 22 (2MA408)	AD	MAHP6Q	MAHP6Q	24
A102	2PUMPHPSI23	SI HPSI PUMP 23 (2MA110)	AD	MAHP8Q	MAHP8Q	12
A102	2PUMPSILPSI22	22 LOW PRESS SAFETY INJECTION PUMP (2MA404)	AD	MALP4Q	MALP4Q	12
A205	2PUMPSRW22	22 SERVICE WATER PUMP (2MA409)	AD	MWSR6Q	MWSR6Q	32
A205	2PUMPSRW23	23 SERVICE WATER PUMP (2MA411)	AD	MWSR8Q	MWSR8Q	32
A119	1HXSICS11	11 SHUTDOWN COOLING HX	CS	CS0103	HXC11B	0
A119	1HXSICS11	11 SHUTDOWN COOLING HX	CS	CS0103	HXC11P	0
A119	1MOV663	SDC RECIRC TO 11 HPSI PP	CS	CS0103	MV663T	0
A119	1CV3828	11 SDC HX OUTLET	CS	CSHX11	CV828P	0
A119	1SV3828	S/D HX 11 COOL WTR DISCH VLV	CS	CSHX11	CV828P	0
A119	1CV3828	11 SDC HX OUTLET	CS	CV828O	CV828O	0
A119	1SV3828	S/D HX 11 COOL WTR DISCH VLV	CS	CV828O	CV828O	0
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	CS	MA107R	MA107R	12
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	CS	MA107S	MA107S	12
A118	1HXSICS12	12 SHUTDOWN COOLING HX	CT	CT0103	HXC12B	0
A118	1HXSICS12	12 SHUTDOWN COOLING HX	CT	CT0103	HXC12P	0
A118	1MOV662	SDC RECIRC TO 13 HPSI PP	CT	CT0103	MV662T	0
A118	1CV3830	12 SDC HX OUTLET	CT	CTXH12	CV830P	0
A118	1SV3830	S/D HX #12 COMP CLG DISCH VLV	CT	CTXH12	CV830P	0
A118	1CV3830	12 SDC HX OUTLET	CT	CV830O	CV830O	0
A118	1SV3830	S/D HX #12 COMP CLG DISCH VLV	CT	CV830O	CV830O	0
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	CT	MA407R	MA407R	12
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	CT	MA407S	MA407S	12
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A218	1CV500	VOL CONT TNK INLT VLV	CV	CVHV03	CV500O	0
A218	1LC227A	VOLUME CONTROL TNK LEVEL HIGH	CV	CVHV03	CV500O	0
A218	1SV500	VOL CONT TANK INLET CONT VLV	CV	CVHV03	CV500O	0
A218	1CV500	VOL CONT TNK INLT VLV	CV	CVHV03	CV500P	0
A218	1LC227A	VOLUME CONTROL TNK LEVEL HIGH	CV	CVHV03	CV500P	0
A218	1SV500	VOL CONT TANK INLET CONT VLV	CV	CVHV03	CV500P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A217	1MOV514	BAPP TO CHG PP SUCT DIRECT FD	CV	CVMV01	MV514O	6
A217	1MOV514	BAPP TO CHG PP SUCT DIRECT FD	CV	CVMV01	MV514P	6
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A217	1PUMPCVCBA11	11 CVC BORIC ACID PUMP (1M1406)	CV	MP011R	MP011R	12
A217	1PUMPCVCBA11	11 CVC BORIC ACID PUMP (1M1406)	CV	MP011S	MP011S	12
A217	1PUMPCVCBA12	12 CVC BORIC ACID PUMP (1M0406)	CV	MP012R	MP012R	12
A217	1PUMPCVCBA12	12 CVC BORIC ACID PUMP (1M0406)	CV	MP012S	MP012S	12
A217	1MOV508	12 BAST GRAVITY FD	CV	MV508O	MV508O	6
A217	1MOV508	12 BAST GRAVITY FD	CV	MV508P	MV508P	6
A217	1MOV509	11 BAST GRAVITY FD	CV	MV509O	MV509O	6
A217	1MOV509	11 BAST GRAVITY FD	CV	MV509P	MV509P	6
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PS224R	PS224R	0
A227	1MOV615	11A LPSI LOOP ISOL	DL	DLL11A	MV615O	19
A227	1MOV615	11A LPSI LOOP ISOL	DL	DLL11A	MV615P	19
A227	1MOV625	11B LPSI LOOP ISOL	DL	DLL11B	MV625O	0
A227	1MOV625	11B LPSI LOOP ISOL	DL	DLL11B	MV625P	0
A226	1CV4522	11 S/G AFW BLOCK VLV	F1	CV4522	CV522P	40
A226	1SV4522	11 S/G AFW BLOCK SV	F1	CV4522	CV522P	0
A226	1SV4523	11 S/G AFW BLOCK SV	F1	CV4523	CV523P	0
A226	1CV4532	12 S/G AFW BLOCK VLV	F1	CV4532	CV532P	40
A226	1SV4532	12 S/G AFW BLOCK SV	F1	CV4532	CV532P	0
A226	1SV4533	12 S/G AFW BLOCK SV	F1	CV4533	CV533P	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	F1	F1CV70	C8070O	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	F1	F1CV70	C8070P	0
A227	1SV4071	12 S/G MS TO AFW PP	F1	F1CV71	C8071O	0
A227	1SV4071	12 S/G MS TO AFW PP	F1	F1CV71	C8071P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	F3	BHEF31	Open	0
A227	1SV4071	12 S/G MS TO AFW PP	F3	BHEF31	Open	0
A226	1SV4550	U-1 TO U-2 AFW X-CONN SV	F7	F7MPVA	C3550T	0
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QR	MA13QR	16
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QS	MA13QS	16
A205	2CV4522	21 S/G AFW BLOCK VLV	F9	CVB22C	CVB22C	40
A205	2SV4522	S/G 21 AFW MOTOR SYS ISOL VLV	F9	CVB22C	CVB22C	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A205	2SV4523	S/G 21 AFW MOTOR SYS ISOL VLV	F9	CVB23C	CVB23C	0
A205	2CV4532	22 S/G AFW BLOCK VLV	F9	CVB32C	CVB32C	40
A205	2SV4532	S/G 22 AFW MOTOR SYS ISOL VLV	F9	CVB32C	CVB32C	0
A205	2SV4533	S/G 22 AFW MOTOR SYS ISOL VLV	F9	CVB33C	CVB33C	0
A205	2SV4550	U-2 AUX FEED X-CONN VLV	F9	F9M2VA	C3B50O	0
A205	2SV4550	U-2 AUX FEED X-CONN VLV	F9	F9M2VA	C3B50P	0
A205	2CV4522	21 S/G AFW BLOCK VLV	F9	F9M2VA	CVB22T	40
A205	2SV4522	S/G 21 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB22T	0
A205	2SV4523	S/G 21 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB23T	0
A205	2CV4532	22 S/G AFW BLOCK VLV	F9	F9M2VA	CVB32T	40
A205	2SV4532	S/G 22 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB32T	0
A205	2SV4533	S/G 22 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB33T	0
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	F9	MA23QR	MA23QR	16
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	F9	MA23QS	MA23QS	16
A225	1HS5472	MCC-101-BT BKR 52-10150 AFW PP RM A/C UNIT 11	FC	FCAC11	HS472T	0
A225	1HS5470	AFW PP RM EMERG VENT FAN 11 MCC-114-12	FC	FCAUX1	HS470D	18
A225	1HS5470	AFW PP RM EMERG VENT FAN 11 MCC-114-12	FC	FCAUX1	HS470T	18
A225	1HS5471	AFW PP RM EMERG VENT FAN 12 MCC-104-12	FC	FCAUX2	HS471D	18
A225	1HS5471	AFW PP RM EMERG VENT FAN 12 MCC-104-12	FC	FCAUX2	HS471T	18
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	FC	VDA11R	VDA11R	36
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	FC	VDA11S	VDA11S	36
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	FC	VDA12R	VDA12R	36
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	FC	VDA12S	VDA12S	36
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	FF	BHEFCB	Start	36
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	FF	BHEFCB	Start	36
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	FH	BHEF71	Start	16
A226	1PCV4512	1 IA SUPP ACCUM 11A & 11B PCV	FN	FN0000	CV512P	0
A226	1PCV4520	11B AFW AIR ACCUMULATOR OUTLET PCV	FN	FN0000	CV520P	0
A224	1CV1645	1B DG SUPP FROM U-1 SRW	GG	GGSRW1	CVA45P	6
A224	1CV1646	1B DG RTN TO U-1 SRW	GG	GGSRW1	CVA46P	6
A205	2CV5212	22 SRW HX SW OUT CV	GW	C2S12O	C2S12O	48
A205	2I/P5212	SALT WTR OUT SERV WTR HTEX	GW	C2S12O	C2S12O	0
A205	2SV5212	SERV WTR HTEX 22 SALT WTR OUT	GW	C2S12O	C2S12O	0
A205	2SV5212A	SERV WTR HTEX 22 SALT WTR OUT	GW	C2S12O	C2S12O	0
A205	2PUMPSRW22	22 SERVICE WATER PUMP (2MA409)	GW	MWT22R	MWT22R	32
A205	2PUMPSRW22	22 SERVICE WATER PUMP (2MA409)	GW	MWT22S	MWT22S	32
A205	2PUMPSRW23	23 SERVICE WATER PUMP (2MA411)	GW	MWT23R	MWT23R	32
A205	2PUMPSRW23	23 SERVICE WATER PUMP (2MA411)	GW	MWT23S	MWT23S	32
A205	2CV5152	22 SRW HX SW INLET	GW	S8CV52	C1S52P	60
A205	2SV5152	SERV WTR HTEX 22 SALT WTR INLT	GW	S8CV52	C1S52P	0
A205	2CV5153	22 SRW HX SW NORM B/U OUTLET	GW	S8H2CV	C1S53P	20
A205	2SV5153	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C1S53P	0
A205	2CV5212	22 SRW HX SW OUT CV	GW	S8H2CV	C2S12P	48
A205	2I/P5212	SALT WTR OUT SERV WTR HTEX	GW	S8H2CV	C2S12P	0
A205	2SV5212	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C2S12P	0
A205	2SV5212A	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C2S12P	0
A205	2PUMPSRW21	21 SERVICE WATER PUMP (2MA109)	GZ	MWT21R	MWT21R	32
A205	2PUMPSRW21	21 SERVICE WATER PUMP (2MA109)	GZ	MWT21S	MWT21S	32
A205	2PUMPSRW23	23 SERVICE WATER PUMP (2MA411)	GZ	MWT23R	MWT23R	32
A205	2PUMPSRW23	23 SERVICE WATER PUMP (2MA411)	GZ	MWT23S	MWT23S	32
A205	2CV5150	21 SRW HX SW INLET	GZ	S7H2CV	C1S50P	60
A205	2SV5150	SERV WTR HTEX 21 SALT WTR INLT	GZ	S7H2CV	C1S50P	0
A205	2CV5210	21 SRW HX SW OUTLET CV	GZ	S7H2CV	C2S10P	60
A205	2I/P5210	SALT WTR OUT SERV WTR HTEX	GZ	S7H2CV	C2S10P	0
A205	2SV5210	SERV WTR HTEX 21 SALT WTR OUT	GZ	S7H2CV	C2S10P	0
A205	2SV5210A	SERV WTR HTEX 21 SALT WTR OUT	GZ	S7H2CV	C2S10P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1AB	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1AP	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1BB	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1BP	0
A119	1HXSTF/BOX11A	HPSI PUMP 11	HA	HA1CCW	HXS1AB	0
A119	1HXSTF/BOX11A	HPSI PUMP 11	HA	HA1CCW	HXS1AP	0
A119	1HXSTF/BOX11B	HPSI PUMP 11	HA	HA1CCW	HXS1BB	0
A119	1HXSTF/BOX11B	HPSI PUMP 11	HA	HA1CCW	HXS1BP	0
A119	1HX109	#11 HPSI PP SEAL COOLER	HA	HA1CCW	HXSC1B	0
A119	1HX109	#11 HPSI PP SEAL COOLER	HA	HA1CCW	HXSC1P	0
A119	1MOV656	AUX HPSI HDR ISOL	HA	HADISA	MV656P	0
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	HA	MA011R	MA011R	24
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	HA	MA011S	MA011S	24
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3AB	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3AP	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3BB	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3BP	0
A118	1HXSTF/BOX13A	HPSI PUMP 13	HB	HB3CCW	HXS3AB	0
A118	1HXSTF/BOX13A	HPSI PUMP 13	HB	HB3CCW	HXS3AP	0
A118	1HXSTF/BOX13B	HPSI PUMP 13	HB	HB3CCW	HXS3BB	0
A118	1HXSTF/BOX13B	HPSI PUMP 13	HB	HB3CCW	HXS3BP	0
A118	1HX111	#13 HPSI PP SEAL COOLER	HB	HB3CCW	HXSC3B	0
A118	1HX111	#13 HPSI PP SEAL COOLER	HB	HB3CCW	HXSC3P	0
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	HB	MA013R	MA013R	12
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	HB	MA013S	MA013S	12
A118	1MOV654	HPSI HDR ISOL	HB	MV654P	MV654P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A118	1PUMPHPSI12	12 HIGH PRESS SAFETY INJECTION PUMP	HW	BHEHW1	Start	12
A119	1MOV656	AUX HPSI HDR ISOL	HW	HADISA	MV656P	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2AB	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2AP	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2BB	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2BP	0
A118	1HXSTF/BOX12A	HPSI PUMP 12	HW	HW1CCW	HXS2AB	0
A118	1HXSTF/BOX12A	HPSI PUMP 12	HW	HW1CCW	HXS2AP	0
A118	1HXSTF/BOX12B	HPSI PUMP 12	HW	HW1CCW	HXS2BB	0
A118	1HXSTF/BOX12B	HPSI PUMP 12	HW	HW1CCW	HXS2BP	0
A119	1HX409	#12 HPSI PP SEAL COOLER	HW	HW1CCW	HXSC2B	0
A119	1HX409	#12 HPSI PP SEAL COOLER	HW	HW1CCW	HXSC2P	0
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	HW	MA012R	MA012R	24
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	HW	MA012S	MA012S	24
A118	1MOV653	HPSI HDR X-CONN	HW	MV653O	MV653O	0
A118	1MOV653	HPSI HDR X-CONN	HW	MV653P	MV653P	0
A118	1MOV654	HPSI HDR ISOL	HW	MV654P	MV654P	0
A119	1MOV655	HPSI HDR X-CONN	HW	MV655P	MV655P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A228	1ACC5170	AIR ACCUMULATOR FOR 1CV5170	IL	ILIA99	TK170B	0
A228	1ACC5171	AIR ACCUMULATOR FOR 1CV5171	IL	ILIA99	TK171B	0
A228	1ACC5174	AIR ACCUMULATOR FOR 1CV5174	IL	ILIA99	TK174B	0
A228	1ACC5175	AIR ACCUMULATOR FOR 1CV5175	IL	ILIA99	TK175B	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A228	1ACC5177	AIR ACCUMULATOR FOR 1CV5177	IL	ILIA99	TK177B	0
A228	1ACC5178	AIR ACCUMULATOR FOR 1CV5178	IL	ILIA99	TK178B	0
A228	1ACC5173	AIR ACCUMULATOR FOR 1CV5173	IN	INIA99	TK173B	0
A224	1ACC1645	AIR ACCUMULATOR FOR 1CV1645	IP	IPIA99	TK645B	0
A224	1ACC1646	AIR ACCUMULATOR FOR 1CV1646	IP	IPIA99	TK646B	0
A228	1CV5160	11 CC HX SW INLET	K3	C1160O	C1160O	0
A228	1SV5160	COMP CLG HTEX 11 SALT WTR INLT	K3	C1160O	C1160O	0
A228	1CV5206	11 CC HX SW OUTLET	K3	C2206O	C2206O	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	K3	C2206O	C2206O	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	K3	C2206O	C2206O	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	K3	C2206O	C2206O	0
A226	1CV5210	11 SRW HX SW OUTLET CV	K3	C2210C	C2210C	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	C2210C	C2210C	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	C2210C	C2210C	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0
A226	1ZC5210	1CV5210 POSITIONER	K3	C2210C	C2210C	0
A228	1CV3823	11 CC HX TEMP CONT BYP	K3	CT823R	CT823R	0
A228	1TIC3823	11 CC HX BYP VLV TEMP CONTL	K3	CT823R	CT823R	0
A226	1CV5210	11 SRW HX SW OUTLET CV	K3	K3CLOS	C2210T	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	K3CLOS	C2210T	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	K3CLOS	C2210T	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1ZC5210	1CV5210 POSITIONER	K3	K3CLOS	C2210T	0
A228	1CV3823	11 CC HX TEMP CONT BYP	K3	K3COMP	CT823T	0
A228	1TIC3823	11 CC HX BYP VLV TEMP CONTL	K3	K3COMP	CT823T	0
A228	1CV5160	11 CC HX SW INLET	K3	K3OTLT	C1160P	0
A228	1SV5160	COMP CLG HTEX 11 SALT WTR INLT	K3	K3OTLT	C1160P	0
A228	1CV5206	11 CC HX SW OUTLET	K3	K3OTLT	C2206P	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	K3	K3OTLT	C2206P	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	K3	K3OTLT	C2206P	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	K3	K3OTLT	C2206P	0
A228	1CV5162	12 CC HX SW INLET	K4	C1162O	C1162O	0
A228	1SV5162	COMP CLG HTEX 12 SALT WTR INLT	K4	C1162O	C1162O	0
A228	1CV5163	12 CC HX SW NORM B/U OUTLET	K4	C1163O	C1163O	0
A228	1SV5163	COMP CLG HTEX 12 SALT WTR OUT	K4	C1163O	C1163O	0
A228	1CV5208	12 CC HX SW NORM OUT	K4	C2208O	C2208O	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	K4	C2208O	C2208O	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	K4	C2208O	C2208O	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	K4	C2208O	C2208O	0
A226	1CV5212	12 SRW HX SW OUT CV	K4	C2212C	C2212C	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	C2212C	C2212C	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	C2212C	C2212C	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1ZC5212	1CV5212 POSITIONER	K4	C2212C	C2212C	0
A228	1CV3825	12 CC HX TEMP CONT BYP	K4	CT825R	CT825R	0
A228	1TIC3825	12 CC HX BYP VLV TEMP CONTL	K4	CT825R	CT825R	0
A228	1CV3825	12 CC HX TEMP CONT BYP	K4	K4CMP1	CT825T	0
A228	1TIC3825	12 CC HX BYP VLV TEMP CONTL	K4	K4CMP1	CT825T	0
A228	1CV5162	12 CC HX SW INLET	K4	K4INLT	C1162P	0
A228	1SV5162	COMP CLG HTEX 12 SALT WTR INLT	K4	K4INLT	C1162P	0
A226	1CV5212	12 SRW HX SW OUT CV	K4	K4ISO1	C2212T	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	K4ISO1	C2212T	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	K4ISO1	C2212T	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1ZC5212	1CV5212 POSITIONER	K4	K4ISO1	C2212T	0
A228	1CV5165	12 CC HX SW AUX OUT	K4	K4OPN2	C4165O	0
A228	1SV5165	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4165O	0
A228	1CV5165	12 CC HX SW AUX OUT	K4	K4OPN2	C4165P	0
A228	1SV5165	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4165P	0
A228	1CV5166	12 CC HX SW AUX B/U OUTLET	K4	K4OPN2	C4166O	0
A228	1SV5166	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4166O	0
A228	1CV5166	12 CC HX SW AUX B/U OUTLET	K4	K4OPN2	C4166P	0
A228	1SV5166	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4166P	0
A228	1CV5163	12 CC HX SW NORM B/U OUTLET	K4	K4OTLT	C1163P	0
A228	1SV5163	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OTLT	C1163P	0
A228	1CV5208	12 CC HX SW NORM OUT	K4	K4OTLT	C2208P	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	K4	K4OTLT	C2208P	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OTLT	C2208P	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OTLT	C2208P	0
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KH(PP1)	BHEKC1	Start	12
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KH(PP1)	BHEKZ1	Start	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KH(PP2)	BHEKC1	Start	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KH(PP2)	BHEKZ1	Start	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KH(PP3)	BHEKC1	Start	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KH(PP3)	BHEKZ1	Start	12
A228	1CV3826	12 CC HX OUTLET	KI(HX1)	BHEK31	Close	0
A228	1CV5208	12 CC HX SW NORM OUT	KI(HX1)	BHEK31	Close	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	KI(HX1)	BHEK31	Close	0
A228	1SV3826	COMP CLG HTEX 12 DISCH CONTROL	KI(HX1)	BHEK31	Close	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	KI(HX1)	BHEK31	Close	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	KI(HX1)	BHEK31	Close	0
A228	1CV3824	11 CC HX OUTLET	KI(HX1)	BHEK31	Open	0
A228	1SV3824	COMP CLG HX 11 DISCH CONTROL	KI(HX1)	BHEK31	Open	0
A228	1CV5206	11 CC HX SW OUTLET	KI(HX1)	BHEK31	Throttle	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	KI(HX1)	BHEK31	Throttle	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	KI(HX1)	BHEK31	Throttle	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	KI(HX1)	BHEK31	Throttle	0
A228	1CV3824	11 CC HX OUTLET	KI(HX2)	BHEK31	Close	0
A228	1CV5206	11 CC HX SW OUTLET	KI(HX2)	BHEK31	Close	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	KI(HX2)	BHEK31	Close	0
A228	1SV3824	COMP CLG HX 11 DISCH CONTROL	KI(HX2)	BHEK31	Close	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	KI(HX2)	BHEK31	Close	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	KI(HX2)	BHEK31	Close	0
A228	1CV3826	12 CC HX OUTLET	KI(HX2)	BHEK31	Open	0
A228	1SV3826	COMP CLG HTEX 12 DISCH CONTROL	KI(HX2)	BHEK31	Open	0
A228	1CV5208	12 CC HX SW NORM OUT	KI(HX2)	BHEK31	Throttle	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	KI(HX2)	BHEK31	Throttle	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	KI(HX2)	BHEK31	Throttle	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	KI(HX2)	BHEK31	Throttle	0
A228	1HXCC11	11 COMPONENT COOLING WTR	KM	HXC11B	HXC11B	13
A228	1CV3823	11 CC HX TEMP CONT BYP	KM	KMBYPS	CT823P	0
A228	1TIC3823	11 CC HX BYP VLV TEMP CONTL	KM	KMBYPS	TC823R	0
A228	1CV3824	11 CC HX OUTLET	KM	KMCV24	CV824P	0
A228	1SV3824	COMP CLG HX 11 DISCH CONTROL	KM	KMCV24	CV824P	0
A228	1HXCC11	11 COMPONENT COOLING WTR	KM	KMPATH	HXC11P	13
A228	1HXCC12	12 COMPONENT COOLING WTR	KN	HXC12B	HXC12B	13
A228	1CV3825	12 CC HX TEMP CONT BYP	KN	KNBYPS	CT825P	0
A228	1TIC3825	12 CC HX BYP VLV TEMP CONTL	KN	KNBYPS	TC825R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A228	1CV3826	12 CC HX OUTLET	KN	KNCV26	CV826P	0
A228	1SV3826	COMP CLG HTEX 12 DISCH CONTROL	KN	KNCV26	CV826P	0
A228	1HXCC12	12 COMPONENT COOLING WTR	KN	KNPATH	HXC12P	13
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KX	MZC11R	MZC11R	12
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KX	MZC11S	MZC11S	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KY	MZC12R	MZC12R	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KY	MZC12S	MZC12S	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KZ	MZC13R	MZC13R	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KZ	MZC13S	MZC13S	12
A217	1U0409	11 BA TK HTR B	M1	HTM09Q	HTM09Q	6
A217	1U0434	12 BA TK HTR B	M1	HTM34Q	HTM34Q	6
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	M1	M1FPPR	VD48AQ	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	M1	M1FPPR	VD48BQ	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	M1	M1FPPR	VD48CQ	22
A217	1PUMPCVCBA12	12 CVC BORIC ACID PUMP (1M0406)	M1	MBM06Q	MBM06Q	12
A118	1MOV654	HPSI HDR ISOL	M1	MVM21Q	MVM21Q	0
A118	1MOV653	HPSI HDR X-CONN	M1	MVM22Q	MVM22Q	0
A217	1MOV514	BAPP TO CHG PP SUCT DIRECT FD	M1	MVM25Q	MVM25Q	6
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	M1	MVM30Q	MVM30Q	0
A118	1MOV660	MINI FLOW RETN TO RWT	M1	MVM32Q	MVM32Q	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	M1	MVM44Q	MVM44Q	0
A225	1FANHVACPENETE12	12 PENET RM EXH FAN (1M0402)	M1	VDM02Q	VDM02Q	18.75
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	M1	VDM12Q	VDM12Q	36
A225	1FANHVACECCSE12	12 ECCS PUMP RM EXH (1M0413)	M1	VDM13Q	VDM13Q	0
A226	1FAN5334	SRW HX RM EXH FAN 18B (1M0451)	M1	VDM51Q	VDM51Q	0
A217	1U1409	11 CVC BA TK HTR A	M2	HTN09Q	HTN09Q	6
A217	1U1434	12 BA TK HTR A	M2	HTN34Q	HTN34Q	6
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	M2	M2FPPR	VD48AQ	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	M2	M2FPPR	VD48BQ	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	M2	M2FPPR	VD48CQ	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	M2	M2FPPR	VD48DQ	22
A217	1PUMPCVCBA11	11 CVC BORIC ACID PUMP (1M1406)	M2	MBN06Q	MBN06Q	12
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A227	1MOV615	11A LPSI LOOP ISOL	M2	MVN07Q	MVN07Q	19
A227	1MOV625	11B LPSI LOOP ISOL	M2	MVN08Q	MVN08Q	0
A119	1MOV656	AUX HPSI HDR ISOL	M2	MVN21Q	MVN21Q	0
A119	1MOV655	HPSI HDR X-CONN	M2	MVN22Q	MVN22Q	0
A218	1MOV504	RWT TO CHG PP	M2	MVN23Q	MVN23Q	19
A217	1MOV509	11 BAST GRAVITY FD	M2	MVN24Q	MVN24Q	6
A217	1MOV508	12 BAST GRAVITY FD	M2	MVN30Q	MVN30Q	6
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A118	1MOV659	MINI FLOW RETN TO RWT	M2	MVN32Q	MVN32Q	0
A224	1MOV399	SDC HX RECIRC STOP	M2	MVN37Q	MVN37Q	6
A122	1MOV4144	CONTMT SUMP OUT ISOL	M2	MVN44Q	MVN44Q	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	M2	MVN57Q	MVN57Q	0
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A217	1X11	1 CVC BA HEAT TRACING XFMR	M2	TMN33Q	TMN33Q	6
A225	1FANHVACPENETE11	11 PENET RM EXH FAN (1M1402)	M2	VDN02Q	VDN02Q	18.75
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	M2	VDN12Q	VDN12Q	36
A225	1FANHVACECCSE11	11 ECCS PUMP RM EXH (1M1413)	M2	VDN13Q	VDN13Q	0
A226	1FAN5335	SRW HTEX RM FAN VU-18A (1M1441)	M2	VDN41Q	VDN41Q	0
A215	2U0409	21 CVC BA TK HTR B	M3	HTO09Q	HTO09Q	0
A215	2U0434	22 CVC BA TK HTR B	M3	HTO34Q	HTO34Q	0
A102	2FAN0448A	ECCS PP RM CLR 22 FAN A (2M0448A)	M3	M3FPPR	VD48AQ	22
A102	2FAN0448B	ECCS PP RM CLR 22 FAN B (2M0448B)	M3	M3FPPR	VD48BQ	22
A102	2FAN0448C	ECCS PP RM CLR 22 FAN C (2M0448C)	M3	M3FPPR	VD48CQ	22

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A215	2PUMPCVCBA22	22 CVC BORIC ACID PUMP (2M0406)	M3	MBO06Q	MBO06Q	6
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A102	2MOV654	HPSI HDR ISOL	M3	MVO21Q	MVO21Q	0
A102	2MOV653	HPSI HDR X-CONN	M3	MVO22Q	MVO22Q	0
A215	2MOV514	BAPP'S TO CHG PP SUCT DIRECT FD	M3	MVO25Q	MVO25Q	0
A120	2MOV5463	U-2 CONTMT RECIRC PIPE TUNNEL	M3	MVO30Q	MVO30Q	0
A102	2MOV660	MINI FLOW RETN TO RWT	M3	MVO32Q	MVO32Q	0
A120	2MOV4145	CONTMT SUMP OUTLET ISOL	M3	MVO44Q	MVO44Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A203	2MOV399	SDC HX RECIRC ISOL	M3	MVO58Q	MVO58Q	6
A204	2FANHVACPENETE22	22 PENET RM EXH FAN (2M1402)	M3	VDO02Q	VDO02Q	18.75
A204	2FANHVACAFWE22	22 AFW PUMP RM EXH (2M0412)	M3	VDO12Q	VDO12Q	36
A204	2FANHVACECCSE22	22 ECCS PUMP RM EXH (2M0413)	M3	VDO13Q	VDO13Q	0
A205	2FAN5334	SRW HX RM EXH FAN 19B (2M0451)	M3	VDO51Q	VDO51Q	0
A215	2U1409	21 CVC BA TK HTR A	M4	HTN09Q	HTN09Q	0
A215	2U1434	22 CVC BA TK HTR A	M4	HTN34Q	HTN34Q	0
A101	2FAN1448A	ECCS PP RM CLR 21 FAN A (2M1448A)	M4	M4FPPR	VD48AQ	72
A101	2FAN1448B	ECCS PP RM CLR 21 FAN B (2M1448B)	M4	M4FPPR	VD48BQ	72
A101	2FAN1448C	ECCS PP RM CLR 21 FAN C (2M1448C)	M4	M4FPPR	VD48CQ	72
A101	2FAN1448D	ECCS PP RM CLR 21 FAN D (2M1448D)	M4	M4FPPR	VD48DQ	72
A215	2PUMPCVCBA21	21 CVC BORIC ACID PUMP (2M1406)	M4	MBN06Q	MBN06Q	6
A206	2MOV615	21B LPSI OUTLET MOV	M4	MVN07Q	MVN07Q	24
A206	2MOV625	21A LPSI LOOP ISOL	M4	MVN08Q	MVN08Q	24
A101	2MOV656	AUX HPSI HDR ISOL	M4	MVN21Q	MVN21Q	54
A101	2MOV655	HPSI HDR X-CONN	M4	MVN22Q	MVN22Q	48
A212	2MOV504	RWT TO CHG PP	M4	MVN23Q	MVN23Q	24
A215	2MOV509	21 BAST GRAVITY FD	M4	MVN24Q	MVN24Q	0
A215	2MOV508	22 BAST GRAVITY FD	M4	MVN30Q	MVN30Q	0
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32
A102	2MOV659	MINI FLOW RETN TO RWT	M4	MVN32Q	MVN32Q	0
A120	2MOV4144	CONTMT SUMP OUTLET ISOL	M4	MVN44Q	MVN44Q	0
A120	2MOV5462	U-2 CONTMT RECIRC PIPE TUNNEL	M4	MVN57Q	MVN57Q	0
A215	2X11	BA HEAT TRACE XFMR 21	M4	TMN04Q	TMN04Q	0
A204	2FANHVACPENETE21	21 PENET RM EXH FAN (2M0402)	M4	VDN02Q	VDN02Q	18.75
A204	2FANHVACAFWE21	21 AFW PUMP RM EXH (2M1412)	M4	VDN12Q	VDN12Q	36
A204	2FANHVACECCSE21	21 ECCS PUMP RM EXH (2M1413)	M4	VDN13Q	VDN13Q	0
A205	2FAN5335	SRW HX RM SPLY FAN 19A (2M1437)	M4	VDN37Q	VDN37Q	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	MH	BHEF1I	Open	0
A227	1SV4071	12 S/G MS TO AFW PP	MH	BHEF1I	Open	0
A226	1PCV5000	11 SGFP BRG OIL PRESS REG VLV	MN	MNFW58	PC000R	0
A226	1PCV4993	11 SGFPT CONT OIL PRESS REG	MN	MNFW58	PC993R	0
A226	1PCV4999	11 SGFPT OIL PRESS REG VLV	MN	MNFW58	PC999R	0
A226	1PCV5043	12 SGFP TLO PP DISCH PCV	MN	MNFW68	PC043R	0
A226	1PCV5048	12 SGFP TLO RESERVOIR INLET PCV	MN	MNFW68	PC048R	0
A226	1PCV5049	12 FW SGFP TLO TO PP BRGS PCV	MN	MNFW68	PC049R	0
A118	1MOV659	MINI FLOW RETN TO RWT	MV	MV0A11	MV659P	0
A118	1MOV659	MINI FLOW RETN TO RWT	MV	MV0A11	MV659X	0
A118	1MOV660	MINI FLOW RETN TO RWT	MV	MV0A11	MV660P	0
A118	1MOV660	MINI FLOW RETN TO RWT	MV	MV0A11	MV660X	0
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	N1	MZ106Q	MZ106Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	N2	MZ116Q	MZ116Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	N3	MZ406Q	MZ406Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	N4	MZ416Q	MZ416Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A201	2PUMPCC21	21 COMPONENT COOLING PUMP (2MB106)	N5	MZT06Q	MZT06Q	12
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24
A201	2PUMPCC23	23 COMPONENT COOLING PUMP (2MB116)	N6	MZT16Q	MZT16Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A201	2PUMPCC22	22 COMPONENT COOLING PUMP (2MB406)	N7	MZT26Q	MZT26Q	12
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A201	2PUMPCC23	23 COMPONENT COOLING PUMP (2MB116)	N8	MZT36Q	MZT36Q	12
A228	1ACC5170	AIR ACCUMULATOR FOR 1CV5170	NR	ILIA99	TK170B	0
A228	1ACC5171	AIR ACCUMULATOR FOR 1CV5171	NR	ILIA99	TK171B	0
A228	1ACC5174	AIR ACCUMULATOR FOR 1CV5174	NR	ILIA99	TK174B	0
A228	1ACC5175	AIR ACCUMULATOR FOR 1CV5175	NR	ILIA99	TK175B	0
A228	1ACC5177	AIR ACCUMULATOR FOR 1CV5177	NR	ILIA99	TK177B	0
A228	1ACC5178	AIR ACCUMULATOR FOR 1CV5178	NR	ILIA99	TK178B	0
A228	1ACC5173	AIR ACCUMULATOR FOR 1CV5173	NR	INIA99	TK173B	0
A224	1ACC1645	AIR ACCUMULATOR FOR 1CV1645	NR	IPIA99	TK645B	0
A224	1ACC1646	AIR ACCUMULATOR FOR 1CV1646	NR	IPIA99	TK646B	0
A205	2SV1637	TURB & EHC OIL SERV WTR ISOL VLV	NR(TC)	UNIT 2-TAFB01	C3637P	0
A205	2SV1639	TURB LUB & EHC OIL SERVWTR ISO	NR(TC)	UNIT 2-TAFB01	C3639P	0
A205	2SV1600	TURB BLDG SERV WTR ISOL VLV	NR(TC)	UNIT 2-TBFB01	C3600P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NR(TC)	UNIT 2-TBFB01	C3638P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NS	NSSRW	N/A	0
A205	2SV1637	TURB & EHC OIL SERV WTR ISOL VLV	NS	UNIT 2-TAFB01	C3637P	0
A205	2SV1639	TURB LUB & EHC OIL SERVWTR ISO	NS	UNIT 2-TAFB01	C3639P	0
A205	2SV1600	TURB BLDG SERV WTR ISOL VLV	NS	UNIT 2-TBFB01	C3600P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NS	UNIT 2-TBFB01	C3638P	0
A226	1CV4522	11 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	40
A226	1CV4532	12 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	40
A226	1SV4522	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4523	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4532	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4533	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	RH	BHERH1	Start	24
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	RH	BHERH1	Start	12
A226	1CV5150	11 SRW HX SW INLET	S3	C1150P	C1150P	60
A226	1SV5150	SERV WTR HTEX 11 SALT WTR INLT	S3	C1150P	C1150P	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148C	C2148C	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148C	C2148C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148C	C2148C	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148O	C2148O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148T	C2148T	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148T	C2148T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148T	C2148T	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151C	C2151C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151C	C2151C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151C	C2151C	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151C	C2151C	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	C2151O	C2151O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151O	C2151O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151O	C2151O	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	C2151O	C2151O	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151T	C2151T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151T	C2151T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151T	C2151T	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151T	C2151T	0
A226	1PUMPSRW11	11 SERVICE WATER PUMP (1MA109)	S3	MWS11R	MWS11R	32
A226	1PUMPSRW11	11 SERVICE WATER PUMP (1MA109)	S3	MWS11S	MWS11S	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S3	MWS13R	MWS13R	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S3	MWS13S	MWS13S	32
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AB	0
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AP	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BB	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BP	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1AV	C2148P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1CV5209	11A SRW HX SALT WATER OUTLET VLV	S3	S3H1AV	C2209P	0
A226	1FIC5209	11A SRW HX SW OUTLET FLOW INDICATOR	S3	S3H1AV	C2209P	0
A226	1P/P5209	1CV5209 A/S VOLUME BOOSTER	S3	S3H1AV	C2209P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2209P	0
A226	1SV5209	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1SV5209A	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1BV	C2151P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1BV	C2151P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1BV	C2151P	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	S3H1BV	C2151P	0
A226	1CV5210	11 SRW HX SW OUTLET CV	S3	S3H1BV	C2210P	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	S3	S3H1BV	C2210P	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	S3	S3H1BV	C2210P	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1ZC5210	1CV5210 POSITIONER	S3	S3H1BV	C2210P	0
A226	1CV5153	12 SRW HX SW NORM B/U OUTLET	S4	C1153P	C1153P	20
A226	1SV5153	SERV WTR HTEX 12 SALT WTR OUT	S4	C1153P	C1153P	0
A226	1CV5157	12A/12B SRW HX SALT WATER OUTLET VLV	S4	C2157T	C2157T	0
A226	1I/P5157	12A/12B SRW HX SW OUT I/P	S4	C2157T	C2157T	0
A226	1P/P5157	1CV5157 A/S VOLUME BOOSTER	S4	C2157T	C2157T	0
A226	1SV5157	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1SV5157A	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1ZC5157	1CV5157 POSITIONER	S4	C2157T	C2157T	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158C	C2158C	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158C	C2158C	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158C	C2158C	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	C2158O	C2158O	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158O	C2158O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	C2158O	C2158O	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158T	C2158T	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158T	C2158T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158T	C2158T	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159C	C2159C	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159C	C2159C	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	C2159O	C2159O	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	C2159O	C2159O	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159T	C2159T	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159T	C2159T	0
A226	1CV5212	12 SRW HX SW OUT CV	S4	C2212O	C2212O	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	C2212O	C2212O	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	C2212O	C2212O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2212O	C2212O	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1ZC5212	1CV5212 POSITIONER	S4	C2212O	C2212O	0
A226	1PUMPSRW12	12 SERVICE WATER PUMP (1MA409)	S4	MWS12R	MWS12R	32
A226	1PUMPSRW12	12 SERVICE WATER PUMP (1MA409)	S4	MWS12S	MWS12S	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S4	MWS13R	MWS13R	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S4	MWS13S	MWS13S	32
A226	1CV5152	12 SRW HX SW INLET	S4	S4CV52	C1152P	60
A226	1SV5152	SERV WTR HTEX 12 SALT WTR INLT	S4	S4CV52	C1152P	0
A226	1HVSRW-707	MANUAL SRW INLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW707P	0
A226	1HVSRW-708	MANUAL SRW OUTLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW708P	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AB	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AP	0
A226	1HVSRW-709	MANUAL SRW INLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW709P	0
A226	1HVSRW-710	MANUAL SRW OUTLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW710P	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BB	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BP	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2AV	C2158P	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	S4H2AV	C2158P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	S4H2AV	C2158P	0
A226	1CV5211	12A SRW HX SALT WATER OUTLET VLV	S4	S4H2AV	C2211P	0
A226	1FIC5211	12A SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2AV	C2211P	0
A226	1P/P5211	1CV5211 A/S VOLUME BOOSTER	S4	S4H2AV	C2211P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2211P	0
A226	1SV5211	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1SV5211A	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1ZC5211	1CV5211 POSITIONER	S4	S4H2AV	C2211P	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2BV	C2159P	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	S4H2BV	C2159P	0
A226	1CV5212	12 SRW HX SW OUT CV	S4	S4H2BV	C2212P	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2BV	C2212P	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	S4H2BV	C2212P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2212P	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1ZC5212	1CV5212 POSITIONER	S4	S4H2BV	C2212P	0
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0
A208	1CV2181	U-1 CONTMT WG HDR B/U ISOL	SH	IC181C	IC181C	12
A208	1SV2181	1-WGS-2181-CV SV	SH	IC181C	IC181C	12
A208	1CV2181	U-1 CONTMT WG HDR B/U ISOL	SH	IC181T	IC181T	12
A208	1SV2181	1-WGS-2181-CV SV	SH	IC181T	IC181T	12
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A221	1SV6507B	SOUTH PRIM SHLD H2 SAMPLE ANAL	SH	SHSV02	SV07BT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0
A221	1SV6507C	PRESSURIZ COMPRT H2 SAMPL ANAL	SH	SHSV05	SV07CT	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A221	1SV6507D	EAST EL 135 FT H2 SAMPLE ANAL	SH	SHSV08	SV07DT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0
A221	1SV6507B	SOUTH PRIM SHLD H2 SAMPLE ANAL	SH	SV07BD	SV07BD	0
A221	1SV6507C	PRESSURIZ COMPRT H2 SAMPL ANAL	SH	SV07CD	SV07CD	0
A221	1SV6507D	EAST EL 135 FT H2 SAMPLE ANAL	SH	SV07DD	SV07DD	0
A221	1SV6507G	H2 ANAL RETN TO CONTMT ATMOS ISOL	SH	SV07GD	SV07GD	0
A221	1SV6507G	H2 ANAL RETN TO CONTMT ATMOS ISOL	SH	SV07GT	SV07GT	0
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	SP(PP1)	BHEK12	Start	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	SP(PP2)	BHEK12	Start	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	SP(PP3)	BHEK12	Start	12
A122	1MOV4144	CONTMT SUMP OUT ISOL	SR	MV144C	MV144C	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	SR	MV144T	MV144T	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	SR	MV145C	MV145C	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	SR	MV145T	MV145T	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV462C	MV462C	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV462T	MV462T	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV463C	MV463C	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV463T	MV463T	0
A227	1MOV615	11A LPSI LOOP ISOL	SR	MV615C	MV615C	19
A227	1MOV615	11A LPSI LOOP ISOL	SR	MV615T	MV615T	19
A227	1MOV625	11B LPSI LOOP ISOL	SR	MV625C	MV625C	0
A227	1MOV625	11B LPSI LOOP ISOL	SR	MV625T	MV625T	0
A226	1SV1637	TURB LUBE&EHC OIL SERVWTR ISOL	TA	TAFB01	C3637P	0
A226	1SV1639	TURB LUB & EHC OIL SERV WTR IS	TA	TAFB01	C3639P	0
A226	1SV1600	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3600P	0
A226	1SV1638	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3638P	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	TE	MV144O	MV144O	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	TE	TE0101	MV144P	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	TG	BHEF1Y	Open	0
A227	1SV4071	12 S/G MS TO AFW PP	TG	BHEF1Y	Open	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	TH(HD1)	BHER3B	Open	13
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	TH(HD1)	BHER3B	Open	0
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	TH(HD1)	BHER3B	Open	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	TH(HD1)	BHER3B	Open	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	TH(HD1)	BHER3B	Open	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	TH(HD1)	BHER3B	Open	0
A228	1CV5206	11 CC HX SW OUTLET	TH(HD1)	BHER3B	Throttle	0
A226	1CV5210	11 SRW HX SW OUTLET CV	TH(HD1)	BHER3B	Throttle	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	TH(HD1)	BHER3B	Throttle	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	TH(HD1)	BHER3B	Throttle	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	TH(HD1)	BHER3B	Throttle	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1ZC5210	1CV5210 POSITIONER	TH(HD1)	BHER3B	Throttle	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	TH(HD2)	BHER3B	Open	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	TH(HD2)	BHER3B	Open	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	TH(HD2)	BHER3B	Open	0
A228	1CV5208	12 CC HX SW NORM OUT	TH(HD2)	BHER3B	Throttle	0
A226	1CV5212	12 SRW HX SW OUT CV	TH(HD2)	BHER3B	Throttle	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	TH(HD2)	BHER3B	Throttle	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	TH(HD2)	BHER3B	Throttle	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	TH(HD2)	BHER3B	Throttle	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1ZC5212	1CV5212 POSITIONER	TH(HD2)	BHER3B	Throttle	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	TW	MV145O	MV145O	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	TW	TW0101	MV145P	0
A224	1PS4404	11 MT CONDENSER LOW VACUUM PS	TX	PS404D	PS404D	0
A224	1PS4405	11 MT CONDENSER LOW VACUUM PS	TX	PS405D	PS405D	0
A224	1PS4407	12 MT CONDENSER LOW VACUUM PS	TX	PS407D	PS407D	0
A224	1PS4408	12 MT CONDENSER LOW VACUUM PS	TX	PS408D	PS408D	0
A224	1PS4410	13 MT CONDENSER LOW VACUUM PS	TX	PS410D	PS410D	0
A224	1PS4411	13 MT CONDENSER LOW VACUUM PS	TX	PS411D	PS411D	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	TS404D	TS404D	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	V1	V1CLSE	WC170P	13
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	V1	V1CLSE	WC170P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1CLSE	WC170P	0
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	V1	V1CLSE	WC171P	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	V1	V1CLSE	WC171P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1CLSE	WC171P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1TEMP	TS404R	0
A119	1HXHVACECCS11	ECCS PUMP ROOM AIR COOLER 11	V1	V1TRFR	HX205B	0
A119	1HXHVACECCS11	ECCS PUMP ROOM AIR COOLER 11	V1	V1TRFR	HX205P	0
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	V1	VD11AR	VD11AR	22
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	V1	VD11AS	VD11AS	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	V1	VD11BR	VD11BR	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	V1	VD11BS	VD11BS	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	V1	VD11CR	VD11CR	22

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	V1	VD11CS	VD11CS	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	V1	VD11DR	VD11DR	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	V1	VD11DS	VD11DS	22
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	V1	WC170D	WC170D	13
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	V1	WC170D	WC170D	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC170D	WC170D	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	V1	WC170O	WC170O	13
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	V1	WC170O	WC170O	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC170O	WC170O	0
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	V1	WC171D	WC171D	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	V1	WC171D	WC171D	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC171D	WC171D	0
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	V1	WC171O	WC171O	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	V1	WC171O	WC171O	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC171O	WC171O	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	TS405D	TS405D	0
A228	1CV5174	12 ECCS PP RM AIR CLR SW NORM OUTLET	V2	V2CLSE	WC174P	0
A228	1SV5174	ECCS PP RM HTEX 12 SLT WTR OUT	V2	V2CLSE	WC174P	0
A228	1CV5175	12 ECCS PP RM AIR CLR SW NORM B/U OUT	V2	V2CLSE	WC175P	0
A228	1SV5175	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2CLSE	WC175P	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	V2	V2INLT	WC173P	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	V2	V2INLT	WC173P	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	V2INLT	WC173P	0
A228	1CV5177	12 ECCS PP RM AIR CLR SW AUX OUTLET	V2	V2OTLT	C4177O	0
A228	1SV5177	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4177O	0
A228	1CV5177	12 ECCS PP RM AIR CLR SW AUX OUTLET	V2	V2OTLT	C4177P	0
A228	1SV5177	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4177P	0
A228	1CV5178	12 ECCS PP RM AIR CLR SW AUX B/U OUT	V2	V2OTLT	C4178O	0
A228	1SV5178	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4178O	0
A228	1CV5178	12 ECCS PP RM AIR CLR SW AUX B/U OUT	V2	V2OTLT	C4178P	0
A228	1SV5178	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4178P	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	V2TEMP	TS405R	0
A118	1HXHVACECCS12	ECCS PUMP ROOM AIR COOLER 12	V2	V2TRFR	HX207B	0
A118	1HXHVACECCS12	ECCS PUMP ROOM AIR COOLER 12	V2	V2TRFR	HX207P	0
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	V2	VD12AR	VD12AR	22
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	V2	VD12AS	VD12AS	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	V2	VD12BR	VD12BR	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	V2	VD12BS	VD12BS	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	V2	VD12CR	VD12CR	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	V2	VD12CS	VD12CS	22
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	V2	WC173D	WC173D	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	V2	WC173D	WC173D	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	WC173D	WC173D	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	V2	WC173O	WC173O	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	V2	WC173O	WC173O	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	WC173O	WC173O	0
A225	1FANHVACECCSE11	11 ECCS PUMP RM EXH (1M1413)	V5	VDF11R	VDF11R	0
A225	1FANHVACECCSE11	11 ECCS PUMP RM EXH (1M1413)	V5	VDF11S	VDF11S	0
A225	1FANHVACECCSE12	12 ECCS PUMP RM EXH (1M0413)	V5	VDF12R	VDF12R	0
A225	1FANHVACECCSE12	12 ECCS PUMP RM EXH (1M0413)	V5	VDF12S	VDF12S	0
A226	1PCV5214	11 CW PP SEAL WTR PCV	VC	VCCW1A	PC214R	0
A226	1PCV5216	12 CW PP SEAL WTR PCV	VC	VCCW2A	PC216R	0
A226	1PCV5218	13 CW PP SEAL WTR PCV	VC	VCCW3A	PC218R	0
A226	1PCV5220	14 CW PP SEAL WTR PCV	VC	VCCW4A	PC220R	0
A226	1PCV5222	15 CW PP SEAL WTR PCV	VC	VCCW5A	PC222R	0
A226	1PCV5224	16 CW PP SEAL WTR PCV	VC	VCCW6A	PC224R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	VM(RM1)	BHEV1T	Open	13
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	VM(RM1)	BHEV1T	Open	0
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	VM(RM1)	BHEV1T	Open	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	VM(RM1)	BHEV1T	Open	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	VM(RM1)	BHEV1T	Open	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	VM(RM1)	BHEV1T	Open	0
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	VM(RM1)	BHEV1T	Start	22
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	VM(RM2)	BHEV1T	Open	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	VM(RM2)	BHEV1T	Open	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	VM(RM2)	BHEV1T	Open	0
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	VM(RM2)	BHEV1T	Start	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	VM(RM2)	BHEV1T	Start	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	VM(RM2)	BHEV1T	Start	22
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0
A221	1SV6507B	SOUTH PRIM SHLD H2 SAMPLE ANAL	WJ	BHESH2	Shut	0
A221	1SV6507C	PRESSURIZ COMPRT H2 SAMPL ANAL	WJ	BHESH2	Shut	0
A221	1SV6507D	EAST EL 135 FT H2 SAMPLE ANAL	WJ	BHESH2	Shut	0
A221	1SV6507G	H2 ANAL RETN TO CONTMT ATMOS ISOL	WJ	BHESH2	Shut	0
A221	1CV1584	12 CNTMT CLG U NORM INLET	WY	CV584O	CV584O	0
A221	1I/P1584	CNTMT CLR 12 SERV WTR INLT	WY	CV584O	CV584O	0
A221	1SV1584	CNTMT CLR 12 SERV WTR INLT VLV	WY	CV584O	CV584O	0
A221	1CV1592	14 CNTMT CLG U NORM INLET	WY	CV592O	CV592O	0
A221	1I/P1592	CNTMT CLR 14 SERV WTR INLT	WY	CV592O	CV592O	0
A221	1SV1592	CNTMT CLR 14 INLT VLV CONTROL	WY	CV592O	CV592O	0
A221	1CV1584	12 CNTMT CLG U NORM INLET	WY	WB102F	CV584P	0
A221	1I/P1584	CNTMT CLR 12 SERV WTR INLT	WY	WB102F	CV584P	0
A221	1SV1584	CNTMT CLR 12 SERV WTR INLT VLV	WY	WB102F	CV584P	0
A221	1CV1592	14 CNTMT CLG U NORM INLET	WY	WD102F	CV592P	0
A221	1I/P1592	CNTMT CLR 14 SERV WTR INLT	WY	WD102F	CV592P	0
A221	1SV1592	CNTMT CLR 14 INLT VLV CONTROL	WY	WD102F	CV592P	0

Flood Evaluation Query

CF-10G-S228AN

11-Nov-98

TOP	PM	EVALUATION	RI
AA	6BKR	6 breaker challenges.	PAJ
AB	5BKR	5 breaker challenges.	PAJ
AC	4BKR	4 breaker challenges.	PAJ
AD	7BKR	7 breaker challenges.	PAJ
CS	F	CS Pump 11 is lost.	PAJ
CT	F	CS Pump 12 is lost.	PAJ
CV	F	Conservatively set to failure. CVCS relatively unimportant.	PAJ
DL	None	11A and 11B LPSI Loop Isol MOVs (1MOV615 and 1MOV625), Fail to Open on Demand. LPSIs only used in large break LOCAs. Flood cannot cause a large break LOCA, therefore this top is not affected.	PAJ
F1	None ~~Spec Impt~~	11 and 12 S/G AFW Block Valves fail. These valves are normally open and will fail open. Therefore there is no impact on this top. Flow control valves failing open are addressed in top event HX. Steam admission Control valves 1CV4070/4071 are normally closed, and will fail as-is(closed) on loss of power. Therefore, operators will be unable to open valves. These valves continuously have air (closing the valve). The operators may bleed air to open valve if need be. (Note 2) (Notes 3 & 7)	PAJ
F3	None	Steam Admission SV's 1SV4070/4071 are covered under top event F1.	PAJ
F7	F	Lost the ability to use Unit 1 AFW MD Pump 13 to supply Unit 1 S/G.	PAJ
F9	F	Loss the ability to use Unit 2 AFW MD Pump 23 to supply Unit 1 S/G. Also, 21 and 22 S/G AFW Block and Flow Valves fail. These valves are normally open and fail as-is (open) on loss of power.	PAJ
FC	Spec Impt	AFW Pump Room Emergency Vent Fans 11 & 12 fail along with NSR A/C Unit fail.	PAJ
FF	None	Both 11 and 12 AFW Pump Room Exhaust fans fail to start. Covered under Top FC.	PAJ
FH	None	Loss the ability to start AFW MD Pump 13. Covered under Top F7.	PAJ
FN	None	Only has 2 PCVs. I am assuming that these valves will not fail during a flood.	PAJ

See notes in RAN 98-065 Sect. 5.4 JDR

TOP	PM	EVALUATION	RI
FO	None ~~F~~	Use FO SF where M3 and M4 fail. 21A SWAC fails and 22A SWAC fails. The Unit 1 Plant Model does not credit anything other than the use of the SWACs. As a result, this function should be considered failed. (Note 7)	PAJ
GG	None	1CV1645 / 1CV1646 are both locked open. Both valves have been retired in place and can only be manipulated manually.	PAJ
GW	F	22 and 23 SRW Pump fail.	PAJ
GZ	F	21 and 23 SRW Pump fail.	PAJ
HA	F	11 HPSI Pump fails.	PAJ
HB	F	13 HPSI Pump fails.	PAJ
HU	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact.	PAJ
HW	F	12 HPSI is lost. Also 1MOV653, 1MOV654, 1MOV655 and 1MOV656 fail as-is.	PAJ
HX	None	11 and 12 S/G AFW (motor driven feed line) flow control valves fail open. Impact already considered by Top F7 & F9 failure.	PAJ
I1	None ~~F~~	~~11 SWAC fails.~~ (Note 7)	PAJ
I2	None ~~F~~	~~12 SWAC fails.~~ (Note 7)	PAJ
IL	None	Air accumulators only. Mechanical operation only.	PAJ
IN	None	Air accumulators only. Mechanical operation only.	PAJ
IP	None	Air accumulators only. Mechanical operation only.	PAJ
K3	None	Since KX, KY and KZ fail, this top event will be set to success..	PAJ
K4	None	Since KX, KY and KZ fail, this top event will be set to success.	PAJ
KH(PP1)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to start 11 CCW Pump. 11 Component Cooling Pump fails to start.	PAJ
KH(PP2)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to start 12 CCW Pump. 12 Component Cooling Pump fails to start.	PAJ

TOP	PM	EVALUATION	RI
KH(PP3)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to start 13 CCW Pump. 13 Component Cooling Pump fails to start.	PAJ
KI(HX1)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to open, close or modulate two valves (1CV3824 and 1CV5206). 1CV3824 will fail in the appropriate position. 1CV5206 will not. This valve will fail open neglecting the capability to throttle this valve. Therefore this top will fail.	PAJ
KI(HX2)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to open, close or modulate two valves (1CV3826 and 1CV5208). 1CV3826 will fail in the appropriate position. 1CV5208 will not. This valve will fail open neglecting the capability to throttle this valve. Therefore this top will fail.	PAJ
KM	None	Since KX, KY and KZ fail, this top event will be set to success.	PAJ
KN	None	Since KX, KY and KZ fail, this top event will be set to success.	PAJ
KX	F	11 CCW Pump will fail to start/run.	PAJ
KY	F	12 CCW Pump will fail to start/run.	PAJ
KZ	F	13 CCW Pump will fail to start/run.	PAJ
M1	15BKR	15 breaker challenges.	PAJ
M2	24BKR	24 breaker challenges.	PAJ
M3	18BKR	18 breaker challenges.	PAJ
~~M4~~	~~21BKR~~	~~21 breaker challenges.~~	~~PAJ~~
MH	None ~~Spec Impt~~	~~1CV4070/4071 are normally closed and fail as-is on loss of power.~~ (Note 3) ~~These valves must be locally vented~~.	PAJ
MN	None	Has 6 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
MV	None	1MOV659/660 fail as-is and are normally electrically locked open, there will be no flood impact.	PAJ
N1	2BKR	2 breaker challenges.	PAJ
N2	2BKR	2 breaker challenges.	PAJ
N3	1BKR	1 breaker challenge. Charging Pump 13 is normally aligned to 480V Bus 11A.	PAJ

TOP	PM	EVALUATION	RI
N4	1BKR	1 breaker challenge. Component Cooling Pump 13 is normally aligned to 480V Bus 11B.	PAJ
N5	1BKR	1 breaker challenge. Charging Pump 23 is normally aligned to 480V Bus 24A.	PAJ
N6	1BKR	1 breaker challenge. Component Cooling Pump 23 is normally aligned to 480V Bus 24B.	PAJ
N7	2BKR	2 breaker challenges.	PAJ
N8	2BKR	2 breaker challenges.	PAJ
NR	F ~~None~~	~~Air accumulators only. Mechanical operation only.~~ (Note 8)	PAJ
NR(TC)	F ~~Spec Impt~~	~~2CV1600/1637/1638/1639 fail close on loss of power, the undesirable position. Unable to use Unit 2 compressors~~ for Unit 1. (Note 8)	PAJ
NS	F ~~Spec Impt~~	~~2CV1600/1637/1638/1639 fail close on loss of power, the undesirable position. Unable to use Unit 2 compressors for Unit~~ 2. (Note 8)	PAJ
QZ	None	11 & 12 AFW Block valves (1CV4522/4523/4532/4533) are normally open and fail as-is on loss of power.	PAJ
RH	None ~~F~~	This human action requires the operator to start 11 and 13 HPSI Pumps. Both pumps are assumed not to start/run during a flood scenario. (Note 9)	PAJ
S3	F	11 and 13 SRW Pumps fail.	PAJ
S4	F	12 and 13 SRW Pumps fail.	PAJ
SG	None ~~Spec Impt~~	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment. (Note 5)	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ
SP(PP1)	None	11 CC Pumps fails to start/run. Accounted for by Top KX.	PAJ
SP(PP2)	None	12 CC Pumps fails to start/run. Accounted for by Top KY.	PAJ
SP(PP3)	None	13 CC Pumps fails to start/run. Accounted for by Top KZ.	PAJ
SR	Spec. Impt ~~None~~	All MOVs (1MOV4144/4145/5462/5463/615/625) are closed and fail close. (Note 10)	PAJ

TOP	PM	EVALUATION	RI
TA	F	1CV1637/1639 fail close on loss of power / loss of air.	PAJ
TB	F	1CV1600/1638 fail close on loss of power / loss of air.	PAJ
TE	F	1MOV4144 is normally in the closed position and will fail as-is. Therefore, the East Recirculation Header will not function properly.	PAJ
TF	None ~~F~~	~~11 AFW TD Pump fails.~~ (Note 40)	PAJ
TG	None ~~F~~	~~12 AFW TD Pump fails.~~ (Note 40)	PAJ
TH(HD1)	None	1CV5206/5210 will fail to there appropriate position not allowing the operator to throttle valves. Covered by Top S3 or K3. Also, 1CV5170/5171 fails open on loss of power and loss of air.	PAJ
TH(HD2)	None	1CV5208/5212 will fail to there appropriate position not allowing the operator to throttle valves. Covered by Top S4 or K4. Also, 1CV5173 fails open on loss of power and loss of air.	PAJ
TW	F	1MOV4145 is normally in the closed position and will fail as-is. Therefore, the West Recirculation Header will not function properly.	PAJ
TX	None	Has 6 PSs. It is assumed that a flood will not prevent PS activation.	PAJ
UQ	None	1CV4525/4535 are normally open and fail as-is on loss of power. This top only fails when an under feed to the SG occurs.	PAJ
V1	F	All ECCS Pump Room Fans fail to start/run.	PAJ
V2	F	All ECCS Pump Room Fans fail to start/run.	PAJ
~~V5~~	~~F~~	Top Event V5 no longer used. JOH ~~11 and 12 ECCS exhaust fans fails to start/run.~~	PAJ
VC	None	Has 6 PCVs. I am assuming that these will not fail during a flood.	PAJ
VM(RM1)	None	Operator will be unable to start ECCS Pump Room Fans. Covered under Top V1.	PAJ
VM(RM2)	None	Operator will be unable to start ECCS Pump Room Fans. Covered under Top V2.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ
WY	None	1CV1584/1592 fail open loss of power.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	AA	MAAF3Q	MAAF3Q	16
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	AA	MACS1Q	MACS1Q	12
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	AA	MAHP1Q	MAHP1Q	24
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	AA	MAHP3Q	MAHP3Q	12
A119	1PUMPSILPSI11	11 LOW PRESS SAFETY INJECTION PUMP (1MA104)	AA	MALP1Q	MALP1Q	12
A226	1PUMPSRW11	11 SERVICE WATER PUMP (1MA109)	AA	MWSR1Q	MWSR1Q	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	AA	MWSR3Q	MWSR3Q	32
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	AB	MACS2Q	MACS2Q	12
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	AB	MAHP2Q	MAHP2Q	24
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	AB	MAHP4Q	MAHP4Q	12
A118	1PUMPSILPSI12	12 LOW PRESS SAFETY INJECTION PUMP (1MA404)	AB	MALP2Q	MALP2Q	12
A226	1PUMPSRW12	12 SERVICE WATER PUMP (1MA409)	AB	MWSR2Q	MWSR2Q	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	AB	MWSR4Q	MWSR4Q	32
A101	2PUMPSICS21	21 CONTAINMENT SPRAY PUMP (2MA107)	AC	MACS3Q	MACS3Q	24
A101	2PUMPHPSI21	SI HPSI PUMP 21 (2MA108)	AC	MAHP5Q	MAHP5Q	24
A102	2PUMPHPSI23	SI HPSI PUMP 23 (2MA110)	AC	MAHP7Q	MAHP7Q	12
A101	2PUMPSILPSI21	21 LOW PRESS SAFETY INJECTION PUMP (2MA104)	AC	MALP3Q	MALP3Q	39
A205	2PUMPSRW21	21 SERVICE WATER PUMP (2MA109)	AC	MWSR5Q	MWSR5Q	32
A205	2PUMPSRW23	23 SERVICE WATER PUMP (2MA411)	AC	MWSR7Q	MWSR7Q	32
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	AD	MAAF6Q	MAAF6Q	16
A102	2PUMPSICS22	22 CONTAINMENT SPRAY PUMP (2MA407)	AD	MACS4Q	MACS4Q	12
A101	2PUMPHPSI22	SI HPSI PUMP 22 (2MA408)	AD	MAHP6Q	MAHP6Q	24
A102	2PUMPHPSI23	SI HPSI PUMP 23 (2MA110)	AD	MAHP8Q	MAHP8Q	12
A102	2PUMPSILPSI22	22 LOW PRESS SAFETY INJECTION PUMP (2MA404)	AD	MALP4Q	MALP4Q	12
A205	2PUMPSRW22	22 SERVICE WATER PUMP (2MA409)	AD	MWSR6Q	MWSR6Q	32
A205	2PUMPSRW23	23 SERVICE WATER PUMP (2MA411)	AD	MWSR8Q	MWSR8Q	32
A119	1HXSICS11	11 SHUTDOWN COOLING HX	CS	CS0103	HXC11B	0
A119	1HXSICS11	11 SHUTDOWN COOLING HX	CS	CS0103	HXC11P	0
A119	1MOV663	SDC RECIRC TO 11 HPSI PP	CS	CS0103	MV663T	0
A119	1CV3828	11 SDC HX OUTLET	CS	CSHX11	CV828P	0
A119	1SV3828	S/D HX 11 COOL WTR DISCH VLV	CS	CSHX11	CV828P	0
A119	1CV3828	11 SDC HX OUTLET	CS	CV828O	CV828O	0
A119	1SV3828	S/D HX 11 COOL WTR DISCH VLV	CS	CV828O	CV828O	0
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	CS	MA107R	MA107R	12
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	CS	MA107S	MA107S	12
A118	1HXSICS12	12 SHUTDOWN COOLING HX	CT	CT0103	HXC12B	0
A118	1HXSICS12	12 SHUTDOWN COOLING HX	CT	CT0103	HXC12P	0
A118	1MOV662	SDC RECIRC TO 13 HPSI PP	CT	CT0103	MV662T	0
A118	1CV3830	12 SDC HX OUTLET	CT	CTXH12	CV830P	0
A118	1SV3830	S/D HX #12 COMP CLG DISCH VLV	CT	CTXH12	CV830P	0
A118	1CV3830	12 SDC HX OUTLET	CT	CV830O	CV830O	0
A118	1SV3830	S/D HX #12 COMP CLG DISCH VLV	CT	CV830O	CV830O	0
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	CT	MA407R	MA407R	12
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	CT	MA407S	MA407S	12
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A218	1CV500	VOL CONT TNK INLT VLV	CV	CVHV03	CV500O	0
A218	1LC227A	VOLUME CONTROL TNK LEVEL HIGH	CV	CVHV03	CV500O	0
A218	1SV500	VOL CONT TANK INLET CONT VLV	CV	CVHV03	CV500O	0
A218	1CV500	VOL CONT TNK INLT VLV	CV	CVHV03	CV500P	0
A218	1LC227A	VOLUME CONTROL TNK LEVEL HIGH	CV	CVHV03	CV500P	0
A218	1SV500	VOL CONT TANK INLET CONT VLV	CV	CVHV03	CV500P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A217	1MOV514	BAPP TO CHG PP SUCT DIRECT FD	CV	CVMV01	MV514O	6
A217	1MOV514	BAPP TO CHG PP SUCT DIRECT FD	CV	CVMV01	MV514P	6
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A217	1PUMPCVCBA11	11 CVC BORIC ACID PUMP (1M1406)	CV	MP011R	MP011R	12
A217	1PUMPCVCBA11	11 CVC BORIC ACID PUMP (1M1406)	CV	MP011S	MP011S	12
A217	1PUMPCVCBA12	12 CVC BORIC ACID PUMP (1M0406)	CV	MP012R	MP012R	12
A217	1PUMPCVCBA12	12 CVC BORIC ACID PUMP (1M0406)	CV	MP012S	MP012S	12
A217	1MOV508	12 BAST GRAVITY FD	CV	MV508O	MV508O	6
A217	1MOV508	12 BAST GRAVITY FD	CV	MV508P	MV508P	6
A217	1MOV509	11 BAST GRAVITY FD	CV	MV509O	MV509O	6
A217	1MOV509	11 BAST GRAVITY FD	CV	MV509P	MV509P	6
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PS224R	PS224R	0
A227	1MOV615	11A LPSI LOOP ISOL	DL	DLL11A	MV615O	19
A227	1MOV615	11A LPSI LOOP ISOL	DL	DLL11A	MV615P	19
A227	1MOV625	11B LPSI LOOP ISOL	DL	DLL11B	MV625O	0
A227	1MOV625	11B LPSI LOOP ISOL	DL	DLL11B	MV625P	0
A226	1CV4522	11 S/G AFW BLOCK VLV	F1	CV4522	CV522P	40
A226	1SV4522	11 S/G AFW BLOCK SV	F1	CV4522	CV522P	0
A226	1CV4523	11 S/G AFW BLOCK VLV	F1	CV4523	CV523P	144
A226	1SV4523	11 S/G AFW BLOCK SV	F1	CV4523	CV523P	0
A226	1CV4532	12 S/G AFW BLOCK VLV	F1	CV4532	CV532P	40
A226	1SV4532	12 S/G AFW BLOCK SV	F1	CV4532	CV532P	0
A226	1CV4533	12 S/G AFW BLOCK VLV	F1	CV4533	CV533P	144
A226	1SV4533	12 S/G AFW BLOCK SV	F1	CV4533	CV533P	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	F1	F1CV70	C8070O	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	F1	F1CV70	C8070P	0
A227	1SV4071	12 S/G MS TO AFW PP	F1	F1CV71	C8071O	0
A227	1SV4071	12 S/G MS TO AFW PP	F1	F1CV71	C8071P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	F1	F1MLV1	C6525P	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	F1	F1MLV1	C6525R	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1CV4535	12 S/G AFW FLOW CONT VLV	F1	F1MLV2	C6535P	144
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1CV4535	12 S/G AFW FLOW CONT VLV	F1	F1MLV2	C6535R	144
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	F3	BHEF31	Open	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A227	1SV4071	12 S/G MS TO AFW PP	F3	BHEF31	Open	0
A226	1CV4550	U-1 TO U-2 AFW X-CONN VLV	F7	F7MPVA	C3550T	144
A226	1SV4550	U-1 TO U-2 AFW X-CONN SV	F7	F7MPVA	C3550T	0
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QR	MA13QR	16
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QS	MA13QS	16
A205	2CV4522	21 S/G AFW BLOCK VLV	F9	CVB22C	CVB22C	40
A205	2SV4522	S/G 21 AFW MOTOR SYS ISOL VLV	F9	CVB22C	CVB22C	0
A205	2CV4523	21 S/G AFW BLOCK VLV	F9	CVB23C	CVB23C	144
A205	2SV4523	S/G 21 AFW MOTOR SYS ISOL VLV	F9	CVB23C	CVB23C	0
A205	2CV4532	22 S/G AFW BLOCK VLV	F9	CVB32C	CVB32C	40
A205	2SV4532	S/G 22 AFW MOTOR SYS ISOL VLV	F9	CVB32C	CVB32C	0
A205	2CV4533	22 S/G AFW BLOCK VLV	F9	CVB33C	CVB33C	144
A205	2SV4533	S/G 22 AFW MOTOR SYS ISOL VLV	F9	CVB33C	CVB33C	0
A205	2CV4550	U-2 TO U-1 AFW XCONN VLV	F9	F9M2VA	C3B50O	144
A205	2SV4550	U-2 AUX FEED X-CONN VLV	F9	F9M2VA	C3B50O	0
A205	2CV4550	U-2 TO U-1 AFW XCONN VLV	F9	F9M2VA	C3B50P	144
A205	2SV4550	U-2 AUX FEED X-CONN VLV	F9	F9M2VA	C3B50P	0
A205	2CV4522	21 S/G AFW BLOCK VLV	F9	F9M2VA	CVB22T	40
A205	2SV4522	S/G 21 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB22T	0
A205	2CV4523	21 S/G AFW BLOCK VLV	F9	F9M2VA	CVB23T	144
A205	2SV4523	S/G 21 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB23T	0
A205	2CV4532	22 S/G AFW BLOCK VLV	F9	F9M2VA	CVB32T	40
A205	2SV4532	S/G 22 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB32T	0
A205	2CV4533	22 S/G AFW BLOCK VLV	F9	F9M2VA	CVB33T	144
A205	2SV4533	S/G 22 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB33T	0
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	F9	MA23QR	MA23QR	16
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	F9	MA23QS	MA23QS	16
T603	1HXHVACAFW11	11 AFW PUMP ROOM	FC	FCAC11	CLA11R	0
T603	1HXHVACAFW11	11 AFW PUMP ROOM	FC	FCAC11	CLA11S	0
A225	1HS5472	MCC-101-BT BKR 52-10150 AFW PP RM A/C UNIT 11	FC	FCAC11	HS472T	0
A225	1HS5470	AFW PP RM EMERG VENT FAN 11 MCC-114-12	FC	FCAUX1	HS470D	18
A225	1HS5470	AFW PP RM EMERG VENT FAN 11 MCC-114-12	FC	FCAUX1	HS470T	18
A225	1HS5471	AFW PP RM EMERG VENT FAN 12 MCC-104-12	FC	FCAUX2	HS471D	18
A225	1HS5471	AFW PP RM EMERG VENT FAN 12 MCC-104-12	FC	FCAUX2	HS471T	18
T603	1FDAFWW1	AFW RM SUPPLY FROM RM 225 TO 1AFW FD	FC	FDAMPR	FD001I	0
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	FC	VDA11R	VDA11R	36
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	FC	VDA11S	VDA11S	36
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	FC	VDA12R	VDA12R	36
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	FC	VDA12S	VDA12S	36
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	FF	BHEFCB	Start	36
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	FF	BHEFCB	Start	36
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	FH	BHEF71	Start	16
A226	1PCV4512	1 IA SUPP ACCUM 11A & 11B PCV	FN	FN0000	CV512P	0
A226	1PCV4520	11B AFW AIR ACCUMULATOR OUTLET PCV	FN	FN0000	CV520P	0
A205	2COMPSWAC21A	21 SW AIR COMPRESSOR MOTOR A (2M1405A)	FO	UNIT 2	CMS21R	144
A205	2COMPSWAC21A	21 SW AIR COMPRESSOR MOTOR A (2M1405A)	FO	UNIT 2	CMS21S	144
A205	2COMPSWAC22A	22 SW AIR COMPRESSOR MOTOR A (2M0405A)	FO	UNIT 2	CMS22R	144
A205	2COMPSWAC22A	22 SW AIR COMPRESSOR MOTOR A (2M0405A)	FO	UNIT 2	CMS22S	144
A205	2LS5200	21 IA SW AIR COMPR OIL LO LVL SW	FO	UNIT 2	LS200R	144
A205	2LS5201	22 IA SW AIR COMPR OIL LO LVL SW	FO	UNIT 2	LS201R	144
A205	2TS5200	21 IA SW AIR COMPR HI TEMP SW	FO	UNIT 2	TS200R	144
A205	2TS5201	22 IA SW AIR COMPR HI TEMP SW	FO	UNIT 2	TS201R	144
A224	1CV1645	1B DG SUPP FROM U-1 SRW	GG	GGSRW1	CVA45P	6
A224	1CV1646	1B DG RTN TO U-1 SRW	GG	GGSRW1	CVA46P	6
A205	2CV5212	22 SRW HX SW OUT CV	GW	C2S12O	C2S12O	48
A205	2I/P5212	SALT WTR OUT SERV WTR HTEX	GW	C2S12O	C2S12O	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A205	2SV5212	SERV WTR HTEX 22 SALT WTR OUT	GW	C2S12O	C2S12O	0
A205	2SV5212A	SERV WTR HTEX 22 SALT WTR OUT	GW	C2S12O	C2S12O	0
A205	2PUMPSRW22	22 SERVICE WATER PUMP (2MA409)	GW	MWT22R	MWT22R	32
A205	2PUMPSRW22	22 SERVICE WATER PUMP (2MA409)	GW	MWT22S	MWT22S	32
A205	2PUMPSRW23	23 SERVICE WATER PUMP (2MA411)	GW	MWT23R	MWT23R	32
A205	2PUMPSRW23	23 SERVICE WATER PUMP (2MA411)	GW	MWT23S	MWT23S	32
A205	2CV5152	22 SRW HX SW INLET	GW	S8CV52	C1S52P	60
A205	2SV5152	SERV WTR HTEX 22 SALT WTR INLT	GW	S8CV52	C1S52P	0
A205	2CV5153	22 SRW HX SW NORM B/U OUTLET	GW	S8H2CV	C1S53P	20
A205	2SV5153	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C1S53P	0
A205	2CV5212	22 SRW HX SW OUT CV	GW	S8H2CV	C2S12P	48
A205	2I/P5212	SALT WTR OUT SERV WTR HTEX	GW	S8H2CV	C2S12P	0
A205	2SV5212	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C2S12P	0
A205	2SV5212A	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C2S12P	0
A205	2HXSRW22	22 SRW HX	GW	S8HX22	HXS22B	144
A205	2HXSRW22	22 SRW HX	GW	S8HX22	HXS22P	144
A205	2PUMPSRW21	21 SERVICE WATER PUMP (2MA109)	GZ	MWT21R	MWT21R	32
A205	2PUMPSRW21	21 SERVICE WATER PUMP (2MA109)	GZ	MWT21S	MWT21S	32
A205	2PUMPSRW23	23 SERVICE WATER PUMP (2MA411)	GZ	MWT23R	MWT23R	32
A205	2PUMPSRW23	23 SERVICE WATER PUMP (2MA411)	GZ	MWT23S	MWT23S	32
A205	2CV5150	21 SRW HX SW INLET	GZ	S7H2CV	C1S50P	60
A205	2SV5150	SERV WTR HTEX 21 SALT WTR INLT	GZ	S7H2CV	C1S50P	0
A205	2CV5210	21 SRW HX SW OUTLET CV	GZ	S7H2CV	C2S10P	60
A205	2I/P5210	SALT WTR OUT SERV WTR HTEX	GZ	S7H2CV	C2S10P	0
A205	2SV5210	SERV WTR HTEX 21 SALT WTR OUT	GZ	S7H2CV	C2S10P	0
A205	2SV5210A	SERV WTR HTEX 21 SALT WTR OUT	GZ	S7H2CV	C2S10P	0
A205	2HXSRW21	21 SRW HX	GZ	S7HX21	HXS21B	144
A205	2HXSRW21	21 SRW HX	GZ	S7HX21	HXS21P	144
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1AB	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1AP	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1BB	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1BP	0
A119	1HXSTF/BOX11A	HPSI PUMP 11	HA	HA1CCW	HXS1AB	0
A119	1HXSTF/BOX11A	HPSI PUMP 11	HA	HA1CCW	HXS1AP	0
A119	1HXSTF/BOX11B	HPSI PUMP 11	HA	HA1CCW	HXS1BB	0
A119	1HXSTF/BOX11B	HPSI PUMP 11	HA	HA1CCW	HXS1BP	0
A119	1HX109	#11 HPSI PP SEAL COOLER	HA	HA1CCW	HXSC1B	0
A119	1HX109	#11 HPSI PP SEAL COOLER	HA	HA1CCW	HXSC1P	0
A119	1MOV656	AUX HPSI HDR ISOL	HA	HADISA	MV656P	0
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	HA	MA011R	MA011R	24
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	HA	MA011S	MA011S	24
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3AB	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3AP	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3BB	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3BP	0
A118	1HXSTF/BOX13A	HPSI PUMP 13	HB	HB3CCW	HXS3AB	0
A118	1HXSTF/BOX13A	HPSI PUMP 13	HB	HB3CCW	HXS3AP	0
A118	1HXSTF/BOX13B	HPSI PUMP 13	HB	HB3CCW	HXS3BB	0
A118	1HXSTF/BOX13B	HPSI PUMP 13	HB	HB3CCW	HXS3BP	0
A118	1HX111	#13 HPSI PP SEAL COOLER	HB	HB3CCW	HXSC3B	0
A118	1HX111	#13 HPSI PP SEAL COOLER	HB	HB3CCW	HXSC3P	0
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	HB	MA013R	MA013R	12
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	HB	MA013S	MA013S	12
A118	1MOV654	HPSI HDR ISOL	HB	MV654P	MV654P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	HU	BHEF1B	Throttle	144
A226	1CV4535	12 S/G AFW FLOW CONT VLV	HU	BHEF1B	Throttle	144

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A118	1PUMPHPSI12	12 HIGH PRESS SAFETY INJECTION PUMP	HW	BHEHW1	Start	12
A119	1MOV656	AUX HPSI HDR ISOL	HW	HADISA	MV656P	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2AB	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2AP	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2BB	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2BP	0
A118	1HXSTF/BOX12A	HPSI PUMP 12	HW	HW1CCW	HXS2AB	0
A118	1HXSTF/BOX12A	HPSI PUMP 12	HW	HW1CCW	HXS2AP	0
A118	1HXSTF/BOX12B	HPSI PUMP 12	HW	HW1CCW	HXS2BB	0
A118	1HXSTF/BOX12B	HPSI PUMP 12	HW	HW1CCW	HXS2BP	0
A119	1HX409	#12 HPSI PP SEAL COOLER	HW	HW1CCW	HXSC2B	0
A119	1HX409	#12 HPSI PP SEAL COOLER	HW	HW1CCW	HXSC2P	0
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	HW	MA012R	MA012R	24
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	HW	MA012S	MA012S	24
A118	1MOV653	HPSI HDR X-CONN	HW	MV653O	MV653O	0
A118	1MOV653	HPSI HDR X-CONN	HW	MV653P	MV653P	0
A118	1MOV654	HPSI HDR ISOL	HW	MV654P	MV654P	0
A119	1MOV655	HPSI HDR X-CONN	HW	MV655P	MV655P	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	HX	BHEF1A	Throttle	144
A226	1CV4535	12 S/G AFW FLOW CONT VLV	HX	BHEF1A	Throttle	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1COMPSWAC11	11 SW AIR COMPRESSOR (1M1404)	I1	CMS11R	CMS11R	144
A226	1COMPSWAC11	11 SW AIR COMPRESSOR (1M1404)	I1	CMS11S	CMS11S	144
A226	1LS5200	11 IA SW AIR COMP LS	I1	I1CNTL	LS200R	144
A226	1TS5200	11 IA SW AIR COMP TS	I1	I1CNTL	TS200R	144
A226	1COMPSWAC12	12 SW AIR COMPRESSOR (1M0404)	I2	CMS12R	CMS12R	144
A226	1COMPSWAC12	12 SW AIR COMPRESSOR (1M0404)	I2	CMS12S	CMS12S	144
A226	1LS5201	12 IA SW AIR COMP LS	I2	I2CNTL	LS201R	144
A226	1TS5201	12 IA SW AIR COMP TS	I2	I2CNTL	TS201R	144
A228	1ACC5170	AIR ACCUMULATOR FOR 1CV5170	IL	ILIA99	TK170B	0
A228	1ACC5171	AIR ACCUMULATOR FOR 1CV5171	IL	ILIA99	TK171B	0
A228	1ACC5174	AIR ACCUMULATOR FOR 1CV5174	IL	ILIA99	TK174B	0
A228	1ACC5175	AIR ACCUMULATOR FOR 1CV5175	IL	ILIA99	TK175B	0
A228	1ACC5177	AIR ACCUMULATOR FOR 1CV5177	IL	ILIA99	TK177B	0
A228	1ACC5178	AIR ACCUMULATOR FOR 1CV5178	IL	ILIA99	TK178B	0
A228	1ACC5173	AIR ACCUMULATOR FOR 1CV5173	IN	INIA99	TK173B	0
A224	1ACC1645	AIR ACCUMULATOR FOR 1CV1645	IP	IPIA99	TK645B	0
A224	1ACC1646	AIR ACCUMULATOR FOR 1CV1646	IP	IPIA99	TK646B	0
A228	1CV5160	11 CC HX SW INLET	K3	C1160O	C1160O	0
A228	1SV5160	COMP CLG HTEX 11 SALT WTR INLT	K3	C1160O	C1160O	0
A228	1CV5206	11 CC HX SW OUTLET	K3	C2206O	C2206O	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	K3	C2206O	C2206O	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	K3	C2206O	C2206O	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	K3	C2206O	C2206O	0
A226	1CV5210	11 SRW HX SW OUTLET CV	K3	C2210C	C2210C	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	C2210C	C2210C	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	C2210C	C2210C	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1ZC5210	1CV5210 POSITIONER	K3	C2210C	C2210C	0
A228	1CV3823	11 CC HX TEMP CONT BYP	K3	CT823R	CT823R	0
A228	1TIC3823	11 CC HX BYP VLV TEMP CONTL	K3	CT823R	CT823R	0
A226	1CV5210	11 SRW HX SW OUTLET CV	K3	K3CLOS	C2210T	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	K3CLOS	C2210T	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	K3CLOS	C2210T	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1ZC5210	1CV5210 POSITIONER	K3	K3CLOS	C2210T	0
A228	1CV3823	11 CC HX TEMP CONT BYP	K3	K3COMP	CT823T	0
A228	1TIC3823	11 CC HX BYP VLV TEMP CONTL	K3	K3COMP	CT823T	0
A228	1CV5160	11 CC HX SW INLET	K3	K3OTLT	C1160P	0
A228	1SV5160	COMP CLG HTEX 11 SALT WTR INLT	K3	K3OTLT	C1160P	0
A228	1CV5206	11 CC HX SW OUTLET	K3	K3OTLT	C2206P	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	K3	K3OTLT	C2206P	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	K3	K3OTLT	C2206P	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	K3	K3OTLT	C2206P	0
A228	1CV5162	12 CC HX SW INLET	K4	C1162O	C1162O	0
A228	1SV5162	COMP CLG HTEX 12 SALT WTR INLT	K4	C1162O	C1162O	0
A228	1CV5163	12 CC HX SW NORM B/U OUTLET	K4	C1163O	C1163O	0
A228	1SV5163	COMP CLG HTEX 12 SALT WTR OUT	K4	C1163O	C1163O	0
A228	1CV5208	12 CC HX SW NORM OUT	K4	C2208O	C2208O	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	K4	C2208O	C2208O	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	K4	C2208O	C2208O	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	K4	C2208O	C2208O	0
A226	1CV5212	12 SRW HX SW OUT CV	K4	C2212C	C2212C	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	C2212C	C2212C	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	C2212C	C2212C	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1ZC5212	1CV5212 POSITIONER	K4	C2212C	C2212C	0
A228	1CV3825	12 CC HX TEMP CONT BYP	K4	CT825R	CT825R	0
A228	1TIC3825	12 CC HX BYP VLV TEMP CONTL	K4	CT825R	CT825R	0
A228	1CV3825	12 CC HX TEMP CONT BYP	K4	K4CMP1	CT825T	0
A228	1TIC3825	12 CC HX BYP VLV TEMP CONTL	K4	K4CMP1	CT825T	0
A228	1CV5162	12 CC HX SW INLET	K4	K4INLT	C1162P	0
A228	1SV5162	COMP CLG HTEX 12 SALT WTR INLT	K4	K4INLT	C1162P	0
A226	1CV5212	12 SRW HX SW OUT CV	K4	K4ISO1	C2212T	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	K4ISO1	C2212T	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	K4ISO1	C2212T	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1ZC5212	1CV5212 POSITIONER	K4	K4ISO1	C2212T	0
A228	1CV5165	12 CC HX SW AUX OUT	K4	K4OPN2	C4165O	0
A228	1SV5165	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4165O	0
A228	1CV5165	12 CC HX SW AUX OUT	K4	K4OPN2	C4165P	0
A228	1SV5165	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4165P	0
A228	1CV5166	12 CC HX SW AUX B/U OUTLET	K4	K4OPN2	C4166O	0
A228	1SV5166	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4166O	0
A228	1CV5166	12 CC HX SW AUX B/U OUTLET	K4	K4OPN2	C4166P	0
A228	1SV5166	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4166P	0
A228	1CV5163	12 CC HX SW NORM B/U OUTLET	K4	K4OTLT	C1163P	0
A228	1SV5163	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OTLT	C1163P	0
A228	1CV5208	12 CC HX SW NORM OUT	K4	K4OTLT	C2208P	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	K4	K4OTLT	C2208P	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OTLT	C2208P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OTLT	C2208P	0
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KH(PP1)	BHEKC1	Start	12
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KH(PP1)	BHEKZ1	Start	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KH(PP2)	BHEKC1	Start	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KH(PP2)	BHEKZ1	Start	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KH(PP3)	BHEKC1	Start	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KH(PP3)	BHEKZ1	Start	12
A228	1CV3826	12 CC HX OUTLET	KI(HX1)	BHEK31	Close	0
A228	1CV5208	12 CC HX SW NORM OUT	KI(HX1)	BHEK31	Close	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	KI(HX1)	BHEK31	Close	0
A228	1SV3826	COMP CLG HTEX 12 DISCH CONTROL	KI(HX1)	BHEK31	Close	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	KI(HX1)	BHEK31	Close	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	KI(HX1)	BHEK31	Close	0
A228	1CV3824	11 CC HX OUTLET	KI(HX1)	BHEK31	Open	0
A228	1SV3824	COMP CLG HX 11 DISCH CONTROL	KI(HX1)	BHEK31	Open	0
A228	1CV5206	11 CC HX SW OUTLET	KI(HX1)	BHEK31	Throttle	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	KI(HX1)	BHEK31	Throttle	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	KI(HX1)	BHEK31	Throttle	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	KI(HX1)	BHEK31	Throttle	0
A228	1CV3824	11 CC HX OUTLET	KI(HX2)	BHEK31	Close	0
A228	1CV5206	11 CC HX SW OUTLET	KI(HX2)	BHEK31	Close	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	KI(HX2)	BHEK31	Close	0
A228	1SV3824	COMP CLG HX 11 DISCH CONTROL	KI(HX2)	BHEK31	Close	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	KI(HX2)	BHEK31	Close	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	KI(HX2)	BHEK31	Close	0
A228	1CV3826	12 CC HX OUTLET	KI(HX2)	BHEK31	Open	0
A228	1SV3826	COMP CLG HTEX 12 DISCH CONTROL	KI(HX2)	BHEK31	Open	0
A228	1CV5208	12 CC HX SW NORM OUT	KI(HX2)	BHEK31	Throttle	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	KI(HX2)	BHEK31	Throttle	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	KI(HX2)	BHEK31	Throttle	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	KI(HX2)	BHEK31	Throttle	0
A228	1HXCC11	11 COMPONENT COOLING WTR	KM	HXC11B	HXC11B	13
A228	1CV3823	11 CC HX TEMP CONT BYP	KM	KMBYPS	CT823P	0
A228	1TIC3823	11 CC HX BYP VLV TEMP CONTL	KM	KMBYPS	TC823R	0
A228	1CV3824	11 CC HX OUTLET	KM	KMCV24	CV824P	0
A228	1SV3824	COMP CLG HX 11 DISCH CONTROL	KM	KMCV24	CV824P	0
A228	1HXCC11	11 COMPONENT COOLING WTR	KM	KMPATH	HXC11P	13
A228	1HXCC12	12 COMPONENT COOLING WTR	KN	HXC12B	HXC12B	13
A228	1CV3825	12 CC HX TEMP CONT BYP	KN	KNBYPS	CT825P	0
A228	1TIC3825	12 CC HX BYP VLV TEMP CONTL	KN	KNBYPS	TC825R	0
A228	1CV3826	12 CC HX OUTLET	KN	KNCV26	CV826P	0
A228	1SV3826	COMP CLG HTEX 12 DISCH CONTROL	KN	KNCV26	CV826P	0
A228	1HXCC12	12 COMPONENT COOLING WTR	KN	KNPATH	HXC12P	13
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KX	MZC11R	MZC11R	12
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KX	MZC11S	MZC11S	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KY	MZC12R	MZC12R	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KY	MZC12S	MZC12S	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KZ	MZC13R	MZC13R	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KZ	MZC13S	MZC13S	12
A226	1COMPSWAC12	12 SW AIR COMPRESSOR (1M0404)	M1	CMM04Q	CMM04Q	144
A217	1U0409	11 BA TK HTR B	M1	HTM09Q	HTM09Q	6
A217	1U0434	12 BA TK HTR B	M1	HTM34Q	HTM34Q	6
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	M1	M1FPPR	VD48AQ	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	M1	M1FPPR	VD48BQ	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	M1	M1FPPR	VD48CQ	22
A217	1PUMPCVCBA12	12 CVC BORIC ACID PUMP (1M0406)	M1	MBM06Q	MBM06Q	12

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A118	1MOV654	HPSI HDR ISOL	M1	MVM21Q	MVM21Q	0
A118	1MOV653	HPSI HDR X-CONN	M1	MVM22Q	MVM22Q	0
A217	1MOV514	BAPP TO CHG PP SUCT DIRECT FD	M1	MVM25Q	MVM25Q	6
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	M1	MVM30Q	MVM30Q	0
A118	1MOV660	MINI FLOW RETN TO RWT	M1	MVM32Q	MVM32Q	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	M1	MVM44Q	MVM44Q	0
A225	1FANHVACPENETE12	12 PENET RM EXH FAN (1M0402)	M1	VDM02Q	VDM02Q	18.75
A225	1FANHVACAFWE12	12 AFW PUMP RM EXH (1M0412)	M1	VDM12Q	VDM12Q	36
A225	1FANHVACECCSE12	12 ECCS PUMP RM EXH (1M0413)	M1	VDM13Q	VDM13Q	0
A226	1FAN5334	SRW HX RM EXH FAN 18B (1M0451)	M1	VDM51Q	VDM51Q	0
A226	1COMPSWAC11	11 SW AIR COMPRESSOR (1M1404)	M2	CMN04Q	CMN04Q	144
A217	1U1409	11 CVC BA TK HTR A	M2	HTN09Q	HTN09Q	6
A217	1U1434	12 BA TK HTR A	M2	HTN34Q	HTN34Q	6
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	M2	M2FPPR	VD48AQ	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	M2	M2FPPR	VD48BQ	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	M2	M2FPPR	VD48CQ	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	M2	M2FPPR	VD48DQ	22
A217	1PUMPCVCBA11	11 CVC BORIC ACID PUMP (1M1406)	M2	MBN06Q	MBN06Q	12
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A227	1MOV615	11A LPSI LOOP ISOL	M2	MVN07Q	MVN07Q	19
A227	1MOV625	11B LPSI LOOP ISOL	M2	MVN08Q	MVN08Q	0
A119	1MOV656	AUX HPSI HDR ISOL	M2	MVN21Q	MVN21Q	0
A119	1MOV655	HPSI HDR X-CONN	M2	MVN22Q	MVN22Q	0
A218	1MOV504	RWT TO CHG PP	M2	MVN23Q	MVN23Q	19
A217	1MOV509	11 BAST GRAVITY FD	M2	MVN24Q	MVN24Q	6
A217	1MOV508	12 BAST GRAVITY FD	M2	MVN30Q	MVN30Q	6
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A118	1MOV659	MINI FLOW RETN TO RWT	M2	MVN32Q	MVN32Q	0
A224	1MOV399	SDC HX RECIRC STOP	M2	MVN37Q	MVN37Q	6
A122	1MOV4144	CONTMT SUMP OUT ISOL	M2	MVN44Q	MVN44Q	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	M2	MVN57Q	MVN57Q	0
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A217	1X11	1 CVC BA HEAT TRACING XFMR	M2	TMN33Q	TMN33Q	6
A225	1FANHVACPENETE11	11 PENET RM EXH FAN (1M1402)	M2	VDN02Q	VDN02Q	18.75
A225	1FANHVACAFWE11	11 AFW PUMP RM EXH (1M1412)	M2	VDN12Q	VDN12Q	36
A225	1FANHVACECCSE11	11 ECCS PUMP RM EXH (1M1413)	M2	VDN13Q	VDN13Q	0
A226	1FAN5335	SRW HTEX RM FAN VU-18A (1M1441)	M2	VDN41Q	VDN41Q	0
A215	2U0409	21 CVC BA TK HTR B	M3	HTO09Q	HTO09Q	0
A215	2U0434	22 CVC BA TK HTR B	M3	HTO34Q	HTO34Q	0
A102	2FAN0448A	ECCS PP RM CLR 22 FAN A (2M0448A)	M3	M3FPPR	VD48AQ	22
A102	2FAN0448B	ECCS PP RM CLR 22 FAN B (2M0448B)	M3	M3FPPR	VD48BQ	22
A102	2FAN0448C	ECCS PP RM CLR 22 FAN C (2M0448C)	M3	M3FPPR	VD48CQ	22
A205	2COMPSWAC22A	22 SW AIR COMPRESSOR MOTOR A (2M0405A)	M3	M3FSWC	CMO5AQ	144
A205	2COMPSWAC22B	22 SW AIR COMPRESSOR MOTOR B (2M0405B)	M3	M3FSWC	CMO5BQ	144
A215	2PUMPCVCBA22	22 CVC BORIC ACID PUMP (2M0406)	M3	MBO06Q	MBO06Q	6
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A102	2MOV654	HPSI HDR ISOL	M3	MVO21Q	MVO21Q	0
A102	2MOV653	HPSI HDR X-CONN	M3	MVO22Q	MVO22Q	0
A215	2MOV514	BAPP'S TO CHG PP SUCT DIRECT FD	M3	MVO25Q	MVO25Q	0
A120	2MOV5463	U-2 CONTMT RECIRC PIPE TUNNEL	M3	MVO30Q	MVO30Q	0
A102	2MOV660	MINI FLOW RETN TO RWT	M3	MVO32Q	MVO32Q	0
A120	2MOV4145	CONTMT SUMP OUTLET ISOL	M3	MVO44Q	MVO44Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A203	2MOV399	SDC HX RECIRC ISOL	M3	MVO58Q	MVO58Q	6
A204	2FANHVACPENETE22	22 PENET RM EXH FAN (2M1402)	M3	VDO02Q	VDO02Q	18.75
A204	2FANHVACAFWE22	22 AFW PUMP RM EXH (2M0412)	M3	VDO12Q	VDO12Q	36

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A204	2FANHVACECCSE22	22 ECCS PUMP RM EXH (2M0413)	M3	VDO13Q	VDO13Q	0
A205	2FAN5334	SRW HX RM EXH FAN 19B (2M0451)	M3	VDO51Q	VDO51Q	0
A215	2U1409	21 CVC BA TK HTR A	M4	HTN09Q	HTN09Q	0
A215	2U1434	22 CVC BA TK HTR A	M4	HTN34Q	HTN34Q	0
A205	2COMPSWAC21A	21 SW AIR COMPRESSOR MOTOR A (2M1405A)	M4	M4FCRC	CM05AQ	144
A205	2COMPSWAC21B	21 SW AIR COMPRESSOR MOTOR B (2M1405B)	M4	M4FCRC	CM05BQ	144
A101	2FAN1448A	ECCS PP RM CLR 21 FAN A (2M1448A)	M4	M4FPPR	VD48AQ	72
A101	2FAN1448B	ECCS PP RM CLR 21 FAN B (2M1448B)	M4	M4FPPR	VD48BQ	72
A101	2FAN1448C	ECCS PP RM CLR 21 FAN C (2M1448C)	M4	M4FPPR	VD48CQ	72
A101	2FAN1448D	ECCS PP RM CLR 21 FAN D (2M1448D)	M4	M4FPPR	VD48DQ	72
A215	2PUMPCVCBA21	21 CVC BORIC ACID PUMP (2M1406)	M4	MBN06Q	MBN06Q	6
A206	2MOV615	21B LPSI OUTLET MOV	M4	MVN07Q	MVN07Q	24
A206	2MOV625	21A LPSI LOOP ISOL	M4	MVN08Q	MVN08Q	24
A101	2MOV656	AUX HPSI HDR ISOL	M4	MVN21Q	MVN21Q	54
A101	2MOV655	HPSI HDR X-CONN	M4	MVN22Q	MVN22Q	48
A212	2MOV504	RWT TO CHG PP	M4	MVN23Q	MVN23Q	24
A215	2MOV509	21 BAST GRAVITY FD	M4	MVN24Q	MVN24Q	0
A215	2MOV508	22 BAST GRAVITY FD	M4	MVN30Q	MVN30Q	0
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32
A102	2MOV659	MINI FLOW RETN TO RWT	M4	MVN32Q	MVN32Q	0
A120	2MOV4144	CONTMT SUMP OUTLET ISOL	M4	MVN44Q	MVN44Q	0
A120	2MOV5462	U-2 CONTMT RECIRC PIPE TUNNEL	M4	MVN57Q	MVN57Q	0
A215	2X11	BA HEAT TRACE XFMR 21	M4	TMN04Q	TMN04Q	0
A204	2FANHVACPENETE21	21 PENET RM EXH FAN (2M0402)	M4	VDN02Q	VDN02Q	18.75
A204	2FANHVACAFWE21	21 AFW PUMP RM EXH (2M1412)	M4	VDN12Q	VDN12Q	36
A204	2FANHVACECCSE21	21 ECCS PUMP RM EXH (2M1413)	M4	VDN13Q	VDN13Q	0
A205	2FAN5335	SRW HX RM SPLY FAN 19A (2M1437)	M4	VDN37Q	VDN37Q	0
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	MH	BHEF1I	Open	0
A227	1SV4071	12 S/G MS TO AFW PP	MH	BHEF1I	Open	0
A226	1PCV5000	11 SGFP BRG OIL PRESS REG VLV	MN	MNFW58	PC000R	0
A226	1PCV4993	11 SGFPT CONT OIL PRESS REG	MN	MNFW58	PC993R	0
A226	1PCV4999	11 SGFPT OIL PRESS REG VLV	MN	MNFW58	PC999R	0
A226	1PCV5043	12 SGFP TLO PP DISCH PCV	MN	MNFW68	PC043R	0
A226	1PCV5048	12 SGFP TLO RESERVOIR INLET PCV	MN	MNFW68	PC048R	0
A226	1PCV5049	12 FW SGFP TLO TO PP BRGS PCV	MN	MNFW68	PC049R	0
A118	1MOV659	MINI FLOW RETN TO RWT	MV	MV0A11	MV659P	0
A118	1MOV659	MINI FLOW RETN TO RWT	MV	MV0A11	MV659X	0
A118	1MOV660	MINI FLOW RETN TO RWT	MV	MV0A11	MV660P	0
A118	1MOV660	MINI FLOW RETN TO RWT	MV	MV0A11	MV660X	0
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	N1	MZ106Q	MZ106Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	N2	MZ116Q	MZ116Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	N3	MZ406Q	MZ406Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	N4	MZ416Q	MZ416Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A201	2PUMPCC21	21 COMPONENT COOLING PUMP (2MB106)	N5	MZT06Q	MZT06Q	12
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A201	2PUMPCC23	23 COMPONENT COOLING PUMP (2MB116)	N6	MZT16Q	MZT16Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A201	2PUMPCC22	22 COMPONENT COOLING PUMP (2MB406)	N7	MZT26Q	MZT26Q	12
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A201	2PUMPCC23	23 COMPONENT COOLING PUMP (2MB116)	N8	MZT36Q	MZT36Q	12
A228	1ACC5170	AIR ACCUMULATOR FOR 1CV5170	NR	ILIA99	TK170B	0
A228	1ACC5171	AIR ACCUMULATOR FOR 1CV5171	NR	ILIA99	TK171B	0
A228	1ACC5174	AIR ACCUMULATOR FOR 1CV5174	NR	ILIA99	TK174B	0
A228	1ACC5175	AIR ACCUMULATOR FOR 1CV5175	NR	ILIA99	TK175B	0
A228	1ACC5177	AIR ACCUMULATOR FOR 1CV5177	NR	ILIA99	TK177B	0
A228	1ACC5178	AIR ACCUMULATOR FOR 1CV5178	NR	ILIA99	TK178B	0
A228	1ACC5173	AIR ACCUMULATOR FOR 1CV5173	NR	INIA99	TK173B	0
A224	1ACC1645	AIR ACCUMULATOR FOR 1CV1645	NR	IPIA99	TK645B	0
A224	1ACC1646	AIR ACCUMULATOR FOR 1CV1646	NR	IPIA99	TK646B	0
A226	1ACC4070	11 S/G AFW STM VLV ACCUM	NR	NRIA99	TK070B	144
A226	1ACC4071	12 S/G STM VLV ACCUM	NR	NRIA99	TK071B	144
A205	2CV1637	TB SRW HDR ISOL	NR(TC)	UNIT 2-TAFB01	C3637P	144
A205	2SV1637	TURB & EHC OIL SERV WTR ISOL VLV	NR(TC)	UNIT 2-TAFB01	C3637P	0
A205	2CV1639	TB SRW HDR ISOL	NR(TC)	UNIT 2-TAFB01	C3639P	144
A205	2SV1639	TURB LUB & EHC OIL SERVWTR ISO	NR(TC)	UNIT 2-TAFB01	C3639P	0
A205	2CV1600	TB SRW HDR ISOL	NR(TC)	UNIT 2-TBFB01	C3600P	72
A205	2SV1600	TURB BLDG SERV WTR ISOL VLV	NR(TC)	UNIT 2-TBFB01	C3600P	0
A205	2CV1638	TB SRW HDR ISOL	NR(TC)	UNIT 2-TBFB01	C3638P	72
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NR(TC)	UNIT 2-TBFB01	C3638P	0
A205	2ACC4070	IA ACCUMULATOR	NS	NSIA99	TKS70B	144
A205	2ACC4071	IA ACCUMULATOR	NS	NSIA99	TKS71B	144
A205	2CV1638	TB SRW HDR ISOL	NS	NSSRW	N/A	72
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NS	NSSRW	N/A	0
A205	2CV1637	TB SRW HDR ISOL	NS	UNIT 2-TAFB01	C3637P	144
A205	2SV1637	TURB & EHC OIL SERV WTR ISOL VLV	NS	UNIT 2-TAFB01	C3637P	0
A205	2CV1639	TB SRW HDR ISOL	NS	UNIT 2-TAFB01	C3639P	144
A205	2SV1639	TURB LUB & EHC OIL SERVWTR ISO	NS	UNIT 2-TAFB01	C3639P	0
A205	2CV1600	TB SRW HDR ISOL	NS	UNIT 2-TBFB01	C3600P	72
A205	2SV1600	TURB BLDG SERV WTR ISOL VLV	NS	UNIT 2-TBFB01	C3600P	0
A205	2CV1638	TB SRW HDR ISOL	NS	UNIT 2-TBFB01	C3638P	72
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NS	UNIT 2-TBFB01	C3638P	0
A226	1CV4522	11 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	40
A226	1CV4523	11 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	144
A226	1CV4532	12 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	40
A226	1CV4533	12 S/G AFW BLOCK VLV	QZ	BHEQZ1	Open	144
A226	1SV4522	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4523	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4532	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4533	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	RH	BHERH1	Start	24
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	RH	BHERH1	Start	12
A226	1CV5150	11 SRW HX SW INLET	S3	C1150P	C1150P	60
A226	1SV5150	SERV WTR HTEX 11 SALT WTR INLT	S3	C1150P	C1150P	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148C	C2148C	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148C	C2148C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148C	C2148C	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148O	C2148O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148T	C2148T	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148T	C2148T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148T	C2148T	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151C	C2151C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151C	C2151C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151C	C2151C	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151C	C2151C	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	C2151O	C2151O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151O	C2151O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151O	C2151O	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	C2151O	C2151O	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151T	C2151T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151T	C2151T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151T	C2151T	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151T	C2151T	0
A226	1PUMPSRW11	11 SERVICE WATER PUMP (1MA109)	S3	MWS11R	MWS11R	32
A226	1PUMPSRW11	11 SERVICE WATER PUMP (1MA109)	S3	MWS11S	MWS11S	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S3	MWS13R	MWS13R	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S3	MWS13S	MWS13S	32
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AB	0
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AP	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BB	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BP	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1AV	C2148P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1CV5209	11A SRW HX SALT WATER OUTLET VLV	S3	S3H1AV	C2209P	0
A226	1FIC5209	11A SRW HX SW OUTLET FLOW INDICATOR	S3	S3H1AV	C2209P	0
A226	1P/P5209	1CV5209 A/S VOLUME BOOSTER	S3	S3H1AV	C2209P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2209P	0
A226	1SV5209	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1SV5209A	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1BV	C2151P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1BV	C2151P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1BV	C2151P	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	S3H1BV	C2151P	0
A226	1CV5210	11 SRW HX SW OUTLET CV	S3	S3H1BV	C2210P	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	S3	S3H1BV	C2210P	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	S3	S3H1BV	C2210P	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1ZC5210	1CV5210 POSITIONER	S3	S3H1BV	C2210P	0
A226	1CV5153	12 SRW HX SW NORM B/U OUTLET	S4	C1153P	C1153P	20
A226	1SV5153	SERV WTR HTEX 12 SALT WTR OUT	S4	C1153P	C1153P	0
A226	1CV5157	12A/12B SRW HX SALT WATER OUTLET VLV	S4	C2157T	C2157T	0
A226	1I/P5157	12A/12B SRW HX SW OUT I/P	S4	C2157T	C2157T	0
A226	1P/P5157	1CV5157 A/S VOLUME BOOSTER	S4	C2157T	C2157T	0
A226	1SV5157	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1SV5157A	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1ZC5157	1CV5157 POSITIONER	S4	C2157T	C2157T	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158C	C2158C	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158C	C2158C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158C	C2158C	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	C2158O	C2158O	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158O	C2158O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	C2158O	C2158O	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158T	C2158T	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158T	C2158T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158T	C2158T	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159C	C2159C	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159C	C2159C	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	C2159O	C2159O	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	C2159O	C2159O	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159T	C2159T	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159T	C2159T	0
A226	1CV5212	12 SRW HX SW OUT CV	S4	C2212O	C2212O	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	C2212O	C2212O	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	C2212O	C2212O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2212O	C2212O	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1ZC5212	1CV5212 POSITIONER	S4	C2212O	C2212O	0
A226	1PUMPSRW12	12 SERVICE WATER PUMP (1MA409)	S4	MWS12R	MWS12R	32
A226	1PUMPSRW12	12 SERVICE WATER PUMP (1MA409)	S4	MWS12S	MWS12S	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S4	MWS13R	MWS13R	32
A226	1PUMPSRW13	13 SERVICE WATER PUMP (1MA411)	S4	MWS13S	MWS13S	32
A226	1CV5152	12 SRW HX SW INLET	S4	S4CV52	C1152P	60
A226	1SV5152	SERV WTR HTEX 12 SALT WTR INLT	S4	S4CV52	C1152P	0
A226	1HVSRW-707	MANUAL SRW INLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW707P	0
A226	1HVSRW-708	MANUAL SRW OUTLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW708P	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AB	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AP	0
A226	1HVSRW-709	MANUAL SRW INLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW709P	0
A226	1HVSRW-710	MANUAL SRW OUTLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW710P	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BB	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BP	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2AV	C2158P	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	S4H2AV	C2158P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	S4H2AV	C2158P	0
A226	1CV5211	12A SRW HX SALT WATER OUTLET VLV	S4	S4H2AV	C2211P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1FIC5211	12A SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2AV	C2211P	0
A226	1P/P5211	1CV5211 A/S VOLUME BOOSTER	S4	S4H2AV	C2211P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2211P	0
A226	1SV5211	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1SV5211A	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1ZC5211	1CV5211 POSITIONER	S4	S4H2AV	C2211P	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2BV	C2159P	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	S4H2BV	C2159P	0
A226	1CV5212	12 SRW HX SW OUT CV	S4	S4H2BV	C2212P	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2BV	C2212P	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	S4H2BV	C2212P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2212P	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1ZC5212	1CV5212 POSITIONER	S4	S4H2BV	C2212P	0
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0
A208	1CV2181	U-1 CONTMT WG HDR B/U ISOL	SH	IC181C	IC181C	12
A208	1SV2181	1-WGS-2181-CV SV	SH	IC181C	IC181C	12
A208	1CV2181	U-1 CONTMT WG HDR B/U ISOL	SH	IC181T	IC181T	12
A208	1SV2181	1-WGS-2181-CV SV	SH	IC181T	IC181T	12
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A221	1SV6507B	SOUTH PRIM SHLD H2 SAMPLE ANAL	SH	SHSV02	SV07BT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0
A221	1SV6507C	PRESSURIZ COMPRT H2 SAMPL ANAL	SH	SHSV05	SV07CT	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A221	1SV6507D	EAST EL 135 FT H2 SAMPLE ANAL	SH	SHSV08	SV07DT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0
A221	1SV6507B	SOUTH PRIM SHLD H2 SAMPLE ANAL	SH	SV07BD	SV07BD	0
A221	1SV6507C	PRESSURIZ COMPRT H2 SAMPL ANAL	SH	SV07CD	SV07CD	0
A221	1SV6507D	EAST EL 135 FT H2 SAMPLE ANAL	SH	SV07DD	SV07DD	0
A221	1SV6507G	H2 ANAL RETN TO CONTMT ATMOS ISOL	SH	SV07GD	SV07GD	0
A221	1SV6507G	H2 ANAL RETN TO CONTMT ATMOS ISOL	SH	SV07GT	SV07GT	0
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	SP(PP1)	BHEK12	Start	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	SP(PP2)	BHEK12	Start	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	SP(PP3)	BHEK12	Start	12
A122	1MOV4144	CONTMT SUMP OUT ISOL	SR	MV144C	MV144C	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	SR	MV144T	MV144T	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	SR	MV145C	MV145C	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	SR	MV145T	MV145T	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV462C	MV462C	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV462T	MV462T	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV463C	MV463C	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV463T	MV463T	0
A227	1MOV615	11A LPSI LOOP ISOL	SR	MV615C	MV615C	19
A227	1MOV615	11A LPSI LOOP ISOL	SR	MV615T	MV615T	19
A227	1MOV625	11B LPSI LOOP ISOL	SR	MV625C	MV625C	0
A227	1MOV625	11B LPSI LOOP ISOL	SR	MV625T	MV625T	0
A226	1CV1637	TURB BLDG SRW HDR 11 ISOL	TA	TAFB01	C3637P	144
A226	1SV1637	TURB LUBE&EHC OIL SERVWTR ISOL	TA	TAFB01	C3637P	0
A226	1CV1639	TURB BLDG SRW HDR 11 ISOL	TA	TAFB01	C3639P	144

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1SV1639	TURB LUB & EHC OIL SERV WTR IS	TA	TAFB01	C3639P	0
A226	1CV1600	TURB BLDG SRW HDR 12 ISOL	TB	TBFB01	C3600P	72
A226	1SV1600	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3600P	0
A226	1CV1638	TURB BLDG SRW HDR 12 ISOL	TB	TBFB01	C3638P	72
A226	1SV1638	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3638P	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	TE	MV144O	MV144O	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	TE	TE0101	MV144P	0
T603	1PUMPAFWTD11	11 AUX FW TURB DRIVEN PP	TF	AW11RR	AW11RR	30
T603	1PUMPAFWTD11	11 AUX FW TURB DRIVEN PP	TF	AW11RS	AW11RS	30
T603	1CV3986	11 AFW TURB THROT/STOP VLV	TF	TF11TP	VT986P	0
T603	1SV3986	11 AFW PP TURB THROT/STOP VLV TRIP	TF	TF11TP	VT986P	0
T603	1CV3986	11 AFW TURB THROT/STOP VLV	TF	VT986O	VT986O	0
T603	1SV3986	11 AFW PP TURB THROT/STOP VLV TRIP	TF	VT986O	VT986O	0
T603	1PUMPAFWTD12	12 AUX FW TURB DRIVEN PP	TG	AW12RR	AW12RR	30
T603	1PUMPAFWTD12	12 AUX FW TURB DRIVEN PP	TG	AW12RS	AW12RS	30
A227	1SV4070	11 S/G ISOL VLV AFW PP 11 & 12	TG	BHEF1Y	Open	0
A227	1SV4071	12 S/G MS TO AFW PP	TG	BHEF1Y	Open	0
T603	1CV3988	12 AFW TURB THROT/STOP VLV	TG	TGTP12	VT988P	0
T603	1SV3988	12 AFW PP TURB THROT/STOP VLV TRIP	TG	TGTP12	VT988P	0
T603	1CV3988	12 AFW TURB THROT/STOP VLV	TG	VT988O	VT988O	0
T603	1SV3988	12 AFW PP TURB THROT/STOP VLV TRIP	TG	VT988O	VT988O	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	TH(HD1)	BHER3B	Open	13
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	TH(HD1)	BHER3B	Open	0
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	TH(HD1)	BHER3B	Open	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	TH(HD1)	BHER3B	Open	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	TH(HD1)	BHER3B	Open	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	TH(HD1)	BHER3B	Open	0
A228	1CV5206	11 CC HX SW OUTLET	TH(HD1)	BHER3B	Throttle	0
A226	1CV5210	11 SRW HX SW OUTLET CV	TH(HD1)	BHER3B	Throttle	60
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	TH(HD1)	BHER3B	Throttle	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	TH(HD1)	BHER3B	Throttle	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	TH(HD1)	BHER3B	Throttle	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1ZC5210	1CV5210 POSITIONER	TH(HD1)	BHER3B	Throttle	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	TH(HD2)	BHER3B	Open	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	TH(HD2)	BHER3B	Open	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	TH(HD2)	BHER3B	Open	0
A228	1CV5208	12 CC HX SW NORM OUT	TH(HD2)	BHER3B	Throttle	0
A226	1CV5212	12 SRW HX SW OUT CV	TH(HD2)	BHER3B	Throttle	48
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	TH(HD2)	BHER3B	Throttle	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	TH(HD2)	BHER3B	Throttle	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	TH(HD2)	BHER3B	Throttle	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1ZC5212	1CV5212 POSITIONER	TH(HD2)	BHER3B	Throttle	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	TW	MV145O	MV145O	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	TW	TW0101	MV145P	0
A224	1PS4404	11 MT CONDENSER LOW VACUUM PS	TX	PS404D	PS404D	0
A224	1PS4405	11 MT CONDENSER LOW VACUUM PS	TX	PS405D	PS405D	0
A224	1PS4407	12 MT CONDENSER LOW VACUUM PS	TX	PS407D	PS407D	0
A224	1PS4408	12 MT CONDENSER LOW VACUUM PS	TX	PS408D	PS408D	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A224	1PS4410	13 MT CONDENSER LOW VACUUM PS	TX	PS410D	PS410D	0
A224	1PS4411	13 MT CONDENSER LOW VACUUM PS	TX	PS411D	PS411D	0
A226	1CV4525	11 S/G AFW FLOW CONT VLV	UQ	BHEUQ1	Throttle	144
A226	1CV4535	12 S/G AFW FLOW CONT VLV	UQ	BHEUQ1	Throttle	144
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	TS404D	TS404D	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	V1	V1CLSE	WC170P	13
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	V1	V1CLSE	WC170P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1CLSE	WC170P	0
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	V1	V1CLSE	WC171P	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	V1	V1CLSE	WC171P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1CLSE	WC171P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1TEMP	TS404R	0
A119	1HXHVACECCS11	ECCS PUMP ROOM AIR COOLER 11	V1	V1TRFR	HX205B	0
A119	1HXHVACECCS11	ECCS PUMP ROOM AIR COOLER 11	V1	V1TRFR	HX205P	0
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	V1	VD11AR	VD11AR	22
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	V1	VD11AS	VD11AS	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	V1	VD11BR	VD11BR	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	V1	VD11BS	VD11BS	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	V1	VD11CR	VD11CR	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	V1	VD11CS	VD11CS	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	V1	VD11DR	VD11DR	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	V1	VD11DS	VD11DS	22
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	V1	WC170D	WC170D	13
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	V1	WC170D	WC170D	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC170D	WC170D	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	V1	WC170O	WC170O	13
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	V1	WC170O	WC170O	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC170O	WC170O	0
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	V1	WC171D	WC171D	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	V1	WC171D	WC171D	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC171D	WC171D	0
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	V1	WC171O	WC171O	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	V1	WC171O	WC171O	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC171O	WC171O	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	TS405D	TS405D	0
A228	1CV5174	12 ECCS PP RM AIR CLR SW NORM OUTLET	V2	V2CLSE	WC174P	0
A228	1SV5174	ECCS PP RM HTEX 12 SLT WTR OUT	V2	V2CLSE	WC174P	0
A228	1CV5175	12 ECCS PP RM AIR CLR SW NORM B/U OUT	V2	V2CLSE	WC175P	0
A228	1SV5175	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2CLSE	WC175P	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	V2	V2INLT	WC173P	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	V2	V2INLT	WC173P	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	V2INLT	WC173P	0
A228	1CV5177	12 ECCS PP RM AIR CLR SW AUX OUTLET	V2	V2OTLT	C4177O	0
A228	1SV5177	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4177O	0
A228	1CV5177	12 ECCS PP RM AIR CLR SW AUX OUTLET	V2	V2OTLT	C4177P	0
A228	1SV5177	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4177P	0
A228	1CV5178	12 ECCS PP RM AIR CLR SW AUX B/U OUT	V2	V2OTLT	C4178O	0
A228	1SV5178	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4178O	0
A228	1CV5178	12 ECCS PP RM AIR CLR SW AUX B/U OUT	V2	V2OTLT	C4178P	0
A228	1SV5178	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4178P	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	V2TEMP	TS405R	0
A118	1HXHVACECCS12	ECCS PUMP ROOM AIR COOLER 12	V2	V2TRFR	HX207B	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A118	1HXHVACECCS12	ECCS PUMP ROOM AIR COOLER 12	V2	V2TRFR	HX207P	0
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	V2	VD12AR	VD12AR	22
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	V2	VD12AS	VD12AS	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	V2	VD12BR	VD12BR	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	V2	VD12BS	VD12BS	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	V2	VD12CR	VD12CR	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	V2	VD12CS	VD12CS	22
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	V2	WC173D	WC173D	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	V2	WC173D	WC173D	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	WC173D	WC173D	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	V2	WC173O	WC173O	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	V2	WC173O	WC173O	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	WC173O	WC173O	0
A225	1FANHVACECCSE11	11 ECCS PUMP RM EXH (1M1413)	V5	VDF11R	VDF11R	0
A225	1FANHVACECCSE11	11 ECCS PUMP RM EXH (1M1413)	V5	VDF11S	VDF11S	0
A225	1FANHVACECCSE12	12 ECCS PUMP RM EXH (1M0413)	V5	VDF12R	VDF12R	0
A225	1FANHVACECCSE12	12 ECCS PUMP RM EXH (1M0413)	V5	VDF12S	VDF12S	0
A226	1PCV5214	11 CW PP SEAL WTR PCV	VC	VCCW1A	PC214R	0
A226	1PCV5216	12 CW PP SEAL WTR PCV	VC	VCCW2A	PC216R	0
A226	1PCV5218	13 CW PP SEAL WTR PCV	VC	VCCW3A	PC218R	0
A226	1PCV5220	14 CW PP SEAL WTR PCV	VC	VCCW4A	PC220R	0
A226	1PCV5222	15 CW PP SEAL WTR PCV	VC	VCCW5A	PC222R	0
A226	1PCV5224	16 CW PP SEAL WTR PCV	VC	VCCW6A	PC224R	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	VM(RM1)	BHEV1T	Open	13
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	VM(RM1)	BHEV1T	Open	0
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	VM(RM1)	BHEV1T	Open	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	VM(RM1)	BHEV1T	Open	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	VM(RM1)	BHEV1T	Open	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	VM(RM1)	BHEV1T	Open	0
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	VM(RM1)	BHEV1T	Start	22
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	VM(RM2)	BHEV1T	Open	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	VM(RM2)	BHEV1T	Open	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	VM(RM2)	BHEV1T	Open	0
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	VM(RM2)	BHEV1T	Start	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	VM(RM2)	BHEV1T	Start	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	VM(RM2)	BHEV1T	Start	22
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0
A221	1SV6507B	SOUTH PRIM SHLD H2 SAMPLE ANAL	WJ	BHESH2	Shut	0
A221	1SV6507C	PRESSURIZ COMPRT H2 SAMPL ANAL	WJ	BHESH2	Shut	0
A221	1SV6507D	EAST EL 135 FT H2 SAMPLE ANAL	WJ	BHESH2	Shut	0
A221	1SV6507G	H2 ANAL RETN TO CONTMT ATMOS ISOL	WJ	BHESH2	Shut	0
A221	1CV1584	12 CNTMT CLG U NORM INLET	WY	CV584O	CV584O	0
A221	1I/P1584	CNTMT CLR 12 SERV WTR INLT	WY	CV584O	CV584O	0
A221	1SV1584	CNTMT CLR 12 SERV WTR INLT VLV	WY	CV584O	CV584O	0
A221	1CV1592	14 CNTMT CLG U NORM INLET	WY	CV592O	CV592O	0
A221	1I/P1592	CNTMT CLR 14 SERV WTR INLT	WY	CV592O	CV592O	0
A221	1SV1592	CNTMT CLR 14 INLT VLV CONTROL	WY	CV592O	CV592O	0
A221	1CV1584	12 CNTMT CLG U NORM INLET	WY	WB102F	CV584P	0
A221	1I/P1584	CNTMT CLR 12 SERV WTR INLT	WY	WB102F	CV584P	0
A221	1SV1584	CNTMT CLR 12 SERV WTR INLT VLV	WY	WB102F	CV584P	0
A221	1CV1592	14 CNTMT CLG U NORM INLET	WY	WD102F	CV592P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A221	1I/P1592	CNTMT CLR 14 SERV WTR INLT	WY	WD102F	CV592P	0
A221	1SV1592	CNTMT CLR 14 INLT VLV CONTROL	WY	WD102F	CV592P	0

Flood Evaluation Query

CF-10H-S228MR *

11-Nov-98

TOP	PM	EVALUATION	RI
AA	4BKR	4 breaker challenges.	PAJ
AB	4BKR	4 breaker challenges.	PAJ
AC	3BKR	3 breaker challenges.	PAJ
AD	5BKR	5 breaker challenges.	PAJ
CS	F	CS Pump 11 is lost.	PAJ
CT	F	CS Pump 12 is lost.	PAJ
CV	F	Conservatively set to failure. CVCS relatively unimportant.	PAJ
F1	None	11 and 12 S/G AFW Block Valves fail. These valves are normally open and will fail open. Therefore there is no impact on this top. Flow control valves failing open are addressed in top event HX.	PAJ
F7	F	Lost the ability to use Unit 1 AFW MD Pump 13 to supply Unit 1 S/G.	PAJ
F9	F	Loss the ability to use Unit 2 AFW MD Pump 23 to supply Unit 1 S/G. Also, 21 and 22 S/G AFW Block and Flow Valves fail. These valves are normally open and fail as-is (open) on loss of power.	PAJ
FH	None	Loss the ability to start AFW MD Pump 13. Covered under Top F7.	PAJ
FN	None	Only has 2 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
GW	None	2CV5152, 2CV5153 and 2CV5212 fail open on loss of power and loss of air.	PAJ
GZ	None	2CV5150 and 2CV5210 fail open on loss of power and loss of air.	PAJ
HA	F	11 HPSI Pump fails.	PAJ
HB	F	13 HPSI Pump fails.	PAJ
HU	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact.	PAJ
HW	F	12 HPSI is lost. Also 1MOV653, 1MOV654, 1MOV655 and 1MOV656 fail as-is.	PAJ

* This flood is no longer used. See note 23 in RAN 98-065 sect. 5.4. JBN

TOP	PM	EVALUATION	RI
HX	None	11 and 12 S/G AFW (motor driven feed line) flow control valves fail open. Impact already considered by Top F7 & F9 failure.	PAJ
IL	None	Air accumulators only. Mechanical operation only.	PAJ
IN	None	Air accumulators only. Mechanical operation only.	PAJ
K3	None	Since KX, KY and KZ fail, this top event will be set to success.	PAJ
K4	None	Since KX, KY and KZ fail, this top event will be set to success.	PAJ
KH(PP1)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to start 11 CCW Pump. 11 Component Cooling Pump fails to start.	PAJ
KH(PP2)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to start 12 CCW Pump. 12 Component Cooling Pump fails to start.	PAJ
KH(PP3)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to start 13 CCW Pump. 13 Component Cooling Pump fails to start.	PAJ
KI(HX1)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to open, close or modulate two valves (1CV3824 and 1CV5206). 1CV3824 will fail in the appropriate position. 1CV5206 will not. This valve will fail open neglecting the capability to throttle this valve. Therefore this top will fail.	PAJ
KI(HX2)	None	Since KX, KY and KZ fail, this top event will be set to success. This human action requires the operator to open, close or modulate two valves (1CV3826 and 1CV5208). 1CV3826 will fail in the appropriate position. 1CV5208 will not. This valve will fail open neglecting the capability to throttle this valve. Therefore this top will fail.	PAJ
KM	None	Since KX, KY and KZ fail, this top event will be set to success. Also 1CV3823 will transfer close, which is the undesired affect. But it does not fail top unless 1HVCC-149 transfers shut or 1HXCC11 plugs during operation. Since mechanical components are screened for flood, it will not fail this top, only degrade it.	PAJ
KN	None	Since KX, KY and KZ fail, this top event will be set to success. Also 1CV3825 will transfer close, which is the undesired affect. But it does not fail top unless 1HVCC-156 transfers shut or 1HXCC12 plugs during operation. Since mechanical components are screened for flood, it will not fail this top, only degrade it.	PAJ
KX	F	11 CCW Pump will fail to start/run.	PAJ
KY	F	12 CCW Pump will fail to start/run.	PAJ
KZ	F	13 CCW Pump will fail to start/run.	PAJ

TOP	PM	EVALUATION	RI
M1	7BKR	7 breaker challenges.	PAJ
M2	10BKR	10 breaker challenges.	PAJ
M3	9BKR	9 breaker challenges.	PAJ
~~M4~~	~~8BKR~~	~~8 breaker challenges.~~	~~PAJ~~
MN	None	Has 6 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
MV	None	1MOV659/660 fail as-is and are normally electrically locked open, there will be no flood impact.	PAJ
N1	2BKR	2 breaker challenges.	PAJ
N2	2BKR	2 breaker challenges.	PAJ
N3	1BKR	1 breaker challenges.	PAJ
N4	1BKR	1 breaker challenges.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
NR	None	Air accumulators only. Mechanical operation only.	PAJ
NR(TC)	Spec Impt	2CV1600/1637/1638/1639 fail close on loss of power, the undesirable position. Unable to use Unit 2 compressors for Unit 1.	PAJ
NS	Spec Impt	2CV1600/1637/1638/1639 fail close on loss of power, the undesirable position. Unable to use Unit 2 compressors for Unit 2.	PAJ
QZ	None	11 & 12 AFW Block valves (1CV4522/4523/4532/4533) are normally open and fail as-is on loss of power.	PAJ
RH	F	This human action requires the operator to start 11 and 13 HPSI Pumps. Both pumps are assumed not to start/run during a flood scenario.	PAJ

TOP	PM	EVALUATION	RI
S3	None	All valves fail to their appropriate positions on loss of power and loss of air. 1CV5148 (FO), 1CV5148A (FC), 1CV5151 (FO), 1CV5151A (FC) and 1CV5209 (FO).	PAJ
S4	None	All valves fail to their appropriate positions on loss of power and loss of air. 1CV5158 (FO), 1CV5158A (FC), 1CV5159 (FO), 1CV5159A (FC), 1CV5211 (FO), 1CV5153 (FO) and 1CV5157 (FC).	PAJ
SG	Spec Impt	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment.	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ
SP(PP1)	None	11 CC Pumps fails to start/run. Accounted for by Top KX.	PAJ
SP(PP2)	None	12 CC Pumps fails to start/run. Accounted for by Top KY.	PAJ
SP(PP3)	None	13 CC Pumps fails to start/run. Accounted for by Top KZ.	PAJ
SR	None	All MOVs (1MOV4144/4145/5462/5463) are closed and fail close.	PAJ
TA	F	1CV1637/1639 fail close on loss of power / loss of air.	PAJ
TB	F	1CV1600/1638 fail close on loss of power / loss of air.	PAJ
TE	F	1MOV4144 is normally in the closed position and will fail as-is. Therefore, the East Recirculation Header will not function properly.	PAJ
TH(HD1)	None	1CV5170/5171 fail open. 1CV5206/5210 will fail to the open position not allowing the operator to throttle valves. ECCS Pump Room Cooling Fans fail. Covered by Top S3 or K3.	PAJ
TH(HD2)	None	1CV5173 fails open. 1CV5208/5212 will fail to the open position not allowing the operator to throttle valves. ECCS Pump Room Cooling Fans fail. Covered by Top S3 or K3.	PAJ
TW	F	1MOV4145 is normally in the closed position and will fail as-is. Therefore, the West Recirculation Header will not function properly.	PAJ
UQ	None	1CV4525/4535 are normally open and fail as-is on loss of power. This top only fails when an under feed to the SG occurs.	PAJ
V1	F	All ECCS Pump Room Fans fail to start/run.	PAJ

TOP	PM	EVALUATION	RI
V2	F	All ECCS Pump Room Fans fail to start/run.	PAJ
VC	None	Has 6 PCVs. I am assuming that these will not fail during a flood.	PAJ
VM(RM1)	None	Operator will be unable to start ECCS Pump Room Fans. Covered under Top V1.	PAJ
VM(RM2)	None	Operator will be unable to start ECCS Pump Room Fans. Covered under Top V2.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	AA	MAAF3Q	MAAF3Q	16
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	AA	MACS1Q	MACS1Q	12
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	AA	MAHP1Q	MAHP1Q	24
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	AA	MAHP3Q	MAHP3Q	12
A119	1PUMPSILPSI11	11 LOW PRESS SAFETY INJECTION PUMP (1MA104)	AA	MALP1Q	MALP1Q	12
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	AB	MACS2Q	MACS2Q	12
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	AB	MAHP2Q	MAHP2Q	24
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	AB	MAHP4Q	MAHP4Q	12
A118	1PUMPSILPSI12	12 LOW PRESS SAFETY INJECTION PUMP (1MA404)	AB	MALP2Q	MALP2Q	12
A101	2PUMPSICS21	21 CONTAINMENT SPRAY PUMP (2MA107)	AC	MACS3Q	MACS3Q	24
A101	2PUMPHPSI21	SI HPSI PUMP 21 (2MA108)	AC	MAHP5Q	MAHP5Q	24
A102	2PUMPHPSI23	SI HPSI PUMP 23 (2MA110)	AC	MAHP7Q	MAHP7Q	12
A101	2PUMPSILPSI21	21 LOW PRESS SAFETY INJECTION PUMP (2MA104)	AC	MALP3Q	MALP3Q	39
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	AD	MAAF6Q	MAAF6Q	16
A102	2PUMPSICS22	22 CONTAINMENT SPRAY PUMP (2MA407)	AD	MACS4Q	MACS4Q	12
A101	2PUMPHPSI22	SI HPSI PUMP 22 (2MA408)	AD	MAHP6Q	MAHP6Q	24
A102	2PUMPHPSI23	SI HPSI PUMP 23 (2MA110)	AD	MAHP8Q	MAHP8Q	12
A102	2PUMPSILPSI22	22 LOW PRESS SAFETY INJECTION PUMP (2MA404)	AD	MALP4Q	MALP4Q	12
A119	1HXSICS11	11 SHUTDOWN COOLING HX	CS	CS0103	HXC11B	0
A119	1HXSICS11	11 SHUTDOWN COOLING HX	CS	CS0103	HXC11P	0
A119	1MOV663	SDC RECIRC TO 11 HPSI PP	CS	CS0103	MV663T	0
A119	1CV3828	11 SDC HX OUTLET	CS	CSHX11	CV828P	0
A119	1SV3828	S/D HX 11 COOL WTR DISCH VLV	CS	CSHX11	CV828P	0
A119	1CV3828	11 SDC HX OUTLET	CS	CV828O	CV828O	0
A119	1SV3828	S/D HX 11 COOL WTR DISCH VLV	CS	CV828O	CV828O	0
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	CS	MA107R	MA107R	12
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	CS	MA107S	MA107S	12
A118	1HXSICS12	12 SHUTDOWN COOLING HX	CT	CT0103	HXC12B	0
A118	1HXSICS12	12 SHUTDOWN COOLING HX	CT	CT0103	HXC12P	0
A118	1MOV662	SDC RECIRC TO 13 HPSI PP	CT	CT0103	MV662T	0
A118	1CV3830	12 SDC HX OUTLET	CT	CTXH12	CV830P	0
A118	1SV3830	S/D HX #12 COMP CLG DISCH VLV	CT	CTXH12	CV830P	0
A118	1CV3830	12 SDC HX OUTLET	CT	CV830O	CV830O	0
A118	1SV3830	S/D HX #12 COMP CLG DISCH VLV	CT	CV830O	CV830O	0
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	CT	MA407R	MA407R	12
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	CT	MA407S	MA407S	12
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R.	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PS224R	PS224R	0
A226	1SV4522	11 S/G AFW BLOCK SV	F1	CV4522	CV522P	0
A226	1SV4523	11 S/G AFW BLOCK SV	F1	CV4523	CV523P	0
A226	1SV4532	12 S/G AFW BLOCK SV	F1	CV4532	CV532P	0
A226	1SV4533	12 S/G AFW BLOCK SV	F1	CV4533	CV533P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A226	1SV4550	U-1 TO U-2 AFW X-CONN SV	F7	F7MPVA	C3550T	0
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QR	MA13QR	16
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QS	MA13QS	16
A205	2SV4522	S/G 21 AFW MOTOR SYS ISOL VLV	F9	CVB22C	CVB22C	0
A205	2SV4523	S/G 21 AFW MOTOR SYS ISOL VLV	F9	CVB23C	CVB23C	0
A205	2SV4532	S/G 22 AFW MOTOR SYS ISOL VLV	F9	CVB32C	CVB32C	0
A205	2SV4533	S/G 22 AFW MOTOR SYS ISOL VLV	F9	CVB33C	CVB33C	0
A205	2SV4550	U-2 AUX FEED X-CONN VLV	F9	F9M2VA	C3B50O	0
A205	2SV4550	U-2 AUX FEED X-CONN VLV	F9	F9M2VA	C3B50P	0
A205	2SV4522	S/G 21 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB22T	0
A205	2SV4523	S/G 21 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB23T	0
A205	2SV4532	S/G 22 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB32T	0
A205	2SV4533	S/G 22 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB33T	0
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	F9	MA23QR	MA23QR	16
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	F9	MA23QS	MA23QS	16
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	FH	BHEF71	Start	16
A226	1PCV4512	1 IA SUPP ACCUM 11A & 11B PCV	FN	FN0000	CV512P	0
A226	1PCV4520	11B AFW AIR ACCUMULATOR OUTLET PCV	FN	FN0000	CV520P	0
A205	2I/P5212	SALT WTR OUT SERV WTR HTEX	GW	C2S12O	C2S12O	0
A205	2SV5212	SERV WTR HTEX 22 SALT WTR OUT	GW	C2S12O	C2S12O	0
A205	2SV5212A	SERV WTR HTEX 22 SALT WTR OUT	GW	C2S12O	C2S12O	0
A205	2SV5152	SERV WTR HTEX 22 SALT WTR INLT	GW	S8CV52	C1S52P	0
A205	2CV5153	22 SRW HX SW NORM B/U OUTLET	GW	S8H2CV	C1S53P	20
A205	2SV5153	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C1S53P	0
A205	2I/P5212	SALT WTR OUT SERV WTR HTEX	GW	S8H2CV	C2S12P	0
A205	2SV5212	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C2S12P	0
A205	2SV5212A	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C2S12P	0
A205	2SV5150	SERV WTR HTEX 21 SALT WTR INLT	GZ	S7H2CV	C1S50P	0
A205	2I/P5210	SALT WTR OUT SERV WTR HTEX	GZ	S7H2CV	C2S10P	0
A205	2SV5210	SERV WTR HTEX 21 SALT WTR OUT	GZ	S7H2CV	C2S10P	0
A205	2SV5210A	SERV WTR HTEX 21 SALT WTR OUT	GZ	S7H2CV	C2S10P	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1AB	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1AP	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1BB	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1BP	0
A119	1HXSTF/BOX11A	HPSI PUMP 11	HA	HA1CCW	HXS1AB	0
A119	1HXSTF/BOX11A	HPSI PUMP 11	HA	HA1CCW	HXS1AP	0
A119	1HXSTF/BOX11B	HPSI PUMP 11	HA	HA1CCW	HXS1BB	0
A119	1HXSTF/BOX11B	HPSI PUMP 11	HA	HA1CCW	HXS1BP	0
A119	1HX109	#11 HPSI PP SEAL COOLER	HA	HA1CCW	HXSC1B	0
A119	1HX109	#11 HPSI PP SEAL COOLER	HA	HA1CCW	HXSC1P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A119	1MOV656	AUX HPSI HDR ISOL	HA	HADISA	MV656P	0
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	HA	MA011R	MA011R	24
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	HA	MA011S	MA011S	24
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3AB	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3AP	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3BB	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3BP	0
A118	1HXSTF/BOX13A	HPSI PUMP 13	HB	HB3CCW	HXS3AB	0
A118	1HXSTF/BOX13A	HPSI PUMP 13	HB	HB3CCW	HXS3AP	0
A118	1HXSTF/BOX13B	HPSI PUMP 13	HB	HB3CCW	HXS3BB	0
A118	1HXSTF/BOX13B	HPSI PUMP 13	HB	HB3CCW	HXS3BP	0
A118	1HX111	#13 HPSI PP SEAL COOLER	HB	HB3CCW	HXSC3B	0
A118	1HX111	#13 HPSI PP SEAL COOLER	HB	HB3CCW	HXSC3P	0
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	HB	MA013R	MA013R	12
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	HB	MA013S	MA013S	12
A118	1MOV654	HPSI HDR ISOL	HB	MV654P	MV654P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A118	1PUMPHPSI12	12 HIGH PRESS SAFETY INJECTION PUMP	HW	BHEHW1	Start	12
A119	1MOV656	AUX HPSI HDR ISOL	HW	HADISA	MV656P	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2AB	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2AP	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2BB	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2BP	0
A118	1HXSTF/BOX12A	HPSI PUMP 12	HW	HW1CCW	HXS2AB	0
A118	1HXSTF/BOX12A	HPSI PUMP 12	HW	HW1CCW	HXS2AP	0
A118	1HXSTF/BOX12B	HPSI PUMP 12	HW	HW1CCW	HXS2BB	0
A118	1HXSTF/BOX12B	HPSI PUMP 12	HW	HW1CCW	HXS2BP	0
A119	1HX409	#12 HPSI PP SEAL COOLER	HW	HW1CCW	HXSC2B	0
A119	1HX409	#12 HPSI PP SEAL COOLER	HW	HW1CCW	HXSC2P	0
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	HW	MA012R	MA012R	24
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	HW	MA012S	MA012S	24
A118	1MOV653	HPSI HDR X-CONN	HW	MV653O	MV653O	0
A118	1MOV653	HPSI HDR X-CONN	HW	MV653P	MV653P	0
A118	1MOV654	HPSI HDR ISOL	HW	MV654P	MV654P	0
A119	1MOV655	HPSI HDR X-CONN	HW	MV655P	MV655P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A228	1ACC5170	AIR ACCUMULATOR FOR 1CV5170	IL	ILIA99	TK170B	0
A228	1ACC5171	AIR ACCUMULATOR FOR 1CV5171	IL	ILIA99	TK171B	0
A228	1ACC5174	AIR ACCUMULATOR FOR 1CV5174	IL	ILIA99	TK174B	0
A228	1ACC5175	AIR ACCUMULATOR FOR 1CV5175	IL	ILIA99	TK175B	0
A228	1ACC5177	AIR ACCUMULATOR FOR 1CV5177	IL	ILIA99	TK177B	0
A228	1ACC5178	AIR ACCUMULATOR FOR 1CV5178	IL	ILIA99	TK178B	0
A228	1ACC5173	AIR ACCUMULATOR FOR 1CV5173	IN	INIA99	TK173B	0
A228	1CV5160	11 CC HX SW INLET	K3	C1160O	C1160O	0
A228	1SV5160	COMP CLG HTEX 11 SALT WTR INLT	K3	C1160O	C1160O	0
A228	1CV5206	11 CC HX SW OUTLET	K3	C2206O	C2206O	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	K3	C2206O	C2206O	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	K3	C2206O	C2206O	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	K3	C2206O	C2206O	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	C2210C	C2210C	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	C2210C	C2210C	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0
A226	1ZC5210	1CV5210 POSITIONER	K3	C2210C	C2210C	0
A228	1CV3823	11 CC HX TEMP CONT BYP	K3	CT823R	CT823R	0
A228	1TIC3823	11 CC HX BYP VLV TEMP CONTL	K3	CT823R	CT823R	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	K3CLOS	C2210T	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	K3CLOS	C2210T	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1ZC5210	1CV5210 POSITIONER	K3	K3CLOS	C2210T	0
A228	1CV3823	11 CC HX TEMP CONT BYP	K3	K3COMP	CT823T	0
A228	1TIC3823	11 CC HX BYP VLV TEMP CONTL	K3	K3COMP	CT823T	0
A228	1CV5160	11 CC HX SW INLET	K3	K3OTLT	C1160P	0
A228	1SV5160	COMP CLG HTEX 11 SALT WTR INLT	K3	K3OTLT	C1160P	0
A228	1CV5206	11 CC HX SW OUTLET	K3	K3OTLT	C2206P	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	K3	K3OTLT	C2206P	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	K3	K3OTLT	C2206P	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	K3	K3OTLT	C2206P	0
A228	1CV5162	12 CC HX SW INLET	K4	C1162O	C1162O	0
A228	1SV5162	COMP CLG HTEX 12 SALT WTR INLT	K4	C1162O	C1162O	0
A228	1CV5163	12 CC HX SW NORM B/U OUTLET	K4	C1163O	C1163O	0
A228	1SV5163	COMP CLG HTEX 12 SALT WTR OUT	K4	C1163O	C1163O	0
A228	1CV5208	12 CC HX SW NORM OUT	K4	C2208O	C2208O	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	K4	C2208O	C2208O	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	K4	C2208O	C2208O	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	K4	C2208O	C2208O	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	C2212C	C2212C	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	C2212C	C2212C	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1ZC5212	1CV5212 POSITIONER	K4	C2212C	C2212C	0
A228	1CV3825	12 CC HX TEMP CONT BYP	K4	CT825R	CT825R	0
A228	1TIC3825	12 CC HX BYP VLV TEMP CONTL	K4	CT825R	CT825R	0
A228	1CV3825	12 CC HX TEMP CONT BYP	K4	K4CMP1	CT825T	0
A228	1TIC3825	12 CC HX BYP VLV TEMP CONTL	K4	K4CMP1	CT825T	0
A228	1CV5162	12 CC HX SW INLET	K4	K4INLT	C1162P	0
A228	1SV5162	COMP CLG HTEX 12 SALT WTR INLT	K4	K4INLT	C1162P	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	K4ISO1	C2212T	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	K4ISO1	C2212T	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1ZC5212	1CV5212 POSITIONER	K4	K4ISO1	C2212T	0
A228	1CV5165	12 CC HX SW AUX OUT	K4	K4OPN2	C4165O	0
A228	1SV5165	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4165O	0
A228	1CV5165	12 CC HX SW AUX OUT	K4	K4OPN2	C4165P	0
A228	1SV5165	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4165P	0
A228	1CV5166	12 CC HX SW AUX B/U OUTLET	K4	K4OPN2	C4166O	0
A228	1SV5166	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4166O	0
A228	1CV5166	12 CC HX SW AUX B/U OUTLET	K4	K4OPN2	C4166P	0
A228	1SV5166	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OPN2	C4166P	0
A228	1CV5163	12 CC HX SW NORM B/U OUTLET	K4	K4OTLT	C1163P	0
A228	1SV5163	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OTLT	C1163P	0
A228	1CV5208	12 CC HX SW NORM OUT	K4	K4OTLT	C2208P	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	K4	K4OTLT	C2208P	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OTLT	C2208P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	K4	K4OTLT	C2208P	0
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KH(PP1)	BHEKC1	Start	12
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KH(PP1)	BHEKZ1	Start	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KH(PP2)	BHEKC1	Start	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KH(PP2)	BHEKZ1	Start	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KH(PP3)	BHEKC1	Start	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KH(PP3)	BHEKZ1	Start	12
A228	1CV3826	12 CC HX OUTLET	KI(HX1)	BHEK31	Close	0
A228	1CV5208	12 CC HX SW NORM OUT	KI(HX1)	BHEK31	Close	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	KI(HX1)	BHEK31	Close	0
A228	1SV3826	COMP CLG HTEX 12 DISCH CONTROL	KI(HX1)	BHEK31	Close	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	KI(HX1)	BHEK31	Close	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	KI(HX1)	BHEK31	Close	0
A228	1CV3824	11 CC HX OUTLET	KI(HX1)	BHEK31	Open	0
A228	1SV3824	COMP CLG HX 11 DISCH CONTROL	KI(HX1)	BHEK31	Open	0
A228	1CV5206	11 CC HX SW OUTLET	KI(HX1)	BHEK31	Throttle	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	KI(HX1)	BHEK31	Throttle	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	KI(HX1)	BHEK31	Throttle	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	KI(HX1)	BHEK31	Throttle	0
A228	1CV3824	11 CC HX OUTLET	KI(HX2)	BHEK31	Close	0
A228	1CV5206	11 CC HX SW OUTLET	KI(HX2)	BHEK31	Close	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	KI(HX2)	BHEK31	Close	0
A228	1SV3824	COMP CLG HX 11 DISCH CONTROL	KI(HX2)	BHEK31	Close	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	KI(HX2)	BHEK31	Close	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	KI(HX2)	BHEK31	Close	0
A228	1CV3826	12 CC HX OUTLET	KI(HX2)	BHEK31	Open	0
A228	1SV3826	COMP CLG HTEX 12 DISCH CONTROL	KI(HX2)	BHEK31	Open	0
A228	1CV5208	12 CC HX SW NORM OUT	KI(HX2)	BHEK31	Throttle	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	KI(HX2)	BHEK31	Throttle	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	KI(HX2)	BHEK31	Throttle	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	KI(HX2)	BHEK31	Throttle	0
A228	1HXCC11	11 COMPONENT COOLING WTR	KM	HXC11B	HXC11B	13
A228	1CV3823	11 CC HX TEMP CONT BYP	KM	KMBYPS	CT823P	0
A228	1TIC3823	11 CC HX BYP VLV TEMP CONTL	KM	KMBYPS	TC823R	0
A228	1CV3824	11 CC HX OUTLET	KM	KMCV24	CV824P	0
A228	1SV3824	COMP CLG HX 11 DISCH CONTROL	KM	KMCV24	CV824P	0
A228	1HXCC11	11 COMPONENT COOLING WTR	KM	KMPATH	HXC11P	13
A228	1HXCC12	12 COMPONENT COOLING WTR	KN	HXC12B	HXC12B	13
A228	1CV3825	12 CC HX TEMP CONT BYP	KN	KNBYPS	CT825P	0
A228	1TIC3825	12 CC HX BYP VLV TEMP CONTL	KN	KNBYPS	TC825R	0
A228	1CV3826	12 CC HX OUTLET	KN	KNCV26	CV826P	0
A228	1SV3826	COMP CLG HTEX 12 DISCH CONTROL	KN	KNCV26	CV826P	0
A228	1HXCC12	12 COMPONENT COOLING WTR	KN	KNPATH	HXC12P	13
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KX	MZC11R	MZC11R	12
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	KX	MZC11S	MZC11S	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KY	MZC12R	MZC12R	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	KY	MZC12S	MZC12S	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KZ	MZC13R	MZC13R	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	KZ	MZC13S	MZC13S	12
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	M1	M1FPPR	VD48AQ	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	M1	M1FPPR	VD48BQ	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	M1	M1FPPR	VD48CQ	22
A118	1MOV654	HPSI HDR ISOL	M1	MVM21Q	MVM21Q	0
A118	1MOV653	HPSI HDR X-CONN	M1	MVM22Q	MVM22Q	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	M1	MVM30Q	MVM30Q	0
A118	1MOV660	MINI FLOW RETN TO RWT	M1	MVM32Q	MVM32Q	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A122	1MOV4145	CONTMT SUMP OUT ISOL	M1	MVM44Q	MVM44Q	0
A226	1FAN5334	SRW HX RM EXH FAN 18B (1M0451)	M1	VDM51Q	VDM51Q	0
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	M2	M2FPPR	VD48AQ	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	M2	M2FPPR	VD48BQ	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	M2	M2FPPR	VD48CQ	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	M2	M2FPPR	VD48DQ	22
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A119	1MOV656	AUX HPSI HDR ISOL	M2	MVN21Q	MVN21Q	0
A119	1MOV655	HPSI HDR X-CONN	M2	MVN22Q	MVN22Q	0
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A118	1MOV659	MINI FLOW RETN TO RWT	M2	MVN32Q	MVN32Q	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	M2	MVN44Q	MVN44Q	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	M2	MVN57Q	MVN57Q	0
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A226	1FAN5335	SRW HTEX RM FAN VU-18A (1M1441)	M2	VDN41Q	VDN41Q	0
A102	2FAN0448A	ECCS PP RM CLR 22 FAN A (2M0448A)	M3	M3FPPR	VD48AQ	22
A102	2FAN0448B	ECCS PP RM CLR 22 FAN B (2M0448B)	M3	M3FPPR	VD48BQ	22
A102	2FAN0448C	ECCS PP RM CLR 22 FAN C (2M0448C)	M3	M3FPPR	VD48CQ	22
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A102	2MOV654	HPSI HDR ISOL	M3	MVO21Q	MVO21Q	0
A102	2MOV653	HPSI HDR X-CONN	M3	MVO22Q	MVO22Q	0
A120	2MOV5463	U-2 CONTMT RECIRC PIPE TUNNEL	M3	MVO30Q	MVO30Q	0
A102	2MOV660	MINI FLOW RETN TO RWT	M3	MVO32Q	MVO32Q	0
A120	2MOV4145	CONTMT SUMP OUTLET ISOL	M3	MVO44Q	MVO44Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A205	2FAN5334	SRW HX RM EXH FAN 19B (2M0451)	M3	VDO51Q	VDO51Q	0
A101	2FAN1448A	ECCS PP RM CLR 21 FAN A (2M1448A)	M4	M4FPPR	VD48AQ	72
A101	2FAN1448B	ECCS PP RM CLR 21 FAN B (2M1448B)	M4	M4FPPR	VD48BQ	72
A101	2FAN1448C	ECCS PP RM CLR 21 FAN C (2M1448C)	M4	M4FPPR	VD48CQ	72
A101	2FAN1448D	ECCS PP RM CLR 21 FAN D (2M1448D)	M4	M4FPPR	VD48DQ	72
A101	2MOV656	AUX HPSI HDR ISOL	M4	MVN21Q	MVN21Q	54
A101	2MOV655	HPSI HDR X-CONN	M4	MVN22Q	MVN22Q	48
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32
A102	2MOV659	MINI FLOW RETN TO RWT	M4	MVN32Q	MVN32Q	0
A120	2MOV4144	CONTMT SUMP OUTLET ISOL	M4	MVN44Q	MVN44Q	0
A120	2MOV5462	U-2 CONTMT RECIRC PIPE TUNNEL	M4	MVN57Q	MVN57Q	0
A205	2FAN5335	SRW HX RM SPLY FAN 19A (2M1437)	M4	VDN37Q	VDN37Q	0
A226	1PCV5000	11 SGFP BRG OIL PRESS REG VLV	MN	MNFW58	PC000R	0
A226	1PCV4993	11 SGFPT CONT OIL PRESS REG	MN	MNFW58	PC993R	0
A226	1PCV4999	11 SGFPT OIL PRESS REG VLV	MN	MNFW58	PC999R	0
A226	1PCV5043	12 SGFP TLO PP DISCH PCV	MN	MNFW68	PC043R	0
A226	1PCV5048	12 SGFP TLO RESERVOIR INLET PCV	MN	MNFW68	PC048R	0
A226	1PCV5049	12 FW SGFP TLO TO PP BRGS PCV	MN	MNFW68	PC049R	0
A118	1MOV659	MINI FLOW RETN TO RWT	MV	MV0A11	MV659P	0
A118	1MOV659	MINI FLOW RETN TO RWT	MV	MV0A11	MV659X	0
A118	1MOV660	MINI FLOW RETN TO RWT	MV	MV0A11	MV660P	0
A118	1MOV660	MINI FLOW RETN TO RWT	MV	MV0A11	MV660X	0
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	N1	MZ106Q	MZ106Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	N2	MZ116Q	MZ116Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	N3	MZ406Q	MZ406Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	N4	MZ416Q	MZ416Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A228	1ACC5170	AIR ACCUMULATOR FOR 1CV5170	NR	ILIA99	TK170B	0
A228	1ACC5171	AIR ACCUMULATOR FOR 1CV5171	NR	ILIA99	TK171B	0
A228	1ACC5174	AIR ACCUMULATOR FOR 1CV5174	NR	ILIA99	TK174B	0
A228	1ACC5175	AIR ACCUMULATOR FOR 1CV5175	NR	ILIA99	TK175B	0
A228	1ACC5177	AIR ACCUMULATOR FOR 1CV5177	NR	ILIA99	TK177B	0
A228	1ACC5178	AIR ACCUMULATOR FOR 1CV5178	NR	ILIA99	TK178B	0
A228	1ACC5173	AIR ACCUMULATOR FOR 1CV5173	NR	INIA99	TK173B	0
A205	2SV1637	TURB & EHC OIL SERV WTR ISOL VLV	NR(TC)	UNIT 2-TAFB01	C3637P	0
A205	2SV1639	TURB LUB & EHC OIL SERVWTR ISO	NR(TC)	UNIT 2-TAFB01	C3639P	0
A205	2SV1600	TURB BLDG SERV WTR ISOL VLV	NR(TC)	UNIT 2-TBFB01	C3600P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NR(TC)	UNIT 2-TBFB01	C3638P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NS	NSSRW	N/A	0
A205	2SV1637	TURB & EHC OIL SERV WTR ISOL VLV	NS	UNIT 2-TAFB01	C3637P	0
A205	2SV1639	TURB LUB & EHC OIL SERVWTR ISO	NS	UNIT 2-TAFB01	C3639P	0
A205	2SV1600	TURB BLDG SERV WTR ISOL VLV	NS	UNIT 2-TBFB01	C3600P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NS	UNIT 2-TBFB01	C3638P	0
A226	1SV4522	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4523	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4532	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4533	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	RH	BHERH1	Start	24
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	RH	BHERH1	Start	12
A226	1SV5150	SERV WTR HTEX 11 SALT WTR INLT	S3	C1150P	C1150P	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148C	C2148C	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148C	C2148C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148C	C2148C	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148O	C2148O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148T	C2148T	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148T	C2148T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148T	C2148T	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151C	C2151C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151C	C2151C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151C	C2151C	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151C	C2151C	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	C2151O	C2151O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151O	C2151O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151O	C2151O	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	C2151O	C2151O	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151T	C2151T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151T	C2151T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151T	C2151T	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151T	C2151T	0
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AB	0
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AP	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BB	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BP	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1AV	C2148P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1CV5209	11A SRW HX SALT WATER OUTLET VLV	S3	S3H1AV	C2209P	0
A226	1FIC5209	11A SRW HX SW OUTLET FLOW INDICATOR	S3	S3H1AV	C2209P	0
A226	1P/P5209	1CV5209 A/S VOLUME BOOSTER	S3	S3H1AV	C2209P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2209P	0
A226	1SV5209	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1SV5209A	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1BV	C2151P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1BV	C2151P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1BV	C2151P	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	S3H1BV	C2151P	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	S3	S3H1BV	C2210P	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	S3	S3H1BV	C2210P	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1ZC5210	1CV5210 POSITIONER	S3	S3H1BV	C2210P	0
A226	1CV5153	12 SRW HX SW NORM B/U OUTLET	S4	C1153P	C1153P	20
A226	1SV5153	SERV WTR HTEX 12 SALT WTR OUT	S4	C1153P	C1153P	0
A226	1CV5157	12A/12B SRW HX SALT WATER OUTLET VLV	S4	C2157T	C2157T	0
A226	1I/P5157	12A/12B SRW HX SW OUT I/P	S4	C2157T	C2157T	0
A226	1P/P5157	1CV5157 A/S VOLUME BOOSTER	S4	C2157T	C2157T	0
A226	1SV5157	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1SV5157A	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1ZC5157	1CV5157 POSITIONER	S4	C2157T	C2157T	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158C	C2158C	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158C	C2158C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158C	C2158C	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	C2158O	C2158O	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158O	C2158O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	C2158O	C2158O	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158T	C2158T	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158T	C2158T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158T	C2158T	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159C	C2159C	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159C	C2159C	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	C2159O	C2159O	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	C2159O	C2159O	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159T	C2159T	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159T	C2159T	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	C2212O	C2212O	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	C2212O	C2212O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2212O	C2212O	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1ZC5212	1CV5212 POSITIONER	S4	C2212O	C2212O	0
A226	1SV5152	SERV WTR HTEX 12 SALT WTR INLT	S4	S4CV52	C1152P	0
A226	1HVSRW-707	MANUAL SRW INLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW707P	0
A226	1HVSRW-708	MANUAL SRW OUTLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW708P	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AB	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AP	0
A226	1HVSRW-709	MANUAL SRW INLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW709P	0
A226	1HVSRW-710	MANUAL SRW OUTLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW710P	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BB	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BP	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2AV	C2158P	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	S4H2AV	C2158P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	S4H2AV	C2158P	0
A226	1CV5211	12A SRW HX SALT WATER OUTLET VLV	S4	S4H2AV	C2211P	0
A226	1FIC5211	12A SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2AV	C2211P	0
A226	1P/P5211	1CV5211 A/S VOLUME BOOSTER	S4	S4H2AV	C2211P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2211P	0
A226	1SV5211	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1SV5211A	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1ZC5211	1CV5211 POSITIONER	S4	S4H2AV	C2211P	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2BV	C2159P	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	S4H2BV	C2159P	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2BV	C2212P	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	S4H2BV	C2212P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2212P	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1ZC5212	1CV5212 POSITIONER	S4	S4H2BV	C2212P	0
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0
A228	1PUMPCC11	11 COMPONENT COOLING PUMP (1MB106)	SP(PP1)	BHEK12	Start	12
A228	1PUMPCC12	12 COMPONENT COOLING PUMP (1MB406)	SP(PP2)	BHEK12	Start	12

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A228	1PUMPCC13	13 COMPONENT COOLING PUMP (1MB116)	SP(PP3)	BHEK12	Start	12
A122	1MOV4144	CONTMT SUMP OUT ISOL	SR	MV144C	MV144C	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	SR	MV144T	MV144T	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	SR	MV145C	MV145C	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	SR	MV145T	MV145T	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV462C	MV462C	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV462T	MV462T	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV463C	MV463C	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV463T	MV463T	0
A226	1SV1637	TURB LUBE&EHC OIL SERVWTR ISOL	TA	TAFB01	C3637P	0
A226	1SV1639	TURB LUB & EHC OIL SERV WTR IS	TA	TAFB01	C3639P	0
A226	1SV1600	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3600P	0
A226	1SV1638	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3638P	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	TE	MV144O	MV144O	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	TE	TE0101	MV144P	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	TH(HD1)	BHER3B	Open	13
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	TH(HD1)	BHER3B	Open	0
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	TH(HD1)	BHER3B	Open	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	TH(HD1)	BHER3B	Open	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	TH(HD1)	BHER3B	Open	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	TH(HD1)	BHER3B	Open	0
A228	1CV5206	11 CC HX SW OUTLET	TH(HD1)	BHER3B	Throttle	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	TH(HD1)	BHER3B	Throttle	0
A228	1I/P5206	SALT WTR OUT COMPONT CLG HTEX	TH(HD1)	BHER3B	Throttle	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	TH(HD1)	BHER3B	Throttle	0
A228	1SV5206	COMP CLG HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A228	1SV5206A	COMP CLG HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1ZC5210	1CV5210 POSITIONER	TH(HD1)	BHER3B	Throttle	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	TH(HD2)	BHER3B	Open	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	TH(HD2)	BHER3B	Open	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	TH(HD2)	BHER3B	Open	0
A228	1CV5208	12 CC HX SW NORM OUT	TH(HD2)	BHER3B	Throttle	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	TH(HD2)	BHER3B	Throttle	0
A228	1I/P5208	SALT WTR OUT COMPONT CLG HTEX	TH(HD2)	BHER3B	Throttle	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	TH(HD2)	BHER3B	Throttle	0
A228	1SV5208	COMP CLG HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A228	1SV5208A	COMP CLG HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1ZC5212	1CV5212 POSITIONER	TH(HD2)	BHER3B	Throttle	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	TW	MV145O	MV145O	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	TW	TW0101	MV145P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	TS404D	TS404D	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	V1	V1CLSE	WC170P	13
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	V1	V1CLSE	WC170P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1CLSE	WC170P	0
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	V1	V1CLSE	WC171P	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	V1	V1CLSE	WC171P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1CLSE	WC171P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1TEMP	TS404R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A119	1HXHVACECCS11	ECCS PUMP ROOM AIR COOLER 11	V1	V1TRFR	HX205B	0
A119	1HXHVACECCS11	ECCS PUMP ROOM AIR COOLER 11	V1	V1TRFR	HX205P	0
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	V1	VD11AR	VD11AR	22
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	V1	VD11AS	VD11AS	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	V1	VD11BR	VD11BR	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	V1	VD11BS	VD11BS	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	V1	VD11CR	VD11CR	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	V1	VD11CS	VD11CS	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	V1	VD11DR	VD11DR	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	V1	VD11DS	VD11DS	22
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	V1	WC170D	WC170D	13
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	V1	WC170D	WC170D	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC170D	WC170D	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	V1	WC170O	WC170O	13
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	V1	WC170O	WC170O	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC170O	WC170O	0
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	V1	WC171D	WC171D	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	V1	WC171D	WC171D	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC171D	WC171D	0
A228	1CV5171	11 ECCS PP RM AIR CLR SW OUTLET	V1	WC171O	WC171O	0
A228	1SV5171	ECCS PP RM AIR CLR 11 WTR OUT	V1	WC171O	WC171O	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC171O	WC171O	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	TS405D	TS405D	0
A228	1CV5174	12 ECCS PP RM AIR CLR SW NORM OUTLET	V2	V2CLSE	WC174P	0
A228	1SV5174	ECCS PP RM HTEX 12 SLT WTR OUT	V2	V2CLSE	WC174P	0
A228	1CV5175	12 ECCS PP RM AIR CLR SW NORM B/U OUT	V2	V2CLSE	WC175P	0
A228	1SV5175	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2CLSE	WC175P	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	V2	V2INLT	WC173P	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	V2	V2INLT	WC173P	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	V2INLT	WC173P	0
A228	1CV5177	12 ECCS PP RM AIR CLR SW AUX OUTLET	V2	V2OTLT	C4177O	0
A228	1SV5177	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4177O	0
A228	1CV5177	12 ECCS PP RM AIR CLR SW AUX OUTLET	V2	V2OTLT	C4177P	0
A228	1SV5177	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4177P	0
A228	1CV5178	12 ECCS PP RM AIR CLR SW AUX B/U OUT	V2	V2OTLT	C4178O	0
A228	1SV5178	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4178O	0
A228	1CV5178	12 ECCS PP RM AIR CLR SW AUX B/U OUT	V2	V2OTLT	C4178P	0
A228	1SV5178	ECCS PP RM AIR CLR 12 WTR OUT	V2	V2OTLT	C4178P	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	V2TEMP	TS405R	0
A118	1HXHVACECCS12	ECCS PUMP ROOM AIR COOLER 12	V2	V2TRFR	HX207B	0
A118	1HXHVACECCS12	ECCS PUMP ROOM AIR COOLER 12	V2	V2TRFR	HX207P	0
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	V2	VD12AR	VD12AR	22
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	V2	VD12AS	VD12AS	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	V2	VD12BR	VD12BR	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	V2	VD12BS	VD12BS	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	V2	VD12CR	VD12CR	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	V2	VD12CS	VD12CS	22
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	V2	WC173D	WC173D	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	V2	WC173D	WC173D	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	WC173D	WC173D	0
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	V2	WC173O	WC173O	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	V2	WC173O	WC173O	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	WC173O	WC173O	0
A226	1PCV5214	11 CW PP SEAL WTR PCV	VC	VCCW1A	PC214R	0
A226	1PCV5216	12 CW PP SEAL WTR PCV	VC	VCCW2A	PC216R	0
A226	1PCV5218	13 CW PP SEAL WTR PCV	VC	VCCW3A	PC218R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1PCV5220	14 CW PP SEAL WTR PCV	VC	VCCW4A	PC220R	0
A226	1PCV5222	15 CW PP SEAL WTR PCV	VC	VCCW5A	PC222R	0
A226	1PCV5224	16 CW PP SEAL WTR PCV	VC	VCCW6A	PC224R	0
A228	1CV5170	11 ECCS PP RM AIR CLR SW INLET	VM(RM1)	BHEV1T	Open	13
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	VM(RM1)	BHEV1T	Open	0
A228	1SV5170	ECCS PP RM AIR CLR 11 WTR IN	VM(RM1)	BHEV1T	Open	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	VM(RM1)	BHEV1T	Open	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	VM(RM1)	BHEV1T	Open	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	VM(RM1)	BHEV1T	Open	0
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	VM(RM1)	BHEV1T	Start	22
A228	1CV5173	12 ECCS PP RM AIR CLR SW INLET	VM(RM2)	BHEV1T	Open	0
A228	1SV5173	ECCS PP RM AIR CLR 12 WTR IN	VM(RM2)	BHEV1T	Open	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	VM(RM2)	BHEV1T	Open	0
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	VM(RM2)	BHEV1T	Start	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	VM(RM2)	BHEV1T	Start	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	VM(RM2)	BHEV1T	Start	22
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0

Flood Evaluation Query

CF-11A-F315AM

10-Dec-98

TOP	PM	EVALUATION	RI
AE	1BKR	1 breaker challenge.	PAJ
AF	2BKR	2 breaker challenges.	PAJ
BS	F	TBV modulation circuit fails to provide control signals.	PAJ
F1	None ~~Spec Impt~~	~~Steam admission Control valves 1CV4070/4071 are normally closed, and will fail as-is(closed) on loss of power. Therefore, operators will be unable to open valves. These valves continuously have air (closing the valve). The operators may bleed air to open valve if need be.~~ (Note 2) (Note 3)	PAJ
F3	None	Steam Admission SV's 1SV4070/4071 are covered under top event F1.	PAJ
FC	None	If the AFW doors are open when the wall breaks between the Main Steam Piping Area and the Turbine Bldg, the water will quickly rush during initial surge. Then all water will propogate to the condenser pit. The fire damper is located well above surge area. The doors are only open when AFW Pump room cooling is not operational.	PAJ
FT	Spec Impt	1MOV4516/4517 are normally open and fail as-is. Therefore, if the SGFPs do not trip (which they should), then this top event will fail.	PAJ
IP	None	Air accumulator only. No impact.	PAJ
K5	Spec Impt	Since top event MC fails in this scenario and this hose station is under water. All SFs with either of these make-up options available should be failed.	PAJ
LF	F	1CV4405/4406 fail closed. 1MOV4516/4517 are normally open and fail as-is.	PAJ
M1	2BKR	2 breaker challenges.	PAJ
M2	2BKR	2 breaker challenges.	PAJ
M7	19BKR	19 breaker challenges.	PAJ
M8	23BKR	23 breaker challenges.	PAJ
MC	F	11, 12 and 13 Condensate Pumps fail.	PAJ
MH	Spec Impt	1CV4070/4071 are normally closed and fail as-is on loss of power. These valves must be locally vented.	PAJ

See notes in RAN 98-065 sect. 5.4 JPJR

TOP	PM	EVALUATION	RI
MN	F ~~Spec Impt~~	SGFP Seal Booster Pump 12 Train fails to provide flow to common Header. 1MOV4516/4517 are normally open and fail as-is. The loss of the 1FT4484A/4485A circuit will result in the I/Ps sending full air closing CVs. (note 24)	PAJ
MS	F	1CV4043/4048 are normally open and fail as-is.	PAJ
N2	2BKR	2 breaker challenges.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
NR	Spec Impt ~~F~~	11 / 12 IA compressors and 11 Plant Air Compressors fail. (note 4) 1CV2059/2061 both fail closed on loss of power resulting in the inability to use Unit 1 compressors for Unit 1.	PAJ
NS	None ~~Spec Impt~~	11 Plant Air Compressors fails. Still have Unit 2 compressors. (note 18)	PAJ
QC	2BKR	2 breaker challenges.	PAJ
RL	None	This hose station is assumed not to fail during initial surge.	PAJ
S3	None	Heat Exchangers only. Aftercoolers assumed not to fail.	PAJ
S4	None	Heat Exchangers only. Aftercoolers assumed not to fail.	PAJ
T1	None	1CV4406 fails closed on loss of power.	PAJ
TG	None	Steam admission Control valves 1CV4070/4071 are normally closed, and will fail as-is(closed) on loss of power. Therefore, operators will be unable to open valves. These valves continuously have air (closing the valve). The operators may bleed air to open valve if need be. Covered under Top F1.	PAJ
VC	F	11, 12 and 13 condensate vacuum pumps fail.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-3 (CP)	1PUMPCD11	11 CONDENSATE PUMP (1MA207)	AE	MYCP1Q	MYCP1Q	0
1TB12-3 (CP)	1PUMPCD12	12 CONDENSATE PUMP (1MA307)	AF	MYCP2Q	MYCP2Q	0
1TB12-3 (CP)	1PUMPCD13	13 CONDENSATE PUMP (1MA308)	AF	MYCP3Q	MYCP3Q	0
1TB12-4	1PT4056	MS TURB BYPASS VLV CONTROL PT	BS	BS4056	PT056R	0
A315	1CV4070	11 S/G MS TO AFW PP TURB	F1	F1CV70	C8070O	12
A315	1CV4070	11 S/G MS TO AFW PP TURB	F1	F1CV70	C8070P	12
A315	1CV4070A	11 S/G AFW MAIN STM BYPASS VALVE	F1	F1CV70	C870AO	0
A315	1CV4071	12 S/G MS TO AFW PP TURB	F1	F1CV71	C8071O	12
A315	1CV4071	12 S/G MS TO AFW PP TURB	F1	F1CV71	C8071P	12
A315	1CV4071A	12 S/G AFW MAIN STM BYPASS VALVE	F1	F1CV71	C871AO	0
A315	1CV4070	11 S/G MS TO AFW PP TURB	F3	BHEF31	Open	12
A315	1CV4070A	11 S/G AFW MAIN STM BYPASS VALVE	F3	BHEF31	Open	0
A315	1CV4071	12 S/G MS TO AFW PP TURB	F3	BHEF31	Open	12
A315	1CV4071A	12 S/G AFW MAIN STM BYPASS VALVE	F3	BHEF31	Open	0
1TB12-1	1AFWDOORS	AFW DOUBLE DOORS	FC	Dummy	N/A	0
1TB12-1	1FDTB12W1	AFW RM SUPPLY FROM AFW TO TB12 FD	FC	FDAMPR	FD002I	0
A315	1MOV4516	11 SG FW ISOL	FT	FTFW10	MV516C	0
A315	1MOV4516	11 SG FW ISOL	FT	FTFW10	MV516T	0
A315	1MOV4517	12 SG FW ISOL	FT	FTFW20	MV517C	0
A315	1MOV4517	12 SG FW ISOL	FT	FTFW20	MV517T	0
1TB12-4	1ACCIA11	11 IA COMPR RCVR	IP	IPIA99	TK11B	0
1TB12-1	1HOSE12-16	1 FP TURB BLDG TYPE C HOSE STA	K5	K5FIRE	K5FHSF	0
1TB12-3 (CP)	1CV4406	CST TO HTWL M/U CV	LF	LFMUCV	C3406O	0
1TB12-3 (CP)	1I/P4406	COND STORAGE TO HOTWELL CONT	LF	LFMUCV	C3406O	0
1TB12-3 (CP)	1SV4406	CD STORAGE TO HOTWELL CONTROL SV	LF	LFMUCV	C3406O	0
1TB12-3 (CP)	1CV4406	CST TO HTWL M/U CV	LF	LFMUCV	C3406P	0
1TB12-3 (CP)	1I/P4406	COND STORAGE TO HOTWELL CONT	LF	LFMUCV	C3406P	0
1TB12-3 (CP)	1SV4406	CD STORAGE TO HOTWELL CONTROL SV	LF	LFMUCV	C3406P	0
1TB12-3 (CP)	1CV4405	HOTWELL TO COND STORAGE VLV	LF	LFMUCV	C3504T	0
1TB12-3 (CP)	1I/P4405	HOTWELL TO COND STORAGE CONT	LF	LFMUCV	C3504T	0
1TB12-3 (CP)	1LT4405	CD CONDENSER HOTWELL LT	LF	LFMUCV	LT405R	0
A315	1MOV4516	11 SG FW ISOL	LF	MNBYP1	MV516P	0
A315	1MOV4517	12 SG FW ISOL	LF	MNBYP2	MV417P	0
A315	1MOV4516	11 SG FW ISOL	LF	MV516O	MV516O	0
A315	1MOV4516	11 SG FW ISOL	LF	MV516P	MV516P	0
A315	1MOV4517	12 SG FW ISOL	LF	MV517O	MV517O	0
A315	1MOV4517	12 SG FW ISOL	LF	MV517P	MV517P	0
A315	1MOV4517	12 SG FW ISOL	M1	MVM26Q	MVM26Q	0
A315	1MOV4052	MSIV 12 BYP VLV	M1	MVM28Q	MVM28Q	0
A315	1MOV4516	11 SG FW ISOL	M2	MVN26Q	MVN26Q	0
A315	1MOV4045	MSIV 11 BYP VLV	M2	MVN28Q	MVN28Q	0
1TB12-2 (CP)	1PNL1C51	11A AMERTAP CNTL PNL 1C51	M7	BUP23Q	BUP23Q	0
1TB12-2 (CP)	1PNL1C52	11B AMERTAP CNTL PNL 1C52	M7	BUP24Q	BUP24Q	0
1TB12-2 (CP)	1PNL1C53	12A AMERTAP CNTL PNL 1C53	M7	BUP25Q	BUP25Q	0
1TB12-4	1PUMPEHC11	11 MT EHC HYD UNIT PUMP (1MB216)	M7	MB216Q	MB216Q	0
1TB12-2 (CP)	1PUMPCAR12	12 CAR VAC PP (1MB217)	M7	MB217Q	MB217Q	0
1TB12-2 (CP)	1PUMPMSBD11	11 AUX BD TK PUMP (1M0671)	M7	MBP71Q	MBP71Q	0
1TB12-3 (CP)	1PUMPCDMTRLO11	11 CD PP LO CLR PP (1M0607)	M7	MMP07Q	MMP07Q	0
1TB12-2 (CP)	1PUMPCARSWP11	11 CAR SEAL WTR PUMP (1M0636)	M7	MMP36Q	MMP36Q	0
1TB12-2 (CP)	1PUMPCARSWP12	12 CAR SEAL WTR PUMP (1M0637)	M7	MMP37Q	MMP37Q	0
1TB12-3 (CP)	1MOV5225	11A COND'R INLET STRNR VLV	M7	MVP02Q	MVP02Q	0
1TB12-3 (CP)	1MOV5229	11B COND'R INLET STRNR VLV	M7	MVP03Q	MVP03Q	0
1TB12-3 (CP)	1MOV5233	12A COND'R INLET STRNR VLV	M7	MVP04Q	MVP04Q	0
1TB12-4	1MOV4658	MN CONT VLVS BEFORE SEAT DRN	M7	MVP29Q	MVP29Q	0
1TB12-4	1MOV4659	1 GS MS SEAL SUPPLY MOV	M7	MVP30Q	MVP30Q	0
1TB12-4	1MOV4656	1 GS MS SEAL REG BYP MOV	M7	MVP31Q	MVP31Q	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-4	1MOV4657	1 GS SEAL DUMP BYP MOV	M7	MVP32Q	MVP32Q	0
1TB12-4	1MOV4026	MS TO 11 MSR 2ND STG	M7	MVP51Q	MVP51Q	0
1TB12-4	1FANGSPACK11	11 GLAND STEAM PACKING EXH (1M0633)	M7	VAP33Q	VAP33Q	0
1TB12-3 (CP)	1M0659	11 COND PP LUBE OIL COOLER FAN MTR (1M0659)	M7	VAP59Q	VAP59Q	0
1TB12-2 (CP)	1RECEPTMCC116A	POWER RECEPT MCC116 (1W48, 1W49, 1W50, 1W51)	M8	BUQ05Q	BUQ05Q	0
1TB12-2 (CP)	1PNL1C54	12B AMERTAP CNTL PNL 1C54	M8	BUQ23Q	BUQ23Q	0
1TB12-2 (CP)	1PNL1C55	13A AMERTAP CNTL PNL 1C55	M8	BUQ24Q	BUQ24Q	0
1TB12-2 (CP)	1PNL1C56	13B AMERTAP CNTL PNL 1C56	M8	BUQ25Q	BUQ25Q	0
1TB12-4	1PUMPEHC12	12 MT EHC HYD UNIT PUMP (1MB316)	M8	MB316Q	MB316Q	0
1TB12-2 (CP)	1PUMPCAR14	14 CAR VAC PP (1MB317)	M8	MB317Q	MB317Q	0
1TB12-2 (CP)	1PUMPSMP11TB11	11 TURB BLDG SUMP 11 PP (1M1642)	M8	MBQ42Q	MBQ42Q	0
1TB12-2 (CP)	1PUMPSMP11TB12	11 TURB BLDG SUMP PP 12 (1M1643)	M8	MBQ43Q	MBQ43Q	0
1TB12-2 (CP)	1PUMPMSBD12	12 AUX BD TK PUMP (1M1656)	M8	MBQ56Q	MBQ56Q	0
1TB12-3 (CP)	1PUMPCDMTRLO12	12 CD PP LO CLR PP (1M1606)	M8	MMQ06Q	MMQ06Q	0
1TB12-3 (CP)	1PUMPCDMTRLO13	13 CD PP LO CLR PP (1M1607)	M8	MMQ07Q	MMQ07Q	0
1TB12-2 (CP)	1PUMPCARSWP13	13 CAR SEAL WTR PUMP (1M1636)	M8	MMQ36Q	MMQ36Q	0
1TB12-2 (CP)	1PUMPCARSWP14	14 CAR SEAL WTR PUMP (1M1637)	M8	MMQ37Q	MMQ37Q	0
1TB12-3 (CP)	1MOV5237	12B COND'R INLET STRNR VLV	M8	MVQ02Q	MVQ02Q	0
1TB12-3 (CP)	1MOV5241	13A COND'R STRNR INLET VLV	M8	MVQ03Q	MVQ03Q	0
1TB12-3 (CP)	1MOV5245	13B COND'R INLET STRNR VLV	M8	MVQ04Q	MVQ04Q	0
1TB12-4	1MOV4022	11 MSR 2ND STG RHT SUPP DRN	M8	MVQ29Q	MVQ29Q	0
1TB12-4	1MOV4023	12 MSR 2ND STAGE RHT SUPP DRN	M8	MVQ30Q	MVQ30Q	0
1TB12-4	1MOV4678	AUX STM SEAL SUPPLY VLV	M8	MVQ31Q	MVQ31Q	0
1TB12-4	1MOV4025	MS TO 11 MSR 2ND STG	M8	MVQ51Q	MVQ51Q	0
1TB12-4	1M1633	12 STM PACKING EXH MTR (1M1633)	M8	VAQ33Q	VAQ33Q	0
1TB12-3 (CP)	1M1659	12 COND PP LUBE OIL COOLER FAN MTR (1M1659)	M8	VAQ59Q	VAQ59Q	0
1TB12-3 (CP)	1M1660	13 COND PP LUBE OIL COOLER FAN MTR (1M1660)	M8	VAQ60Q	VAQ60Q	0
1TB12-4	1HXSTMSEALEXH11	11 CD STM SEAL EXH CNDSR	MC	MCCOMM	HXSSEB	0
1TB12-4	1HXSTMSEALEXH11	11 CD STM SEAL EXH CNDSR	MC	MCCOMM	HXSSEP	0
1TB12-1	1HXCDLPH13A	13A LP COND/FW HTR	MC	MCFH40	HX13AB	0
1TB12-1	1HXCDLPH13A	13A LP COND/FW HTR	MC	MCFH40	HX13AP	0
1TB12-1	1HXCDLPH13B	13B LP COND/FW HTR	MC	MCFH50	HX13BB	0
1TB12-1	1HXCDLPH13B	13B LP COND/FW HTR	MC	MCFH50	HX13BP	0
1TB12-1	1FY4486	CD BOOSTER PP MINI FLOW CONTROL FY	MC	MCMN40	FY486R	0
1TB12-1	1FT4484	11 SGFP SUCT FLO XMTR	MC	MCMN51	FT484R	0
1TB12-1	1FY4484	11 FW SGFP SUCT FLO DEVICE	MC	MCMN51	FY484R	0
1TB12-1	1FY4485	11 & 12 COND BSTR PP MINI FLO DEVICE	MC	MCMN52	FY485R	0
1TB12-3 (CP)	1YS4414	COND PMP MOTOR 11 OIL STRAINER	MC	MCPP10	YS414P	0
1TB12-3 (CP)	1YS4421	COND PMP MOTOR 12 OIL STRAINER	MC	MCPP20	YS421P	0
1TB12-3 (CP)	1YS4428	COND PMP MOTOR 13 OIL STRAINER	MC	MCPP30	YS428P	0
1TB12-3 (CP)	1PUMPCDMTRLO11	11 CD PP LO CLR PP (1M0607)	MC	MML11R	MML11R	0
1TB12-3 (CP)	1PUMPCDMTRLO12	12 CD PP LO CLR PP (1M1606)	MC	MML12R	MML12R	0
1TB12-3 (CP)	1PUMPCDMTRLO13	13 CD PP LO CLR PP (1M1607)	MC	MML13R	MML13R	0
1TB12-3 (CP)	1PUMPCD11	11 CONDENSATE PUMP (1MA207)	MC	MYC11R	MYC11R	0
1TB12-3 (CP)	1PUMPCD12	12 CONDENSATE PUMP (1MA307)	MC	MYC12R	MYC12R	0
1TB12-3 (CP)	1PUMPCD13	13 CONDENSATE PUMP (1MA308)	MC	MYC13R	MYC13R	0
A315	1PCV4415	COND PP 11 SEAL WTR REG	MC	PC415R	PC415R	0
A315	1PCV4422	COND PP 12 SEAL WTR REG	MC	PC422R	PC422R	0
A315	1PCV4506	COND PP 13 SEAL WTR REG	MC	PC506R	PC506R	0
1TB12-3 (CP)	1M0659	11 COND PP LUBE OIL COOLER FAN MTR (1M0659)	MC	VAL11R	VAL11R	0
1TB12-3 (CP)	1M1659	12 COND PP LUBE OIL COOLER FAN MTR (1M1659)	MC	VAL12R	VAL12R	0
1TB12-3 (CP)	1M1660	13 COND PP LUBE OIL COOLER FAN MTR (1M1660)	MC	VAL13R	VAL13R	0
A315	1CV4070	11 S/G MS TO AFW PP TURB	MH	BHEF1I	Open	12
A315	1CV4071	12 S/G MS TO AFW PP TURB	MH	BHEF1I	Open	12
1TB12-4	1PUMPCDSGFPBST	12 CD SGFP SEAL WTR BSTR PP (1M0152)	MN	MML12R	MML12R	0
1TB12-4	1PUMPCDSGFPBST	12 CD SGFP SEAL WTR BSTR PP (1M0152)	MN	MML12S	MML12S	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A315	1MOV4516	11 SG FW ISOL	MN	MNBYP1	MV516P	0
A315	1MOV4517	12 SG FW ISOL	MN	MNBYP2	MV517P	0
1TB12-1	1FT4484A	11 FW SGFP MINI FLO XMTR	MN	MNFW59	FT84AR	0
1TB12-1	1FT4485A	12 FW SGFP MINI FLO XMTR	MN	MNFW69	FT85AR	0
1TB12-4	1PS4487	CD SGFP SEAL WATER BOOSTER PPS DISCHARGE PS	MN	PS487D	PS487D	0
A315	1CV4043	MSIV 11	MS	MT043C	MT043C	0
A315	1CV4048	MSIV 12	MS	MT048C	MT048C	0
1TB12-4	1COMPIA11	11 IA COMPR (1MB118)	N2	CM118Q	CM118Q	0
1TB12-4	1COMPPA11	11 PA COMPR (1MB123)	N2	CM123Q	CM123Q	0
1TB12-4	1COMPIA12	12 IA COMPR (1MB418)	N4	CM418Q	CM418Q	0
1TB12-4	1TCV1634	12 I/A COMPR TEMP REG VLV	NR	C7S34O	C7S34O	0
1TB12-4	1COMPIA11	11 IA COMPR (1MB118)	NR	CM011R	CM011R	0
1TB12-4	1COMPIA11	11 IA COMPR (1MB118)	NR	CM011S	CM011S	0
1TB12-4	1COMPIA12	12 IA COMPR (1MB418)	NR	CM012R	CM012R	0
1TB12-4	1COMPIA12	12 IA COMPR (1MB418)	NR	CM012S	CM012S	0
1TB12-4	1COMPIA11	11 IA COMPR (1MB118)	NR	CMP11R	CMP11R	0
1TB12-4	1ACCIA11	11 IA COMPR RCVR	NR	IPIA99	TKA11B	0
1TB12-4	1SV1633	12 I/A COMPR A/CLR SRW INLET	NR	IVS33D	IVS33D	0
1TB12-4	1SV1634	12 I/A COMPR SRW INLET	NR	IVS34D	IVS34D	0
1TB12-4	1TCV1630	11 I/A COMPR TEMP REG VLV	NR	NRIA11	C7630P	0
1TB12-4	1MUFFIAFILT11	11 IA COMPR FILTER SILENCER	NR	NRIA11	FL011P	0
1TB12-4	1HXIAA/CLR11	11 IA COMPR AFTER COOLER	NR	NRIA11	HXA11P	0
1TB12-4	1HXIAI/CLR11	11 IA COMPR INTER COOLER	NR	NRIA11	HXI11B	0
1TB12-4	1HXIAI/CLR11	11 IA COMPR INTER COOLER	NR	NRIA11	HXI11P	0
1TB12-4	1HXIAA/CLR11	11 IA COMPR AFTER COOLER	NR	NRIA11	HXIA1P	0
1TB12-4	1HXIAI/CLR12	12 IA COMPR INTER COOLER	NR	NRIA11	HXII1P	0
1TB12-4	1SV2062	COMPR LOAD SV	NR	NRIA11	IV062D	0
1TB12-4	1SV2062	COMPR LOAD SV	NR	NRIA11	IV062T	0
1TB12-4	1SV1629	11 I/A COMPR A/CLR SRW INLET	NR	NRIA11	IV629T	0
1TB12-4	1SV1630	11 I/A COMPR SRW INLET	NR	NRIA11	IV630T	0
1TB12-4	1PS2062	11 IA COMPR UNLOADER CONTR PS	NR	NRIA11	PS062R	0
1TB12-4	1PS2063	11 IA COMPR OIL PS LOW	NR	NRIA11	PS063R	0
1TB12-4	1TE1630	11 SRW IA COMPR OUT TE	NR	NRIA11	TE630R	0
1TB12-4	1TS2063	11 IA COMPR A/CLR OUT TS HI	NR	NRIA11	TS063R	0
1TB12-4	1TS2082	11 IA COMPR I/CLR OUT TS	NR	NRIA11	TS082R	0
1TB12-4	1TCV1634	12 I/A COMPR TEMP REG VLV	NR	NRIA12	C7S34P	0
1TB12-4	1MUFFIAFILT12	12 IA COMPR FILTER SILENCER	NR	NRIA12	FLS12P	0
1TB12-4	1HXIAA/CLR12	12 IA COMPR AFTER COOLER	NR	NRIA12	HXAS2P	0
1TB12-4	1HXIAI/CLR12	12 IA COMPR INTER COOLER	NR	NRIA12	HXIS2B	0
1TB12-4	1HXIAI/CLR12	12 IA COMPR INTER COOLER	NR	NRIA12	HXIS2P	0
1TB12-4	1SV2064	12 IA COMPR LOADING SV	NR	NRIA12	IV064D	0
1TB12-4	1SV2064	12 IA COMPR LOADING SV	NR	NRIA12	IV064T	0
1TB12-4	1SV1633	12 I/A COMPR A/CLR SRW INLET	NR	NRIA12	IVS33T	0
1TB12-4	1SV1634	12 I/A COMPR SRW INLET	NR	NRIA12	IVS34T	0
1TB12-4	1PS2064	12 IA COMPR UNLOADER CONTR PS	NR	NRIA12	PS064R	0
1TB12-4	1PS2067	12 IA RCVR 11 TO COMPR 11 CONTR PS	NR	NRIA12	PS067R	0
1TB12-4	1PS2065	12 IA COMPR OIL PS LOW	NR	NRIA12	PSS65R	0
1TB12-4	1TE1634	12 SRW IA COMPR OUT TE	NR	NRIA12	TES34R	0
1TB12-4	1TS2065	12 IA COMPR A/CLR OUT TS HI	NR	NRIA12	TSS65R	0
1TB12-4	1TS2084	12 IA COMPR I/CLR OUT TS	NR	NRIA12	TSS84R	0
1TB12-4	1HXIAA/CLR11	11 IA COMPR AFTER COOLER	NR	NRIA99	HXA11B	0
1TB12-4	1HXIAA/CLR12	12 IA COMPR AFTER COOLER	NR	NRIA99	HXAS2B	0
1TB12-4	1ACCIA11	11 IA COMPR RCVR	NR	NRIA99	TK011B	0
1TB12-4	1ACCIA12	12 IA COMPR RCVR	NR	NRIA99	TK012B	0
1TB12-4	1NP1113B	IA DRYER 12 LOCAL CONTROL PNL	NR	NRIAHD	COD12R	0
1TB12-4	1FU1NP113B/FU3	12 IA DRYER CONTR CKT FU	NR	NRIAHD	FUC12R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-4	1PCV2003	IA DRYER 12 PILOT REG PCV	NR	NRIAHD	PC003R	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	NR	NRPA01	HXAP1B	0
1TB12-4	1ACCPA11	11 PA COMPR RCVR	NR	NRPA01	TKP11B	0
1TB12-4	1TCV1636	11 P/A COMPR TEMP REG VLV	NR	NRPA11	C7636P	0
1TB12-4	1MUFFPAFILT11	11 PA COMPR FILTER SILENCER	NR	NRPA11	FLP11P	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	NR	NRPA11	HXAP1P	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	NR	NRPA11	HXPA1P	0
1TB12-4	1HXPAI/CLR11	11 PA COMPR INTER COOLER	NR	NRPA11	HXPI1B	0
1TB12-4	1HXPAI/CLR11	11 PA COMPR INTER COOLER	NR	NRPA11	HXPI1P	0
1TB12-4	1SV2054	11 PA COMPR LOADING SV	NR	NRPA11	IV154D	0
1TB12-4	1SV2054	11 PA COMPR LOADING SV	NR	NRPA11	IV154T	0
1TB12-4	1SV1635	11 P/A COMPR A/CLR SRW INLET	NR	NRPA11	IV635T	0
1TB12-4	1SV1636	11 P/A COMPR SRW INLET	NR	NRPA11	IV636T	0
1TB12-4	1PS2055	11 PA COMPR OIL PS LOW	NR	NRPA11	PS055R	0
1TB12-4	1PS2054	11 PA COMPR UNLOADER CONTR PS	NR	NRPA11	PS154R	0
1TB12-4	1TE1636	11 SRW PA COMPR OUT TE	NR	NRPA11	TE636R	0
1TB12-4	1TS2055	11 PA COMPR A/CLR OUT TS HI	NR	NRPA11	TS055R	0
1TB12-4	1TS2086	11 PA COMPR I/CLR OUT TS	NR	NRPA11	TS086R	0
1TB12-4	1CV2059	1 PA HDR ISOL CV	NR	NRPALP	C3059C	0
1TB12-4	1SV2059	PLNT AIR HEADER ISOL VLV CONT	NR	NRPALP	C3059C	0
1TB12-4	1CV2059	1 PA HDR ISOL CV	NR	NRPALP	C3059T	0
1TB12-4	1SV2059	PLNT AIR HEADER ISOL VLV CONT	NR	NRPALP	C3059T	0
1TB12-4	1PS2059	1 PA ISOL VLV CONTR PS	NR	NRPALP	PS059D	0
1TB12-4	1PS2059	1 PA ISOL VLV CONTR PS	NR	NRPALP	PS059R	0
1TB12-4	1CV2061	11 PA TO IA AUTO CROSSCONNECT CV	NR	NRPAXA	C3061O	0
1TB12-4	1SV2061	PLNT AIR TO INST AIR VLV CONT	NR	NRPAXA	C3061O	0
1TB12-4	1CV2061	11 PA TO IA AUTO CROSSCONNECT CV	NR	NRPAXA	C3061P	0
1TB12-4	1SV2061	PLNT AIR TO INST AIR VLV CONT	NR	NRPAXA	C3061P	0
1TB12-4	1PS2061	1 PA TO IA SV CONTR PS	NR	NRPAXA	PS061D	0
1TB12-4	1PS2061	1 PA TO IA SV CONTR PS	NR	NRPAXA	PS061R	0
1TB12-4	1PS2062	11 IA COMPR UNLOADER CONTR PS	NR	PS062D	PS062D	0
1TB12-4	1PS2064	12 IA COMPR UNLOADER CONTR PS	NR	PS064D	PS064D	0
1TB12-4	1PS2067	12 IA RCVR 11 TO COMPR 11 CONTR PS	NR	PS067D	PS067D	0
1TB12-4	1PS2054	11 PA COMPR UNLOADER CONTR PS	NR	PS154D	PS154D	0
1TB12-4	1COMPPA11	11 PA COMPR (1MB123)	NS	CMP11R	CMP11R	0
1TB12-4	1SV2054	11 PA COMPR LOADING SV	NS	NRCMP1	IV154D	0
1TB12-4	1SV2054	11 PA COMPR LOADING SV	NS	NRCMP1	IV154T	0
1TB12-4	1PS2054	11 PA COMPR UNLOADER CONTR PS	NS	NRCMP1	PS154R	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	NS	NRDPP1	HXAP1P	0
1TB12-4	1HXPAI/CLR11	11 PA COMPR INTER COOLER	NS	NRDPP1	HXPI1B	0
1TB12-4	1MUFFPAFILT11	11 PA COMPR FILTER SILENCER	NS	NRHVP1	FLP11P	0
1TB12-4	1PS2055	11 PA COMPR OIL PS LOW	NS	NRPSP1	PS055R	0
1TB12-4	1TS2055	11 PA COMPR A/CLR OUT TS HI	NS	NRPSP1	TS055R	0
1TB12-4	1TS2086	11 PA COMPR I/CLR OUT TS	NS	NRPSP1	TS086R	0
1TB12-4	1TCV1636	11 P/A COMPR TEMP REG VLV	NS	NRSW13	C7636P	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	NS	NRSW13	HXPA1P	0
1TB12-4	1HXPAI/CLR11	11 PA COMPR INTER COOLER	NS	NRSW13	HXPI1P	0
1TB12-4	1SV1635	11 P/A COMPR A/CLR SRW INLET	NS	NRSW13	IV635T	0
1TB12-4	1SV1636	11 P/A COMPR SRW INLET	NS	NRSW13	IV636T	0
1TB12-4	1TE1636	11 SRW PA COMPR OUT TE	NS	NRSW13	TE636R	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	NS	NSPA01	HXAP1B	0
1TB12-4	1ACCPA11	11 PA COMPR RCVR	NS	NSPA01	TKP11B	0
1TB12-4	1CV2059	1 PA HDR ISOL CV	NS	NSPALP	C3059C	0
1TB12-4	1SV2059	PLNT AIR HEADER ISOL VLV CONT	NS	NSPALP	C3059C	0
1TB12-4	1CV2059	1 PA HDR ISOL CV	NS	NSPALP	C3059T	0
1TB12-4	1SV2059	PLNT AIR HEADER ISOL VLV CONT	NS	NSPALP	C3059T	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-4	1PS2059	1 PA ISOL VLV CONTR PS	NS	NSPALP	PS059D	0
1TB12-4	1PS2059	1 PA ISOL VLV CONTR PS	NS	NSPALP	PS059R	0
1TB12-4	1PS2054	11 PA COMPR UNLOADER CONTR PS	NS	PS154D	PS154D	0
1TB12-3 (CP)	1PUMPCD12	12 CONDENSATE PUMP (1MA307)	QC	QCMISC	MYCP2Q	0
1TB12-3 (CP)	1PUMPCD13	13 CONDENSATE PUMP (1MA308)	QC	QCMISC	MYCP3Q	0
1TB12-1	1HOSE12-16	1 FP TURB BLDG TYPE C HOSE STA	RL	RLFHSF	RLFHSF	0
1TB12-4	1HXIAA/CLR11	11 IA COMPR AFTER COOLER	S3	S3TBAL	ATIA1R	0
1TB12-4	1HXIAA/CLR12	12 IA COMPR AFTER COOLER	S3	S3TBAL	ATIA2R	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	S3	S3TBAL	ATPA1R	0
1TB12-4	1HXIAA/CLR11	11 IA COMPR AFTER COOLER	S4	S3TBAL	ATIA1R	0
1TB12-4	1HXIAA/CLR12	12 IA COMPR AFTER COOLER	S4	S3TBAL	ATIA2R	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	S4	S3TBAL	ATPA1R	0
1TB12-3 (CP)	1CV4406	CST TO HTWL M/U CV	T1	T1CS1F	C3406T	0
1TB12-3 (CP)	1I/P4406	COND STORAGE TO HOTWELL CONT	T1	T1CS1F	C3406T	0
1TB12-3 (CP)	1SV4406	CD STORAGE TO HOTWELL CONTROL SV	T1	T1CS1F	C3406T	0
1TB12-3 (CP)	1LT4405	CD CONDENSER HOTWELL LT	T1	T1CS1F	LT405R	0
A315	1CV4070	11 S/G MS TO AFW PP TURB	TG	BHEF1Y	Open	12
A315	1CV4071	12 S/G MS TO AFW PP TURB	TG	BHEF1Y	Open	12
1TB12-2 (CP)	1PUMPCARSWP11	11 CAR SEAL WTR PUMP (1M0636)	VC	MMS11R	MMS11R	0
1TB12-2 (CP)	1PUMPCARSWP12	12 CAR SEAL WTR PUMP (1M0637)	VC	MMS12R	MMS12R	0
1TB12-2 (CP)	1PUMPCARSWP13	13 CAR SEAL WTR PUMP (1M1636)	VC	MMS13R	MMS13R	0
1TB12-2 (CP)	1PUMPCAR11	11 CAR VAC PP (1MB203)	VC	MMV11R	MMV11R	0
1TB12-2 (CP)	1PUMPCAR12	12 CAR VAC PP (1MB217)	VC	MMV12R	MMV12R	0
1TB12-2 (CP)	1PUMPCAR13	13 CAR VAC PP (1MB303)	VC	MMV13R	MMV13R	0
1TB12-3 (CP)	1HS5225	11 CW PP WTRBX INL VLV HS	VC	VCCW1A	HS225T	0
1TB12-3 (CP)	1MOV5225	11A COND'R INLET STRNR VLV	VC	VCCW1A	MV225P	0
1TB12-3 (CP)	1HS5229	12 CW PP WTRBX INL VLV HS	VC	VCCW2A	HS229T	0
1TB12-3 (CP)	1MOV5229	11B COND'R INLET STRNR VLV	VC	VCCW2A	MV229P	0
1TB12-3 (CP)	1HS5233	13 CW PP WTRBX INL VLV HS	VC	VCCW3A	HS233T	0
1TB12-3 (CP)	1MOV5233	12A COND'R INLET STRNR VLV	VC	VCCW3A	MV233P	0
1TB12-3 (CP)	1HS5237	14 CW PP WTRBX INL VLV HS	VC	VCCW4A	HS237T	0
1TB12-3 (CP)	1MOV5237	12B COND'R INLET STRNR VLV	VC	VCCW4A	MV237P	0
1TB12-3 (CP)	1HS5241	15 CW PP WTRBX INL VLV HS	VC	VCCW5A	HS241T	0
1TB12-3 (CP)	1MOV5241	13A COND'R STRNR INLET VLV	VC	VCCW5A	MV241P	0
1TB12-3 (CP)	1HS5245	15 CW PP WTRBX INL VLV HS	VC	VCCW6A	HS245T	0
1TB12-3 (CP)	1MOV5245	13B COND'R INLET STRNR VLV	VC	VCCW6A	MV245P	0
1TB12-4	1CV5098	MISC DRN TK TO COND OUT CV	VC	VCMDTK	C3098C	0
1TB12-4	1SV5098	MISC TURB DRN TNK LEV CONT VLV	VC	VCMDTK	C3098C	0
1TB12-4	1CV5098	MISC DRN TK TO COND OUT CV	VC	VCMDTK	C3098T	0
1TB12-4	1SV5098	MISC TURB DRN TNK LEV CONT VLV	VC	VCMDTK	C3098T	0
1TB12-4	1LS5098	11 CD MISC DRN TANK LO LS	VC	VCMDTK	LS098D	0
1TB12-4	1LS5098	11 CD MISC DRN TANK LO LS	VC	VCMDTK	LS098R	0
1TB12-2 (CP)	1CV1754	11 CAR UNIT MOTIVE AIR	VC	VCP011	C3754P	0
1TB12-2 (CP)	1CV1755	11 CAR UNIT SYS DIAPHRAM	VC	VCP011	C3755P	0
1TB12-2 (CP)	1LCV1753	11 CAR SEP	VC	VCP011	LC753R	0
1TB12-2 (CP)	1PS1755	11 CAR CNDSR VAC PP SEAL LOW PRESSURE WTR PS	VC	VCP011	PS755R	0
1TB12-2 (CP)	1CV1757	12 CAR UNIT MOTIVE AIR	VC	VCP012	C3757P	0
1TB12-2 (CP)	1CV1758	12 CAR UNIT SYS DIAPHRAM	VC	VCP012	C3758P	0
1TB12-2 (CP)	1LCV1756	12 CAR SEP LO LVL CONTROL	VC	VCP012	LC756R	0
1TB12-2 (CP)	1PS1758	12 CAR CNDSR VAC PP SEAL WTR LOW PRESSURE PS	VC	VCP012	PS758R	0
1TB12-2 (CP)	1CV1760	13 CAR UNIT MOTIVE AIR	VC	VCP013	C3760P	0
1TB12-2 (CP)	1CV1761	13 CAR UNIT SYS DIAPHRAM	VC	VCP013	C3761P	0
1TB12-2 (CP)	1LCV1759	SEP LO LVL CONTROL	VC	VCP013	LC759R	0
1TB12-2 (CP)	1PS1761	13 CAR CNDSR VAC PP SEAL WTR LOW PRESSURE PS	VC	VCP013	PS761R	0
1TB12-3 (CP)	1HXCARSWC11	11 CAR SEAL WTR CLR	VC	VCS011	HXS11B	0
1TB12-3 (CP)	1HXCARSWC11	11 CAR SEAL WTR CLR	VC	VCS011	HXS11P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-3 (CP)	1HXCARSWC12	12 CAR SEAL WTR CLR	VC	VCS012	HXS12B	0
1TB12-3 (CP)	1HXCARSWC12	12 CAR SEAL WTR CLR	VC	VCS012	HXS12P	0
1TB12-3 (CP)	1HXCARSWC13	13 CAR SEAL WTR CLR	VC	VCS013	HXS13B	0
1TB12-3 (CP)	1HXCARSWC13	13 CAR SEAL WTR CLR	VC	VCS013	HXS13P	0
1TB12-4	1CV4681	MN STM SEAL REG	VC	VCTGS1	CV681O	0
1TB12-4	1CV4681	MN STM SEAL REG	VC	VCTGS1	CV681P	0
1TB12-4	1MOV4659	1 GS MS SEAL SUPPLY MOV	VC	VCTGS1	MV659P	0
1TB12-4	1PC4681	GS STM SEAL FEED VLV CONTROL PC	VC	VCTGS1	PC681R	0

Flood Evaluation Query

CF-11B-F315AN ✱

10-Dec-98

TOP	PM	EVALUATION	RI
AE	1BKR	1 breaker challenge.	PAJ
AF	2BKR	2 breaker challenges.	PAJ
BS	F	TBV modulation circuit fails to provide control signals.	PAJ
F1	Spec Impt	Steam admission Control valves 1CV4070/4071 are normally closed, and will fail as-is(closed) on loss of power. Therefore, operators will be unable to open valves. These valves continuously have air (closing the valve). The operators may bleed air to open valve if need be.	PAJ
F3	None	Steam Admission SV's 1SV4070/4071 are covered under top event F1.	PAJ
FC	None	If the AFW doors are open when the wall breaks between the Main Steam Piping Area and the Turbine Bldg, the water will quickly rush during initial surge. Then all water will propogate to the condenser pit. The fire damper is located well above surge area. The doors are only open when AFW Pump room cooling is not operational.	PAJ
FT	Spec Impt	1MOV4516/4517 are normally open and fail as-is. Therefore, if the SGFPs do not trip (which they should), then this top event will fail.	PAJ
IP	None	Air accumulator only. No impact.	PAJ
K5	Spec Impt	Since top event MC fails in this scenario and this hose station is under water. All SFs with either of these make-up options available should be failed.	PAJ
LF	F	1CV4405/4406 fail closed. 1MOV4516/4517 are normally open and fail as-is.	PAJ
M1	2BKR	2 breaker challenges.	PAJ
M2	2BKR	2 breaker challenges.	PAJ
M7	19BKR	19 breaker challenges.	PAJ
M8	23BKR	23 breaker challenges.	PAJ
MC	F	11, 12 and 13 Condensate Pumps fail.	PAJ
MH	Spec Impt	1CV4070/4071 are normally closed and fail as-is on loss of power. These valves must be locally vented.	PAJ

This flood is deleted. See note 12 in RAN 98-065 Sect 5.4
JPR

TOP	PM	EVALUATION	RI
MN	Spec Impt	SGFP Seal Booster Pump 12 Train fails to provide flow to common Header. 1MOV4516/4517 are normally open and fail as-is. The loss of the 1FT4484A/4485A circuit will result in the I/Ps sending full air closing CVs.	PAJ
MS	F	1CV4043/4048 are normally open and fail as-is.	PAJ
N2	2BKR	2 breaker challenges.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
NR	F	11 / 12 IA compressors and 11 Plant Air Compressors fail. 1CV2059/2061 both fail closed on loss of power resulting in the inability to use Unit 1 compressors for Unit 1.	PAJ
NS	Spec Impt	11 Plant Air Compressors fails. Still have Unit 2 compressors.	PAJ
QC	2BKR	2 breaker challenges.	PAJ
RL	None	This hose station is assumed not to fail during initial surge.	PAJ
S3	None	Heat Exchangers only. Aftercoolers assumed not to fail.	PAJ
S4	None	Heat Exchangers only. Aftercoolers assumed not to fail.	PAJ
T1	None	1CV4406 fails closed on loss of power.	PAJ
TG	None	Steam admission Control valves 1CV4070/4071 are normally closed, and will fail as-is(closed) on loss of power. Therefore, operators will be unable to open valves. These valves continuously have air (closing the valve). The operators may bleed air to open valve if need be. Covered under Top F1.	PAJ
VC	F	11, 12 and 13 condensate vacuum pumps fail.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-3 (CP)	1PUMPCD11	11 CONDENSATE PUMP (1MA207)	AE	MYCP1Q	MYCP1Q	0
1TB12-3 (CP)	1PUMPCD12	12 CONDENSATE PUMP (1MA307)	AF	MYCP2Q	MYCP2Q	0
1TB12-3 (CP)	1PUMPCD13	13 CONDENSATE PUMP (1MA308)	AF	MYCP3Q	MYCP3Q	0
1TB12-4	1PT4056	MS TURB BYPASS VLV CONTROL PT	BS	BS4056	PT056R	0
A315	1CV4070	11 S/G MS TO AFW PP TURB	F1	F1CV70	C8070O	12
A315	1CV4070	11 S/G MS TO AFW PP TURB	F1	F1CV70	C8070P	12
A315	1CV4070A	11 S/G AFW MAIN STM BYPASS VALVE	F1	F1CV70	C870AO	0
A315	1CV4071	12 S/G MS TO AFW PP TURB	F1	F1CV71	C8071O	12
A315	1CV4071	12 S/G MS TO AFW PP TURB	F1	F1CV71	C8071P	12
A315	1CV4071A	12 S/G AFW MAIN STM BYPASS VALVE	F1	F1CV71	C871AO	0
A315	1CV4070	11 S/G MS TO AFW PP TURB	F3	BHEF31	Open	12
A315	1CV4070A	11 S/G AFW MAIN STM BYPASS VALVE	F3	BHEF31	Open	0
A315	1CV4071	12 S/G MS TO AFW PP TURB	F3	BHEF31	Open	12
A315	1CV4071A	12 S/G AFW MAIN STM BYPASS VALVE	F3	BHEF31	Open	0
1TB12-1	1AFWDOORS	AFW DOUBLE DOORS	FC	Dummy	N/A	0
1TB12-1	1FDTB12W1	AFW RM SUPPLY FROM AFW TO TB12 FD	FC	FDAMPR	FD002I	0
A315	1MOV4516	11 SG FW ISOL	FT	FTFW10	MV516C	0
A315	1MOV4516	11 SG FW ISOL	FT	FTFW10	MV516T	0
A315	1MOV4517	12 SG FW ISOL	FT	FTFW20	MV517C	0
A315	1MOV4517	12 SG FW ISOL	FT	FTFW20	MV517T	0
1TB12-4	1ACCIA11	11 IA COMPR RCVR	IP	IPIA99	TK11B	0
1TB12-1	1HOSE12-16	1 FP TURB BLDG TYPE C HOSE STA	K5	K5FIRE	K5FHSF	0
1TB12-3 (CP)	1CV4406	CST TO HTWL M/U CV	LF	LFMUCV	C3406O	0
1TB12-3 (CP)	1I/P4406	COND STORAGE TO HOTWELL CONT	LF	LFMUCV	C3406O	0
1TB12-3 (CP)	1SV4406	CD STORAGE TO HOTWELL CONTROL SV	LF	LFMUCV	C3406O	0
1TB12-3 (CP)	1CV4406	CST TO HTWL M/U CV	LF	LFMUCV	C3406P	0
1TB12-3 (CP)	1I/P4406	COND STORAGE TO HOTWELL CONT	LF	LFMUCV	C3406P	0
1TB12-3 (CP)	1SV4406	CD STORAGE TO HOTWELL CONTROL SV	LF	LFMUCV	C3406P	0
1TB12-3 (CP)	1CV4405	HOTWELL TO COND STORAGE VLV	LF	LFMUCV	C3504T	0
1TB12-3 (CP)	1I/P4405	HOTWELL TO COND STORAGE CONT	LF	LFMUCV	C3504T	0
1TB12-3 (CP)	1LT4405	CD CONDENSER HOTWELL LT	LF	LFMUCV	LT405R	0
A315	1MOV4516	11 SG FW ISOL	LF	MNBYP1	MV516P	0
A315	1MOV4517	12 SG FW ISOL	LF	MNBYP2	MV417P	0
A315	1MOV4516	11 SG FW ISOL	LF	MV516O	MV516O	0
A315	1MOV4516	11 SG FW ISOL	LF	MV516P	MV516P	0
A315	1MOV4517	12 SG FW ISOL	LF	MV517O	MV517O	0
A315	1MOV4517	12 SG FW ISOL	LF	MV517P	MV517P	0
A315	1MOV4517	12 SG FW ISOL	M1	MVM26Q	MVM26Q	0
A315	1MOV4052	MSIV 12 BYP VLV	M1	MVM28Q	MVM28Q	0
A315	1MOV4516	11 SG FW ISOL	M2	MVN26Q	MVN26Q	0
A315	1MOV4045	MSIV 11 BYP VLV	M2	MVN28Q	MVN28Q	0
1TB12-2 (CP)	1PNL1C51	11A AMERTAP CNTL PNL 1C51	M7	BUP23Q	BUP23Q	0
1TB12-2 (CP)	1PNL1C52	11B AMERTAP CNTL PNL 1C52	M7	BUP24Q	BUP24Q	0
1TB12-2 (CP)	1PNL1C53	12A AMERTAP CNTL PNL 1C53	M7	BUP25Q	BUP25Q	0
1TB12-4	1PUMPEHC11	11 MT EHC HYD UNIT PUMP (1MB216)	M7	MB216Q	MB216Q	0
1TB12-2 (CP)	1PUMPCAR12	12 CAR VAC PP (1MB217)	M7	MB217Q	MB217Q	0
1TB12-2 (CP)	1PUMPMSBD11	11 AUX BD TK PUMP (1M0671)	M7	MBP71Q	MBP71Q	0
1TB12-3 (CP)	1PUMPCDMTRLO11	11 CD PP LO CLR PP (1M0607)	M7	MMP07Q	MMP07Q	0
1TB12-2 (CP)	1PUMPCARSWP11	11 CAR SEAL WTR PUMP (1M0636)	M7	MMP36Q	MMP36Q	0
1TB12-2 (CP)	1PUMPCARSWP12	12 CAR SEAL WTR PUMP (1M0637)	M7	MMP37Q	MMP37Q	0
1TB12-3 (CP)	1MOV5225	11A COND'R INLET STRNR VLV	M7	MVP02Q	MVP02Q	0
1TB12-3 (CP)	1MOV5229	11B COND'R INLET STRNR VLV	M7	MVP03Q	MVP03Q	0
1TB12-3 (CP)	1MOV5233	12A COND'R INLET STRNR VLV	M7	MVP04Q	MVP04Q	0
1TB12-4	1MOV4658	MN CONT VLVS BEFORE SEAT DRN	M7	MVP29Q	MVP29Q	0
1TB12-4	1MOV4659	1 GS MS SEAL SUPPLY MOV	M7	MVP30Q	MVP30Q	0
1TB12-4	1MOV4656	1 GS MS SEAL REG BYP MOV	M7	MVP31Q	MVP31Q	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-4	1MOV4657	1 GS SEAL DUMP BYP MOV	M7	MVP32Q	MVP32Q	0
1TB12-4	1MOV4026	MS TO 11 MSR 2ND STG	M7	MVP51Q	MVP51Q	0
1TB12-4	1FANGSPACK11	11 GLAND STEAM PACKING EXH (1M0633)	M7	VAP33Q	VAP33Q	0
1TB12-3 (CP)	1M0659	11 COND PP LUBE OIL COOLER FAN MTR (1M0659)	M7	VAP59Q	VAP59Q	0
1TB12-2 (CP)	1RECEPTMCC116A	POWER RECEPT MCC116 (1W48, 1W49, 1W50, 1W51)	M8	BUQ05Q	BUQ05Q	0
1TB12-2 (CP)	1PNL1C54	12B AMERTAP CNTL PNL 1C54	M8	BUQ23Q	BUQ23Q	0
1TB12-2 (CP)	1PNL1C55	13A AMERTAP CNTL PNL 1C55	M8	BUQ24Q	BUQ24Q	0
1TB12-2 (CP)	1PNL1C56	13B AMERTAP CNTL PNL 1C56	M8	BUQ25Q	BUQ25Q	0
1TB12-4	1PUMPEHC12	12 MT EHC HYD UNIT PUMP (1MB316)	M8	MB316Q	MB316Q	0
1TB12-2 (CP)	1PUMPCAR14	14 CAR VAC PP (1MB317)	M8	MB317Q	MB317Q	0
1TB12-2 (CP)	1PUMPSMP11TB11	11 TURB BLDG SUMP 11 PP (1M1642)	M8	MBQ42Q	MBQ42Q	0
1TB12-2 (CP)	1PUMPSMP11TB12	11 TURB BLDG SUMP PP 12 (1M1643)	M8	MBQ43Q	MBQ43Q	0
1TB12-2 (CP)	1PUMPMSBD12	12 AUX BD TK PUMP (1M1656)	M8	MBQ56Q	MBQ56Q	0
1TB12-3 (CP)	1PUMPCDMTRLO12	12 CD PP LO CLR PP (1M1606)	M8	MMQ06Q	MMQ06Q	0
1TB12-3 (CP)	1PUMPCDMTRLO13	13 CD PP LO CLR PP (1M1607)	M8	MMQ07Q	MMQ07Q	0
1TB12-2 (CP)	1PUMPCARSWP13	13 CAR SEAL WTR PUMP (1M1636)	M8	MMQ36Q	MMQ36Q	0
1TB12-2 (CP)	1PUMPCARSWP14	14 CAR SEAL WTR PUMP (1M1637)	M8	MMQ37Q	MMQ37Q	0
1TB12-3 (CP)	1MOV5237	12B COND'R INLET STRNR VLV	M8	MVQ02Q	MVQ02Q	0
1TB12-3 (CP)	1MOV5241	13A COND'R STRNR INLET VLV	M8	MVQ03Q	MVQ03Q	0
1TB12-3 (CP)	1MOV5245	13B COND'R INLET STRNR VLV	M8	MVQ04Q	MVQ04Q	0
1TB12-4	1MOV4022	11 MSR 2ND STG RHT SUPP DRN	M8	MVQ29Q	MVQ29Q	0
1TB12-4	1MOV4023	12 MSR 2ND STAGE RHT SUPP DRN	M8	MVQ30Q	MVQ30Q	0
1TB12-4	1MOV4678	AUX STM SEAL SUPPLY VLV	M8	MVQ31Q	MVQ31Q	0
1TB12-4	1MOV4025	MS TO 11 MSR 2ND STG	M8	MVQ51Q	MVQ51Q	0
1TB12-4	1M1633	12 STM PACKING EXH MTR (1M1633)	M8	VAQ33Q	VAQ33Q	0
1TB12-3 (CP)	1M1659	12 COND PP LUBE OIL COOLER FAN MTR (1M1659)	M8	VAQ59Q	VAQ59Q	0
1TB12-3 (CP)	1M1660	13 COND PP LUBE OIL COOLER FAN MTR (1M1660)	M8	VAQ60Q	VAQ60Q	0
1TB12-4	1HXSTMSEALEXH11	11 CD STM SEAL EXH CNDSR	MC	MCCOMM	HXSSEB	0
1TB12-4	1HXSTMSEALEXH11	11 CD STM SEAL EXH CNDSR	MC	MCCOMM	HXSSEP	0
1TB12-1	1HXCDLPH13A	13A LP COND/FW HTR	MC	MCFH40	HX13AB	0
1TB12-1	1HXCDLPH13A	13A LP COND/FW HTR	MC	MCFH40	HX13AP	0
1TB12-1	1HXCDLPH13B	13B LP COND/FW HTR	MC	MCFH50	HX13BB	0
1TB12-1	1HXCDLPH13B	13B LP COND/FW HTR	MC	MCFH50	HX13BP	0
1TB12-1	1FY4486	CD BOOSTER PP MINI FLOW CONTROL FY	MC	MCMN40	FY486R	0
1TB12-1	1FT4484	11 SGFP SUCT FLO XMTR	MC	MCMN51	FT484R	0
1TB12-1	1FY4484	11 FW SGFP SUCT FLO DEVICE	MC	MCMN51	FY484R	0
1TB12-1	1FY4485	11 & 12 COND BSTR PP MINI FLO DEVICE	MC	MCMN52	FY485R	0
1TB12-3 (CP)	1YS4414	COND PMP MOTOR 11 OIL STRAINER	MC	MCPP10	YS414P	0
1TB12-3 (CP)	1YS4421	COND PMP MOTOR 12 OIL STRAINER	MC	MCPP20	YS421P	0
1TB12-3 (CP)	1YS4428	COND PMP MOTOR 13 OIL STRAINER	MC	MCPP30	YS428P	0
1TB12-3 (CP)	1PUMPCDMTRLO11	11 CD PP LO CLR PP (1M0607)	MC	MML11R	MML11R	0
1TB12-3 (CP)	1PUMPCDMTRLO12	12 CD PP LO CLR PP (1M1606)	MC	MML12R	MML12R	0
1TB12-3 (CP)	1PUMPCDMTRLO13	13 CD PP LO CLR PP (1M1607)	MC	MML13R	MML13R	0
1TB12-3 (CP)	1PUMPCD11	11 CONDENSATE PUMP (1MA207)	MC	MYC11R	MYC11R	0
1TB12-3 (CP)	1PUMPCD12	12 CONDENSATE PUMP (1MA307)	MC	MYC12R	MYC12R	0
1TB12-3 (CP)	1PUMPCD13	13 CONDENSATE PUMP (1MA308)	MC	MYC13R	MYC13R	0
A315	1PCV4415	COND PP 11 SEAL WTR REG	MC	PC415R	PC415R	0
A315	1PCV4422	COND PP 12 SEAL WTR REG	MC	PC422R	PC422R	0
A315	1PCV4506	COND PP 13 SEAL WTR REG	MC	PC506R	PC506R	0
1TB12-3 (CP)	1M0659	11 COND PP LUBE OIL COOLER FAN MTR (1M0659)	MC	VAL11R	VAL11R	0
1TB12-3 (CP)	1M1659	12 COND PP LUBE OIL COOLER FAN MTR (1M1659)	MC	VAL12R	VAL12R	0
1TB12-3 (CP)	1M1660	13 COND PP LUBE OIL COOLER FAN MTR (1M1660)	MC	VAL13R	VAL13R	0
A315	1CV4070	11 S/G MS TO AFW PP TURB	MH	BHEF1I	Open	12
A315	1CV4071	12 S/G MS TO AFW PP TURB	MH	BHEF1I	Open	12
1TB12-4	1PUMPCDSGFPBSTR	12 CD SGFP SEAL WTR BSTR PP (1M0152)	MN	MML12R	MML12R	0
1TB12-4	1PUMPCDSGFPBSTR	12 CD SGFP SEAL WTR BSTR PP (1M0152)	MN	MML12S	MML12S	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A315	1MOV4516	11 SG FW ISOL	MN	MNBYP1	MV516P	0
A315	1MOV4517	12 SG FW ISOL	MN	MNBYP2	MV517P	0
1TB12-1	1FT4484A	11 FW SGFP MINI FLO XMTR	MN	MNFW59	FT84AR	0
1TB12-1	1FT4485A	12 FW SGFP MINI FLO XMTR	MN	MNFW69	FT85AR	0
1TB12-4	1PS4487	CD SGFP SEAL WATER BOOSTER PPS DISCHARGE PS	MN	PS487D	PS487D	0
A315	1CV4043	MSIV 11	MS	MT043C	MT043C	0
A315	1CV4048	MSIV 12	MS	MT048C	MT048C	0
1TB12-4	1COMPIA11	11 IA COMPR (1MB118)	N2	CM118Q	CM118Q	0
1TB12-4	1COMPPA11	11 PA COMPR (1MB123)	N2	CM123Q	CM123Q	0
1TB12-4	1COMPIA12	12 IA COMPR (1MB418)	N4	CM418Q	CM418Q	0
1TB12-4	1TCV1634	12 I/A COMPR TEMP REG VLV	NR	C7S34O	C7S34O	0
1TB12-4	1COMPIA11	11 IA COMPR (1MB118)	NR	CM011R	CM011R	0
1TB12-4	1COMPIA11	11 IA COMPR (1MB118)	NR	CM011S	CM011S	0
1TB12-4	1COMPIA12	12 IA COMPR (1MB418)	NR	CM012R	CM012R	0
1TB12-4	1COMPIA12	12 IA COMPR (1MB418)	NR	CM012S	CM012S	0
1TB12-4	1COMPIA11	11 IA COMPR (1MB118)	NR	CMP11R	CMP11R	0
1TB12-4	1ACCIA11	11 IA COMPR RCVR	NR	IPIA99	TKA11B	0
1TB12-4	1SV1633	12 I/A COMPR A/CLR SRW INLET	NR	IVS33D	IVS33D	0
1TB12-4	1SV1634	12 I/A COMPR SRW INLET	NR	IVS34D	IVS34D	0
1TB12-4	1TCV1630	11 I/A COMPR TEMP REG VLV	NR	NRIA11	C7630P	0
1TB12-4	1MUFFIAFILT11	11 IA COMPR FILTER SILENCER	NR	NRIA11	FL011P	0
1TB12-4	1HXIAA/CLR11	11 IA COMPR AFTER COOLER	NR	NRIA11	HXA11P	0
1TB12-4	1HXIAI/CLR11	11 IA COMPR INTER COOLER	NR	NRIA11	HXI11B	0
1TB12-4	1HXIAI/CLR11	11 IA COMPR INTER COOLER	NR	NRIA11	HXI11P	0
1TB12-4	1HXIAA/CLR11	11 IA COMPR AFTER COOLER	NR	NRIA11	HXIA1P	0
1TB12-4	1HXIAI/CLR12	12 IA COMPR INTER COOLER	NR	NRIA11	HXII1P	0
1TB12-4	1SV2062	COMPR LOAD SV	NR	NRIA11	IV062D	0
1TB12-4	1SV2062	COMPR LOAD SV	NR	NRIA11	IV062T	0
1TB12-4	1SV1629	11 I/A COMPR A/CLR SRW INLET	NR	NRIA11	IV629T	0
1TB12-4	1SV1630	11 I/A COMPR SRW INLET	NR	NRIA11	IV630T	0
1TB12-4	1PS2062	11 IA COMPR UNLOADER CONTR PS	NR	NRIA11	PS062R	0
1TB12-4	1PS2063	11 IA COMPR OIL PS LOW	NR	NRIA11	PS063R	0
1TB12-4	1TE1630	11 SRW IA COMPR OUT TE	NR	NRIA11	TE630R	0
1TB12-4	1TS2063	11 IA COMPR A/CLR OUT TS HI	NR	NRIA11	TS063R	0
1TB12-4	1TS2082	11 IA COMPR I/CLR OUT TS	NR	NRIA11	TS082R	0
1TB12-4	1TCV1634	12 I/A COMPR TEMP REG VLV	NR	NRIA12	C7S34P	0
1TB12-4	1MUFFIAFILT12	12 IA COMPR FILTER SILENCER	NR	NRIA12	FLS12P	0
1TB12-4	1HXIAA/CLR12	12 IA COMPR AFTER COOLER	NR	NRIA12	HXAS2P	0
1TB12-4	1HXIAI/CLR12	12 IA COMPR INTER COOLER	NR	NRIA12	HXIS2B	0
1TB12-4	1HXIAI/CLR12	12 IA COMPR INTER COOLER	NR	NRIA12	HXIS2P	0
1TB12-4	1SV2064	12 IA COMPR LOADING SV	NR	NRIA12	IV064D	0
1TB12-4	1SV2064	12 IA COMPR LOADING SV	NR	NRIA12	IV064T	0
1TB12-4	1SV1633	12 I/A COMPR A/CLR SRW INLET	NR	NRIA12	IVS33T	0
1TB12-4	1SV1634	12 I/A COMPR SRW INLET	NR	NRIA12	IVS34T	0
1TB12-4	1PS2064	12 IA COMPR UNLOADER CONTR PS	NR	NRIA12	PS064R	0
1TB12-4	1PS2067	12 IA RCVR 11 TO COMPR 11 CONTR PS	NR	NRIA12	PS067R	0
1TB12-4	1PS2065	12 IA COMPR OIL PS LOW	NR	NRIA12	PSS65R	0
1TB12-4	1TE1634	12 SRW IA COMPR OUT TE	NR	NRIA12	TES34R	0
1TB12-4	1TS2065	12 IA COMPR A/CLR OUT TS HI	NR	NRIA12	TSS65R	0
1TB12-4	1TS2084	12 IA COMPR I/CLR OUT TS	NR	NRIA12	TSS84R	0
1TB12-4	1HXIAA/CLR11	11 IA COMPR AFTER COOLER	NR	NRIA99	HXA11B	0
1TB12-4	1HXIAA/CLR12	12 IA COMPR AFTER COOLER	NR	NRIA99	HXAS2B	0
1TB12-4	1ACCIA11	11 IA COMPR RCVR	NR	NRIA99	TK011B	0
1TB12-4	1ACCIA12	12 IA COMPR RCVR	NR	NRIA99	TK012B	0
1TB12-4	1NP1113B	IA DRYER 12 LOCAL CONTROL PNL	NR	NRIAHD	COD12R	0
1TB12-4	1FU1NP113B/FU3	12 IA DRYER CONTR CKT FU	NR	NRIAHD	FUC12R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-4	1PCV2003	IA DRYER 12 PILOT REG PCV	NR	NRIAHD	PC003R	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	NR	NRPA01	HXAP1B	0
1TB12-4	1ACCPA11	11 PA COMPR RCVR	NR	NRPA01	TKP11B	0
1TB12-4	1TCV1636	11 P/A COMPR TEMP REG VLV	NR	NRPA11	C7636P	0
1TB12-4	1MUFFPAFILT11	11 PA COMPR FILTER SILENCER	NR	NRPA11	FLP11P	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	NR	NRPA11	HXAP1P	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	NR	NRPA11	HXPA1P	0
1TB12-4	1HXPAI/CLR11	11 PA COMPR INTER COOLER	NR	NRPA11	HXPI1B	0
1TB12-4	1HXPAI/CLR11	11 PA COMPR INTER COOLER	NR	NRPA11	HXPI1P	0
1TB12-4	1SV2054	11 PA COMPR LOADING SV	NR	NRPA11	IV154D	0
1TB12-4	1SV2054	11 PA COMPR LOADING SV	NR	NRPA11	IV154T	0
1TB12-4	1SV1635	11 P/A COMPR A/CLR SRW INLET	NR	NRPA11	IV635T	0
1TB12-4	1SV1636	11 P/A COMPR SRW INLET	NR	NRPA11	IV636T	0
1TB12-4	1PS2055	11 PA COMPR OIL PS LOW	NR	NRPA11	PS055R	0
1TB12-4	1PS2054	11 PA COMPR UNLOADER CONTR PS	NR	NRPA11	PS154R	0
1TB12-4	1TE1636	11 SRW PA COMPR OUT TE	NR	NRPA11	TE636R	0
1TB12-4	1TS2055	11 PA COMPR A/CLR OUT TS HI	NR	NRPA11	TS055R	0
1TB12-4	1TS2086	11 PA COMPR I/CLR OUT TS	NR	NRPA11	TS086R	0
1TB12-4	1CV2059	1 PA HDR ISOL CV	NR	NRPALP	C3059C	0
1TB12-4	1SV2059	PLNT AIR HEADER ISOL VLV CONT	NR	NRPALP	C3059C	0
1TB12-4	1CV2059	1 PA HDR ISOL CV	NR	NRPALP	C3059T	0
1TB12-4	1SV2059	PLNT AIR HEADER ISOL VLV CONT	NR	NRPALP	C3059T	0
1TB12-4	1PS2059	1 PA ISOL VLV CONTR PS	NR	NRPALP	PS059D	0
1TB12-4	1PS2059	1 PA ISOL VLV CONTR PS	NR	NRPALP	PS059R	0
1TB12-4	1CV2061	11 PA TO IA AUTO CROSSCONNECT CV	NR	NRPAXA	C3061O	0
1TB12-4	1SV2061	PLNT AIR TO INST AIR VLV CONT	NR	NRPAXA	C3061O	0
1TB12-4	1CV2061	11 PA TO IA AUTO CROSSCONNECT CV	NR	NRPAXA	C3061P	0
1TB12-4	1SV2061	PLNT AIR TO INST AIR VLV CONT	NR	NRPAXA	C3061P	0
1TB12-4	1PS2061	1 PA TO IA SV CONTR PS	NR	NRPAXA	PS061D	0
1TB12-4	1PS2061	1 PA TO IA SV CONTR PS	NR	NRPAXA	PS061R	0
1TB12-4	1PS2062	11 IA COMPR UNLOADER CONTR PS	NR	PS062D	PS062D	0
1TB12-4	1PS2064	12 IA COMPR UNLOADER CONTR PS	NR	PS064D	PS064D	0
1TB12-4	1PS2067	12 IA RCVR 11 TO COMPR 11 CONTR PS	NR	PS067D	PS067D	0
1TB12-4	1PS2054	11 PA COMPR UNLOADER CONTR PS	NR	PS154D	PS154D	0
1TB12-4	1COMPPA11	11 PA COMPR (1MB123)	NS	CMP11R	CMP11R	0
1TB12-4	1SV2054	11 PA COMPR LOADING SV	NS	NRCMP1	IV154D	0
1TB12-4	1SV2054	11 PA COMPR LOADING SV	NS	NRCMP1	IV154T	0
1TB12-4	1PS2054	11 PA COMPR UNLOADER CONTR PS	NS	NRCMP1	PS154R	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	NS	NRDPP1	HXAP1P	0
1TB12-4	1HXPAI/CLR11	11 PA COMPR INTER COOLER	NS	NRDPP1	HXPI1B	0
1TB12-4	1MUFFPAFILT11	11 PA COMPR FILTER SILENCER	NS	NRHVP1	FLP11P	0
1TB12-4	1PS2055	11 PA COMPR OIL PS LOW	NS	NRPSP1	PS055R	0
1TB12-4	1TS2055	11 PA COMPR A/CLR OUT TS HI	NS	NRPSP1	TS055R	0
1TB12-4	1TS2086	11 PA COMPR I/CLR OUT TS	NS	NRPSP1	TS086R	0
1TB12-4	1TCV1636	11 P/A COMPR TEMP REG VLV	NS	NRSW13	C7636P	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	NS	NRSW13	HXPA1P	0
1TB12-4	1HXPAI/CLR11	11 PA COMPR INTER COOLER	NS	NRSW13	HXPI1P	0
1TB12-4	1SV1635	11 P/A COMPR A/CLR SRW INLET	NS	NRSW13	IV635T	0
1TB12-4	1SV1636	11 P/A COMPR SRW INLET	NS	NRSW13	IV636T	0
1TB12-4	1TE1636	11 SRW PA COMPR OUT TE	NS	NRSW13	TE636R	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	NS	NSPA01	HXAP1B	0
1TB12-4	1ACCPA11	11 PA COMPR RCVR	NS	NSPA01	TKP11B	0
1TB12-4	1CV2059	1 PA HDR ISOL CV	NS	NSPALP	C3059C	0
1TB12-4	1SV2059	PLNT AIR HEADER ISOL VLV CONT	NS	NSPALP	C3059C	0
1TB12-4	1CV2059	1 PA HDR ISOL CV	NS	NSPALP	C3059T	0
1TB12-4	1SV2059	PLNT AIR HEADER ISOL VLV CONT	NS	NSPALP	C3059T	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-4	1PS2059	1 PA ISOL VLV CONTR PS	NS	NSPALP	PS059D	0
1TB12-4	1PS2059	1 PA ISOL VLV CONTR PS	NS	NSPALP	PS059R	0
1TB12-4	1PS2054	11 PA COMPR UNLOADER CONTR PS	NS	PS154D	PS154D	0
1TB12-3 (CP)	1PUMPCD12	12 CONDENSATE PUMP (1MA307)	QC	QCMISC	MYCP2Q	0
1TB12-3 (CP)	1PUMPCD13	13 CONDENSATE PUMP (1MA308)	QC	QCMISC	MYCP3Q	0
1TB12-1	1HOSE12-16	1 FP TURB BLDG TYPE C HOSE STA	RL	RLFHSF	RLFHSF	0
1TB12-4	1HXIAA/CLR11	11 IA COMPR AFTER COOLER	S3	S3TBAL	ATIA1R	0
1TB12-4	1HXIAA/CLR12	12 IA COMPR AFTER COOLER	S3	S3TBAL	ATIA2R	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	S3	S3TBAL	ATPA1R	0
1TB12-4	1HXIAA/CLR11	11 IA COMPR AFTER COOLER	S4	S3TBAL	ATIA1R	0
1TB12-4	1HXIAA/CLR12	12 IA COMPR AFTER COOLER	S4	S3TBAL	ATIA2R	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	S4	S3TBAL	ATPA1R	0
1TB12-3 (CP)	1CV4406	CST TO HTWL M/U CV	T1	T1CS1F	C3406T	0
1TB12-3 (CP)	1I/P4406	COND STORAGE TO HOTWELL CONT	T1	T1CS1F	C3406T	0
1TB12-3 (CP)	1SV4406	CD STORAGE TO HOTWELL CONTROL SV	T1	T1CS1F	C3406T	0
1TB12-3 (CP)	1LT4405	CD CONDENSER HOTWELL LT	T1	T1CS1F	LT405R	0
A315	1CV4070	11 S/G MS TO AFW PP TURB	TG	BHEF1Y	Open	12
A315	1CV4071	12 S/G MS TO AFW PP TURB	TG	BHEF1Y	Open	12
1TB12-2 (CP)	1PUMPCARSWP11	11 CAR SEAL WTR PUMP (1M0636)	VC	MMS11R	MMS11R	0
1TB12-2 (CP)	1PUMPCARSWP12	12 CAR SEAL WTR PUMP (1M0637)	VC	MMS12R	MMS12R	0
1TB12-2 (CP)	1PUMPCARSWP13	13 CAR SEAL WTR PUMP (1M1636)	VC	MMS13R	MMS13R	0
1TB12-2 (CP)	1PUMPCAR11	11 CAR VAC PP (1MB203)	VC	MMV11R	MMV11R	0
1TB12-2 (CP)	1PUMPCAR12	12 CAR VAC PP (1MB217)	VC	MMV12R	MMV12R	0
1TB12-2 (CP)	1PUMPCAR13	13 CAR VAC PP (1MB303)	VC	MMV13R	MMV13R	0
1TB12-3 (CP)	1HS5225	11 CW PP WTRBX INL VLV HS	VC	VCCW1A	HS225T	0
1TB12-3 (CP)	1MOV5225	11A COND'R INLET STRNR VLV	VC	VCCW1A	MV225P	0
1TB12-3 (CP)	1HS5229	12 CW PP WTRBX INL VLV HS	VC	VCCW2A	HS229T	0
1TB12-3 (CP)	1MOV5229	11B COND'R INLET STRNR VLV	VC	VCCW2A	MV229P	0
1TB12-3 (CP)	1HS5233	13 CW PP WTRBX INL VLV HS	VC	VCCW3A	HS233T	0
1TB12-3 (CP)	1MOV5233	12A COND'R INLET STRNR VLV	VC	VCCW3A	MV233P	0
1TB12-3 (CP)	1HS5237	14 CW PP WTRBX INL VLV HS	VC	VCCW4A	HS237T	0
1TB12-3 (CP)	1MOV5237	12B COND'R INLET STRNR VLV	VC	VCCW4A	MV237P	0
1TB12-3 (CP)	1HS5241	15 CW PP WTRBX INL VLV HS	VC	VCCW5A	HS241T	0
1TB12-3 (CP)	1MOV5241	13A COND'R STRNR INLET VLV	VC	VCCW5A	MV241P	0
1TB12-3 (CP)	1HS5245	15 CW PP WTRBX INL VLV HS	VC	VCCW6A	HS245T	0
1TB12-3 (CP)	1MOV5245	13B COND'R INLET STRNR VLV	VC	VCCW6A	MV245P	0
1TB12-4	1CV5098	MISC DRN TK TO COND OUT CV	VC	VCMDTK	C3098C	0
1TB12-4	1SV5098	MISC TURB DRN TNK LEV CONT VLV	VC	VCMDTK	C3098C	0
1TB12-4	1CV5098	MISC DRN TK TO COND OUT CV	VC	VCMDTK	C3098T	0
1TB12-4	1SV5098	MISC TURB DRN TNK LEV CONT VLV	VC	VCMDTK	C3098T	0
1TB12-4	1LS5098	11 CD MISC DRN TANK LO LS	VC	VCMDTK	LS098D	0
1TB12-4	1LS5098	11 CD MISC DRN TANK LO LS	VC	VCMDTK	LS098R	0
1TB12-2 (CP)	1CV1754	11 CAR UNIT MOTIVE AIR	VC	VCP011	C3754P	0
1TB12-2 (CP)	1CV1755	11 CAR UNIT SYS DIAPHRAM	VC	VCP011	C3755P	0
1TB12-2 (CP)	1LCV1753	11 CAR SEP	VC	VCP011	LC753R	0
1TB12-2 (CP)	1PS1755	11 CAR CNDSR VAC PP SEAL LOW PRESSURE WTR PS	VC	VCP011	PS755R	0
1TB12-2 (CP)	1CV1757	12 CAR UNIT MOTIVE AIR	VC	VCP012	C3757P	0
1TB12-2 (CP)	1CV1758	12 CAR UNIT SYS DIAPHRAM	VC	VCP012	C3758P	0
1TB12-2 (CP)	1LCV1756	12 CAR SEP LO LVL CONTROL	VC	VCP012	LC756R	0
1TB12-2 (CP)	1PS1758	12 CAR CNDSR VAC PP SEAL WTR LOW PRESSURE PS	VC	VCP012	PS758R	0
1TB12-2 (CP)	1CV1760	13 CAR UNIT MOTIVE AIR	VC	VCP013	C3760P	0
1TB12-2 (CP)	1CV1761	13 CAR UNIT SYS DIAPHRAM	VC	VCP013	C3761P	0
1TB12-2 (CP)	1LCV1759	SEP LO LVL CONTROL	VC	VCP013	LC759R	0
1TB12-2 (CP)	1PS1761	13 CAR CNDSR VAC PP SEAL WTR LOW PRESSURE PS	VC	VCP013	PS761R	0
1TB12-3 (CP)	1HXCARSWC11	11 CAR SEAL WTR CLR	VC	VCS011	HXS11B	0
1TB12-3 (CP)	1HXCARSWC11	11 CAR SEAL WTR CLR	VC	VCS011	HXS11P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-3 (CP)	1HXCARSWC12	12 CAR SEAL WTR CLR	VC	VCS012	HXS12B	0
1TB12-3 (CP)	1HXCARSWC12	12 CAR SEAL WTR CLR	VC	VCS012	HXS12P	0
1TB12-3 (CP)	1HXCARSWC13	13 CAR SEAL WTR CLR	VC	VCS013	HXS13B	0
1TB12-3 (CP)	1HXCARSWC13	13 CAR SEAL WTR CLR	VC	VCS013	HXS13P	0
1TB12-4	1CV4681	MN STM SEAL REG	VC	VCTGS1	CV681O	0
1TB12-4	1CV4681	MN STM SEAL REG	VC	VCTGS1	CV681P	0
1TB12-4	1MOV4659	1 GS MS SEAL SUPPLY MOV	VC	VCTGS1	MV659P	0
1TB12-4	1PC4681	GS STM SEAL FEED VLV CONTROL PC	VC	VCTGS1	PC681R	0

Flood Evaluation Query

CF-11C-W315AM

10-Dec-98

TOP	PM	EVALUATION	RI
AE	1BKR	1 breaker challenge.	PAJ
AF	2BKR	2 breaker challenges.	PAJ
BS	F	TBV modulation circuit fails to provide control signals.	PAJ
F1	None ~~Spec Impt~~	Steam admission Control valves 1CV4070/4071 are normally closed, and will fail as-is(closed) on loss of power. Therefore, operators will be unable to open valves. These valves continuously have air (closing the valve). The operators may bleed air to open valve if need be. (note 2) (note 3)	PAJ
F3	None	Steam Admission SV's 1SV4070/4071 are covered under top event F1.	PAJ
FC	None	If the AFW doors are open when the wall breaks between the Main Steam Piping Area and the Turbine Bldg, the water will quickly rush during initial surge. Then all water will propogate to the condenser pit. The fire damper is located well above surge area. The doors are only open when AFW Pump room cooling is not operational.	PAJ
FT	Spec Impt	1MOV4516/4517 are normally open and fail as-is. Therefore, if the SGFPs do not trip (which they should), then this top event will fail.	PAJ
IP	None	Air accumulator only. No impact.	PAJ
K5	Spec Impt	Since top event MC fails in this scenario and this hose station is under water. All SFs with either of these make-up options available should be failed.	PAJ
LF	F	1CV4405/4406 fail closed. 1MOV4516/4517 are normally open and fail as-is.	PAJ
M1	2BKR	2 breaker challenges.	PAJ
M2	2BKR	2 breaker challenges.	PAJ
M7	19BKR	19 breaker challenges.	PAJ
M8	23BKR	23 breaker challenges.	PAJ
MC	F	11, 12 and 13 Condensate Pumps fail.	PAJ
MH	Spec Impt	1CV4070/4071 are normally closed and fail as-is on loss of power. These valves must be locally vented.	PAJ

See notes in RAN 98-065 sect. 5.4 JDK

TOP	PM	EVALUATION	RI
MN	F ~~Spec Impt~~	SGFP Seal Booster Pump 12 Train fails to provide flow to common Header. 1MOV4516/4517 are normally open and fail as-is. The loss of the 1FT4484A/4485A circuit will result in the I/Ps sending full air closing CVs. (note 24)	PAJ
MS	F	1CV4043/4048 are normally open and fail as-is.	PAJ
N2	2BKR	2 breaker challenges.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
NR	Spec. Impt ~~F~~	11 / 12 IA compressors and 11 Plant Air Compressors fail. (note 4) 1CV2059/2061 both fail closed on loss of power resulting in the inability to use Unit 1 compressors for Unit 1.	PAJ
NS	None ~~Spec Impt~~	11 Plant Air Compressors fails. Still have Unit 2 compressors. (note 18)	PAJ
QC	2BKR	2 breaker challenges.	PAJ
RL	None	This hose station is assumed not to fail during initial surge.	PAJ
S3	None	Heat Exchangers only. Aftercoolers assumed not to fail.	PAJ
S4	None	Heat Exchangers only. Aftercoolers assumed not to fail.	PAJ
T1	None	1CV4406 fails closed on loss of power.	PAJ
TG	None	Steam admission Control valves 1CV4070/4071 are normally closed, and will fail as-is(closed) on loss of power. Therefore, operators will be unable to open valves. These valves continuously have air (closing the valve). The operators may bleed air to open valve if need be. Covered under Top F1.	PAJ
VC	F	11, 12 and 13 condensate vacuum pumps fail.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-3 (CP)	1PUMPCD11	11 CONDENSATE PUMP (1MA207)	AE	MYCP1Q	MYCP1Q	0
1TB12-3 (CP)	1PUMPCD12	12 CONDENSATE PUMP (1MA307)	AF	MYCP2Q	MYCP2Q	0
1TB12-3 (CP)	1PUMPCD13	13 CONDENSATE PUMP (1MA308)	AF	MYCP3Q	MYCP3Q	0
1TB12-4	1PT4056	MS TURB BYPASS VLV CONTROL PT	BS	BS4056	PT056R	0
A315	1CV4070	11 S/G MS TO AFW PP TURB	F1	F1CV70	C8070O	12
A315	1CV4070	11 S/G MS TO AFW PP TURB	F1	F1CV70	C8070P	12
A315	1CV4070A	11 S/G AFW MAIN STM BYPASS VALVE	F1	F1CV70	C870AO	0
A315	1CV4071	12 S/G MS TO AFW PP TURB	F1	F1CV71	C8071O	12
A315	1CV4071	12 S/G MS TO AFW PP TURB	F1	F1CV71	C8071P	12
A315	1CV4071A	12 S/G AFW MAIN STM BYPASS VALVE	F1	F1CV71	C871AO	0
A315	1CV4070	11 S/G MS TO AFW PP TURB	F3	BHEF31	Open	12
A315	1CV4070A	11 S/G AFW MAIN STM BYPASS VALVE	F3	BHEF31	Open	0
A315	1CV4071	12 S/G MS TO AFW PP TURB	F3	BHEF31	Open	12
A315	1CV4071A	12 S/G AFW MAIN STM BYPASS VALVE	F3	BHEF31	Open	0
1TB12-1	1AFWDOORS	AFW DOUBLE DOORS	FC	Dummy	N/A	0
1TB12-1	1FDTB12W1	AFW RM SUPPLY FROM AFW TO TB12 FD	FC	FDAMPR	FD002I	0
A315	1MOV4516	11 SG FW ISOL	FT	FTFW10	MV516C	0
A315	1MOV4516	11 SG FW ISOL	FT	FTFW10	MV516T	0
A315	1MOV4517	12 SG FW ISOL	FT	FTFW20	MV517C	0
A315	1MOV4517	12 SG FW ISOL	FT	FTFW20	MV517T	0
1TB12-4	1ACCIA11	11 IA COMPR RCVR	IP	IPIA99	TK11B	0
1TB12-1	1HOSE12-16	1 FP TURB BLDG TYPE C HOSE STA	K5	K5FIRE	K5FHSF	0
1TB12-3 (CP)	1CV4406	CST TO HTWL M/U CV	LF	LFMUCV	C3406O	0
1TB12-3 (CP)	1I/P4406	COND STORAGE TO HOTWELL CONT	LF	LFMUCV	C3406O	0
1TB12-3 (CP)	1SV4406	CD STORAGE TO HOTWELL CONTROL SV	LF	LFMUCV	C3406O	0
1TB12-3 (CP)	1CV4406	CST TO HTWL M/U CV	LF	LFMUCV	C3406P	0
1TB12-3 (CP)	1I/P4406	COND STORAGE TO HOTWELL CONT	LF	LFMUCV	C3406P	0
1TB12-3 (CP)	1SV4406	CD STORAGE TO HOTWELL CONTROL SV	LF	LFMUCV	C3406P	0
1TB12-3 (CP)	1CV4405	HOTWELL TO COND STORAGE VLV	LF	LFMUCV	C3504T	0
1TB12-3 (CP)	1I/P4405	HOTWELL TO COND STORAGE CONT	LF	LFMUCV	C3504T	0
1TB12-3 (CP)	1LT4405	CD CONDENSER HOTWELL LT	LF	LFMUCV	LT405R	0
A315	1MOV4516	11 SG FW ISOL	LF	MNBYP1	MV516P	0
A315	1MOV4517	12 SG FW ISOL	LF	MNBYP2	MV417P	0
A315	1MOV4516	11 SG FW ISOL	LF	MV516O	MV516O	0
A315	1MOV4516	11 SG FW ISOL	LF	MV516P	MV516P	0
A315	1MOV4517	12 SG FW ISOL	LF	MV517O	MV517O	0
A315	1MOV4517	12 SG FW ISOL	LF	MV517P	MV517P	0
A315	1MOV4517	12 SG FW ISOL	M1	MVM26Q	MVM26Q	0
A315	1MOV4052	MSIV 12 BYP VLV	M1	MVM28Q	MVM28Q	0
A315	1MOV4516	11 SG FW ISOL	M2	MVN26Q	MVN26Q	0
A315	1MOV4045	MSIV 11 BYP VLV	M2	MVN28Q	MVN28Q	0
1TB12-2 (CP)	1PNL1C51	11A AMERTAP CNTL PNL 1C51	M7	BUP23Q	BUP23Q	0
1TB12-2 (CP)	1PNL1C52	11B AMERTAP CNTL PNL 1C52	M7	BUP24Q	BUP24Q	0
1TB12-2 (CP)	1PNL1C53	12A AMERTAP CNTL PNL 1C53	M7	BUP25Q	BUP25Q	0
1TB12-4	1PUMPEHC11	11 MT EHC HYD UNIT PUMP (1MB216)	M7	MB216Q	MB216Q	0
1TB12-2 (CP)	1PUMPCAR12	12 CAR VAC PP (1MB217)	M7	MB217Q	MB217Q	0
1TB12-2 (CP)	1PUMPMSBD11	11 AUX BD TK PUMP (1M0671)	M7	MBP71Q	MBP71Q	0
1TB12-3 (CP)	1PUMPCDMTRLO11	11 CD PP LO CLR PP (1M0607)	M7	MMP07Q	MMP07Q	0
1TB12-2 (CP)	1PUMPCARSWP11	11 CAR SEAL WTR PUMP (1M0636)	M7	MMP36Q	MMP36Q	0
1TB12-2 (CP)	1PUMPCARSWP12	12 CAR SEAL WTR PUMP (1M0637)	M7	MMP37Q	MMP37Q	0
1TB12-3 (CP)	1MOV5225	11A COND'R INLET STRNR VLV	M7	MVP02Q	MVP02Q	0
1TB12-3 (CP)	1MOV5229	11B COND'R INLET STRNR VLV	M7	MVP03Q	MVP03Q	0
1TB12-3 (CP)	1MOV5233	12A COND'R INLET STRNR VLV	M7	MVP04Q	MVP04Q	0
1TB12-4	1MOV4658	MN CONT VLVS BEFORE SEAT DRN	M7	MVP29Q	MVP29Q	0
1TB12-4	1MOV4659	1 GS MS SEAL SUPPLY MOV	M7	MVP30Q	MVP30Q	0
1TB12-4	1MOV4656	1 GS MS SEAL REG BYP MOV	M7	MVP31Q	MVP31Q	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-4	1MOV4657	1 GS SEAL DUMP BYP MOV	M7	MVP32Q	MVP32Q	0
1TB12-4	1MOV4026	MS TO 11 MSR 2ND STG	M7	MVP51Q	MVP51Q	0
1TB12-4	1FANGSPACK11	11 GLAND STEAM PACKING EXH (1M0633)	M7	VAP33Q	VAP33Q	0
1TB12-3 (CP)	1M0659	11 COND PP LUBE OIL COOLER FAN MTR (1M0659)	M7	VAP59Q	VAP59Q	0
1TB12-2 (CP)	1RECEPTMCC116A	POWER RECEPT MCC116 (1W48, 1W49, 1W50, 1W51)	M8	BUQ05Q	BUQ05Q	0
1TB12-2 (CP)	1PNL1C54	12B AMERTAP CNTL PNL 1C54	M8	BUQ23Q	BUQ23Q	0
1TB12-2 (CP)	1PNL1C55	13A AMERTAP CNTL PNL 1C55	M8	BUQ24Q	BUQ24Q	0
1TB12-2 (CP)	1PNL1C56	13B AMERTAP CNTL PNL 1C56	M8	BUQ25Q	BUQ25Q	0
1TB12-4	1PUMPEHC12	12 MT EHC HYD UNIT PUMP (1MB316)	M8	MB316Q	MB316Q	0
1TB12-2 (CP)	1PUMPCAR14	14 CAR VAC PP (1MB317)	M8	MB317Q	MB317Q	0
1TB12-2 (CP)	1PUMPSMP11TB11	11 TURB BLDG SUMP 11 PP (1M1642)	M8	MBQ42Q	MBQ42Q	0
1TB12-2 (CP)	1PUMPSMP11TB12	11 TURB BLDG SUMP PP 12 (1M1643)	M8	MBQ43Q	MBQ43Q	0
1TB12-2 (CP)	1PUMPMSBD12	12 AUX BD TK PUMP (1M1656)	M8	MBQ56Q	MBQ56Q	0
1TB12-3 (CP)	1PUMPCDMTRLO12	12 CD PP LO CLR PP (1M1606)	M8	MMQ06Q	MMQ06Q	0
1TB12-3 (CP)	1PUMPCDMTRLO13	13 CD PP LO CLR PP (1M1607)	M8	MMQ07Q	MMQ07Q	0
1TB12-2 (CP)	1PUMPCARSWP13	13 CAR SEAL WTR PUMP (1M1636)	M8	MMQ36Q	MMQ36Q	0
1TB12-2 (CP)	1PUMPCARSWP14	14 CAR SEAL WTR PUMP (1M1637)	M8	MMQ37Q	MMQ37Q	0
1TB12-3 (CP)	1MOV5237	12B COND'R INLET STRNR VLV	M8	MVQ02Q	MVQ02Q	0
1TB12-3 (CP)	1MOV5241	13A COND'R STRNR INLET VLV	M8	MVQ03Q	MVQ03Q	0
1TB12-3 (CP)	1MOV5245	13B COND'R INLET STRNR VLV	M8	MVQ04Q	MVQ04Q	0
1TB12-4	1MOV4022	11 MSR 2ND STG RHT SUPP DRN	M8	MVQ29Q	MVQ29Q	0
1TB12-4	1MOV4023	12 MSR 2ND STAGE RHT SUPP DRN	M8	MVQ30Q	MVQ30Q	0
1TB12-4	1MOV4678	AUX STM SEAL SUPPLY VLV	M8	MVQ31Q	MVQ31Q	0
1TB12-4	1MOV4025	MS TO 11 MSR 2ND STG	M8	MVQ51Q	MVQ51Q	0
1TB12-4	1M1633	12 STM PACKING EXH MTR (1M1633)	M8	VAQ33Q	VAQ33Q	0
1TB12-3 (CP)	1M1659	12 COND PP LUBE OIL COOLER FAN MTR (1M1659)	M8	VAQ59Q	VAQ59Q	0
1TB12-3 (CP)	1M1660	13 COND PP LUBE OIL COOLER FAN MTR (1M1660)	M8	VAQ60Q	VAQ60Q	0
1TB12-4	1HXSTMSEALEXH11	11 CD STM SEAL EXH CNDSR	MC	MCCOMM	HXSSEB	0
1TB12-4	1HXSTMSEALEXH11	11 CD STM SEAL EXH CNDSR	MC	MCCOMM	HXSSEP	0
1TB12-1	1HXCDLPH13A	13A LP COND/FW HTR	MC	MCFH40	HX13AB	0
1TB12-1	1HXCDLPH13A	13A LP COND/FW HTR	MC	MCFH40	HX13AP	0
1TB12-1	1HXCDLPH13B	13B LP COND/FW HTR	MC	MCFH50	HX13BB	0
1TB12-1	1HXCDLPH13B	13B LP COND/FW HTR	MC	MCFH50	HX13BP	0
1TB12-1	1FY4486	CD BOOSTER PP MINI FLOW CONTROL FY	MC	MCMN40	FY486R	0
1TB12-1	1FT4484	11 SGFP SUCT FLO XMTR	MC	MCMN51	FT484R	0
1TB12-1	1FY4484	11 FW SGFP SUCT FLO DEVICE	MC	MCMN51	FY484R	0
1TB12-1	1FY4485	11 & 12 COND BSTR PP MINI FLO DEVICE	MC	MCMN52	FY485R	0
1TB12-3 (CP)	1YS4414	COND PMP MOTOR 11 OIL STRAINER	MC	MCPP10	YS414P	0
1TB12-3 (CP)	1YS4421	COND PMP MOTOR 12 OIL STRAINER	MC	MCPP20	YS421P	0
1TB12-3 (CP)	1YS4428	COND PMP MOTOR 13 OIL STRAINER	MC	MCPP30	YS428P	0
1TB12-3 (CP)	1PUMPCDMTRLO11	11 CD PP LO CLR PP (1M0607)	MC	MML11R	MML11R	0
1TB12-3 (CP)	1PUMPCDMTRLO12	12 CD PP LO CLR PP (1M1606)	MC	MML12R	MML12R	0
1TB12-3 (CP)	1PUMPCDMTRLO13	13 CD PP LO CLR PP (1M1607)	MC	MML13R	MML13R	0
1TB12-3 (CP)	1PUMPCD11	11 CONDENSATE PUMP (1MA207)	MC	MYC11R	MYC11R	0
1TB12-3 (CP)	1PUMPCD12	12 CONDENSATE PUMP (1MA307)	MC	MYC12R	MYC12R	0
1TB12-3 (CP)	1PUMPCD13	13 CONDENSATE PUMP (1MA308)	MC	MYC13R	MYC13R	0
A315	1PCV4415	COND PP 11 SEAL WTR REG	MC	PC415R	PC415R	0
A315	1PCV4422	COND PP 12 SEAL WTR REG	MC	PC422R	PC422R	0
A315	1PCV4506	COND PP 13 SEAL WTR REG	MC	PC506R	PC506R	0
1TB12-3 (CP)	1M0659	11 COND PP LUBE OIL COOLER FAN MTR (1M0659)	MC	VAL11R	VAL11R	0
1TB12-3 (CP)	1M1659	12 COND PP LUBE OIL COOLER FAN MTR (1M1659)	MC	VAL12R	VAL12R	0
1TB12-3 (CP)	1M1660	13 COND PP LUBE OIL COOLER FAN MTR (1M1660)	MC	VAL13R	VAL13R	0
A315	1CV4070	11 S/G MS TO AFW PP TURB	MH	BHEF1I	Open	12
A315	1CV4071	12 S/G MS TO AFW PP TURB	MH	BHEF1I	Open	12
1TB12-4	1PUMPCDSGFPBSTR	12 CD SGFP SEAL WTR BSTR PP (1M0152)	MN	MML12R	MML12R	0
1TB12-4	1PUMPCDSGFPBSTR	12 CD SGFP SEAL WTR BSTR PP (1M0152)	MN	MML12S	MML12S	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A315	1MOV4516	11 SG FW ISOL	MN	MNBYP1	MV516P	0
A315	1MOV4517	12 SG FW ISOL	MN	MNBYP2	MV517P	0
1TB12-1	1FT4484A	11 FW SGFP MINI FLO XMTR	MN	MNFW59	FT84AR	0
1TB12-1	1FT4485A	12 FW SGFP MINI FLO XMTR	MN	MNFW69	FT85AR	0
1TB12-4	1PS4487	CD SGFP SEAL WATER BOOSTER PPS DISCHARGE PS	MN	PS487D	PS487D	0
A315	1CV4043	MSIV 11	MS	MT043C	MT043C	0
A315	1CV4048	MSIV 12	MS	MT048C	MT048C	0
1TB12-4	1COMPIA11	11 IA COMPR (1MB118)	N2	CM118Q	CM118Q	0
1TB12-4	1COMPPA11	11 PA COMPR (1MB123)	N2	CM123Q	CM123Q	0
1TB12-4	1COMPIA12	12 IA COMPR (1MB418)	N4	CM418Q	CM418Q	0
1TB12-4	1TCV1634	12 I/A COMPR TEMP REG VLV	NR	C7S34O	C7S34O	0
1TB12-4	1COMPIA11	11 IA COMPR (1MB118)	NR	CM011R	CM011R	0
1TB12-4	1COMPIA11	11 IA COMPR (1MB118)	NR	CM011S	CM011S	0
1TB12-4	1COMPIA12	12 IA COMPR (1MB418)	NR	CM012R	CM012R	0
1TB12-4	1COMPIA12	12 IA COMPR (1MB418)	NR	CM012S	CM012S	0
1TB12-4	1COMPIA11	11 IA COMPR (1MB118)	NR	CMP11R	CMP11R	0
1TB12-4	1ACCIA11	11 IA COMPR RCVR	NR	IPIA99	TKA11B	0
1TB12-4	1SV1633	12 I/A COMPR A/CLR SRW INLET	NR	IVS33D	IVS33D	0
1TB12-4	1SV1634	12 I/A COMPR SRW INLET	NR	IVS34D	IVS34D	0
1TB12-4	1TCV1630	11 I/A COMPR TEMP REG VLV	NR	NRIA11	C7630P	0
1TB12-4	1MUFFIAFILT11	11 IA COMPR FILTER SILENCER	NR	NRIA11	FL011P	0
1TB12-4	1HXIAA/CLR11	11 IA COMPR AFTER COOLER	NR	NRIA11	HXA11P	0
1TB12-4	1HXIAI/CLR11	11 IA COMPR INTER COOLER	NR	NRIA11	HXI11B	0
1TB12-4	1HXIAI/CLR11	11 IA COMPR INTER COOLER	NR	NRIA11	HXI11P	0
1TB12-4	1HXIAA/CLR11	11 IA COMPR AFTER COOLER	NR	NRIA11	HXIA1P	0
1TB12-4	1HXIAI/CLR12	12 IA COMPR INTER COOLER	NR	NRIA11	HXII1P	0
1TB12-4	1SV2062	COMPR LOAD SV	NR	NRIA11	IV062D	0
1TB12-4	1SV2062	COMPR LOAD SV	NR	NRIA11	IV062T	0
1TB12-4	1SV1629	11 I/A COMPR A/CLR SRW INLET	NR	NRIA11	IV629T	0
1TB12-4	1SV1630	11 I/A COMPR SRW INLET	NR	NRIA11	IV630T	0
1TB12-4	1PS2062	11 IA COMPR UNLOADER CONTR PS	NR	NRIA11	PS062R	0
1TB12-4	1PS2063	11 IA COMPR OIL PS LOW	NR	NRIA11	PS063R	0
1TB12-4	1TE1630	11 SRW IA COMPR OUT TE	NR	NRIA11	TE630R	0
1TB12-4	1TS2063	11 IA COMPR A/CLR OUT TS HI	NR	NRIA11	TS063R	0
1TB12-4	1TS2082	11 IA COMPR I/CLR OUT TS	NR	NRIA11	TS082R	0
1TB12-4	1TCV1634	12 I/A COMPR TEMP REG VLV	NR	NRIA12	C7S34P	0
1TB12-4	1MUFFIAFILT12	12 IA COMPR FILTER SILENCER	NR	NRIA12	FLS12P	0
1TB12-4	1HXIAA/CLR12	12 IA COMPR AFTER COOLER	NR	NRIA12	HXAS2P	0
1TB12-4	1HXIAI/CLR12	12 IA COMPR INTER COOLER	NR	NRIA12	HXIS2B	0
1TB12-4	1HXIAI/CLR12	12 IA COMPR INTER COOLER	NR	NRIA12	HXIS2P	0
1TB12-4	1SV2064	12 IA COMPR LOADING SV	NR	NRIA12	IV064D	0
1TB12-4	1SV2064	12 IA COMPR LOADING SV	NR	NRIA12	IV064T	0
1TB12-4	1SV1633	12 I/A COMPR A/CLR SRW INLET	NR	NRIA12	IVS33T	0
1TB12-4	1SV1634	12 I/A COMPR SRW INLET	NR	NRIA12	IVS34T	0
1TB12-4	1PS2064	12 IA COMPR UNLOADER CONTR PS	NR	NRIA12	PS064R	0
1TB12-4	1PS2067	12 IA RCVR 11 TO COMPR 11 CONTR PS	NR	NRIA12	PS067R	0
1TB12-4	1PS2065	12 IA COMPR OIL PS LOW	NR	NRIA12	PSS65R	0
1TB12-4	1TE1634	12 SRW IA COMPR OUT TE	NR	NRIA12	TES34R	0
1TB12-4	1TS2065	12 IA COMPR A/CLR OUT TS HI	NR	NRIA12	TSS65R	0
1TB12-4	1TS2084	12 IA COMPR I/CLR OUT TS	NR	NRIA12	TSS84R	0
1TB12-4	1HXIAA/CLR11	11 IA COMPR AFTER COOLER	NR	NRIA99	HXA11B	0
1TB12-4	1HXIAA/CLR12	12 IA COMPR AFTER COOLER	NR	NRIA99	HXAS2B	0
1TB12-4	1ACCIA11	11 IA COMPR RCVR	NR	NRIA99	TK011B	0
1TB12-4	1ACCIA12	12 IA COMPR RCVR	NR	NRIA99	TK012B	0
1TB12-4	1NP1113B	IA DRYER 12 LOCAL CONTROL PNL	NR	NRIAHD	COD12R	0
1TB12-4	1FU1NP113B/FU3	12 IA DRYER CONTR CKT FU	NR	NRIAHD	FUC12R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-4	1PCV2003	IA DRYER 12 PILOT REG PCV	NR	NRIAHD	PC003R	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	NR	NRPA01	HXAP1B	0
1TB12-4	1ACCPA11	11 PA COMPR RCVR	NR	NRPA01	TKP11B	0
1TB12-4	1TCV1636	11 P/A COMPR TEMP REG VLV	NR	NRPA11	C7636P	0
1TB12-4	1MUFFPAFILT11	11 PA COMPR FILTER SILENCER	NR	NRPA11	FLP11P	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	NR	NRPA11	HXAP1P	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	NR	NRPA11	HXPA1P	0
1TB12-4	1HXPAI/CLR11	11 PA COMPR INTER COOLER	NR	NRPA11	HXPI1B	0
1TB12-4	1HXPAI/CLR11	11 PA COMPR INTER COOLER	NR	NRPA11	HXPI1P	0
1TB12-4	1SV2054	11 PA COMPR LOADING SV	NR	NRPA11	IV154D	0
1TB12-4	1SV2054	11 PA COMPR LOADING SV	NR	NRPA11	IV154T	0
1TB12-4	1SV1635	11 P/A COMPR A/CLR SRW INLET	NR	NRPA11	IV635T	0
1TB12-4	1SV1636	11 P/A COMPR SRW INLET	NR	NRPA11	IV636T	0
1TB12-4	1PS2055	11 PA COMPR OIL PS LOW	NR	NRPA11	PS055R	0
1TB12-4	1PS2054	11 PA COMPR UNLOADER CONTR PS	NR	NRPA11	PS154R	0
1TB12-4	1TE1636	11 SRW PA COMPR OUT TE	NR	NRPA11	TE636R	0
1TB12-4	1TS2055	11 PA COMPR A/CLR OUT TS HI	NR	NRPA11	TS055R	0
1TB12-4	1TS2086	11 PA COMPR I/CLR OUT TS	NR	NRPA11	TS086R	0
1TB12-4	1CV2059	1 PA HDR ISOL CV	NR	NRPALP	C3059C	0
1TB12-4	1SV2059	PLNT AIR HEADER ISOL VLV CONT	NR	NRPALP	C3059C	0
1TB12-4	1CV2059	1 PA HDR ISOL CV	NR	NRPALP	C3059T	0
1TB12-4	1SV2059	PLNT AIR HEADER ISOL VLV CONT	NR	NRPALP	C3059T	0
1TB12-4	1PS2059	1 PA ISOL VLV CONTR PS	NR	NRPALP	PS059D	0
1TB12-4	1PS2059	1 PA ISOL VLV CONTR PS	NR	NRPALP	PS059R	0
1TB12-4	1CV2061	11 PA TO IA AUTO CROSSCONNECT CV	NR	NRPAXA	C3061O	0
1TB12-4	1SV2061	PLNT AIR TO INST AIR VLV CONT	NR	NRPAXA	C3061O	0
1TB12-4	1CV2061	11 PA TO IA AUTO CROSSCONNECT CV	NR	NRPAXA	C3061P	0
1TB12-4	1SV2061	PLNT AIR TO INST AIR VLV CONT	NR	NRPAXA	C3061P	0
1TB12-4	1PS2061	1 PA TO IA SV CONTR PS	NR	NRPAXA	PS061D	0
1TB12-4	1PS2061	1 PA TO IA SV CONTR PS	NR	NRPAXA	PS061R	0
1TB12-4	1PS2062	11 IA COMPR UNLOADER CONTR PS	NR	PS062D	PS062D	0
1TB12-4	1PS2064	12 IA COMPR UNLOADER CONTR PS	NR	PS064D	PS064D	0
1TB12-4	1PS2067	12 IA RCVR 11 TO COMPR 11 CONTR PS	NR	PS067D	PS067D	0
1TB12-4	1PS2054	11 PA COMPR UNLOADER CONTR PS	NR	PS154D	PS154D	0
1TB12-4	1COMPPA11	11 PA COMPR (1MB123)	NS	CMP11R	CMP11R	0
1TB12-4	1SV2054	11 PA COMPR LOADING SV	NS	NRCMP1	IV154D	0
1TB12-4	1SV2054	11 PA COMPR LOADING SV	NS	NRCMP1	IV154T	0
1TB12-4	1PS2054	11 PA COMPR UNLOADER CONTR PS	NS	NRCMP1	PS154R	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	NS	NRDPP1	HXAP1P	0
1TB12-4	1HXPAI/CLR11	11 PA COMPR INTER COOLER	NS	NRDPP1	HXPI1B	0
1TB12-4	1MUFFPAFILT11	11 PA COMPR FILTER SILENCER	NS	NRHVP1	FLP11P	0
1TB12-4	1PS2055	11 PA COMPR OIL PS LOW	NS	NRPSP1	PS055R	0
1TB12-4	1TS2055	11 PA COMPR A/CLR OUT TS HI	NS	NRPSP1	TS055R	0
1TB12-4	1TS2086	11 PA COMPR I/CLR OUT TS	NS	NRPSP1	TS086R	0
1TB12-4	1TCV1636	11 P/A COMPR TEMP REG VLV	NS	NRSW13	C7636P	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	NS	NRSW13	HXPA1P	0
1TB12-4	1HXPAI/CLR11	11 PA COMPR INTER COOLER	NS	NRSW13	HXPI1P	0
1TB12-4	1SV1635	11 P/A COMPR A/CLR SRW INLET	NS	NRSW13	IV635T	0
1TB12-4	1SV1636	11 P/A COMPR SRW INLET	NS	NRSW13	IV636T	0
1TB12-4	1TE1636	11 SRW PA COMPR OUT TE	NS	NRSW13	TE636R	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	NS	NSPA01	HXAP1B	0
1TB12-4	1ACCPA11	11 PA COMPR RCVR	NS	NSPA01	TKP11B	0
1TB12-4	1CV2059	1 PA HDR ISOL CV	NS	NSPALP	C3059C	0
1TB12-4	1SV2059	PLNT AIR HEADER ISOL VLV CONT	NS	NSPALP	C3059C	0
1TB12-4	1CV2059	1 PA HDR ISOL CV	NS	NSPALP	C3059T	0
1TB12-4	1SV2059	PLNT AIR HEADER ISOL VLV CONT	NS	NSPALP	C3059T	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-4	1PS2059	1 PA ISOL VLV CONTR PS	NS	NSPALP	PS059D	0
1TB12-4	1PS2059	1 PA ISOL VLV CONTR PS	NS	NSPALP	PS059R	0
1TB12-4	1PS2054	11 PA COMPR UNLOADER CONTR PS	NS	PS154D	PS154D	0
1TB12-3 (CP)	1PUMPCD12	12 CONDENSATE PUMP (1MA307)	QC	QCMISC	MYCP2Q	0
1TB12-3 (CP)	1PUMPCD13	13 CONDENSATE PUMP (1MA308)	QC	QCMISC	MYCP3Q	0
1TB12-1	1HOSE12-16	1 FP TURB BLDG TYPE C HOSE STA	RL	RLFHSF	RLFHSF	0
1TB12-4	1HXIAA/CLR11	11 IA COMPR AFTER COOLER	S3	S3TBAL	ATIA1R	0
1TB12-4	1HXIAA/CLR12	12 IA COMPR AFTER COOLER	S3	S3TBAL	ATIA2R	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	S3	S3TBAL	ATPA1R	0
1TB12-4	1HXIAA/CLR11	11 IA COMPR AFTER COOLER	S4	S3TBAL	ATIA1R	0
1TB12-4	1HXIAA/CLR12	12 IA COMPR AFTER COOLER	S4	S3TBAL	ATIA2R	0
1TB12-4	1HXPAA/CLR11	11 PA COMPR AFTER COOLER	S4	S3TBAL	ATPA1R	0
1TB12-3 (CP)	1CV4406	CST TO HTWL M/U CV	T1	T1CS1F	C3406T	0
1TB12-3 (CP)	1I/P4406	COND STORAGE TO HOTWELL CONT	T1	T1CS1F	C3406T	0
1TB12-3 (CP)	1SV4406	CD STORAGE TO HOTWELL CONTROL SV	T1	T1CS1F	C3406T	0
1TB12-3 (CP)	1LT4405	CD CONDENSER HOTWELL LT	T1	T1CS1F	LT405R	0
A315	1CV4070	11 S/G MS TO AFW PP TURB	TG	BHEF1Y	Open	12
A315	1CV4071	12 S/G MS TO AFW PP TURB	TG	BHEF1Y	Open	12
1TB12-2 (CP)	1PUMPCARSWP11	11 CAR SEAL WTR PUMP (1M0636)	VC	MMS11R	MMS11R	0
1TB12-2 (CP)	1PUMPCARSWP12	12 CAR SEAL WTR PUMP (1M0637)	VC	MMS12R	MMS12R	0
1TB12-2 (CP)	1PUMPCARSWP13	13 CAR SEAL WTR PUMP (1M1636)	VC	MMS13R	MMS13R	0
1TB12-2 (CP)	1PUMPCAR11	11 CAR VAC PP (1MB203)	VC	MMV11R	MMV11R	0
1TB12-2 (CP)	1PUMPCAR12	12 CAR VAC PP (1MB217)	VC	MMV12R	MMV12R	0
1TB12-2 (CP)	1PUMPCAR13	13 CAR VAC PP (1MB303)	VC	MMV13R	MMV13R	0
1TB12-3 (CP)	1HS5225	11 CW PP WTRBX INL VLV HS	VC	VCCW1A	HS225T	0
1TB12-3 (CP)	1MOV5225	11A COND'R INLET STRNR VLV	VC	VCCW1A	MV225P	0
1TB12-3 (CP)	1HS5229	12 CW PP WTRBX INL VLV HS	VC	VCCW2A	HS229T	0
1TB12-3 (CP)	1MOV5229	11B COND'R INLET STRNR VLV	VC	VCCW2A	MV229P	0
1TB12-3 (CP)	1HS5233	13 CW PP WTRBX INL VLV HS	VC	VCCW3A	HS233T	0
1TB12-3 (CP)	1MOV5233	12A COND'R INLET STRNR VLV	VC	VCCW3A	MV233P	0
1TB12-3 (CP)	1HS5237	14 CW PP WTRBX INL VLV HS	VC	VCCW4A	HS237T	0
1TB12-3 (CP)	1MOV5237	12B COND'R INLET STRNR VLV	VC	VCCW4A	MV237P	0
1TB12-3 (CP)	1HS5241	15 CW PP WTRBX INL VLV HS	VC	VCCW5A	HS241T	0
1TB12-3 (CP)	1MOV5241	13A COND'R STRNR INLET VLV	VC	VCCW5A	MV241P	0
1TB12-3 (CP)	1HS5245	15 CW PP WTRBX INL VLV HS	VC	VCCW6A	HS245T	0
1TB12-3 (CP)	1MOV5245	13B COND'R INLET STRNR VLV	VC	VCCW6A	MV245P	0
1TB12-4	1CV5098	MISC DRN TK TO COND OUT CV	VC	VCMDTK	C3098C	0
1TB12-4	1SV5098	MISC TURB DRN TNK LEV CONT VLV	VC	VCMDTK	C3098C	0
1TB12-4	1CV5098	MISC DRN TK TO COND OUT CV	VC	VCMDTK	C3098T	0
1TB12-4	1SV5098	MISC TURB DRN TNK LEV CONT VLV	VC	VCMDTK	C3098T	0
1TB12-4	1LS5098	11 CD MISC DRN TANK LO LS	VC	VCMDTK	LS098D	0
1TB12-4	1LS5098	11 CD MISC DRN TANK LO LS	VC	VCMDTK	LS098R	0
1TB12-2 (CP)	1CV1754	11 CAR UNIT MOTIVE AIR	VC	VCP011	C3754P	0
1TB12-2 (CP)	1CV1755	11 CAR UNIT SYS DIAPHRAM	VC	VCP011	C3755P	0
1TB12-2 (CP)	1LCV1753	11 CAR SEP	VC	VCP011	LC753R	0
1TB12-2 (CP)	1PS1755	11 CAR CNDSR VAC PP SEAL LOW PRESSURE WTR PS	VC	VCP011	PS755R	0
1TB12-2 (CP)	1CV1757	12 CAR UNIT MOTIVE AIR	VC	VCP012	C3757P	0
1TB12-2 (CP)	1CV1758	12 CAR UNIT SYS DIAPHRAM	VC	VCP012	C3758P	0
1TB12-2 (CP)	1LCV1756	12 CAR SEP LO LVL CONTROL	VC	VCP012	LC756R	0
1TB12-2 (CP)	1PS1758	12 CAR CNDSR VAC PP SEAL WTR LOW PRESSURE PS	VC	VCP012	PS758R	0
1TB12-2 (CP)	1CV1760	13 CAR UNIT MOTIVE AIR	VC	VCP013	C3760P	0
1TB12-2 (CP)	1CV1761	13 CAR UNIT SYS DIAPHRAM	VC	VCP013	C3761P	0
1TB12-2 (CP)	1LCV1759	SEP LO LVL CONTROL	VC	VCP013	LC759R	0
1TB12-2 (CP)	1PS1761	13 CAR CNDSR VAC PP SEAL WTR LOW PRESSURE PS	VC	VCP013	PS761R	0
1TB12-3 (CP)	1HXCARSWC11	11 CAR SEAL WTR CLR	VC	VCS011	HXS11B	0
1TB12-3 (CP)	1HXCARSWC11	11 CAR SEAL WTR CLR	VC	VCS011	HXS11P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-3 (CP)	1HXCARSWC12	12 CAR SEAL WTR CLR	VC	VCS012	HXS12B	0
1TB12-3 (CP)	1HXCARSWC12	12 CAR SEAL WTR CLR	VC	VCS012	HXS12P	0
1TB12-3 (CP)	1HXCARSWC13	13 CAR SEAL WTR CLR	VC	VCS013	HXS13B	0
1TB12-3 (CP)	1HXCARSWC13	13 CAR SEAL WTR CLR	VC	VCS013	HXS13P	0
1TB12-4	1CV4681	MN STM SEAL REG	VC	VCTGS1	CV681O	0
1TB12-4	1CV4681	MN STM SEAL REG	VC	VCTGS1	CV681P	0
1TB12-4	1MOV4659	1 GS MS SEAL SUPPLY MOV	VC	VCTGS1	MV659P	0
1TB12-4	1PC4681	GS STM SEAL FEED VLV CONTROL PC	VC	VCTGS1	PC681R	0

Flood Evaluation Query

CF-12A-F317AM

19-Nov-98

TOP	PM	EVALUATION	RI
AA	F	4KV Bus 11 fails.	PAJ
AB	3BKR	3 breaker challenges.	PAJ
AE	F	4KV Bus 12 fails.	PAJ
AF	2BKR	2 breaker challenges.	PAJ
CV	None ~~F~~	~~Conservatively set to failure. CVCS relatively unimportant.~~ (note 13)	PAJ
F1	None ~~Spec Impt~~	In 1 of 3. Spurious actuation needs to be considered. 11 and 12 SG's lose one of four sensor channels creating a 1 of 3 logic. Since creating a trip signal is our desire effect for F1, no impact. (note 2) (See CRMP 305)	PAJ
F7	F	Unit 1 AFW MD Pump 13 gets it's power from 4KV Bus 11. Since this bus is already failed (AA) in this scenario, this top will also fail.	PAJ
GE	F	1BKR152-1103 will open not allowing EDG 1A to provide power to 4KV Bus 11.	PAJ
GE(UA)	None	4KV 11 Bus de-energized (See Top AA). All relays will de-energize.	PAJ
GJ	Spec Impt	0BKR152-1106 will open not allowing EDG 0C to provide power to 4KV Bus 11.	PAJ
H5(U1)	None	Impact addressed by QC = F.	PAJ
HB	F	Although this disconnect is not located in the same room as the normally aligned disconnect, the cables go though A317. Therefore, it has to be assumed that a fault will occur in the main supply breaker opening the circuit. Therefore, HB will fail.	PAJ
HF	None	Loss of power to 1TY5443 circuit will result in the dampers remaining open.	PAJ
HG	None	Loss of power to 1TY5441 circuit will result in the dampers remaining open.	PAJ
HS	None	1SV5426A has been deleted.	PAJ
IA	Spec Impt	Submerging 1I/I1013A1 should blow the circuit fuse, thus sending a trip signal to AFAS. This create's a 1 of 3 logic. No impact on top IA. Should only impact VA.	PAJ
IB	Spec Impt	Submerging 1I/I1023A1 should blow the circuit fuse, thus sending a trip signal to AFAS. This create's a 1 of 3 logic. No impact on top IB. Should only impact VA.	PAJ

See notes in RAN 98-065 sect. 5.4 GJBR

TOP	PM	EVALUATION	RI
KH(PP3)	None ~~F~~	~~Submerging 1DISC89-1116 should result in the upstream breaker to open. Therefore, CCW Pump 13 will not operate.~~ (Note 42)	PAJ
KZ	F	Submerging 1DISC89-1116 should result in the upstream breaker to open. Therefore, CCW Pump 13 will not operate.	PAJ
LF	F	1CV4405/4406 fail closed on loss of power and loss of air.	PAJ
M2	None ~~Spec Impt~~	Since Top N2 fails, operators must get power from Top N3. (note 25)	PAJ
M7	F	MCC 106T fails.	PAJ
M8	17BKR	17 breaker challenges.	PAJ
MC	F	11, 12 and 13 Condensate Pumps fail.	PAJ
MN	F ~~Spec Impt~~	SGFP Seal Booster Pump 11 Train fails to provide flow to common header. 12 Train still available. (note 24)	PAJ
N1	F	480V Bus 11A fails.	PAJ
N2	F	480V Bus 11B fails.	PAJ
N3	1BKR	breaker challenges.	PAJ
N4	2BKR	2 breaker challenges.	PAJ
NR	Spec Impt ~~F~~	Unit 1 120VAC distribution panel 11 (From 1MCC101AT) fails. This panel provides power to support components for IA/PA Unit 1 air loads. (note 4)	PAJ
PG	F ~~Spec Impt~~	Only power to the motor driven fire pump is lost via 480V Bus 12A. Operators can switch power to 480V Bus 23A. They may also use the Diesel Driven Pump. (note 26)	PAJ
QC	F	1BKR152-1115/1201 should open on a fault. However, this does not save the transformer. The transformer will fault, thus failing this top.	PAJ
QD	F	Although 1BKR152-1101/1209 are open, their energized cables should fault the transformer when submerged failing this top.	PAJ
QZ	none ~~Spec Impt~~	Operators should be able to recover AFW following a spurious AFAS block. Only channel A will be lost. AFAS will now be in 1 of 3. (note 27)	PAJ
RH	none ~~Spec Impt~~	Operators will not be able to start HPSI pump 13 during this flood scenario. (note 9)	PAJ

TOP	PM	EVALUATION	RI
RQ	None	1BKR52-1201/1212 should already open on a fault.	PAJ
RS	None ~~Spec Impt~~	Submerging THot/TCold transmitters and power supply should result in the failure of Channel A. RPS will be in a 1 of 3. Loss of power to the CEDM circuit will have no effect. The RTCBs will still open. (note 28)	PAJ
S1	F	Both SW pumps 11 and 13 are failed. Pump 11 is failed because 4KV Bus 11 is failed (Top AA) and pump 13 is failed because of the disconnect being submerged.	PAJ
S2	Spec Impt	Loss the ability to use 13 SW pump to supply 12 header. Pump 12 is still available.	PAJ
S3	F	Both SRW pumps 11 and 13 are failed. Pump 11 is failed because 4KV Bus 11 is failed (Top AA) and pump 13 is failed because of the disconnect being submerged.	PAJ
S4	Spec Impt	Loss the ability to use 13 SRW pump to supply 12 header. Pump 12 is still available.	PAJ
SL	None	It is assumed that 1BKR252-11P011/11P02/12P01/12P02 will fail open on a fault.	PAJ
SP(PP3)	F	Operator will not be able to start 13 Component Cooling Pump.	PAJ
T1	None	1CV4406 fails closed on loss of power and loss of air.	PAJ
VC	F	All Condenser Vacuum Pumps Fail. Only 11, 12 and 13 are in the fault trees.	PAJ
XA	Spec Impt	Lose power from Batt Charger 11. If Batt Charger 23 fails, this top fails.	PAJ
XD	Spec Impt	Lose power from Batt Charger 14. If Batt Charger 22 fails, this top fails.	PAJ
Y1	1Bkr	1 Breaker challenge. See Key Input 31 & note 47	JGK
Y2	1Bkr	1 Breaker challenge - See Key Input 31 & note 47	JGK

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A317	1BKR152-1115	U-4000-11 SERVICE TRANSF	AA	AA1X05	BNA1ET	0
A317	1BKR152-1102	U-440-11B SERVICE TRANSF	AA	AABKRA	BNA12O	0
A317	1BKR152-1102	U-440-11B SERVICE TRANSF	AA	AABKRA	BNA12P	0
A317	1BKR152-1104	NO. 11 LOW PRESS SAFETY INJ PUMP	AA	AABKRB	BNA14O	0
A317	1BKR152-1104	NO. 11 LOW PRESS SAFETY INJ PUMP	AA	AABKRB	BNA14P	0
A317	1BKR152-1107	NO. 11 CONTAINMENT SPRAY PUMP	AA	AABKRC	BNA17O	0
A317	1BKR152-1107	NO. 11 CONTAINMENT SPRAY PUMP	AA	AABKRC	BNA17P	0
A317	1BKR152-1105	NO. 11 SALT WATER PUMP	AA	AABKRD	BNA15O	0
A317	1BKR152-1105	NO. 11 SALT WATER PUMP	AA	AABKRD	BNA15P	0
A317	1BKR152-1108	NO. 11 HIGH PRESS SAFETY INJ PUMP	AA	AABKRE	BNA18O	0
A317	1BKR152-1108	NO. 11 HIGH PRESS SAFETY INJ PUMP	AA	AABKRE	BNA18P	0
A317	1BKR152-1116	AFW PP #13	AA	AABKRF	BNA1FO	0
A317	1BKR152-1116	AFW PP #13	AA	AABKRF	BNA1FP	0
A317	1BKR152-1109	NO. 11 SERVICE WATER PUMP	AA	AABKRG	BNA19O	0
A317	1BKR152-1109	NO. 11 SERVICE WATER PUMP	AA	AABKRG	BNA19P	0
A317	1BKR152-1110	NO. 13 HIGH PRESS SAFETY INJ PUMP	AA	AABKRH	BNA10O	0
A317	1BKR152-1110	NO. 13 HIGH PRESS SAFETY INJ PUMP	AA	AABKRH	BNA10P	0
A317	1BKR152-1111	NO. 13 SERVICE WATER PUMP	AA	AABKRI	BNA1AO	0
A317	1BKR152-1111	NO. 13 SERVICE WATER PUMP	AA	AABKRI	BNA1AP	0
A317	1BKR152-1112	NO. 13 SALT WATER PUMP	AA	AABKRJ	BNA1BO	0
A317	1BKR152-1112	NO. 13 SALT WATER PUMP	AA	AABKRJ	BNA1BP	0
A317	1BKR152-1113	SWITCHYARD FEEDER TRANS SX10	AA	AABKRK	BNA1CO	0
A317	1BKR152-1113	SWITCHYARD FEEDER TRANS SX10	AA	AABKRK	BNA1CP	0
A317	1BKR152-1114	U-440-11A SERVICE TRANSF	AA	AABKRL	BNA1DO	0
A317	1BKR152-1114	U-440-11A SERVICE TRANSF	AA	AABKRL	BNA1DP	0
A317	1BUS1A01	4KV BUS 11	AA	BUA01R	BUA01R	0
A317	1NA110	13 SI HI PRESS PP DISC	AA	MAHP3Q	MAHP3Q	0
A317	1NA111	SERV WTR PP 13 DISC	AA	MWSR3Q	MWSR3Q	0
A317	1NA112	SALT WTR PP 13 DISC	AA	MWSW3Q	MWSW3Q	0
A317	1XU-440-11A	480V XFMR U-440-11A	AA	TN11AQ	TN11AQ	0
A317	1XU-440-11B	480V XFMR U-440-11B	AA	TN11BQ	TN11BQ	0
A317	1NA110	13 SI HI PRESS PP DISC	AB	MAHP4Q	MAHP4Q	0
A317	1NA111	SERV WTR PP 13 DISC	AB	MWSR4Q	MWSR4Q	0
A317	1NA112	SALT WTR PP 13 DISC	AB	MWSW4Q	MWSW4Q	0
A317	1BKR152-1201	U-4000-11 SERVICE TRANSF	AE	AE1X05	BNA21T	0
A317	1BUS1A02	4KV BUS 12	AE	AE1X05	BUA02R	0
A317	1BKR152-1202	U-440-12B SERVICE TRANSF	AE	AEBKRA	BNA22O	0
A317	1BKR152-1202	U-440-12B SERVICE TRANSF	AE	AEBKRA	BNA22P	0
A317	1BKR152-1204	NO. 11 CONDENSATE BOOSTER PUMP	AE	AEBKRB	BNA24O	0
A317	1BKR152-1204	NO. 11 CONDENSATE BOOSTER PUMP	AE	AEBKRB	BNA24P	0
A317	1BKR152-1205	NO. 12 CONDENSATE BOOSTER PUMP	AE	AEBKRC	BNA25O	0
A317	1BKR152-1205	NO. 12 CONDENSATE BOOSTER PUMP	AE	AEBKRC	BNA25P	0
A317	1BKR152-1206	NO. 11 HEATER DRAIN PUMP	AE	AEBKRD	BNA26O	0
A317	1BKR152-1206	NO. 11 HEATER DRAIN PUMP	AE	AEBKRD	BNA26P	0
A317	1BKR152-1207	NO. 11 CONDENSATE PUMP	AE	AEBKRE	BNA27O	0
A317	1BKR152-1207	NO. 11 CONDENSATE PUMP	AE	AEBKRE	BNA27P	0
A317	1BKR152-1208	U-440-12A SERVICE TRANSF	AE	AEBKRF	BNA28O	0
A317	1BKR152-1208	U-440-12A SERVICE TRANSF	AE	AEBKRF	BNA28P	0
1TB12-3 (CP)	1PUMPCD11	11 CONDENSATE PUMP (1MA207)	AE	MYCP1Q	MYCP1Q	0
A317	1XU-440-12A	480V XFMR U-440-12A	AE	TN12AQ	TN12AQ	0
A317	1XU-440-12B	480V XFMR U-440-12B	AE	TN12BQ	TN12BQ	0
1TB12-3 (CP)	1PUMPCD12	12 CONDENSATE PUMP (1MA307)	AF	MYCP2Q	MYCP2Q	0
1TB12-3 (CP)	1PUMPCD13	13 CONDENSATE PUMP (1MA308)	AF	MYCP3Q	MYCP3Q	0
A317	1RY89-1104X	CVC DISC 89-1104 CHG PP 13 AUX REL	CV	CVRY04	RY104T	0
A317	1DISC89-1104	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A317	1DISC89-1104	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A317	1I/I1114A1	1 AFW S/G 11 LVL TO AFAS I/I	F1	F1ZD11	II14AR	0
A317	1YX1114A	SG 11 WIDE RANGE CHL L-1114A	F1	F1ZD11	SP14AR	0
A317	1I/I1124A1	1 AFW S/G 12 LVL TO AFAS I/I	F1	F1ZD12	II24AR	0
A317	1YX1X1124A	SG 12 WIDE RANGE CHL L-1124A	F1	F1ZD12	SP24AR	0
A317	1RY1A116/2/SSA1	AFW MTR DRIVEN PP 13 TIME DELAY PICKUP REL	F7	F7RSA1	RYSA1E	0
A317	1RY1A116/2/SSA1	AFW MTR DRIVEN PP 13 TIME DELAY PICKUP REL	F7	F7RSA1	RYSA1P	0
A317	1BKR152-1103	BKR 152-1103 11-17 4KV BUS TIE BKR	GE	GEELC1	BN103T	0
A317	1RY127/B11A	13/4KV BUS 11 U/V RY	GE(UA)	UASEND	RY11AD	0
A317	1RY127/B11A	13/4KV BUS 11 U/V RY	GE(UA)	UASEND	RY11AT	0
A317	1RY127/B11E	13/4KV BUS 11 U/V RY	GE(UA)	UASEND	RY11ED	0
A317	1RY127/B11E	13/4KV BUS 11 U/V RY	GE(UA)	UASEND	RY11ET	0
A317	1RY127/B11B	13/4KV BUS 11 U/V RY	GE(UA)	UASENE	RY11BD	0
A317	1RY127/B11B	13/4KV BUS 11 U/V RY	GE(UA)	UASENE	RY11BT	0
A317	1RY127/B11F	13/4KV BUS 11 U/V RY	GE(UA)	UASENE	RY11FD	0
A317	1RY127/B11F	13/4KV BUS 11 U/V RY	GE(UA)	UASENE	RY11FT	0
A317	1RY127/B11C	13/4KV BUS 11 U/V RY	GE(UA)	UASENF	RY11CD	0
A317	1RY127/B11C	13/4KV BUS 11 U/V RY	GE(UA)	UASENF	RY11CT	0
A317	1RY127/B11G	13/4KV BUS 11 U/V RY	GE(UA)	UASENF	RY11GD	0
A317	1RY127/B11G	13/4KV BUS 11 U/V RY	GE(UA)	UASENF	RY11GT	0
A317	1RY127/B11D	13/4KV BUS 11 U/V RY	GE(UA)	UASENG	RY11DD	0
A317	1RY127/B11D	13/4KV BUS 11 U/V RY	GE(UA)	UASENG	RY11DT	0
A317	1RY127/B11H	13/4KV BUS 11 U/V RY	GE(UA)	UASENG	RY11HD	0
A317	1RY127/B11H	13/4KV BUS 11 U/V RY	GE(UA)	UASENG	RY11HT	0
A317	0BKR152-1106	DSL GEN 0C TO 4KV BUS 11	GJ	GJOUT1	BN106T	0
A317	1BKR152-1101	SUPP BKR FROM U-4000-21	H5(U1)	BHEAZZ	Close	0
A317	1BKR152-1209	SUPP BKR FROM U-4000-21	H5(U1)	BHEAZZ	Close	0
A317	1BKR152-1115	U-4000-11 SERVICE TRANSF	H5(U1)	BHEAZZ	Open	0
A317	1BKR152-1201	U-4000-11 SERVICE TRANSF	H5(U1)	BHEAZZ	Open	0
A317	1NA110	13 SI HI PRESS PP DISC	HB	MA013R	MA013R	0
A317	1NA110	13 SI HI PRESS PP DISC	HB	MA013S	MA013S	0
A317	0AE317A	FSD ZONE 34 SMOKE DET	HF	HFDETA	AE17AR	0
A317	0AE317C	FSD ZONE 34 SMOKE DET	HF	HFDETA	AE17CR	0
A317	0AE317E	FSD ZONE 34 SMOKE DET	HF	HFDETA	AE17ER	0
A317	0AE317B	FSD ZONE 34 SMOKE DET	HF	HFDETB	AE17BR	0
A317	0AE317D	FSD ZONE 34 SMOKE DET	HF	HFDETB	AE17DR	0
A317	0AE317F	FSD ZONE 34 SMOKE DET	HF	HFDETB	AE17FR	0
A317	1FD317N1	SWGR RM SUPPLY FROM RM 317 TO 318 FD	HF	HFDMP7	FD17II	0
A317	1PO5442	EL 27 SUPP SWGR RM SUPP DMPR	HF	HFDMPR	PO442P	0
A317	1TS5443	1 FSD SWGR RM EL 27 OUTLET TS	HF	HFDMPR	PO442P	0
A317	1PO5443	1 HVAC/A SWGR RM EL 27 EXH D PO	HF	HFDMPR	PO443P	0
A317	1TS5443	1 FSD SWGR RM EL 27 OUTLET TS	HF	HFDMPR	PO443P	0
A317	1TS5443	1 FSD SWGR RM EL 27 OUTLET TS	HF	HFTEMP	TS436R	0
A317	1TY5441	SWGR RM EL 45 OUTLT TEMP	HG	HGTEMP	RY441P	0
A317	1SV5426A	1 HVAC/A SWGR RM HVAC UNIT 12 SUPP D SV	HS	HSOPR2	IV26AT	0
A317	1I/I1013A1	1 RPS S/G 11 PT TO RPS/ESFAS	IA	IASEND	II1A1R	0
A317	1I/I1023A1	1 RPS S/G 12 PT TO RPS/ESFAS	IB	IBSEND	II2A1R	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	KH(PP3)	BHEKC1	Start	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	KH(PP3)	BHEKZ1	Start	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	KZ	MZC13R	MZC13R	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	KZ	MZC13S	MZC13S	0
1TB12-3 (CP)	1CV4406	CST TO HTWL M/U CV	LF	LFMUCV	C3406O	0
1TB12-3 (CP)	1I/P4406	COND STORAGE TO HOTWELL CONT	LF	LFMUCV	C3406O	0
1TB12-3 (CP)	1SV4406	CD STORAGE TO HOTWELL CONTROL SV	LF	LFMUCV	C3406O	0
1TB12-3 (CP)	1CV4406	CST TO HTWL M/U CV	LF	LFMUCV	C3406P	0
1TB12-3 (CP)	1I/P4406	COND STORAGE TO HOTWELL CONT	LF	LFMUCV	C3406P	0
1TB12-3 (CP)	1SV4406	CD STORAGE TO HOTWELL CONTROL SV	LF	LFMUCV	C3406P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-3 (CP)	1CV4405	HOTWELL TO COND STORAGE VLV	LF	LFMUCV	C3504T	0
1TB12-3 (CP)	1I/P4405	HOTWELL TO COND STORAGE CONT	LF	LFMUCV	C3504T	0
1TB12-3 (CP)	1LT4405	CD CONDENSER HOTWELL LT	LF	LFMUCV	LT405R	0
A317	1BKR52-1119	114R RX MCC	M2	M2BCBM	CB119T	0
1TB12-2 (CP)	1PNL1C51	11A AMERTAP CNTL PNL 1C51	M7	BUP23Q	BUP23Q	0
1TB12-2 (CP)	1PNL1C52	11B AMERTAP CNTL PNL 1C52	M7	BUP24Q	BUP24Q	0
1TB12-2 (CP)	1PNL1C53	12A AMERTAP CNTL PNL 1C53	M7	BUP25Q	BUP25Q	0
A317	1BKR52-1213	106T TURB MCC	M7	M71213	CB213O	0
A317	1BKR52-1213	106T TURB MCC	M7	M71213	CB213P	0
A317	1BKR152-1202	U-440-12B SERVICE TRANSF	M7	M7B12B	BN12BT	0
A317	1BUS1B02B	480V BUS 12B	M7	M7B12B	BU12BR	0
A317	1BKR52-1222	U-440-12B LOW SIDE BKR	M7	M7B12B	CB222T	0
A317	1BKR52-1213	106T TURB MCC	M7	M7BCBM	CB213T	0
1TB12-2 (CP)	1PUMPCAR12	12 CAR VAC PP (1MB217)	M7	MB217Q	MB217Q	0
1TB12-2 (CP)	1PUMPMSBD11	11 AUX BD TK PUMP (1M0671)	M7	MBP71Q	MBP71Q	0
1TB12-3 (CP)	1PUMPCDMTRLO11	11 CD PP LO CLR PP (1M0607)	M7	MMP07Q	MMP07Q	0
1TB12-2 (CP)	1PUMPCARSWP11	11 CAR SEAL WTR PUMP (1M0636)	M7	MMP36Q	MMP36Q	0
1TB12-2 (CP)	1PUMPCARSWP12	12 CAR SEAL WTR PUMP (1M0637)	M7	MMP37Q	MMP37Q	0
1TB12-3 (CP)	1MOV5225	11A COND'R INLET STRNR VLV	M7	MVP02Q	MVP02Q	0
1TB12-3 (CP)	1MOV5229	11B COND'R INLET STRNR VLV	M7	MVP03Q	MVP03Q	0
1TB12-3 (CP)	1MOV5233	12A COND'R INLET STRNR VLV	M7	MVP04Q	MVP04Q	0
1TB12-3 (CP)	1M0659	11 COND PP LUBE OIL COOLER FAN MTR (1M0659)	M7	VAP59Q	VAP59Q	0
1TB12-2 (CP)	1RECEPTMCC116A	POWER RECEPT MCC116 (1W48, 1W49, 1W50, 1W51)	M8	BUQ05Q	BUQ05Q	0
1TB12-2 (CP)	1PNL1C54	12B AMERTAP CNTL PNL 1C54	M8	BUQ23Q	BUQ23Q	0
1TB12-2 (CP)	1PNL1C55	13A AMERTAP CNTL PNL 1C55	M8	BUQ24Q	BUQ24Q	0
1TB12-2 (CP)	1PNL1C56	13B AMERTAP CNTL PNL 1C56	M8	BUQ25Q	BUQ25Q	0
1TB12-2 (CP)	1PUMPCAR14	14 CAR VAC PP (1MB317)	M8	MB317Q	MB317Q	0
1TB12-2 (CP)	1PUMPSMP11TB11	11 TURB BLDG SUMP 11 PP (1M1642)	M8	MBQ42Q	MBQ42Q	0
1TB12-2 (CP)	1PUMPSMP11TB12	11 TURB BLDG SUMP PP 12 (1M1643)	M8	MBQ43Q	MBQ43Q	0
1TB12-2 (CP)	1PUMPMSBD12	12 AUX BD TK PUMP (1M1656)	M8	MBQ56Q	MBQ56Q	0
1TB12-3 (CP)	1PUMPCDMTRLO12	12 CD PP LO CLR PP (1M1606)	M8	MMQ06Q	MMQ06Q	0
1TB12-3 (CP)	1PUMPCDMTRLO13	13 CD PP LO CLR PP (1M1607)	M8	MMQ07Q	MMQ07Q	0
1TB12-2 (CP)	1PUMPCARSWP13	13 CAR SEAL WTR PUMP (1M1636)	M8	MMQ36Q	MMQ36Q	0
1TB12-2 (CP)	1PUMPCARSWP14	14 CAR SEAL WTR PUMP (1M1637)	M8	MMQ37Q	MMQ37Q	0
1TB12-3 (CP)	1MOV5237	12B COND'R INLET STRNR VLV	M8	MVQ02Q	MVQ02Q	0
1TB12-3 (CP)	1MOV5241	13A COND'R STRNR INLET VLV	M8	MVQ03Q	MVQ03Q	0
1TB12-3 (CP)	1MOV5245	13B COND'R INLET STRNR VLV	M8	MVQ04Q	MVQ04Q	0
1TB12-3 (CP)	1M1659	12 COND PP LUBE OIL COOLER FAN MTR (1M1659)	M8	VAQ59Q	VAQ59Q	0
1TB12-3 (CP)	1M1660	13 COND PP LUBE OIL COOLER FAN MTR (1M1660)	M8	VAQ60Q	VAQ60Q	0
A317	1RY1A204/2/4453	11 COND CBP BKR 152-1204 TIME DELAY DROP OUT REL	MC	MCBP10	RY242P	0
A317	1RY1A204/3	COND BOOSTER PUMP 11 AUX RELAY	MC	MCBP10	RY243T	0
A317	1PY4453	11 COND CBP PRESSURE CONVERTER REL	MC	MCBP10	RY453P	0
A317	1RY1A205/2/4460	12 COND CBP BKR 152-1205 TIME DELAY DROP OUT REL	MC	MCBP20	RY252P	0
A317	1RY1A205/3	COND BOOSTER PUMP 12 AUX RELAY	MC	MCBP20	RY253T	0
A317	1PY4460	12 COND CBP PRESSURE CONVERTER REL	MC	MCBP20	RY460P	0
1TB12-3 (CP)	1YS4414	COND PMP MOTOR 11 OIL STRAINER	MC	MCPP10	YS414P	0
1TB12-3 (CP)	1YS4421	COND PMP MOTOR 12 OIL STRAINER	MC	MCPP20	YS421P	0
1TB12-3 (CP)	1YS4428	COND PMP MOTOR 13 OIL STRAINER	MC	MCPP30	YS428P	0
1TB12-3 (CP)	1PUMPCDMTRLO11	11 CD PP LO CLR PP (1M0607)	MC	MML11R	MML11R	0
1TB12-3 (CP)	1PUMPCDMTRLO12	12 CD PP LO CLR PP (1M1606)	MC	MML12R	MML12R	0
1TB12-3 (CP)	1PUMPCDMTRLO13	13 CD PP LO CLR PP (1M1607)	MC	MML13R	MML13R	0
1TB12-3 (CP)	1PUMPCD11	11 CONDENSATE PUMP (1MA207)	MC	MYC11R	MYC11R	0
1TB12-3 (CP)	1PUMPCD12	12 CONDENSATE PUMP (1MA307)	MC	MYC12R	MYC12R	0
1TB12-3 (CP)	1PUMPCD13	13 CONDENSATE PUMP (1MA308)	MC	MYC13R	MYC13R	0
1TB12-3 (CP)	1M0659	11 COND PP LUBE OIL COOLER FAN MTR (1M0659)	MC	VAL11R	VAL11R	0
1TB12-3 (CP)	1M1659	12 COND PP LUBE OIL COOLER FAN MTR (1M1659)	MC	VAL12R	VAL12R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-3 (CP)	1M1660	13 COND PP LUBE OIL COOLER FAN MTR (1M1660)	MC	VAL13R	VAL13R	0
A317	1BKR52-1109	101 AT TURB MCC	MN	MNF71B	CB109T	0
A317	1DISC89-1104	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A317	1BKR52-1101	11 CAV CLG FAN	N1	N11101	CB101O	0
A317	1BKR52-1101	11 CAV CLG FAN	N1	N11101	CB101P	0
A317	1BKR52-1102	11 CONTMT AIR CLR	N1	N11102	CB102O	0
A317	1BKR52-1102	11 CONTMT AIR CLR	N1	N11102	CB102P	0
A317	1BKR52-1104	13 CHG PP	N1	N11104	CB104O	0
A317	1BKR52-1104	13 CHG PP	N1	N11104	CB104P	0
A317	1BKR52-1105	11 CONTMT FILT UNIT	N1	N11105	CB105O	0
A317	1BKR52-1105	11 CONTMT FILT UNIT	N1	N11105	CB105P	0
A317	1BKR52-1106	11 COMP CLG PP	N1	N11106	CB106O	0
A317	1BKR52-1106	11 COMP CLG PP	N1	N11106	CB106P	0
A317	1BKR52-1107	15 BATT CHGR	N1	N11107	CB107O	0
A317	1BKR52-1107	15 BATT CHGR	N1	N11107	CB107P	0
A317	1BKR52-1108	11 CONT RM A/C COMPR	N1	N11108	CB108O	0
A317	1BKR52-1108	11 CONT RM A/C COMPR	N1	N11108	CB108P	0
A317	1BKR52-1109	101 AT TURB MCC	N1	N11109	CB109O	0
A317	1BKR52-1109	101 AT TURB MCC	N1	N11109	CB109P	0
A317	1BKR52-1110	11 SWGR RM A/C COMPR	N1	N11110	CB110O	0
A317	1BKR52-1110	11 SWGR RM A/C COMPR	N1	N11110	CB110P	0
A317	1BKR52-1111	11 BATT CHGR	N1	N11111	CB111O	0
A317	1BKR52-1111	11 BATT CHGR	N1	N11111	CB111P	0
A317	1BKR52-1130	11 PZR HTR PROP CONTR	N1	N11130	CB130O	0
A317	1BKR52-1130	11 PZR HTR PROP CONTR	N1	N11130	CB130P	0
A317	1BKR152-1114	U-440-11A SERVICE TRANSF	N1	N1B11A	BN11AT	0
A317	1BUS1B01A	480V BUS 11A	N1	N1B11A	BU11AR	0
A317	1BKR52-1112	U-440-11A LOW SIDE BKR	N1	N1B11A	CB112T	0
A317	1NB130	11A RC PZR HTR 11 PROP CONTR	N1	TC130Q	TC130Q	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	N2	MZ116Q	MZ116Q	0
A317	1BKR52-1114	12 CONTMT AIR CLR	N2	N21114	CB114O	0
A317	1BKR52-1114	12 CONTMT AIR CLR	N2	N21114	CB114P	0
A317	1BKR52-1115	11 CHG PP	N2	N21115	CB115O	0
A317	1BKR52-1115	11 CHG PP	N2	N21115	CB115P	0
A317	1BKR52-1116	13 COMP CLG PP	N2	N21116	CB116O	0
A317	1BKR52-1116	13 COMP CLG PP	N2	N21116	CB116P	0
A317	1BKR52-1117	11 MAIN PLT EXH FAN	N2	N21117	CB117O	0
A317	1BKR52-1117	11 MAIN PLT EXH FAN	N2	N21117	CB117P	0
A317	1BKR52-1118	11 INSTR AIR COMPR	N2	N21118	CB118O	0
A317	1BKR52-1118	11 INSTR AIR COMPR	N2	N21118	CB118P	0
A317	1BKR52-1119	114R RX MCC	N2	N21119	CB119O	0
A317	1BKR52-1119	114R RX MCC	N2	N21119	CB119P	0
A317	1BKR52-1120	14 BATT CHGR	N2	N21120	CB120O	0
A317	1BKR52-1120	14 BATT CHGR	N2	N21120	CB120P	0
A317	1BKR52-1121	13 CONTMT FILT UNIT	N2	N21121	CB121O	0
A317	1BKR52-1121	13 CONTMT FILT UNIT	N2	N21121	CB121P	0
A317	1BKR52-1122	H2 RECOMB PWR PNL 11	N2	N21122	CB122O	0
A317	1BKR52-1122	H2 RECOMB PWR PNL 11	N2	N21122	CB122P	0
A317	1BKR52-1123	PLANT AIR COMPRESSOR 11	N2	N21123	CB123O	0
A317	1BKR52-1123	PLANT AIR COMPRESSOR 11	N2	N21123	CB123P	0
A317	1BKR52-1127	109 PH PZR HTR MCC	N2	N21127	CB127O	0
A317	1BKR52-1127	109 PH PZR HTR MCC	N2	N21127	CB127P	0
A317	1BKR152-1102	U-440-11B SERVICE TRANSF	N2	N2B11B	BN11BT	0
A317	1BUS1B01B	480V BUS 11B	N2	N2B11B	BU11BR	0
A317	1BKR52-1113	U-440-11B LOW SIDE BKR	N2	N2B11B	CB113T	0
A317	1DISC89-1121	13 CONTMT FILT UNIT DISCS	N2	VG121Q	VG121Q	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A317	1DISC89-1104	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	N4	MZ416Q	MZ416Q	0
A317	1DISC89-1121	13 CONTMT FILT UNIT DISCS	N4	VG421Q	VG421Q	0
A317	1BKR52-1109	101 AT TURB MCC	NR	NR1P01	CB1B9T	0
A317	1RY1B118/62	11 IA COMPR TIME DELAY PICKUP RY	NR	NRIA11	RY118E	0
A317	1RY1B118/62	11 IA COMPR TIME DELAY PICKUP RY	NR	NRIA11	RY118P	0
A317	1BKR152-1208	U-440-12A SERVICE TRANSF	PG	PGBK06	BN208T	0
A317	1BUS1B02A	480V BUS 12A	PG	PGBK06	BU12AR	0
A317	1BKR52-1201	U-440-12A LOW SIDE BKR	PG	PGBK06	CB201T	0
A317	1BKR52-1208	FIRE PP FDR	PG	PGBK06	CB208T	0
A317	1RY1B208/CR	MOTOR FIRE PUMP CR RELAY	PG	PGRY16	RYFCRE	0
A317	1RY1B208/CR	MOTOR FIRE PUMP CR RELAY	PG	PGRY16	RYFCRP	0
A317	1XU-440-12A	480V XFMR U-440-12A	PG	TN12AR	TN12AR	0
A317	1BUS1A01	4KV BUS 11	QC	BUA01R	BUA01R	0
A317	1BUS1A02	4KV BUS 12	QC	BUA02R	BUA02R	0
A317	1BKR152-1115	U-4000-11 SERVICE TRANSF	QC	QCBUS1	BNA1EO	0
A317	1BKR152-1115	U-4000-11 SERVICE TRANSF	QC	QCBUS1	BNA1EP	0
A317	1BKR152-1201	U-4000-11 SERVICE TRANSF	QC	QCBUS2	BNA21O	0
A317	1BKR152-1201	U-4000-11 SERVICE TRANSF	QC	QCBUS2	BNA21P	0
A317	1BKR152-1115	U-4000-11 SERVICE TRANSF	QC	QCFLST	TXQC1Q	0
A317	1BKR152-1201	U-4000-11 SERVICE TRANSF	QC	QCFLST	TXQC2Q	0
1TB12-3 (CP)	1PUMPCD12	12 CONDENSATE PUMP (1MA307)	QC	QCMISC	MYCP2Q	0
1TB12-3 (CP)	1PUMPCD13	13 CONDENSATE PUMP (1MA308)	QC	QCMISC	MYCP3Q	0
A317	1BKR152-1101	SUPP BKR FROM U-4000-21	QD	QDFLST	TXQD1Q	0
A317	1BKR152-1209	SUPP BKR FROM U-4000-21	QD	QDFLST	TXQD2Q	0
A317	1I/I1013A3	11 FW S/G PT TO INDIC I/I	QZ	F1PT1A	II10AR	0
A317	1I/I1013A2	11 AFW S/G PRESSURE PROTECTION I/I SIG CONVERTE	QZ	F1PT1A	II13AR	0
A317	1I/I1013A1	1 RPS S/G 11 PT TO RPS/ESFAS	QZ	F1PT1A	II1A1R	0
A317	1I/I1023A2	1 AFW SG 12 PT TO AFAS I/I	QZ	F1PT1A	II23AR	0
A317	1YX1X1013A1	FW 1PT1013A LOOP PWR SUPP	QZ	F1PT1A	SP13AR	0
A317	1I/I1013A2	11 AFW S/G PRESSURE PROTECTION I/I SIG CONVERTE	QZ	F1PT2A	II13AR	0
A317	1I/I1023A2	1 AFW SG 12 PT TO AFAS I/I	QZ	F1PT2A	II23AR	0
A317	1I/I1023A1	1 RPS S/G 12 PT TO RPS/ESFAS	QZ	F1PT2A	II3A1R	0
A317	1I/I1023A3	12 FW S/G PT TO INDIC I/I	QZ	F1PT2A	II3A3R	0
A317	1YX1X1023A1	1PT1023A LOOP PWR SUPP	QZ	F1PT2A	SP23AR	0
A317	1NA110	13 SI HI PRESS PP DISC	RH	BHERH1	Start	0
A317	1BKR52-1201	U-440-12A LOW SIDE BKR	RQ	BHERS1	Open	0
A317	1BKR52-1212	480V BUS 12A & B TIE BREAKER	RQ	BHERS1	Open	0
A317	1BKR52-1201	U-440-12A LOW SIDE BKR	RQ	CB201O	CB201O	0
A317	1YX1X112HA	1 RPS 1TT112HA PWR SUPP	RS	RSCHAT	SP1HAR	0
A317	1YX1X122HA	11 RXV PWR SUP 122HA XFMR	RS	RSCHAT	SP2HAR	0
A317	1TT112CA	11A RPS T-COLD XMTR	RS	RSCHAT	TT1CAR	0
A317	1TT112HA	11 RPS T-HOT XMTR	RS	RSCHAT	TT1HAR	0
A317	1TT122CA	12A RPS T-COLD XMTR	RS	RSCHAT	TT2CAR	0
A317	1TT122HA	1 RPS 12 T-HOT TEMP XMTR	RS	RSCHAT	TT2HAR	0
A317	1YX1X112HB	1 RPS 1TT112HB PWR SUPP	RS	RSCHBT	SP1HBR	0
A317	1HSMG11-5PB	CEDS MG 11 BYPASS IN	RS	RSMG11	HS15PT	0
A317	1CONT1Q206/3M	CEDM M/G/ SET 11 LOAD CONTACTOR	RS	RSMG11	RY13MD	0
A317	1CONT1Q206/3M	CEDM M/G/ SET 11 LOAD CONTACTOR	RS	RSMG11	RY13MT	0
A317	1CONT1Q206/4M	CEDM M/G SET 11 BYPASS CONTACTOR	RS	RSMG11	RY14MT	0
A317	1RYMX11	CEDS MG 11 LOAD CONTROL RELAY	RS	RSMG11	RYX11D	0
A317	1RYMX11	CEDS MG 11 LOAD CONTROL RELAY	RS	RSMG11	RYX11T	0
A317	1NA112	SALT WTR PP 13 DISC	S1	MWS13R	MWS13R	0
A317	1NA112	SALT WTR PP 13 DISC	S1	MWS13S	MWS13S	0
A317	1NA112	SALT WTR PP 13 DISC	S2	MWS13R	MWS13R	0
A317	1NA112	SALT WTR PP 13 DISC	S2	MWS13S	MWS13S	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A317	1NA111	SERV WTR PP 13 DISC	S3	MWS13R	MWS13R	0
A317	1NA111	SERV WTR PP 13 DISC	S3	MWS13S	MWS13S	0
A317	1NA111	SERV WTR PP 13 DISC	S4	MWS13R	MWS13R	0
A317	1NA111	SERV WTR PP 13 DISC	S4	MWS13S	MWS13S	0
A317	1BKR252-11P01	NO 11A RCP SUPPLY FROM SERVICE BUS 12	SL	BHESL2	Open	0
A317	1BKR252-11P02	NO 11A RCP SUPPLY FROM SERVICE BUS 22	SL	BHESL2	Open	0
A317	1BKR252-12P01	NO 12A RCP SUPPLY FROM SERVICE BUS 12	SL	BHESL2	Open	0
A317	1BKR252-12P02	NO 12A RCP SUPPLY FROM SERVICE BUS 22	SL	BHESL2	Open	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	SP(PP3)	BHEK12	Start	0
1TB12-3 (CP)	1CV4406	CST TO HTWL M/U CV	T1	T1CS1F	C3406T	0
1TB12-3 (CP)	1I/P4406	COND STORAGE TO HOTWELL CONT	T1	T1CS1F	C3406T	0
1TB12-3 (CP)	1SV4406	CD STORAGE TO HOTWELL CONTROL SV	T1	T1CS1F	C3406T	0
1TB12-3 (CP)	1LT4405	CD CONDENSER HOTWELL LT	T1	T1CS1F	LT405R	0
1TB12-2 (CP)	1PUMPCARSWP11	11 CAR SEAL WTR PUMP (1M0636)	VC	MMS11R	MMS11R	0
1TB12-2 (CP)	1PUMPCARSWP12	12 CAR SEAL WTR PUMP (1M0637)	VC	MMS12R	MMS12R	0
1TB12-2 (CP)	1PUMPCARSWP13	13 CAR SEAL WTR PUMP (1M1636)	VC	MMS13R	MMS13R	0
1TB12-2 (CP)	1PUMPCAR11	11 CAR VAC PP (1MB203)	VC	MMV11R	MMV11R	0
1TB12-2 (CP)	1PUMPCAR12	12 CAR VAC PP (1MB217)	VC	MMV12R	MMV12R	0
1TB12-2 (CP)	1PUMPCAR13	13 CAR VAC PP (1MB303)	VC	MMV13R	MMV13R	0
A317	1BKR152-1208	U-440-12A SERVICE TRANSF	VC	VC012A	BN208T	0
A317	1BUS1B02A	480V BUS 12A	VC	VC012A	BUB2AR	0
A317	1BKR52-1201	U-440-12A LOW SIDE BKR	VC	VC012A	CB201T	0
A317	1XU-440-12A	480V XFMR U-440-12A	VC	VC012A	TN12AR	0
A317	1BKR152-1202	U-440-12B SERVICE TRANSF	VC	VC012B	BN202T	0
A317	1BUS1B02B	480V BUS 12B	VC	VC012B	BUB2BR	0
A317	1BKR52-1222	U-440-12B LOW SIDE BKR	VC	VC012B	CB222T	0
A317	1XU-440-12B	480V XFMR U-440-12B	VC	VC012B	TN12BR	0
1TB12-3 (CP)	1HS5225	11 CW PP WTRBX INL VLV HS	VC	VCCW1A	HS225T	0
1TB12-3 (CP)	1MOV5225	11A COND'R INLET STRNR VLV	VC	VCCW1A	MV225P	0
1TB12-3 (CP)	1HS5229	12 CW PP WTRBX INL VLV HS	VC	VCCW2A	HS229T	0
1TB12-3 (CP)	1MOV5229	11B COND'R INLET STRNR VLV	VC	VCCW2A	MV229P	0
1TB12-3 (CP)	1HS5233	13 CW PP WTRBX INL VLV HS	VC	VCCW3A	HS233T	0
1TB12-3 (CP)	1MOV5233	12A COND'R INLET STRNR VLV	VC	VCCW3A	MV233P	0
1TB12-3 (CP)	1HS5237	14 CW PP WTRBX INL VLV HS	VC	VCCW4A	HS237T	0
1TB12-3 (CP)	1MOV5237	12B COND'R INLET STRNR VLV	VC	VCCW4A	MV237P	0
1TB12-3 (CP)	1HS5241	15 CW PP WTRBX INL VLV HS	VC	VCCW5A	HS241T	0
1TB12-3 (CP)	1MOV5241	13A COND'R STRNR INLET VLV	VC	VCCW5A	MV241P	0
1TB12-3 (CP)	1HS5245	15 CW PP WTRBX INL VLV HS	VC	VCCW6A	HS245T	0
1TB12-3 (CP)	1MOV5245	13B COND'R INLET STRNR VLV	VC	VCCW6A	MV245P	0
1TB12-2 (CP)	1CV1754	11 CAR UNIT MOTIVE AIR	VC	VCP011	C3754P	0
1TB12-2 (CP)	1CV1755	11 CAR UNIT SYS DIAPHRAM	VC	VCP011	C3755P	0
A317	1SV1755	11 CAR DIAPHRAM VLV	VC	VCP011	C3755P	0
1TB12-2 (CP)	1LCV1753	11 CAR SEP	VC	VCP011	LC753R	0
1TB12-2 (CP)	1PS1755	11 CAR CNDSR VAC PP SEAL LOW PRESSURE WTR PS	VC	VCP011	PS755R	0
1TB12-2 (CP)	1CV1757	12 CAR UNIT MOTIVE AIR	VC	VCP012	C3757P	0
1TB12-2 (CP)	1CV1758	12 CAR UNIT SYS DIAPHRAM	VC	VCP012	C3758P	0
A317	1SV1758	12 CAR DIAPHRAM VLV	VC	VCP012	C3758P	0
1TB12-2 (CP)	1LCV1756	12 CAR SEP LO LVL CONTROL	VC	VCP012	LC756R	0
1TB12-2 (CP)	1PS1758	12 CAR CNDSR VAC PP SEAL WTR LOW PRESSURE PS	VC	VCP012	PS758R	0
1TB12-2 (CP)	1CV1760	13 CAR UNIT MOTIVE AIR	VC	VCP013	C3760P	0
1TB12-2 (CP)	1CV1761	13 CAR UNIT SYS DIAPHRAM	VC	VCP013	C3761P	0
1TB12-2 (CP)	1LCV1759	SEP LO LVL CONTROL	VC	VCP013	LC759R	0
1TB12-2 (CP)	1PS1761	13 CAR CNDSR VAC PP SEAL WTR LOW PRESSURE PS	VC	VCP013	PS761R	0
1TB12-3 (CP)	1HXCARSWC11	11 CAR SEAL WTR CLR	VC	VCS011	HXS11B	0
1TB12-3 (CP)	1HXCARSWC11	11 CAR SEAL WTR CLR	VC	VCS011	HXS11P	0
1TB12-3 (CP)	1HXCARSWC12	12 CAR SEAL WTR CLR	VC	VCS012	HXS12B	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-3 (CP)	1HXCARSWC12	12 CAR SEAL WTR CLR	VC	VCS012	HXS12P	0
1TB12-3 (CP)	1HXCARSWC13	13 CAR SEAL WTR CLR	VC	VCS013	HXS13B	0
1TB12-3 (CP)	1HXCARSWC13	13 CAR SEAL WTR CLR	VC	VCS013	HXS13P	0
A317	1BKR52-1111	11 BATT CHGR	XA	XAC11E	CBXN1T	0
A317	1BKR52-1120	14 BATT CHGR	XD	XDC14E	CBXN2T	0

Flood Evaluation Query

CF-12B-F317AN *

19-Nov-98

TOP	PM	EVALUATION	RI
AA	F	4KV Bus 11 fails.	PAJ
AB	3BKR	3 breaker challenges.	PAJ
AE	F	4KV Bus 12 fails.	PAJ
AF	2BKR	2 breaker challenges.	PAJ
CV	F	Conservatively set to failure. CVCS relatively unimportant.	PAJ
F1	Spec Impt	In 1 of 3. Spurious actuation needs to be considered. 11 and 12 SG's lose one of four sensor channels creating a 1 of 3 logic. Since creating a trip signal is our desire effect for F1, no impact. Steam admission Control valves 1CV4070/4071 are normally closed, and will fail as-is(closed) on loss of power. Therefore, operators will be unable to open valves. These valves continuously have air (closing the valve). The operators may bleed air to open valve if need be.	PAJ
F3	None	Steam Admission SV's 1SV4070/4071 are covered under top event F1.	PAJ
F7	F	Unit 1 AFW MD Pump 13 gets it's power from 4KV Bus 11. Since this bus is already failed (AA) in this scenario, this top will also fail.	PAJ
FT	Spec Impt	1MOV4516/4517 are normally open and fail as-is. Therefore, if the SGFPs do not trip (which they should), then this top event will fail.	PAJ
GE	F	1BKR152-1103 will open not allowing EDG 1A to provide power to 4KV Bus 11.	PAJ
GE(UA)	None	4KV 11 Bus de-energized (See Top AA). All relays will de-energize.	PAJ
GJ	Spec Impt	0BKR152-1106 will open not allowing EDG 0C to provide power to 4KV Bus 11.	PAJ
H5(U1)	None	Impact addressed by QC = F.	PAJ
HB	F	Although this disconnect is not located in the same room as the normally aligned disconnect, the cables go though A317. Therefore, it has to be assumed that a fault will occur in the main supply breaker opening the circuit. Therefore, HB will fail.	PAJ
HF	None	Loss of power to 1TY5443 circuit will result in the dampers remaining open.	PAJ
HG	None	Loss of power to 1TY5441 circuit will result in the dampers remaining open.	PAJ

This flood is deleted. See note 12 in RAN 98-065 sect. 5.4 JBR

TOP	PM	EVALUATION	RI
HS	None	1SV5426A has been deleted.	PAJ
IA	Spec Impt	Submerging 1I/I1013A1 should blow the circuit fuse, thus sending a trip signal to AFAS. This create's a 1 of 3 logic. No impact on top IA. Should only impact VA.	PAJ
IB	Spec Impt	Submerging 1I/I1023A1 should blow the circuit fuse, thus sending a trip signal to AFAS. This create's a 1 of 3 logic. No impact on top IB. Should only impact VA.	PAJ
KH(PP3)	F	Submerging 1DISC89-1116 should result in the upstream breaker to open. Therefore, CCW Pump 13 will not operate.	PAJ
KZ	F	Submerging 1DISC89-1116 should result in the upstream breaker to open. Therefore, CCW Pump 13 will not operate.	PAJ
LF	F	1CV4405/4406 fail closed. 1MOV4516/4517 are normally open and fail as-is.	PAJ
M1	2BKR	2 breaker challenges.	PAJ
M2	Spec Impt	Since Top N2 fails, operators must get power from Top N3. Also 2 Breaker Challanges.	PAJ
M7	F	MCC 106T fails.	PAJ
M8	17BKR	17 breaker challenges.	PAJ
MC	F	11, 12 and 13 Condensate Pumps fail.	PAJ
MH	Spec Impt	1CV4070/4071 are normally closed and fail as-is on loss of power. These valves must be locally vented.	PAJ
MN	Spec Impt	SGFP Seal Booster Pump 11 Train fails to provide flow to common header. 12 Train still available. 1MOV4516/4517 are normally open and fail as-is.	PAJ
MS	F	1CV4043/4048 are normally open and fail as-is.	PAJ
N1	F	480V Bus 11A fails.	PAJ
N2	F	480V Bus 11B fails.	PAJ
N3	1BKR	1 breaker challenges.	PAJ
N4	2BKR	2 breaker challenges.	PAJ

TOP	PM	EVALUATION	RI
NR	F	Unit 1 120VAC distribution panel 11 (From 1MCC101AT) fails. This panel provides power to support components for IA/PA Unit 1 air loads.	PAJ
PG	Spec Impt	Only power to the motor driven fire pump is lost via 480V Bus 12A. Operators can switch power to 480V Bus 23A. They may also use the Diesel Driven Pump.	PAJ
QC	F	1BKR152-1115/1201 should open on a fault. However, this does not save the transformer. The transformer will fault, thus failing this top.	PAJ
QD	F	Although 1BKR152-1101/1209 are open, their energized cables should fault the transformer when submerged failing this top.	PAJ
QZ	Spec Impt	Operators should be able to recover AFW following a spurious AFAS block. Only channel A will be lost. AFAS will now be in 1 of 3.	PAJ
RH	Spec Impt	Operators will not be able to start HPSI pump 13 during this flood scenario.	PAJ
RQ	None	1BKR52-1201/1212 should already open on a fault.	PAJ
RS	Spec Impt	Submerging THot/TCold transmitters and power supply should result in the failure of Channel A. RPS will be in a 1 of 3. Loss of power to the CEDM circuit will have no effect. The RTCBs will still open.	PAJ
S1	F	Both SW pumps 11 and 13 are failed. Pump 11 is failed because 4KV Bus 11 is failed (Top AA) and pump 13 is failed because of the disconnect being submerged.	PAJ
S2	Spec Impt	Loss the ability to use 13 SW pump to supply 12 header. Pump 12 is still available.	PAJ
S3	F	Both SRW pumps 11 and 13 are failed. Pump 11 is failed because 4KV Bus 11 is failed (Top AA) and pump 13 is failed because of the disconnect being submerged.	PAJ
S4	Spec Impt	Loss the ability to use 13 SRW pump to supply 12 header. Pump 12 is still available.	PAJ
SL	None	It is assumed that 1BKR252-11P011/11P02/12P01/12P02 will fail open on a fault.	PAJ
SP(PP3)	F	Operator will not be able to start 13 Component Cooling Pump.	PAJ
T1	None	1CV4406 fails closed on loss of power and loss of air.	PAJ
VC	F	All Condenser Vacuum Pumps Fail. Only 11, 12 and 13 are in the fault trees.	PAJ
XA	Spec Impt	Lose power from Batt Charger 11. If Batt Charger 23 fails, this top fails.	PAJ
XD	Spec Impt	Lose power from Batt Charger 14. If Batt Charger 22 fails, this top fails.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A317	1BKR152-1115	U-4000-11 SERVICE TRANSF	AA	AA1X05	BNA1ET	0
A317	1BKR152-1102	U-440-11B SERVICE TRANSF	AA	AABKRA	BNA12O	0
A317	1BKR152-1102	U-440-11B SERVICE TRANSF	AA	AABKRA	BNA12P	0
A317	1BKR152-1104	NO. 11 LOW PRESS SAFETY INJ PUMP	AA	AABKRB	BNA14O	0
A317	1BKR152-1104	NO. 11 LOW PRESS SAFETY INJ PUMP	AA	AABKRB	BNA14P	0
A317	1BKR152-1107	NO. 11 CONTAINMENT SPRAY PUMP	AA	AABKRC	BNA17O	0
A317	1BKR152-1107	NO. 11 CONTAINMENT SPRAY PUMP	AA	AABKRC	BNA17P	0
A317	1BKR152-1105	NO. 11 SALT WATER PUMP	AA	AABKRD	BNA15O	0
A317	1BKR152-1105	NO. 11 SALT WATER PUMP	AA	AABKRD	BNA15P	0
A317	1BKR152-1108	NO. 11 HIGH PRESS SAFETY INJ PUMP	AA	AABKRE	BNA18O	0
A317	1BKR152-1108	NO. 11 HIGH PRESS SAFETY INJ PUMP	AA	AABKRE	BNA18P	0
A317	1BKR152-1116	AFW PP #13	AA	AABKRF	BNA1FO	0
A317	1BKR152-1116	AFW PP #13	AA	AABKRF	BNA1FP	0
A317	1BKR152-1109	NO. 11 SERVICE WATER PUMP	AA	AABKRG	BNA19O	0
A317	1BKR152-1109	NO. 11 SERVICE WATER PUMP	AA	AABKRG	BNA19P	0
A317	1BKR152-1110	NO. 13 HIGH PRESS SAFETY INJ PUMP	AA	AABKRH	BNA10O	0
A317	1BKR152-1110	NO. 13 HIGH PRESS SAFETY INJ PUMP	AA	AABKRH	BNA10P	0
A317	1BKR152-1111	NO. 13 SERVICE WATER PUMP	AA	AABKRI	BNA1AO	0
A317	1BKR152-1111	NO. 13 SERVICE WATER PUMP	AA	AABKRI	BNA1AP	0
A317	1BKR152-1112	NO. 13 SALT WATER PUMP	AA	AABKRJ	BNA1BO	0
A317	1BKR152-1112	NO. 13 SALT WATER PUMP	AA	AABKRJ	BNA1BP	0
A317	1BKR152-1113	SWITCHYARD FEEDER TRANS SX10	AA	AABKRK	BNA1CO	0
A317	1BKR152-1113	SWITCHYARD FEEDER TRANS SX10	AA	AABKRK	BNA1CP	0
A317	1BKR152-1114	U-440-11A SERVICE TRANSF	AA	AABKRL	BNA1DO	0
A317	1BKR152-1114	U-440-11A SERVICE TRANSF	AA	AABKRL	BNA1DP	0
A317	1BUS1A01	4KV BUS 11	AA	BUA01R	BUA01R	0
A317	1NA110	13 SI HI PRESS PP DISC	AA	MAHP3Q	MAHP3Q	0
A317	1NA111	SERV WTR PP 13 DISC	AA	MWSR3Q	MWSR3Q	0
A317	1NA112	SALT WTR PP 13 DISC	AA	MWSW3Q	MWSW3Q	0
A317	1XU-440-11A	480V XFMR U-440-11A	AA	TN11AQ	TN11AQ	0
A317	1XU-440-11B	480V XFMR U-440-11B	AA	TN11BQ	TN11BQ	0
A317	1NA110	13 SI HI PRESS PP DISC	AB	MAHP4Q	MAHP4Q	0
A317	1NA111	SERV WTR PP 13 DISC	AB	MWSR4Q	MWSR4Q	0
A317	1NA112	SALT WTR PP 13 DISC	AB	MWSW4Q	MWSW4Q	0
A317	1BKR152-1201	U-4000-11 SERVICE TRANSF	AE	AE1X05	BNA21T	0
A317	1BUS1A02	4KV BUS 12	AE	AE1X05	BUA02R	0
A317	1BKR152-1202	U-440-12B SERVICE TRANSF	AE	AEBKRA	BNA22O	0
A317	1BKR152-1202	U-440-12B SERVICE TRANSF	AE	AEBKRA	BNA22P	0
A317	1BKR152-1204	NO. 11 CONDENSATE BOOSTER PUMP	AE	AEBKRB	BNA24O	0
A317	1BKR152-1204	NO. 11 CONDENSATE BOOSTER PUMP	AE	AEBKRB	BNA24P	0
A317	1BKR152-1205	NO. 12 CONDENSATE BOOSTER PUMP	AE	AEBKRC	BNA25O	0
A317	1BKR152-1205	NO. 12 CONDENSATE BOOSTER PUMP	AE	AEBKRC	BNA25P	0
A317	1BKR152-1206	NO. 11 HEATER DRAIN PUMP	AE	AEBKRD	BNA26O	0
A317	1BKR152-1206	NO. 11 HEATER DRAIN PUMP	AE	AEBKRD	BNA26P	0
A317	1BKR152-1207	NO. 11 CONDENSATE PUMP	AE	AEBKRE	BNA27O	0
A317	1BKR152-1207	NO. 11 CONDENSATE PUMP	AE	AEBKRE	BNA27P	0
A317	1BKR152-1208	U-440-12A SERVICE TRANSF	AE	AEBKRF	BNA28O	0
A317	1BKR152-1208	U-440-12A SERVICE TRANSF	AE	AEBKRF	BNA28P	0
1TB12-3 (CP)	1PUMPCD11	11 CONDENSATE PUMP (1MA207)	AE	MYCP1Q	MYCP1Q	0
A317	1XU-440-12A	480V XFMR U-440-12A	AE	TN12AQ	TN12AQ	0
A317	1XU-440-12B	480V XFMR U-440-12B	AE	TN12BQ	TN12BQ	0
1TB12-3 (CP)	1PUMPCD12	12 CONDENSATE PUMP (1MA307)	AF	MYCP2Q	MYCP2Q	0
1TB12-3 (CP)	1PUMPCD13	13 CONDENSATE PUMP (1MA308)	AF	MYCP3Q	MYCP3Q	0
A317	1RY89-1104X	CVC DISC 89-1104 CHG PP 13 AUX REL	CV	CVRY04	RY104T	0
A317	1DISC89-1104	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A317	1DISC89-1104	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A315	1CV4070	11 S/G MS TO AFW PP TURB	F1	F1CV70	C8070O	12
A315	1CV4070	11 S/G MS TO AFW PP TURB	F1	F1CV70	C8070P	12
A315	1CV4070A	11 S/G AFW MAIN STM BYPASS VALVE	F1	F1CV70	C870AO	0
A315	1CV4071	12 S/G MS TO AFW PP TURB	F1	F1CV71	C8071O	12
A315	1CV4071	12 S/G MS TO AFW PP TURB	F1	F1CV71	C8071P	12
A315	1CV4071A	12 S/G AFW MAIN STM BYPASS VALVE	F1	F1CV71	C871AO	0
A317	1I/I1114A1	1 AFW S/G 11 LVL TO AFAS I/I	F1	F1ZD11	II14AR	0
A317	1YX1114A	SG 11 WIDE RANGE CHL L-1114A	F1	F1ZD11	SP14AR	0
A317	1I/I1124A1	1 AFW S/G 12 LVL TO AFAS I/I	F1	F1ZD12	II24AR	0
A317	1YX1X1124A	SG 12 WIDE RANGE CHL L-1124A	F1	F1ZD12	SP24AR	0
A315	1CV4070	11 S/G MS TO AFW PP TURB	F3	BHEF31	Open	12
A315	1CV4070A	11 S/G AFW MAIN STM BYPASS VALVE	F3	BHEF31	Open	0
A315	1CV4071	12 S/G MS TO AFW PP TURB	F3	BHEF31	Open	12
A315	1CV4071A	12 S/G AFW MAIN STM BYPASS VALVE	F3	BHEF31	Open	0
A317	1RY1A116/2/SSA1	AFW MTR DRIVEN PP 13 TIME DELAY PICKUP REL	F7	F7RSA1	RYSA1E	0
A317	1RY1A116/2/SSA1	AFW MTR DRIVEN PP 13 TIME DELAY PICKUP REL	F7	F7RSA1	RYSA1P	0
A315	1MOV4516	11 SG FW ISOL	FT	FTFW10	MV516C	0
A315	1MOV4516	11 SG FW ISOL	FT	FTFW10	MV516T	0
A315	1MOV4517	12 SG FW ISOL	FT	FTFW20	MV517C	0
A315	1MOV4517	12 SG FW ISOL	FT	FTFW20	MV517T	0
A317	1BKR152-1103	BKR 152-1103 11-17 4KV BUS TIE BKR	GE	GEELC1	BN103T	0
A317	1RY127/B11A	13/4KV BUS 11 U/V RY	GE(UA)	UASEND	RY11AD	0
A317	1RY127/B11A	13/4KV BUS 11 U/V RY	GE(UA)	UASEND	RY11AT	0
A317	1RY127/B11E	13/4KV BUS 11 U/V RY	GE(UA)	UASEND	RY11ED	0
A317	1RY127/B11E	13/4KV BUS 11 U/V RY	GE(UA)	UASEND	RY11ET	0
A317	1RY127/B11B	13/4KV BUS 11 U/V RY	GE(UA)	UASENE	RY11BD	0
A317	1RY127/B11B	13/4KV BUS 11 U/V RY	GE(UA)	UASENE	RY11BT	0
A317	1RY127/B11F	13/4KV BUS 11 U/V RY	GE(UA)	UASENE	RY11FD	0
A317	1RY127/B11F	13/4KV BUS 11 U/V RY	GE(UA)	UASENE	RY11FT	0
A317	1RY127/B11C	13/4KV BUS 11 U/V RY	GE(UA)	UASENF	RY11CD	0
A317	1RY127/B11C	13/4KV BUS 11 U/V RY	GE(UA)	UASENF	RY11CT	0
A317	1RY127/B11G	13/4KV BUS 11 U/V RY	GE(UA)	UASENF	RY11GD	0
A317	1RY127/B11G	13/4KV BUS 11 U/V RY	GE(UA)	UASENF	RY11GT	0
A317	1RY127/B11D	13/4KV BUS 11 U/V RY	GE(UA)	UASENG	RY11DD	0
A317	1RY127/B11D	13/4KV BUS 11 U/V RY	GE(UA)	UASENG	RY11DT	0
A317	1RY127/B11H	13/4KV BUS 11 U/V RY	GE(UA)	UASENG	RY11HD	0
A317	1RY127/B11H	13/4KV BUS 11 U/V RY	GE(UA)	UASENG	RY11HT	0
A317	0BKR152-1106	DSL GEN 0C TO 4KV BUS 11	GJ	GJOUT1	BN106T	0
A317	1BKR152-1101	SUPP BKR FROM U-4000-21	H5(U1)	BHEAZZ	Close	0
A317	1BKR152-1209	SUPP BKR FROM U-4000-21	H5(U1)	BHEAZZ	Close	0
A317	1BKR152-1115	U-4000-11 SERVICE TRANSF	H5(U1)	BHEAZZ	Open	0
A317	1BKR152-1201	U-4000-11 SERVICE TRANSF	H5(U1)	BHEAZZ	Open	0
A317	1NA110	13 SI HI PRESS PP DISC	HB	MA013R	MA013R	0
A317	1NA110	13 SI HI PRESS PP DISC	HB	MA013S	MA013S	0
A317	0AE317A	FSD ZONE 34 SMOKE DET	HF	HFDETA	AE17AR	0
A317	0AE317C	FSD ZONE 34 SMOKE DET	HF	HFDETA	AE17CR	0
A317	0AE317E	FSD ZONE 34 SMOKE DET	HF	HFDETA	AE17ER	0
A317	0AE317B	FSD ZONE 34 SMOKE DET	HF	HFDETB	AE17BR	0
A317	0AE317D	FSD ZONE 34 SMOKE DET	HF	HFDETB	AE17DR	0
A317	0AE317F	FSD ZONE 34 SMOKE DET	HF	HFDETB	AE17FR	0
A317	1FD317N1	SWGR RM SUPPLY FROM RM 317 TO 318 FD	HF	HFDMP7	FD17II	0
A317	1PO5442	EL 27 SUPP SWGR RM SUPP DMPR	HF	HFDMPR	PO442P	0
A317	1TS5443	1 FSD SWGR RM EL 27 OUTLET TS	HF	HFDMPR	PO442P	0
A317	1PO5443	1 HVAC/A SWGR RM EL 27 EXH D PO	HF	HFDMPR	PO443P	0
A317	1TS5443	1 FSD SWGR RM EL 27 OUTLET TS	HF	HFDMPR	PO443P	0
A317	1TS5443	1 FSD SWGR RM EL 27 OUTLET TS	HF	HFTEMP	TS436R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A317	1TY5441	SWGR RM EL 45 OUTLT TEMP	HG	HGTEMP	RY441P	0
A317	1SV5426A	1 HVAC/A SWGR RM HVAC UNIT 12 SUPP D SV	HS	HSOPR2	IV26AT	0
A317	1I/I1013A1	1 RPS S/G 11 PT TO RPS/ESFAS	IA	IASEND	II1A1R	0
A317	1I/I1023A1	1 RPS S/G 12 PT TO RPS/ESFAS	IB	IBSEND	II2A1R	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	KH(PP3)	BHEKC1	Start	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	KH(PP3)	BHEKZ1	Start	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	KZ	MZC13R	MZC13R	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	KZ	MZC13S	MZC13S	0
1TB12-3 (CP)	1CV4406	CST TO HTWL M/U CV	LF	LFMUCV	C3406O	0
1TB12-3 (CP)	1I/P4406	COND STORAGE TO HOTWELL CONT	LF	LFMUCV	C3406O	0
1TB12-3 (CP)	1SV4406	CD STORAGE TO HOTWELL CONTROL SV	LF	LFMUCV	C3406O	0
1TB12-3 (CP)	1CV4406	CST TO HTWL M/U CV	LF	LFMUCV	C3406P	0
1TB12-3 (CP)	1I/P4406	COND STORAGE TO HOTWELL CONT	LF	LFMUCV	C3406P	0
1TB12-3 (CP)	1SV4406	CD STORAGE TO HOTWELL CONTROL SV	LF	LFMUCV	C3406P	0
1TB12-3 (CP)	1CV4405	HOTWELL TO COND STORAGE VLV	LF	LFMUCV	C3504T	0
1TB12-3 (CP)	1I/P4405	HOTWELL TO COND STORAGE CONT	LF	LFMUCV	C3504T	0
1TB12-3 (CP)	1LT4405	CD CONDENSER HOTWELL LT	LF	LFMUCV	LT405R	0
A315	1MOV4516	11 SG FW ISOL	LF	MNBYP1	MV516P	0
A315	1MOV4517	12 SG FW ISOL	LF	MNBYP2	MV417P	0
A315	1MOV4516	11 SG FW ISOL	LF	MV516O	MV516O	0
A315	1MOV4516	11 SG FW ISOL	LF	MV516P	MV516P	0
A315	1MOV4517	12 SG FW ISOL	LF	MV517O	MV517O	0
A315	1MOV4517	12 SG FW ISOL	LF	MV517P	MV517P	0
A315	1MOV4517	12 SG FW ISOL	M1	MVM26Q	MVM26Q	0
A315	1MOV4052	MSIV 12 BYP VLV	M1	MVM28Q	MVM28Q	0
A317	1BKR52-1119	114R RX MCC	M2	M2BCBM	CB119T	0
A315	1MOV4516	11 SG FW ISOL	M2	MVN26Q	MVN26Q	0
A315	1MOV4045	MSIV 11 BYP VLV	M2	MVN28Q	MVN28Q	0
1TB12-2 (CP)	1PNL1C51	11A AMERTAP CNTL PNL 1C51	M7	BUP23Q	BUP23Q	0
1TB12-2 (CP)	1PNL1C52	11B AMERTAP CNTL PNL 1C52	M7	BUP24Q	BUP24Q	0
1TB12-2 (CP)	1PNL1C53	12A AMERTAP CNTL PNL 1C53	M7	BUP25Q	BUP25Q	0
A317	1BKR52-1213	106T TURB MCC	M7	M71213	CB213O	0
A317	1BKR52-1213	106T TURB MCC	M7	M71213	CB213P	0
A317	1BKR152-1202	U-440-12B SERVICE TRANSF	M7	M7B12B	BN12BT	0
A317	1BUS1B02B	480V BUS 12B	M7	M7B12B	BU12BR	0
A317	1BKR52-1222	U-440-12B LOW SIDE BKR	M7	M7B12B	CB222T	0
A317	1BKR52-1213	106T TURB MCC	M7	M7BCBM	CB213T	0
1TB12-2 (CP)	1PUMPCAR12	12 CAR VAC PP (1MB217)	M7	MB217Q	MB217Q	0
1TB12-2 (CP)	1PUMPMSBD11	11 AUX BD TK PUMP (1M0671)	M7	MBP71Q	MBP71Q	0
1TB12-3 (CP)	1PUMPCDMTRLO11	11 CD PP LO CLR PP (1M0607)	M7	MMP07Q	MMP07Q	0
1TB12-2 (CP)	1PUMPCARSWP11	11 CAR SEAL WTR PUMP (1M0636)	M7	MMP36Q	MMP36Q	0
1TB12-2 (CP)	1PUMPCARSWP12	12 CAR SEAL WTR PUMP (1M0637)	M7	MMP37Q	MMP37Q	0
1TB12-3 (CP)	1MOV5225	11A COND'R INLET STRNR VLV	M7	MVP02Q	MVP02Q	0
1TB12-3 (CP)	1MOV5229	11B COND'R INLET STRNR VLV	M7	MVP03Q	MVP03Q	0
1TB12-3 (CP)	1MOV5233	12A COND'R INLET STRNR VLV	M7	MVP04Q	MVP04Q	0
1TB12-3 (CP)	1M0659	11 COND PP LUBE OIL COOLER FAN MTR (1M0659)	M7	VAP59Q	VAP59Q	0
1TB12-2 (CP)	1RECEPTMCC116A	POWER RECEPT MCC116 (1W48, 1W49, 1W50, 1W51)	M8	BUQ05Q	BUQ05Q	0
1TB12-2 (CP)	1PNL1C54	12B AMERTAP CNTL PNL 1C54	M8	BUQ23Q	BUQ23Q	0
1TB12-2 (CP)	1PNL1C55	13A AMERTAP CNTL PNL 1C55	M8	BUQ24Q	BUQ24Q	0
1TB12-2 (CP)	1PNL1C56	13B AMERTAP CNTL PNL 1C56	M8	BUQ25Q	BUQ25Q	0
1TB12-2 (CP)	1PUMPCAR14	14 CAR VAC PP (1MB317)	M8	MB317Q	MB317Q	0
1TB12-2 (CP)	1PUMPSMP11TB11	11 TURB BLDG SUMP 11 PP (1M1642)	M8	MBQ42Q	MBQ42Q	0
1TB12-2 (CP)	1PUMPSMP11TB12	11 TURB BLDG SUMP PP 12 (1M1643)	M8	MBQ43Q	MBQ43Q	0
1TB12-2 (CP)	1PUMPMSBD12	12 AUX BD TK PUMP (1M1656)	M8	MBQ56Q	MBQ56Q	0
1TB12-3 (CP)	1PUMPCDMTRLO12	12 CD PP LO CLR PP (1M1606)	M8	MMQ06Q	MMQ06Q	0
1TB12-3 (CP)	1PUMPCDMTRLO13	13 CD PP LO CLR PP (1M1607)	M8	MMQ07Q	MMQ07Q	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-2 (CP)	1PUMPCARSWP13	13 CAR SEAL WTR PUMP (1M1636)	M8	MMQ36Q	MMQ36Q	0
1TB12-2 (CP)	1PUMPCARSWP14	14 CAR SEAL WTR PUMP (1M1637)	M8	MMQ37Q	MMQ37Q	0
1TB12-3 (CP)	1MOV5237	12B COND'R INLET STRNR VLV	M8	MVQ02Q	MVQ02Q	0
1TB12-3 (CP)	1MOV5241	13A COND'R STRNR INLET VLV	M8	MVQ03Q	MVQ03Q	0
1TB12-3 (CP)	1MOV5245	13B COND'R INLET STRNR VLV	M8	MVQ04Q	MVQ04Q	0
1TB12-3 (CP)	1M1659	12 COND PP LUBE OIL COOLER FAN MTR (1M1659)	M8	VAQ59Q	VAQ59Q	0
1TB12-3 (CP)	1M1660	13 COND PP LUBE OIL COOLER FAN MTR (1M1660)	M8	VAQ60Q	VAQ60Q	0
A317	1RY1A204/2/4453	11 COND CBP BKR 152-1204 TIME DELAY DROP OUT REL	MC	MCBP10	RY242P	0
A317	1RY1A204/3	COND BOOSTER PUMP 11 AUX RELAY	MC	MCBP10	RY243T	0
A317	1PY4453	11 COND CBP PRESSURE CONVERTER REL	MC	MCBP10	RY453P	0
A317	1RY1A205/2/4460	12 COND CBP BKR 152-1205 TIME DELAY DROP OUT REL	MC	MCBP20	RY252P	0
A317	1RY1A205/3	COND BOOSTER PUMP 12 AUX RELAY	MC	MCBP20	RY253T	0
A317	1PY4460	12 COND CBP PRESSURE CONVERTER REL	MC	MCBP20	RY460P	0
1TB12-3 (CP)	1YS4414	COND PMP MOTOR 11 OIL STRAINER	MC	MCPP10	YS414P	0
1TB12-3 (CP)	1YS4421	COND PMP MOTOR 12 OIL STRAINER	MC	MCPP20	YS421P	0
1TB12-3 (CP)	1YS4428	COND PMP MOTOR 13 OIL STRAINER	MC	MCPP30	YS428P	0
1TB12-3 (CP)	1PUMPCDMTRLO11	11 CD PP LO CLR PP (1M0607)	MC	MML11R	MML11R	0
1TB12-3 (CP)	1PUMPCDMTRLO12	12 CD PP LO CLR PP (1M1606)	MC	MML12R	MML12R	0
1TB12-3 (CP)	1PUMPCDMTRLO13	13 CD PP LO CLR PP (1M1607)	MC	MML13R	MML13R	0
1TB12-3 (CP)	1PUMPCD11	11 CONDENSATE PUMP (1MA207)	MC	MYC11R	MYC11R	0
1TB12-3 (CP)	1PUMPCD12	12 CONDENSATE PUMP (1MA307)	MC	MYC12R	MYC12R	0
1TB12-3 (CP)	1PUMPCD13	13 CONDENSATE PUMP (1MA308)	MC	MYC13R	MYC13R	0
A315	1PCV4415	COND PP 11 SEAL WTR REG	MC	PC415R	PC415R	0
A315	1PCV4422	COND PP 12 SEAL WTR REG	MC	PC422R	PC422R	0
A315	1PCV4506	COND PP 13 SEAL WTR REG	MC	PC506R	PC506R	0
1TB12-3 (CP)	1M0659	11 COND PP LUBE OIL COOLER FAN MTR (1M0659)	MC	VAL11R	VAL11R	0
1TB12-3 (CP)	1M1659	12 COND PP LUBE OIL COOLER FAN MTR (1M1659)	MC	VAL12R	VAL12R	0
1TB12-3 (CP)	1M1660	13 COND PP LUBE OIL COOLER FAN MTR (1M1660)	MC	VAL13R	VAL13R	0
A315	1CV4070	11 S/G MS TO AFW PP TURB	MH	BHEF1I	Open	12
A315	1CV4071	12 S/G MS TO AFW PP TURB	MH	BHEF1I	Open	12
A315	1MOV4516	11 SG FW ISOL	MN	MNBYP1	MV516P	0
A315	1MOV4517	12 SG FW ISOL	MN	MNBYP2	MV517P	0
A317	1BKR52-1109	101 AT TURB MCC	MN	MNF71B	CB109T	0
A315	1CV4043	MSIV 11	MS	MT043C	MT043C	0
A315	1CV4048	MSIV 12	MS	MT048C	MT048C	0
A317	1DISC89-1104	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A317	1BKR52-1101	11 CAV CLG FAN	N1	N11101	CB101O	0
A317	1BKR52-1101	11 CAV CLG FAN	N1	N11101	CB101P	0
A317	1BKR52-1102	11 CONTMT AIR CLR	N1	N11102	CB102O	0
A317	1BKR52-1102	11 CONTMT AIR CLR	N1	N11102	CB102P	0
A317	1BKR52-1104	13 CHG PP	N1	N11104	CB104O	0
A317	1BKR52-1104	13 CHG PP	N1	N11104	CB104P	0
A317	1BKR52-1105	11 CONTMT FILT UNIT	N1	N11105	CB105O	0
A317	1BKR52-1105	11 CONTMT FILT UNIT	N1	N11105	CB105P	0
A317	1BKR52-1106	11 COMP CLG PP	N1	N11106	CB106O	0
A317	1BKR52-1106	11 COMP CLG PP	N1	N11106	CB106P	0
A317	1BKR52-1107	15 BATT CHGR	N1	N11107	CB107O	0
A317	1BKR52-1107	15 BATT CHGR	N1	N11107	CB107P	0
A317	1BKR52-1108	11 CONT RM A/C COMPR	N1	N11108	CB108O	0
A317	1BKR52-1108	11 CONT RM A/C COMPR	N1	N11108	CB108P	0
A317	1BKR52-1109	101 AT TURB MCC	N1	N11109	CB109O	0
A317	1BKR52-1109	101 AT TURB MCC	N1	N11109	CB109P	0
A317	1BKR52-1110	11 SWGR RM A/C COMPR	N1	N11110	CB110O	0
A317	1BKR52-1110	11 SWGR RM A/C COMPR	N1	N11110	CB110P	0
A317	1BKR52-1111	11 BATT CHGR	N1	N11111	CB111O	0
A317	1BKR52-1111	11 BATT CHGR	N1	N11111	CB111P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A317	1BKR52-1130	11 PZR HTR PROP CONTR	N1	N11130	CB130O	0
A317	1BKR52-1130	11 PZR HTR PROP CONTR	N1	N11130	CB130P	0
A317	1BKR152-1114	U-440-11A SERVICE TRANSF	N1	N1B11A	BN11AT	0
A317	1BUS1B01A	480V BUS 11A	N1	N1B11A	BU11AR	0
A317	1BKR52-1112	U-440-11A LOW SIDE BKR	N1	N1B11A	CB112T	0
A317	1NB130	11A RC PZR HTR 11 PROP CONTR	N1	TC130Q	TC130Q	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	N2	MZ116Q	MZ116Q	0
A317	1BKR52-1114	12 CONTMT AIR CLR	N2	N21114	CB114O	0
A317	1BKR52-1114	12 CONTMT AIR CLR	N2	N21114	CB114P	0
A317	1BKR52-1115	11 CHG PP	N2	N21115	CB115O	0
A317	1BKR52-1115	11 CHG PP	N2	N21115	CB115P	0
A317	1BKR52-1116	13 COMP CLG PP	N2	N21116	CB116O	0
A317	1BKR52-1116	13 COMP CLG PP	N2	N21116	CB116P	0
A317	1BKR52-1117	11 MAIN PLT EXH FAN	N2	N21117	CB117O	0
A317	1BKR52-1117	11 MAIN PLT EXH FAN	N2	N21117	CB117P	0
A317	1BKR52-1118	11 INSTR AIR COMPR	N2	N21118	CB118O	0
A317	1BKR52-1118	11 INSTR AIR COMPR	N2	N21118	CB118P	0
A317	1BKR52-1119	114R RX MCC	N2	N21119	CB119O	0
A317	1BKR52-1119	114R RX MCC	N2	N21119	CB119P	0
A317	1BKR52-1120	14 BATT CHGR	N2	N21120	CB120O	0
A317	1BKR52-1120	14 BATT CHGR	N2	N21120	CB120P	0
A317	1BKR52-1121	13 CONTMT FILT UNIT	N2	N21121	CB121O	0
A317	1BKR52-1121	13 CONTMT FILT UNIT	N2	N21121	CB121P	0
A317	1BKR52-1122	H2 RECOMB PWR PNL 11	N2	N21122	CB122O	0
A317	1BKR52-1122	H2 RECOMB PWR PNL 11	N2	N21122	CB122P	0
A317	1BKR52-1123	PLANT AIR COMPRESSOR 11	N2	N21123	CB123O	0
A317	1BKR52-1123	PLANT AIR COMPRESSOR 11	N2	N21123	CB123P	0
A317	1BKR52-1127	109 PH PZR HTR MCC	N2	N21127	CB127O	0
A317	1BKR52-1127	109 PH PZR HTR MCC	N2	N21127	CB127P	0
A317	1BKR152-1102	U-440-11B SERVICE TRANSF	N2	N2B11B	BN11BT	0
A317	1BUS1B01B	480V BUS 11B	N2	N2B11B	BU11BR	0
A317	1BKR52-1113	U-440-11B LOW SIDE BKR	N2	N2B11B	CB113T	0
A317	1DISC89-1121	13 CONTMT FILT UNIT DISCS	N2	VG121Q	VG121Q	0
A317	1DISC89-1104	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	N4	MZ416Q	MZ416Q	0
A317	1DISC89-1121	13 CONTMT FILT UNIT DISCS	N4	VG421Q	VG421Q	0
A317	1BKR52-1109	101 AT TURB MCC	NR	NR1P01	CB1B9T	0
A317	1RY1B118/62	11 IA COMPR TIME DELAY PICKUP RY	NR	NRIA11	RY118E	0
A317	1RY1B118/62	11 IA COMPR TIME DELAY PICKUP RY	NR	NRIA11	RY118P	0
A317	1BKR152-1208	U-440-12A SERVICE TRANSF	PG	PGBK06	BN208T	0
A317	1BUS1B02A	480V BUS 12A	PG	PGBK06	BU12AR	0
A317	1BKR52-1201	U-440-12A LOW SIDE BKR	PG	PGBK06	CB201T	0
A317	1BKR52-1208	FIRE PP FDR	PG	PGBK06	CB208T	0
A317	1RY1B208/CR	MOTOR FIRE PUMP CR RELAY	PG	PGRY16	RYFCRE	0
A317	1RY1B208/CR	MOTOR FIRE PUMP CR RELAY	PG	PGRY16	RYFCRP	0
A317	1XU-440-12A	480V XFMR U-440-12A	PG	TN12AR	TN12AR	0
A317	1BUS1A01	4KV BUS 11	QC	BUA01R	BUA01R	0
A317	1BUS1A02	4KV BUS 12	QC	BUA02R	BUA02R	0
A317	1BKR152-1115	U-4000-11 SERVICE TRANSF	QC	QCBUS1	BNA1EO	0
A317	1BKR152-1115	U-4000-11 SERVICE TRANSF	QC	QCBUS1	BNA1EP	0
A317	1BKR152-1201	U-4000-11 SERVICE TRANSF	QC	QCBUS2	BNA21O	0
A317	1BKR152-1201	U-4000-11 SERVICE TRANSF	QC	QCBUS2	BNA21P	0
A317	1BKR152-1115	U-4000-11 SERVICE TRANSF	QC	QCFLST	TXQC1Q	0
A317	1BKR152-1201	U-4000-11 SERVICE TRANSF	QC	QCFLST	TXQC2Q	0
1TB12-3 (CP)	1PUMPCD12	12 CONDENSATE PUMP (1MA307)	QC	QCMISC	MYCP2Q	0
1TB12-3 (CP)	1PUMPCD13	13 CONDENSATE PUMP (1MA308)	QC	QCMISC	MYCP3Q	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A317	1BKR152-1101	SUPP BKR FROM U-4000-21	QD	QDFLST	TXQD1Q	0
A317	1BKR152-1209	SUPP BKR FROM U-4000-21	QD	QDFLST	TXQD2Q	0
A317	1I/I1013A3	11 FW S/G PT TO INDIC I/I	QZ	F1PT1A	II10AR	0
A317	1I/I1013A2	11 AFW S/G PRESSURE PROTECTION I/I SIG CONVERTE	QZ	F1PT1A	II13AR	0
A317	1I/I1013A1	1 RPS S/G 11 PT TO RPS/ESFAS	QZ	F1PT1A	II1A1R	0
A317	1I/I1023A2	1 AFW SG 12 PT TO AFAS I/I	QZ	F1PT1A	II23AR	0
A317	1YX1X1013A1	FW 1PT1013A LOOP PWR SUPP	QZ	F1PT1A	SP13AR	0
A317	1I/I1013A2	11 AFW S/G PRESSURE PROTECTION I/I SIG CONVERTE	QZ	F1PT2A	II13AR	0
A317	1I/I1023A2	1 AFW SG 12 PT TO AFAS I/I	QZ	F1PT2A	II23AR	0
A317	1I/I1023A1	1 RPS S/G 12 PT TO RPS/ESFAS	QZ	F1PT2A	II3A1R	0
A317	1I/I1023A3	12 FW S/G PT TO INDIC I/I	QZ	F1PT2A	II3A3R	0
A317	1YX1X1023A1	1PT1023A LOOP PWR SUPP	QZ	F1PT2A	SP23AR	0
A317	1NA110	13 SI HI PRESS PP DISC	RH	BHERH1	Start	0
A317	1BKR52-1201	U-440-12A LOW SIDE BKR	RQ	BHERS1	Open	0
A317	1BKR52-1212	480V BUS 12A & B TIE BREAKER	RQ	BHERS1	Open	0
A317	1BKR52-1201	U-440-12A LOW SIDE BKR	RQ	CB201O	CB201O	0
A317	1YX1X112HA	1 RPS 1TT112HA PWR SUPP	RS	RSCHAT	SP1HAR	0
A317	1YX1X122HA	11 RXV PWR SUP 122HA XFMR	RS	RSCHAT	SP2HAR	0
A317	1TT112CA	11A RPS T-COLD XMTR	RS	RSCHAT	TT1CAR	0
A317	1TT112HA	11 RPS T-HOT XMTR	RS	RSCHAT	TT1HAR	0
A317	1TT122CA	12A RPS T-COLD XMTR	RS	RSCHAT	TT2CAR	0
A317	1TT122HA	1 RPS 12 T-HOT TEMP XMTR	RS	RSCHAT	TT2HAR	0
A317	1YX1X112HB	1 RPS 1TT112HB PWR SUPP	RS	RSCHBT	SP1HBR	0
A317	1HSMG11-5PB	CEDS MG 11 BYPASS IN	RS	RSMG11	HS15PT	0
A317	1CONT1Q206/3M	CEDM M/G/ SET 11 LOAD CONTACTOR	RS	RSMG11	RY13MD	0
A317	1CONT1Q206/3M	CEDM M/G/ SET 11 LOAD CONTACTOR	RS	RSMG11	RY13MT	0
A317	1CONT1Q206/4M	CEDM M/G SET 11 BYPASS CONTACTOR	RS	RSMG11	RY14MT	0
A317	1RYMX11	CEDS MG 11 LOAD CONTROL RELAY	RS	RSMG11	RYX11D	0
A317	1RYMX11	CEDS MG 11 LOAD CONTROL RELAY	RS	RSMG11	RYX11T	0
A317	1NA112	SALT WTR PP 13 DISC	S1	MWS13R	MWS13R	0
A317	1NA112	SALT WTR PP 13 DISC	S1	MWS13S	MWS13S	0
A317	1NA112	SALT WTR PP 13 DISC	S2	MWS13R	MWS13R	0
A317	1NA112	SALT WTR PP 13 DISC	S2	MWS13S	MWS13S	0
A317	1NA111	SERV WTR PP 13 DISC	S3	MWS13R	MWS13R	0
A317	1NA111	SERV WTR PP 13 DISC	S3	MWS13S	MWS13S	0
A317	1NA111	SERV WTR PP 13 DISC	S4	MWS13R	MWS13R	0
A317	1NA111	SERV WTR PP 13 DISC	S4	MWS13S	MWS13S	0
A317	1BKR252-11P01	NO 11A RCP SUPPLY FROM SERVICE BUS 12	SL	BHESL2	Open	0
A317	1BKR252-11P02	NO 11A RCP SUPPLY FROM SERVICE BUS 22	SL	BHESL2	Open	0
A317	1BKR252-12P01	NO 12A RCP SUPPLY FROM SERVICE BUS 12	SL	BHESL2	Open	0
A317	1BKR252-12P02	NO 12A RCP SUPPLY FROM SERVICE BUS 22	SL	BHESL2	Open	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	SP(PP3)	BHEK12	Start	0
1TB12-3 (CP)	1CV4406	CST TO HTWL M/U CV	T1	T1CS1F	C3406T	0
1TB12-3 (CP)	1I/P4406	COND STORAGE TO HOTWELL CONT	T1	T1CS1F	C3406T	0
1TB12-3 (CP)	1SV4406	CD STORAGE TO HOTWELL CONTROL SV	T1	T1CS1F	C3406T	0
1TB12-3 (CP)	1LT4405	CD CONDENSER HOTWELL LT	T1	T1CS1F	LT405R	0
A315	1CV4070	11 S/G MS TO AFW PP TURB	TG	BHEF1Y	Open	12
A315	1CV4071	12 S/G MS TO AFW PP TURB	TG	BHEF1Y	Open	12
1TB12-2 (CP)	1PUMPCARSWP11	11 CAR SEAL WTR PUMP (1M0636)	VC	MMS11R	MMS11R	0
1TB12-2 (CP)	1PUMPCARSWP12	12 CAR SEAL WTR PUMP (1M0637)	VC	MMS12R	MMS12R	0
1TB12-2 (CP)	1PUMPCARSWP13	13 CAR SEAL WTR PUMP (1M1636)	VC	MMS13R	MMS13R	0
1TB12-2 (CP)	1PUMPCAR11	11 CAR VAC PP (1MB203)	VC	MMV11R	MMV11R	0
1TB12-2 (CP)	1PUMPCAR12	12 CAR VAC PP (1MB217)	VC	MMV12R	MMV12R	0
1TB12-2 (CP)	1PUMPCAR13	13 CAR VAC PP (1MB303)	VC	MMV13R	MMV13R	0
A317	1BKR152-1208	U-440-12A SERVICE TRANSF	VC	VC012A	BN208T	0
A317	1BUS1B02A	480V BUS 12A	VC	VC012A	BUB2AR	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A317	1BKR52-1201	U-440-12A LOW SIDE BKR	VC	VC012A	CB201T	0
A317	1XU-440-12A	480V XFMR U-440-12A	VC	VC012A	TN12AR	0
A317	1BKR152-1202	U-440-12B SERVICE TRANSF	VC	VC012B	BN202T	0
A317	1BUS1B02B	480V BUS 12B	VC	VC012B	BUB2BR	0
A317	1BKR52-1222	U-440-12B LOW SIDE BKR	VC	VC012B	CB222T	0
A317	1XU-440-12B	480V XFMR U-440-12B	VC	VC012B	TN12BR	0
1TB12-3 (CP)	1HS5225	11 CW PP WTRBX INL VLV HS	VC	VCCW1A	HS225T	0
1TB12-3 (CP)	1MOV5225	11A COND'R INLET STRNR VLV	VC	VCCW1A	MV225P	0
1TB12-3 (CP)	1HS5229	12 CW PP WTRBX INL VLV HS	VC	VCCW2A	HS229T	0
1TB12-3 (CP)	1MOV5229	11B COND'R INLET STRNR VLV	VC	VCCW2A	MV229P	0
1TB12-3 (CP)	1HS5233	13 CW PP WTRBX INL VLV HS	VC	VCCW3A	HS233T	0
1TB12-3 (CP)	1MOV5233	12A COND'R INLET STRNR VLV	VC	VCCW3A	MV233P	0
1TB12-3 (CP)	1HS5237	14 CW PP WTRBX INL VLV HS	VC	VCCW4A	HS237T	0
1TB12-3 (CP)	1MOV5237	12B COND'R INLET STRNR VLV	VC	VCCW4A	MV237P	0
1TB12-3 (CP)	1HS5241	15 CW PP WTRBX INL VLV HS	VC	VCCW5A	HS241T	0
1TB12-3 (CP)	1MOV5241	13A COND'R STRNR INLET VLV	VC	VCCW5A	MV241P	0
1TB12-3 (CP)	1HS5245	15 CW PP WTRBX INL VLV HS	VC	VCCW6A	HS245T	0
1TB12-3 (CP)	1MOV5245	13B COND'R INLET STRNR VLV	VC	VCCW6A	MV245P	0
1TB12-2 (CP)	1CV1754	11 CAR UNIT MOTIVE AIR	VC	VCP011	C3754P	0
1TB12-2 (CP)	1CV1755	11 CAR UNIT SYS DIAPHRAM	VC	VCP011	C3755P	0
A317	1SV1755	11 CAR DIAPHRAM VLV	VC	VCP011	C3755P	0
1TB12-2 (CP)	1LCV1753	11 CAR SEP	VC	VCP011	LC753R	0
1TB12-2 (CP)	1PS1755	11 CAR CNDSR VAC PP SEAL LOW PRESSURE WTR PS	VC	VCP011	PS755R	0
1TB12-2 (CP)	1CV1757	12 CAR UNIT MOTIVE AIR	VC	VCP012	C3757P	0
1TB12-2 (CP)	1CV1758	12 CAR UNIT SYS DIAPHRAM	VC	VCP012	C3758P	0
A317	1SV1758	12 CAR DIAPHRAM VLV	VC	VCP012	C3758P	0
1TB12-2 (CP)	1LCV1756	12 CAR SEP LO LVL CONTROL	VC	VCP012	LC756R	0
1TB12-2 (CP)	1PS1758	12 CAR CNDSR VAC PP SEAL WTR LOW PRESSURE PS	VC	VCP012	PS758R	0
1TB12-2 (CP)	1CV1760	13 CAR UNIT MOTIVE AIR	VC	VCP013	C3760P	0
1TB12-2 (CP)	1CV1761	13 CAR UNIT SYS DIAPHRAM	VC	VCP013	C3761P	0
1TB12-2 (CP)	1LCV1759	SEP LO LVL CONTROL	VC	VCP013	LC759R	0
1TB12-2 (CP)	1PS1761	13 CAR CNDSR VAC PP SEAL WTR LOW PRESSURE PS	VC	VCP013	PS761R	0
1TB12-3 (CP)	1HXCARSWC11	11 CAR SEAL WTR CLR	VC	VCS011	HXS11B	0
1TB12-3 (CP)	1HXCARSWC11	11 CAR SEAL WTR CLR	VC	VCS011	HXS11P	0
1TB12-3 (CP)	1HXCARSWC12	12 CAR SEAL WTR CLR	VC	VCS012	HXS12B	0
1TB12-3 (CP)	1HXCARSWC12	12 CAR SEAL WTR CLR	VC	VCS012	HXS12P	0
1TB12-3 (CP)	1HXCARSWC13	13 CAR SEAL WTR CLR	VC	VCS013	HXS13B	0
1TB12-3 (CP)	1HXCARSWC13	13 CAR SEAL WTR CLR	VC	VCS013	HXS13P	0
A317	1BKR52-1111	11 BATT CHGR	XA	XAC11E	CBXN1T	0
A317	1BKR52-1120	14 BATT CHGR	XD	XDC14E	CBXN2T	0

Flood Evaluation Query

CF-13A-N318LM *

03-Dec-98

TOP	PM	EVALUATION	RI
AA	~~F~~	~~4KV Bus 11 fails.~~ Bus is challenged but not failed. (note 30)	PAJ
AB	3BKR	3 breaker challenges.	PAJ
AE	~~F~~	~~4KV Bus 12 fails.~~ Bus is challenged but not failed (note 30)	PAJ
AF	2BKR	2 breaker challenges.	PAJ
CV	None ~~F~~	~~Conservatively set to failure. CVCS relatively unimportant.~~ (note 13)	PAJ
F1	none ~~Spec Impt~~	In 1 of 3. Spurious actuation needs to be considered. 11 and 12 SG's lose one of four sensor channels creating a 1 of 3 logic. Since creating a trip signal is our desired effect for F1, no impact. (note 2) (note 30)	PAJ
F3	None	Operators loss the ability to check level on CST.	PAJ
F7	F	~~Unit 1 AFW MD Pump 13 gets it's power from 4KV Bus 11. Since this bus is already failed (AA) in this scenario, this top will also fail.~~ (note 14)	PAJ
GE	none ~~F~~	~~1BKR152-1103 will open not allowing EDG 1A to provide power to 4KV Bus 11.~~ (note 30)	PAJ
GE(UA)	None	~~4KV 11 Bus de-energized (See Top AA). All relays will de-energize.~~ (note 30)	PAJ
GJ	none ~~Spec Impt~~	~~0BKR152-1106 will open not allowing EDG 0C to provide power to 4KV Bus 11.~~ (note 30)	PAJ
H5(U1)	None	Impact addressed by QC = F.	PAJ
HB	none ~~F~~	~~Although this disconnect is not located in the same room as the normally aligned disconnect, the cables go though A317. Therefore, it has to be assumed that a fault will occur in the main supply breaker opening the circuit. Therefore, HB will fail.~~ (note 30)	PAJ
HF	None	Loss of power to 1TY5443 circuit will result in the dampers remaining open.	PAJ
HG	None	Loss of power to 1TY5441 circuit will result in the dampers remaining open.	PAJ
HS	None	1SV5426A has been deleted.	PAJ
IA	none ~~Spec Impt~~	~~Submerging 1I/I1013A1 should blow the circuit fuse, thus sending a trip signal to AFAS. This create's a 1 of 3 logic. No impact on top IA. Should only impact VA.~~ (note 30)	PAJ

See notes in RAN 98-065 SECT. 5.4 JPH

*This Flood is re-designated N318AM. See Note 29.

TOP	PM	EVALUATION	RI
IB	None ~~Spec Impt~~	~~Submerging 1I/I1023A1 should blow the circuit fuse, thus sending a trip signal to AFAS. This create's a 1 of 3 logic. No impact on top IB. Should only impact VA.~~ (note 30)	PAJ
KH(PP3)	None ~~F~~	~~Submerging 1DISC89-1116 should result in the upstream breaker to open. Therefore, CCW Pump 13 will not operate.~~ (note 30)	PAJ
KZ	None ~~F~~	~~Submerging 1DISC89-1116 should result in the upstream breaker to open. Therefore, CCW Pump 13 will not operate.~~ (note 30)	PAJ
LF	F	1CV4405/4406 fail closed on loss of power and loss of air.	PAJ
M2	None ~~Spec Impt~~	~~Since Top N2 fails, operators must get power from Top N3.~~ (note 30)	PAJ
M7	Spec. Impt ~~F~~	MCC 106T ~~fails.~~ is challenged. (note 30)	PAJ
M8	17BKR	17 breaker challenges.	PAJ
MC	F	11, 12 and 13 Condensate Pumps fail.	PAJ
MN	F ~~Spec Impt~~	SGFP Seal Booster Pump 11 Train fails to provide flow to common header. 12 Train still available. (note 24)	PAJ
N1	None ~~F~~	~~480V Bus 11A fails.~~ (note 30)	PAJ
N2	None ~~F~~	~~480V Bus 11B fails.~~ (note 30)	PAJ
N3	1BKR	breaker challenges.	PAJ
N4	2BKR	2 breaker challenges.	PAJ
NR	None ~~F~~	~~Unit 1 120VAC distribution panel 11 (From 1MCC101AT) fails. This panel provides power to support components for IA/PA Unit 1 air loads.~~ (note 30)	PAJ
PG	None ~~Spec Impt~~	~~Only power to the motor driven fire pump is lost via 480V Bus 12A. Operators can switch power to 480V Bus 23A. They may also use the Diesel Driven Pump.~~ (note 30)	PAJ
QC	None ~~F~~	~~1BKR152-1115/1201 should open on a fault. However, this does not save the transformer. The transformer will fault, thus failing this top.~~ (note 30)	PAJ
QD	None ~~F~~	~~Although 1BKR152-1101/1209 are open, their energized cables should fault the transformer when submerged failing this top.~~ (note 30)	PAJ
QZ	None ~~Spec Impt~~	~~Operators should be able to recover AFW following a spurious AFAS block. Only channel A will be lost. AFAS will now be in 1 of 3.~~ (note 30)	PAJ

TOP	PM	EVALUATION	RI
RH	None ~~Spec Impt~~	~~Operators will not be able to start HPSI pump 13 during this flood scenario.~~ (Note 30)	PAJ
RQ	None	1BKR52-1201/1212 should already open on a fault.	PAJ
RS	None ~~Spec Impt~~	~~Submerging THot/TCold transmitters and power supply should result in the failure of Channel A. RPS will be in a 1 of 3. Loss of power to the CEDM circuit will have~~ no ~~effect. The RTCBs will still open.~~ (Note 30)	PAJ
S1	None ~~F~~	~~Both SW pumps 11 and 13 are failed. Pump 11 is failed because 4KV Bus 11 is failed (Top AA) and pump 13 is failed because of the disconnect being submerged.~~ (Note 30)	PAJ
S2	None ~~Spec Impt~~	~~Loss the ability to use 13 SW pump to supply 12 header. Pump 12 is still available.~~ (Note 30)	PAJ
S3	None ~~F~~	~~Both SRW pumps 11 and 13 are failed. Pump 11 is failed because 4KV Bus 11 is failed (Top AA) and pump 13 is failed because of the disconnect being submerged.~~ (Note 30)	PAJ
S4	None ~~Spec Impt~~	~~Loss the ability to use 13 SRW pump to supply 12 header. Pump 12 is still available.~~ (Note 30)	PAJ
SL	None	~~It is assumed that 1BKR252-11P011/11P02/12P01/12P02 will fail open on a fault.~~ (Note 30)	PAJ
SP(PP3)	None ~~F~~	~~Operator will not be able to start 13 Component Cooling Pump.~~ (Note 30)	PAJ
T1	None	1CV4406 fails closed on loss of power and loss of air.	PAJ
VC	F	All Condenser Vacuum Pumps Fail. Only 11, 12 and 13 are in the fault trees.	PAJ
XA	None ~~Spec Impt~~	~~Lose power from Batt Charger 11. If Batt Charger 23 fails, this top fails.~~ (Note 30)	PAJ
XD	None ~~Spec Impt~~	~~Lose power from Batt Charger 14. If Batt Charger 22 fails, this top fails.~~ (Note 30)	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A317	1BKR152-1115	U-4000-11 SERVICE TRANSF	AA	AA1X05	BNA1ET	0
A317	1BKR152-1102	U-440-11B SERVICE TRANSF	AA	AABKRA	BNA12O	0
A317	1BKR152-1102	U-440-11B SERVICE TRANSF	AA	AABKRA	BNA12P	0
A317	1BKR152-1104	NO. 11 LOW PRESS SAFETY INJ PUMP	AA	AABKRB	BNA14O	0
A317	1BKR152-1104	NO. 11 LOW PRESS SAFETY INJ PUMP	AA	AABKRB	BNA14P	0
A317	1BKR152-1107	NO. 11 CONTAINMENT SPRAY PUMP	AA	AABKRC	BNA17O	0
A317	1BKR152-1107	NO. 11 CONTAINMENT SPRAY PUMP	AA	AABKRC	BNA17P	0
A317	1BKR152-1105	NO. 11 SALT WATER PUMP	AA	AABKRD	BNA15O	0
A317	1BKR152-1105	NO. 11 SALT WATER PUMP	AA	AABKRD	BNA15P	0
A317	1BKR152-1108	NO. 11 HIGH PRESS SAFETY INJ PUMP	AA	AABKRE	BNA18O	0
A317	1BKR152-1108	NO. 11 HIGH PRESS SAFETY INJ PUMP	AA	AABKRE	BNA18P	0
A317	1BKR152-1116	AFW PP #13	AA	AABKRF	BNA1FO	0
A317	1BKR152-1116	AFW PP #13	AA	AABKRF	BNA1FP	0
A317	1BKR152-1109	NO. 11 SERVICE WATER PUMP	AA	AABKRG	BNA19O	0
A317	1BKR152-1109	NO. 11 SERVICE WATER PUMP	AA	AABKRG	BNA19P	0
A317	1BKR152-1110	NO. 13 HIGH PRESS SAFETY INJ PUMP	AA	AABKRH	BNA10O	0
A317	1BKR152-1110	NO. 13 HIGH PRESS SAFETY INJ PUMP	AA	AABKRH	BNA10P	0
A317	1BKR152-1111	NO. 13 SERVICE WATER PUMP	AA	AABKRI	BNA1AO	0
A317	1BKR152-1111	NO. 13 SERVICE WATER PUMP	AA	AABKRI	BNA1AP	0
A317	1BKR152-1112	NO. 13 SALT WATER PUMP	AA	AABKRJ	BNA1BO	0
A317	1BKR152-1112	NO. 13 SALT WATER PUMP	AA	AABKRJ	BNA1BP	0
A317	1BKR152-1113	SWITCHYARD FEEDER TRANS SX10	AA	AABKRK	BNA1CO	0
A317	1BKR152-1113	SWITCHYARD FEEDER TRANS SX10	AA	AABKRK	BNA1CP	0
A317	1BKR152-1114	U-440-11A SERVICE TRANSF	AA	AABKRL	BNA1DO	0
A317	1BKR152-1114	U-440-11A SERVICE TRANSF	AA	AABKRL	BNA1DP	0
A317	1BUS1A01	4KV BUS 11	AA	BUA01R	BUA01R	0
A317	1NA110	13 SI HI PRESS PP DISC	AA	MAHP3Q	MAHP3Q	0
A317	1NA111	SERV WTR PP 13 DISC	AA	MWSR3Q	MWSR3Q	0
A317	1NA112	SALT WTR PP 13 DISC	AA	MWSW3Q	MWSW3Q	0
A317	1XU-440-11A	480V XFMR U-440-11A	AA	TN11AQ	TN11AQ	0
A317	1XU-440-11B	480V XFMR U-440-11B	AA	TN11BQ	TN11BQ	0
A317	1NA110	13 SI HI PRESS PP DISC	AB	MAHP4Q	MAHP4Q	0
A317	1NA111	SERV WTR PP 13 DISC	AB	MWSR4Q	MWSR4Q	0
A317	1NA112	SALT WTR PP 13 DISC	AB	MWSW4Q	MWSW4Q	0
A317	1BKR152-1201	U-4000-11 SERVICE TRANSF	AE	AE1X05	BNA21T	0
A317	1BUS1A02	4KV BUS 12	AE	AE1X05	BUA02R	0
A317	1BKR152-1202	U-440-12B SERVICE TRANSF	AE	AEBKRA	BNA22O	0
A317	1BKR152-1202	U-440-12B SERVICE TRANSF	AE	AEBKRA	BNA22P	0
A317	1BKR152-1204	NO. 11 CONDENSATE BOOSTER PUMP	AE	AEBKRB	BNA24O	0
A317	1BKR152-1204	NO. 11 CONDENSATE BOOSTER PUMP	AE	AEBKRB	BNA24P	0
A317	1BKR152-1205	NO. 12 CONDENSATE BOOSTER PUMP	AE	AEBKRC	BNA25O	0
A317	1BKR152-1205	NO. 12 CONDENSATE BOOSTER PUMP	AE	AEBKRC	BNA25P	0
A317	1BKR152-1206	NO. 11 HEATER DRAIN PUMP	AE	AEBKRD	BNA26O	0
A317	1BKR152-1206	NO. 11 HEATER DRAIN PUMP	AE	AEBKRD	BNA26P	0
A317	1BKR152-1207	NO. 11 CONDENSATE PUMP	AE	AEBKRE	BNA27O	0
A317	1BKR152-1207	NO. 11 CONDENSATE PUMP	AE	AEBKRE	BNA27P	0
A317	1BKR152-1208	U-440-12A SERVICE TRANSF	AE	AEBKRF	BNA28O	0
A317	1BKR152-1208	U-440-12A SERVICE TRANSF	AE	AEBKRF	BNA28P	0
1TB12-3 (CP)	1PUMPCD11	11 CONDENSATE PUMP (1MA207)	AE	MYCP1Q	MYCP1Q	0
A317	1XU-440-12A	480V XFMR U-440-12A	AE	TN12AQ	TN12AQ	0
A317	1XU-440-12B	480V XFMR U-440-12B	AE	TN12BQ	TN12BQ	0
1TB12-3 (CP)	1PUMPCD12	12 CONDENSATE PUMP (1MA307)	AF	MYCP2Q	MYCP2Q	0
1TB12-3 (CP)	1PUMPCD13	13 CONDENSATE PUMP (1MA308)	AF	MYCP3Q	MYCP3Q	0
A317	1RY89-1104X	CVC DISC 89-1104 CHG PP 13 AUX REL	CV	CVRY04	RY104T	0
A317	1DISC89-1104	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A317	1DISC89-1104	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A317	1I/I1114A1	1 AFW S/G 11 LVL TO AFAS I/I	F1	F1ZD11	II14AR	0
A317	1YX1114A	SG 11 WIDE RANGE CHL L-1114A	F1	F1ZD11	SP14AR	0
A317	1I/I1124A1	1 AFW S/G 12 LVL TO AFAS I/I	F1	F1ZD12	II24AR	0
A317	1YX1X1124A	SG 12 WIDE RANGE CHL L-1124A	F1	F1ZD12	SP24AR	0
A318	1LI5609	LVL INDICATING PRESS GAGE	F3	GM609R	GM609R	0
A317	1RY1A116/2/SSA1	AFW MTR DRIVEN PP 13 TIME DELAY PICKUP REL	F7	F7RSA1	RYSA1E	0
A317	1RY1A116/2/SSA1	AFW MTR DRIVEN PP 13 TIME DELAY PICKUP REL	F7	F7RSA1	RYSA1P	0
A317	1BKR152-1103	BKR 152-1103 11-17 4KV BUS TIE BKR	GE	GEELC1	BN103T	0
A317	1RY127/B11A	13/4KV BUS 11 U/V RY	GE(UA)	UASEND	RY11AD	0
A317	1RY127/B11A	13/4KV BUS 11 U/V RY	GE(UA)	UASEND	RY11AT	0
A317	1RY127/B11E	13/4KV BUS 11 U/V RY	GE(UA)	UASEND	RY11ED	0
A317	1RY127/B11E	13/4KV BUS 11 U/V RY	GE(UA)	UASEND	RY11ET	0
A317	1RY127/B11B	13/4KV BUS 11 U/V RY	GE(UA)	UASENE	RY11BD	0
A317	1RY127/B11B	13/4KV BUS 11 U/V RY	GE(UA)	UASENE	RY11BT	0
A317	1RY127/B11F	13/4KV BUS 11 U/V RY	GE(UA)	UASENE	RY11FD	0
A317	1RY127/B11F	13/4KV BUS 11 U/V RY	GE(UA)	UASENE	RY11FT	0
A317	1RY127/B11C	13/4KV BUS 11 U/V RY	GE(UA)	UASENF	RY11CD	0
A317	1RY127/B11C	13/4KV BUS 11 U/V RY	GE(UA)	UASENF	RY11CT	0
A317	1RY127/B11G	13/4KV BUS 11 U/V RY	GE(UA)	UASENF	RY11GD	0
A317	1RY127/B11G	13/4KV BUS 11 U/V RY	GE(UA)	UASENF	RY11GT	0
A317	1RY127/B11D	13/4KV BUS 11 U/V RY	GE(UA)	UASENG	RY11DD	0
A317	1RY127/B11D	13/4KV BUS 11 U/V RY	GE(UA)	UASENG	RY11DT	0
A317	1RY127/B11H	13/4KV BUS 11 U/V RY	GE(UA)	UASENG	RY11HD	0
A317	1RY127/B11H	13/4KV BUS 11 U/V RY	GE(UA)	UASENG	RY11HT	0
A317	0BKR152-1106	DSL GEN 0C TO 4KV BUS 11	GJ	GJOUT1	BN106T	0
A317	1BKR152-1101	SUPP BKR FROM U-4000-21	H5(U1)	BHEAZZ	Close	0
A317	1BKR152-1209	SUPP BKR FROM U-4000-21	H5(U1)	BHEAZZ	Close	0
A317	1BKR152-1115	U-4000-11 SERVICE TRANSF	H5(U1)	BHEAZZ	Open	0
A317	1BKR152-1201	U-4000-11 SERVICE TRANSF	H5(U1)	BHEAZZ	Open	0
A317	1NA110	13 SI HI PRESS PP DISC	HB	MA013R	MA013R	0
A317	1NA110	13 SI HI PRESS PP DISC	HB	MA013S	MA013S	0
A317	0AE317A	FSD ZONE 34 SMOKE DET	HF	HFDETA	AE17AR	0
A317	0AE317C	FSD ZONE 34 SMOKE DET	HF	HFDETA	AE17CR	0
A317	0AE317E	FSD ZONE 34 SMOKE DET	HF	HFDETA	AE17ER	0
A317	0AE317B	FSD ZONE 34 SMOKE DET	HF	HFDETB	AE17BR	0
A317	0AE317D	FSD ZONE 34 SMOKE DET	HF	HFDETB	AE17DR	0
A317	0AE317F	FSD ZONE 34 SMOKE DET	HF	HFDETB	AE17FR	0
A317	1FD317N1	SWGR RM SUPPLY FROM RM 317 TO 318 FD	HF	HFDMP7	FD17II	0
A317	1PO5442	EL 27 SUPP SWGR RM SUPP DMPR	HF	HFDMPR	PO442P	0
A318	1SV5442	SWTCGR RM EL 27 OUTLT DMPR SOL	HF	HFDMPR	PO442P	0
A317	1TS5443	1 FSD SWGR RM EL 27 OUTLET TS	HF	HFDMPR	PO442P	0
A317	1PO5443	1 HVAC/A SWGR RM EL 27 EXH D PO	HF	HFDMPR	PO443P	0
A318	1SV5442	SWTCGR RM EL 27 OUTLT DMPR SOL	HF	HFDMPR	PO443P	0
A317	1TS5443	1 FSD SWGR RM EL 27 OUTLET TS	HF	HFDMPR	PO443P	0
A317	1TS5443	1 FSD SWGR RM EL 27 OUTLET TS	HF	HFTEMP	TS436R	0
A317	1TY5441	SWGR RM EL 45 OUTLT TEMP	HG	HGTEMP	RY441P	0
A317	1SV5426A	1 HVAC/A SWGR RM HVAC UNIT 12 SUPP D SV	HS	HSOPR2	IV26AT	0
A317	1I/I1013A1	1 RPS S/G 11 PT TO RPS/ESFAS	IA	IASEND	II1A1R	0
A317	1I/I1023A1	1 RPS S/G 12 PT TO RPS/ESFAS	IB	IBSEND	II2A1R	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	KH(PP3)	BHEKC1	Start	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	KH(PP3)	BHEKZ1	Start	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	KZ	MZC13R	MZC13R	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	KZ	MZC13S	MZC13S	0
1TB12-3 (CP)	1CV4406	CST TO HTWL M/U CV	LF	LFMUCV	C3406O	0
1TB12-3 (CP)	1I/P4406	COND STORAGE TO HOTWELL CONT	LF	LFMUCV	C3406O	0
1TB12-3 (CP)	1SV4406	CD STORAGE TO HOTWELL CONTROL SV	LF	LFMUCV	C3406O	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-3 (CP)	1CV4406	CST TO HTWL M/U CV	LF	LFMUCV	C3406P	0
1TB12-3 (CP)	1I/P4406	COND STORAGE TO HOTWELL CONT	LF	LFMUCV	C3406P	0
1TB12-3 (CP)	1SV4406	CD STORAGE TO HOTWELL CONTROL SV	LF	LFMUCV	C3406P	0
1TB12-3 (CP)	1CV4405	HOTWELL TO COND STORAGE VLV	LF	LFMUCV	C3504T	0
1TB12-3 (CP)	1I/P4405	HOTWELL TO COND STORAGE CONT	LF	LFMUCV	C3504T	0
1TB12-3 (CP)	1LT4405	CD CONDENSER HOTWELL LT	LF	LFMUCV	LT405R	0
A317	1BKR52-1119	114R RX MCC	M2	M2BCBM	CB119T	0
1TB12-2 (CP)	1PNL1C51	11A AMERTAP CNTL PNL 1C51	M7	BUP23Q	BUP23Q	0
1TB12-2 (CP)	1PNL1C52	11B AMERTAP CNTL PNL 1C52	M7	BUP24Q	BUP24Q	0
1TB12-2 (CP)	1PNL1C53	12A AMERTAP CNTL PNL 1C53	M7	BUP25Q	BUP25Q	0
A317	1BKR52-1213	106T TURB MCC	M7	M71213	CB213O	0
A317	1BKR52-1213	106T TURB MCC	M7	M71213	CB213P	0
A317	1BKR152-1202	U-440-12B SERVICE TRANSF	M7	M7B12B	BN12BT	0
A317	1BUS1B02B	480V BUS 12B	M7	M7B12B	BU12BR	0
A317	1BKR52-1222	U-440-12B LOW SIDE BKR	M7	M7B12B	CB222T	0
A317	1BKR52-1213	106T TURB MCC	M7	M7BCBM	CB213T	0
1TB12-2 (CP)	1PUMPCAR12	12 CAR VAC PP (1MB217)	M7	MB217Q	MB217Q	0
1TB12-2 (CP)	1PUMPMSBD11	11 AUX BD TK PUMP (1M0671)	M7	MBP71Q	MBP71Q	0
1TB12-3 (CP)	1PUMPCDMTRLO11	11 CD PP LO CLR PP (1M0607)	M7	MMP07Q	MMP07Q	0
1TB12-2 (CP)	1PUMPCARSWP11	11 CAR SEAL WTR PUMP (1M0636)	M7	MMP36Q	MMP36Q	0
1TB12-2 (CP)	1PUMPCARSWP12	12 CAR SEAL WTR PUMP (1M0637)	M7	MMP37Q	MMP37Q	0
1TB12-3 (CP)	1MOV5225	11A COND'R INLET STRNR VLV	M7	MVP02Q	MVP02Q	0
1TB12-3 (CP)	1MOV5229	11B COND'R INLET STRNR VLV	M7	MVP03Q	MVP03Q	0
1TB12-3 (CP)	1MOV5233	12A COND'R INLET STRNR VLV	M7	MVP04Q	MVP04Q	0
1TB12-3 (CP)	1M0659	11 COND PP LUBE OIL COOLER FAN MTR (1M0659)	M7	VAP59Q	VAP59Q	0
1TB12-2 (CP)	1RECEPTMCC116A	POWER RECEPT MCC116 (1W48, 1W49, 1W50, 1W51)	M8	BUQ05Q	BUQ05Q	0
1TB12-2 (CP)	1PNL1C54	12B AMERTAP CNTL PNL 1C54	M8	BUQ23Q	BUQ23Q	0
1TB12-2 (CP)	1PNL1C55	13A AMERTAP CNTL PNL 1C55	M8	BUQ24Q	BUQ24Q	0
1TB12-2 (CP)	1PNL1C56	13B AMERTAP CNTL PNL 1C56	M8	BUQ25Q	BUQ25Q	0
1TB12-2 (CP)	1PUMPCAR14	14 CAR VAC PP (1MB317)	M8	MB317Q	MB317Q	0
1TB12-2 (CP)	1PUMPSMP11TB11	11 TURB BLDG SUMP 11 PP (1M1642)	M8	MBQ42Q	MBQ42Q	0
1TB12-2 (CP)	1PUMPSMP11TB12	11 TURB BLDG SUMP PP 12 (1M1643)	M8	MBQ43Q	MBQ43Q	0
1TB12-2 (CP)	1PUMPMSBD12	12 AUX BD TK PUMP (1M1656)	M8	MBQ56Q	MBQ56Q	0
1TB12-3 (CP)	1PUMPCDMTRLO12	12 CD PP LO CLR PP (1M1606)	M8	MMQ06Q	MMQ06Q	0
1TB12-3 (CP)	1PUMPCDMTRLO13	13 CD PP LO CLR PP (1M1607)	M8	MMQ07Q	MMQ07Q	0
1TB12-2 (CP)	1PUMPCARSWP13	13 CAR SEAL WTR PUMP (1M1636)	M8	MMQ36Q	MMQ36Q	0
1TB12-2 (CP)	1PUMPCARSWP14	14 CAR SEAL WTR PUMP (1M1637)	M8	MMQ37Q	MMQ37Q	0
1TB12-3 (CP)	1MOV5237	12B COND'R INLET STRNR VLV	M8	MVQ02Q	MVQ02Q	0
1TB12-3 (CP)	1MOV5241	13A COND'R STRNR INLET VLV	M8	MVQ03Q	MVQ03Q	0
1TB12-3 (CP)	1MOV5245	13B COND'R INLET STRNR VLV	M8	MVQ04Q	MVQ04Q	0
1TB12-3 (CP)	1M1659	12 COND PP LUBE OIL COOLER FAN MTR (1M1659)	M8	VAQ59Q	VAQ59Q	0
1TB12-3 (CP)	1M1660	13 COND PP LUBE OIL COOLER FAN MTR (1M1660)	M8	VAQ60Q	VAQ60Q	0
A317	1RY1A204/2/4453	11 COND CBP BKR 152-1204 TIME DELAY DROP OUT REL	MC	MCBP10	RY242P	0
A317	1RY1A204/3	COND BOOSTER PUMP 11 AUX RELAY	MC	MCBP10	RY243T	0
A317	1PY4453	11 COND CBP PRESSURE CONVERTER REL	MC	MCBP10	RY453P	0
A317	1RY1A205/2/4460	12 COND CBP BKR 152-1205 TIME DELAY DROP OUT REL	MC	MCBP20	RY252P	0
A317	1RY1A205/3	COND BOOSTER PUMP 12 AUX RELAY	MC	MCBP20	RY253T	0
A317	1PY4460	12 COND CBP PRESSURE CONVERTER REL	MC	MCBP20	RY460P	0
1TB12-3 (CP)	1YS4414	COND PMP MOTOR 11 OIL STRAINER	MC	MCPP10	YS414P	0
1TB12-3 (CP)	1YS4421	COND PMP MOTOR 12 OIL STRAINER	MC	MCPP20	YS421P	0
1TB12-3 (CP)	1YS4428	COND PMP MOTOR 13 OIL STRAINER	MC	MCPP30	YS428P	0
1TB12-3 (CP)	1PUMPCDMTRLO11	11 CD PP LO CLR PP (1M0607)	MC	MML11R	MML11R	0
1TB12-3 (CP)	1PUMPCDMTRLO12	12 CD PP LO CLR PP (1M1606)	MC	MML12R	MML12R	0
1TB12-3 (CP)	1PUMPCDMTRLO13	13 CD PP LO CLR PP (1M1607)	MC	MML13R	MML13R	0
1TB12-3 (CP)	1PUMPCD11	11 CONDENSATE PUMP (1MA207)	MC	MYC11R	MYC11R	0
1TB12-3 (CP)	1PUMPCD12	12 CONDENSATE PUMP (1MA307)	MC	MYC12R	MYC12R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-3 (CP)	1PUMPCD13	13 CONDENSATE PUMP (1MA308)	MC	MYC13R	MYC13R	0
1TB12-3 (CP)	1M0659	11 COND PP LUBE OIL COOLER FAN MTR (1M0659)	MC	VAL11R	VAL11R	0
1TB12-3 (CP)	1M1659	12 COND PP LUBE OIL COOLER FAN MTR (1M1659)	MC	VAL12R	VAL12R	0
1TB12-3 (CP)	1M1660	13 COND PP LUBE OIL COOLER FAN MTR (1M1660)	MC	VAL13R	VAL13R	0
A317	1BKR52-1109	101 AT TURB MCC	MN	MNF71B	CB109T	0
A317	1DISC89-1104	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A317	1BKR52-1101	11 CAV CLG FAN	N1	N11101	CB101O	0
A317	1BKR52-1101	11 CAV CLG FAN	N1	N11101	CB101P	0
A317	1BKR52-1102	11 CONTMT AIR CLR	N1	N11102	CB102O	0
A317	1BKR52-1102	11 CONTMT AIR CLR	N1	N11102	CB102P	0
A317	1BKR52-1104	13 CHG PP	N1	N11104	CB104O	0
A317	1BKR52-1104	13 CHG PP	N1	N11104	CB104P	0
A317	1BKR52-1105	11 CONTMT FILT UNIT	N1	N11105	CB105O	0
A317	1BKR52-1105	11 CONTMT FILT UNIT	N1	N11105	CB105P	0
A317	1BKR52-1106	11 COMP CLG PP	N1	N11106	CB106O	0
A317	1BKR52-1106	11 COMP CLG PP	N1	N11106	CB106P	0
A317	1BKR52-1107	15 BATT CHGR	N1	N11107	CB107O	0
A317	1BKR52-1107	15 BATT CHGR	N1	N11107	CB107P	0
A317	1BKR52-1108	11 CONT RM A/C COMPR	N1	N11108	CB108O	0
A317	1BKR52-1108	11 CONT RM A/C COMPR	N1	N11108	CB108P	0
A317	1BKR52-1109	101 AT TURB MCC	N1	N11109	CB109O	0
A317	1BKR52-1109	101 AT TURB MCC	N1	N11109	CB109P	0
A317	1BKR52-1110	11 SWGR RM A/C COMPR	N1	N11110	CB110O	0
A317	1BKR52-1110	11 SWGR RM A/C COMPR	N1	N11110	CB110P	0
A317	1BKR52-1111	11 BATT CHGR	N1	N11111	CB111O	0
A317	1BKR52-1111	11 BATT CHGR	N1	N11111	CB111P	0
A317	1BKR52-1130	11 PZR HTR PROP CONTR	N1	N11130	CB130O	0
A317	1BKR52-1130	11 PZR HTR PROP CONTR	N1	N11130	CB130P	0
A317	1BKR152-1114	U-440-11A SERVICE TRANSF	N1	N1B11A	BN11AT	0
A317	1BUS1B01A	480V BUS 11A	N1	N1B11A	BU11AR	0
A317	1BKR52-1112	U-440-11A LOW SIDE BKR	N1	N1B11A	CB112T	0
A317	1NB130	11A RC PZR HTR 11 PROP CONTR	N1	TC130Q	TC130Q	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	N2	MZ116Q	MZ116Q	0
A317	1BKR52-1114	12 CONTMT AIR CLR	N2	N21114	CB114O	0
A317	1BKR52-1114	12 CONTMT AIR CLR	N2	N21114	CB114P	0
A317	1BKR52-1115	11 CHG PP	N2	N21115	CB115O	0
A317	1BKR52-1115	11 CHG PP	N2	N21115	CB115P	0
A317	1BKR52-1116	13 COMP CLG PP	N2	N21116	CB116O	0
A317	1BKR52-1116	13 COMP CLG PP	N2	N21116	CB116P	0
A317	1BKR52-1117	11 MAIN PLT EXH FAN	N2	N21117	CB117O	0
A317	1BKR52-1117	11 MAIN PLT EXH FAN	N2	N21117	CB117P	0
A317	1BKR52-1118	11 INSTR AIR COMPR	N2	N21118	CB118O	0
A317	1BKR52-1118	11 INSTR AIR COMPR	N2	N21118	CB118P	0
A317	1BKR52-1119	114R RX MCC	N2	N21119	CB119O	0
A317	1BKR52-1119	114R RX MCC	N2	N21119	CB119P	0
A317	1BKR52-1120	14 BATT CHGR	N2	N21120	CB120O	0
A317	1BKR52-1120	14 BATT CHGR	N2	N21120	CB120P	0
A317	1BKR52-1121	13 CONTMT FILT UNIT	N2	N21121	CB121O	0
A317	1BKR52-1121	13 CONTMT FILT UNIT	N2	N21121	CB121P	0
A317	1BKR52-1122	H2 RECOMB PWR PNL 11	N2	N21122	CB122O	0
A317	1BKR52-1122	H2 RECOMB PWR PNL 11	N2	N21122	CB122P	0
A317	1BKR52-1123	PLANT AIR COMPRESSOR 11	N2	N21123	CB123O	0
A317	1BKR52-1123	PLANT AIR COMPRESSOR 11	N2	N21123	CB123P	0
A317	1BKR52-1127	109 PH PZR HTR MCC	N2	N21127	CB127O	0
A317	1BKR52-1127	109 PH PZR HTR MCC	N2	N21127	CB127P	0
A317	1BKR152-1102	U-440-11B SERVICE TRANSF	N2	N2B11B	BN11BT	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A317	1BUS1B01B	480V BUS 11B	N2	N2B11B	BU11BR	0
A317	1BKR52-1113	U-440-11B LOW SIDE BKR	N2	N2B11B	CB113T	0
A317	1DISC89-1121	13 CONTMT FILT UNIT DISCS	N2	VG121Q	VG121Q	0
A317	1DISC89-1104	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	N4	MZ416Q	MZ416Q	0
A317	1DISC89-1121	13 CONTMT FILT UNIT DISCS	N4	VG421Q	VG421Q	0
A317	1BKR52-1109	101 AT TURB MCC	NR	NR1P01	CB1B9T	0
A317	1RY1B118/62	11 IA COMPR TIME DELAY PICKUP RY	NR	NRIA11	RY118E	0
A317	1RY1B118/62	11 IA COMPR TIME DELAY PICKUP RY	NR	NRIA11	RY118P	0
A317	1BKR152-1208	U-440-12A SERVICE TRANSF	PG	PGBK06	BN208T	0
A317	1BUS1B02A	480V BUS 12A	PG	PGBK06	BU12AR	0
A317	1BKR52-1201	U-440-12A LOW SIDE BKR	PG	PGBK06	CB201T	0
A317	1BKR52-1208	FIRE PP FDR	PG	PGBK06	CB208T	0
A317	1RY1B208/CR	MOTOR FIRE PUMP CR RELAY	PG	PGRY16	RYFCRE	0
A317	1RY1B208/CR	MOTOR FIRE PUMP CR RELAY	PG	PGRY16	RYFCRP	0
A317	1XU-440-12A	480V XFMR U-440-12A	PG	TN12AR	TN12AR	0
A317	1BUS1A01	4KV BUS 11	QC	BUA01R	BUA01R	0
A317	1BUS1A02	4KV BUS 12	QC	BUA02R	BUA02R	0
A317	1BKR152-1115	U-4000-11 SERVICE TRANSF	QC	QCBUS1	BNA1EO	0
A317	1BKR152-1115	U-4000-11 SERVICE TRANSF	QC	QCBUS1	BNA1EP	0
A317	1BKR152-1201	U-4000-11 SERVICE TRANSF	QC	QCBUS2	BNA21O	0
A317	1BKR152-1201	U-4000-11 SERVICE TRANSF	QC	QCBUS2	BNA21P	0
A317	1BKR152-1115	U-4000-11 SERVICE TRANSF	QC	QCFLST	TXQC1Q	0
A317	1BKR152-1201	U-4000-11 SERVICE TRANSF	QC	QCFLST	TXQC2Q	0
1TB12-3 (CP)	1PUMPCD12	12 CONDENSATE PUMP (1MA307)	QC	QCMISC	MYCP2Q	0
1TB12-3 (CP)	1PUMPCD13	13 CONDENSATE PUMP (1MA308)	QC	QCMISC	MYCP3Q	0
A317	1BKR152-1101	SUPP BKR FROM U-4000-21	QD	QDFLST	TXQD1Q	0
A317	1BKR152-1209	SUPP BKR FROM U-4000-21	QD	QDFLST	TXQD2Q	0
A317	1I/I1013A3	11 FW S/G PT TO INDIC I/I	QZ	F1PT1A	II10AR	0
A317	1I/I1013A2	11 AFW S/G PRESSURE PROTECTION I/I SIG CONVERTE	QZ	F1PT1A	II13AR	0
A317	1I/I1013A1	1 RPS S/G 11 PT TO RPS/ESFAS	QZ	F1PT1A	II1A1R	0
A317	1I/I1023A2	1 AFW SG 12 PT TO AFAS I/I	QZ	F1PT1A	II23AR	0
A317	1YX1X1013A1	FW 1PT1013A LOOP PWR SUPP	QZ	F1PT1A	SP13AR	0
A317	1I/I1013A2	11 AFW S/G PRESSURE PROTECTION I/I SIG CONVERTE	QZ	F1PT2A	II13AR	0
A317	1I/I1023A2	1 AFW SG 12 PT TO AFAS I/I	QZ	F1PT2A	II23AR	0
A317	1I/I1023A1	1 RPS S/G 12 PT TO RPS/ESFAS	QZ	F1PT2A	II3A1R	0
A317	1I/I1023A3	12 FW S/G PT TO INDIC I/I	QZ	F1PT2A	II3A3R	0
A317	1YX1X1023A1	1PT1023A LOOP PWR SUPP	QZ	F1PT2A	SP23AR	0
A317	1NA110	13 SI HI PRESS PP DISC	RH	BHERH1	Start	0
A317	1BKR52-1201	U-440-12A LOW SIDE BKR	RQ	BHERS1	Open	0
A317	1BKR52-1212	480V BUS 12A & B TIE BREAKER	RQ	BHERS1	Open	0
A317	1BKR52-1201	U-440-12A LOW SIDE BKR	RQ	CB201O	CB201O	0
A317	1YX1X112HA	1 RPS 1TT112HA PWR SUPP	RS	RSCHAT	SP1HAR	0
A317	1YX1X122HA	11 RXV PWR SUP 122HA XFMR	RS	RSCHAT	SP2HAR	0
A317	1TT112CA	11A RPS T-COLD XMTR	RS	RSCHAT	TT1CAR	0
A317	1TT112HA	11 RPS T-HOT XMTR	RS	RSCHAT	TT1HAR	0
A317	1TT122CA	12A RPS T-COLD XMTR	RS	RSCHAT	TT2CAR	0
A317	1TT122HA	1 RPS 12 T-HOT TEMP XMTR	RS	RSCHAT	TT2HAR	0
A317	1YX1X112HB	1 RPS 1TT112HB PWR SUPP	RS	RSCHBT	SP1HBR	0
A317	1HSMG11-5PB	CEDS MG 11 BYPASS IN	RS	RSMG11	HS15PT	0
A317	1CONT1Q206/3M	CEDM M/G/ SET 11 LOAD CONTACTOR	RS	RSMG11	RY13MD	0
A317	1CONT1Q206/3M	CEDM M/G/ SET 11 LOAD CONTACTOR	RS	RSMG11	RY13MT	0
A317	1CONT1Q206/4M	CEDM M/G SET 11 BYPASS CONTACTOR	RS	RSMG11	RY14MT	0
A317	1RYMX11	CEDS MG 11 LOAD CONTROL RELAY	RS	RSMG11	RYX11D	0
A317	1RYMX11	CEDS MG 11 LOAD CONTROL RELAY	RS	RSMG11	RYX11T	0
A317	1NA112	SALT WTR PP 13 DISC	S1	MWS13R	MWS13R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A317	1NA112	SALT WTR PP 13 DISC	S1	MWS13S	MWS13S	0
A317	1NA112	SALT WTR PP 13 DISC	S2	MWS13R	MWS13R	0
A317	1NA112	SALT WTR PP 13 DISC	S2	MWS13S	MWS13S	0
A317	1NA111	SERV WTR PP 13 DISC	S3	MWS13R	MWS13R	0
A317	1NA111	SERV WTR PP 13 DISC	S3	MWS13S	MWS13S	0
A317	1NA111	SERV WTR PP 13 DISC	S4	MWS13R	MWS13R	0
A317	1NA111	SERV WTR PP 13 DISC	S4	MWS13S	MWS13S	0
A317	1BKR252-11P01	NO 11A RCP SUPPLY FROM SERVICE BUS 12	SL	BHESL2	Open	0
A317	1BKR252-11P02	NO 11A RCP SUPPLY FROM SERVICE BUS 22	SL	BHESL2	Open	0
A317	1BKR252-12P01	NO 12A RCP SUPPLY FROM SERVICE BUS 12	SL	BHESL2	Open	0
A317	1BKR252-12P02	NO 12A RCP SUPPLY FROM SERVICE BUS 22	SL	BHESL2	Open	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	SP(PP3)	BHEK12	Start	0
1TB12-3 (CP)	1CV4406	CST TO HTWL M/U CV	T1	T1CS1F	C3406T	0
1TB12-3 (CP)	1I/P4406	COND STORAGE TO HOTWELL CONT	T1	T1CS1F	C3406T	0
1TB12-3 (CP)	1SV4406	CD STORAGE TO HOTWELL CONTROL SV	T1	T1CS1F	C3406T	0
1TB12-3 (CP)	1LT4405	CD CONDENSER HOTWELL LT	T1	T1CS1F	LT405R	0
1TB12-2 (CP)	1PUMPCARSWP11	11 CAR SEAL WTR PUMP (1M0636)	VC	MMS11R	MMS11R	0
1TB12-2 (CP)	1PUMPCARSWP12	12 CAR SEAL WTR PUMP (1M0637)	VC	MMS12R	MMS12R	0
1TB12-2 (CP)	1PUMPCARSWP13	13 CAR SEAL WTR PUMP (1M1636)	VC	MMS13R	MMS13R	0
1TB12-2 (CP)	1PUMPCAR11	11 CAR VAC PP (1MB203)	VC	MMV11R	MMV11R	0
1TB12-2 (CP)	1PUMPCAR12	12 CAR VAC PP (1MB217)	VC	MMV12R	MMV12R	0
1TB12-2 (CP)	1PUMPCAR13	13 CAR VAC PP (1MB303)	VC	MMV13R	MMV13R	0
A317	1BKR152-1208	U-440-12A SERVICE TRANSF	VC	VC012A	BN208T	0
A317	1BUS1B02A	480V BUS 12A	VC	VC012A	BUB2AR	0
A317	1BKR52-1201	U-440-12A LOW SIDE BKR	VC	VC012A	CB201T	0
A317	1XU-440-12A	480V XFMR U-440-12A	VC	VC012A	TN12AR	0
A317	1BKR152-1202	U-440-12B SERVICE TRANSF	VC	VC012B	BN202T	0
A317	1BUS1B02B	480V BUS 12B	VC	VC012B	BUB2BR	0
A317	1BKR52-1222	U-440-12B LOW SIDE BKR	VC	VC012B	CB222T	0
A317	1XU-440-12B	480V XFMR U-440-12B	VC	VC012B	TN12BR	0
1TB12-3 (CP)	1HS5225	11 CW PP WTRBX INL VLV HS	VC	VCCW1A	HS225T	0
1TB12-3 (CP)	1MOV5225	11A COND'R INLET STRNR VLV	VC	VCCW1A	MV225P	0
1TB12-3 (CP)	1HS5229	12 CW PP WTRBX INL VLV HS	VC	VCCW2A	HS229T	0
1TB12-3 (CP)	1MOV5229	11B COND'R INLET STRNR VLV	VC	VCCW2A	MV229P	0
1TB12-3 (CP)	1HS5233	13 CW PP WTRBX INL VLV HS	VC	VCCW3A	HS233T	0
1TB12-3 (CP)	1MOV5233	12A COND'R INLET STRNR VLV	VC	VCCW3A	MV233P	0
1TB12-3 (CP)	1HS5237	14 CW PP WTRBX INL VLV HS	VC	VCCW4A	HS237T	0
1TB12-3 (CP)	1MOV5237	12B COND'R INLET STRNR VLV	VC	VCCW4A	MV237P	0
1TB12-3 (CP)	1HS5241	15 CW PP WTRBX INL VLV HS	VC	VCCW5A	HS241T	0
1TB12-3 (CP)	1MOV5241	13A COND'R STRNR INLET VLV	VC	VCCW5A	MV241P	0
1TB12-3 (CP)	1HS5245	15 CW PP WTRBX INL VLV HS	VC	VCCW6A	HS245T	0
1TB12-3 (CP)	1MOV5245	13B COND'R INLET STRNR VLV	VC	VCCW6A	MV245P	0
1TB12-2 (CP)	1CV1754	11 CAR UNIT MOTIVE AIR	VC	VCP011	C3754P	0
1TB12-2 (CP)	1CV1755	11 CAR UNIT SYS DIAPHRAM	VC	VCP011	C3755P	0
A317	1SV1755	11 CAR DIAPHRAM VLV	VC	VCP011	C3755P	0
1TB12-2 (CP)	1LCV1753	11 CAR SEP	VC	VCP011	LC753R	0
1TB12-2 (CP)	1PS1755	11 CAR CNDSR VAC PP SEAL LOW PRESSURE WTR PS	VC	VCP011	PS755R	0
1TB12-2 (CP)	1CV1757	12 CAR UNIT MOTIVE AIR	VC	VCP012	C3757P	0
1TB12-2 (CP)	1CV1758	12 CAR UNIT SYS DIAPHRAM	VC	VCP012	C3758P	0
A317	1SV1758	12 CAR DIAPHRAM VLV	VC	VCP012	C3758P	0
1TB12-2 (CP)	1LCV1756	12 CAR SEP LO LVL CONTROL	VC	VCP012	LC756R	0
1TB12-2 (CP)	1PS1758	12 CAR CNDSR VAC PP SEAL WTR LOW PRESSURE PS	VC	VCP012	PS758R	0
1TB12-2 (CP)	1CV1760	13 CAR UNIT MOTIVE AIR	VC	VCP013	C3760P	0
1TB12-2 (CP)	1CV1761	13 CAR UNIT SYS DIAPHRAM	VC	VCP013	C3761P	0
1TB12-2 (CP)	1LCV1759	SEP LO LVL CONTROL	VC	VCP013	LC759R	0
1TB12-2 (CP)	1PS1761	13 CAR CNDSR VAC PP SEAL WTR LOW PRESSURE PS	VC	VCP013	PS761R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-3 (CP)	1HXCARSWC11	11 CAR SEAL WTR CLR	VC	VCS011	HXS11B	0
1TB12-3 (CP)	1HXCARSWC11	11 CAR SEAL WTR CLR	VC	VCS011	HXS11P	0
1TB12-3 (CP)	1HXCARSWC12	12 CAR SEAL WTR CLR	VC	VCS012	HXS12B	0
1TB12-3 (CP)	1HXCARSWC12	12 CAR SEAL WTR CLR	VC	VCS012	HXS12P	0
1TB12-3 (CP)	1HXCARSWC13	13 CAR SEAL WTR CLR	VC	VCS013	HXS13B	0
1TB12-3 (CP)	1HXCARSWC13	13 CAR SEAL WTR CLR	VC	VCS013	HXS13P	0
A317	1BKR52-1111	11 BATT CHGR	XA	XAC11E	CBXN1T	0
A317	1BKR52-1120	14 BATT CHGR	XD	XDC14E	CBXN2T	0

Flood Evaluation Query

CF-13B-N318MM *

03-Dec-98

TOP	PM	EVALUATION	RI
AA	F	4KV Bus 11 fails.	PAJ
AB	3BKR	3 breaker challenges.	PAJ
AE	F	4KV Bus 12 fails.	PAJ
AF	2BKR	2 breaker challenges.	PAJ
CV	F	Conservatively set to failure. CVCS relatively unimportant.	PAJ
F1	Spec Impt	In 1 of 3. Spurious actuation needs to be considered. 11 and 12 SG's lose one of four sensor channels creating a 1 of 3 logic. Since creating a trip signal is our desired effect for F1, no impact.	PAJ
F3	None	Operators loss the ability to check level on CST.	PAJ
F7	F	Unit 1 AFW MD Pump 13 gets it's power from 4KV Bus 11. Since this bus is already failed (AA) in this scenario, this top will also fail.	PAJ
GE	F	1BKR152-1103 will open not allowing EDG 1A to provide power to 4KV Bus 11.	PAJ
GE(UA)	None	4KV 11 Bus de-energized (See Top AA). All relays will de-energize.	PAJ
GJ	Spec Impt	0BKR152-1106 will open not allowing EDG 0C to provide power to 4KV Bus 11.	PAJ
H5(U1)	None	Impact addressed by QC = F.	PAJ
HB	F	Although this disconnect is not located in the same room as the normally aligned disconnect, the cables go though A317. Therefore, it has to be assumed that a fault will occur in the main supply breaker opening the circuit. Therefore, HB will fail.	PAJ
HF	None	Loss of power to 1TY5443 circuit will result in the dampers remaining open.	PAJ
HG	None	Loss of power to 1TY5441 circuit will result in the dampers remaining open.	PAJ
HS	None	1SV5426A has been deleted.	PAJ
IA	Spec Impt	Submerging 1I/I1013A1 should blow the circuit fuse, thus sending a trip signal to AFAS. This create's a 1 of 3 logic. No impact on top IA. Should only impact VA.	PAJ

* This flood was combined with N318LM. See note 29 in RAN 98-065 sect 5.4. See N318LM for impacts. JBM

TOP	PM	EVALUATION	RI
IB	Spec Impt	Submerging 1I/I1023A1 should blow the circuit fuse, thus sending a trip signal to AFAS. This create's a 1 of 3 logic. No impact on top IB. Should only impact VA.	PAJ
KH(PP3)	F	Submerging 1DISC89-1116 should result in the upstream breaker to open. Therefore, CCW Pump 13 will not operate.	PAJ
KZ	F	Submerging 1DISC89-1116 should result in the upstream breaker to open. Therefore, CCW Pump 13 will not operate.	PAJ
LF	F	1CV4405/4406 fail closed on loss of power and loss of air.	PAJ
M2	Spec Impt	Since Top N2 fails, operators must get power from Top N3.	PAJ
M7	F	MCC 106T fails.	PAJ
M8	17BKR	17 breaker challenges.	PAJ
MC	F	11, 12 and 13 Condensate Pumps fail.	PAJ
MN	Spec Impt	SGFP Seal Booster Pump 11 Train fails to provide flow to common header. 12 Train still available.	PAJ
N1	F	480V Bus 11A fails.	PAJ
N2	F	480V Bus 11B fails.	PAJ
N3	1BKR	breaker challenges.	PAJ
N4	2BKR	2 breaker challenges.	PAJ
NR	F	Unit 1 120VAC distribution panel 11 (From 1MCC101AT) fails. This panel provides power to support components for IA/PA Unit 1 air loads.	PAJ
PG	Spec Impt	Only power to the motor driven fire pump is lost via 480V Bus 12A. Operators can switch power to 480V Bus 23A. They may also use the Diesel Driven Pump.	PAJ
QC	F	1BKR152-1115/1201 should open on a fault. However, this does not save the transformer. The transformer will fault, thus failing this top.	PAJ
QD	F	Although 1BKR152-1101/1209 are open, their energized cables should fault the transformer when submerged failing this top.	PAJ
QZ	Spec Impt	Operators should be able to recover AFW following a spurious AFAS block. Only channel A will be lost. AFAS will now be in 1 of 3.	PAJ

TOP	PM	EVALUATION	RI
RH	Spec Impt	Operators will not be able to start HPSI pump 13 during this flood scenario.	PAJ
RQ	None	1BKR52-1201/1212 should already open on a fault.	PAJ
RS	Spec Impt	Submerging THot/TCold transmitters and power supply should result in the failure of Channel A. RPS will be in a 1 of 3. Loss of power to the CEDM circuit will have no effect. The RTCBs will still open.	PAJ
S1	F	Both SW pumps 11 and 13 are failed. Pump 11 is failed because 4KV Bus 11 is failed (Top AA) and pump 13 is failed because of the disconnect being submerged.	PAJ
S2	Spec Impt	Loss the ability to use 13 SW pump to supply 12 header. Pump 12 is still available.	PAJ
S3	F	Both SRW pumps 11 and 13 are failed. Pump 11 is failed because 4KV Bus 11 is failed (Top AA) and pump 13 is failed because of the disconnect being submerged.	PAJ
S4	Spec Impt	Loss the ability to use 13 SRW pump to supply 12 header. Pump 12 is still available.	PAJ
SL	None	It is assumed that 1BKR252-11P011/11P02/12P01/12P02 will fail open on a fault.	PAJ
SP(PP3)	F	Operator will not be able to start 13 Component Cooling Pump.	PAJ
T1	None	1CV4406 fails closed on loss of power and loss of air.	PAJ
VC	F	All Condenser Vacuum Pumps Fail. Only 11, 12 and 13 are in the fault trees.	PAJ
XA	Spec Impt	Lose power from Batt Charger 11. If Batt Charger 23 fails, this top fails.	PAJ
XD	Spec Impt	Lose power from Batt Charger 14. If Batt Charger 22 fails, this top fails.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FL
A317	1BKR152-1115	U-4000-11 SERVICE TRANSF	AA	AA1X05	BNA1ET	0
A317	1BKR152-1102	U-440-11B SERVICE TRANSF	AA	AABKRA	BNA12O	0
A317	1BKR152-1102	U-440-11B SERVICE TRANSF	AA	AABKRA	BNA12P	0
A317	1BKR152-1104	NO. 11 LOW PRESS SAFETY INJ PUMP	AA	AABKRB	BNA14O	0
A317	1BKR152-1104	NO. 11 LOW PRESS SAFETY INJ PUMP	AA	AABKRB	BNA14P	0
A317	1BKR152-1107	NO. 11 CONTAINMENT SPRAY PUMP	AA	AABKRC	BNA17O	0
A317	1BKR152-1107	NO. 11 CONTAINMENT SPRAY PUMP	AA	AABKRC	BNA17P	0
A317	1BKR152-1105	NO. 11 SALT WATER PUMP	AA	AABKRD	BNA15O	0
A317	1BKR152-1105	NO. 11 SALT WATER PUMP	AA	AABKRD	BNA15P	0
A317	1BKR152-1108	NO. 11 HIGH PRESS SAFETY INJ PUMP	AA	AABKRE	BNA18O	0
A317	1BKR152-1108	NO. 11 HIGH PRESS SAFETY INJ PUMP	AA	AABKRE	BNA18P	0
A317	1BKR152-1116	AFW PP #13	AA	AABKRF	BNA1FO	0
A317	1BKR152-1116	AFW PP #13	AA	AABKRF	BNA1FP	0
A317	1BKR152-1109	NO. 11 SERVICE WATER PUMP	AA	AABKRG	BNA19O	0
A317	1BKR152-1109	NO. 11 SERVICE WATER PUMP	AA	AABKRG	BNA19P	0
A317	1BKR152-1110	NO. 13 HIGH PRESS SAFETY INJ PUMP	AA	AABKRH	BNA10O	0
A317	1BKR152-1110	NO. 13 HIGH PRESS SAFETY INJ PUMP	AA	AABKRH	BNA10P	0
A317	1BKR152-1111	NO. 13 SERVICE WATER PUMP	AA	AABKRI	BNA1AO	0
A317	1BKR152-1111	NO. 13 SERVICE WATER PUMP	AA	AABKRI	BNA1AP	0
A317	1BKR152-1112	NO. 13 SALT WATER PUMP	AA	AABKRJ	BNA1BO	0
A317	1BKR152-1112	NO. 13 SALT WATER PUMP	AA	AABKRJ	BNA1BP	0
A317	1BKR152-1113	SWITCHYARD FEEDER TRANS SX10	AA	AABKRK	BNA1CO	0
A317	1BKR152-1113	SWITCHYARD FEEDER TRANS SX10	AA	AABKRK	BNA1CP	0
A317	1BKR152-1114	U-440-11A SERVICE TRANSF	AA	AABKRL	BNA1DO	0
A317	1BKR152-1114	U-440-11A SERVICE TRANSF	AA	AABKRL	BNA1DP	0
A317	1BUS1A01	4KV BUS 11	AA	BUA01R	BUA01R	0
A317	1NA110	13 SI HI PRESS PP DISC	AA	MAHP3Q	MAHP3Q	0
A317	1NA111	SERV WTR PP 13 DISC	AA	MWSR3Q	MWSR3Q	0
A317	1NA112	SALT WTR PP 13 DISC	AA	MWSW3Q	MWSW3Q	0
A317	1XU-440-11A	480V XFMR U-440-11A	AA	TN11AQ	TN11AQ	0
A317	1XU-440-11B	480V XFMR U-440-11B	AA	TN11BQ	TN11BQ	0
A317	1NA110	13 SI HI PRESS PP DISC	AB	MAHP4Q	MAHP4Q	0
A317	1NA111	SERV WTR PP 13 DISC	AB	MWSR4Q	MWSR4Q	0
A317	1NA112	SALT WTR PP 13 DISC	AB	MWSW4Q	MWSW4Q	0
A317	1BKR152-1201	U-4000-11 SERVICE TRANSF	AE	AE1X05	BNA21T	0
A317	1BUS1A02	4KV BUS 12	AE	AE1X05	BUA02R	0
A317	1BKR152-1202	U-440-12B SERVICE TRANSF	AE	AEBKRA	BNA22O	0
A317	1BKR152-1202	U-440-12B SERVICE TRANSF	AE	AEBKRA	BNA22P	0
A317	1BKR152-1204	NO. 11 CONDENSATE BOOSTER PUMP	AE	AEBKRB	BNA24O	0
A317	1BKR152-1204	NO. 11 CONDENSATE BOOSTER PUMP	AE	AEBKRB	BNA24P	0
A317	1BKR152-1205	NO. 12 CONDENSATE BOOSTER PUMP	AE	AEBKRC	BNA25O	0
A317	1BKR152-1205	NO. 12 CONDENSATE BOOSTER PUMP	AE	AEBKRC	BNA25P	0
A317	1BKR152-1206	NO. 11 HEATER DRAIN PUMP	AE	AEBKRD	BNA26O	0
A317	1BKR152-1206	NO. 11 HEATER DRAIN PUMP	AE	AEBKRD	BNA26P	0
A317	1BKR152-1207	NO. 11 CONDENSATE PUMP	AE	AEBKRE	BNA27O	0
A317	1BKR152-1207	NO. 11 CONDENSATE PUMP	AE	AEBKRE	BNA27P	0
A317	1BKR152-1208	U-440-12A SERVICE TRANSF	AE	AEBKRF	BNA28O	0
A317	1BKR152-1208	U-440-12A SERVICE TRANSF	AE	AEBKRF	BNA28P	0
1TB12-3 (CP)	1PUMPCD11	11 CONDENSATE PUMP (1MA207)	AE	MYCP1Q	MYCP1Q	0
A317	1XU-440-12A	480V XFMR U-440-12A	AE	TN12AQ	TN12AQ	0
A317	1XU-440-12B	480V XFMR U-440-12B	AE	TN12BQ	TN12BQ	0
1TB12-3 (CP)	1PUMPCD12	12 CONDENSATE PUMP (1MA307)	AF	MYCP2Q	MYCP2Q	0
1TB12-3 (CP)	1PUMPCD13	13 CONDENSATE PUMP (1MA308)	AF	MYCP3Q	MYCP3Q	0
A317	1RY89-1104X	CVC DISC 89-1104 CHG PP 13 AUX REL	CV	CVRY04	RY104T	0
A317	1DISC89-1104	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A317	1DISC89-1104	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FL
A317	1I/I1114A1	1 AFW S/G 11 LVL TO AFAS I/I	F1	F1ZD11	II14AR	0
A317	1YX1114A	SG 11 WIDE RANGE CHL L-1114A	F1	F1ZD11	SP14AR	0
A317	1I/I1124A1	1 AFW S/G 12 LVL TO AFAS I/I	F1	F1ZD12	II24AR	0
A317	1YX1X1124A	SG 12 WIDE RANGE CHL L-1124A	F1	F1ZD12	SP24AR	0
A318	1LI5609	LVL INDICATING PRESS GAGE	F3	GM609R	GM609R	0
A317	1RY1A116/2/SSA1	AFW MTR DRIVEN PP 13 TIME DELAY PICKUP REL	F7	F7RSA1	RYSA1E	0
A317	1RY1A116/2/SSA1	AFW MTR DRIVEN PP 13 TIME DELAY PICKUP REL	F7	F7RSA1	RYSA1P	0
A317	1BKR152-1103	BKR 152-1103 11-17 4KV BUS TIE BKR	GE	GEELC1	BN103T	0
A317	1RY127/B11A	13/4KV BUS 11 U/V RY	GE(UA)	UASEND	RY11AD	0
A317	1RY127/B11A	13/4KV BUS 11 U/V RY	GE(UA)	UASEND	RY11AT	0
A317	1RY127/B11E	13/4KV BUS 11 U/V RY	GE(UA)	UASEND	RY11ED	0
A317	1RY127/B11E	13/4KV BUS 11 U/V RY	GE(UA)	UASEND	RY11ET	0
A317	1RY127/B11B	13/4KV BUS 11 U/V RY	GE(UA)	UASENE	RY11BD	0
A317	1RY127/B11B	13/4KV BUS 11 U/V RY	GE(UA)	UASENE	RY11BT	0
A317	1RY127/B11F	13/4KV BUS 11 U/V RY	GE(UA)	UASENE	RY11FD	0
A317	1RY127/B11F	13/4KV BUS 11 U/V RY	GE(UA)	UASENE	RY11FT	0
A317	1RY127/B11C	13/4KV BUS 11 U/V RY	GE(UA)	UASENF	RY11CD	0
A317	1RY127/B11C	13/4KV BUS 11 U/V RY	GE(UA)	UASENF	RY11CT	0
A317	1RY127/B11G	13/4KV BUS 11 U/V RY	GE(UA)	UASENF	RY11GD	0
A317	1RY127/B11G	13/4KV BUS 11 U/V RY	GE(UA)	UASENF	RY11GT	0
A317	1RY127/B11D	13/4KV BUS 11 U/V RY	GE(UA)	UASENG	RY11DD	0
A317	1RY127/B11D	13/4KV BUS 11 U/V RY	GE(UA)	UASENG	RY11DT	0
A317	1RY127/B11H	13/4KV BUS 11 U/V RY	GE(UA)	UASENG	RY11HD	0
A317	1RY127/B11H	13/4KV BUS 11 U/V RY	GE(UA)	UASENG	RY11HT	0
A317	0BKR152-1106	DSL GEN 0C TO 4KV BUS 11	GJ	GJOUT1	BN106T	0
A317	1BKR152-1101	SUPP BKR FROM U-4000-21	H5(U1)	BHEAZZ	Close	0
A317	1BKR152-1209	SUPP BKR FROM U-4000-21	H5(U1)	BHEAZZ	Close	0
A317	1BKR152-1115	U-4000-11 SERVICE TRANSF	H5(U1)	BHEAZZ	Open	0
A317	1BKR152-1201	U-4000-11 SERVICE TRANSF	H5(U1)	BHEAZZ	Open	0
A317	1NA110	13 SI HI PRESS PP DISC	HB	MA013R	MA013R	0
A317	1NA110	13 SI HI PRESS PP DISC	HB	MA013S	MA013S	0
A317	0AE317A	FSD ZONE 34 SMOKE DET	HF	HFDETA	AE17AR	0
A317	0AE317C	FSD ZONE 34 SMOKE DET	HF	HFDETA	AE17CR	0
A317	0AE317E	FSD ZONE 34 SMOKE DET	HF	HFDETA	AE17ER	0
A317	0AE317B	FSD ZONE 34 SMOKE DET	HF	HFDETB	AE17BR	0
A317	0AE317D	FSD ZONE 34 SMOKE DET	HF	HFDETB	AE17DR	0
A317	0AE317F	FSD ZONE 34 SMOKE DET	HF	HFDETB	AE17FR	0
A317	1FD317N1	SWGR RM SUPPLY FROM RM 317 TO 318 FD	HF	HFDMP7	FD17II	0
A317	1PO5442	EL 27 SUPP SWGR RM SUPP DMPR	HF	HFDMPR	PO442P	0
A318	1SV5442	SWTCGR RM EL 27 OUTLT DMPR SOL	HF	HFDMPR	PO442P	0
A317	1TS5443	1 FSD SWGR RM EL 27 OUTLET TS	HF	HFDMPR	PO442P	0
A317	1PO5443	1 HVAC/A SWGR RM EL 27 EXH D PO	HF	HFDMPR	PO443P	0
A318	1SV5442	SWTCGR RM EL 27 OUTLT DMPR SOL	HF	HFDMPR	PO443P	0
A317	1TS5443	1 FSD SWGR RM EL 27 OUTLET TS	HF	HFDMPR	PO443P	0
A317	1TS5443	1 FSD SWGR RM EL 27 OUTLET TS	HF	HFTEMP	TS436R	0
A317	1TY5441	SWGR RM EL 45 OUTLT TEMP	HG	HGTEMP	RY441P	0
A317	1SV5426A	1 HVAC/A SWGR RM HVAC UNIT 12 SUPP D SV	HS	HSOPR2	IV26AT	0
A317	1I/I1013A1	1 RPS S/G 11 PT TO RPS/ESFAS	IA	IASEND	II1A1R	0
A317	1I/I1023A1	1 RPS S/G 12 PT TO RPS/ESFAS	IB	IBSEND	II2A1R	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	KH(PP3)	BHEKC1	Start	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	KH(PP3)	BHEKZ1	Start	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	KZ	MZC13R	MZC13R	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	KZ	MZC13S	MZC13S	0
1TB12-3 (CP)	1CV4406	CST TO HTWL M/U CV	LF	LFMUCV	C3406O	0
1TB12-3 (CP)	1I/P4406	COND STORAGE TO HOTWELL CONT	LF	LFMUCV	C3406O	0
1TB12-3 (CP)	1SV4406	CD STORAGE TO HOTWELL CONTROL SV	LF	LFMUCV	C3406O	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FL
1TB12-3 (CP)	1CV4406	CST TO HTWL M/U CV	LF	LFMUCV	C3406P	0
1TB12-3 (CP)	1I/P4406	COND STORAGE TO HOTWELL CONT	LF	LFMUCV	C3406P	0
1TB12-3 (CP)	1SV4406	CD STORAGE TO HOTWELL CONTROL SV	LF	LFMUCV	C3406P	0
1TB12-3 (CP)	1CV4405	HOTWELL TO COND STORAGE VLV	LF	LFMUCV	C3504T	0
1TB12-3 (CP)	1I/P4405	HOTWELL TO COND STORAGE CONT	LF	LFMUCV	C3504T	0
1TB12-3 (CP)	1LT4405	CD CONDENSER HOTWELL LT	LF	LFMUCV	LT405R	0
A317	1BKR52-1119	114R RX MCC	M2	M2BCBM	CB119T	0
1TB12-2 (CP)	1PNL1C51	11A AMERTAP CNTL PNL 1C51	M7	BUP23Q	BUP23Q	0
1TB12-2 (CP)	1PNL1C52	11B AMERTAP CNTL PNL 1C52	M7	BUP24Q	BUP24Q	0
1TB12-2 (CP)	1PNL1C53	12A AMERTAP CNTL PNL 1C53	M7	BUP25Q	BUP25Q	0
A317	1BKR52-1213	106T TURB MCC	M7	M71213	CB213O	0
A317	1BKR52-1213	106T TURB MCC	M7	M71213	CB213P	0
A317	1BKR152-1202	U-440-12B SERVICE TRANSF	M7	M7B12B	BN12BT	0
A317	1BUS1B02B	480V BUS 12B	M7	M7B12B	BU12BR	0
A317	1BKR52-1222	U-440-12B LOW SIDE BKR	M7	M7B12B	CB222T	0
A317	1BKR52-1213	106T TURB MCC	M7	M7BCBM	CB213T	0
1TB12-2 (CP)	1PUMPCAR12	12 CAR VAC PP (1MB217)	M7	MB217Q	MB217Q	0
1TB12-2 (CP)	1PUMPMSBD11	11 AUX BD TK PUMP (1M0671)	M7	MBP71Q	MBP71Q	0
1TB12-3 (CP)	1PUMPCDMTRLO11	11 CD PP LO CLR PP (1M0607)	M7	MMP07Q	MMP07Q	0
1TB12-2 (CP)	1PUMPCARSWP11	11 CAR SEAL WTR PUMP (1M0636)	M7	MMP36Q	MMP36Q	0
1TB12-2 (CP)	1PUMPCARSWP12	12 CAR SEAL WTR PUMP (1M0637)	M7	MMP37Q	MMP37Q	0
1TB12-3 (CP)	1MOV5225	11A COND'R INLET STRNR VLV	M7	MVP02Q	MVP02Q	0
1TB12-3 (CP)	1MOV5229	11B COND'R INLET STRNR VLV	M7	MVP03Q	MVP03Q	0
1TB12-3 (CP)	1MOV5233	12A COND'R INLET STRNR VLV	M7	MVP04Q	MVP04Q	0
1TB12-3 (CP)	1M0659	11 COND PP LUBE OIL COOLER FAN MTR (1M0659)	M7	VAP59Q	VAP59Q	0
1TB12-2 (CP)	1RECEPTMCC116A	POWER RECEPT MCC116 (1W48, 1W49, 1W50, 1W51)	M8	BUQ05Q	BUQ05Q	0
1TB12-2 (CP)	1PNL1C54	12B AMERTAP CNTL PNL 1C54	M8	BUQ23Q	BUQ23Q	0
1TB12-2 (CP)	1PNL1C55	13A AMERTAP CNTL PNL 1C55	M8	BUQ24Q	BUQ24Q	0
1TB12-2 (CP)	1PNL1C56	13B AMERTAP CNTL PNL 1C56	M8	BUQ25Q	BUQ25Q	0
1TB12-2 (CP)	1PUMPCAR14	14 CAR VAC PP (1MB317)	M8	MB317Q	MB317Q	0
1TB12-2 (CP)	1PUMPSMP11TB11	11 TURB BLDG SUMP 11 PP (1M1642)	M8	MBQ42Q	MBQ42Q	0
1TB12-2 (CP)	1PUMPSMP11TB12	11 TURB BLDG SUMP PP 12 (1M1643)	M8	MBQ43Q	MBQ43Q	0
1TB12-2 (CP)	1PUMPMSBD12	12 AUX BD TK PUMP (1M1656)	M8	MBQ56Q	MBQ56Q	0
1TB12-3 (CP)	1PUMPCDMTRLO12	12 CD PP LO CLR PP (1M1606)	M8	MMQ06Q	MMQ06Q	0
1TB12-3 (CP)	1PUMPCDMTRLO13	13 CD PP LO CLR PP (1M1607)	M8	MMQ07Q	MMQ07Q	0
1TB12-2 (CP)	1PUMPCARSWP13	13 CAR SEAL WTR PUMP (1M1636)	M8	MMQ36Q	MMQ36Q	0
1TB12-2 (CP)	1PUMPCARSWP14	14 CAR SEAL WTR PUMP (1M1637)	M8	MMQ37Q	MMQ37Q	0
1TB12-3 (CP)	1MOV5237	12B COND'R INLET STRNR VLV	M8	MVQ02Q	MVQ02Q	0
1TB12-3 (CP)	1MOV5241	13A COND'R STRNR INLET VLV	M8	MVQ03Q	MVQ03Q	0
1TB12-3 (CP)	1MOV5245	13B COND'R INLET STRNR VLV	M8	MVQ04Q	MVQ04Q	0
1TB12-3 (CP)	1M1659	12 COND PP LUBE OIL COOLER FAN MTR (1M1659)	M8	VAQ59Q	VAQ59Q	0
1TB12-3 (CP)	1M1660	13 COND PP LUBE OIL COOLER FAN MTR (1M1660)	M8	VAQ60Q	VAQ60Q	0
A317	1RY1A204/2/4453	11 COND CBP BKR 152-1204 TIME DELAY DROP OUT REL	MC	MCBP10	RY242P	0
A317	1RY1A204/3	COND BOOSTER PUMP 11 AUX RELAY	MC	MCBP10	RY243T	0
A317	1PY4453	11 COND CBP PRESSURE CONVERTER REL	MC	MCBP10	RY453P	0
A317	1RY1A205/2/4460	12 COND CBP BKR 152-1205 TIME DELAY DROP OUT REL	MC	MCBP20	RY252P	0
A317	1RY1A205/3	COND BOOSTER PUMP 12 AUX RELAY	MC	MCBP20	RY253T	0
A317	1PY4460	12 COND CBP PRESSURE CONVERTER REL	MC	MCBP20	RY460P	0
1TB12-3 (CP)	1YS4414	COND PMP MOTOR 11 OIL STRAINER	MC	MCPP10	YS414P	0
1TB12-3 (CP)	1YS4421	COND PMP MOTOR 12 OIL STRAINER	MC	MCPP20	YS421P	0
1TB12-3 (CP)	1YS4428	COND PMP MOTOR 13 OIL STRAINER	MC	MCPP30	YS428P	0
1TB12-3 (CP)	1PUMPCDMTRLO11	11 CD PP LO CLR PP (1M0607)	MC	MML11R	MML11R	0
1TB12-3 (CP)	1PUMPCDMTRLO12	12 CD PP LO CLR PP (1M1606)	MC	MML12R	MML12R	0
1TB12-3 (CP)	1PUMPCDMTRLO13	13 CD PP LO CLR PP (1M1607)	MC	MML13R	MML13R	0
1TB12-3 (CP)	1PUMPCD11	11 CONDENSATE PUMP (1MA207)	MC	MYC11R	MYC11R	0
1TB12-3 (CP)	1PUMPCD12	12 CONDENSATE PUMP (1MA307)	MC	MYC12R	MYC12R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FL
1TB12-3 (CP)	1PUMPCD13	13 CONDENSATE PUMP (1MA308)	MC	MYC13R	MYC13R	0
1TB12-3 (CP)	1M0659	11 COND PP LUBE OIL COOLER FAN MTR (1M0659)	MC	VAL11R	VAL11R	0
1TB12-3 (CP)	1M1659	12 COND PP LUBE OIL COOLER FAN MTR (1M1659)	MC	VAL12R	VAL12R	0
1TB12-3 (CP)	1M1660	13 COND PP LUBE OIL COOLER FAN MTR (1M1660)	MC	VAL13R	VAL13R	0
A317	1BKR52-1109	101 AT TURB MCC	MN	MNF71B	CB109T	0
A317	1DISC89-1104	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A317	1BKR52-1101	11 CAV CLG FAN	N1	N11101	CB101O	0
A317	1BKR52-1101	11 CAV CLG FAN	N1	N11101	CB101P	0
A317	1BKR52-1102	11 CONTMT AIR CLR	N1	N11102	CB102O	0
A317	1BKR52-1102	11 CONTMT AIR CLR	N1	N11102	CB102P	0
A317	1BKR52-1104	13 CHG PP	N1	N11104	CB104O	0
A317	1BKR52-1104	13 CHG PP	N1	N11104	CB104P	0
A317	1BKR52-1105	11 CONTMT FILT UNIT	N1	N11105	CB105O	0
A317	1BKR52-1105	11 CONTMT FILT UNIT	N1	N11105	CB105P	0
A317	1BKR52-1106	11 COMP CLG PP	N1	N11106	CB106O	0
A317	1BKR52-1106	11 COMP CLG PP	N1	N11106	CB106P	0
A317	1BKR52-1107	15 BATT CHGR	N1	N11107	CB107O	0
A317	1BKR52-1107	15 BATT CHGR	N1	N11107	CB107P	0
A317	1BKR52-1108	11 CONT RM A/C COMPR	N1	N11108	CB108O	0
A317	1BKR52-1108	11 CONT RM A/C COMPR	N1	N11108	CB108P	0
A317	1BKR52-1109	101 AT TURB MCC	N1	N11109	CB109O	0
A317	1BKR52-1109	101 AT TURB MCC	N1	N11109	CB109P	0
A317	1BKR52-1110	11 SWGR RM A/C COMPR	N1	N11110	CB110O	0
A317	1BKR52-1110	11 SWGR RM A/C COMPR	N1	N11110	CB110P	0
A317	1BKR52-1111	11 BATT CHGR	N1	N11111	CB111O	0
A317	1BKR52-1111	11 BATT CHGR	N1	N11111	CB111P	0
A317	1BKR52-1130	11 PZR HTR PROP CONTR	N1	N11130	CB130O	0
A317	1BKR52-1130	11 PZR HTR PROP CONTR	N1	N11130	CB130P	0
A317	1BKR152-1114	U-440-11A SERVICE TRANSF	N1	N1B11A	BN11AT	0
A317	1BUS1B01A	480V BUS 11A	N1	N1B11A	BU11AR	0
A317	1BKR52-1112	U-440-11A LOW SIDE BKR	N1	N1B11A	CB112T	0
A317	1NB130	11A RC PZR HTR 11 PROP CONTR	N1	TC130Q	TC130Q	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	N2	MZ116Q	MZ116Q	0
A317	1BKR52-1114	12 CONTMT AIR CLR	N2	N21114	CB114O	0
A317	1BKR52-1114	12 CONTMT AIR CLR	N2	N21114	CB114P	0
A317	1BKR52-1115	11 CHG PP	N2	N21115	CB115O	0
A317	1BKR52-1115	11 CHG PP	N2	N21115	CB115P	0
A317	1BKR52-1116	13 COMP CLG PP	N2	N21116	CB116O	0
A317	1BKR52-1116	13 COMP CLG PP	N2	N21116	CB116P	0
A317	1BKR52-1117	11 MAIN PLT EXH FAN	N2	N21117	CB117O	0
A317	1BKR52-1117	11 MAIN PLT EXH FAN	N2	N21117	CB117P	0
A317	1BKR52-1118	11 INSTR AIR COMPR	N2	N21118	CB118O	0
A317	1BKR52-1118	11 INSTR AIR COMPR	N2	N21118	CB118P	0
A317	1BKR52-1119	114R RX MCC	N2	N21119	CB119O	0
A317	1BKR52-1119	114R RX MCC	N2	N21119	CB119P	0
A317	1BKR52-1120	14 BATT CHGR	N2	N21120	CB120O	0
A317	1BKR52-1120	14 BATT CHGR	N2	N21120	CB120P	0
A317	1BKR52-1121	13 CONTMT FILT UNIT	N2	N21121	CB121O	0
A317	1BKR52-1121	13 CONTMT FILT UNIT	N2	N21121	CB121P	0
A317	1BKR52-1122	H2 RECOMB PWR PNL 11	N2	N21122	CB122O	0
A317	1BKR52-1122	H2 RECOMB PWR PNL 11	N2	N21122	CB122P	0
A317	1BKR52-1123	PLANT AIR COMPRESSOR 11	N2	N21123	CB123O	0
A317	1BKR52-1123	PLANT AIR COMPRESSOR 11	N2	N21123	CB123P	0
A317	1BKR52-1127	109 PH PZR HTR MCC	N2	N21127	CB127O	0
A317	1BKR52-1127	109 PH PZR HTR MCC	N2	N21127	CB127P	0
A317	1BKR152-1102	U-440-11B SERVICE TRANSF	N2	N2B11B	BN11BT	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FL
A317	1BUS1B01B	480V BUS 11B	N2	N2B11B	BU11BR	0
A317	1BKR52-1113	U-440-11B LOW SIDE BKR	N2	N2B11B	CB113T	0
A317	1DISC89-1121	13 CONTMT FILT UNIT DISCS	N2	VG121Q	VG121Q	0
A317	1DISC89-1104	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	N4	MZ416Q	MZ416Q	0
A317	1DISC89-1121	13 CONTMT FILT UNIT DISCS	N4	VG421Q	VG421Q	0
A317	1BKR52-1109	101 AT TURB MCC	NR	NR1P01	CB1B9T	0
A317	1RY1B118/62	11 IA COMPR TIME DELAY PICKUP RY	NR	NRIA11	RY118E	0
A317	1RY1B118/62	11 IA COMPR TIME DELAY PICKUP RY	NR	NRIA11	RY118P	0
A317	1BKR152-1208	U-440-12A SERVICE TRANSF	PG	PGBK06	BN208T	0
A317	1BUS1B02A	480V BUS 12A	PG	PGBK06	BU12AR	0
A317	1BKR52-1201	U-440-12A LOW SIDE BKR	PG	PGBK06	CB201T	0
A317	1BKR52-1208	FIRE PP FDR	PG	PGBK06	CB208T	0
A317	1RY1B208/CR	MOTOR FIRE PUMP CR RELAY	PG	PGRY16	RYFCRE	0
A317	1RY1B208/CR	MOTOR FIRE PUMP CR RELAY	PG	PGRY16	RYFCRP	0
A317	1XU-440-12A	480V XFMR U-440-12A	PG	TN12AR	TN12AR	0
A317	1BUS1A01	4KV BUS 11	QC	BUA01R	BUA01R	0
A317	1BUS1A02	4KV BUS 12	QC	BUA02R	BUA02R	0
A317	1BKR152-1115	U-4000-11 SERVICE TRANSF	QC	QCBUS1	BNA1EO	0
A317	1BKR152-1115	U-4000-11 SERVICE TRANSF	QC	QCBUS1	BNA1EP	0
A317	1BKR152-1201	U-4000-11 SERVICE TRANSF	QC	QCBUS2	BNA21O	0
A317	1BKR152-1201	U-4000-11 SERVICE TRANSF	QC	QCBUS2	BNA21P	0
A317	1BKR152-1115	U-4000-11 SERVICE TRANSF	QC	QCFLST	TXQC1Q	0
A317	1BKR152-1201	U-4000-11 SERVICE TRANSF	QC	QCFLST	TXQC2Q	0
1TB12-3 (CP)	1PUMPCD12	12 CONDENSATE PUMP (1MA307)	QC	QCMISC	MYCP2Q	0
1TB12-3 (CP)	1PUMPCD13	13 CONDENSATE PUMP (1MA308)	QC	QCMISC	MYCP3Q	0
A317	1BKR152-1101	SUPP BKR FROM U-4000-21	QD	QDFLST	TXQD1Q	0
A317	1BKR152-1209	SUPP BKR FROM U-4000-21	QD	QDFLST	TXQD2Q	0
A317	1I/I1013A3	11 FW S/G PT TO INDIC I/I	QZ	F1PT1A	II10AR	0
A317	1I/I1013A2	11 AFW S/G PRESSURE PROTECTION I/I SIG CONVERTE	QZ	F1PT1A	II13AR	0
A317	1I/I1013A1	1 RPS S/G 11 PT TO RPS/ESFAS	QZ	F1PT1A	II1A1R	0
A317	1I/I1023A2	1 AFW SG 12 PT TO AFAS I/I	QZ	F1PT1A	II23AR	0
A317	1YX1X1013A1	FW 1PT1013A LOOP PWR SUPP	QZ	F1PT1A	SP13AR	0
A317	1I/I1013A2	11 AFW S/G PRESSURE PROTECTION I/I SIG CONVERTE	QZ	F1PT2A	II13AR	0
A317	1I/I1023A2	1 AFW SG 12 PT TO AFAS I/I	QZ	F1PT2A	II23AR	0
A317	1I/I1023A1	1 RPS S/G 12 PT TO RPS/ESFAS	QZ	F1PT2A	II3A1R	0
A317	1I/I1023A3	12 FW S/G PT TO INDIC I/I	QZ	F1PT2A	II3A3R	0
A317	1YX1X1023A1	1PT1023A LOOP PWR SUPP	QZ	F1PT2A	SP23AR	0
A317	1NA110	13 SI HI PRESS PP DISC	RH	BHERH1	Start	0
A317	1BKR52-1201	U-440-12A LOW SIDE BKR	RQ	BHERS1	Open	0
A317	1BKR52-1212	480V BUS 12A & B TIE BREAKER	RQ	BHERS1	Open	0
A317	1BKR52-1201	U-440-12A LOW SIDE BKR	RQ	CB201O	CB201O	0
A317	1YX1X112HA	1 RPS 1TT112HA PWR SUPP	RS	RSCHAT	SP1HAR	0
A317	1YX1X122HA	11 RXV PWR SUP 122HA XFMR	RS	RSCHAT	SP2HAR	0
A317	1TT112CA	11A RPS T-COLD XMTR	RS	RSCHAT	TT1CAR	0
A317	1TT112HA	11 RPS T-HOT XMTR	RS	RSCHAT	TT1HAR	0
A317	1TT122CA	12A RPS T-COLD XMTR	RS	RSCHAT	TT2CAR	0
A317	1TT122HA	1 RPS 12 T-HOT TEMP XMTR	RS	RSCHAT	TT2HAR	0
A317	1YX1X112HB	1 RPS 1TT112HB PWR SUPP	RS	RSCHBT	SP1HBR	0
A317	1HSMG11-5PB	CEDS MG 11 BYPASS IN	RS	RSMG11	HS15PT	0
A317	1CONT1Q206/3M	CEDM M/G/ SET 11 LOAD CONTACTOR	RS	RSMG11	RY13MD	0
A317	1CONT1Q206/3M	CEDM M/G/ SET 11 LOAD CONTACTOR	RS	RSMG11	RY13MT	0
A317	1CONT1Q206/4M	CEDM M/G SET 11 BYPASS CONTACTOR	RS	RSMG11	RY14MT	0
A317	1RYMX11	CEDS MG 11 LOAD CONTROL RELAY	RS	RSMG11	RYX11D	0
A317	1RYMX11	CEDS MG 11 LOAD CONTROL RELAY	RS	RSMG11	RYX11T	0
A317	1NA112	SALT WTR PP 13 DISC	S1	MWS13R	MWS13R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FL
A317	1NA112	SALT WTR PP 13 DISC	S1	MWS13S	MWS13S	0
A317	1NA112	SALT WTR PP 13 DISC	S2	MWS13R	MWS13R	0
A317	1NA112	SALT WTR PP 13 DISC	S2	MWS13S	MWS13S	0
A317	1NA111	SERV WTR PP 13 DISC	S3	MWS13R	MWS13R	0
A317	1NA111	SERV WTR PP 13 DISC	S3	MWS13S	MWS13S	0
A317	1NA111	SERV WTR PP 13 DISC	S4	MWS13R	MWS13R	0
A317	1NA111	SERV WTR PP 13 DISC	S4	MWS13S	MWS13S	0
A317	1BKR252-11P01	NO 11A RCP SUPPLY FROM SERVICE BUS 12	SL	BHESL2	Open	0
A317	1BKR252-11P02	NO 11A RCP SUPPLY FROM SERVICE BUS 22	SL	BHESL2	Open	0
A317	1BKR252-12P01	NO 12A RCP SUPPLY FROM SERVICE BUS 12	SL	BHESL2	Open	0
A317	1BKR252-12P02	NO 12A RCP SUPPLY FROM SERVICE BUS 22	SL	BHESL2	Open	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	SP(PP3)	BHEK12	Start	0
1TB12-3 (CP)	1CV4406	CST TO HTWL M/U CV	T1	T1CS1F	C3406T	0
1TB12-3 (CP)	1I/P4406	COND STORAGE TO HOTWELL CONT	T1	T1CS1F	C3406T	0
1TB12-3 (CP)	1SV4406	CD STORAGE TO HOTWELL CONTROL SV	T1	T1CS1F	C3406T	0
1TB12-3 (CP)	1LT4405	CD CONDENSER HOTWELL LT	T1	T1CS1F	LT405R	0
1TB12-2 (CP)	1PUMPCARSWP11	11 CAR SEAL WTR PUMP (1M0638)	VC	MMS11R	MMS11R	0
1TB12-2 (CP)	1PUMPCARSWP12	12 CAR SEAL WTR PUMP (1M0637)	VC	MMS12R	MMS12R	0
1TB12-2 (CP)	1PUMPCARSWP13	13 CAR SEAL WTR PUMP (1M1636)	VC	MMS13R	MMS13R	0
1TB12-2 (CP)	1PUMPCAR11	11 CAR VAC PP (1MB203)	VC	MMV11R	MMV11R	0
1TB12-2 (CP)	1PUMPCAR12	12 CAR VAC PP (1MB217)	VC	MMV12R	MMV12R	0
1TB12-2 (CP)	1PUMPCAR13	13 CAR VAC PP (1MB303)	VC	MMV13R	MMV13R	0
A317	1BKR152-1208	U-440-12A SERVICE TRANSF	VC	VC012A	BN208T	0
A317	1BUS1B02A	480V BUS 12A	VC	VC012A	BUB2AR	0
A317	1BKR52-1201	U-440-12A LOW SIDE BKR	VC	VC012A	CB201T	0
A317	1XU-440-12A	480V XFMR U-440-12A	VC	VC012A	TN12AR	0
A317	1BKR152-1202	U-440-12B SERVICE TRANSF	VC	VC012B	BN202T	0
A317	1BUS1B02B	480V BUS 12B	VC	VC012B	BUB2BR	0
A317	1BKR52-1222	U-440-12B LOW SIDE BKR	VC	VC012B	CB222T	0
A317	1XU-440-12B	480V XFMR U-440-12B	VC	VC012B	TN12BR	0
1TB12-3 (CP)	1HS5225	11 CW PP WTRBX INL VLV HS	VC	VCCW1A	HS225T	0
1TB12-3 (CP)	1MOV5225	11A COND'R INLET STRNR VLV	VC	VCCW1A	MV225P	0
1TB12-3 (CP)	1HS5229	12 CW PP WTRBX INL VLV HS	VC	VCCW2A	HS229T	0
1TB12-3 (CP)	1MOV5229	11B COND'R INLET STRNR VLV	VC	VCCW2A	MV229P	0
1TB12-3 (CP)	1HS5233	13 CW PP WTRBX INL VLV HS	VC	VCCW3A	HS233T	0
1TB12-3 (CP)	1MOV5233	12A COND'R INLET STRNR VLV	VC	VCCW3A	MV233P	0
1TB12-3 (CP)	1HS5237	14 CW PP WTRBX INL VLV HS	VC	VCCW4A	HS237T	0
1TB12-3 (CP)	1MOV5237	12B COND'R INLET STRNR VLV	VC	VCCW4A	MV237P	0
1TB12-3 (CP)	1HS5241	15 CW PP WTRBX INL VLV HS	VC	VCCW5A	HS241T	0
1TB12-3 (CP)	1MOV5241	13A COND'R STRNR INLET VLV	VC	VCCW5A	MV241P	0
1TB12-3 (CP)	1HS5245	15 CW PP WTRBX INL VLV HS	VC	VCCW6A	HS245T	0
1TB12-3 (CP)	1MOV5245	13B COND'R INLET STRNR VLV	VC	VCCW6A	MV245P	0
1TB12-2 (CP)	1CV1754	11 CAR UNIT MOTIVE AIR	VC	VCP011	C3754P	0
1TB12-2 (CP)	1CV1755	11 CAR UNIT SYS DIAPHRAM	VC	VCP011	C3755P	0
A317	1SV1755	11 CAR DIAPHRAM VLV	VC	VCP011	C3755P	0
1TB12-2 (CP)	1LCV1753	11 CAR SEP	VC	VCP011	LC753R	0
1TB12-2 (CP)	1PS1755	11 CAR CNDSR VAC PP SEAL LOW PRESSURE WTR PS	VC	VCP011	PS755R	0
1TB12-2 (CP)	1CV1757	12 CAR UNIT MOTIVE AIR	VC	VCP012	C3757P	0
1TB12-2 (CP)	1CV1758	12 CAR UNIT SYS DIAPHRAM	VC	VCP012	C3758P	0
A317	1SV1758	12 CAR DIAPHRAM VLV	VC	VCP012	C3758P	0
1TB12-2 (CP)	1LCV1756	12 CAR SEP LO LVL CONTROL	VC	VCP012	LC756R	0
1TB12-2 (CP)	1PS1758	12 CAR CNDSR VAC PP SEAL WTR LOW PRESSURE PS	VC	VCP012	PS758R	0
1TB12-2 (CP)	1CV1760	13 CAR UNIT MOTIVE AIR	VC	VCP013	C3760P	0
1TB12-2 (CP)	1CV1761	13 CAR UNIT SYS DIAPHRAM	VC	VCP013	C3761P	0
1TB12-2 (CP)	1LCV1759	SEP LO LVL CONTROL	VC	VCP013	LC759R	0
1TB12-2 (CP)	1PS1761	13 CAR CNDSR VAC PP SEAL WTR LOW PRESSURE PS	VC	VCP013	PS761R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FL
1TB12-3 (CP)	1HXCARSWC11	11 CAR SEAL WTR CLR	VC	VCS011	HXS11B	0
1TB12-3 (CP)	1HXCARSWC11	11 CAR SEAL WTR CLR	VC	VCS011	HXS11P	0
1TB12-3 (CP)	1HXCARSWC12	12 CAR SEAL WTR CLR	VC	VCS012	HXS12B	0
1TB12-3 (CP)	1HXCARSWC12	12 CAR SEAL WTR CLR	VC	VCS012	HXS12P	0
1TB12-3 (CP)	1HXCARSWC13	13 CAR SEAL WTR CLR	VC	VCS013	HXS13B	0
1TB12-3 (CP)	1HXCARSWC13	13 CAR SEAL WTR CLR	VC	VCS013	HXS13P	0
A317	1BKR52-1111	11 BATT CHGR	XA	XAC11E	CBXN1T	0
A317	1BKR52-1120	14 BATT CHGR	XD	XDC14E	CBXN2T	0

Flood Evaluation Query

CF-13C-N318SM *

03-Dec-98

TOP	PM	EVALUATION	RI
AE	1BKR	1 breaker challenges.	PAJ
AF	2BKR	2 breaker challenges.	PAJ
F3	None	Operators loss the ability to check level on CST.	PAJ
HF	None	Loss of power to 1SV5442 circuit will result in the dampers remaining open.	PAJ
LF	F	1CV4405/4406 fail closed on loss of power and loss of air.	PAJ
M7	12BKR	12 breaker challenges.	PAJ
M8	17BKR	17 breaker challenges.	PAJ
MC	F	11, 12 and 13 Condensate Pumps fail.	PAJ
QC	2BKR	2 breaker challenges.	PAJ
T1	None	1CV4406 fails closed on loss of power and loss of air.	PAJ
VC	F	All Condenser Vacuum Pumps Fail. Only 11, 12 and 13 are in the fault trees.	PAJ

* This flood was combined with N318LM and N318MM.
See Note 29 in RAN 98-065 sect. 5.4. See N318LM for impacts. JPJK

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-3 (CP)	1PUMPCD11	11 CONDENSATE PUMP (1MA207)	AE	MYCP1Q	MYCP1Q	0
1TB12-3 (CP)	1PUMPCD12	12 CONDENSATE PUMP (1MA307)	AF	MYCP2Q	MYCP2Q	0
1TB12-3 (CP)	1PUMPCD13	13 CONDENSATE PUMP (1MA308)	AF	MYCP3Q	MYCP3Q	0
A318	1LI5609	LVL INDICATING PRESS GAGE	F3	GM609R	GM609R	0
A318	1SV5442	SWTCGR RM EL 27 OUTLT DMPR SOL	HF	HFDMPR	PO442P	0
A318	1SV5442	SWTCGR RM EL 27 OUTLT DMPR SOL	HF	HFDMPR	PO443P	0
1TB12-3 (CP)	1CV4406	CST TO HTWL M/U CV	LF	LFMUCV	C3406O	0
1TB12-3 (CP)	1I/P4406	COND STORAGE TO HOTWELL CONT	LF	LFMUCV	C3406O	0
1TB12-3 (CP)	1SV4406	CD STORAGE TO HOTWELL CONTROL SV	LF	LFMUCV	C3406O	0
1TB12-3 (CP)	1CV4406	CST TO HTWL M/U CV	LF	LFMUCV	C3406P	0
1TB12-3 (CP)	1I/P4406	COND STORAGE TO HOTWELL CONT	LF	LFMUCV	C3406P	0
1TB12-3 (CP)	1SV4406	CD STORAGE TO HOTWELL CONTROL SV	LF	LFMUCV	C3406P	0
1TB12-3 (CP)	1CV4405	HOTWELL TO COND STORAGE VLV	LF	LFMUCV	C3504T	0
1TB12-3 (CP)	1I/P4405	HOTWELL TO COND STORAGE CONT	LF	LFMUCV	C3504T	0
1TB12-3 (CP)	1LT4405	CD CONDENSER HOTWELL LT	LF	LFMUCV	LT405R	0
1TB12-2 (CP)	1PNL1C51	11A AMERTAP CNTL PNL 1C51	M7	BUP23Q	BUP23Q	0
1TB12-2 (CP)	1PNL1C52	11B AMERTAP CNTL PNL 1C52	M7	BUP24Q	BUP24Q	0
1TB12-2 (CP)	1PNL1C53	12A AMERTAP CNTL PNL 1C53	M7	BUP25Q	BUP25Q	0
1TB12-2 (CP)	1PUMPCAR12	12 CAR VAC PP (1MB217)	M7	MB217Q	MB217Q	0
1TB12-2 (CP)	1PUMPMSBD11	11 AUX BD TK PUMP (1M0671)	M7	MBP71Q	MBP71Q	0
1TB12-3 (CP)	1PUMPCDMTRLO11	11 CD PP LO CLR PP (1M0607)	M7	MMP07Q	MMP07Q	0
1TB12-2 (CP)	1PUMPCARSWP11	11 CAR SEAL WTR PUMP (1M0636)	M7	MMP36Q	MMP36Q	0
1TB12-2 (CP)	1PUMPCARSWP12	12 CAR SEAL WTR PUMP (1M0637)	M7	MMP37Q	MMP37Q	0
1TB12-3 (CP)	1MOV5225	11A COND'R INLET STRNR VLV	M7	MVP02Q	MVP02Q	0
1TB12-3 (CP)	1MOV5229	11B COND'R INLET STRNR VLV	M7	MVP03Q	MVP03Q	0
1TB12-3 (CP)	1MOV5233	12A COND'R INLET STRNR VLV	M7	MVP04Q	MVP04Q	0
1TB12-3 (CP)	1M0659	11 COND PP LUBE OIL COOLER FAN MTR (1M0659)	M7	VAP59Q	VAP59Q	0
1TB12-2 (CP)	1RECEPTMCC116A	POWER RECEPT MCC116 (1W48, 1W49, 1W50, 1W51)	M8	BUQ05Q	BUQ05Q	0
1TB12-2 (CP)	1PNL1C54	12B AMERTAP CNTL PNL 1C54	M8	BUQ23Q	BUQ23Q	0
1TB12-2 (CP)	1PNL1C55	13A AMERTAP CNTL PNL 1C55	M8	BUQ24Q	BUQ24Q	0
1TB12-2 (CP)	1PNL1C56	13B AMERTAP CNTL PNL 1C56	M8	BUQ25Q	BUQ25Q	0
1TB12-2 (CP)	1PUMPCAR14	14 CAR VAC PP (1MB317)	M8	MB317Q	MB317Q	0
1TB12-2 (CP)	1PUMPSMP11TB11	11 TURB BLDG SUMP 11 PP (1M1642)	M8	MBQ42Q	MBQ42Q	0
1TB12-2 (CP)	1PUMPSMP11TB12	11 TURB BLDG SUMP PP 12 (1M1643)	M8	MBQ43Q	MBQ43Q	0
1TB12-2 (CP)	1PUMPMSBD12	12 AUX BD TK PUMP (1M1656)	M8	MBQ56Q	MBQ56Q	0
1TB12-3 (CP)	1PUMPCDMTRLO12	12 CD PP LO CLR PP (1M1606)	M8	MMQ06Q	MMQ06Q	0
1TB12-3 (CP)	1PUMPCDMTRLO13	13 CD PP LO CLR PP (1M1607)	M8	MMQ07Q	MMQ07Q	0
1TB12-2 (CP)	1PUMPCARSWP13	13 CAR SEAL WTR PUMP (1M1636)	M8	MMQ36Q	MMQ36Q	0
1TB12-2 (CP)	1PUMPCARSWP14	14 CAR SEAL WTR PUMP (1M1637)	M8	MMQ37Q	MMQ37Q	0
1TB12-3 (CP)	1MOV5237	12B COND'R INLET STRNR VLV	M8	MVQ02Q	MVQ02Q	0
1TB12-3 (CP)	1MOV5241	13A COND'R STRNR INLET VLV	M8	MVQ03Q	MVQ03Q	0
1TB12-3 (CP)	1MOV5245	13B COND'R INLET STRNR VLV	M8	MVQ04Q	MVQ04Q	0
1TB12-3 (CP)	1M1659	12 COND PP LUBE OIL COOLER FAN MTR (1M1659)	M8	VAQ59Q	VAQ59Q	0
1TB12-3 (CP)	1M1660	13 COND PP LUBE OIL COOLER FAN MTR (1M1660)	M8	VAQ60Q	VAQ60Q	0
1TB12-3 (CP)	1YS4414	COND PMP MOTOR 11 OIL STRAINER	MC	MCPP10	YS414P	0
1TB12-3 (CP)	1YS4421	COND PMP MOTOR 12 OIL STRAINER	MC	MCPP20	YS421P	0
1TB12-3 (CP)	1YS4428	COND PMP MOTOR 13 OIL STRAINER	MC	MCPP30	YS428P	0
1TB12-3 (CP)	1PUMPCDMTRLO11	11 CD PP LO CLR PP (1M0607)	MC	MML11R	MML11R	0
1TB12-3 (CP)	1PUMPCDMTRLO12	12 CD PP LO CLR PP (1M1606)	MC	MML12R	MML12R	0
1TB12-3 (CP)	1PUMPCDMTRLO13	13 CD PP LO CLR PP (1M1607)	MC	MML13R	MML13R	0
1TB12-3 (CP)	1PUMPCD11	11 CONDENSATE PUMP (1MA207)	MC	MYC11R	MYC11R	0
1TB12-3 (CP)	1PUMPCD12	12 CONDENSATE PUMP (1MA307)	MC	MYC12R	MYC12R	0
1TB12-3 (CP)	1PUMPCD13	13 CONDENSATE PUMP (1MA308)	MC	MYC13R	MYC13R	0
1TB12-3 (CP)	1M0659	11 COND PP LUBE OIL COOLER FAN MTR (1M0659)	MC	VAL11R	VAL11R	0
1TB12-3 (CP)	1M1659	12 COND PP LUBE OIL COOLER FAN MTR (1M1659)	MC	VAL12R	VAL12R	0
1TB12-3 (CP)	1M1660	13 COND PP LUBE OIL COOLER FAN MTR (1M1660)	MC	VAL13R	VAL13R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-3 (CP)	1PUMPCD12	12 CONDENSATE PUMP (1MA307)	QC	QCMISC	MYCP2Q	0
1TB12-3 (CP)	1PUMPCD13	13 CONDENSATE PUMP (1MA308)	QC	QCMISC	MYCP3Q	0
1TB12-3 (CP)	1CV4406	CST TO HTWL M/U CV	T1	T1CS1F	C3406T	0
1TB12-3 (CP)	1I/P4406	COND STORAGE TO HOTWELL CONT	T1	T1CS1F	C3406T	0
1TB12-3 (CP)	1SV4406	CD STORAGE TO HOTWELL CONTROL SV	T1	T1CS1F	C3406T	0
1TB12-3 (CP)	1LT4405	CD CONDENSER HOTWELL LT	T1	T1CS1F	LT405R	0
1TB12-2 (CP)	1PUMPCARSWP11	11 CAR SEAL WTR PUMP (1M0636)	VC	MMS11R	MMS11R	0
1TB12-2 (CP)	1PUMPCARSWP12	12 CAR SEAL WTR PUMP (1M0637)	VC	MMS12R	MMS12R	0
1TB12-2 (CP)	1PUMPCARSWP13	13 CAR SEAL WTR PUMP (1M1636)	VC	MMS13R	MMS13R	0
1TB12-2 (CP)	1PUMPCAR11	11 CAR VAC PP (1MB203)	VC	MMV11R	MMV11R	0
1TB12-2 (CP)	1PUMPCAR12	12 CAR VAC PP (1MB217)	VC	MMV12R	MMV12R	0
1TB12-2 (CP)	1PUMPCAR13	13 CAR VAC PP (1MB303)	VC	MMV13R	MMV13R	0
1TB12-3 (CP)	1HS5225	11 CW PP WTRBX INL VLV HS	VC	VCCW1A	HS225T	0
1TB12-3 (CP)	1MOV5225	11A COND'R INLET STRNR VLV	VC	VCCW1A	MV225P	0
1TB12-3 (CP)	1HS5229	12 CW PP WTRBX INL VLV HS	VC	VCCW2A	HS229T	0
1TB12-3 (CP)	1MOV5229	11B COND'R INLET STRNR VLV	VC	VCCW2A	MV229P	0
1TB12-3 (CP)	1HS5233	13 CW PP WTRBX INL VLV HS	VC	VCCW3A	HS233T	0
1TB12-3 (CP)	1MOV5233	12A COND'R INLET STRNR VLV	VC	VCCW3A	MV233P	0
1TB12-3 (CP)	1HS5237	14 CW PP WTRBX INL VLV HS	VC	VCCW4A	HS237T	0
1TB12-3 (CP)	1MOV5237	12B COND'R INLET STRNR VLV	VC	VCCW4A	MV237P	0
1TB12-3 (CP)	1HS5241	15 CW PP WTRBX INL VLV HS	VC	VCCW5A	HS241T	0
1TB12-3 (CP)	1MOV5241	13A COND'R STRNR INLET VLV	VC	VCCW5A	MV241P	0
1TB12-3 (CP)	1HS5245	15 CW PP WTRBX INL VLV HS	VC	VCCW6A	HS245T	0
1TB12-3 (CP)	1MOV5245	13B COND'R INLET STRNR VLV	VC	VCCW6A	MV245P	0
1TB12-2 (CP)	1CV1754	11 CAR UNIT MOTIVE AIR	VC	VCP011	C3754P	0
1TB12-2 (CP)	1CV1755	11 CAR UNIT SYS DIAPHRAM	VC	VCP011	C3755P	0
1TB12-2 (CP)	1LCV1753	11 CAR SEP	VC	VCP011	LC753R	0
1TB12-2 (CP)	1PS1755	11 CAR CNDSR VAC PP SEAL LOW PRESSURE WTR PS	VC	VCP011	PS755R	0
1TB12-2 (CP)	1CV1757	12 CAR UNIT MOTIVE AIR	VC	VCP012	C3757P	0
1TB12-2 (CP)	1CV1758	12 CAR UNIT SYS DIAPHRAM	VC	VCP012	C3758P	0
1TB12-2 (CP)	1LCV1756	12 CAR SEP LO LVL CONTROL	VC	VCP012	LC756R	0
1TB12-2 (CP)	1PS1758	12 CAR CNDSR VAC PP SEAL WTR LOW PRESSURE PS	VC	VCP012	PS758R	0
1TB12-2 (CP)	1CV1760	13 CAR UNIT MOTIVE AIR	VC	VCP013	C3760P	0
1TB12-2 (CP)	1CV1761	13 CAR UNIT SYS DIAPHRAM	VC	VCP013	C3761P	0
1TB12-2 (CP)	1LCV1759	SEP LO LVL CONTROL	VC	VCP013	LC759R	0
1TB12-2 (CP)	1PS1761	13 CAR CNDSR VAC PP SEAL WTR LOW PRESSURE PS	VC	VCP013	PS761R	0
1TB12-3 (CP)	1HXCARSWC11	11 CAR SEAL WTR CLR	VC	VCS011	HXS11B	0
1TB12-3 (CP)	1HXCARSWC11	11 CAR SEAL WTR CLR	VC	VCS011	HXS11P	0
1TB12-3 (CP)	1HXCARSWC12	12 CAR SEAL WTR CLR	VC	VCS012	HXS12B	0
1TB12-3 (CP)	1HXCARSWC12	12 CAR SEAL WTR CLR	VC	VCS012	HXS12P	0
1TB12-3 (CP)	1HXCARSWC13	13 CAR SEAL WTR CLR	VC	VCS013	HXS13B	0
1TB12-3 (CP)	1HXCARSWC13	13 CAR SEAL WTR CLR	VC	VCS013	HXS13P	0

Flood Evaluation Query

CF-13D-D318AM

03-Dec-98

TOP	PM	EVALUATION	RI
AA	~~F~~	~~4KV Bus 11 fails.~~ (Note 30)	PAJ
AB	3BKR	3 breaker challenges.	PAJ
AE	~~F~~	~~4KV Bus 12 fails.~~ (Note 30)	PAJ
AF	2BKR	2 breaker challenges.	PAJ
CV	None ~~F~~	~~Conservatively set to failure. CVCS relatively unimportant.~~ (Note 13)	PAJ
F1	None ~~Spec Impt~~	In 1 of 3. Spurious actuation needs to be considered. 11 and 12 SG's lose one of four sensor channels creating a 1 of 3 logic. Since creating a trip signal is our desired effect for F1, no impact. (Note 2) (Note 30)	PAJ
F3	None	Operators loss the ability to check level on CST.	PAJ
F7	None ~~F~~	~~Unit 1 AFW MD Pump 13 gets it's power from 4KV Bus 11. Since this bus is already failed (AA) in this scenario, this top will also fail.~~ (Note 30)	PAJ
GE	None ~~F~~	~~1BKR152-1103 will open not allowing EDG 1A to provide power to 4KV Bus 11.~~ (Note 30)	PAJ
GE(UA)	None	4KV 11 Bus de-energized (See Top AA). All relays will de-energize.	PAJ
GJ	~~Spec Impt~~	~~0BKR152-1106 will open not allowing EDG 0C to provide power to 4KV Bus 11.~~ *	PAJ
H5(U1)	None	Impact addressed by QC = F.	PAJ
HB	None ~~F~~ *	~~Although this disconnect is not located in the same room as the normally aligned disconnect, the cables go though A317. Therefore, it has to be assumed that a fault will occur in the main supply breaker opening the circuit. Therefore, HB will fail.~~	PAJ
HF	None	Loss of power to 1TY5443 circuit will result in the dampers remaining open.	PAJ
HG	None	Loss of power to 1TY5441 circuit will result in the dampers remaining open.	PAJ
HS	None	1SV5426A has been deleted.	PAJ
IA	None * ~~Spec Impt~~	~~Submerging 1/I1013A1 should blow the circuit fuse, thus sending a trip signal to AFAS. This create's a 1 of 3 logic. No impact on top IA. Should only impact VA.~~	PAJ

* See Note 30 in RAN 98-065 sect. 5.4 See also other notes. gpm

TOP	PM	EVALUATION	RI
IB	None * ~~Spec Impt~~	~~Submerging 1I/I1023A1 should blow the circuit fuse, thus sending a trip signal to AFAS. This create's a 1 of 3 logic. No impact on top IB. Should only impact VA.~~	PAJ
KH(PP3)	None * ~~F~~	~~Submerging 1DISC89-1116 should result in the upstream breaker to open. Therefore, CCW Pump 13 will not operate.~~	PAJ
KZ	None * ~~F~~	~~Submerging 1DISC89-1116 should result in the upstream breaker to open. Therefore, CCW Pump 13 will not operate.~~	PAJ
LF	F	1CV4405/4406 fail closed on loss of power and loss of air.	PAJ
M2	None * ~~Spec Impt~~	~~Since Top N2 fails, operators must get power from Top N3.~~	PAJ
M7	Spec Impt * ~~F~~	~~MCC 106T fails.~~	PAJ
M8	17BKR	17 breaker challenges.	PAJ
MC	F	11, 12 and 13 Condensate Pumps fail.	PAJ
MN	F ~~Spec Impt~~	SGFP Seal Booster Pump 11 Train fails to provide flow to common header. 12 Train still available. (Note 24)	PAJ
N1	None * ~~F~~	~~480V Bus 11A fails.~~	PAJ
N2	None * ~~F~~	~~480V Bus 11B fails.~~	PAJ
N3	1BKR	breaker challenges.	PAJ
N4	2BKR	2 breaker challenges.	PAJ
NR	~~F~~ *	~~Unit 1 120VAC distribution panel 11 (From 1MCC101AT) fails. This panel provides power to support components for IA/PA Unit 1 air loads.~~	PAJ
PG	* ~~Spec Impt~~	~~Only power to the motor driven fire pump is lost via 480V Bus 12A. Operators can switch power to 480V Bus 23A. They may also use the Diesel Driven Pump.~~	PAJ
QC	~~F~~ *	~~1BKR152-1115/1201 should open on a fault. However, this does not save the transformer. The transformer will fault, thus failing this top.~~	PAJ
QD	~~F~~ *	~~Although 1BKR152-1101/1209 are open, their energized cables should fault the transformer when submerged failing this top.~~	PAJ
QZ	* ~~Spec Impt~~	~~Operators should be able to recover AFW following a spurious AFAS block. Only channel A will be lost. AFAS will now be in 1 of 3.~~	PAJ

* See Note 30 in RAN 98-065 sect. 5.4. Other notes are in same location JBK

TOP	PM	EVALUATION	RI
RH	None ~~Spec Impt~~	~~Operators will not be able to start HPSI pump 13 during this flood scenario.~~ *	PAJ
RQ	None	1BKR52-1201/1212 should already open on a fault.	PAJ
RS	None ~~Spec Impt~~	~~Submerging THot/TCold transmitters and power supply should result in the failure of Channel A. RPS will be in a 1 of 3. Loss of power to the CEDM circuit will have no effect. The RTCBs will still open.~~ *	PAJ
S1	None ~~F~~	~~Both SW pumps 11 and 13 are failed. Pump 11 is failed because 4KV Bus 11 is failed (Top AA) and pump 13 is failed because of the disconnect being submerged.~~ *	PAJ
S2	None ~~Spec Impt~~	~~Loss the ability to use 13 SW pump to supply 12 header. Pump 12 is still available.~~ *	PAJ
S3	None ~~F~~	~~Both SRW pumps 11 and 13 are failed. Pump 11 is failed because 4KV Bus 11 is failed (Top AA) and pump 13 is failed because of the disconnect being submerged.~~ *	PAJ
S4	None ~~Spec~~ Impt	~~Loss the ability to use 13 SRW pump to supply 12 header. Pump 12 is still available.~~ *	PAJ
SL	None	~~It is assumed that 1BKR252-11P011/11P02/12P01/12P02 will fail open on a fault.~~ *	PAJ
SP(PP3)	None ~~F~~	~~Operator will not be able to start 13 Component Cooling Pump.~~ *	PAJ
T1	None	1CV4406 fails closed on loss of power and loss of air.	PAJ
VC	F	All Condenser Vacuum Pumps Fail. Only 11, 12 and 13 are in the fault trees.	PAJ
XA	None ~~Spec Impt~~	~~Lose power from Batt Charger 11. If Batt Charger 23 fails, this top fails.~~ *	PAJ
XD	None ~~Spec Impt~~	~~Lose power from Batt Charger 14. If Batt Charger 22 fails, this top fails.~~ *	PAJ

See note 30 in RAN 98-065 sect. 5.4. JPA

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A317	1BKR152-1115	U-4000-11 SERVICE TRANSF	AA	AA1X05	BNA1ET	0
A317	1BKR152-1102	U-440-11B SERVICE TRANSF	AA	AABKRA	BNA12O	0
A317	1BKR152-1102	U-440-11B SERVICE TRANSF	AA	AABKRA	BNA12P	0
A317	1BKR152-1104	NO. 11 LOW PRESS SAFETY INJ PUMP	AA	AABKRB	BNA14O	0
A317	1BKR152-1104	NO. 11 LOW PRESS SAFETY INJ PUMP	AA	AABKRB	BNA14P	0
A317	1BKR152-1107	NO. 11 CONTAINMENT SPRAY PUMP	AA	AABKRC	BNA17O	0
A317	1BKR152-1107	NO. 11 CONTAINMENT SPRAY PUMP	AA	AABKRC	BNA17P	0
A317	1BKR152-1105	NO. 11 SALT WATER PUMP	AA	AABKRD	BNA15O	0
A317	1BKR152-1105	NO. 11 SALT WATER PUMP	AA	AABKRD	BNA15P	0
A317	1BKR152-1108	NO. 11 HIGH PRESS SAFETY INJ PUMP	AA	AABKRE	BNA18O	0
A317	1BKR152-1108	NO. 11 HIGH PRESS SAFETY INJ PUMP	AA	AABKRE	BNA18P	0
A317	1BKR152-1116	AFW PP #13	AA	AABKRF	BNA1FO	0
A317	1BKR152-1116	AFW PP #13	AA	AABKRF	BNA1FP	0
A317	1BKR152-1109	NO. 11 SERVICE WATER PUMP	AA	AABKRG	BNA19O	0
A317	1BKR152-1109	NO. 11 SERVICE WATER PUMP	AA	AABKRG	BNA19P	0
A317	1BKR152-1110	NO. 13 HIGH PRESS SAFETY INJ PUMP	AA	AABKRH	BNA10O	0
A317	1BKR152-1110	NO. 13 HIGH PRESS SAFETY INJ PUMP	AA	AABKRH	BNA10P	0
A317	1BKR152-1111	NO. 13 SERVICE WATER PUMP	AA	AABKRI	BNA1AO	0
A317	1BKR152-1111	NO. 13 SERVICE WATER PUMP	AA	AABKRI	BNA1AP	0
A317	1BKR152-1112	NO. 13 SALT WATER PUMP	AA	AABKRJ	BNA1BO	0
A317	1BKR152-1112	NO. 13 SALT WATER PUMP	AA	AABKRJ	BNA1BP	0
A317	1BKR152-1113	SWITCHYARD FEEDER TRANS SX10	AA	AABKRK	BNA1CO	0
A317	1BKR152-1113	SWITCHYARD FEEDER TRANS SX10	AA	AABKRK	BNA1CP	0
A317	1BKR152-1114	U-440-11A SERVICE TRANSF	AA	AABKRL	BNA1DO	0
A317	1BKR152-1114	U-440-11A SERVICE TRANSF	AA	AABKRL	BNA1DP	0
A317	1BUS1A01	4KV BUS 11	AA	BUA01R	BUA01R	0
A317	1NA110	13 SI HI PRESS PP DISC	AA	MAHP3Q	MAHP3Q	0
A317	1NA111	SERV WTR PP 13 DISC	AA	MWSR3Q	MWSR3Q	0
A317	1NA112	SALT WTR PP 13 DISC	AA	MWSW3Q	MWSW3Q	0
A317	1XU-440-11A	480V XFMR U-440-11A	AA	TN11AQ	TN11AQ	0
A317	1XU-440-11B	480V XFMR U-440-11B	AA	TN11BQ	TN11BQ	0
A317	1NA110	13 SI HI PRESS PP DISC	AB	MAHP4Q	MAHP4Q	0
A317	1NA111	SERV WTR PP 13 DISC	AB	MWSR4Q	MWSR4Q	0
A317	1NA112	SALT WTR PP 13 DISC	AB	MWSW4Q	MWSW4Q	0
A317	1BKR152-1201	U-4000-11 SERVICE TRANSF	AE	AE1X05	BNA21T	0
A317	1BUS1A02	4KV BUS 12	AE	AE1X05	BUA02R	0
A317	1BKR152-1202	U-440-12B SERVICE TRANSF	AE	AEBKRA	BNA22O	0
A317	1BKR152-1202	U-440-12B SERVICE TRANSF	AE	AEBKRA	BNA22P	0
A317	1BKR152-1204	NO. 11 CONDENSATE BOOSTER PUMP	AE	AEBKRB	BNA24O	0
A317	1BKR152-1204	NO. 11 CONDENSATE BOOSTER PUMP	AE	AEBKRB	BNA24P	0
A317	1BKR152-1205	NO. 12 CONDENSATE BOOSTER PUMP	AE	AEBKRC	BNA25O	0
A317	1BKR152-1205	NO. 12 CONDENSATE BOOSTER PUMP	AE	AEBKRC	BNA25P	0
A317	1BKR152-1206	NO. 11 HEATER DRAIN PUMP	AE	AEBKRD	BNA26O	0
A317	1BKR152-1206	NO. 11 HEATER DRAIN PUMP	AE	AEBKRD	BNA26P	0
A317	1BKR152-1207	NO. 11 CONDENSATE PUMP	AE	AEBKRE	BNA27O	0
A317	1BKR152-1207	NO. 11 CONDENSATE PUMP	AE	AEBKRE	BNA27P	0
A317	1BKR152-1208	U-440-12A SERVICE TRANSF	AE	AEBKRF	BNA28O	0
A317	1BKR152-1208	U-440-12A SERVICE TRANSF	AE	AEBKRF	BNA28P	0
1TB12-3 (CP)	1PUMPCD11	11 CONDENSATE PUMP (1MA207)	AE	MYCP1Q	MYCP1Q	0
A317	1XU-440-12A	480V XFMR U-440-12A	AE	TN12AQ	TN12AQ	0
A317	1XU-440-12B	480V XFMR U-440-12B	AE	TN12BQ	TN12BQ	0
1TB12-3 (CP)	1PUMPCD12	12 CONDENSATE PUMP (1MA307)	AF	MYCP2Q	MYCP2Q	0
1TB12-3 (CP)	1PUMPCD13	13 CONDENSATE PUMP (1MA308)	AF	MYCP3Q	MYCP3Q	0
A317	1RY89-1104X	CVC DISC 89-1104 CHG PP 13 AUX REL	CV	CVRY04	RY104T	0
A317	1DISC89-1104	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A317	1DISC89-1104	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A317	1I/I1114A1	1 AFW S/G 11 LVL TO AFAS I/I	F1	F1ZD11	II14AR	0
A317	1YX1114A	SG 11 WIDE RANGE CHL L-1114A	F1	F1ZD11	SP14AR	0
A317	1I/I1124A1	1 AFW S/G 12 LVL TO AFAS I/I	F1	F1ZD12	II24AR	0
A317	1YX1X1124A	SG 12 WIDE RANGE CHL L-1124A	F1	F1ZD12	SP24AR	0
A318	1LI5609	LVL INDICATING PRESS GAGE	F3	GM609R	GM609R	0
A317	1RY1A116/2/SSA1	AFW MTR DRIVEN PP 13 TIME DELAY PICKUP REL	F7	F7RSA1	RYSA1E	0
A317	1RY1A116/2/SSA1	AFW MTR DRIVEN PP 13 TIME DELAY PICKUP REL	F7	F7RSA1	RYSA1P	0
A317	1BKR152-1103	BKR 152-1103 11-17 4KV BUS TIE BKR	GE	GEELC1	BN103T	0
A317	1RY127/B11A	13/4KV BUS 11 U/V RY	GE(UA)	UASEND	RY11AD	0
A317	1RY127/B11A	13/4KV BUS 11 U/V RY	GE(UA)	UASEND	RY11AT	0
A317	1RY127/B11E	13/4KV BUS 11 U/V RY	GE(UA)	UASEND	RY11ED	0
A317	1RY127/B11E	13/4KV BUS 11 U/V RY	GE(UA)	UASEND	RY11ET	0
A317	1RY127/B11B	13/4KV BUS 11 U/V RY	GE(UA)	UASENE	RY11BD	0
A317	1RY127/B11B	13/4KV BUS 11 U/V RY	GE(UA)	UASENE	RY11BT	0
A317	1RY127/B11F	13/4KV BUS 11 U/V RY	GE(UA)	UASENE	RY11FD	0
A317	1RY127/B11F	13/4KV BUS 11 U/V RY	GE(UA)	UASENE	RY11FT	0
A317	1RY127/B11C	13/4KV BUS 11 U/V RY	GE(UA)	UASENF	RY11CD	0
A317	1RY127/B11C	13/4KV BUS 11 U/V RY	GE(UA)	UASENF	RY11CT	0
A317	1RY127/B11G	13/4KV BUS 11 U/V RY	GE(UA)	UASENF	RY11GD	0
A317	1RY127/B11G	13/4KV BUS 11 U/V RY	GE(UA)	UASENF	RY11GT	0
A317	1RY127/B11D	13/4KV BUS 11 U/V RY	GE(UA)	UASENG	RY11DD	0
A317	1RY127/B11D	13/4KV BUS 11 U/V RY	GE(UA)	UASENG	RY11DT	0
A317	1RY127/B11H	13/4KV BUS 11 U/V RY	GE(UA)	UASENG	RY11HD	0
A317	1RY127/B11H	13/4KV BUS 11 U/V RY	GE(UA)	UASENG	RY11HT	0
A317	0BKR152-1106	DSL GEN 0C TO 4KV BUS 11	GJ	GJOUT1	BN106T	0
A317	1BKR152-1101	SUPP BKR FROM U-4000-21	H5(U1)	BHEAZZ	Close	0
A317	1BKR152-1209	SUPP BKR FROM U-4000-21	H5(U1)	BHEAZZ	Close	0
A317	1BKR152-1115	U-4000-11 SERVICE TRANSF	H5(U1)	BHEAZZ	Open	0
A317	1BKR152-1201	U-4000-11 SERVICE TRANSF	H5(U1)	BHEAZZ	Open	0
A317	1NA110	13 SI HI PRESS PP DISC	HB	MA013R	MA013R	0
A317	1NA110	13 SI HI PRESS PP DISC	HB	MA013S	MA013S	0
A317	0AE317A	FSD ZONE 34 SMOKE DET	HF	HFDETA	AE17AR	0
A317	0AE317C	FSD ZONE 34 SMOKE DET	HF	HFDETA	AE17CR	0
A317	0AE317E	FSD ZONE 34 SMOKE DET	HF	HFDETA	AE17ER	0
A317	0AE317B	FSD ZONE 34 SMOKE DET	HF	HFDETB	AE17BR	0
A317	0AE317D	FSD ZONE 34 SMOKE DET	HF	HFDETB	AE17DR	0
A317	0AE317F	FSD ZONE 34 SMOKE DET	HF	HFDETB	AE17FR	0
A317	1FD317N1	SWGR RM SUPPLY FROM RM 317 TO 318 FD	HF	HFDMP7	FD17II	0
A317	1PO5442	EL 27 SUPP SWGR RM SUPP DMPR	HF	HFDMPR	PO442P	0
A318	1SV5442	SWTCGR RM EL 27 OUTLT DMPR SOL	HF	HFDMPR	PO442P	0
A317	1TS5443	1 FSD SWGR RM EL 27 OUTLET TS	HF	HFDMPR	PO442P	0
A317	1PO5443	1 HVAC/A SWGR RM EL 27 EXH D PO	HF	HFDMPR	PO443P	0
A318	1SV5442	SWTCGR RM EL 27 OUTLT DMPR SOL	HF	HFDMPR	PO443P	0
A317	1TS5443	1 FSD SWGR RM EL 27 OUTLET TS	HF	HFDMPR	PO443P	0
A317	1TS5443	1 FSD SWGR RM EL 27 OUTLET TS	HF	HFTEMP	TS436R	0
A317	1TY5441	SWGR RM EL 45 OUTLT TEMP	HG	HGTEMP	RY441P	0
A317	1SV5426A	1 HVAC/A SWGR RM HVAC UNIT 12 SUPP D SV	HS	HSOPR2	IV26AT	0
A317	1I/I1013A1	1 RPS S/G 11 PT TO RPS/ESFAS	IA	IASEND	II1A1R	0
A317	1I/I1023A1	1 RPS S/G 12 PT TO RPS/ESFAS	IB	IBSEND	II2A1R	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	KH(PP3)	BHEKC1	Start	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	KH(PP3)	BHEKZ1	Start	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	KZ	MZC13R	MZC13R	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	KZ	MZC13S	MZC13S	0
1TB12-3 (CP)	1CV4406	CST TO HTWL M/U CV	LF	LFMUCV	C3406O	0
1TB12-3 (CP)	1I/P4406	COND STORAGE TO HOTWELL CONT	LF	LFMUCV	C3406O	0
1TB12-3 (CP)	1SV4406	CD STORAGE TO HOTWELL CONTROL SV	LF	LFMUCV	C3406O	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-3 (CP)	1CV4406	CST TO HTWL M/U CV	LF	LFMUCV	C3406P	0
1TB12-3 (CP)	1I/P4406	COND STORAGE TO HOTWELL CONT	LF	LFMUCV	C3406P	0
1TB12-3 (CP)	1SV4406	CD STORAGE TO HOTWELL CONTROL SV	LF	LFMUCV	C3406P	0
1TB12-3 (CP)	1CV4405	HOTWELL TO COND STORAGE VLV	LF	LFMUCV	C3504T	0
1TB12-3 (CP)	1I/P4405	HOTWELL TO COND STORAGE CONT	LF	LFMUCV	C3504T	0
1TB12-3 (CP)	1LT4405	CD CONDENSER HOTWELL LT	LF	LFMUCV	LT405R	0
A317	1BKR52-1119	114R RX MCC	M2	M2BCBM	CB119T	0
1TB12-2 (CP)	1PNL1C51	11A AMERTAP CNTL PNL 1C51	M7	BUP23Q	BUP23Q	0
1TB12-2 (CP)	1PNL1C52	11B AMERTAP CNTL PNL 1C52	M7	BUP24Q	BUP24Q	0
1TB12-2 (CP)	1PNL1C53	12A AMERTAP CNTL PNL 1C53	M7	BUP25Q	BUP25Q	0
A317	1BKR52-1213	106T TURB MCC	M7	M71213	CB213O	0
A317	1BKR52-1213	106T TURB MCC	M7	M71213	CB213P	0
A317	1BKR152-1202	U-440-12B SERVICE TRANSF	M7	M7B12B	BN12BT	0
A317	1BUS1B02B	480V BUS 12B	M7	M7B12B	BU12BR	0
A317	1BKR52-1222	U-440-12B LOW SIDE BKR	M7	M7B12B	CB222T	0
A317	1BKR52-1213	106T TURB MCC	M7	M7BCBM	CB213T	0
1TB12-2 (CP)	1PUMPCAR12	12 CAR VAC PP (1MB217)	M7	MB217Q	MB217Q	0
1TB12-2 (CP)	1PUMPMSBD11	11 AUX BD TK PUMP (1M0671)	M7	MBP71Q	MBP71Q	0
1TB12-3 (CP)	1PUMPCDMTRLO11	11 CD PP LO CLR PP (1M0607)	M7	MMP07Q	MMP07Q	0
1TB12-2 (CP)	1PUMPCARSWP11	11 CAR SEAL WTR PUMP (1M0636)	M7	MMP36Q	MMP36Q	0
1TB12-2 (CP)	1PUMPCARSWP12	12 CAR SEAL WTR PUMP (1M0637)	M7	MMP37Q	MMP37Q	0
1TB12-3 (CP)	1MOV5225	11A COND'R INLET STRNR VLV	M7	MVP02Q	MVP02Q	0
1TB12-3 (CP)	1MOV5229	11B COND'R INLET STRNR VLV	M7	MVP03Q	MVP03Q	0
1TB12-3 (CP)	1MOV5233	12A COND'R INLET STRNR VLV	M7	MVP04Q	MVP04Q	0
1TB12-3 (CP)	1M0659	11 COND PP LUBE OIL COOLER FAN MTR (1M0659)	M7	VAP59Q	VAP59Q	0
1TB12-2 (CP)	1RECEPTMCC116A	POWER RECEPT MCC116 (1W48, 1W49, 1W50, 1W51)	M8	BUQ05Q	BUQ05Q	0
1TB12-2 (CP)	1PNL1C54	12B AMERTAP CNTL PNL 1C54	M8	BUQ23Q	BUQ23Q	0
1TB12-2 (CP)	1PNL1C55	13A AMERTAP CNTL PNL 1C55	M8	BUQ24Q	BUQ24Q	0
1TB12-2 (CP)	1PNL1C56	13B AMERTAP CNTL PNL 1C56	M8	BUQ25Q	BUQ25Q	0
1TB12-2 (CP)	1PUMPCAR14	14 CAR VAC PP (1MB317)	M8	MB317Q	MB317Q	0
1TB12-2 (CP)	1PUMPSMP11TB11	11 TURB BLDG SUMP 11 PP (1M1642)	M8	MBQ42Q	MBQ42Q	0
1TB12-2 (CP)	1PUMPSMP11TB12	11 TURB BLDG SUMP PP 12 (1M1643)	M8	MBQ43Q	MBQ43Q	0
1TB12-2 (CP)	1PUMPMSBD12	12 AUX BD TK PUMP (1M1656)	M8	MBQ56Q	MBQ56Q	0
1TB12-3 (CP)	1PUMPCDMTRLO12	12 CD PP LO CLR PP (1M1606)	M8	MMQ06Q	MMQ06Q	0
1TB12-3 (CP)	1PUMPCDMTRLO13	13 CD PP LO CLR PP (1M1607)	M8	MMQ07Q	MMQ07Q	0
1TB12-2 (CP)	1PUMPCARSWP13	13 CAR SEAL WTR PUMP (1M1636)	M8	MMQ36Q	MMQ36Q	0
1TB12-2 (CP)	1PUMPCARSWP14	14 CAR SEAL WTR PUMP (1M1637)	M8	MMQ37Q	MMQ37Q	0
1TB12-3 (CP)	1MOV5237	12B COND'R INLET STRNR VLV	M8	MVQ02Q	MVQ02Q	0
1TB12-3 (CP)	1MOV5241	13A COND'R STRNR INLET VLV	M8	MVQ03Q	MVQ03Q	0
1TB12-3 (CP)	1MOV5245	13B COND'R INLET STRNR VLV	M8	MVQ04Q	MVQ04Q	0
1TB12-3 (CP)	1M1659	12 COND PP LUBE OIL COOLER FAN MTR (1M1659)	M8	VAQ59Q	VAQ59Q	0
1TB12-3 (CP)	1M1660	13 COND PP LUBE OIL COOLER FAN MTR (1M1660)	M8	VAQ60Q	VAQ60Q	0
A317	1RY1A204/2/4453	11 COND CBP BKR 152-1204 TIME DELAY DROP OUT RE	MC	MCBP10	RY242P	0
A317	1RY1A204/3	COND BOOSTER PUMP 11 AUX RELAY	MC	MCBP10	RY243T	0
A317	1PY4453	11 COND CBP PRESSURE CONVERTER REL	MC	MCBP10	RY453P	0
A317	1RY1A205/2/4460	12 COND CBP BKR 152-1205 TIME DELAY DROP OUT RE	MC	MCBP20	RY252P	0
A317	1RY1A205/3	COND BOOSTER PUMP 12 AUX RELAY	MC	MCBP20	RY253T	0
A317	1PY4460	12 COND CBP PRESSURE CONVERTER REL	MC	MCBP20	RY460P	0
1TB12-3 (CP)	1YS4414	COND PMP MOTOR 11 OIL STRAINER	MC	MCPP10	YS414P	0
1TB12-3 (CP)	1YS4421	COND PMP MOTOR 12 OIL STRAINER	MC	MCPP20	YS421P	0
1TB12-3 (CP)	1YS4428	COND PMP MOTOR 13 OIL STRAINER	MC	MCPP30	YS428P	0
1TB12-3 (CP)	1PUMPCDMTRLO11	11 CD PP LO CLR PP (1M0607)	MC	MML11R	MML11R	0
1TB12-3 (CP)	1PUMPCDMTRLO12	12 CD PP LO CLR PP (1M1606)	MC	MML12R	MML12R	0
1TB12-3 (CP)	1PUMPCDMTRLO13	13 CD PP LO CLR PP (1M1607)	MC	MML13R	MML13R	0
1TB12-3 (CP)	1PUMPCD11	11 CONDENSATE PUMP (1MA207)	MC	MYC11R	MYC11R	0
1TB12-3 (CP)	1PUMPCD12	12 CONDENSATE PUMP (1MA307)	MC	MYC12R	MYC12R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-3 (CP)	1PUMPCD13	13 CONDENSATE PUMP (1MA308)	MC	MYC13R	MYC13R	0
1TB12-3 (CP)	1M0659	11 COND PP LUBE OIL COOLER FAN MTR (1M0659)	MC	VAL11R	VAL11R	0
1TB12-3 (CP)	1M1659	12 COND PP LUBE OIL COOLER FAN MTR (1M1659)	MC	VAL12R	VAL12R	0
1TB12-3 (CP)	1M1660	13 COND PP LUBE OIL COOLER FAN MTR (1M1660)	MC	VAL13R	VAL13R	0
A317	1BKR52-1109	101 AT TURB MCC	MN	MNF71B	CB109T	0
A317	1DISC89-1104	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A317	1BKR52-1101	11 CAV CLG FAN	N1	N11101	CB101O	0
A317	1BKR52-1101	11 CAV CLG FAN	N1	N11101	CB101P	0
A317	1BKR52-1102	11 CONTMT AIR CLR	N1	N11102	CB102O	0
A317	1BKR52-1102	11 CONTMT AIR CLR	N1	N11102	CB102P	0
A317	1BKR52-1104	13 CHG PP	N1	N11104	CB104O	0
A317	1BKR52-1104	13 CHG PP	N1	N11104	CB104P	0
A317	1BKR52-1105	11 CONTMT FILT UNIT	N1	N11105	CB105O	0
A317	1BKR52-1105	11 CONTMT FILT UNIT	N1	N11105	CB105P	0
A317	1BKR52-1106	11 COMP CLG PP	N1	N11106	CB106O	0
A317	1BKR52-1106	11 COMP CLG PP	N1	N11106	CB106P	0
A317	1BKR52-1107	15 BATT CHGR	N1	N11107	CB107O	0
A317	1BKR52-1107	15 BATT CHGR	N1	N11107	CB107P	0
A317	1BKR52-1108	11 CONT RM A/C COMPR	N1	N11108	CB108O	0
A317	1BKR52-1108	11 CONT RM A/C COMPR	N1	N11108	CB108P	0
A317	1BKR52-1109	101 AT TURB MCC	N1	N11109	CB109O	0
A317	1BKR52-1109	101 AT TURB MCC	N1	N11109	CB109P	0
A317	1BKR52-1110	11 SWGR RM A/C COMPR	N1	N11110	CB110O	0
A317	1BKR52-1110	11 SWGR RM A/C COMPR	N1	N11110	CB110P	0
A317	1BKR52-1111	11 BATT CHGR	N1	N11111	CB111O	0
A317	1BKR52-1111	11 BATT CHGR	N1	N11111	CB111P	0
A317	1BKR52-1130	11 PZR HTR PROP CONTR	N1	N11130	CB130O	0
A317	1BKR52-1130	11 PZR HTR PROP CONTR	N1	N11130	CB130P	0
A317	1BKR152-1114	U-440-11A SERVICE TRANSF	N1	N1B11A	BN11AT	0
A317	1BUS1B01A	480V BUS 11A	N1	N1B11A	BU11AR	0
A317	1BKR52-1112	U-440-11A LOW SIDE BKR	N1	N1B11A	CB112T	0
A317	1NB130	11A RC PZR HTR 11 PROP CONTR	N1	TC130Q	TC130Q	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	N2	MZ116Q	MZ116Q	0
A317	1BKR52-1114	12 CONTMT AIR CLR	N2	N21114	CB114O	0
A317	1BKR52-1114	12 CONTMT AIR CLR	N2	N21114	CB114P	0
A317	1BKR52-1115	11 CHG PP	N2	N21115	CB115O	0
A317	1BKR52-1115	11 CHG PP	N2	N21115	CB115P	0
A317	1BKR52-1116	13 COMP CLG PP	N2	N21116	CB116O	0
A317	1BKR52-1116	13 COMP CLG PP	N2	N21116	CB116P	0
A317	1BKR52-1117	11 MAIN PLT EXH FAN	N2	N21117	CB117O	0
A317	1BKR52-1117	11 MAIN PLT EXH FAN	N2	N21117	CB117P	0
A317	1BKR52-1118	11 INSTR AIR COMPR	N2	N21118	CB118O	0
A317	1BKR52-1118	11 INSTR AIR COMPR	N2	N21118	CB118P	0
A317	1BKR52-1119	114R RX MCC	N2	N21119	CB119O	0
A317	1BKR52-1119	114R RX MCC	N2	N21119	CB119P	0
A317	1BKR52-1120	14 BATT CHGR	N2	N21120	CB120O	0
A317	1BKR52-1120	14 BATT CHGR	N2	N21120	CB120P	0
A317	1BKR52-1121	13 CONTMT FILT UNIT	N2	N21121	CB121O	0
A317	1BKR52-1121	13 CONTMT FILT UNIT	N2	N21121	CB121P	0
A317	1BKR52-1122	H2 RECOMB PWR PNL 11	N2	N21122	CB122O	0
A317	1BKR52-1122	H2 RECOMB PWR PNL 11	N2	N21122	CB122P	0
A317	1BKR52-1123	PLANT AIR COMPRESSOR 11	N2	N21123	CB123O	0
A317	1BKR52-1123	PLANT AIR COMPRESSOR 11	N2	N21123	CB123P	0
A317	1BKR52-1127	109 PH PZR HTR MCC	N2	N21127	CB127O	0
A317	1BKR52-1127	109 PH PZR HTR MCC	N2	N21127	CB127P	0
A317	1BKR152-1102	U-440-11B SERVICE TRANSF	N2	N2B11B	BN11BT	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A317	1BUS1B01B	480V BUS 11B	N2	N2B11B	BU11BR	0
A317	1BKR52-1113	U-440-11B LOW SIDE BKR	N2	N2B11B	CB113T	0
A317	1DISC89-1121	13 CONTMT FILT UNIT DISCS	N2	VG121Q	VG121Q	0
A317	1DISC89-1104	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	N4	MZ416Q	MZ416Q	0
A317	1DISC89-1121	13 CONTMT FILT UNIT DISCS	N4	VG421Q	VG421Q	0
A317	1BKR52-1109	101 AT TURB MCC	NR	NR1P01	CB1B9T	0
A317	1RY1B118/62	11 IA COMPR TIME DELAY PICKUP RY	NR	NRIA11	RY118E	0
A317	1RY1B118/62	11 IA COMPR TIME DELAY PICKUP RY	NR	NRIA11	RY118P	0
A317	1BKR152-1208	U-440-12A SERVICE TRANSF	PG	PGBK06	BN208T	0
A317	1BUS1B02A	480V BUS 12A	PG	PGBK06	BU12AR	0
A317	1BKR52-1201	U-440-12A LOW SIDE BKR	PG	PGBK06	CB201T	0
A317	1BKR52-1208	FIRE PP FDR	PG	PGBK06	CB208T	0
A317	1RY1B208/CR	MOTOR FIRE PUMP CR RELAY	PG	PGRY16	RYFCRE	0
A317	1RY1B208/CR	MOTOR FIRE PUMP CR RELAY	PG	PGRY16	RYFCRP	0
A317	1XU-440-12A	480V XFMR U-440-12A	PG	TN12AR	TN12AR	0
A317	1BUS1A01	4KV BUS 11	QC	BUA01R	BUA01R	0
A317	1BUS1A02	4KV BUS 12	QC	BUA02R	BUA02R	0
A317	1BKR152-1115	U-4000-11 SERVICE TRANSF	QC	QCBUS1	BNA1EO	0
A317	1BKR152-1115	U-4000-11 SERVICE TRANSF	QC	QCBUS1	BNA1EP	0
A317	1BKR152-1201	U-4000-11 SERVICE TRANSF	QC	QCBUS2	BNA21O	0
A317	1BKR152-1201	U-4000-11 SERVICE TRANSF	QC	QCBUS2	BNA21P	0
A317	1BKR152-1115	U-4000-11 SERVICE TRANSF	QC	QCFLST	TXQC1Q	0
A317	1BKR152-1201	U-4000-11 SERVICE TRANSF	QC	QCFLST	TXQC2Q	0
1TB12-3 (CP)	1PUMPCD12	12 CONDENSATE PUMP (1MA307)	QC	QCMISC	MYCP2Q	0
1TB12-3 (CP)	1PUMPCD13	13 CONDENSATE PUMP (1MA308)	QC	QCMISC	MYCP3Q	0
A317	1BKR152-1101	SUPP BKR FROM U-4000-21	QD	QDFLST	TXQD1Q	0
A317	1BKR152-1209	SUPP BKR FROM U-4000-21	QD	QDFLST	TXQD2Q	0
A317	1I/I1013A3	11 FW S/G PT TO INDIC I/I	QZ	F1PT1A	II10AR	0
A317	1I/I1013A2	11 AFW S/G PRESSURE PROTECTION I/I SIG CONVERT	QZ	F1PT1A	II13AR	0
A317	1I/I1013A1	1 RPS S/G 11 PT TO RPS/ESFAS	QZ	F1PT1A	II1A1R	0
A317	1I/I1023A2	1 AFW SG 12 PT TO AFAS I/I	QZ	F1PT1A	II23AR	0
A317	1YX1X1013A1	FW 1PT1013A LOOP PWR SUPP	QZ	F1PT1A	SP13AR	0
A317	1I/I1013A2	11 AFW S/G PRESSURE PROTECTION I/I SIG CONVERT	QZ	F1PT2A	II13AR	0
A317	1I/I1023A2	1 AFW SG 12 PT TO AFAS I/I	QZ	F1PT2A	II23AR	0
A317	1I/I1023A1	1 RPS S/G 12 PT TO RPS/ESFAS	QZ	F1PT2A	II3A1R	0
A317	1I/I1023A3	12 FW S/G PT TO INDIC I/I	QZ	F1PT2A	II3A3R	0
A317	1YX1X1023A1	1PT1023A LOOP PWR SUPP	QZ	F1PT2A	SP23AR	0
A317	1NA110	13 SI HI PRESS PP DISC	RH	BHERH1	Start	0
A317	1BKR52-1201	U-440-12A LOW SIDE BKR	RQ	BHERS1	Open	0
A317	1BKR52-1212	480V BUS 12A & B TIE BREAKER	RQ	BHERS1	Open	0
A317	1BKR52-1201	U-440-12A LOW SIDE BKR	RQ	CB201O	CB201O	0
A317	1YX1X112HA	1 RPS 1TT112HA PWR SUPP	RS	RSCHAT	SP1HAR	0
A317	1YX1X122HA	11 RXV PWR SUP 122HA XFMR	RS	RSCHAT	SP2HAR	0
A317	1TT112CA	11A RPS T-COLD XMTR	RS	RSCHAT	TT1CAR	0
A317	1TT112HA	11 RPS T-HOT XMTR	RS	RSCHAT	TT1HAR	0
A317	1TT122CA	12A RPS T-COLD XMTR	RS	RSCHAT	TT2CAR	0
A317	1TT122HA	1 RPS 12 T-HOT TEMP XMTR	RS	RSCHAT	TT2HAR	0
A317	1YX1X112HB	1 RPS 1TT112HB PWR SUPP	RS	RSCHBT	SP1HBR	0
A317	1HSMG11-5PB	CEDS MG 11 BYPASS IN	RS	RSMG11	HS15PT	0
A317	1CONT1Q206/3M	CEDM M/G/ SET 11 LOAD CONTACTOR	RS	RSMG11	RY13MD	0
A317	1CONT1Q206/3M	CEDM M/G/ SET 11 LOAD CONTACTOR	RS	RSMG11	RY13MT	0
A317	1CONT1Q206/4M	CEDM M/G SET 11 BYPASS CONTACTOR	RS	RSMG11	RY14MT	0
A317	1RYMX11	CEDS MG 11 LOAD CONTROL RELAY	RS	RSMG11	RYX11D	0
A317	1RYMX11	CEDS MG 11 LOAD CONTROL RELAY	RS	RSMG11	RYX11T	0
A317	1NA112	SALT WTR PP 13 DISC	S1	MWS13R	MWS13R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A317	1NA112	SALT WTR PP 13 DISC	S1	MWS13S	MWS13S	0
A317	1NA112	SALT WTR PP 13 DISC	S2	MWS13R	MWS13R	0
A317	1NA112	SALT WTR PP 13 DISC	S2	MWS13S	MWS13S	0
A317	1NA111	SERV WTR PP 13 DISC	S3	MWS13R	MWS13R	0
A317	1NA111	SERV WTR PP 13 DISC	S3	MWS13S	MWS13S	0
A317	1NA111	SERV WTR PP 13 DISC	S4	MWS13R	MWS13R	0
A317	1NA111	SERV WTR PP 13 DISC	S4	MWS13S	MWS13S	0
A317	1BKR252-11P01	NO 11A RCP SUPPLY FROM SERVICE BUS 12	SL	BHESL2	Open	0
A317	1BKR252-11P02	NO 11A RCP SUPPLY FROM SERVICE BUS 22	SL	BHESL2	Open	0
A317	1BKR252-12P01	NO 12A RCP SUPPLY FROM SERVICE BUS 12	SL	BHESL2	Open	0
A317	1BKR252-12P02	NO 12A RCP SUPPLY FROM SERVICE BUS 22	SL	BHESL2	Open	0
A317	1DISC89-1116	COMPONENT CLG PP 13 DISC SW	SP(PP3)	BHEK12	Start	0
1TB12-3 (CP)	1CV4406	CST TO HTWL M/U CV	T1	T1CS1F	C3406T	0
1TB12-3 (CP)	1I/P4406	COND STORAGE TO HOTWELL CONT	T1	T1CS1F	C3406T	0
1TB12-3 (CP)	1SV4406	CD STORAGE TO HOTWELL CONTROL SV	T1	T1CS1F	C3406T	0
1TB12-3 (CP)	1LT4405	CD CONDENSER HOTWELL LT	T1	T1CS1F	LT405R	0
1TB12-2 (CP)	1PUMPCARSWP11	11 CAR SEAL WTR PUMP (1M0636)	VC	MMS11R	MMS11R	0
1TB12-2 (CP)	1PUMPCARSWP12	12 CAR SEAL WTR PUMP (1M0637)	VC	MMS12R	MMS12R	0
1TB12-2 (CP)	1PUMPCARSWP13	13 CAR SEAL WTR PUMP (1M1636)	VC	MMS13R	MMS13R	0
1TB12-2 (CP)	1PUMPCAR11	11 CAR VAC PP (1MB203)	VC	MMV11R	MMV11R	0
1TB12-2 (CP)	1PUMPCAR12	12 CAR VAC PP (1MB217)	VC	MMV12R	MMV12R	0
1TB12-2 (CP)	1PUMPCAR13	13 CAR VAC PP (1MB303)	VC	MMV13R	MMV13R	0
A317	1BKR152-1208	U-440-12A SERVICE TRANSF	VC	VC012A	BN208T	0
A317	1BUS1B02A	480V BUS 12A	VC	VC012A	BUB2AR	0
A317	1BKR52-1201	U-440-12A LOW SIDE BKR	VC	VC012A	CB201T	0
A317	1XU-440-12A	480V XFMR U-440-12A	VC	VC012A	TN12AR	0
A317	1BKR152-1202	U-440-12B SERVICE TRANSF	VC	VC012B	BN202T	0
A317	1BUS1B02B	480V BUS 12B	VC	VC012B	BUB2BR	0
A317	1BKR52-1222	U-440-12B LOW SIDE BKR	VC	VC012B	CB222T	0
A317	1XU-440-12B	480V XFMR U-440-12B	VC	VC012B	TN12BR	0
1TB12-3 (CP)	1HS5225	11 CW PP WTRBX INL VLV HS	VC	VCCW1A	HS225T	0
1TB12-3 (CP)	1MOV5225	11A COND'R INLET STRNR VLV	VC	VCCW1A	MV225P	0
1TB12-3 (CP)	1HS5229	12 CW PP WTRBX INL VLV HS	VC	VCCW2A	HS229T	0
1TB12-3 (CP)	1MOV5229	11B COND'R INLET STRNR VLV	VC	VCCW2A	MV229P	0
1TB12-3 (CP)	1HS5233	13 CW PP WTRBX INL VLV HS	VC	VCCW3A	HS233T	0
1TB12-3 (CP)	1MOV5233	12A COND'R INLET STRNR VLV	VC	VCCW3A	MV233P	0
1TB12-3 (CP)	1HS5237	14 CW PP WTRBX INL VLV HS	VC	VCCW4A	HS237T	0
1TB12-3 (CP)	1MOV5237	12B COND'R INLET STRNR VLV	VC	VCCW4A	MV237P	0
1TB12-3 (CP)	1HS5241	15 CW PP WTRBX INL VLV HS	VC	VCCW5A	HS241T	0
1TB12-3 (CP)	1MOV5241	13A COND'R STRNR INLET VLV	VC	VCCW5A	MV241P	0
1TB12-3 (CP)	1HS5245	15 CW PP WTRBX INL VLV HS	VC	VCCW6A	HS245T	0
1TB12-3 (CP)	1MOV5245	13B COND'R INLET STRNR VLV	VC	VCCW6A	MV245P	0
1TB12-2 (CP)	1CV1754	11 CAR UNIT MOTIVE AIR	VC	VCP011	C3754P	0
1TB12-2 (CP)	1CV1755	11 CAR UNIT SYS DIAPHRAM	VC	VCP011	C3755P	0
A317	1SV1755	11 CAR DIAPHRAM VLV	VC	VCP011	C3755P	0
1TB12-2 (CP)	1LCV1753	11 CAR SEP	VC	VCP011	LC753R	0
1TB12-2 (CP)	1PS1755	11 CAR CNDSR VAC PP SEAL LOW PRESSURE WTR PS	VC	VCP011	PS755R	0
1TB12-2 (CP)	1CV1757	12 CAR UNIT MOTIVE AIR	VC	VCP012	C3757P	0
1TB12-2 (CP)	1CV1758	12 CAR UNIT SYS DIAPHRAM	VC	VCP012	C3758P	0
A317	1SV1758	12 CAR DIAPHRAM VLV	VC	VCP012	C3758P	0
1TB12-2 (CP)	1LCV1756	12 CAR SEP LO LVL CONTROL	VC	VCP012	LC756R	0
1TB12-2 (CP)	1PS1758	12 CAR CNDSR VAC PP SEAL WTR LOW PRESSURE PS	VC	VCP012	PS758R	0
1TB12-2 (CP)	1CV1760	13 CAR UNIT MOTIVE AIR	VC	VCP013	C3760P	0
1TB12-2 (CP)	1CV1761	13 CAR UNIT SYS DIAPHRAM	VC	VCP013	C3761P	0
1TB12-2 (CP)	1LCV1759	SEP LO LVL CONTROL	VC	VCP013	LC759R	0
1TB12-2 (CP)	1PS1761	13 CAR CNDSR VAC PP SEAL WTR LOW PRESSURE PS	VC	VCP013	PS761R	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
1TB12-3 (CP)	1HXCARSWC11	11 CAR SEAL WTR CLR	VC	VCS011	HXS11B	0
1TB12-3 (CP)	1HXCARSWC11	11 CAR SEAL WTR CLR	VC	VCS011	HXS11P	0
1TB12-3 (CP)	1HXCARSWC12	12 CAR SEAL WTR CLR	VC	VCS012	HXS12B	0
1TB12-3 (CP)	1HXCARSWC12	12 CAR SEAL WTR CLR	VC	VCS012	HXS12P	0
1TB12-3 (CP)	1HXCARSWC13	13 CAR SEAL WTR CLR	VC	VCS013	HXS13B	0
1TB12-3 (CP)	1HXCARSWC13	13 CAR SEAL WTR CLR	VC	VCS013	HXS13P	0
A317	1BKR52-1111	11 BATT CHGR	XA	XAC11E	CBXN1T	0
A317	1BKR52-1120	14 BATT CHGR	XD	XDC14E	CBXN2T	0

Flood Evaluation Query

CF-14A-F319AM

17-Nov-98

TOP	PM	EVALUATION	RI
CV	F	Conservatively set to failure. CVCS relatively unimportant.	PAJ
M2	5BKR	5 breaker challenges.	PAJ
M3	2BKR	2 breaker challenges.	PAJ
~~M4~~	~~3BKR~~	~~3 breaker challenges.~~	~~PAJ~~
N1	1BKR	1 breaker challenge.	PAJ
N2	1BKR	1 breaker challenge.	PAJ
N3	None	13 Charging Pump is normally aligned to 480V Bus 11A (Top N1). See Key Assumption 393.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
SG	None ~~Spec Impt~~	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment. (note 5)	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ

See notes in RAN 98-065 sect. 5.4 JJM

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A319	1PT201	LETDOWN HTEX DISCH PRESS	CV	CVHV03	PT201R	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRI	CV	PS224R	PS224R	0
A319	1U1410	CVC BA BTCHG TK HTR	M2	HTN10Q	HTN10Q	0
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A319	1M1425	BORIC ACID BATCHING TANK MIXER	M2	MXN25Q	MXN25Q	0
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A319	2U1410	21 CVC BABT HTR	M4	HTN10Q	HTN10Q	0
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32
A319	2M1425	21 CVC BABT MIXER MOTOR	M4	MXN25Q	MXN25Q	0
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0

Flood Evaluation Query

CF-14B-F319AN *

17-Nov-98

TOP	PM	EVALUATION	RI
AA	4BKR	4 breaker challenges.	PAJ
AB	4BKR	4 breaker challenges.	PAJ
AC	2BKR	2 breaker challenges.	PAJ
AD	5BKR	5 breaker challenges.	PAJ
CS	F	CS Pump 11 is lost.	PAJ
CT	F	CS Pump 12 is lost.	PAJ
CV	F	Conservatively set to failure. CVCS relatively unimportant.	PAJ
F1	None	11 and 12 S/G AFW Block Valves fail. These valves are normally open and will fail open. Therefore there is no impact on this top. Flow control valves failing open are addressed in top event HX.	PAJ
F7	F	Lost the ability to use Unit 1 AFW MD Pump 13 to supply Unit 1 S/G.	PAJ
F9	F	Loss the ability to use Unit 2 AFW MD Pump 23 to supply Unit 1 S/G. Also, 21 and 22 S/G AFW Block and Flow Valves fail. These valves are normally open and fail as-is (open) on loss of power.	PAJ
FH	None	Loss the ability to start AFW MD Pump 13. Covered under Top F7.	PAJ
FN	None	Only has 2 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
GW	None	2CV5152, 2CV5153 and 2CV5212 fail open on loss of power and loss of air.	PAJ
GZ	None	2CV5150 and 2CV5210 fail open on loss of power and loss of air.	PAJ
HA	F	11 HPSI Pump fails.	PAJ
HB	F	13 HPSI Pump fails.	PAJ
HU	None	11 and 12 S/G AFW Flow Control Valves fail open. No Impact.	PAJ
HW	F	12 HPSI is lost. Also 1MOV653, 1MOV654, 1MOV655 and 1MOV656 fail as-is.	PAJ

* This flood is eliminated. See note 12 in RAN 98-065 sect 5.4

TOP	PM	EVALUATION	RI
HX	None	11 and 12 S/G AFW (motor driven feed line) flow control valves fail open. Impact already considered by Top F7 & F9 failure.	PAJ
K3	None	1CV5210 fails open on loss of power and loss of air. During a RAS, this valve needs to open for recirulation. It is assumed (Per Rob) that this top event will not fail during smaller LOCA size breaks.	PAJ
K4	None	1CV5212 fails open on loss of power and loss of air. During a RAS, this valve needs to open for recirulation. It is assumed (Per Rob) that this top event will not fail during smaller LOCA size breaks.	PAJ
M1	7BKR	7 breaker challenges.	PAJ
M2	12BKR	12 breaker challenges.	PAJ
M3	9BKR	9 breaker challenges.	PAJ
~~M4~~	~~7BKR~~	~~7 breaker challenges.~~	~~PAJ~~
MN	None	Has 6 PCVs. I am assuming that these valves will not fail during a flood.	PAJ
MV	None	1MOV659/660 fail as-is and are normally electrically locked open, there will be no flood impact.	PAJ
N1	1BKR	1 breaker challenge.	PAJ
N2	1BKR	1 breaker challenge.	PAJ
N3	None	13 Charging Pump is normally aligned to 480V Bus 11A (Top N1). See Key Assumption 393.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
NR(TC)	Spec Impt	2CV1600/1637/1638/1639 fail close on loss of power, the undesirable position. Unable to use Unit 2 compressors for Unit 1.	PAJ

TOP	PM	EVALUATION	RI
NS	Spec Impt	2CV1600/1637/1638/1639 fail close on loss of power, the undesirable position. Unable to use Unit 2 compressors for Unit 2.	PAJ
QZ	None	11 & 12 AFW Block valves (1CV4522/4523/4532/4533) are normally open and fail as-is on loss of power.	PAJ
RH	F	This human action requires the operator to start 11 and 13 HPSI Pumps. Both pumps are assumed not to start/run during a flood scenario.	PAJ
S3	None	All valves fail to their appropriate positions on loss of power and loss of air. 1CV5148 (FO), 1CV5148A (FC), 1CV5151 (FO), 1CV5151A (FC) and 1CV5209 (FO).	PAJ
S4	None	All valves fail to their appropriate positions on loss of power and loss of air. 1CV5158 (FO), 1CV5158A (FC), 1CV5159 (FO), 1CV5159A (FC), 1CV5211 (FO), 1CV5153 (FO) and 1CV5157 (FC).	PAJ
SG	Spec Impt	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment.	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ
SR	None	All MOVs (1MOV4144/4145/5462/5463) are closed and fail close.	PAJ
TA	F	1CV1637/1639 fail close on loss of power / loss of air.	PAJ
TB	F	1CV1600/1638 fail close on loss of power / loss of air.	PAJ
TE	F	1MOV4144 is normally in the closed position and will fail as-is. Therefore, the East Recirculation Header will not function properly.	PAJ
TH(HD1)	None	1CV5210 will fail to it's appropriate position not allowing the operator to throttle valve. Covered by Top S3 or K3.	PAJ
TH(HD2)	None	1CV5212 will fail to it's appropriate position not allowing the operator to throttle valve. Covered by Top S4 or K4.	PAJ
TW	F	1MOV4145 is normally in the closed position and will fail as-is. Therefore, the West Recirculation Header will not function properly.	PAJ
UQ	None	1CV4525/4535 are normally open and fail as-is on loss of power. This top only fails when an under feed to the SG occurs.	PAJ
V1	F	All ECCS Pump Room Fans fail to start/run.	PAJ

TOP	PM	EVALUATION	RI
V2	F	All ECCS Pump Room Fans fail to start/run.	PAJ
VC	None	Has 6 PCVs. I am assuming that these will not fail during a flood.	PAJ
VM(RM1)	None	Operator will be unable to start ECCS Pump Room Fans. Covered under Top V1.	PAJ
VM(RM2)	None	Operator will be unable to start ECCS Pump Room Fans. Covered under Top V2.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	AA	MAAF3Q	MAAF3Q	16
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	AA	MACS1Q	MACS1Q	12
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	AA	MAHP1Q	MAHP1Q	24
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	AA	MAHP3Q	MAHP3Q	12
A119	1PUMPSILPSI11	11 LOW PRESS SAFETY INJECTION PUMP (1MA104)	AA	MALP1Q	MALP1Q	12
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	AB	MACS2Q	MACS2Q	12
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	AB	MAHP2Q	MAHP2Q	24
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	AB	MAHP4Q	MAHP4Q	12
A118	1PUMPSILPSI12	12 LOW PRESS SAFETY INJECTION PUMP (1MA404)	AB	MALP2Q	MALP2Q	12
A101	2PUMPSICS21	21 CONTAINMENT SPRAY PUMP (2MA107)	AC	MACS3Q	MACS3Q	24
A101	2PUMPHPSI21	SI HPSI PUMP 21 (2MA108)	AC	MAHP5Q	MAHP5Q	24
A102	2PUMPHPSI23	SI HPSI PUMP 23 (2MA110)	AC	MAHP7Q	MAHP7Q	12
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	AD	MAAF6Q	MAAF6Q	16
A102	2PUMPSICS22	22 CONTAINMENT SPRAY PUMP (2MA407)	AD	MACS4Q	MACS4Q	12
A101	2PUMPHPSI22	SI HPSI PUMP 22 (2MA408)	AD	MAHP6Q	MAHP6Q	24
A102	2PUMPHPSI23	SI HPSI PUMP 23 (2MA110)	AD	MAHP8Q	MAHP8Q	12
A102	2PUMPSILPSI22	22 LOW PRESS SAFETY INJECTION PUMP (2MA404)	AD	MALP4Q	MALP4Q	12
A119	1HXSICS11	11 SHUTDOWN COOLING HX	CS	CS0103	HXC11B	0
A119	1HXSICS11	11 SHUTDOWN COOLING HX	CS	CS0103	HXC11P	0
A119	1MOV663	SDC RECIRC TO 11 HPSI PP	CS	CS0103	MV663T	0
A119	1CV3828	11 SDC HX OUTLET	CS	CSHX11	CV828P	0
A119	1SV3828	S/D HX 11 COOL WTR DISCH VLV	CS	CSHX11	CV828P	0
A119	1CV3828	11 SDC HX OUTLET	CS	CV828O	CV828O	0
A119	1SV3828	S/D HX 11 COOL WTR DISCH VLV	CS	CV828O	CV828O	0
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	CS	MA107R	MA107R	12
A119	1PUMPSICS11	11 CONTAINMENT SPRAY PUMP (1MA107)	CS	MA107S	MA107S	12
A118	1HXSICS12	12 SHUTDOWN COOLING HX	CT	CT0103	HXC12B	0
A118	1HXSICS12	12 SHUTDOWN COOLING HX	CT	CT0103	HXC12P	0
A118	1MOV662	SDC RECIRC TO 13 HPSI PP	CT	CT0103	MV662T	0
A118	1CV3830	12 SDC HX OUTLET	CT	CTXH12	CV830P	0
A118	1SV3830	S/D HX #12 COMP CLG DISCH VLV	CT	CTXH12	CV830P	0
A118	1CV3830	12 SDC HX OUTLET	CT	CV830O	CV830O	0
A118	1SV3830	S/D HX #12 COMP CLG DISCH VLV	CT	CV830O	CV830O	0
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	CT	MA407R	MA407R	12
A118	1PUMPSICS12	12 CONTAINMENT SPRAY PUMP (1MA407)	CT	MA407S	MA407S	12
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A319	1PT201	LETDOWN HTEX DISCH PRESS	CV	CVHV03	PT201R	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PS224R	PS224R	0
A226	1SV4522	11 S/G AFW BLOCK SV	F1	CV4522	CV522P	0
A226	1SV4523	11 S/G AFW BLOCK SV	F1	CV4523	CV523P	0
A226	1SV4532	12 S/G AFW BLOCK SV	F1	CV4532	CV532P	0
A226	1SV4533	12 S/G AFW BLOCK SV	F1	CV4533	CV533P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	F1	F1MLV1	C6525R	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535P	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	F1	F1MLV2	C6535R	0
A226	1SV4550	U-1 TO U-2 AFW X-CONN SV	F7	F7MPVA	C3550T	0
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QR	MA13QR	16
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	F7	MA13QS	MA13QS	16
A205	2SV4522	S/G 21 AFW MOTOR SYS ISOL VLV	F9	CVB22C	CVB22C	0
A205	2SV4523	S/G 21 AFW MOTOR SYS ISOL VLV	F9	CVB23C	CVB23C	0
A205	2SV4532	S/G 22 AFW MOTOR SYS ISOL VLV	F9	CVB32C	CVB32C	0
A205	2SV4533	S/G 22 AFW MOTOR SYS ISOL VLV	F9	CVB33C	CVB33C	0
A205	2SV4550	U-2 AUX FEED X-CONN VLV	F9	F9M2VA	C3B50O	0
A205	2SV4550	U-2 AUX FEED X-CONN VLV	F9	F9M2VA	C3B50P	0
A205	2SV4522	S/G 21 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB22T	0
A205	2SV4523	S/G 21 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB23T	0
A205	2SV4532	S/G 22 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB32T	0
A205	2SV4533	S/G 22 AFW MOTOR SYS ISOL VLV	F9	F9M2VA	CVB33T	0
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	F9	MA23QR	MA23QR	16
A205	2PUMPAFWMD23	23 AUX FW MTR DRIVEN PP (2MA415)	F9	MA23QS	MA23QS	16
A226	1PUMPAFWMD13	13 AUX FW MTR DRIVEN PP (1MA116)	FH	BHEF71	Start	16
A226	1PCV4512	1 IA SUPP ACCUM 11A & 11B PCV	FN	FN0000	CV512P	0
A226	1PCV4520	11B AFW AIR ACCUMULATOR OUTLET PCV	FN	FN0000	CV520P	0
A205	2I/P5212	SALT WTR OUT SERV WTR HTEX	GW	C2S12O	C2S12O	0
A205	2SV5212	SERV WTR HTEX 22 SALT WTR OUT	GW	C2S12O	C2S12O	0
A205	2SV5212A	SERV WTR HTEX 22 SALT WTR OUT	GW	C2S12O	C2S12O	0
A205	2SV5152	SERV WTR HTEX 22 SALT WTR INLT	GW	S8CV52	C1S52P	0
A205	2CV5153	22 SRW HX SW NORM B/U OUTLET	GW	S8H2CV	C1S53P	20
A205	2SV5153	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C1S53P	0
A205	2I/P5212	SALT WTR OUT SERV WTR HTEX	GW	S8H2CV	C2S12P	0
A205	2SV5212	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C2S12P	0
A205	2SV5212A	SERV WTR HTEX 22 SALT WTR OUT	GW	S8H2CV	C2S12P	0
A205	2SV5150	SERV WTR HTEX 21 SALT WTR INLT	GZ	S7H2CV	C1S50P	0
A205	2I/P5210	SALT WTR OUT SERV WTR HTEX	GZ	S7H2CV	C2S10P	0
A205	2SV5210	SERV WTR HTEX 21 SALT WTR OUT	GZ	S7H2CV	C2S10P	0
A205	2SV5210A	SERV WTR HTEX 21 SALT WTR OUT	GZ	S7H2CV	C2S10P	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1AB	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1AP	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1BB	0
A119	1HX108	#11 BEARING COOLER	HA	HA1CCW	HXB1BP	0
A119	1HXSTF/BOX11A	HPSI PUMP 11	HA	HA1CCW	HXS1AB	0
A119	1HXSTF/BOX11A	HPSI PUMP 11	HA	HA1CCW	HXS1AP	0
A119	1HXSTF/BOX11B	HPSI PUMP 11	HA	HA1CCW	HXS1BB	0
A119	1HXSTF/BOX11B	HPSI PUMP 11	HA	HA1CCW	HXS1BP	0
A119	1HX109	#11 HPSI PP SEAL COOLER	HA	HA1CCW	HXSC1B	0
A119	1HX109	#11 HPSI PP SEAL COOLER	HA	HA1CCW	HXSC1P	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A119	1MOV656	AUX HPSI HDR ISOL	HA	HADISA	MV656P	0
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	HA	MA011R	MA011R	24
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	HA	MA011S	MA011S	24
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3AB	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3AP	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3BB	0
A118	1HX110	#13 BEARING COOLER	HB	HB3CCW	HXB3BP	0
A118	1HXSTF/BOX13A	HPSI PUMP 13	HB	HB3CCW	HXS3AB	0
A118	1HXSTF/BOX13A	HPSI PUMP 13	HB	HB3CCW	HXS3AP	0
A118	1HXSTF/BOX13B	HPSI PUMP 13	HB	HB3CCW	HXS3BB	0
A118	1HXSTF/BOX13B	HPSI PUMP 13	HB	HB3CCW	HXS3BP	0
A118	1HX111	#13 HPSI PP SEAL COOLER	HB	HB3CCW	HXSC3B	0
A118	1HX111	#13 HPSI PP SEAL COOLER	HB	HB3CCW	HXSC3P	0
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	HB	MA013R	MA013R	12
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	HB	MA013S	MA013S	12
A118	1MOV654	HPSI HDR ISOL	HB	MV654P	MV654P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HU	BHEF1B	Throttle	0
A118	1PUMPHPSI12	12 HIGH PRESS SAFETY INJECTION PUMP	HW	BHEHW1	Start	12
A119	1MOV656	AUX HPSI HDR ISOL	HW	HADISA	MV656P	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2AB	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2AP	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2BB	0
A119	1HX408	#12 HPSI PP BRG COOLER	HW	HW1CCW	HXB2BP	0
A118	1HXSTF/BOX12A	HPSI PUMP 12	HW	HW1CCW	HXS2AB	0
A118	1HXSTF/BOX12A	HPSI PUMP 12	HW	HW1CCW	HXS2AP	0
A118	1HXSTF/BOX12B	HPSI PUMP 12	HW	HW1CCW	HXS2BB	0
A118	1HXSTF/BOX12B	HPSI PUMP 12	HW	HW1CCW	HXS2BP	0
A119	1HX409	#12 HPSI PP SEAL COOLER	HW	HW1CCW	HXSC2B	0
A119	1HX409	#12 HPSI PP SEAL COOLER	HW	HW1CCW	HXSC2P	0
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	HW	MA012R	MA012R	24
A119	1PUMPSIHP12	12 HIGH PRESS SAFETY INJECTION PUMP (1MA408)	HW	MA012S	MA012S	24
A118	1MOV653	HPSI HDR X-CONN	HW	MV653O	MV653O	0
A118	1MOV653	HPSI HDR X-CONN	HW	MV653P	MV653P	0
A118	1MOV654	HPSI HDR ISOL	HW	MV654P	MV654P	0
A119	1MOV655	HPSI HDR X-CONN	HW	MV655P	MV655P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	HX	BHEF1A	Throttle	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	C2210C	C2210C	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	C2210C	C2210C	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	C2210C	C2210C	0
A226	1ZC5210	1CV5210 POSITIONER	K3	C2210C	C2210C	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	K3	K3CLOS	C2210T	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	K3	K3CLOS	C2210T	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	K3	K3CLOS	C2210T	0
A226	1ZC5210	1CV5210 POSITIONER	K3	K3CLOS	C2210T	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	C2212C	C2212C	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	C2212C	C2212C	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	C2212C	C2212C	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1ZC5212	1CV5212 POSITIONER	K4	C2212C	C2212C	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	K4	K4ISO1	C2212T	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	K4	K4ISO1	C2212T	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	K4	K4ISO1	C2212T	0
A226	1ZC5212	1CV5212 POSITIONER	K4	K4ISO1	C2212T	0
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	M1	M1FPPR	VD48AQ	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	M1	M1FPPR	VD48BQ	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	M1	M1FPPR	VD48CQ	22
A118	1MOV654	HPSI HDR ISOL	M1	MVM21Q	MVM21Q	0
A118	1MOV653	HPSI HDR X-CONN	M1	MVM22Q	MVM22Q	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	M1	MVM30Q	MVM30Q	0
A118	1MOV660	MINI FLOW RETN TO RWT	M1	MVM32Q	MVM32Q	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	M1	MVM44Q	MVM44Q	0
A226	1FAN5334	SRW HX RM EXH FAN 18B (1M0451)	M1	VDM51Q	VDM51Q	0
A319	1U1410	CVC BA BTCHG TK HTR	M2	HTN10Q	HTN10Q	0
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	M2	M2FPPR	VD48AQ	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	M2	M2FPPR	VD48BQ	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	M2	M2FPPR	VD48CQ	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	M2	M2FPPR	VD48DQ	22
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A119	1MOV656	AUX HPSI HDR ISOL	M2	MVN21Q	MVN21Q	0
A119	1MOV655	HPSI HDR X-CONN	M2	MVN22Q	MVN22Q	0
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A118	1MOV659	MINI FLOW RETN TO RWT	M2	MVN32Q	MVN32Q	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	M2	MVN44Q	MVN44Q	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	M2	MVN57Q	MVN57Q	0
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A319	1M1425	BORIC ACID BATCHING TANK MIXER	M2	MXN25Q	MXN25Q	0
A226	1FAN5335	SRW HTEX RM FAN VU-18A (1M1441)	M2	VDN41Q	VDN41Q	0
A102	2FAN0448A	ECCS PP RM CLR 22 FAN A (2M0448A)	M3	M3FPPR	VD48AQ	22
A102	2FAN0448B	ECCS PP RM CLR 22 FAN B (2M0448B)	M3	M3FPPR	VD48BQ	22
A102	2FAN0448C	ECCS PP RM CLR 22 FAN C (2M0448C)	M3	M3FPPR	VD48CQ	22
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A102	2MOV654	HPSI HDR ISOL	M3	MVO21Q	MVO21Q	0
A102	2MOV653	HPSI HDR X-CONN	M3	MVO22Q	MVO22Q	0
A120	2MOV5463	U-2 CONTMT RECIRC PIPE TUNNEL	M3	MVO30Q	MVO30Q	0
A102	2MOV660	MINI FLOW RETN TO RWT	M3	MVO32Q	MVO32Q	0
A120	2MOV4145	CONTMT SUMP OUTLET ISOL	M3	MVO44Q	MVO44Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A205	2FAN5334	SRW HX RM EXH FAN 19B (2M0451)	M3	VDO51Q	VDO51Q	0
A319	2U1410	21 CVC BABT HTR	M4	HTN10Q	HTN10Q	0
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32
A102	2MOV659	MINI FLOW RETN TO RWT	M4	MVN32Q	MVN32Q	0
A120	2MOV4144	CONTMT SUMP OUTLET ISOL	M4	MVN44Q	MVN44Q	0
A120	2MOV5462	U-2 CONTMT RECIRC PIPE TUNNEL	M4	MVN57Q	MVN57Q	0
A319	2M1425	21 CVC BABT MIXER MOTOR	M4	MXN25Q	MXN25Q	0
A205	2FAN5335	SRW HX RM SPLY FAN 19A (2M1437)	M4	VDN37Q	VDN37Q	0
A226	1PCV5000	11 SGFP BRG OIL PRESS REG VLV	MN	MNFW58	PC000R	0
A226	1PCV4993	11 SGFPT CONT OIL PRESS REG	MN	MNFW58	PC993R	0
A226	1PCV4999	11 SGFPT OIL PRESS REG VLV	MN	MNFW58	PC999R	0
A226	1PCV5043	12 SGFP TLO PP DISCH PCV	MN	MNFW68	PC043R	0
A226	1PCV5048	12 SGFP TLO RESERVOIR INLET PCV	MN	MNFW68	PC048R	0
A226	1PCV5049	12 FW SGFP TLO TO PP BRGS PCV	MN	MNFW68	PC049R	0
A118	1MOV659	MINI FLOW RETN TO RWT	MV	MV0A11	MV659P	0
A118	1MOV659	MINI FLOW RETN TO RWT	MV	MV0A11	MV659X	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A118	1MOV660	MINI FLOW RETN TO RWT	MV	MV0A11	MV660P	0
A118	1MOV660	MINI FLOW RETN TO RWT	MV	MV0A11	MV660X	0
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A205	2SV1637	TURB & EHC OIL SERV WTR ISOL VLV	NR(TC)	UNIT 2-TAFB01	C3637P	0
A205	2SV1639	TURB LUB & EHC OIL SERVWTR ISO	NR(TC)	UNIT 2-TAFB01	C3639P	0
A205	2SV1600	TURB BLDG SERV WTR ISOL VLV	NR(TC)	UNIT 2-TBFB01	C3600P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NR(TC)	UNIT 2-TBFB01	C3638P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NS	NSSRW	N/A	0
A205	2SV1637	TURB & EHC OIL SERV WTR ISOL VLV	NS	UNIT 2-TAFB01	C3637P	0
A205	2SV1639	TURB LUB & EHC OIL SERVWTR ISO	NS	UNIT 2-TAFB01	C3639P	0
A205	2SV1600	TURB BLDG SERV WTR ISOL VLV	NS	UNIT 2-TBFB01	C3600P	0
A205	2SV1638	TURB BLDG SERV WTR ISOL VLV	NS	UNIT 2-TBFB01	C3638P	0
A226	1SV4522	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4523	11 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4532	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A226	1SV4533	12 S/G AFW BLOCK SV	QZ	BHEQZ1	Open	0
A119	1PUMPSIHP11	11 HIGH PRESS SAFETY INJECTION PUMP (1MA108)	RH	BHERH1	Start	24
A118	1PUMPSIHP13	13 HIGH PRESS SAFETY INJECTION PUMP (1MA110)	RH	BHERH1	Start	12
A226	1SV5150	SERV WTR HTEX 11 SALT WTR INLT	S3	C1150P	C1150P	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148C	C2148C	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148C	C2148C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148C	C2148C	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148C	C2148C	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148O	C2148O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148O	C2148O	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	C2148O	C2148O	0
A226	1CV5148A	11A SRW HX SW STRAINER FLUSHING VALVE	S3	C2148T	C2148T	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2148T	C2148T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2148T	C2148T	0
A226	1SV5148A	11A SRW HX SW STRAINER FLUSHING SV	S3	C2148T	C2148T	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151C	C2151C	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151C	C2151C	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151C	C2151C	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151C	C2151C	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	C2151O	C2151O	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151O	C2151O	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151O	C2151O	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	C2151O	C2151O	0
A226	1CV5151A	11B SRW HX SW STRAINER FLUSHING VALVE	S3	C2151T	C2151T	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	C2151T	C2151T	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	C2151T	C2151T	0
A226	1SV5151A	11B SRW HX SW STRAINER FLUSHING SV	S3	C2151T	C2151T	0
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AB	0
A226	1HXSRW11A	11A SERVICE WATER PHE	S3	S3H11A	HX11AP	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BB	0
A226	1HXSRW11B	11B SERVICE WATER PHE	S3	S3H11B	HX11BP	0
A226	1CV5148	11A SRW HX STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1HS5148	11A SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1AV	C2148P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2148P	0
A226	1SV5148	11A SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1AV	C2148P	0
A226	1CV5209	11A SRW HX SALT WATER OUTLET VLV	S3	S3H1AV	C2209P	0
A226	1FIC5209	11A SRW HX SW OUTLET FLOW INDICATOR	S3	S3H1AV	C2209P	0
A226	1P/P5209	1CV5209 A/S VOLUME BOOSTER	S3	S3H1AV	C2209P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1AV	C2209P	0
A226	1SV5209	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1SV5209A	11A SRW HX SALT WATER OUTLET SV	S3	S3H1AV	C2209P	0
A226	1CV5151	11B SRW HX SW STRAINER DIVERTER VALVE	S3	S3H1BV	C2151P	0
A226	1HS5148A	11A/11B SRW HX STRAINER MODE SELECT	S3	S3H1BV	C2151P	0
A226	1PNL1C200	11A/11B SRW HX STRAINER CONTROL	S3	S3H1BV	C2151P	0
A226	1SV5151	11B SRW HX SW STRAINER DIVERTER SV	S3	S3H1BV	C2151P	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	S3	S3H1BV	C2210P	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	S3	S3H1BV	C2210P	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	S3	S3H1BV	C2210P	0
A226	1ZC5210	1CV5210 POSITIONER	S3	S3H1BV	C2210P	0
A226	1CV5153	12 SRW HX SW NORM B/U OUTLET	S4	C1153P	C1153P	20
A226	1SV5153	SERV WTR HTEX 12 SALT WTR OUT	S4	C1153P	C1153P	0
A226	1CV5157	12A/12B SRW HX SALT WATER OUTLET VLV	S4	C2157T	C2157T	0
A226	1I/P5157	12A/12B SRW HX SW OUT I/P	S4	C2157T	C2157T	0
A226	1P/P5157	1CV5157 A/S VOLUME BOOSTER	S4	C2157T	C2157T	0
A226	1SV5157	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1SV5157A	12A/12B SRW HX SALT WATER BYPASS SV	S4	C2157T	C2157T	0
A226	1ZC5157	1CV5157 POSITIONER	S4	C2157T	C2157T	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158C	C2158C	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158C	C2158C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158C	C2158C	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158C	C2158C	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	C2158O	C2158O	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158O	C2158O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158O	C2158O	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	C2158O	C2158O	0
A226	1CV5158A	12A SRW HX SW STRAINER FLUSHING VALVE	S4	C2158T	C2158T	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	C2158T	C2158T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2158T	C2158T	0
A226	1SV5158A	12A SRW HX SW STRAINER FLUSHING SV	S4	C2158T	C2158T	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159C	C2159C	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159C	C2159C	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159C	C2159C	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	C2159O	C2159O	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159O	C2159O	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	C2159O	C2159O	0
A226	1CV5159A	12B SRW HX SW STRAINER FLUSHING VALVE	S4	C2159T	C2159T	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2159T	C2159T	0
A226	1SV5159A	12B SRW HX SW STRAINER FLUSHING SV	S4	C2159T	C2159T	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	C2212O	C2212O	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	C2212O	C2212O	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	C2212O	C2212O	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	C2212O	C2212O	0
A226	1ZC5212	1CV5212 POSITIONER	S4	C2212O	C2212O	0
A226	1SV5152	SERV WTR HTEX 12 SALT WTR INLT	S4	S4CV52	C1152P	0
A226	1HVSRW-707	MANUAL SRW INLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW707P	0
A226	1HVSRW-708	MANUAL SRW OUTLET ISOLATION VLV TO 12A PHE	S4	S4H12A	HW708P	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AB	0
A226	1HXSRW12A	12A SERVICE WATER PHE	S4	S4H12A	HX12AP	0
A226	1HVSRW-709	MANUAL SRW INLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW709P	0
A226	1HVSRW-710	MANUAL SRW OUTLET ISOLATION VLV TO 12B PHE	S4	S4H12B	HW710P	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BB	0
A226	1HXSRW12B	12B SERVICE WATER PHE	S4	S4H12B	HX12BP	0
A226	1CV5158	12A SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2AV	C2158P	0
A226	1HS5158	12A SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1HS5158A	12A/12B SRW HX STRAINER MODE SELECT	S4	S4H2AV	C2158P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2158P	0
A226	1SV5158	12A SRW HX SW STRAINER DIVERTER SV	S4	S4H2AV	C2158P	0
A226	1CV5211	12A SRW HX SALT WATER OUTLET VLV	S4	S4H2AV	C2211P	0
A226	1FIC5211	12A SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2AV	C2211P	0
A226	1P/P5211	1CV5211 A/S VOLUME BOOSTER	S4	S4H2AV	C2211P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2AV	C2211P	0
A226	1SV5211	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1SV5211A	12A SRW HX SALT WATER OUTLET SV	S4	S4H2AV	C2211P	0
A226	1ZC5211	1CV5211 POSITIONER	S4	S4H2AV	C2211P	0
A226	1CV5159	12B SRW HX SW STRAINER DIVERTER VALVE	S4	S4H2BV	C2159P	0
A226	1HS5159	12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2159P	0
A226	1SV5159	12B SRW HX SW STRAINER DIVERTER SV	S4	S4H2BV	C2159P	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	S4	S4H2BV	C2212P	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	S4	S4H2BV	C2212P	0
A226	1PNL1C201	12A/12B SRW HX STRAINER CONTROL	S4	S4H2BV	C2212P	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	S4	S4H2BV	C2212P	0
A226	1ZC5212	1CV5212 POSITIONER	S4	S4H2BV	C2212P	0
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	SR	MV144C	MV144C	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	SR	MV144T	MV144T	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A122	1MOV4145	CONTMT SUMP OUT ISOL	SR	MV145C	MV145C	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	SR	MV145T	MV145T	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV462C	MV462C	0
A122	1MOV5462	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV462T	MV462T	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV463C	MV463C	0
A122	1MOV5463	U-1 CONTMT RECIRC PIPE TUNNEL	SR	MV463T	MV463T	0
A226	1SV1637	TURB LUBE&EHC OIL SERVWTR ISOL	TA	TAFB01	C3637P	0
A226	1SV1639	TURB LUB & EHC OIL SERV WTR IS	TA	TAFB01	C3639P	0
A226	1SV1600	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3600P	0
A226	1SV1638	TURB BLDG SERV WTR ISOL VLV	TB	TBFB01	C3638P	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	TE	MV144O	MV144O	0
A122	1MOV4144	CONTMT SUMP OUT ISOL	TE	TE0101	MV144P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	TH(HD1)	BHER3B	Open	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	TH(HD1)	BHER3B	Open	0
A226	1FIC5210	11A SRWHX SW OUTLET FLOW INDICATOR	TH(HD1)	BHER3B	Throttle	0
A226	1P/P5210	1CV5210 A/S VOLUME BOOSTER	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1SV5210A	SERV WTR HTEX 11 SALT WTR OUT	TH(HD1)	BHER3B	Throttle	0
A226	1ZC5210	1CV5210 POSITIONER	TH(HD1)	BHER3B	Throttle	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	TH(HD2)	BHER3B	Open	0
A226	1FIC5212	12B SRWHX SW OUTLET FLOW INDICATOR	TH(HD2)	BHER3B	Throttle	0
A226	1P/P5212	1CV5212 A/S VOLUME BOOSTER	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1SV5212A	SERV WTR HTEX 12 SALT WTR OUT	TH(HD2)	BHER3B	Throttle	0
A226	1ZC5212	1CV5212 POSITIONER	TH(HD2)	BHER3B	Throttle	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	TW	MV145O	MV145O	0
A122	1MOV4145	CONTMT SUMP OUT ISOL	TW	TW0101	MV145P	0
A226	1I/P4525A	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4525B	11 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535A	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A226	1I/P4535B	12 AFW FLO CONTR VLV I/P	UQ	BHEUQ1	Throttle	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	TS404D	TS404D	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1CLSE	WC170P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1CLSE	WC171P	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	V1TEMP	TS404R	0
A119	1HXHVACECCS11	ECCS PUMP ROOM AIR COOLER 11	V1	V1TRFR	HX205B	0
A119	1HXHVACECCS11	ECCS PUMP ROOM AIR COOLER 11	V1	V1TRFR	HX205P	0
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	V1	VD11AR	VD11AR	22
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	V1	VD11AS	VD11AS	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	V1	VD11BR	VD11BR	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	V1	VD11BS	VD11BS	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	V1	VD11CR	VD11CR	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	V1	VD11CS	VD11CS	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	V1	VD11DR	VD11DR	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	V1	VD11DS	VD11DS	22
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC170D	WC170D	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC170O	WC170O	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC171D	WC171D	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	V1	WC171O	WC171O	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	TS405D	TS405D	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	V2INLT	WC173P	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	V2TEMP	TS405R	0
A118	1HXHVACECCS12	ECCS PUMP ROOM AIR COOLER 12	V2	V2TRFR	HX207B	0
A118	1HXHVACECCS12	ECCS PUMP ROOM AIR COOLER 12	V2	V2TRFR	HX207P	0
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	V2	VD12AR	VD12AR	22
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	V2	VD12AS	VD12AS	22

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	V2	VD12BR	VD12BR	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	V2	VD12BS	VD12BS	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	V2	VD12CR	VD12CR	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	V2	VD12CS	VD12CS	22
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	WC173D	WC173D	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	V2	WC173O	WC173O	0
A226	1PCV5214	11 CW PP SEAL WTR PCV	VC	VCCW1A	PC214R	0
A226	1PCV5216	12 CW PP SEAL WTR PCV	VC	VCCW2A	PC216R	0
A226	1PCV5218	13 CW PP SEAL WTR PCV	VC	VCCW3A	PC218R	0
A226	1PCV5220	14 CW PP SEAL WTR PCV	VC	VCCW4A	PC220R	0
A226	1PCV5222	15 CW PP SEAL WTR PCV	VC	VCCW5A	PC222R	0
A226	1PCV5224	16 CW PP SEAL WTR PCV	VC	VCCW6A	PC224R	0
A119	1TS5404	ECCS PUMP ROOM 11 COOLING FAN	VM(RM1)	BHEV1T	Open	0
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	VM(RM1)	BHEV1T	Open	0
A119	1FAN1448A	ECCS PP RM CLR 11 FAN A (1M1448A)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448B	ECCS PP RM CLR 11 FAN B (1M1448B)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448C	ECCS PP RM CLR 11 FAN C (1M1448C)	VM(RM1)	BHEV1T	Start	22
A119	1FAN1448D	ECCS PP RM CLR 11 FAN D (1M1448D)	VM(RM1)	BHEV1T	Start	22
A118	1TS5405	ECCS PUMP ROOM 12 COOLING FAN	VM(RM2)	BHEV1T	Open	0
A118	1FAN0448A	ECCS PP RM CLR 12 FAN A (1M0448A)	VM(RM2)	BHEV1T	Start	22
A118	1FAN0448B	ECCS PP RM CLR 12 FAN B (1M0448B)	VM(RM2)	BHEV1T	Start	22
A118	1FAN0448C	ECCS PP RM CLR 12 FAN C (1M0448C)	VM(RM2)	BHEV1T	Start	22
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0

Flood Evaluation Query

CF-14C-D319AM

17-Nov-98

TOP	PM	EVALUATION	RI
CV	F	Conservatively set to failure. CVCS relatively unimportant.	PAJ
M2	5BKR	5 breaker challenges.	PAJ
M3	2BKR	2 breaker challenges.	PAJ
~~M4~~	~~3BKR~~	~~3 breaker challenges.~~	~~PAJ~~
N1	1BKR	1 breaker challenge.	PAJ
N2	1BKR	1 breaker challenge.	PAJ
N3	None	13 Charging Pump is normally aligned to 480V Bus 11A (Top N1). See Key Assumption 393.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
SG	None ~~Spec Impt~~	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment. (Note 5)	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ

See notes in RAN 98-065 sect. 5.4 JPR

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A319	1PT201	LETDOWN HTEX DISCH PRESS	CV	CVHV03	PT201R	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PS224R	PS224R	0
A319	1U1410	CVC BA BTCHG TK HTR	M2	HTN10Q	HTN10Q	0
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A319	1M1425	BORIC ACID BATCHING TANK MIXER	M2	MXN25Q	MXN25Q	0
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A319	2U1410	21 CVC BABT HTR	M4	HTN10Q	HTN10Q	0
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32
A319	2M1425	21 CVC BABT MIXER MOTOR	M4	MXN25Q	MXN25Q	0
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0

Flood Evaluation Query

CF-15A-W320AM

17-Nov-98

TOP	PM	EVALUATION	RI
CV	None ~~F~~	~~Conservatively set to failure. CVCS relatively unimportant.~~ (Note 13)	PAJ
M2	3BKR	3 breaker challenges.	PAJ
M3	2BKR	2 breaker challenges.	PAJ
~~M4~~	~~1BKR~~	~~1 breaker challenges.~~	~~PAJ~~
N1	1BKR	1 breaker challenge.	PAJ
N2	1BKR	1 breaker challenge.	PAJ
N3	None	13 Charging Pump is normally aligned to 480V Bus 11A (Top N1). See Key Assumption 393.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
SG	None ~~Spec Impt~~	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment. (note 5)	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ

See notes in RAN 98-065 Sect. 5.4 JPM

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PS224R	PS224R	0
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A320	0PUMPSFP11	11 SFP CLG PP (1MB411)	N3	MZ411Q	MZ411Q	6
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A320	0PUMPSFP12	12 SFP CLG PP (2MB411)	N7	MZT11Q	MZT11Q	6
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0

Flood Evaluation Query

CF-15B-D320AM

17-Nov-98

TOP	PM	EVALUATION	RI
CV	F	Conservatively set to failure. CVCS relatively unimportant.	PAJ
M2	3BKR	3 breaker challenges.	PAJ
M3	2BKR	2 breaker challenges.	PAJ
~~M4~~	~~1BKR~~	~~1 breaker challenges.~~	~~PAJ~~
N1	1BKR	1 breaker challenge.	PAJ
N2	1BKR	1 breaker challenge.	PAJ
N3	None	13 Charging Pump is normally aligned to 480V Bus 11A (Top N1). See Key Assumption 393.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
SG	None ~~Spec Impt~~	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment. (note 5) *	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ

* See notes in RAN 98-065 sect. 5.4 JPSR

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PS224R	PS224R	0
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A320	0PUMPSFP11	11 SFP CLG PP (1MB411)	N3	MZ411Q	MZ411Q	6
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A320	0PUMPSFP12	12 SFP CLG PP (2MB411)	N7	MZT11Q	MZT11Q	6
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0

Flood Evaluation Query

CF-16A-W324AM

17-Nov-98

TOP	PM	EVALUATION	RI
CV	F	Conservatively set to failure. CVCS relatively unimportant.	PAJ
M2	3BKR	3 breaker challenges.	PAJ
M3	2BKR	2 breaker challenges.	PAJ
~~M4~~	~~1BKR~~	~~1 breaker challenge.~~	~~PAJ~~
N1	1BKR	1 breaker challenge.	PAJ
N2	1BKR	1 breaker challenge.	PAJ
N3	None	13 Charging Pump is normally aligned to 480V Bus 11A (Top N1). See Key Assumption 393.	PAJ
N4	1BKR	1 breaker challenge.	PAJ
N5	None	23 Charging Pump is normally aligned to 480V Bus 24A (Top N7). See Key Assumption 393.	PAJ
N6	1BKR	1 breaker challenge.	PAJ
N7	1BKR	1 breaker challenge.	PAJ
N8	1BKR	1 breaker challenge.	PAJ
SG	Spec Impt	The hydorgen purge hand switches for MOVs 6902/6903 fail. It is assumed that the MOVs will fail to the undesired position even though that are not located in this scenario. This does impact the top but does not fail it. There is a check valve or MOV downstream of both of these MOVs that isolate containment.	PAJ
SH	None	All valves either are normally closed or will fail closed.	PAJ
WJ	None	Several SVs, all normally deenergized (closed), will fail to the deenergized state. Therefore, there is no impact to this top.	PAJ

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A115A	1ACCSTABILIZER11	11 CVC SUCTION STABILIZER	CV	CVCK02	TK011B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK02	TK11BB	0
A115B	1ACCSTABILIZER12	12 CVC SUCTION STABILIZER	CV	CVCK04	TK012B	0
A115A	1ACC233X	11 CVC CHG PUMP DESURGER	CV	CVCK04	TK12BB	0
A115C	1ACCSTABILIZER13	13 CVC SUCTION STABILIZER	CV	CVCK05	TK013B	0
A115C	1ACC233Z	13 CVC CHG PUMP DESURGER	CV	CVCK05	TK13BB	0
A324	1CV110P	LETDOWN VALVE	CV	CVHV03	CV10PO	0
A324	1I/P110P	LETDOWN VALVE CONTROL	CV	CVHV03	CV10PO	0
A324	1CV110P	LETDOWN VALVE	CV	CVHV03	CV10PP	0
A324	1I/P110P	LETDOWN VALVE CONTROL	CV	CVHV03	CV10PP	0
A324	1CV201Q	LETDOWN BACK PRESSURE CONTROL	CV	CVHV03	CV201O	0
A324	1I/P201Q	LETDN HTEX BACK PRESS VLV CONT	CV	CVHV03	CV201O	0
A324	1CV201Q	LETDOWN BACK PRESSURE CONTROL	CV	CVHV03	CV201P	0
A324	1I/P201Q	LETDN HTEX BACK PRESS VLV CONT	CV	CVHV03	CV201P	0
A324	1HXCVCL/DNR11	LETDOWN HEAT EXCHANGER 11	CV	CVHV03	HX11LP	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501C	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501T	0
A115B	1MOV501	VCT OUTLET ISOL	CV	CVMV02	MV501X	0
A103	1PS224Y	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY02	PS24YR	0
A103	1PS224Z	CHRG PUMP LOW SUCTION PRESS TRIP	CV	CVRY05	PSZ24R	0
A103	1PS224ZA	CHRG PUMP LOW SUCT PRESS TRIP	CV	CVRY06	PS24ZR	0
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011R	MC011R	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	CV	MC011S	MC011S	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012R	MC012R	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	CV	MC012S	MC012S	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013R	MC013R	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013R	MC013R	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	CV	MC013S	MC013S	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	CV	MC013S	MC013S	12
A103	1PS224X	CHARGING PUMP LOW SUCTION PRESS TRIP	CV	PS224R	PS224R	0
A111	0PUMP6552	1PNL1C140 SAMPLE PUMP	M2	MBN40Q	MBN40Q	0
A115B	1MOV501	VCT OUTLET ISOL	M2	MVN31Q	MVN31Q	0
A115A	1MOV269	SI DISCH TO CHG HDR CORE FLUSH ISOL	M2	MVN64Q	MVN64Q	0
A111	0PUMP6521	1PNL1C139 SAMPLE PUMP	M3	MBO59Q	MBO59Q	0
A105B	2MOV269	SI TO CHG HDR CORE FLUSH	M3	MVO57Q	MVO57Q	0
A105B	2MOV501	VCT OUTLET ISOL	M4	MVN31Q	MVN31Q	32
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N1	MC104Q	MC104Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N1	MC104Q	MC104Q	12
A115A	1PUMPCVCCHG11	11 RX COOLANT CHARGING PUMP (1MB115)	N2	MC115Q	MC115Q	12
A115	1DISC89-1104A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115	1DISC89-1404A	CHARGING PUMP 13 DISC SW	N3	MC404Q	MC404Q	0
A115C	1PUMPCVCCHG13	13 RX COOLANT CHARGING PUMP (1MB404)	N3	MC404Q	MC404Q	12
A115B	1PUMPCVCCHG12	12 RX COOLANT CHARGING PUMP (1MB415)	N4	MC415Q	MC415Q	12
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N5	MCT04Q	MCT04Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N5	MCT04Q	MCT04Q	24
A105A	2PUMPCVCCHG21	21 CVC CHARGING PUMP (2MB115)	N6	MCT05Q	MCT05Q	24
A105	2DISC89-2104A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105	2DISC89-2404A	CHARGING PUMP 23 DISC SW	N7	MCT14Q	MCT14Q	0
A105C	2PUMPCVCCHG23	23 CVC CHARGING PUMP (2MB404)	N7	MCT14Q	MCT14Q	24
A105B	2PUMPCVCCHG22	22 CVC CHARGING PUMP (2MB415)	N8	MCT15Q	MCT15Q	24
A111	1HS6902	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV01	HS692T	0
A111	1HS6903	1 HVAC/P H2 PURGE CONTR HS	SG	SGMV02	HS693T	0

ROOM#	INCLUDED COMP	DESCRIPTION	TOP	FB	BEVENT	" ABOVE FLOOR
A111	0PCV6512	O2 ANAL CAB SAMP INLET PCV	SH	PC512R	PC512R	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SHSV03	SV00BT	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SHSV06	SV00CT	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SHSV09	SV00DT	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	SH	SV00BD	SV00BD	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	SH	SV00CD	SV00CD	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	SH	SV00DD	SV00DD	0
A111	1SV5900B	U-1 CONTMT S PRI SHLD 1-SX-5900B	WJ	BHESH2	Shut	0
A111	1SV5900C	U-1 PZR 1-SX-5900C	WJ	BHESH2	Shut	0
A111	1SV5900D	U-1 CONTMT 135' E 1-SX-5900D	WJ	BHESH2	Shut	0